Water Resources Data New York Water Year 1993

Volume 3. Western New York

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NY-93-3
Prepared in cooperation with the State of New York
and with other agencies

CALENDAR FOR WATER YEAR 1993

1992

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1993

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Water Resources Data New York Water Year 1993

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-93-3
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

Gordon P. Eaton, Director

For information on the water program in New York write to
District Chief, Water Resources Division
U.S. Geological Survey
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P.O. Box 1669
Albany, New York 12201

1994

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, 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	A. J. Federico	R. L. Mulks	J. M. Surface
R. Corson	W. H. Johnston	D. A. Sherwood	M. J. Welsh

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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15. Supplementary Notes

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

16. Abstract (Limit: 200 words)

Water resources data for the 1993 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 6 gaging stations; water quality at 4 gaging stations; and water levels at 22 observation wells. Also included are data for 43 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, Water levels, Water wells, Data collection, Sites.

b. Identifiers/Open-Ended Terms

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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			
Little Tonawanda Creek at Linden, NY (d)	04216500	22.1	1912-19, 1920-68, 1977-92
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			
Oak Orchard Creek near Elba, NY (d)	04219930	21.9	1974-79‡
Manning Muckland Creek near Barre Center, NY (d)	04219940	5.80	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
Irondequoit Creek near Pittsford, NY (d)	04232040	44.4	1980-91
Thomas Creek at Fairport, NY (d)	04232046	28.5	1980-90
Irondequoit Creek at Linden Avenue, East Rochester, NY (d)	04232047	101	1973-89

‡ No winter record.

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
STREAMS TRIBUTARY TO LAKE ONTARIO--continued			
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
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

Station name	Station number	Drainage area (mi^2)	Type of record	Period of record (water years)
Chenango River at Greene, NY	01507000	593	Temp.	1957
Tioughnioga Rover at Cortland, NY	01509000	292	Temp. S.C.	1956-92
Susquehanna River at Johnson City, NY	01513110	3,891	Temp.	1956-92
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
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, 1993
Volume 3.--Western New York

INTRODUCTION

Water resources data for the 1993 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 1993, through cooperative agreement with the Survey are:

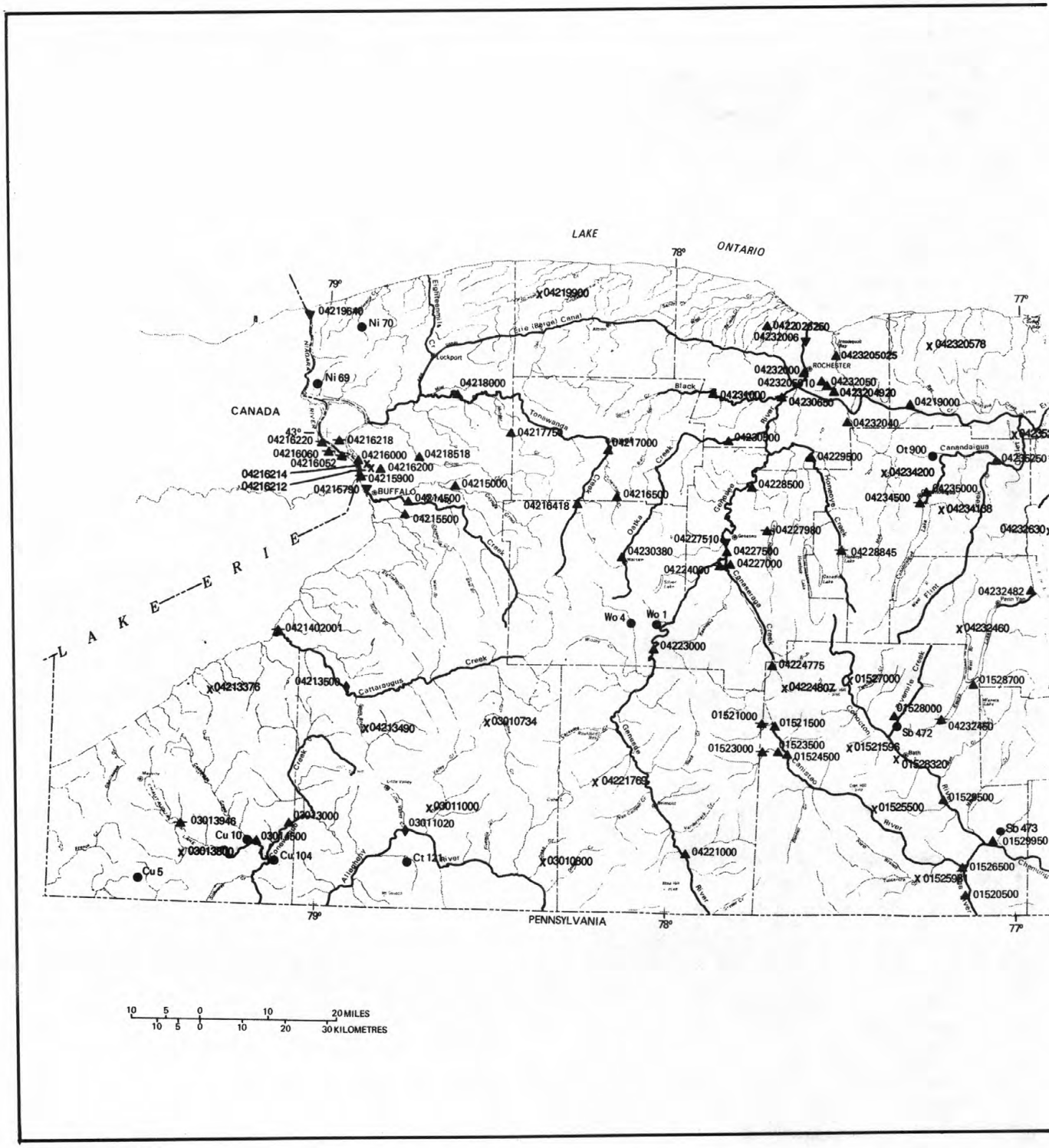
New York State Department of Environmental Conservation
New York State Department of Transportation
County of Chautauqua, Planning Department
County of Cortland, Planning Department
County of Monroe, Department of Health
County of Monroe, Division of Engineering
County of Monroe, Water Authority
County 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

During the 1993 water year in western New York, precipitation was above average in some places, and record-breaking floods occured locally. Streamflow throughout western New York was generally excessive (upper 25 percent of the record) for the first 4 months, from low-normal to deficient (lower 25 percent of the record) in February, and was normal during March. In April, streamflow was again excessive,but was low-normal to deficient (lower 25 percent of the record) from May through September. Mean discharges for the water year, were generally above 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 1993 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	1993 Water year mean discharge	Percent difference
01503000	Susquehanna River at Conklin	1914–92	3,579	4,052	+ 13.2
01531000	Chemung River at Chemung	1906–13, 1915–92	2,527	4,032	+ 59.6
03011020	Allegheny River at Salamanca	1904–92	2,777	3,103	+ 11.7
04213500	Cattaraugus Creek at Gowanda	1941–92	742	800	+ 7.8
04217000	Tonawanda Creek at Batavia	1945–92	212	247	+ 16.5
04221000	Genesee River at Wellsville	1956-58, 1973-92	385	475	+ 23.4
04234000	Fall Creek near Ithaca	1926–92	185	255	+ 37.8
04242500	East Branch Fish Creek at Taberg	1924-92	540	593	+ 9.8

The 1993 water year began with low temperatures and below-average precipitation during October, yet, streamflow throughout most of western New York remained excessive. Above-average precipitation through November kept flows in the excessive range for the fifth consecutive month. Tonawanda Creek at Batavia recorded the third highest monthly mean on record (table 2).

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 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		
			Oct.	Nov.	Dec.
01503000	Susquehanna River at Conklin	1914–92	62	77	121
01531000	Chemung River at Chemung	1915–92	41	41	83
03011020	Allegheny River at Salamanca	1904–92	24	16	77
04213500	Cattaraugus Creek at Gowanda	1941–92	42	25	59
04217000	Tonawanda Creek at Batavia	1945–92	29	14	33
04221000	Genesee River at Wellsville	1956-58, 1973-92	29	23	70
04234000	Fall Creek near Ithaca	1930–92	50	49	71

Precipitation for December was near or above average in most of western New York, and streamflow ranged from normal to excessive (table 2).

Mild temperatures and above-normal precipitation early in January, and again at midmonth, returned most streamflow in western New York to the excessive range. February temperatures were almost 7° F below normal for the State. Precipitation in the form of rain and melted snow was near-normal across the state; the driest areas were in the Western Plateau and the Central Lakes. Streamflow at all monitored sites in western New York was deficient, although snowfall was above average throughout most of the State. Oswego reported 65.3 inches of snowfall for the month, 33.3 inches above normal.

Below-average temperatures continued into March. The temperature in Ithaca fell to -17° F on the 19th, setting a record for the coldest reading ever for the month of March. On March 13-14, an intense winter storm dropped large amounts of snow over the entire state. Syracuse recorded 42.9 inches for the 2-day period, in which 35.6 inches fell in 24 hours,their greatest 24-hour snowfall on record. Monthly snowfall totals for March exceeded 50 inches in some parts of western New York. Precipitation and snowmelt increased streamflows significantly by the end of the month, and streamflow at all monitored sites returned to normal.

Continued snowmelt from mild temperatures and above-average precipitation at the beginning of April raised most rivers, streams, and lakes across western New York above bankfull. Flood watches and warnings were issued throughout the month as western New York recorded its third wettest April on record. Streamflow at all monitored sites in western New York was excessive for the month. Chemung River at Chemung and Genesee River at Wellsville had the highest April monthly means of record, and the Susquehanna River at Conklin had the second highest monthly mean on record. Seneca Lake at Watkins Glen, Cayuga Lake at Ithaca, Oneida Lake at Brewerton, Onondaga Lake at Liverpool, Seneca River at Baldwinsville, and Oneida River at Caughdenoy had peaks that surpassed those recorded in the flood of 1972 (table 3).

Table 3.-- Maximum stages and discharges in selected lakes and streams in western New York before and during April, 1993 (* daily discharge). . [Locations are shown in fig.1].

Station	Drainage area (mi^2)	Period of record	Maximum prior to April 1993			Maximum in April 1993		
			Year	Stage (ft)	Discharge (ft^3/s)	Day	Stage (ft)	Discharge (ft^3/s)
04232400 Seneca Lake at Watkins Glen	704	1956-93	1972	448.88	---	26, 27	448.95	---
04233500 Cayuga Lake at Ithaca	785	1956-93	1972	386.33	---	26	386.46	---
04240495 Onondaga Lake at Liverpool	285	1970-93	1972	369.21	---	26,27	369.78	---
04246000 Oneida Lake at Brewerton	1,382	1951-93	1972	372.83	---	24	373.14	---
04237500 Seneca R. at Baldwinsville	3,138	1949-93	1960, 1972	---	*17,200	27	---	*18,100
04246500 Oneida R. at Caughdenoy	1,382	1902-12 1948-93	1903	---	*13,800	24	---	*11,300

Mild weather and below-average precipitation prevailed throughout western New York during May. Streamflow at monitored sites in the Western Plateau was deficient, but flows in the rest of western New York returned to normal. Mild weather conditions and near-average precipitation continued into June, and streamflow throughout western New York ranged form normal to deficient.

Warm, dry weather continued through July and August. July precipitation averaged only 69 percent of the normal, making it the 9th driest July on record and the driest since 1983. Average precipitation for August was the lowest since 1973. Streamflow at most sites in western New York was below average for July and August.

September brought an end to 4 months of below-average precipitation. Showers and thunderstorms throughout the month brought streamflows in most of western New York back to normal. Heavy rains in the Western Plateau on the 1st and the 9th helped produce excessive flows at Allegheny River at Salamanca for the month. Heavy rains from the 25th through the 29th made the last few days of the month the wettest for September. Precipitation totals for the five days ranged from 1.50 to 3.00 inches across the state. Streamflow in most of western New York increased during the last week of September.

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 samples were analyzed by the USGS National Water Quality Laboratory at Arvada, CO, and the USGS Pennsylvania District sediment laboratory at LeMoyne, PA.

Ground Water

Ground-water levels, which were above average at the end of the 1992 water year, remained above average through October 1993 despite below-average precipitation. Above-average precipitation, along with the decline of evapotranspiration at the end of the growing season, kept ground-water levels above average through November and December. Water levels during January rose in response to mild temperatures and above-average precipitation at the beginning and middle of the month. Cold, dry conditions in February caused water levels to recede. This was the first month since March 1992 in which the observation well network water levels were below average. Water levels continued to gradually recede during most of March when precipitation was mainly in the form of snow. Rainfall and snowmelt resulting from mild temperatures at the end of March caused ground-water levels to rise significantly, and heavy precipitation and snowmelt at the beginning of April caused them to rise further. The highest water levels for the 1993 water year were recorded at 17 of the 22 observation wells during this time, with 6 wells setting record highs. In May and June, below-average precipitation and increased evapotranspiration caused a decline in ground-water levels as the growing season started. Continued warm, dry weather in July and August caused ground water levels to drop sharply. The lowest annual ground-water levels were recorded at 9 of the 22 observation wells during this period. Showers and thunderstorms in the beginning of September and heavy rains at the end of the month raised ground-water levels to above average in many parts of the state. Despite above-average precipitation throughout the western part of the state, the lowest annual water levels were recorded in September at all except one of the other 13 observation wells in western New York.

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

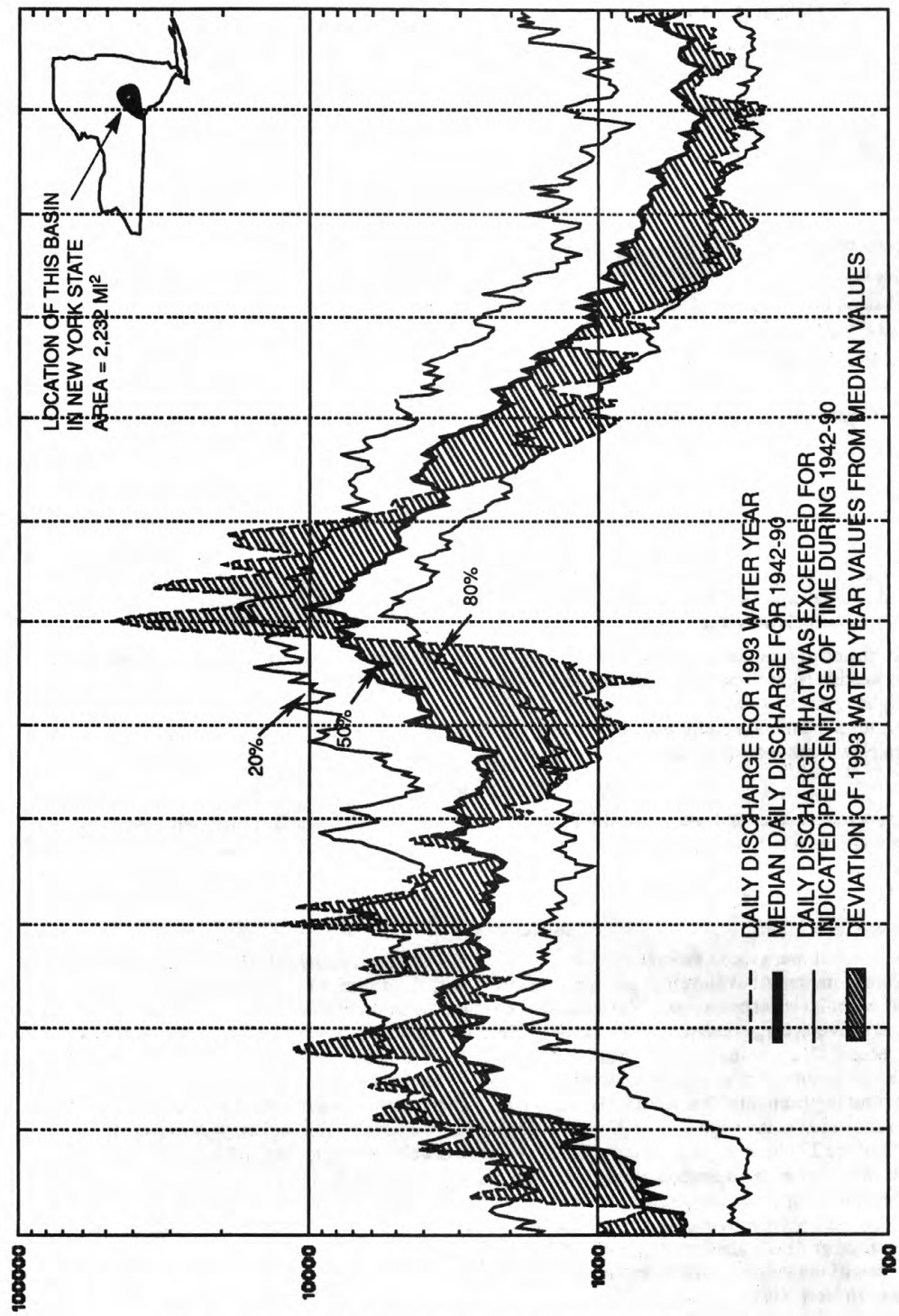


Figure 2.--Comparison of discharge at Susquehanna River at Conklin during 1993 water year with median discharge for 1942-90.

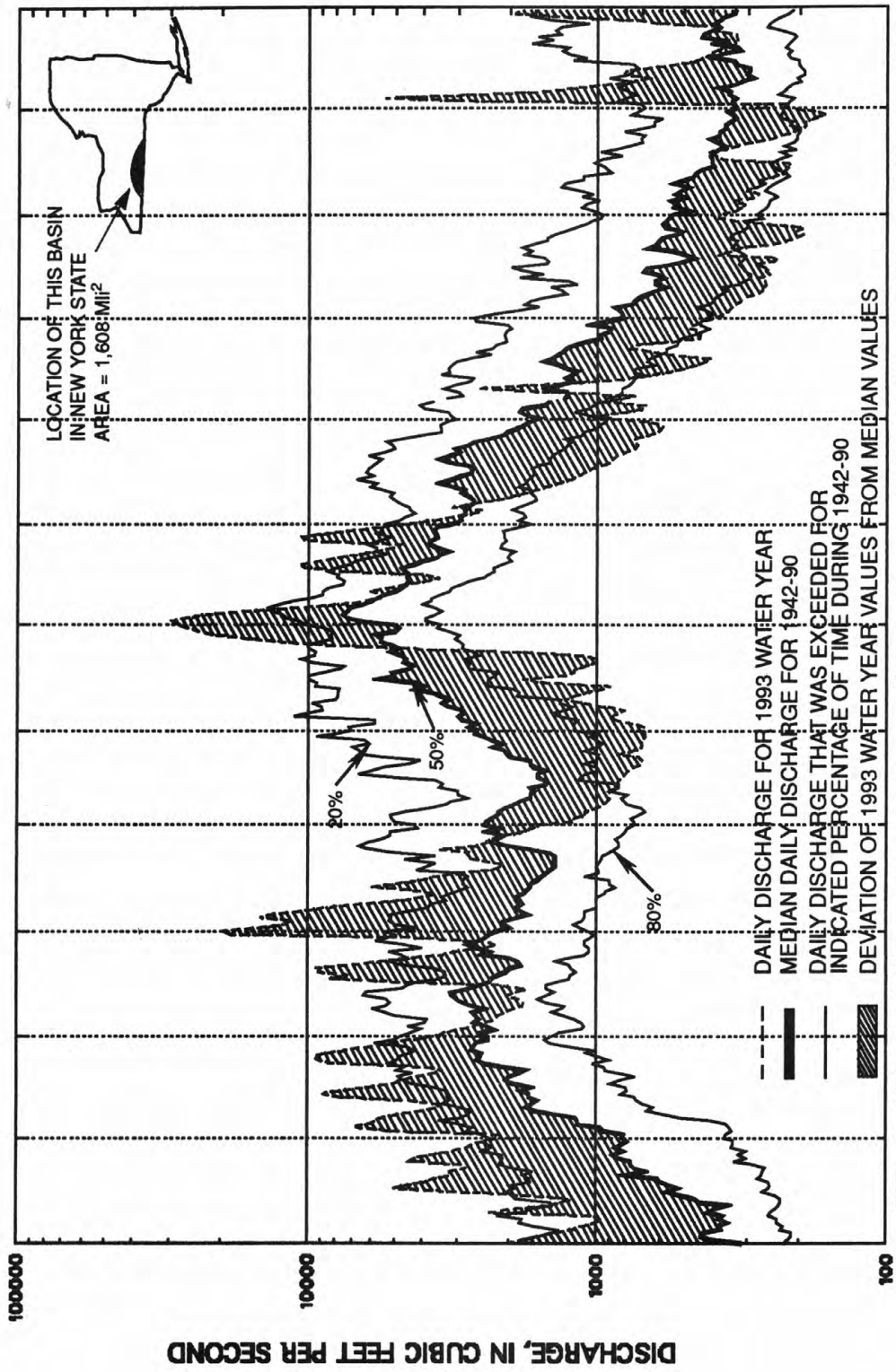


Figure 3.--Comparison of discharge at Allegheny River at Salamanca during 1993 water year with median discharge for 1942-90.

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, 1993, and ended September 30, 1993. 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.

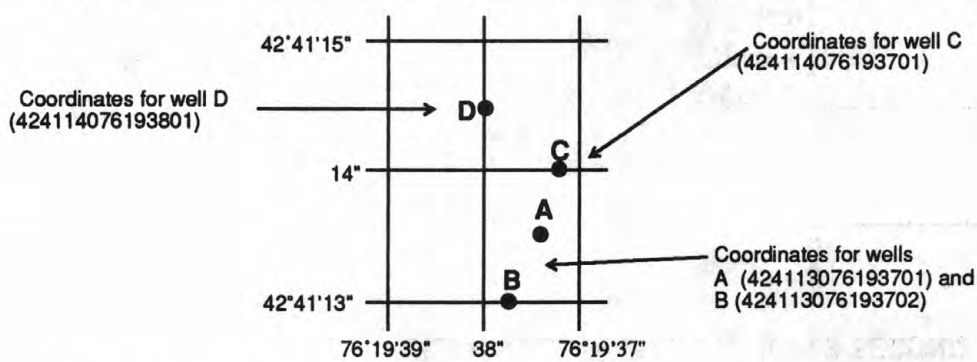


Figure 4. System for numbering wells (latitude and longitude)

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 1993 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 sea level (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 casIled 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 (1993) 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 sea level (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) sea level; 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 O_2/(m^2.time) for periphyton and macrophytes and mg O_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.

Sea level In this report "sea level" refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)--a geodetic datum derived from a general adjustment of the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

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 multi-plate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

Surface area of a lake is that area outlined on the latest U.S.G.S. topographic map 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-Al0. *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 sea level. Prior to Sept. 30, 1932, nonrecording gage at different datum.

REMARKS.--Records good except those for estimated daily discharges (ice effect) and those for July 6 to Sept. 30 (leak under weir), 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. 30	--	1,280	ice jam	Apr. 17	1000	1,380	5.60
Apr. 11	0900	*2,650	*6.88				

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	132	374	371	e117	e70	1170	517	51	29	e15	16
2	68	132	352	e316	e115	e77	1190	467	44	27	e16	15
3	65	249	330	e310	e130	e78	1140	431	38	27	34	16
4	63	232	309	e365	e127	78	990	392	36	24	19	19
5	59	224	295	428	e127	74	904	375	38	23	e14	17
6	56	258	269	401	e113	71	900	380	75	e22	e13	16
7	53	248	255	373	e106	68	918	349	63	e21	e17	15
8	51	233	237	357	e112	67	944	319	53	e20	e20	13
9	51	222	e220	e300	e107	69	989	291	52	e20	e18	12
10	73	215	e215	e273	e104	65	1260	268	54	e20	e15	12
11	68	230	e200	e281	e97	e55	2160	245	53	e28	26	15
12	91	249	194	e300	e89	e50	1800	221	48	e26	e14	12
13	75	284	e176	e270	e84	e40	1560	199	43	e20	e12	9.4
14	69	271	e164	e260	e85	e30	1340	177	39	e17	e12	e9.0
15	70	261	e166	249	e85	e40	1160	158	37	e17	e11	e9.5
16	90	254	158	235	e80	e50	1090	143	39	e16	e11	e10
17	97	249	225	221	e78	e46	1320	132	36	e15	11	e10
18	89	243	285	185	e78	e46	1180	110	32	e15	11	e11
19	96	230	238	e166	e77	e50	1040	51	30	e16	11	e10
20	104	219	e254	e176	e80	e52	915	48	37	e18	13	e9.5
21	102	221	e258	e183	e80	e55	849	49	39	e17	25	e9.2
22	106	267	e244	196	e81	e55	969	46	64	e15	21	e9.0
23	100	533	e231	191	e77	e55	990	44	50	e14	16	e9.0
24	109	483	e208	179	e71	e93	930	42	41	e13	15	e9.0
25	156	516	e178	217	e71	e109	855	42	35	e13	18	e8.5
26	138	487	e175	e172	e69	e125	810	41	31	e13	15	e10
27	139	468	e173	e168	e68	e155	814	40	30	e13	13	e11
28	137	443	e183	e163	e68	e227	693	39	32	e13	12	e20
29	136	421	e195	e150	---	e460	619	39	39	e12	11	e18
30	144	398	e254	e128	---	e1050	565	37	33	e13	9.5	e17
31	137	---	410	e121	---	e1010	---	37	---	e16	e9.0	---
TOTAL	2865	8872	7425	7705	2576	4570	32064	5729	1292	573	477.5	377.1
MEAN	92.4	296	240	249	92.0	147	1069	185	43.1	18.5	15.4	12.6
MAX	156	533	410	428	130	1050	2160	517	75	29	34	20
MIN	51	132	158	121	68	30	565	37	30	12	9.0	8.5
CFSM	.91	2.90	2.35	2.44	.90	1.45	10.5	1.81	.42	.18	.15	.12
IN.	1.04	3.24	2.71	2.81	.94	1.67	11.69	2.09	.47	.21	.17	.14

e Estimated

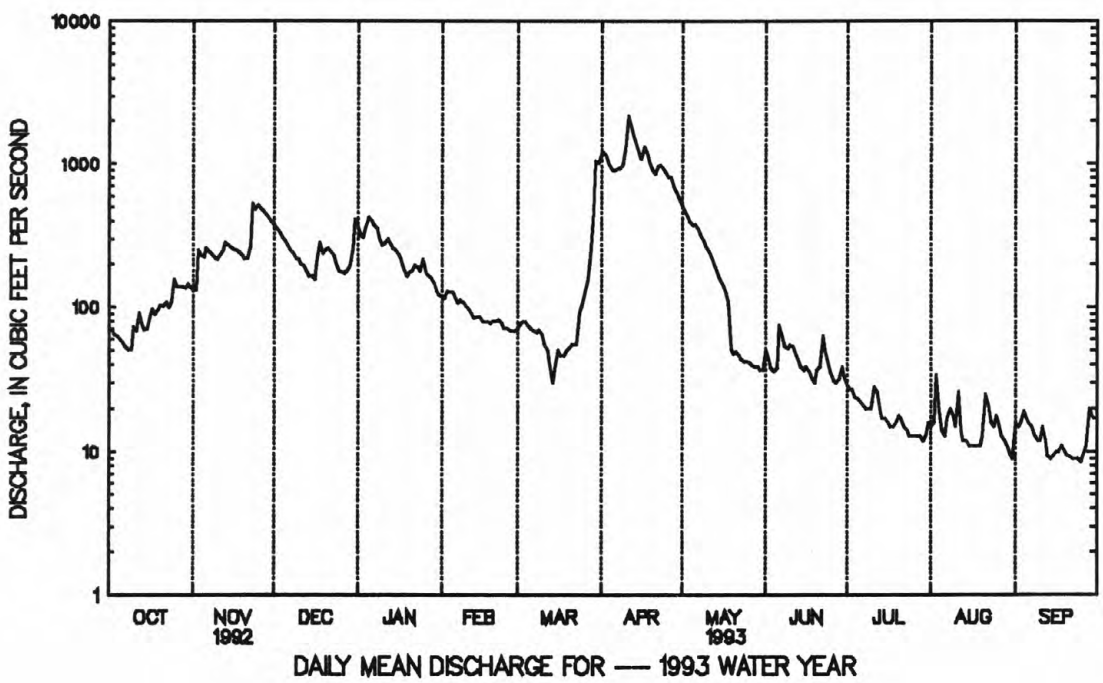
01496500 OAKS CREEK AT INDEX, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1993, BY WATER YEAR (WY)

MEAN	81.7	144	186	173	184	340	483	223	105	53.8	33.9	48.1
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

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1930 - 1932 1937 - 1993	
ANNUAL TOTAL	69524		74525.6			
ANNUAL MEAN	190		204		171	
HIGHEST ANNUAL MEAN					263	1943
LOWEST ANNUAL MEAN					83.6	1965
HIGHEST DAILY MEAN	565	Mar 11	2160	Apr 11	2280	Mar 22 1948
LOWEST DAILY MEAN	21	Jul 2	8.5	Sep 25	1.4	Sep 21 1964
ANNUAL SEVEN-DAY MINIMUM	26	Jun 28	9.2	Sep 19	1.5	Sep 18 1964
INSTANTANEOUS PEAK FLOW			2650	Apr 11	a3320	Oct 17 1977
INSTANTANEOUS PEAK STAGE			6.88	Apr 11	7.62	Oct 17 1977
INSTANTANEOUS LOW FLOW			unknown		1.3	b
ANNUAL RUNOFF (CFSM)	1.86		2.00		1.68	
ANNUAL RUNOFF (INCHES)	25.36		27.18		22.82	
10 PERCENT EXCEEDS	353		485		410	
50 PERCENT EXCEEDS	171		80		101	
90 PERCENT EXCEEDS	64		13		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 sea level. Prior to June 13, 1947, water-stage recorder at site 0.5 mi upstream at datum 27.30 ft higher.

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

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	104	234	606	115	35	14	352	57	36	10	5.8
2	11	93	203	400	85	34	116	310	44	36	11	5.9
3	11	255	175	286	100	34	1330	204	25	29	11	5.9
4	12	281	151	345	101	35	2510	105	25	19	11	6.0
5	12	175	145	709	88	35	2430	72	31	15	11	5.9
6	13	205	115	461	77	36	2440	65	55	12	11	5.9
7	13	232	116	310	46	36	2380	46	42	8.5	11	8.0
8	13	196	105	303	43	36	2220	38	36	8.4	10	9.5
9	15	157	68	268	52	46	2060	64	53	8.4	10	9.2
10	50	148	55	128	71	37	945	53	47	8.4	10	16
11	76	148	85	162	69	31	19	93	28	9.0	7.2	20
12	139	207	102	229	54	32	251	94	25	9.0	6.4	19
13	115	383	102	226	55	e43	1630	76	24	9.0	6.3	13
14	58	283	70	225	55	e37	2010	48	24	9.0	6.3	10
15	41	231	71	175	55	25	1410	39	24	9.0	6.2	11
16	85	256	95	136	55	31	722	39	24	9.0	6.5	11
17	123	280	252	125	40	47	869	61	24	9.5	6.4	11
18	135	275	374	108	34	63	1370	70	24	9.6	6.3	11
19	134	245	257	60	43	78	1030	70	24	9.8	6.5	11
20	94	217	315	63	47	84	505	61	17	9.6	6.7	12
21	79	214	354	97	32	82	488	57	17	10	6.7	16
22	78	343	269	139	46	69	959	45	58	10	6.9	17
23	77	784	241	140	50	53	824	39	45	11	6.8	18
24	94	754	209	246	47	160	743	39	36	11	5.3	18
25	271	583	115	316	32	256	682	39	28	11	4.1	18
26	251	470	106	240	e25	292	525	32	24	11	4.3	18
27	229	420	111	177	e32	421	544	28	24	11	4.4	18
28	180	367	102	169	35	690	1040	28	25	11	4.7	19
29	132	224	153	141	---	12	923	27	33	12	5.0	19
30	125	258	316	84	---	14	529	27	36	11	5.1	19
31	122	---	755	107	---	14	---	35	---	10	5.5	---
TOTAL	2798	8788	5821	7181	1584	2898	33518	2356	979	392.2	229.6	387.1
MEAN	90.3	293	188	232	56.6	93.5	1117	76.0	32.6	12.7	7.41	12.9
MAX	271	784	755	709	115	690	2510	352	58	36	11	20
MIN	10	93	55	60	25	12	14	27	17	8.4	4.1	5.8

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1993, BY WATER YEAR (WY)

MEAN	97.4	180	217	181	204	342	379	199	103	54.7	38.8	56.8
MAX	618	404	517	487	604	690	1117	483	370	305	182	408
(WY)	1978	1973	1960	1979	1981	1977	1993	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1940 - 1993	
ANNUAL TOTAL	53032		66931.9			
ANNUAL MEAN	145		183		171	
HIGHEST ANNUAL MEAN					242	1960
LOWEST ANNUAL MEAN					77.9	1965
HIGHEST DAILY MEAN	988	Mar 12	2510	Apr 4	3820	Dec 30 1942
LOWEST DAILY MEAN	10	Sep 17	4.1	Aug 25	1.2	Aug 13 1949
ANNUAL SEVEN-DAY MINIMUM	11	Sep 16	4.7	Aug 24	1.8	Nov 5 1973
INSTANTANEOUS PEAK FLOW			2600	a	b7250	Dec 30 1942
INSTANTANEOUS PEAK STAGE			5.36	a	c7.62	Dec 30 1942
INSTANTANEOUS LOW FLOW			2.7	Aug 11	d1.2	f
10 PERCENT EXCEEDS	309		420		401	
50 PERCENT EXCEEDS	112		53		84	
90 PERCENT EXCEEDS	20		9.0		12	

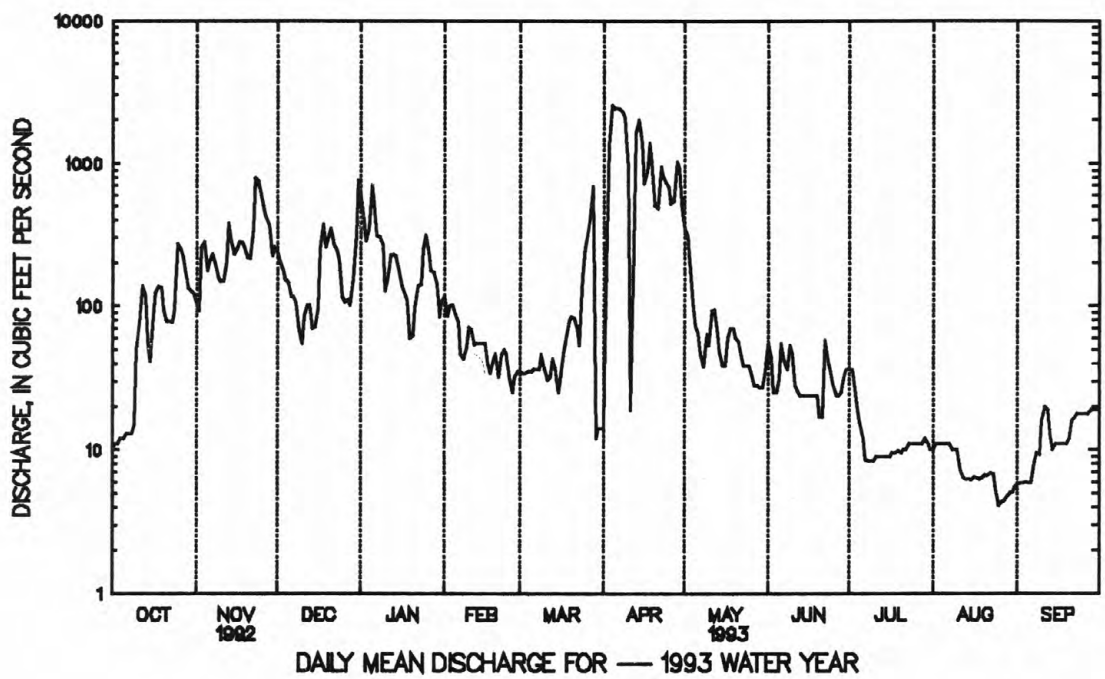
a Apr. 3, 6.

b From rating curve extended above 4,000 ft^3/s.

c Site and datum then in use.

d Result of regulation from construction.

f 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 sea level.

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 ft3/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. 31	1830	*19,900	*13.49	Apr. 11	2330	14,300	11.47

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	301	926	2570	6230	e1030	e419	17700	3960	701	366	148	96
2	460	910	2330	4690	e850	e444	15500	3440	616	318	143	139
3	315	1590	2150	3420	e800	e450	13500	2990	502	299	212	101
4	306	2560	1970	3450	e900	e460	11000	2570	458	276	248	193
5	300	2010	e1850	5100	e900	e428	8820	2350	450	250	163	185
6	247	2110	e1610	5580	e800	e432	8410	2540	681	227	191	167
7	233	2260	e1500	4070	e700	e436	8400	2330	707	209	143	150
8	221	2010	e1430	3520	e650	e440	8410	2000	658	201	199	138
9	199	1770	e1070	3060	e645	e472	8480	1810	592	201	174	131
10	338	1630	e1040	2280	e694	e475	8720	1650	588	192	140	151
11	440	1650	e1120	2110	e660	e420	12100	1510	517	186	172	160
12	699	1940	e1100	2220	e640	e368	13300	1390	462	176	150	157
13	808	2460	e1010	e2280	e625	e358	11200	1230	424	181	138	144
14	555	2450	e955	2390	e625	e320	9080	1080	434	168	196	128
15	466	2050	e820	2080	e626	e520	7290	986	437	161	207	120
16	662	1920	e900	1820	e655	e670	6340	972	476	169	142	142
17	775	1870	e1350	e1640	e630	e648	9870	968	473	147	168	114
18	667	1830	2870	e1380	e494	e614	9970	909	392	146	141	163
19	678	1680	2490	e1180	e486	e595	7750	880	346	131	122	182
20	682	1500	2570	e1130	e505	e618	5800	815	328	188	134	178
21	672	1480	2940	e1080	e517	e614	5210	759	396	181	151	157
22	698	2250	2430	1370	e510	e612	6760	692	536	167	113	152
23	679	3980	e2200	1510	e490	e612	8800	621	548	163	170	145
24	687	4670	e1800	1540	e466	e963	8030	597	413	161	104	150
25	1380	4330	e1460	2240	e440	e1700	6840	574	345	133	85	140
26	1420	4230	e1390	e1840	e430	e2100	6190	547	304	137	84	148
27	1210	3910	e1300	e1510	e435	2750	8220	509	295	124	263	166
28	1110	3460	e1300	e1460	e428	4290	7290	493	334	132	106	187
29	994	2990	e1550	e1340	---	7480	5880	491	434	133	134	207
30	1080	2790	e2600	e1180	---	15000	4720	465	443	137	88	207
31	1060	---	5170	e1120	---	19500	---	495	---	150	120	---
TOTAL	20342	71216	56845	75820	17631	65208	269580	42623	14290	5810	4749	4598
MEAN	656	2374	1834	2446	630	2103	8986	1375	476	187	153	153
MAX	1420	4670	5170	6230	1030	19500	17700	3960	707	366	263	207
MIN	199	910	820	1080	428	320	4720	465	295	124	84	96
CFSM	.67	2.42	1.87	2.49	.64	2.14	9.15	1.40	.49	.19	.16	.16
IN.	.77	2.70	2.15	2.87	.67	2.47	10.21	1.61	.54	.22	.18	.17

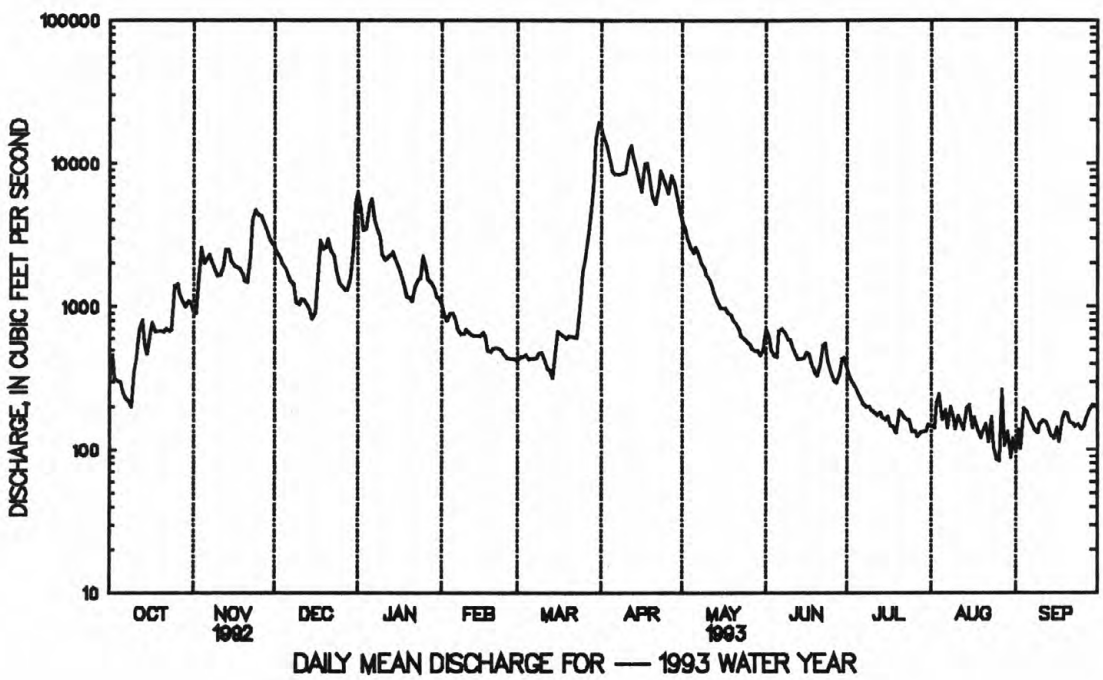
e Estimated

01500500 SUSQUEHANNA RIVER AT UNADILLA, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1993, BY WATER YEAR (WY)

MEAN	779	1407	1781	1616	1771	3157	3857	2004	1038	518	378	512
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

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1938 - 1993	
ANNUAL TOTAL	518069		648712			
ANNUAL MEAN	1415		1777		1562	
HIGHEST ANNUAL MEAN					2280	1943
LOWEST ANNUAL MEAN					748	1965
HIGHEST DAILY MEAN	6400	Mar 12	19500	Mar 31	21000	Mar 15 1977
LOWEST DAILY MEAN	199	Oct 9	84	Aug 26	45	Oct 18 1964
ANNUAL SEVEN-DAY MINIMUM	260	Oct 3	112	Aug 28	50	Oct 17 1964
INSTANTANEOUS PEAK FLOW			19900	Mar 31	23500	Mar 14 1977
INSTANTANEOUS PEAK STAGE			13.49	Mar 31	14.64	Mar 14 1977
INSTANTANEOUS LOW FLOW			75	Aug 30	39	Oct 17 1964
ANNUAL RUNOFF (CFSM)	1.44		1.81		1.59	
ANNUAL RUNOFF (INCHES)	19.63		24.57		21.61	
10 PERCENT EXCEEDS	2860		4870		3640	
50 PERCENT EXCEEDS	1170		660		898	
90 PERCENT EXCEEDS	368		147		185	



DAILY MEAN DISCHARGE FOR — 1993 WATER YEAR

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 sea level.

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)
Mar. 30	0400	*1,900	*7.71	Apr. 11	0330	1,730	7.35

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	85	131	220	e60	e24	1070	158	36	20	10	7.8
2	33	84	120	e149	e52	e24	879	134	30	19	11	10
3	31	240	113	e132	e46	e25	616	119	27	18	16	e13
4	29	176	105	e164	e50	e22	371	107	25	18	13	e20
5	27	163	102	287	e54	e22	301	121	26	16	11	e15
6	26	197	e84	216	e46	e22	313	135	53	15	9.9	e12
7	25	164	e81	171	e42	e22	311	108	38	14	11	e11
8	24	136	e73	e147	e41	e24	305	93	31	14	14	11
9	25	122	e55	e118	e40	e25	314	84	31	14	12	8.8
10	50	116	e60	e97	e39	e27	671	76	29	13	10	8.5
11	43	125	73	e100	e38	e22	1270	71	28	13	9.4	9.1
12	67	139	72	e105	e37	e19	529	66	25	12	8.9	11
13	50	173	e68	e113	e36	e18	392	61	23	12	8.1	9.9
14	43	136	e56	118	e36	e17	296	57	21	12	7.5	7.8
15	44	122	e51	103	e36	e23	259	54	21	12	7.0	6.0
16	70	114	e56	e90	e36	e30	339	56	29	11	7.0	6.0
17	78	110	e125	e84	e34	e28	672	52	23	10	7.1	6.3
18	67	107	183	e72	e33	e29	424	48	21	10	e7.2	7.6
19	74	99	120	e56	e32	e30	307	46	19	11	8.7	8.7
20	77	90	139	e54	e35	e31	242	46	22	12	9.0	8.8
21	73	96	e130	e52	e34	e34	264	45	27	12	e8.5	7.1
22	77	156	e105	e81	e32	e32	414	41	46	10	e9.0	6.6
23	70	412	e97	94	e31	e33	393	38	31	9.8	e10	5.6
24	84	270	e87	90	e30	e56	405	36	25	9.3	e9.2	5.2
25	148	324	e70	e147	e29	e86	375	36	22	9.4	8.2	5.8
26	109	248	e69	e94	e28	e113	353	33	20	9.1	8.9	7.9
27	110	212	e63	e85	e27	e175	366	31	19	9.1	e8.5	e9.0
28	104	179	e67	e81	e25	350	254	30	21	8.8	e7.0	e11
29	101	160	e85	e71	---	1020	214	29	28	8.6	6.2	16
30	105	145	147	e63	---	1830	184	27	23	9.1	5.8	14
31	92	---	316	e62	---	1210	---	27	---	11	5.6	---
TOTAL	1990	4900	3103	3516	1059	5423	13103	2065	820	382.2	284.7	286.5
MEAN	64.2	163	100	113	37.8	175	437	66.6	27.3	12.3	9.18	9.55
MAX	148	412	316	287	60	1830	1270	158	53	20	16	20
MIN	24	84	51	52	25	17	184	27	19	8.6	5.6	5.2
CFSM	1.08	2.74	1.68	1.90	.63	2.93	7.32	1.12	.46	.21	.15	.16
IN.	1.24	3.05	1.93	2.19	.66	3.38	8.16	1.29	.51	.24	.18	.18

e Estimated

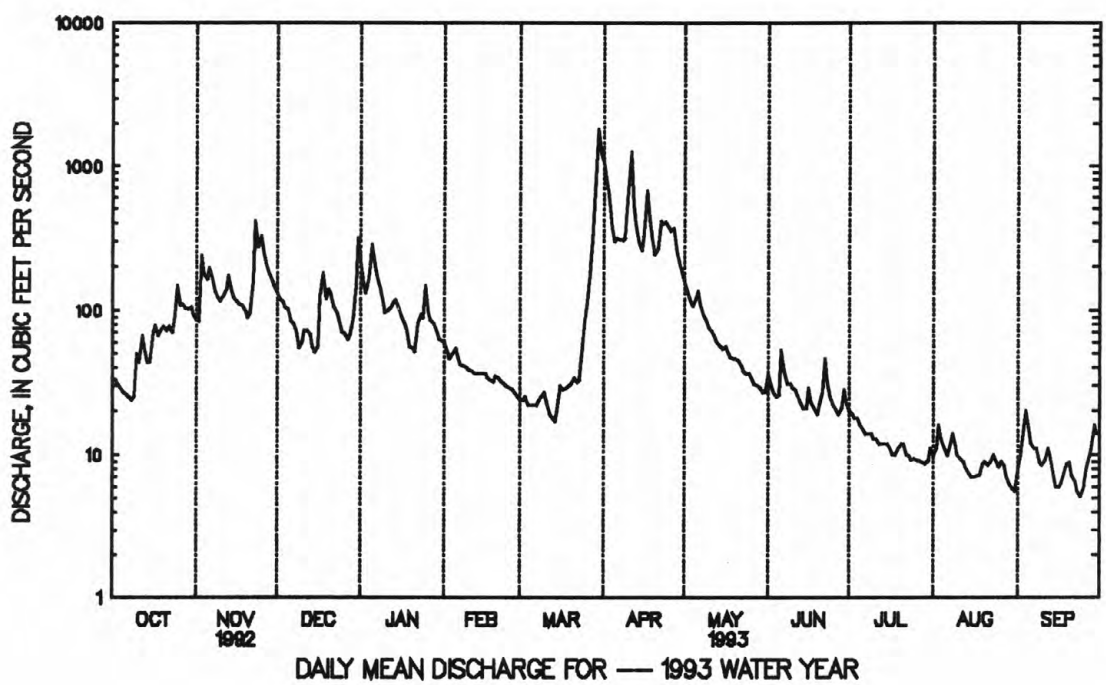
01502000 BUTTERNUT CREEK AT MORRIS, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1993, BY WATER YEAR (WY)

MEAN	57.4	95.1	116	97.9	112	220	236	117	63.4	29.8	20.8	32.6
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

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1938 - 1993	
ANNUAL TOTAL	34368		36932.4			
ANNUAL MEAN	93.9		101		99.6	
HIGHEST ANNUAL MEAN					174	1978
LOWEST ANNUAL MEAN					47.7	1965
HIGHEST DAILY MEAN	490	May 3	1830	Mar 30	3700	Oct 17 1977
LOWEST DAILY MEAN	16	Jul 2	5.2	Sep 24	1.3	Sep 24 1939
ANNUAL SEVEN-DAY MINIMUM	18	Jun 28	6.7	Sep 20	2.7	Oct 9 1964
INSTANTANEOUS PEAK FLOW			1900	Mar 30	5980	Oct 17 1977
INSTANTANEOUS PEAK STAGE			7.71	Mar 30	9.44	Oct 17 1977
INSTANTANEOUS LOW FLOW			4.4	a	b1.2	Sep 24 1939
ANNUAL RUNOFF (CFSM)	1.57		1.69		1.67	
ANNUAL RUNOFF (INCHES)	21.42		23.01		22.66	
10 PERCENT EXCEEDS	185		250		220	
50 PERCENT EXCEEDS	77		41		52	
90 PERCENT EXCEEDS	30		9.0		10	

a Aug. 31, Sep. 15.
b 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 downstream 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 sea level. 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)
Mar. 31	0130	12,700	11.60	Apr. 11	2100	*14,000	*11.89

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	362	754	1280	2500	e540	e229	10900	1430	342	191	94	74
2	349	722	1160	1640	e460	e244	9560	1230	391	170	139	80
3	327	1570	1070	1200	e420	e244	7530	1060	318	161	141	133
4	303	1940	e973	1470	e460	e235	4900	918	272	158	130	148
5	279	1460	e920	2310	e460	e214	3400	912	268	150	113	160
6	260	1640	e820	2250	e430	e205	3380	1340	480	139	97	148
7	248	1560	e770	e1630	e408	e210	3460	1330	465	130	100	121
8	240	1280	e726	e1390	e394	e215	3560	1060	364	123	120	102
9	244	1090	e530	e1160	e379	e230	3650	911	330	117	130	92
10	448	1010	e525	e781	e367	e238	5070	800	311	112	114	89
11	609	1040	e600	e781	e355	e224	11700	721	284	107	100	86
12	704	1330	e616	e890	e342	e200	11800	669	262	104	94	83
13	664	1780	e595	e956	e335	e180	6100	598	226	102	90	81
14	504	1570	e522	1090	e333	e170	3640	540	203	100	86	78
15	458	1240	e458	e906	e337	e247	2670	501	191	96	81	75
16	623	1100	e516	e809	e333	e298	2680	505	226	91	79	75
17	827	1040	877	e758	e328	e281	4530	487	234	87	81	68
18	753	1000	1870	e630	e306	e253	4330	441	199	84	81	74
19	711	936	e1310	e503	e301	e288	3080	421	181	85	88	75
20	779	841	e1260	e480	e316	e296	2260	424	177	93	88	71
21	715	841	1340	e460	e318	e317	2180	425	224	114	87	68
22	732	1400	e1070	e600	e306	e314	3150	397	392	127	89	67
23	693	2960	e954	e800	e289	e304	3350	362	447	103	98	67
24	698	3810	e800	e850	e281	e376	3600	339	281	90	89	68
25	1320	3160	e622	e1200	e270	e678	3750	337	217	84	84	64
26	1180	2810	e606	e1000	e256	e910	3490	322	194	79	87	76
27	1030	2180	e586	e843	e248	e1250	3480	304	180	78	81	84
28	993	1810	e580	e760	e234	e2120	2450	299	196	79	74	105
29	866	1580	708	e700	---	4980	1950	295	252	76	67	166
30	910	1420	1220	e596	---	10600	1660	284	244	78	65	139
31	853	---	2630	e565	---	11900	---	277	---	87	62	---
TOTAL	19682	46874	28514	32508	9806	38450	137260	19939	8351	3395	2929	2817
MEAN	635	1562	920	1049	350	1240	4575	643	278	110	94.5	93.9
MAX	1320	3810	2630	2500	540	11900	11800	1430	480	191	141	166
MIN	240	722	458	460	234	170	1660	277	177	76	62	64
CFSM	1.22	3.00	1.77	2.02	.67	2.39	8.80	1.24	.54	.21	.18	.18
IN.	1.41	3.35	2.04	2.33	.70	2.75	9.82	1.43	.60	.24	.21	.20

e Estimated

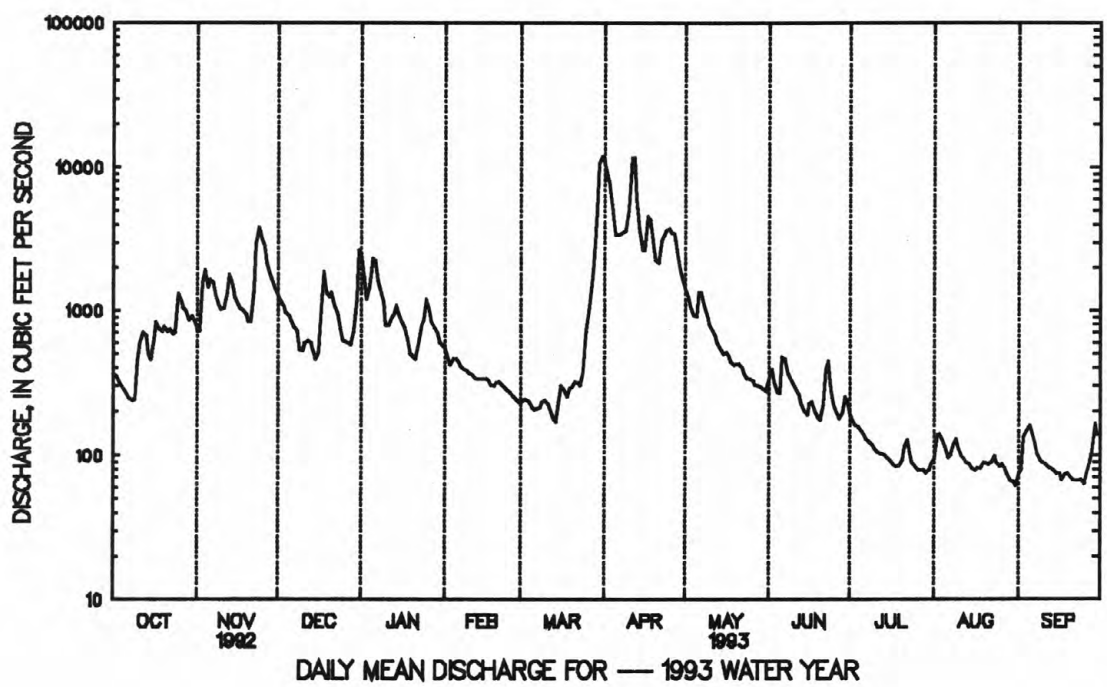
01502500 UNADILLA RIVER AT ROCKDALE, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1993, BY WATER YEAR (WY)

MEAN	448	794	973	868	987	1790	2032	960	513	282	191	281
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

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1930 - 1993	
ANNUAL TOTAL	328715		350525			
ANNUAL MEAN	898		960		843	
HIGHEST ANNUAL MEAN					1294	1943
LOWEST ANNUAL MEAN					447	1965
HIGHEST DAILY MEAN	3810	Nov 24	11900	Mar 31	15400	Mar 6 1979
LOWEST DAILY MEAN	146	Jul 3	62	Aug 31	27	a
ANNUAL SEVEN-DAY MINIMUM	171	Jun 28	69	Sep 19	27	Sep 20 1964
INSTANTANEOUS PEAK FLOW			14000	Apr 11	17400	Dec 31 1942
INSTANTANEOUS PEAK STAGE			11.89	Apr 11	12.98	Dec 31 1942
INSTANTANEOUS LOW FLOW			60	Aug 31	24	b
ANNUAL RUNOFF (CFSM)	1.73		1.85		1.62	
ANNUAL RUNOFF (INCHES)	23.52		25.08		22.03	
10 PERCENT EXCEEDS	1760		2280		1980	
50 PERCENT EXCEEDS	741		397		450	
90 PERCENT EXCEEDS	304		86		95	

a Sept. 20-27, 1964.
b Sept. 24, 27, 1964.



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 sea level. 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)
Apr. 1	1300	*48,500	*17.91	Apr. 18	0700	19,900	11.02
Apr. 11	0100	40,000	16.21	Apr. 26	2400	20,200	11.11

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	990	2650	5430	12600	e2200	e807	47100	7960	921	915	314	278
2	944	2520	4950	10400	e1800	e855	44400	6770	1080	782	321	265
3	947	4400	4540	7420	e1700	e964	36500	5870	1130	712	346	280
4	998	5960	4180	6200	e2000	e973	27600	5120	993	643	350	375
5	860	5970	3910	8450	e2110	e980	19400	4760	866	599	400	432
6	788	5620	3630	11100	e1710	e920	15500	5170	871	559	433	462
7	738	5580	3290	e9010	e1580	e900	15200	5150	1130	523	382	473
8	683	5150	3090	e7040	e1420	e950	15200	4560	1360	533	392	463
9	694	4470	e2710	e6120	e1490	e1100	15300	3920	1440	465	380	453
10	1460	3950	e2110	e5110	e1490	e1200	23500	3470	1580	437	386	441
11	1600	3750	2360	e4000	e1380	e1050	35000	3100	1320	420	397	454
12	2750	4050	2720	e3890	e1350	e980	31000	2810	1060	423	374	373
13	2650	5850	2570	e4260	e1300	e950	29400	2590	933	421	360	392
14	2330	6170	2390	e4710	e1300	e650	20800	2310	830	382	345	361
15	1920	5360	2180	e4490	e1410	e800	14800	2070	756	372	319	342
16	2260	4570	2020	e3960	e1220	e1000	13600	1920	794	353	354	345
17	2440	4200	3100	e3570	e1100	e1100	18200	1830	781	336	434	331
18	2470	4050	5790	e3180	e1050	e1300	19700	1780	860	332	404	393
19	2360	3870	6560	e2640	e980	e1200	17100	1710	800	321	361	435
20	2260	3520	5910	e2340	e1000	e1400	12500	1660	734	330	335	396
21	2230	3220	6290	e2310	e1100	e1500	10400	1590	1080	325	347	424
22	2190	4120	5770	e2520	e1100	e1600	12300	1480	1300	331	348	428
23	2150	8300	e4900	3070	e1000	e1650	16000	1380	1220	351	344	397
24	2200	11200	e4400	3450	e980	e2000	18200	1240	1300	377	323	408
25	3380	11200	e3800	e4390	e950	e3000	17900	1170	1020	320	339	394
26	4110	10300	e3020	e4490	e900	e5000	16900	1100	808	326	359	436
27	3730	9090	e2770	e3870	e868	e7400	19200	1040	727	316	317	565
28	3180	7730	e2580	e3200	e829	e12300	16200	961	661	297	279	792
29	2920	6680	e2840	e3050	---	22700	12400	937	716	285	344	735
30	2780	5890	e4720	e2620	---	35200	9830	897	864	284	326	651
31	2830	---	e9580	e2290	---	40400	---	850	---	305	272	---
TOTAL	63842	169390	124110	155750	37317	152829	621130	87175	29935	13375	10985	12974
MEAN	2059	5646	4004	5024	1333	4930	20700	2812	998	431	354	432
MAX	4110	11200	9580	12600	2200	40400	47100	7960	1580	915	434	792
MIN	683	2520	2020	2290	829	650	9830	850	661	284	272	265
CFSM	.92	2.53	1.79	2.25	.60	2.21	9.28	1.26	.45	.19	.16	.19
IN.	1.06	2.82	2.07	2.60	.62	2.55	10.35	1.45	.50	.22	.18	.22

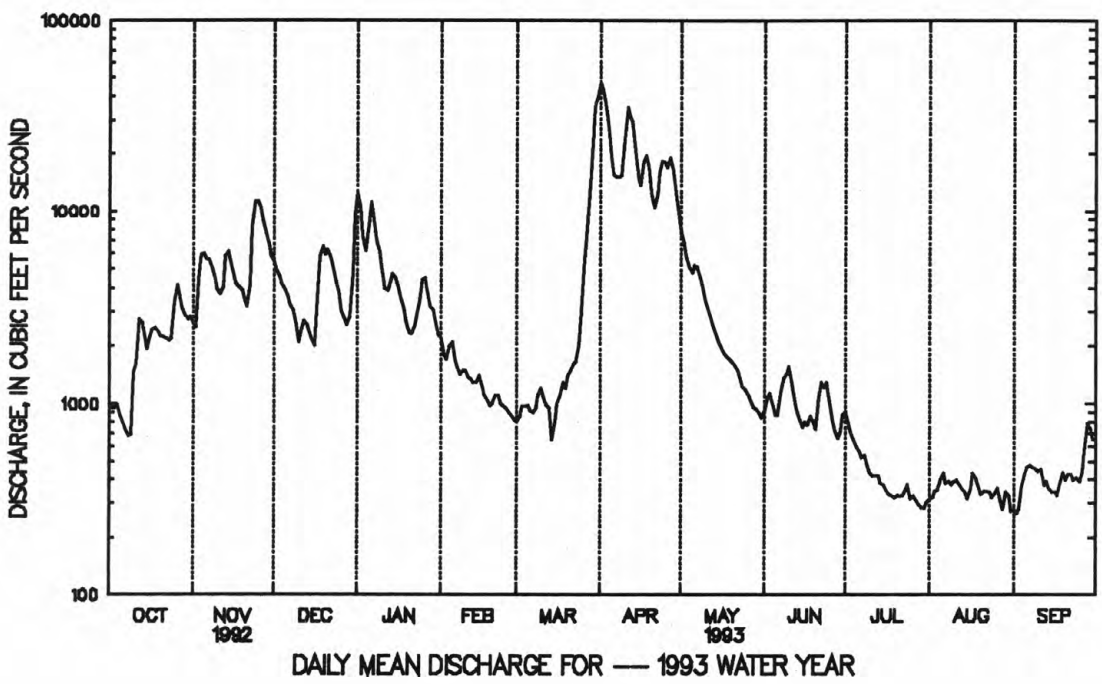
e Estimated

01503000 SUSQUEHANNA RIVER AT CONKLIN, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 1993, BY WATER YEAR (WY)

MEAN	1906	3401	3935	3819	3919	7593	8465	4223	2226	1412	969	1198
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

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1913 - 1993	
ANNUAL TOTAL	1236546		1478812			
ANNUAL MEAN	3379		4052		3584	
HIGHEST ANNUAL MEAN					5667	1928
LOWEST ANNUAL MEAN					1690	1965
HIGHEST DAILY MEAN	14800	Mar 12	47100	Apr 1	57800	Mar 19 1936
LOWEST DAILY MEAN	524	Jul 4	265	Sep 2	105	Oct 24 1964
ANNUAL SEVEN-DAY MINIMUM	589	Jun 30	292	Aug 28	114	Oct 19 1964
INSTANTANEOUS PEAK FLOW			48500	Apr 1	61600	Mar 18 1936
INSTANTANEOUS PEAK STAGE			17.91	Apr 1	20.83	Mar 22 1948
INSTANTANEOUS LOW FLOW			261	Sep 2	85	Oct 14 1964
ANNUAL RUNOFF (CFSM)	1.51		1.82		1.61	
ANNUAL RUNOFF (INCHES)	20.61		24.65		21.82	
10 PERCENT EXCEEDS	6570		10700		8440	
50 PERCENT EXCEEDS	2820		1500		2000	
90 PERCENT EXCEEDS	946		351		429	



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 sea level. 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 and intake problems), 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)
Mar. 30	2400	5,240	9.23	Apr. 11	0300	*7,180	*9.93

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	224	385	614	848	e280	e130	4550	806	216	96	73	123
2	203	379	555	e630	e250	e130	4160	677	189	77	61	83
3	185	782	510	e590	e230	e130	3510	594	158	80	66	94
4	168	645	e470	e640	e260	e110	2500	524	139	76	58	126
5	150	621	e450	987	e260	e100	1950	571	143	64	52	114
6	140	724	e420	828	e220	e90	1900	726	268	61	47	77
7	135	648	e400	666	e220	81	1910	591	233	58	54	59
8	128	555	e370	e530	e210	83	1920	509	188	55	61	53
9	163	488	e300	e450	e210	96	2030	445	177	52	55	46
10	1170	457	e310	e420	e200	89	3550	402	178	51	50	42
11	601	514	e330	408	e200	e90	6110	370	175	48	e50	41
12	613	629	e320	395	e200	e82	3870	347	150	51	e50	43
13	476	818	e300	445	e190	e80	2810	322	129	53	e50	43
14	407	654	e280	511	e190	e98	2240	301	108	47	e48	41
15	376	571	282	426	e190	e120	1810	280	105	47	e46	38
16	435	516	299	388	e190	e120	1760	287	133	45	e44	38
17	452	493	532	e350	e180	e120	2120	267	112	45	e47	37
18	396	473	701	e300	e170	e120	1830	245	96	44	e44	38
19	429	436	529	e290	e170	e120	1460	232	89	46	e44	37
20	414	401	596	e280	e160	e120	1190	244	112	66	e52	35
21	404	424	564	e270	e180	e130	1610	231	171	57	e55	33
22	416	596	485	e300	e170	e140	1980	215	372	48	44	32
23	378	1950	449	378	e160	e160	1900	203	243	44	41	32
24	446	1520	e400	371	e150	e180	2130	196	179	43	41	33
25	643	1570	e340	557	e150	e230	2210	187	137	42	45	35
26	521	1350	e320	403	e140	e330	2120	179	112	43	40	36
27	513	1110	e310	e380	e140	485	1880	168	102	43	39	55
28	470	921	e300	e340	e130	798	1460	160	112	43	38	118
29	439	785	341	e320	---	1910	1170	155	185	42	36	92
30	468	686	582	e300	---	4020	966	150	129	42	36	67
31	414	---	1090	e280	---	4700	---	145	---	62	38	---
TOTAL	12377	22101	13749	14281	5400	15192	70606	10729	4840	1671	1505	1741
MEAN	399	737	444	461	193	490	2354	346	161	53.9	48.5	58.0
MAX	1170	1950	1090	987	280	4700	6110	806	372	96	73	126
MIN	128	379	280	270	130	80	966	145	89	42	36	32
CFSM	1.52	2.80	1.69	1.75	.73	1.86	8.95	1.32	.61	.20	.18	.22
IN.	1.75	3.13	1.94	2.02	.76	2.15	9.99	1.52	.68	.24	.21	.25

e Estimated

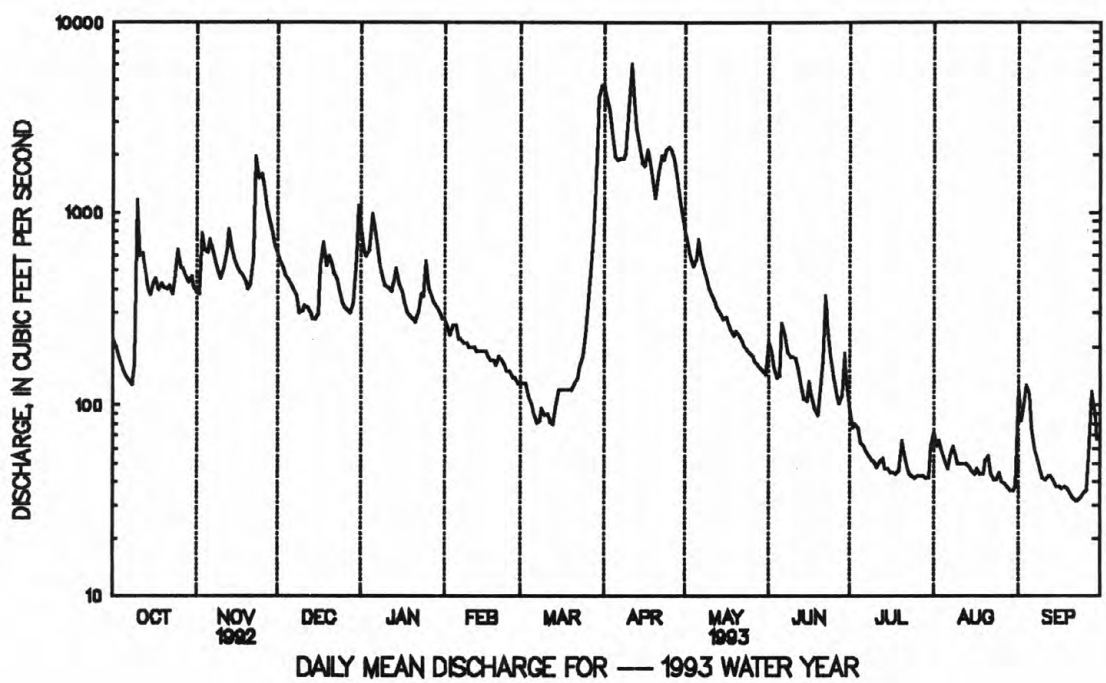
01505000 CHENANGO RIVER AT SHERBURNE, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1993, BY WATER YEAR (WY)

MEAN	212	338	455	415	467	875	990	445	253	139	98.1	136
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

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1938 - 1993	
ANNUAL TOTAL	171256		174192			
ANNUAL MEAN	468		477		401	
HIGHEST ANNUAL MEAN					640	1943
LOWEST ANNUAL MEAN					200	1965
HIGHEST DAILY MEAN	1950	Nov 23	6110	Apr 11	8570	Mar 6 1979
LOWEST DAILY MEAN	57	Jul 2	32	a	14	Sep 24 1964
ANNUAL SEVEN-DAY MINIMUM	70	Jun 27	34	Sep 20	15	Sep 21 1964
INSTANTANEOUS PEAK FLOW			7180	Apr 11	10400	Mar 6 1979
INSTANTANEOUS PEAK STAGE			9.93	Apr 11	b9.99	Dec 30 1942
INSTANTANEOUS LOW FLOW			31	c	12	Sep 25 1964
ANNUAL RUNOFF (CFSM)	1.78		1.81		1.53	
ANNUAL RUNOFF (INCHES)	24.22		24.64		20.72	
10 PERCENT EXCEEDS	823		1170		938	
50 PERCENT EXCEEDS	415		220		220	
90 PERCENT EXCEEDS	172		44		51	

a Sep 22, 23.
b Ice jam.
c Sep 23, 24.



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.

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 sea level. 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)
Apr. 1	2130	6,400	9.86	Apr. 11	1000	*10,400	*12.25
Apr. 17	1630	5,050	8.90				

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	445	493	780	2210	e380	e170	5920	1200	418	183	92	75
2	411	524	704	1480	e350	e170	6090	1020	337	180	93	84
3	379	988	652	1140	e320	e180	5020	889	288	217	99	136
4	357	892	599	1240	e350	e170	3270	779	257	196	98	226
5	331	786	580	1760	e360	e160	2270	906	278	163	92	158
6	319	861	518	1610	e310	e150	2290	1130	590	151	87	116
7	304	795	514	1230	e290	e150	2430	893	456	142	87	105
8	293	658	490	e1000	e270	e160	2590	750	360	129	91	99
9	294	596	e410	e760	e260	e170	2920	669	355	128	90	94
10	480	569	e410	e640	e250	e170	4970	608	346	124	85	90
11	412	668	425	e600	e250	e160	9490	561	314	123	83	90
12	430	830	432	e620	e240	e150	5300	524	286	120	83	95
13	386	941	427	e740	e230	e130	3170	460	256	121	83	86
14	354	831	e390	919	e230	e100	2310	441	230	113	82	82
15	342	725	e380	725	e230	e140	1920	430	238	110	80	80
16	364	651	394	649	e230	e190	2760	443	315	107	79	80
17	397	613	581	602	e220	e180	4590	408	224	104	83	80
18	368	592	1010	e520	e220	e190	4000	381	199	99	80	78
19	388	556	789	e460	e210	e190	2600	377	190	106	80	78
20	414	509	919	e440	e200	e200	1910	381	215	112	83	77
21	407	534	955	e420	e220	e210	2760	362	306	111	92	76
22	455	781	771	e500	e210	e200	3390	343	525	101	88	76
23	425	2040	e590	573	e200	e200	2920	330	368	94	85	75
24	490	2140	e540	546	e200	e270	3050	322	302	91	84	76
25	898	1940	e500	e640	e190	e340	3600	318	264	88	86	78
26	771	1670	e470	e530	e190	e400	4240	304	225	86	85	86
27	714	1330	e430	e480	e180	e500	3380	290	215	84	81	87
28	624	1090	e400	e440	e170	835	2280	277	236	84	78	112
29	575	952	e450	e410	---	2030	1750	252	272	82	76	108
30	614	863	e1000	e400	---	4020	1430	234	221	84	77	98
31	540	---	2330	e380	---	5390	---	268	---	88	76	---
TOTAL	13981	27418	19840	24664	6960	17675	104620	16550	9086	3721	2638	2881
MEAN	451	914	640	796	249	570	3487	534	303	120	85.1	96.0
MAX	898	2140	2330	2210	380	5390	9490	1200	590	217	99	226
MIN	293	493	380	380	170	100	1430	234	190	82	76	75
CFSM	1.54	3.13	2.19	2.72	.85	1.95	11.9	1.83	1.04	.41	.29	.33
IN.	1.78	3.49	2.53	3.14	.89	2.25	13.33	2.11	1.16	.47	.34	.37

e Estimated

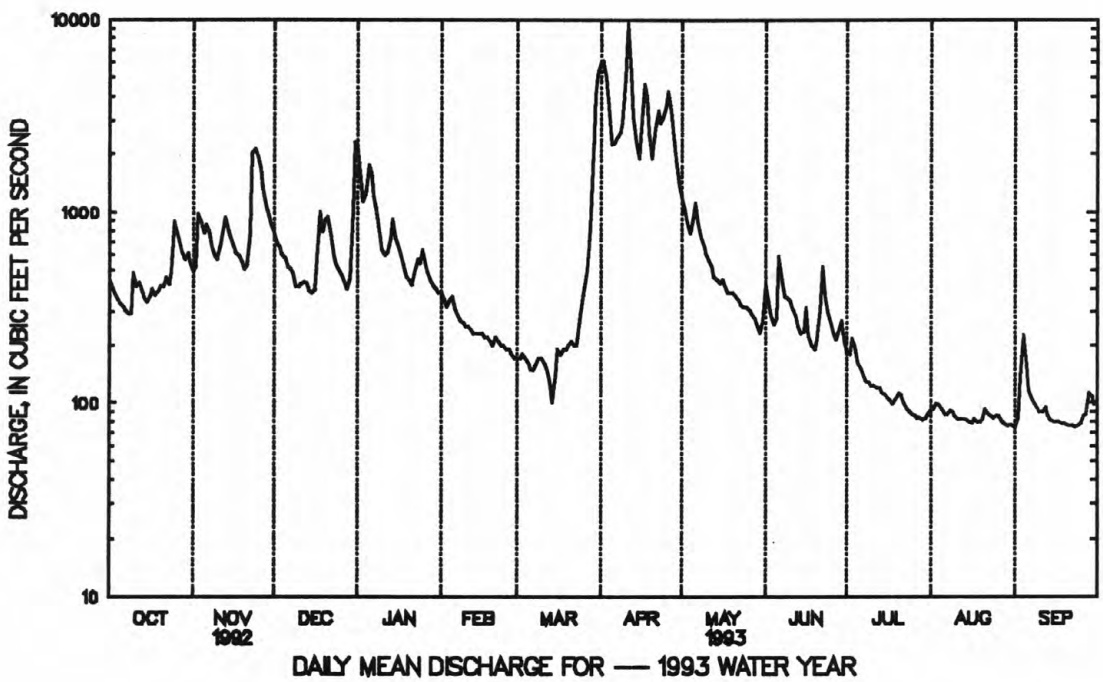
01509000 TIOUGHNIOGA RIVER AT CORTLAND, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1993, BY WATER YEAR (WY)

MEAN	259	425	570	500	554	1060	1260	575	330	178	126	156
MAX	1553	1119	1307	1038	1469	2432	3487	1352	1674	539	480	1125
(WY)	1978	1969	1973	1979	1976	1945	1993	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

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1938 - 1993	
ANNUAL TOTAL	220584		250034			
ANNUAL MEAN	603		685		498	
HIGHEST ANNUAL MEAN					723	1943
LOWEST ANNUAL MEAN					303	1965
HIGHEST DAILY MEAN	3230	Mar 28	9490	Apr 11	11500	Mar 6 1979
LOWEST DAILY MEAN	82	Jul 3	75	a	17	b
ANNUAL SEVEN-DAY MINIMUM	98	Jun 28	77	Sep 18	21	Sep 19 1939
INSTANTANEOUS PEAK FLOW			10400	Apr 11	13000	Mar 5 1964
INSTANTANEOUS PEAK STAGE			12.25	Apr 11	13.82	Apr 5 1950
INSTANTANEOUS LOW FLOW			73	c	9.8	Sep 20 1939
ANNUAL RUNOFF (CFSM)	2.06		2.35		1.71	
ANNUAL RUNOFF (INCHES)	28.10		31.85		23.18	
10 PERCENT EXCEEDS	1130		1820		1110	
50 PERCENT EXCEEDS	481		354		282	
90 PERCENT EXCEEDS	205		85		68	

a Sep 1, 23.
b Sept. 26, 27, 1959.
c Sep 22, 23, 27.



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 sea level.

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)
Oct. 10	0200	2,940	6.03	Mar. 30	2030	4,320	7.76
Nov. 23	0545	2,520	5.53	Apr. 11	0030	*7,130	*9.94

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	159	259	453	e720	e200	e90	3130	354	94	e52	e30	e25
2	143	315	413	e580	e190	e88	2530	305	73	e43	e32	e34
3	129	904	383	e540	e180	e86	1900	267	66	e48	e34	e43
4	115	558	351	e540	e170	e82	1110	238	62	e50	e33	71
5	103	505	340	e800	e170	e76	930	269	61	e40	e28	58
6	97	589	301	e680	e160	e68	1060	327	139	e38	e26	e49
7	90	454	298	e540	e160	e60	1170	250	103	e37	e27	e47
8	85	362	276	e450	e160	e58	1260	215	80	e36	e28	e35
9	494	305	220	e360	e150	e58	1550	192	81	e33	e27	e28
10	1650	283	239	e320	e150	e58	3990	174	80	e31	e24	e26
11	639	379	267	e320	e140	e50	5300	161	73	e29	e24	e24
12	566	494	262	e320	e140	e49	1860	148	66	e33	e24	e25
13	395	869	249	e370	e140	e49	1010	133	63	e35	e25	e26
14	306	544	220	e410	e140	e56	764	120	60	e29	e24	e23
15	287	445	209	e340	e130	e70	686	112	59	e28	e23	e21
16	411	373	241	e290	e130	e70	1070	111	106	e27	e22	e21
17	356	341	420	e270	e130	e70	1450	100	67	e27	e23	e21
18	286	311	588	e240	e120	e72	903	92	61	e26	e21	e22
19	367	272	410	e220	e110	e74	628	90	58	e27	e20	e21
20	317	239	526	e220	e110	e74	511	94	63	e42	e19	e20
21	324	311	480	e220	e110	e76	1290	86	130	e36	e26	e19
22	356	584	400	e250	e110	e82	1160	82	337	e27	e25	e18
23	290	2090	369	e270	e110	e92	971	79	177	e25	e22	e18
24	461	1210	326	e290	e110	e96	1160	77	e110	e25	e22	e19
25	724	1300	262	e400	e100	e140	1400	77	e80	e24	e21	e20
26	494	932	e260	e290	e100	e200	1450	71	e65	e25	e23	e22
27	446	757	e230	e270	e100	e400	890	65	e58	e25	e22	e35
28	367	636	e240	e250	e90	e700	613	62	e68	e24	e22	63
29	340	557	e280	e220	---	e1800	488	61	e130	e24	e20	48
30	374	504	e480	e210	---	3430	412	56	e88	e24	e20	42
31	292	---	e900	e200	---	3210	---	58	---	e26	e22	---
TOTAL	11463	17682	10893	11400	3810	11584	42646	4526	2758	996	759	944
MEAN	370	589	351	368	136	374	1422	146	91.9	32.1	24.5	31.5
MAX	1650	2090	900	800	200	3430	5300	354	337	52	34	71
MIN	85	239	209	200	90	49	412	56	58	24	19	18
CFSM	2.52	4.01	2.39	2.50	.93	2.54	9.67	.99	.63	.22	.17	.21
IN.	2.90	4.47	2.76	2.88	.96	2.93	10.79	1.15	.70	.25	.19	.24

e Estimated

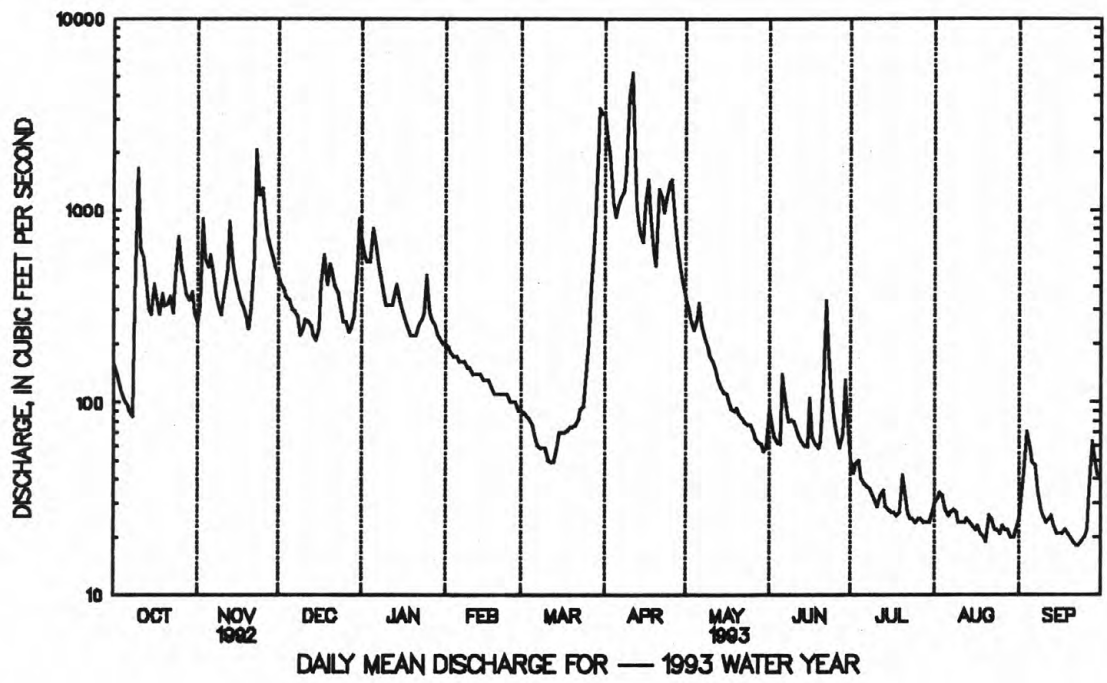
01510000 OTSELIC RIVER AT CINCINNATUS, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1993, BY WATER YEAR (WY)

MEAN	153	244	328	261	282	593	682	289	157	82.7	52.7	89.8
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

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1938 - 1993	
ANNUAL TOTAL	126195		119461			
ANNUAL MEAN	345		327		267	
HIGHEST ANNUAL MEAN					391	1943
LOWEST ANNUAL MEAN					168	1985
HIGHEST DAILY MEAN	2340	Jun 1	5300	Apr 11	6200	Mar 20 1948
LOWEST DAILY MEAN	37	Jul 3	18	a	4.1	Sep 24 1939
ANNUAL SEVEN-DAY MINIMUM	48	Jun 28	19	Sep 19	4.3	Sep 19 1939
INSTANTANEOUS PEAK FLOW			7130	Apr 11	8390	Dec 30 1942
INSTANTANEOUS PEAK STAGE			9.94	Apr 11	10.68	Apr 4 1950
INSTANTANEOUS LOW FLOW			b		3.8	Sep 25 1939
ANNUAL RUNOFF (CFSM)	2.35		2.23		1.82	
ANNUAL RUNOFF (INCHES)	31.94		30.25		24.70	
10 PERCENT EXCEEDS	697		760		611	
50 PERCENT EXCEEDS	262		139		137	
90 PERCENT EXCEEDS	88		24		23	

a Sept. 22, 23.
b unknown.



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 sea level. 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 and sluggish intake), 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)
Apr. 1	1200	24,900	10.87	Apr. 11	0900	*33,500	*12.45

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1470	2520	3590	9820	e1600	e700	24200	5740	1200	e760	344	e250
2	1560	2460	3150	7000	e1400	e700	23300	4240	1310	e740	407	e265
3	1430	5910	2990	4820	e1300	e740	19900	3420	1080	e800	461	388
4	1220	5970	2780	4750	e1400	e700	17100	2740	917	e750	447	529
5	1050	4760	2600	7420	e1400	e660	13400	3010	898	e690	441	664
6	976	4870	2410	7550	e1300	e640	12700	3920	1640	e560	419	e600
7	882	4550	2280	5440	e1100	e660	13300	3250	1710	e520	433	e430
8	827	3720	2160	4460	e1100	e680	13400	2660	1330	e500	490	e320
9	892	3010	e1700	e3600	e1050	e720	13700	2310	1330	e470	442	e300
10	4410	2820	e1700	e2600	e1050	e720	19400	2040	1460	e440	412	e300
11	5010	3030	1830	e2500	e1000	e700	32000	1830	e1100	e410	396	e300
12	3610	3780	1920	2670	e1000	e660	24200	1690	e950	e400	396	e310
13	3040	5560	1830	3060	e950	e600	18400	1520	e850	e400	395	e300
14	2310	4980	1690	3860	e950	e400	14500	1380	e800	397	383	e260
15	2010	3980	e1600	3350	e950	e550	12200	1290	743	384	369	e280
16	3070	3500	1650	2820	e950	e800	12500	1270	829	365	e370	e280
17	3290	3250	2380	2570	e900	e750	15500	1260	850	355	e390	e280
18	2730	3010	5200	e2200	e840	e800	14800	1250	730	346	e370	e300
19	2700	2810	4270	e1800	e820	e800	12200	1250	674	329	e360	e300
20	2850	2480	3890	e1700	e800	e900	10100	1330	775	368	346	e270
21	2600	2490	4430	e1600	e900	e950	11700	1320	1940	354	416	271
22	2630	3980	3650	e1900	e880	e950	13900	1230	2740	354	391	262
23	2520	9230	3100	2490	e840	e1000	13700	1120	2130	326	e340	259
24	2840	10100	2820	2520	e820	e1300	14200	1010	1290	301	e320	268
25	4740	9330	e2500	3520	e800	e1700	14500	1010	1000	289	e330	263
26	4300	8350	e2300	2980	e760	e2300	14800	962	864	288	e310	295
27	3790	6520	e2100	e2300	e740	3350	13600	911	803	282	e300	465
28	3240	5160	e1900	e2000	e700	5870	10700	878	884	286	e285	795
29	3040	4450	e2000	e1900	---	11900	8660	856	1420	e280	e275	702
30	3150	4070	4420	e1700	---	19500	7310	818	e1000	e290	e260	647
31	2880	---	10200	e1600	---	22500	---	816	---	355	e260	---
TOTAL	81067	140650	91040	108500	28300	85200	459870	58331	35247	13389	11558	11153
MEAN	2615	4688	2937	3500	1011	2748	15330	1882	1175	432	373	372
MAX	5010	10100	10200	9820	1600	22500	32000	5740	2740	800	490	795
MIN	827	2460	1600	1600	700	400	7310	816	674	280	260	250

e Estimated

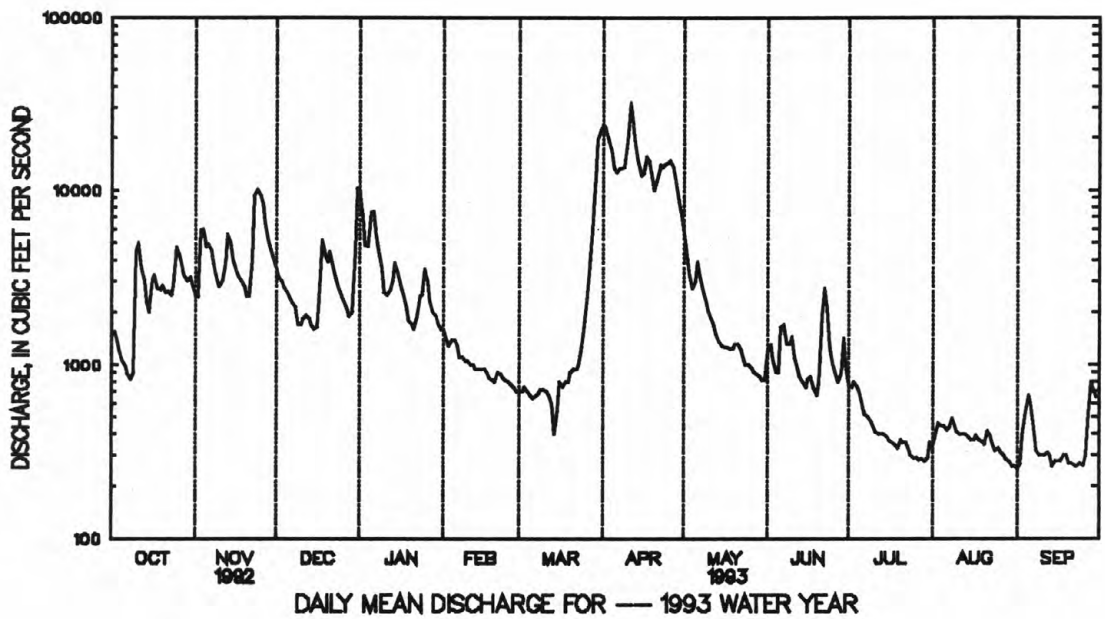
01512500 CHENANGO RIVER NEAR CHENANGO FORKS, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 1993, BY WATER YEAR (WY)

MEAN	1325	2260	2696	2563	2614	5343	5758	2609	1472	915	629	789
MAX	7210	6167	6102	7361	7688	12560	15330	6485	7439	5713	3138	5766
(WY)	1978	1928	1973	1913	1976	1936	1993	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

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1913 - 1993	
ANNUAL TOTAL	1024267		1124305			
ANNUAL MEAN	2799		3080		2413	
HIGHEST ANNUAL MEAN					3618	1943
LOWEST ANNUAL MEAN					1307	1965
HIGHEST DAILY MEAN	11100	Mar 28	32000	Apr 11	55400	Jul 8 1935
LOWEST DAILY MEAN	456	Jul 3	250	Sep 1	88	Sep 19 1939
ANNUAL SEVEN-DAY MINIMUM	524	Jun 29	270	Sep 20	94	Sep 19 1939
INSTANTANEOUS PEAK FLOW			33500	Apr 11	a96000	Jul 8 1935
INSTANTANEOUS PEAK STAGE			12.45	Apr 11	20.30	Jul 8 1935
INSTANTANEOUS LOW FLOW			250	Sep 1	84	b
10 PERCENT EXCEEDS	5280		8890		5990	
50 PERCENT EXCEEDS	2350		1320		1300	
90 PERCENT EXCEEDS	900		328		300	

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



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 sea level (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)
Apr. 2	0045	89,700	18.74	Apr. 11	1545	*93,600	*19.28

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3850	7260	11600	29500	e4900	e1700	86100	18700	2380	2550	791	657
2	3450	6980	10500	24000	e3900	e2000	88800	15000	2750	2330	778	669
3	3360	12800	9540	17800	e3800	e2200	77500	12700	3050	2060	792	649
4	3180	16100	8920	13900	e4100	e2300	59500	10800	2890	2020	821	856
5	2920	15000	8280	16800	e4100	2380	45000	9990	2620	1870	828	1010
6	2570	14600	7800	21900	e4100	2410	35600	12100	2560	1720	816	1180
7	2370	13700	7270	19800	e3800	2360	33400	11500	3320	1590	891	1250
8	2190	12300	6800	15400	e3600	2430	33500	10200	3660	1440	1010	1260
9	2230	10600	6340	13100	e3400	2650	33500	8810	3930	1380	990	1100
10	5530	9240	e5300	11000	e3400	2820	42100	7780	4950	1410	930	1020
11	7960	8680	e4700	9120	e3600	2780	87300	7000	4320	1230	909	934
12	8600	9300	5570	8290	e3600	2620	76300	6330	3610	1120	926	916
13	7880	13400	5880	9930	e3000	2560	59300	5790	3110	1120	842	851
14	6780	14700	5530	12900	e2900	e1400	47600	5300	2780	1060	820	785
15	5870	12900	5110	11600	e3000	e1400	35200	4820	2570	986	790	776
16	6870	10900	4870	9940	e2900	e2100	32900	4450	2360	932	782	783
17	7980	9770	5880	8840	e2800	e2300	49300	4250	2340	886	1010	783
18	7520	9210	12900	e7800	e2800	e2800	45900	4100	2330	857	1110	748
19	7130	8770	14600	e6400	e2500	e2600	38200	4030	2220	850	1010	871
20	7240	8160	13200	e5400	e2400	e3200	30400	3980	2060	848	901	892
21	6810	7510	14200	e5200	e2300	e3400	29200	3980	2290	813	885	857
22	6560	8260	12800	e5700	e2200	3570	34000	3820	4650	804	927	839
23	6400	17100	11100	7030	e2200	3640	36200	3550	5110	769	870	850
24	6780	24300	e9500	7710	e2100	4230	42600	3300	4140	772	810	852
25	11000	25500	e7800	9750	e2000	6380	41400	3020	3320	777	798	853
26	11300	23300	e6600	e9600	e1900	9060	41900	2890	2670	764	782	855
27	10600	20500	e5800	e8600	e1800	13700	45000	2710	2250	741	751	1020
28	9240	16800	e5200	e7100	e1700	24200	36200	2600	2120	727	709	1730
29	8170	14400	e5800	e6700	---	46100	28400	2460	2100	682	639	2230
30	7920	12800	9760	e5700	---	71100	22600	2360	2740	664	604	1940
31	7760	---	25100	e5100	---	79700	---	2310	---	713	648	---
TOTAL	198020	394840	274250	351610	84800	312090	1394900	200630	91200	36485	26170	30016
MEAN	6388	13160	8847	11340	3029	10070	46500	6472	3040	1177	844	1001
MAX	11300	25500	25100	29500	4900	79700	88800	18700	5110	2550	1110	2230
MIN	2190	6980	4700	5100	1700	1400	22600	2310	2060	664	604	649
CFSM	1.34	2.76	1.85	2.38	.63	2.11	9.74	1.36	.64	.25	.18	.21
IN.	1.54	3.08	2.14	2.74	.66	2.43	10.87	1.56	.71	.28	.20	.23

e Estimated

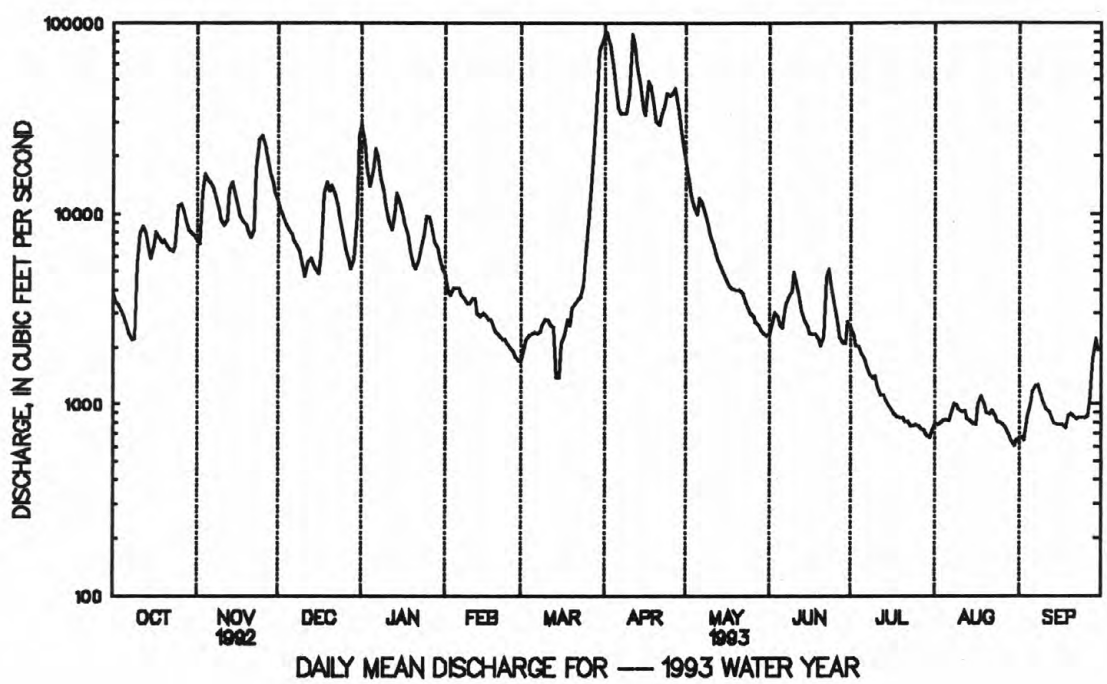
01515000 SUSQUEHANNA RIVER NEAR WAVERLY, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 1993, BY WATER YEAR (WY)

MEAN	3984	6875	8736	7633	8757	15960	18150	9174	4851	2472	1750	2476
MAX	25090	17130	19820	18670	23870	33430	46500	22140	22550	7620	6035	17800
(WY)	1978	1973	1973	1979	1976	1945	1993	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

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1937 - 1993	
ANNUAL TOTAL	2945950		3395011			
ANNUAL MEAN	8049		9301		7560	
HIGHEST ANNUAL MEAN					11490	1978
LOWEST ANNUAL MEAN					3745	1965
HIGHEST DAILY MEAN	34600	Mar 28	88800	Apr 2	117000	Jun 23 1972
LOWEST DAILY MEAN	1300	Jul 4	604	Aug 30	237	a
ANNUAL SEVEN-DAY MINIMUM	1440	Jun 30	654	Aug 28	248	Sep 17 1964
INSTANTANEOUS PEAK FLOW			93600	Apr 11	121000	Jun 23 1972
INSTANTANEOUS PEAK STAGE			19.28	Apr 11	21.24	Jun 23 1972
INSTANTANEOUS LOW FLOW			594	Aug 30	224	Sep 23 1964
ANNUAL RUNOFF (CFSM)	1.69		1.95		1.58	
ANNUAL RUNOFF (INCHES)	22.96		26.46		21.52	
10 PERCENT EXCEEDS	14900		24200		18000	
50 PERCENT EXCEEDS	6850		3930		4190	
90 PERCENT EXCEEDS	2530		835		836	

a Sept. 22, 23, 1964.



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 sea level. 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.

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

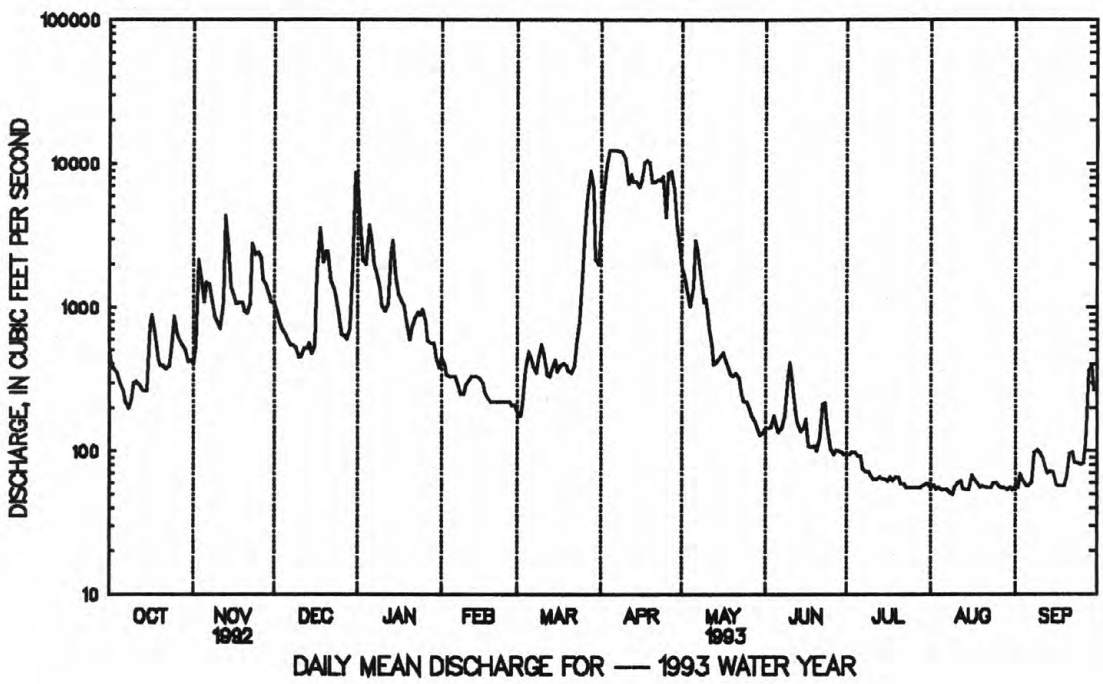
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	497	398	1070	7120	e450	187	3660	1900	146	95	56	56
2	381	535	936	3400	e400	177	5610	1590	144	95	58	55
3	368	2160	774	2130	e340	212	9160	1330	147	98	54	69
4	353	1640	719	2000	e330	366	12400	1010	176	98	55	62
5	293	1100	662	3770	e330	493	12400	1380	149	94	53	57
6	262	1490	592	2930	e330	453	12300	2940	137	93	53	57
7	222	1460	549	1970	e300	383	12300	2450	145	75	53	61
8	201	1140	540	1720	e250	353	12200	1610	175	72	51	97
9	224	855	522	1360	e250	436	11900	1110	329	71	50	102
10	297	801	450	1010	e290	555	10900	1130	412	67	56	98
11	303	708	453	954	e310	449	7220	728	300	64	60	91
12	288	1090	520	1050	e330	338	8320	562	186	64	62	76
13	269	4330	520	2360	e330	e330	7480	400	157	66	54	70
14	262	2590	560	2920	e330	e380	7490	420	139	65	53	73
15	262	1380	475	1600	e320	e430	6890	449	147	64	53	71
16	744	1200	539	1220	e300	356	7380	484	168	62	68	58
17	878	1070	1790	1130	e260	391	10100	438	109	66	65	57
18	655	1090	3570	1040	e240	407	10500	392	106	63	60	57
19	436	1080	2080	782	e220	391	10100	339	108	66	56	57
20	391	939	2460	602	e220	364	7360	334	100	66	57	67
21	389	914	2480	709	e220	353	7460	344	125	59	56	95
22	377	1050	1520	837	e220	394	7670	323	214	59	55	99
23	384	2790	1360	922	e220	548	7560	263	216	55	55	84
24	490	2350	1190	873	e220	796	8070	225	146	55	60	83
25	870	2430	866	974	e220	1590	4260	219	103	55	60	81
26	643	2230	646	803	e220	3500	8540	197	96	55	57	83
27	599	1570	e630	584	e210	6010	8790	176	101	55	55	112
28	555	1420	606	561	e210	8890	6670	162	100	55	55	364
29	509	1220	714	556	---	6830	3870	144	98	57	53	394
30	420	1100	2560	436	---	2170	2820	129	96	59	55	268
31	424	---	8690	380	---	2010	---	134	---	59	53	---
TOTAL	13246	44130	41043	48703	7870	40542	251380	23312	4775	2127	1741	3054
MEAN	427	1471	1324	1571	281	1308	8379	752	159	68.6	56.2	102
MAX	878	4330	8690	7120	450	8890	12400	2940	412	98	68	394
MIN	201	398	450	380	210	177	2820	129	96	55	50	55
CFSM	.55	1.91	1.72	2.04	.36	1.70	10.9	.98	.21	.09	.07	.13
IN.	.64	2.13	1.98	2.35	.38	1.96	12.13	1.12	.23	.10	.08	.15
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1993, BY WATER YEAR (WY)												
MEAN	356	624	784	718	869	1962	1958	1128	594	235	198	202
MAX	2730	2476	2275	2413	2818	7157	8379	3077	4304	1032	1037	2821
(WY)	1991	1978	1978	1937	1981	1936	1993	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

e Estimated

01520500 TIOGA RIVER AT LINDLEY, NY--Continued

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1930 - 1993	
ANNUAL TOTAL	342750		481923			
ANNUAL MEAN	936		1320		804	
HIGHEST ANNUAL MEAN					1451	1978
LOWEST ANNUAL MEAN					360	1965
HIGHEST DAILY MEAN	8900	Mar 27	12400	Apr 4	63000	Jun 23 1972
LOWEST DAILY MEAN	100	Jul 7	50	Aug 9	7.2	Sep 1 1939
ANNUAL SEVEN-DAY MINIMUM	104	Jul 3	53	Aug 3	9.5	Aug 28 1939
INSTANTANEOUS PEAK FLOW			12500	Apr 4	a128000	Jun 23 1972
INSTANTANEOUS PEAK STAGE			12.80	Apr 4	b26.27	Jun 23 1972
INSTANTANEOUS LOW FLOW			50	c	6.1	Sep 1 1939
ANNUAL RUNOFF (CFSM)	1.21		1.71		1.04	
ANNUAL RUNOFF (INCHES)	16.54		23.25		14.16	
10 PERCENT EXCEEDS	2160		3610		1910	
50 PERCENT EXCEEDS	602		377		295	
90 PERCENT EXCEEDS	180		57		54	

a 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.
b From flood mark in gage house.
c Aug 8, 9, 10, 31.



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 sea level.

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

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.2	17	30	125	e23	e8.8	814	34	6.6	3.2	1.8	2.3
2	7.8	150	27	55	50	e8.8	782	29	5.7	3.0	2.3	2.4
3	6.7	341	24	41	e31	e8.8	308	25	4.9	3.2	2.2	11
4	5.8	81	e21	115	e28	e8.8	93	22	4.6	2.6	2.3	20
5	5.1	65	e20	324	e24	e8.6	81	29	5.5	2.3	1.9	6.5
6	4.6	85	e19	86	e20	e8.6	110	60	6.4	2.0	1.8	4.5
7	4.3	66	e18	e48	e18	e9.0	125	30	5.5	2.0	1.7	4.6
8	4.1	40	e17	e36	e18	e12	126	24	5.3	1.9	1.7	4.1
9	16	30	e16	e31	e17	e18	119	20	9.4	1.7	1.5	3.3
10	19	31	e15	e28	e16	e17	196	18	11	1.6	1.5	3.4
11	12	59	e17	25	e14	e15	132	17	7.1	1.5	1.5	4.3
12	11	100	e19	24	e13	e15	67	14	5.4	1.6	1.4	3.9
13	9.4	213	22	71	e13	e14	55	12	4.4	1.5	1.4	3.0
14	7.9	65	34	69	e12	e14	40	11	4.0	1.6	1.3	2.4
15	11	42	81	e38	e12	e13	36	10	3.6	1.8	1.2	2.2
16	62	32	107	e29	e11	e13	383	9.9	3.4	1.5	2.7	2.5
17	74	29	377	e26	e11	e13	703	8.8	3.1	1.4	3.9	2.5
18	29	32	161	e38	e11	e12	303	8.2	3.5	1.4	3.0	2.4
19	27	34	77	56	e10	e12	74	8.6	5.0	1.9	1.9	2.2
20	19	30	294	e37	e10	e12	61	10	6.4	1.8	2.7	2.0
21	18	43	84	e30	e10	e12	98	9.0	6.1	1.6	2.8	2.2
22	17	161	e47	e25	e9.8	e19	85	8.1	4.8	1.7	2.6	2.1
23	15	543	e36	e24	e9.8	e32	189	7.5	3.7	1.4	2.5	2.4
24	88	148	e33	e50	e9.6	60	127	7.0	3.0	1.3	2.0	2.4
25	127	359	e31	75	e9.2	122	80	6.9	2.5	1.2	1.6	2.3
26	50	110	e29	e90	e9.0	213	618	6.4	3.1	2.3	1.5	4.2
27	31	71	e28	e45	e9.0	368	182	5.8	3.0	1.8	1.4	4.9
28	24	51	e27	e38	e9.0	511	65	5.9	5.7	1.6	1.4	8.3
29	23	43	25	22	---	711	50	5.4	6.1	1.7	1.4	9.5
30	26	35	328	29	---	744	42	4.9	4.0	2.4	1.5	7.8
31	21	---	719	e25	---	782	---	5.6	---	2.2	1.7	---
TOTAL	784.9	3106	2783	1755	437.4	3815.4	6144	473.0	152.8	58.7	60.1	135.6
MEAN	25.3	104	89.8	56.6	15.6	123	205	15.3	5.09	1.89	1.94	4.52
MAX	127	543	719	324	50	782	814	60	11	3.2	3.9	20
MIN	4.1	17	15	22	9.0	8.6	36	4.9	2.5	1.2	1.2	2.0

e Estimated

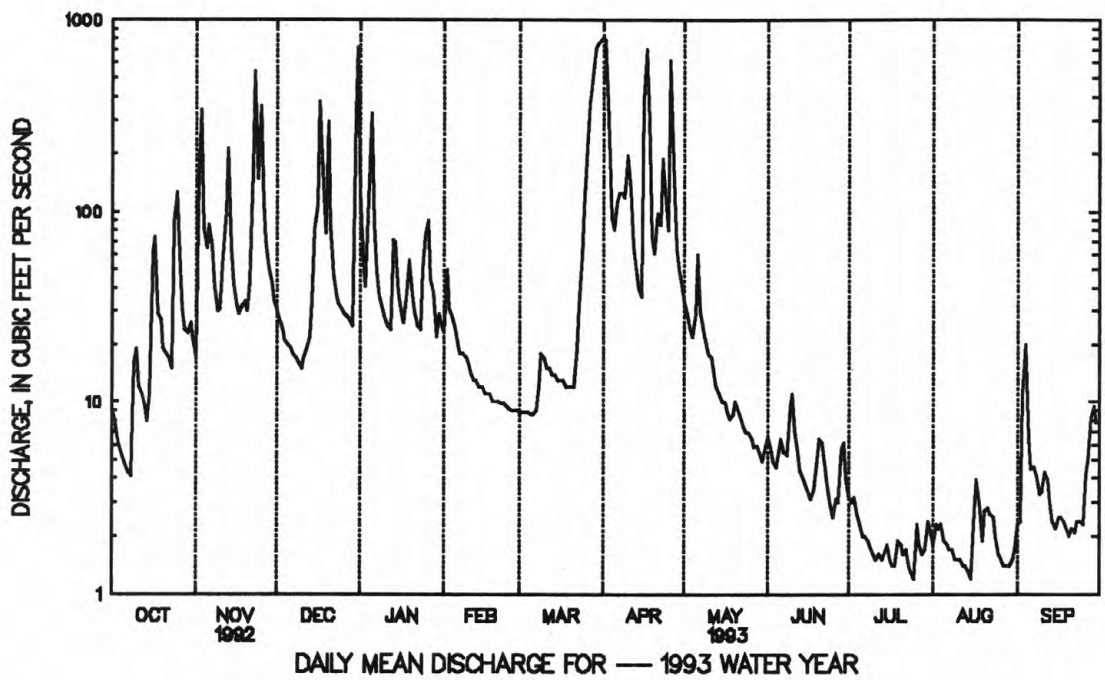
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 1993, BY WATER YEAR (WY)

MEAN	16.6	27.9	39.2	35.3	44.5	87.1	83.7	39.8	26.5	8.10	6.11	10.3
MAX	98.4	106	132	100	195	188	205	144	245	46.2	58.6	151
(WY)	1977	1951	1973	1952	1976	1942	1993	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1937 - 1993	
ANNUAL TOTAL	17964.7		19705.9			
ANNUAL MEAN	49.1		54.0		35.4	
HIGHEST ANNUAL MEAN					55.9	1972
LOWEST ANNUAL MEAN					20.9	1955
HIGHEST DAILY MEAN	719	Dec 31	814	Apr 1	1300	Feb 20 1939
LOWEST DAILY MEAN	1.2	Jul 2	1.2	a	.40	Sep 2 1939
ANNUAL SEVEN-DAY MINIMUM	1.5	Jun 28	1.4	Aug 9	.57	Sep 16 1941
INSTANTANEOUS PEAK FLOW			859	Apr 1	2000	b
INSTANTANEOUS PEAK STAGE			3.33	Apr 1	c5.63	Feb 19 1939
INSTANTANEOUS LOW FLOW			.38	Jul 21	d.00	f
10 PERCENT EXCEEDS	110		120		77	
50 PERCENT EXCEEDS	23		13		12	
90 PERCENT EXCEEDS	2.8		1.8		1.6	

a July 25, Aug. 15.
b Mar. 5, 1938, Feb. 20, 1939.
c Ice jam.
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 sea level. 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.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	50	48	661	e30	e17	45	72	16	8.5	18	12
2	21	65	63	187	e29	23	167	60	18	19	15	13
3	20	320	67	145	e29	27	1120	51	21	23	12	90
4	17	237	59	217	44	32	1400	59	17	12	10	146
5	15	109	e49	403	38	36	1590	58	18	8.5	9.6	83
6	15	94	e36	236	e31	e34	1480	62	24	12	8.2	30
7	15	106	e35	e110	e30	e31	813	63	29	15	7.0	19
8	14	86	e40	e72	e29	e31	370	51	29	15	5.9	20
9	36	55	44	e50	e29	e45	365	45	25	14	5.2	18
10	44	55	45	e37	e26	e42	365	44	33	15	10	15
11	23	59	45	e46	e26	e40	412	37	30	15	15	15
12	19	119	44	e54	e26	e39	209	32	24	11	16	15
13	16	152	44	121	e25	e33	88	33	17	11	13	15
14	15	95	45	159	e24	e28	79	31	12	11	10	12
15	15	67	45	92	e24	e23	85	25	17	14	10	8.8
16	52	63	122	83	e22	e22	452	25	15	12	11	16
17	48	62	589	56	e22	e26	818	30	17	9.3	47	17
18	26	63	377	45	e21	e30	780	32	18	11	57	12
19	11	66	228	44	e20	e40	548	31	18	11	20	12
20	15	68	336	50	e20	e39	194	31	11	16	9.2	12
21	22	66	232	50	e19	e38	149	27	9.3	15	7.0	12
22	20	71	108	49	e19	e36	188	25	7.5	13	6.8	12
23	17	678	e74	58	e19	e36	247	25	7.5	11	5.0	10
24	43	497	e50	64	e18	e56	377	25	12	9.0	4.2	8.9
25	189	341	e35	114	e18	181	219	25	10	9.3	9.8	9.6
26	89	230	e30	87	e18	370	348	25	6.6	11	14	11
27	34	159	e32	59	e18	616	620	24	7.5	13	9.7	16
28	24	112	e36	e45	e18	689	356	23	12	12	6.0	27
29	18	92	52	e38	---	277	132	19	11	8.8	5.9	29
30	26	58	415	e33	---	41	91	13	8.5	13	8.7	29
31	44	---	594	e30	---	35	---	13	---	18	12	---
TOTAL	989	4295	4019	3495	692	3013	14107	1116	500.9	396.4	398.2	745.3
MEAN	31.9	143	130	113	24.7	97.2	470	36.0	16.7	12.8	12.8	24.8
MAX	189	678	594	661	44	689	1590	72	33	23	57	146
MIN	11	50	30	30	18	17	45	13	6.6	8.5	4.2	8.8

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1993, BY WATER YEAR (WY)

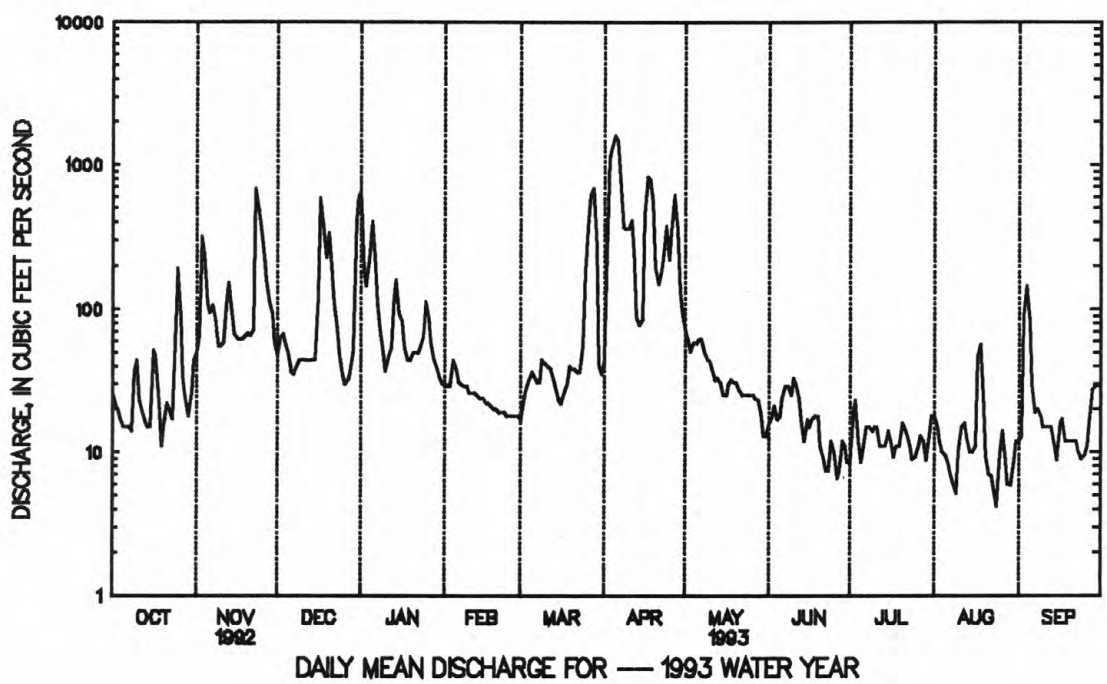
MEAN	33.4	53.5	71.1	62.9	76.8	153	143	73.5	55.7	23.6	18.9	26.0
MAX	139	193	218	153	278	341	470	215	547	111	128	198
(WY)	1977	1951	1973	1952	1976	1945	1993	1984	1972	1972	1984	1977
MIN	6.81	7.63	7.13	6.55	17.7	33.4	22.8	15.5	5.24	4.63	5.13	5.60
(WY)	1942	1942	1961	1961	1980	1969	1946	1955	1965	1965	1965	1941

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1941 - 1993	
ANNUAL TOTAL	30546.9		33766.8			
ANNUAL MEAN	83.5		92.5		65.6	
HIGHEST ANNUAL MEAN					110	1972
LOWEST ANNUAL MEAN					36.9	1965
HIGHEST DAILY MEAN	693	May 3	1590	Apr 5	3970	Jun 23 1972
LOWEST DAILY MEAN	5.5	Jun 12	4.2	Aug 24	.60	a
ANNUAL SEVEN-DAY MINIMUM	8.3	Jun 30	7.8	Aug 23	.83	May 26 1965
INSTANTANEOUS PEAK FLOW			1800	Apr 5	b9430	May 17 1945
INSTANTANEOUS PEAK STAGE			3.46	Apr 5	6.65	Jun 3 1947
INSTANTANEOUS LOW FLOW			3.8	c	.50	May 29 1965
10 PERCENT EXCEEDS	190		231		144	
50 PERCENT EXCEEDS	45		30		26	
90 PERCENT EXCEEDS	14		11		8.2	

a May 30 to June 1, 1965.

b From rating curve extended above 3,400 ft^3/s.

c Aug. 10,24,25.



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 sea level.

REMARKS.--Records 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.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78	127	175	e840	113	e48	1780	223	59	31	39	28
2	68	325	178	e350	108	e54	1560	194	58	47	38	65
3	63	725	178	e260	120	e70	1750	190	62	48	34	182
4	56	481	154	e510	111	102	1590	225	58	35	31	218
5	49	324	145	e930	e92	114	1830	255	64	30	27	88
6	47	331	122	e500	e82	124	1600	187	71	32	24	58
7	47	322	127	e260	e78	120	966	158	70	31	21	46
8	44	249	126	e180	e68	155	694	140	67	33	20	47
9	90	181	120	e150	e66	254	685	133	77	34	20	42
10	117	175	119	e130	e64	e200	986	122	81	31	21	39
11	71	209	128	e130	e62	e180	737	113	65	31	28	39
12	63	349	127	e140	e62	e170	440	102	55	28	27	85
13	56	592	126	e270	e62	e160	296	96	47	28	29	91
14	53	323	121	e330	e60	e160	258	107	43	32	24	85
15	55	226	126	e220	e58	e150	247	98	47	31	28	83
16	87	186	e310	e180	e58	e150	1220	94	41	29	51	95
17	180	174	e990	e150	e58	e170	1810	98	38	25	83	123
18	248	174	e630	e150	e56	e190	1190	95	48	25	63	134
19	114	181	e410	147	e54	e280	688	97	45	31	35	131
20	118	162	e740	154	e52	e290	428	98	39	34	28	131
21	108	175	e460	129	e52	e290	481	90	38	33	27	131
22	104	314	e280	160	e52	e290	494	86	36	30	25	116
23	92	884	e190	176	e50	e500	866	82	32	26	22	108
24	215	763	e160	234	e50	774	723	79	31	24	21	107
25	535	864	e130	270	e50	784	693	78	34	25	26	110
26	253	527	e110	e170	e50	1220	881	74	34	61	29	117
27	139	391	e110	e160	e49	1180	510	70	29	38	25	141
28	114	303	e110	135	e48	1430	358	67	48	30	20	165
29	99	262	e130	128	---	1420	300	61	40	32	22	168
30	115	207	e760	109	---	1610	262	53	35	38	27	159
31	123	---	e1310	112	---	1550	---	59	---	41	29	---
TOTAL	3601	10506	8902	7764	1885	14189	26323	3624	1492	1024	944	3132
MEAN	116	350	287	250	67.3	458	877	117	49.7	33.0	30.5	104
MAX	535	884	1310	930	120	1610	1830	255	81	61	83	218
MIN	44	127	110	109	48	48	247	53	29	24	20	28

e Estimated

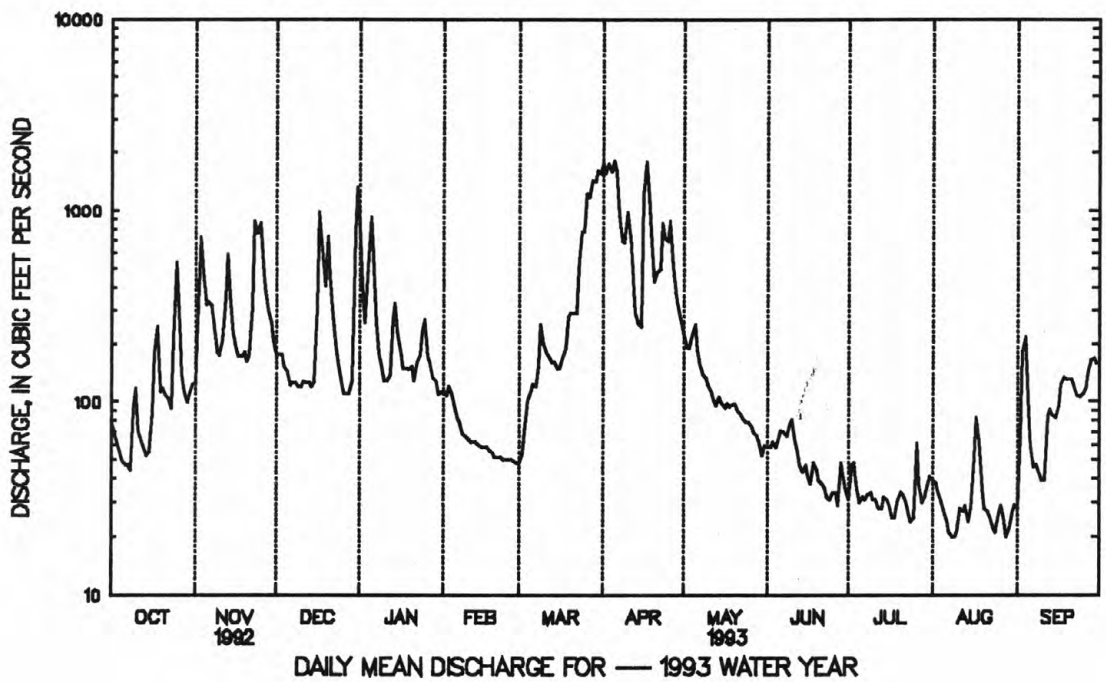
01524500 CANISTEO RIVER BELOW CANACADEA CREEK, AT HORNELL, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1993, BY WATER YEAR (WY)

MEAN	77.2	121	160	149	186	363	347	196	140	56.3	47.1	61.3
MAX	304	455	551	361	722	826	877	696	1226	249	303	498
(WY)	1977	1951	1973	1952	1976	1945	1993	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

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1942 - 1993	
ANNUAL TOTAL	72563		83386			
ANNUAL MEAN	198		228		158	
HIGHEST ANNUAL MEAN					255	1972
LOWEST ANNUAL MEAN					79.8	1965
HIGHEST DAILY MEAN	1310	Dec 31	1830	Apr 5	7440	Jun 23 1972
LOWEST DAILY MEAN	20	Jul 4	20	Aug 8	9.0	Sep 13 1955
ANNUAL SEVEN-DAY MINIMUM	22	Jun 30	23	Aug 5	10	Sep 8 1955
INSTANTANEOUS PEAK FLOW			2220	Apr 16	a9560	Jun 23 1972
INSTANTANEOUS PEAK STAGE			4.45	Apr 16	b13.45	Jun 23 1972
INSTANTANEOUS LOW FLOW			16	Aug 10	7.4	c
10 PERCENT EXCEEDS	462		686		347	
50 PERCENT EXCEEDS	122		112		68	
90 PERCENT EXCEEDS	34		31		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 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 sea level. Prior to June 21, 1931, nonrecording gage on highway bridge at same datum.

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

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	983	797	1800	11200	e720	e360	16800	3010	310	184	108	99
2	790	969	1610	5550	e660	345	16800	2470	318	177	115	111
3	719	4790	1410	3400	e640	390	14500	2130	303	180	112	267
4	679	3570	1290	3280	e600	569	15300	1710	327	210	102	512
5	563	2280	1190	6210	e580	741	14600	1790	315	189	101	415
6	513	2720	1060	5230	e560	702	15000	3780	304	171	95	274
7	449	2680	996	3320	e530	637	14800	3290	316	151	94	186
8	414	2150	958	2790	e500	609	13900	2360	335	138	93	196
9	419	1620	912	2240	e500	792	13500	1600	495	135	87	190
10	569	1500	783	1590	e520	1020	14200	1640	723	130	84	188
11	607	1370	800	1510	e550	e800	13000	1170	565	125	98	166
12	530	1850	940	1690	e560	e640	10700	959	410	119	99	147
13	490	6460	981	3360	e570	e500	8870	745	327	115	99	134
14	466	4280	974	5030	e570	e650	8510	715	285	109	98	126
15	484	2380	828	2790	e560	e800	7860	721	265	106	90	130
16	1130	2050	988	2140	e530	e740	11400	744	307	108	107	114
17	1700	1800	3600	1930	e480	e700	19300	698	233	102	126	104
18	1330	1820	7240	1700	e440	e700	14900	637	214	100	187	108
19	923	1810	4030	1260	e420	e680	12500	599	216	104	216	107
20	808	1610	4520	1010	e440	649	9070	596	213	110	147	105
21	795	1510	4800	1150	e420	640	8980	585	232	107	123	134
22	767	1680	2820	1330	e420	680	9570	566	333	104	110	149
23	724	6090	2380	1500	e420	827	9910	502	361	105	101	132
24	871	5240	2020	1450	e410	1260	12300	452	256	100	102	132
25	2280	4950	1510	1770	e400	2460	7080	437	205	92	113	128
26	1680	4450	1230	1400	e400	5370	13800	410	178	92	114	142
27	1240	3100	1200	1090	e400	8810	12700	372	183	98	105	176
28	1090	2600	1190	e950	e380	14800	9140	343	196	139	105	413
29	971	2230	1260	e920	---	16600	5730	321	181	117	97	560
30	857	1950	3490	779	---	14800	4250	291	200	107	89	402
31	836	---	14800	e690	---	12500	---	286	---	104	87	---
TOTAL	26677	82306	73610	80259	14180	91771	358970	35929	9106	3928	3404	6047
MEAN	861	2744	2375	2589	506	2960	11970	1159	304	127	110	202
MAX	2280	6460	14800	11200	720	16600	19300	3780	723	210	216	560
MIN	414	797	783	690	380	345	4250	286	178	92	84	99
CFSM	.62	1.99	1.72	1.88	.37	2.15	8.69	.84	.22	.09	.08	.15
IN.	.72	2.22	1.99	2.17	.38	2.48	9.70	.97	.25	.11	.09	.16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1918 - 1993, BY WATER YEAR (WY)

MEAN	591	1104	1310	1211	1483	3437	3329	1960	1016	437	323	351
MAX	4160	5296	4369	4002	5305	11350	11970	7043	8905	2310	1647	3992
(WY)	1991	1928	1973	1937	1976	1936	1993	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

e Estimated

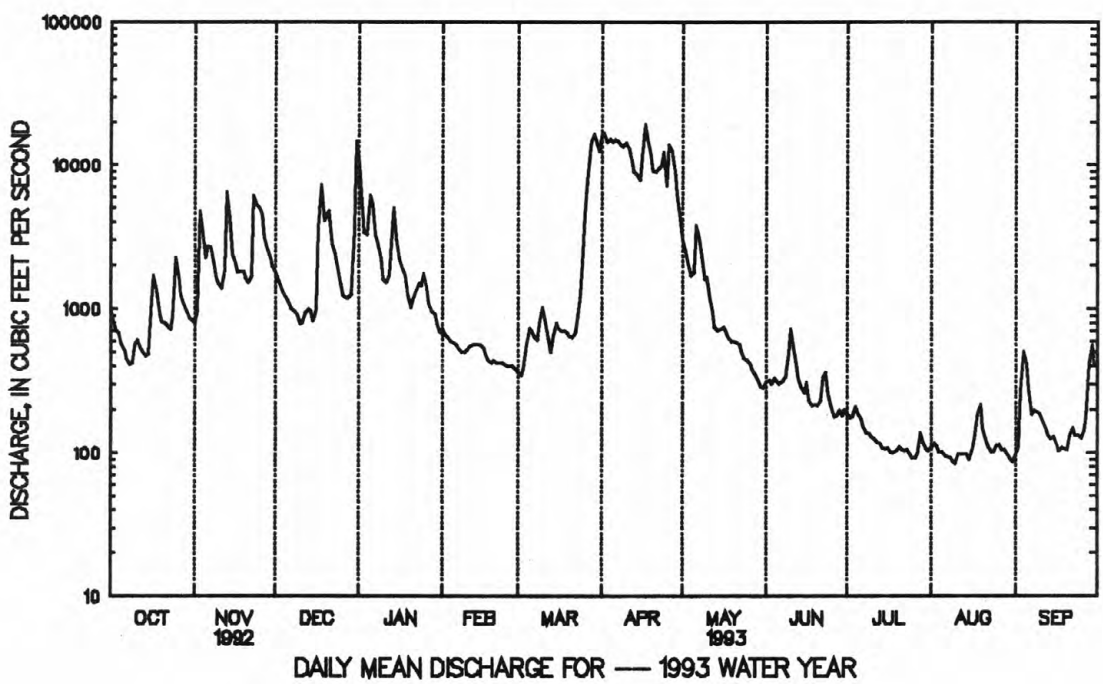
01526500 TIOGA RIVER NEAR ERWINS, NY--Continued

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1918 - 1993	
ANNUAL TOTAL	604657		786187			
ANNUAL MEAN	1652		2154		1378	
HIGHEST ANNUAL MEAN					2371	1978
LOWEST ANNUAL MEAN					634	1965
HIGHEST DAILY MEAN	14800	Dec 31	19300	Apr 17	110000	Jun 23 1972
LOWEST DAILY MEAN	158	Jul 4	84	Aug 10	20	Sep 2 1939
ANNUAL SEVEN-DAY MINIMUM	164	Jul 2	93	Aug 6	22	Aug 28 1939
INSTANTANEOUS PEAK FLOW			21600	Apr 17	a190000	Jun 23 1972
INSTANTANEOUS PEAK STAGE			11.60	Apr 17	b26.74	Jun 23 1972
INSTANTANEOUS LOW FLOW			82	Aug 31	18	c
ANNUAL RUNOFF (CFSM)	1.20		1.56		1.00	
ANNUAL RUNOFF (INCHES)	16.33		21.24		13.59	
10 PERCENT EXCEEDS	3770		6710		3290	
50 PERCENT EXCEEDS	1090		650		520	
90 PERCENT EXCEEDS	328		107		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 Sep. 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 sea level (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)
Dec. 31	1700	1,060	4.32	Apr. 10	2100	891	4.02
Apr. 2	2030	*1,710	*5.18				

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70	56	100	823	e29	e20	1540	109	17	8.3	3.3	3.5
2	59	110	91	308	e28	e22	1650	89	14	7.5	3.1	3.9
3	49	481	83	146	e27	e23	1390	77	11	7.3	3.8	14
4	40	378	74	166	e25	e24	698	66	11	6.6	4.2	39
5	33	218	e62	353	e24	e25	369	66	14	6.2	2.9	22
6	32	199	e58	264	e23	e28	467	82	21	5.6	2.0	12
7	26	174	e55	158	e22	e36	507	65	13	4.9	2.0	9.4
8	27	129	e47	e115	e25	e36	501	53	11	4.6	3.1	8.0
9	28	101	e46	e73	e28	e32	469	47	16	4.3	2.3	7.4
10	41	91	e47	e63	e23	e37	586	41	16	4.0	1.7	6.2
11	34	95	e46	e65	e21	e36	784	37	10	3.5	1.4	5.9
12	30	127	e49	e56	e20	e32	410	32	8.8	3.1	1.2	5.0
13	27	195	e48	e48	e23	e29	220	29	9.0	3.0	1.9	4.6
14	23	136	e49	e45	e25	e32	164	26	8.5	2.6	1.4	4.3
15	28	102	e69	e42	e26	e42	137	25	8.1	3.0	1.1	3.9
16	40	84	e55	e38	e25	e49	293	24	8.1	2.7	2.8	4.6
17	81	81	162	e34	e22	e52	789	21	7.6	2.6	6.6	4.7
18	62	84	353	e30	e20	e54	575	21	7.4	2.3	5.2	4.4
19	55	75	224	e34	e19	e52	251	24	7.3	2.5	4.6	4.1
20	50	70	281	e38	e18	e50	174	25	7.4	3.0	4.5	3.5
21	43	87	260	e46	e17	e50	267	21	7.2	2.5	4.8	3.4
22	45	175	152	e46	e17	e59	297	22	8.0	2.0	4.7	3.4
23	41	599	e105	64	e16	e62	397	19	7.6	1.3	4.0	3.3
24	61	414	e82	e57	e16	e72	624	19	6.3	1.0	3.6	3.3
25	200	476	e72	e49	e16	e101	498	20	5.3	1.2	3.4	3.2
26	157	390	e70	e46	e15	e137	724	17	4.8	3.1	2.6	4.3
27	104	231	e82	e39	e16	e269	483	15	5.2	6.5	2.3	4.8
28	79	163	e81	e36	e17	498	226	14	6.3	5.0	2.1	5.9
29	71	136	e62	e35	---	859	163	16	12	3.1	1.7	5.8
30	75	121	246	e33	---	1220	131	13	8.5	2.7	1.6	5.9
31	67	---	912	e31	---	1420	---	14	---	2.9	1.9	---
TOTAL	1778	5778	4123	3381	603	5460	15784	1149	297.4	118.9	91.8	213.7
MEAN	57.4	193	133	109	21.5	176	526	37.1	9.91	3.84	2.96	7.12
MAX	200	599	912	823	29	1420	1650	109	21	8.3	6.6	39
MIN	23	56	46	30	15	20	131	13	4.8	1.0	1.1	3.2
CFSM	.86	2.88	1.99	1.63	.32	2.64	7.88	.55	.15	.06	.04	.11
IN.	.99	3.22	2.30	1.88	.34	3.04	8.79	.64	.17	.07	.05	.12

e Estimated

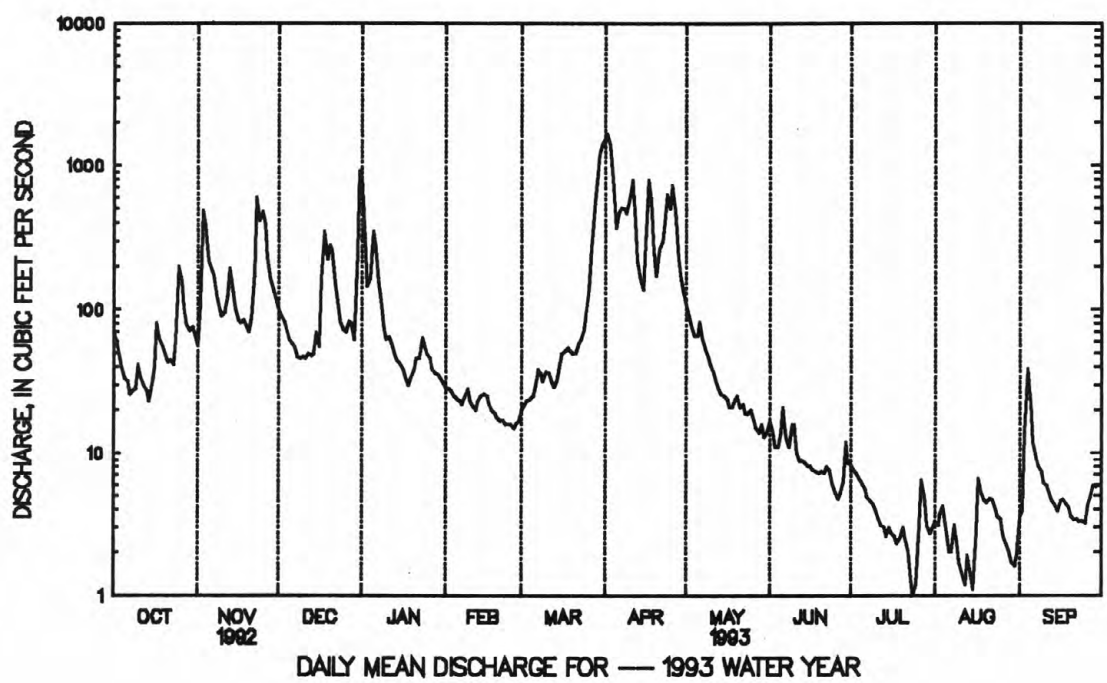
01528000 FIVEMILE CREEK NEAR KANONA, NY

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 1993, BY WATER YEAR (WY)

MEAN	31.6	53.8	77.3	70.4	97.7	199	193	85.2	53.4	17.2	12.1	22.0
MAX	251	193	264	235	465	449	611	281	537	107	97.3	297
(WY)	1956	1993	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

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1937 - 1993	
ANNUAL TOTAL	36253.9		38777.8			
ANNUAL MEAN	99.1		106		75.9	
HIGHEST ANNUAL MEAN					131	1972
LOWEST ANNUAL MEAN					33.8	1965
HIGHEST DAILY MEAN	912	Dec 31	1650	Apr 2	4180	Jun 23 1972
LOWEST DAILY MEAN	6.6	Jul 3	1.0	Jul 24	.10	Sep 19 1941
ANNUAL SEVEN-DAY MINIMUM	7.6	Jul 2	1.6	Aug 9	.14	Sep 24 1941
INSTANTANEOUS PEAK FLOW			1710	Apr 2	5110	Jun 23 1972
INSTANTANEOUS PEAK STAGE			5.18	Apr 2	a7.10	Mar 31 1940
INSTANTANEOUS LOW FLOW			.99	b	.04	c
ANNUAL RUNOFF (CFSM)	1.48		1.59		1.14	
ANNUAL RUNOFF (INCHES)	20.19		21.59		15.43	
10 PERCENT EXCEEDS	224		286		180	
50 PERCENT EXCEEDS	58		30		28	
90 PERCENT EXCEEDS	16		3.1		2.5	

a Ice jam.
b July 24, 25, and Aug. 15, 16.
c Sept. 27, 29, 1941.



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.--27 years, 20.5 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.--Maximum daily discharge, 68 ft3/s, June 4-5; no flow for many

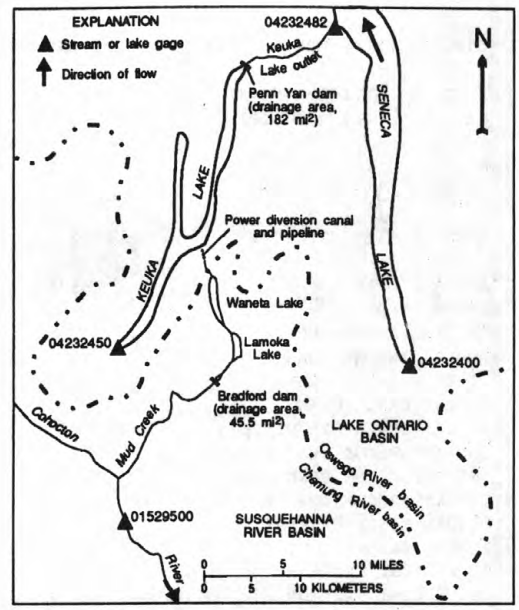


Figure 5.--Gaging stations and transbasin diversion, Cohocton River-Keuka Lake area.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.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	27	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	68	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	68	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	39	.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	27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	22	.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
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	49.00	.00	.00	.00	.00	.00	.00	202.00	.00	.00	.00
MEAN	.00	1.63	.00	.00	.00	.00	.00	.00	6.73	.00	.00	.00
MAX	.00	27.00	.00	.00	.00	.00	.00	.00	68.00	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

CAL YR 1992 TOTAL 49.00 MEAN .13 MAX 27 MIN .00
WTR YR 1993 TOTAL 251.00 MEAN .69 MAX 68 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 sea level. 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 mi2 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)
Dec. 31	1730	4,900	5.13	Apr. 1	2100	*10,400	*7.51
Apr. 11	0100	5,820	5.60	Apr.17	0930	5,730	5.55
Apr. 26	1000	5,150	5.23				

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	576	367	894	3530	e310	e155	9730	1420	206	115	74	e46
2	525	585	807	2010	e300	e150	9990	1200	193	109	73	65
3	416	2240	731	1480	e290	e160	7410	1050	178	116	74	260
4	329	1590	658	1450	e280	e170	4550	781	166	105	70	555
5	290	1210	628	2070	e270	e180	3290	713	172	96	68	309
6	266	1220	566	1620	e265	e190	3250	779	210	87	61	205
7	246	1100	554	1280	e250	e200	3150	639	185	79	58	172
8	234	867	523	1110	e240	236	3050	570	172	74	54	140
9	246	668	469	861	e220	293	2950	516	183	70	52	119
10	320	620	514	e750	e210	e250	3480	474	198	65	e44	106
11	272	627	484	e670	e210	e210	4640	456	167	61	e47	106
12	252	775	504	e600	e220	e180	3020	416	148	58	e47	93
13	278	1360	498	e530	e230	e170	2210	385	142	56	e46	83
14	296	1100	440	e480	e240	e150	1710	359	132	55	e44	74
15	318	944	469	e460	e260	e240	1480	342	127	62	e43	70
16	426	832	485	e440	e250	e310	2420	330	124	58	e47	70
17	606	771	1060	e410	e230	e300	5010	316	121	e51	113	70
18	510	735	1760	e390	e200	e280	3700	298	114	e48	148	69
19	432	692	1310	e400	e195	e265	2450	299	113	53	89	66
20	324	630	1600	e450	e190	e270	2040	311	118	59	76	60
21	293	617	1470	e490	e180	e300	2280	291	124	51	116	58
22	290	799	1140	e500	e175	e320	2340	272	132	e50	91	57
23	271	2780	954	e530	e170	338	2750	258	117	e50	78	55
24	332	2090	817	578	e165	414	3440	249	101	e49	72	57
25	788	2540	e650	694	e160	590	2830	245	95	e47	66	54
26	621	2130	e530	519	e155	972	4450	234	91	e54	58	62
27	535	1670	e500	e470	e160	1740	3450	216	97	200	51	84
28	475	1350	e500	e400	e150	3040	2540	203	113	93	e49	117
29	440	1160	e510	e370	---	4830	2050	197	174	74	e47	115
30	449	1010	e1300	e360	---	7020	1700	186	130	74	e46	100
31	409	---	4460	e330	---	8070	---	184	---	73	e44	---
TOTAL	12065	35079	27785	26232	6175	31993	107360	14189	4343	2292	2046	3497
MEAN	389	1169	896	846	221	1032	3579	458	145	73.9	66.0	117
MAX	788	2780	4460	3530	310	8070	9990	1420	210	200	148	555
MIN	234	367	440	330	150	150	1480	184	91	47	43	46

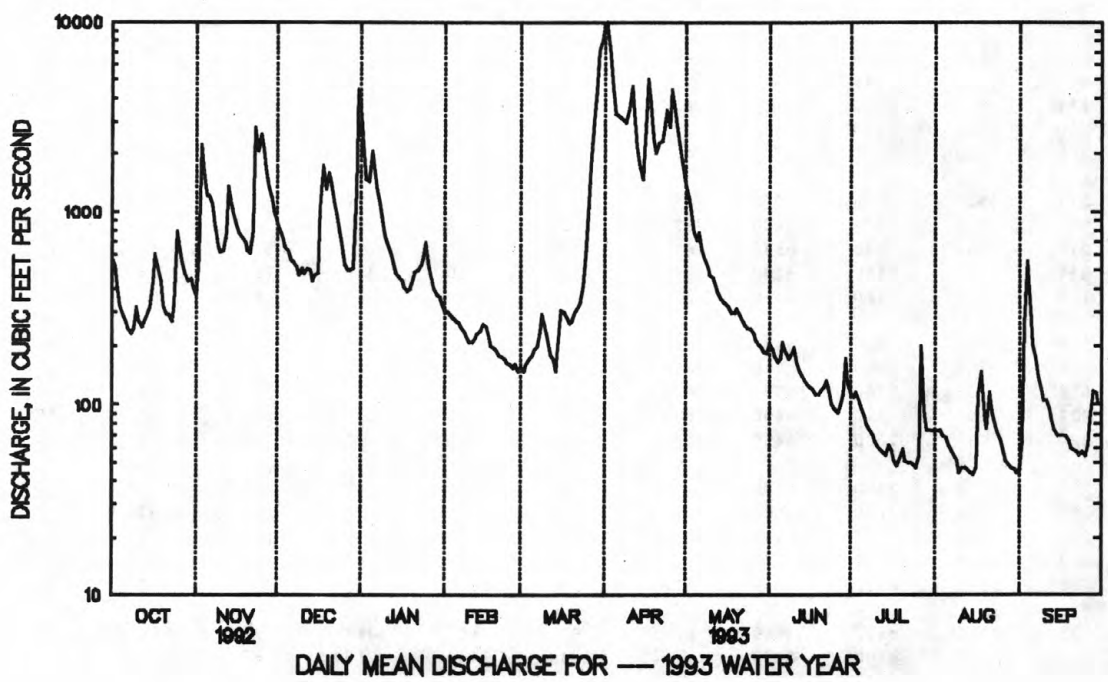
e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1918 - 1993, BY WATER YEAR (WY)

MEAN	185	320	419	389	484	1117	1131	604	335	182	120	136
MAX	1284	1611	1861	943	2059	3793	3579	2074	3167	2278	649	1204
(WY)	1956	1928	1928	1952	1976	1936	1993	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

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1918 - 1993	
ANNUAL TOTAL	239783		273056			
ANNUAL MEAN	655		748		451	
HIGHEST ANNUAL MEAN					766	1956
LOWEST ANNUAL MEAN					210	1965
HIGHEST DAILY MEAN	4460	Dec 31	9990	Apr 2	24400	Jul 8 1935
LOWEST DAILY MEAN	68	Jul 3	43	Aug 15	8.0	Sep 6 1934
ANNUAL SEVEN-DAY MINIMUM	77	Jul 2	45	Aug 10	11	Sep 3 1934
INSTANTANEOUS PEAK FLOW			10400	Apr 1	a41100	Jul 8 1935
INSTANTANEOUS PEAK STAGE			7.51	Apr 1	b11.60	Jul 8 1935
INSTANTANEOUS LOW FLOW					8.0	c
10 PERCENT EXCEEDS	1400		2080		1090	
50 PERCENT EXCEEDS	465		290		200	
90 PERCENT EXCEEDS	150		60		49	

a From rating curve extended above 24,200 ft^3/s on basis of velocity-area and slope-area measurements of peak flow.
b From floodmark.
c 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 sea level.

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.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1750	1310	3030	16000	e900	e440	29600	4900	557	e310	201	159
2	1450	1540	2750	8250	e850	e460	29400	4060	565	e270	201	202
3	1260	7430	2430	5320	e900	e500	23700	3560	552	e260	204	514
4	1110	5760	2200	4990	e1000	e600	20400	2910	546	e270	192	1010
5	940	3920	2020	8460	e900	e700	17700	2840	537	e270	190	777
6	855	4330	1790	7400	e800	e800	18000	4790	520	e250	181	534
7	767	4240	1700	5020	e750	e800	17800	4150	518	e240	177	384
8	712	3470	1620	e4200	e700	e900	17000	3220	527	e230	171	360
9	697	2680	1500	e3300	e740	e1000	16600	2350	631	e220	161	338
10	881	2460	1360	e2500	e740	e1100	17600	2350	908	e210	155	322
11	938	2280	1420	e2400	e740	e1000	19600	1880	790	e200	163	294
12	827	2830	1530	e2600	e700	e840	14300	1600	627	e200	163	273
13	773	7920	1590	4340	e700	e800	11400	1310	533	e190	161	254
14	772	5820	1540	6660	e680	e600	10400	1220	e500	e190	155	239
15	814	3660	1370	e3900	e700	e800	9440	1200	e440	e190	152	233
16	1530	3190	1590	e3000	e660	e1000	14300	1200	e500	e180	168	218
17	2410	2860	4290	e2500	e620	e900	25200	1140	e440	e180	242	208
18	2010	2840	9560	e2000	e540	e860	19100	1050	e380	e170	312	208
19	1500	2790	5870	e1800	e500	e860	15100	990	e350	e170	329	209
20	1250	2530	6300	e1600	e520	e860	11300	992	e320	e176	242	202
21	1180	2340	6860	e1500	e540	e860	11700	967	e350	e188	229	223
22	1140	2620	e4300	e1700	e580	e900	12300	925	e420	182	218	237
23	1070	8830	e3600	e2100	e580	e1000	13000	845	e460	180	197	223
24	1240	7770	e3000	e2400	e540	e1500	16600	766	e420	177	187	216
25	3270	7650	e2500	e2100	e500	e2900	11000	755	e360	168	198	213
26	2650	7090	e2000	e1700	e500	e6200	18400	722	e340	175	190	231
27	2020	5200	e1700	e1500	e480	11700	16800	667	e320	301	180	295
28	1770	4330	e1600	e1300	e460	18900	12200	621	e320	256	173	525
29	1580	3730	e1900	e1200	---	23400	8290	590	e320	217	166	711
30	1460	3290	e4800	e1100	---	24700	6410	552	e330	201	159	543
31	1390	---	20600	e1000	---	23900	---	534	---	197	152	---
TOTAL	42016	126710	108320	113840	18820	131780	484640	55656	14381	6618	5969	10355
MEAN	1355	4224	3494	3672	672	4251	16150	1795	479	213	193	345
MAX	3270	8830	20600	16000	1000	24700	29600	4900	908	310	329	1010
MIN	697	1310	1360	1000	460	440	6410	534	320	168	152	159
CFSM	.68	2.11	1.74	1.83	.34	2.12	8.06	.90	.24	.11	.10	.17
IN.	.78	2.35	2.01	2.11	.35	2.44	8.99	1.03	.27	.12	.11	.19

e Estimated

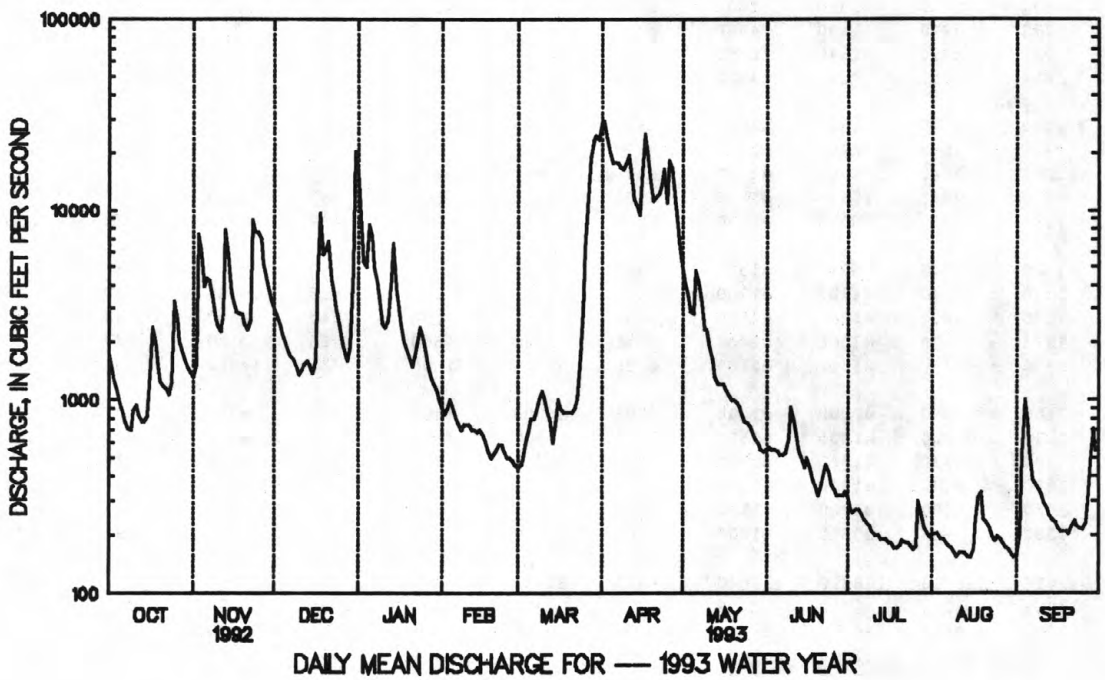
01529950 CHEMUNG RIVER AT CORNING, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1993, BY WATER YEAR (WY)

MEAN	1281	1656	2292	1874	2763	4285	4704	2514	1632	730	584	977
MAX	5478	5111	5246	4544	7993	9533	16150	6692	5835	1851	2287	5569
(WY)	1991	1978	1978	1979	1976	1979	1993	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

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1975 - 1993	
ANNUAL TOTAL	892831		1119105			
ANNUAL MEAN	2439		3066		2101	
HIGHEST ANNUAL MEAN					3284	1978
LOWEST ANNUAL MEAN					1287	1988
HIGHEST DAILY MEAN	20600	Dec 31	29600	Apr 1	87100	Sep 26 1975
LOWEST DAILY MEAN	270	Jul 3	152	a	105	Oct 3 1980
ANNUAL SEVEN-DAY MINIMUM	284	Jul 2	159	Aug 9	108	Oct 2 1980
INSTANTANEOUS PEAK FLOW			31300	Mar 30	127000	Sep 26 1975
INSTANTANEOUS PEAK STAGE			23.31	Mar 30	32.46	Sep 26 1975
INSTANTANEOUS LOW FLOW			140	Aug 16	95	b
ANNUAL RUNOFF (CFSM)	1.22		1.53		1.05	
ANNUAL RUNOFF (INCHES)	16.57		20.76		14.24	
10 PERCENT EXCEEDS	5470		9070		4930	
50 PERCENT EXCEEDS	1630		900		960	
90 PERCENT EXCEEDS	489		197		233	

a Aug 15, 31.
b 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 sea level.

REMARKS.--Records poor. 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.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83	e80	e100	342	e34	e17	1810	173	38	e20	e17	10
2	74	e100	e90	185	32	e17	1540	141	33	e18	e20	8.8
3	66	e260	e75	135	34	e18	845	121	31	e20	e26	16
4	59	e190	e65	132	34	e21	442	113	29	e24	e17	11
5	53	e140	e55	295	31	e21	354	181	29	e20	e14	8.3
6	45	e190	e46	191	e28	e21	379	274	31	e18	e12	8.0
7	43	e150	e44	136	e24	e24	374	152	29	e16	e12	9.2
8	40	e120	e42	117	e24	e30	365	117	28	e14	e14	8.0
9	39	e100	e35	90	e24	e35	362	100	56	e20	e12	8.4
10	39	e95	e45	68	e24	e28	811	93	68	18	11	9.3
11	41	e100	e42	69	e22	e22	1830	84	40	15	12	8.5
12	48	e130	e40	69	e22	e18	735	72	30	15	e12	7.1
13	44	e200	e36	307	e22	e16	379	63	e28	15	e11	7.5
14	40	e130	e36	316	e21	e16	280	55	e26	15	e10	8.0
15	48	e100	35	171	e21	e20	225	50	e24	e15	e9.5	9.4
16	e140	e95	40	e130	e21	e29	1330	48	e35	e14	14	11
17	e90	e95	206	e110	e20	e28	2070	46	30	e13	11	9.1
18	e70	e95	307	e80	e20	28	1110	45	25	e13	9.8	10
19	e85	e85	155	e60	e20	26	443	48	25	e14	11	11
20	e75	e80	240	e60	e19	27	312	60	25	e20	12	e9.5
21	e70	e85	182	58	e19	27	878	51	29	e14	12	e9.5
22	e70	e130	122	73	e22	29	695	44	34	e12	10	e11
23	e65	e500	106	90	e20	37	692	40	28	e11	9.5	e10
24	e90	e270	88	92	e20	77	949	38	23	e10	10	e12
25	e200	e300	61	116	e19	e150	761	38	e20	9.7	11	e12
26	e140	e200	58	64	e19	e250	1010	36	e18	9.6	10	19
27	e120	e160	40	59	e18	458	577	33	e18	10	10	24
28	e100	e150	43	48	e17	846	356	32	e22	e11	10	22
29	e90	e140	49	e40	---	1290	270	31	e30	e10	9.0	17
30	e100	e120	257	e34	---	1610	217	30	e24	e11	9.4	17
31	e90	---	689	e34	---	1540	---	31	---	e20	11	---
TOTAL	2357	4590	3429	3771	651	6776	22401	2440	906	465.3	379.2	341.6
MEAN	76.0	153	111	122	23.2	219	747	78.7	30.2	15.0	12.2	11.4
MAX	200	500	689	342	34	1610	2070	274	68	24	26	24
MIN	39	80	35	34	17	16	217	30	18	9.6	9.0	7.1
CFSM	.98	1.97	1.43	1.57	.30	2.82	9.63	1.02	.39	.19	.16	.15
IN.	1.13	2.20	1.65	1.81	.31	3.25	10.75	1.17	.43	.22	.18	.16

e Estimated

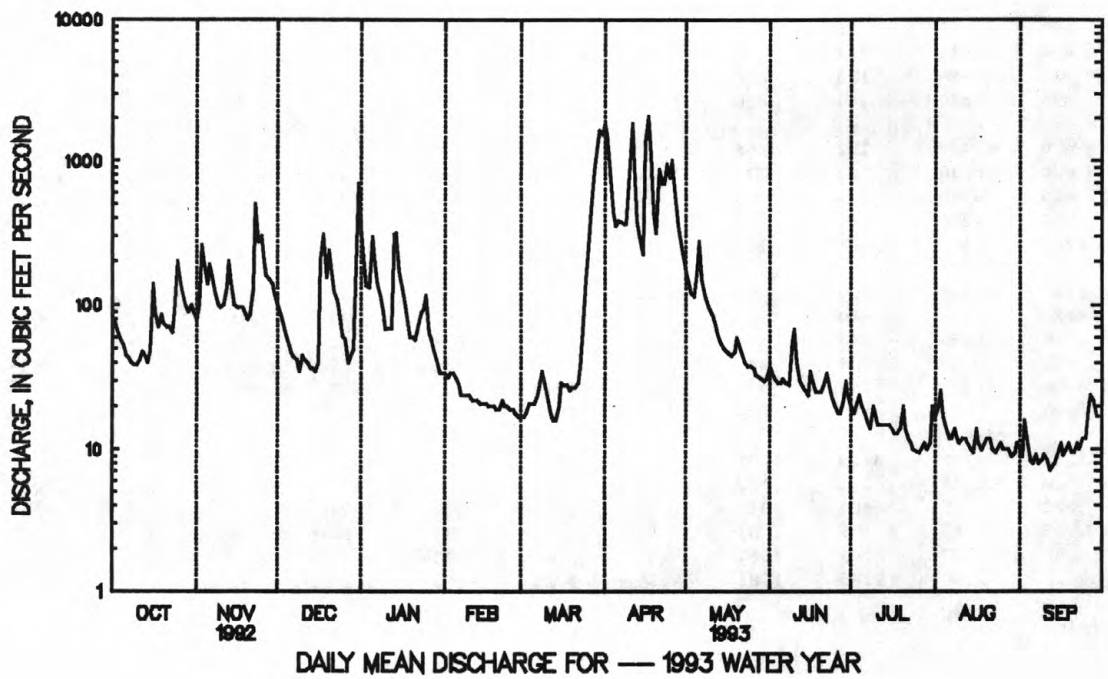
01530500 NEWTOWN CREEK AT ELMIRA, NY

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1993, BY WATER YEAR (WY)

MEAN	51.1	71.9	91.4	73.5	98.4	191	186	111	61.8	35.7	30.1	32.6
MAX	365	258	238	186	274	364	747	313	297	111	141	232
(WY)	1956	1978	1943	1952	1976	1945	1993	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

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1938 - 1993	
ANNUAL TOTAL	36993		48507.1			
ANNUAL MEAN	101		133		86.0	
HIGHEST ANNUAL MEAN					140	1978
LOWEST ANNUAL MEAN					38.2	1965
HIGHEST DAILY MEAN	1540	Mar 27	2070	Apr 17	3030	Sep 26 1975
LOWEST DAILY MEAN	16	Jul 1	7.1	Sep 12	1.7	Sep 16 1985
ANNUAL SEVEN-DAY MINIMUM	16	Jul 1	8.1	Sep 8	2.8	Sep 13 1985
INSTANTANEOUS PEAK FLOW			2540	Apr 16	a4000	Jun 23 1972
INSTANTANEOUS PEAK STAGE			14.18	Apr 16	b19.28	Jun 23 1972
INSTANTANEOUS LOW FLOW			6.7	c	1.5	Sep 16 1985
ANNUAL RUNOFF (CFSM)	1.30		1.71		1.11	
ANNUAL RUNOFF (INCHES)	17.76		23.28		15.07	
10 PERCENT EXCEEDS	202		307		187	
50 PERCENT EXCEEDS	71		38		38	
90 PERCENT EXCEEDS	27		11		12	

a About (backwater from Chemung River).
b From floodmarks (backwater from Chemung River).
c Sep 12, 13.



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.

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 sea level (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 and backwater), 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)
Apr. 1	1800	*43,500	*15.61	Apr. 17	1900	40,800	15.15
Apr. 11	1000	41,400	15.24	Apr. 26	2300	30,700	13.26

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2450	1780	3850	22500	e1300	e600	40100	6420	e720	415	249	203
2	2120	1770	3500	11900	e1100	e650	41500	5160	e760	376	253	192
3	1840	7140	3180	6930	e1200	766	33800	4430	e740	365	262	321
4	1580	9020	2900	5840	e1300	902	25000	3700	e720	371	248	762
5	1360	5640	2660	8280	e1200	1090	21000	3510	e700	372	245	1150
6	1200	5540	2460	10300	e1100	1200	20700	6110	e680	362	226	817
7	1100	5820	2250	6510	e1000	1110	20700	5480	e680	332	220	616
8	1010	4930	2150	5310	e950	1110	20000	4410	e700	316	220	476
9	958	3820	2030	4540	e1000	1320	19300	3190	851	301	217	444
10	988	3310	1840	3320	e1000	1590	21200	2940	1200	278	201	406
11	1210	3050	1790	3020	e950	e1500	34100	2570	1200	268	202	383
12	1190	3080	1890	3150	e950	e1200	19900	2150	953	259	206	359
13	1080	7450	2000	4560	e950	e1100	14600	1800	773	251	206	333
14	1040	8550	1990	9160	e950	e850	12600	1570	683	247	193	313
15	1060	5170	1820	5810	e1000	e1100	11300	1500	615	238	185	291
16	1640	4170	1880	e4400	e900	1530	19200	1460	720	229	193	283
17	2640	3660	2960	e3600	e850	1420	37700	1430	622	226	256	275
18	2800	3510	11800	e2900	e800	e1250	29200	1340	526	221	277	267
19	2210	3470	8480	e2500	e700	e1250	19500	1300	494	214	340	264
20	1800	3240	6800	e2200	e740	1220	14500	1300	469	232	377	259
21	1550	2890	9730	e2100	e750	1200	16100	1260	491	243	339	251
22	1500	3000	6060	e2400	e800	1230	17600	1190	597	218	289	280
23	1430	7720	e4800	2820	e800	1360	16900	1090	621	210	275	284
24	1490	10500	e4200	2840	e750	1990	22800	1010	599	204	262	291
25	3270	8750	e3300	3260	e720	3470	17400	958	487	198	271	274
26	4030	9680	e2900	e2800	e700	7010	21200	921	423	196	256	297
27	2950	7010	e2300	e2200	e650	13100	24500	867	390	232	250	337
28	2500	5670	e2300	e1900	e620	22000	16100	838	393	319	240	432
29	2210	4850	2640	e1800	---	31500	11300	e800	398	299	205	694
30	2030	4250	4190	e1600	---	36900	8160	e750	413	269	196	786
31	1910	---	20900	e1400	---	37400	---	e700	---	259	189	---
TOTAL	56146	158440	131550	151850	25730	179918	647960	72154	19618	8520	7548	12340
MEAN	1811	5281	4244	4898	919	5804	21600	2328	654	275	243	411
MAX	4030	10500	20900	22500	1300	37400	41500	6420	1200	415	377	1150
MIN	958	1770	1790	1400	620	600	8160	700	390	196	185	192
CFSM	.72	2.11	1.69	1.95	.37	2.32	8.62	.93	.26	.11	.10	.16
IN.	.83	2.35	1.95	2.25	.38	2.67	9.62	1.07	.29	.13	.11	.18

e Estimated

01531000 CHEMUNG RIVER AT CHEMUNG, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1906 - 1993, BY WATER YEAR (WY)

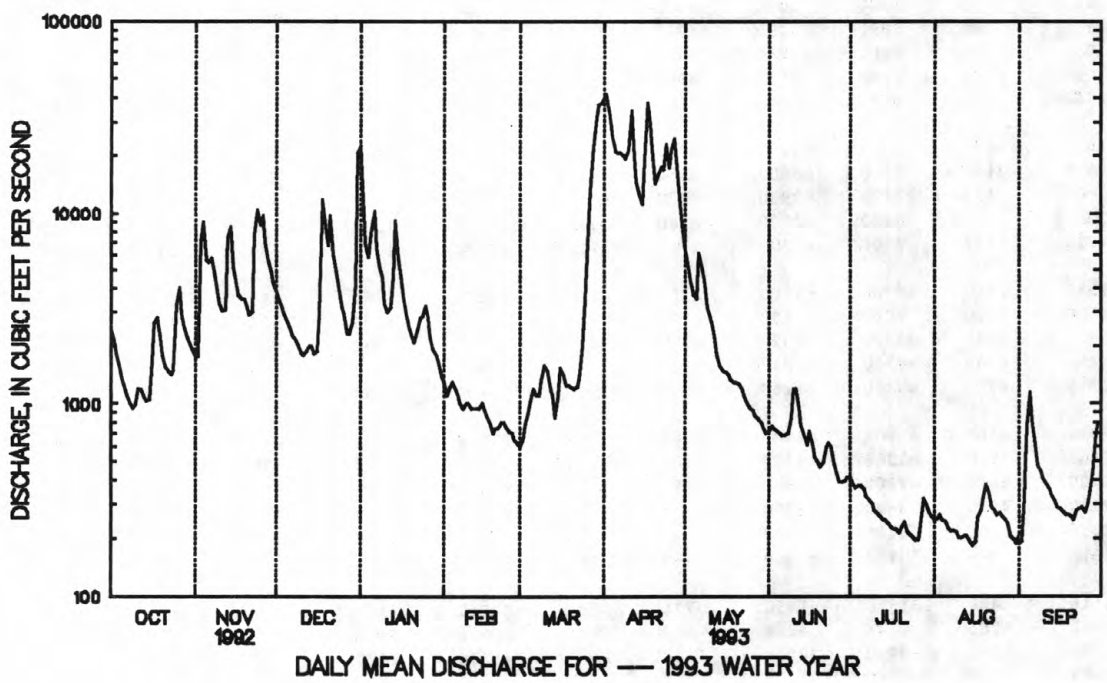
MEAN	1131	1859	2316	2275	2765	6298	6214	3650	1932	904	701	665
MAX	8408	9126	8752	7223	10090	20910	21600	11500	15720	5885	4468	7247
(WY)	1956	1928	1928	1913	1915	1936	1993	1919	1972	1935	1915	1975
MIN	101	114	137	207	327	1674	925	660	275	130	124	97.3
(WY)	1965	1931	1909	1931	1934	1965	1946	1934	1955	1911	1965	1932

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1906 - 1913, 1915 - 1993	
ANNUAL TOTAL	1185890		1471774			
ANNUAL MEAN	3240		4032		2545	
HIGHEST ANNUAL MEAN					4416	1978
LOWEST ANNUAL MEAN					1120	1965
HIGHEST DAILY MEAN	27500	Mar 28	41500	Apr 2	159000	Jun 23 1972
LOWEST DAILY MEAN	329	Jul 8	185	Aug 15	52	Aug 14 1911
ANNUAL SEVEN-DAY MINIMUM	343	Jul 2	198	Aug 10	75	Aug 10 1911
INSTANTANEOUS PEAK FLOW			43500	Apr 1	a189000	Jun 23 1972
INSTANTANEOUS PEAK STAGE			15.61	Apr 1	b31.62	Jun 23 1972
INSTANTANEOUS LOW FLOW			175	c	49	Aug 14 1911
ANNUAL RUNOFF (CFSM)	1.29		1.61		1.02	
ANNUAL RUNOFF (INCHES)	17.60		21.85		13.79	
10 PERCENT EXCEEDS	7000		11500		6080	
50 PERCENT EXCEEDS	2300		1230		1010	
90 PERCENT EXCEEDS	742		251		216	

a 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.

b From floodmark.

c Aug 15, 16.



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 sea level. 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, 25,690 acre-ft, Apr. 3, 1993, elevation, 1,195.10 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, 25,690 acre-ft, Apr. 3, elevation, 1,195.10 ft; minimum, 1,370 acre-ft, Jan. 6, elevation, 1,137.77 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 sea level (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, 67,980 acre-ft, Apr. 12, elevation, 1003.69 ft; minimum, 5,220 acre-ft, Nov. 8, Feb. 26, elevation, 966.00 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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	1,150.50	3,386	--	966.95	6,151	--
Oct. 31	1,150.28	3,340	- 0.7	966.25	5,461	- 11.2
Nov. 30	1,140.51	1,696	- 27.6	966.17	5,382	- 1.3
Dec. 31	1,142.32	1,945	+ 4.1	968.46	7,676	+ 37.3
CAL YR 1992	--	--	+ 0.2	--	--	+ 3.1
Jan. 31	1,141.03	1,764	- 2.9	966.43	5,639	- 33.1
Feb. 28	1,140.38	1,679	- 1.5	966.24	5,451	- 3.4
Mar. 31	1,185.30	17,936	+ 264	987.54	34,560	+ 473
Apr. 30	1,143.40	2,105	- 266	968.42	7,635	- 452
May 31	1,150.48	3,382	+ 20.8	973.23	12,977	+ 86.9
June 30	1,150.75	3,439	+ 1.0	973.43	13,231	+ 4.3
July 31	1,150.17	3,317	- 2.0	973.35	13,129	- 1.7
Aug. 31	1,150.38	3,361	+ 0.7	973.29	13,053	- 1.2
Sept. 30	1,150.55	3,397	+ 0.6	973.23	12,977	- 1.3
WTR YR 1993	--	--	0.0	--	--	+ 9.4

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 sea level (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, 50,090 acre-ft, Apr. 3, 1993, elevation, 1,123.21 ft; minimum, 2,210 acre-ft, Oct. 25, 1980, elevation, 1,060.05 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 50,090 acre-ft, Apr. 3, elevation, 1,123.21 ft; minimum, 7,860 acre ft, Mar. 23, elevation, 1,077.28 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 sea level (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, 50,650 acre-ft, Apr.3, 1993, elevation, 1,123.55 ft; minimum, 2,430 acre-ft, Oct. 24, 1980, elevation, 1,074.00 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 50,650 acre-ft, Apr. 3, elevation, 1,123.55 ft; minimum, 7,590 acre-ft, Mar. 27, elevation, 1,084.21 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)
	01517900 Tioga Lake			01518498 Hammond Lake		
Sept. 30	1,081.45	9,720	--	1,086.32	9,040	--
Oct. 31	1,081.12	9,560	- 2.6	1,086.29	9,030	- 0.2
Nov. 30	1,085.25	11,650	+ 35.1	1,087.17	9,590	+ 9.4
Dec. 31	1,086.13	12,180	+ 8.6	1,088.45	10,510	+ 15.0
CAL YR 1992	--	--	+ 2.2	--	--	+ 0.5
Jan. 31	1,082.29	10,140	- 33.2	1,087.20	9,610	- 14.6
Feb. 28	1,079.25	8,710	- 25.7	1,084.91	8,040	- 28.3
Mar. 31	1,108.26	31,340	+ 368	1,108.49	29,810	+ 354
Apr. 30	1,081.58	9,780	- 362	1,087.07	9,510	- 341
May 31	1,081.13	9,560	- 3.6	1,085.56	9,520	- 16.1
June 30	1,081.55	9,770	+ 3.5	1,085.68	8,610	+ 1.5
July 31	1,080.53	9,290	- 7.8	1,085.45	8,440	- 2.8
Aug. 31	1,080.17	9,130	- 2.6	1,085.20	8,250	- 3.1
Sept. 30	1,081.10	9,550	+ 7.1	1,084.95	8,070	- 3.0
WTR YR 1993	--	--	- 0.2	--	--	- 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 sea level (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, 84,560 acre-ft, Apr. 2, 1993, elevation, 1,114.78 ft; minimum, 65 acre-ft, June 23, 1980, elevation, 1,011.50 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 84,560 acre-ft, Apr. 2, elevation 1,114.78 ft; minimum, 32,100 acre-ft, Aug. 11, elevation, 1,079.55 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, 2.0 mi northeast of Almond, and 3.0 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 sea level (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, 11,590 acre-ft, Apr. 2-3, elevation, 1,293.22 ft; minimum, 1,600 acre-ft, Oct. 26, elevation, 1,259.03 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)
	01519995 Cowanesque Lake			01523000 Almond Lake		
Sept. 30	1,080.32	32,920	--	1,260.36	1,808	--
Oct. 31	1,080.19	32,790	- 2.1	1,260.71	1,864	+ 0.9
Nov. 30	1,080.19	32,790	0	1,260.52	1,833	- 0.5
Dec. 31	1,082.17	34,990	+ 35.8	1,266.00	2,860	+ 16.7
CAL YR 1992	--	--	+ 3.1	--	--	+ 1.4
Jan. 31	1,080.35	32,950	- 33.2	1,260.25	1,790	- 17.4
Feb. 28	1,080.20	32,800	- 2.7	1,259.84	1,726	- 1.2
Mar. 31	1,104.66	65,920	+ 539	1,284.35	8,080	+ 103
Apr. 30	1,080.15	32,750	- 557	1,259.97	1,746	- 106
May 31	1,080.49	33,090	+ 5.5	1,260.38	1,811	+ 1.1
June 30	1,080.49	33,090	0	1,260.92	1,897	+ 1.4
July 31	1,079.66	32,230	- 14.0	1,260.61	1,848	- 0.8
Aug. 31	1,079.74	32,350	+ 2.0	1,260.54	1,836	- 0.2
Sept. 30	1,080.25	32,850	+ 8.4	1,260.61	1,848	+ 0.2
WTR YR 1993	--	--	- 0.1	--	--	+ 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.

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 sea level (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(ice effect), 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)
Dec. 31	2100	22,600	11.71	Apr. 2	1100	*29,700	*13.78

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2020	2170	3780	19700	e1600	e680	27900	4610	883	397	375	223
2	1770	2190	3320	14900	e1200	e680	29400	3760	995	366	336	217
3	1590	5160	2970	12000	e1200	e750	27000	3160	797	349	316	2650
4	1410	6920	2650	11400	e1100	e850	22100	2700	687	344	309	5420
5	1240	6090	2450	14600	e1100	e900	16200	2500	681	334	338	2600
6	1100	5800	2230	13300	e1000	e850	10900	3170	953	319	285	1490
7	1010	5560	2190	10400	e960	e800	7930	2680	823	312	276	1140
8	952	4690	2060	8500	e920	e950	6270	2210	741	282	305	913
9	1020	3980	1920	6440	e900	e1100	5660	1970	1620	268	283	744
10	2330	3500	1810	4720	e900	e1300	5510	1780	2600	271	259	648
11	1900	3560	1780	4020	e900	e1200	6120	1620	1680	260	281	809
12	1450	4460	1870	3580	e850	e1100	5360	1470	1070	262	247	795
13	1320	8050	2060	4330	e850	e960	4580	1350	795	277	228	663
14	1220	8740	1900	6020	e840	e900	3930	1240	647	253	224	534
15	1720	7470	1760	4840	e820	e1500	3500	1170	560	260	215	461
16	3070	6110	2190	4080	e800	e1800	3970	1110	504	257	219	430
17	5010	5060	5030	3650	e780	e1300	7980	1050	454	284	368	403
18	4570	4690	8360	e3000	e750	e1200	10200	966	421	247	384	394
19	3970	4280	7230	e2300	e700	e1200	10700	904	404	241	419	366
20	3620	3690	9080	e2100	e700	e1100	9020	886	556	385	361	334
21	3180	3400	9430	2200	e720	e1000	8000	853	639	342	329	328
22	3220	4030	7050	2650	e850	e1000	6710	799	768	319	288	331
23	2810	8360	5590	2810	e750	e1100	5680	745	730	251	252	331
24	2880	9160	e4600	2770	e700	e1800	5020	723	559	223	228	388
25	4430	9510	e3400	e3500	e700	e4500	4800	739	445	204	209	371
26	4280	8660	e3100	e2600	e700	8940	10300	740	441	195	196	603
27	3660	7070	e2500	e2400	e680	12300	10500	666	443	204	190	735
28	3170	5900	e2200	e2300	e680	15800	8580	621	482	194	191	1330
29	2820	5090	e2400	e2100	---	20700	7160	603	468	253	175	1930
30	2680	4360	4340	e1800	---	23400	5700	592	438	315	164	1860
31	2400	---	18200	e1700	---	25700	---	658	---	380	173	---
TOTAL	77822	167710	129450	180710	24650	137360	296680	48045	23284	8848	8423	29441
MEAN	2510	5590	4176	5829	880	4431	9889	1550	776	285	272	981
MAX	5010	9510	18200	19700	1600	25700	29400	4610	2600	397	419	5420
MIN	952	2170	1760	1700	680	680	3500	592	404	194	164	217
CFSM	1.56	3.48	2.60	3.63	.55	2.76	6.15	.96	.48	.18	.17	.61
IN.	1.80	3.88	2.99	4.18	.57	3.18	6.86	1.11	.54	.20	.19	.68

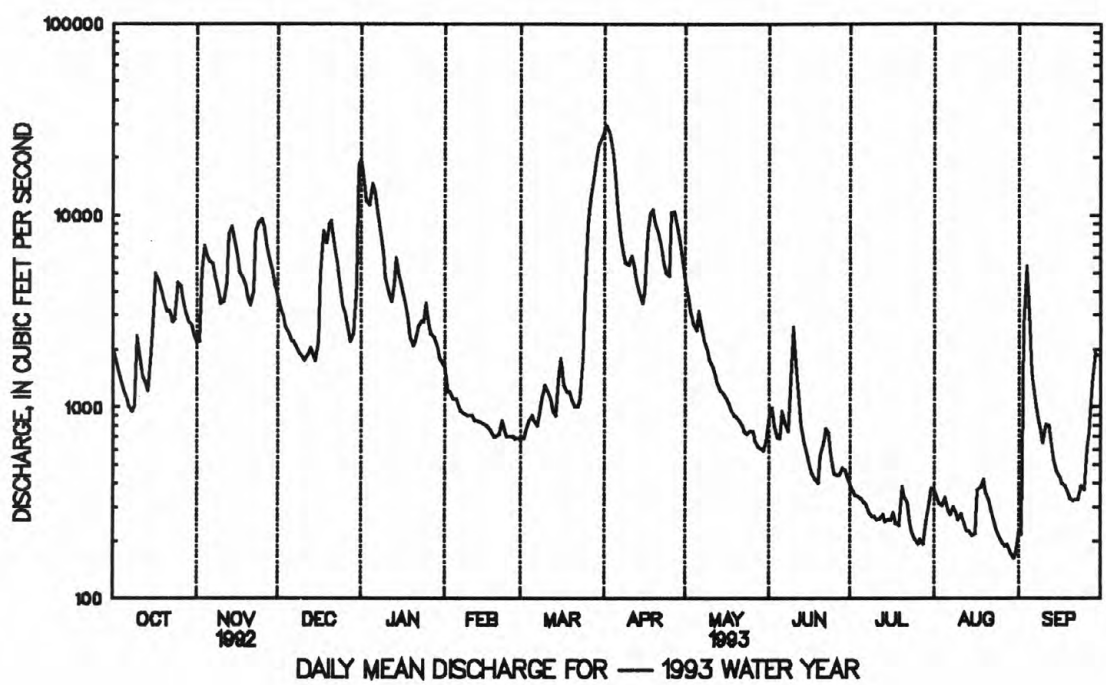
e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 1993, BY WATER YEAR (WY)

MEAN	1338	2467	3087	3308	3168	6034	5863	3476	2016	1104	699	841
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

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1904 - 1993	
ANNUAL TOTAL	1174118		1132423			
ANNUAL MEAN	3208		3103		2780	
HIGHEST ANNUAL MEAN					4174	1916
LOWEST ANNUAL MEAN					1784	1931
HIGHEST DAILY MEAN	18200	Dec 31	29400	Apr 2	67900	Jun 23 1972
LOWEST DAILY MEAN	213	Jul 2	164	Aug 30	79	a
ANNUAL SEVEN-DAY MINIMUM	258	Jun 28	185	Aug 25	84	Dec 11 1908
INSTANTANEOUS PEAK FLOW			29700	Apr 2	73000	Jun 23 1972
INSTANTANEOUS PEAK STAGE			13.78	Apr 2	b24.01	Jun 23 1972
INSTANTANEOUS LOW FLOW			160	Aug 30	79	a
ANNUAL RUNOFF (CFSM)	2.00		1.93		1.73	
ANNUAL RUNOFF (INCHES)	27.16		26.20		23.49	
10 PERCENT EXCEEDS	7060		8020		6770	
50 PERCENT EXCEEDS	2410		1300		1500	
90 PERCENT EXCEEDS	584		282		284	

a Sep. 10, 11, 1971.
b From floodmarks.



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 sea level (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)
Jan. 6	0200	3,290	10.05	Apr. 2	0300	*4,700	*11.55

REVISIONS.--The maximum discharge for the water year 1992 has been revised to 1,770 ft^3/s, Sept. 24, 1992, gage height 7.79 ft. This figure supersedes that published in the report for 1992.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	274	254	907	e2690	e375	e237	4540	384	152	89	81	72
2	241	326	e717	e2870	e360	e242	4580	336	133	76	76	53
3	218	850	e587	e2780	e360	e259	4340	300	112	77	136	133
4	199	877	e514	e2740	e342	e291	3960	275	99	75	115	213
5	180	860	e442	e3040	e322	e294	3470	271	103	68	86	139
6	168	876	e435	e3230	e298	e285	2840	288	222	64	72	95
7	164	870	e490	e3080	e282	e282	2190	262	212	62	81	100
8	157	745	e484	2780	e280	e326	1720	232	159	68	89	103
9	170	593	e468	e2260	e244	412	1450	212	382	68	83	86
10	193	519	e464	e1640	e243	e390	1310	194	550	61	68	79
11	179	803	e464	e1270	e240	e380	1230	178	337	59	72	150
12	173	1120	e476	1080	e241	e348	1050	164	211	62	70	164
13	181	1380	e487	1210	e242	e235	798	149	163	64	62	120
14	176	1460	e493	e1500	e236	e192	585	141	130	62	58	87
15	211	1450	e506	1560	e237	e246	494	134	112	59	55	73
16	374	1310	682	e1400	e239	e294	507	136	104	60	56	68
17	547	1170	1180	e1170	e235	e315	575	133	94	58	68	64
18	489	1110	1320	e960	e212	e274	527	129	82	54	60	62
19	424	1050	1330	e664	e204	e264	464	128	86	65	52	58
20	362	960	e1480	e470	e214	e250	453	150	116	75	49	54
21	354	998	e1720	e418	e225	e250	592	132	113	65	49	52
22	409	1240	1710	e552	253	e243	628	119	110	55	53	52
23	366	1450	e1450	739	289	e355	529	110	92	48	50	53
24	381	1520	e1190	842	e278	e758	434	112	82	47	46	58
25	596	1660	e986	1020	e268	e1220	398	114	76	50	44	58
26	553	1680	e810	e873	e261	e1500	892	114	72	49	43	84
27	438	1560	e573	e752	e254	1920	884	106	70	45	41	124
28	362	1380	e498	e580	e243	2490	750	98	87	42	39	246
29	314	1240	e470	e486	---	3230	564	90	129	52	37	514
30	295	1080	e1100	e350	---	3830	450	87	109	62	36	479
31	277	---	e2000	e393	---	4280	---	103	---	79	39	---
TOTAL	9425	32391	26433	45399	7477	25892	43204	5381	4499	1920	1966	3693
MEAN	304	1080	853	1464	267	835	1440	174	150	61.9	63.4	123
MAX	596	1680	2000	3230	375	4280	4580	384	550	89	136	514
MIN	157	254	435	350	204	192	398	87	70	42	36	52
CFSM	1.05	3.72	2.94	5.05	.92	2.88	4.97	.60	.52	.21	.22	.42
IN.	1.21	4.15	3.39	5.82	.96	3.32	5.54	.69	.58	.25	.25	.47

e Estimated

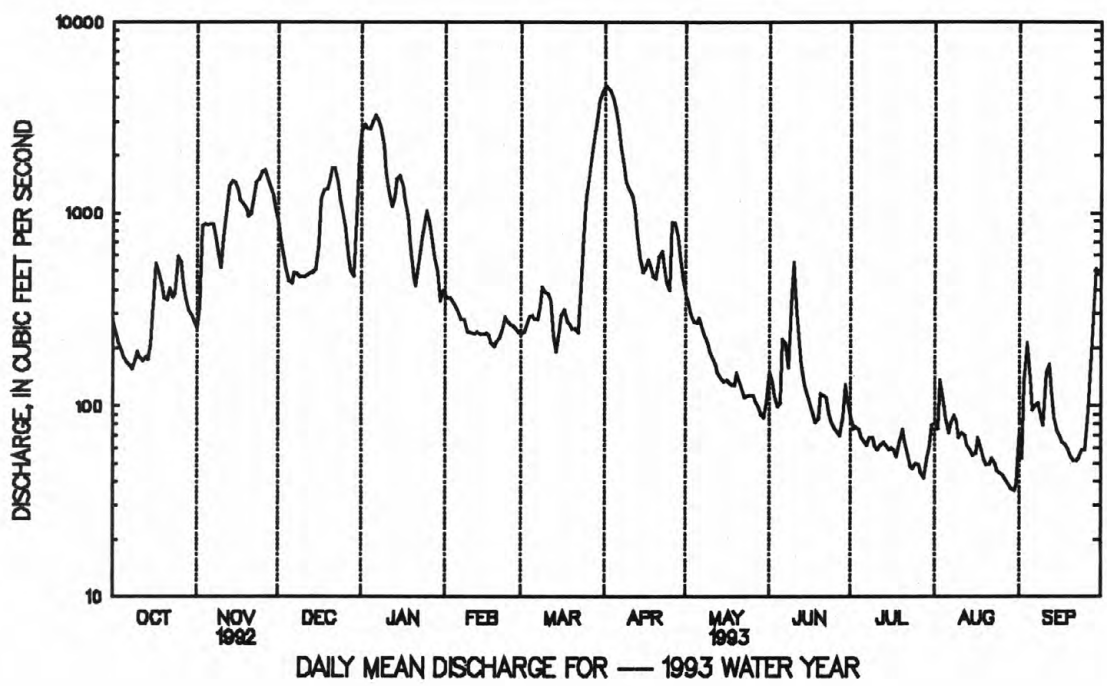
03013000 CONEWANGO CREEK AT WATERBORO, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1993, BY WATER YEAR (WY)

MEAN	299	563	747	673	759	1194	986	459	291	155	142	215
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

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1938 - 1993	
ANNUAL TOTAL	215192		207680			
ANNUAL MEAN	588		569		539	
HIGHEST ANNUAL MEAN					720	1986
LOWEST ANNUAL MEAN					363	1962
HIGHEST DAILY MEAN	2020	Sep 24	4580	Apr 2	8150	Apr 7 1947
LOWEST DAILY MEAN	69	Jul 2	36	Aug 30	22	Sep 27 1941
ANNUAL SEVEN-DAY MINIMUM	77	Jun 29	40	Aug 25	24	Sep 23 1941
INSTANTANEOUS PEAK FLOW			4700	Apr 2	8600	Apr 7 1947
INSTANTANEOUS PEAK STAGE			11.55	Apr 2	12.13	Feb 22 1981
INSTANTANEOUS LOW FLOW			36	c	a22	b
ANNUAL RUNOFF (CFSM)	2.03		1.96		1.86	
ANNUAL RUNOFF (INCHES)	27.60		26.64		25.26	
10 PERCENT EXCEEDS	1320		1450		1400	
50 PERCENT EXCEEDS	459		262		292	
90 PERCENT EXCEEDS	112		60		55	

a Observed.
b Aug. 18, 1940, Sept. 27, 29, 1941.
c Aug. 29, 30, 31.



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 sea level. 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, 1,309.65 ft, Apr. 2; minimum, 1,306.83 ft, Mar. 3,4.

ELEVATION (FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1308.12	1307.82	1308.44	1309.04	1308.04	1306.90	1309.47	1308.26	1308.14	1308.03	1307.75	1307.59
2	1308.11	1307.80	1308.36	1309.00	1307.97	1306.88	1309.63	1308.27	1308.13	1308.00	1307.74	1307.59
3	1308.11	1307.85	1308.30	1308.93	1307.89	1306.86	1309.59	1308.28	1308.13	1307.99	1307.73	1307.68
4	1308.10	1307.84	1308.23	1309.12	1307.82	1306.85	1309.48	1308.28	1308.13	1307.98	1307.72	1307.72
5	1308.09	1307.83	1308.19	1309.49	1307.76	1306.88	1309.38	1308.31	1308.17	1307.97	1307.71	1307.70
6	1308.07	1307.84	1308.13	1309.53	1307.70	1306.88	1309.27	1308.34	1308.21	1307.98	1307.70	1307.70
7	1308.06	1307.83	1308.07	1309.43	1307.63	1306.86	1309.17	1308.34	1308.23	1307.99	1307.74	1307.71
8	1308.05	1307.79	1308.00	1309.33	1307.58	1306.88	1309.07	1308.33	1308.25	1307.97	1307.73	1307.69
9	1308.07	1307.74	1307.94	1309.22	1307.51	1306.93	1308.97	1308.32	1308.30	1307.96	1307.71	1307.67
10	1308.08	1307.69	1307.88	1309.11	1307.46	1306.93	1308.88	1308.31	1308.34	1307.95	1307.70	1307.70
11	1308.08	1307.73	1307.91	1309.00	1307.41	1306.95	1308.80	1308.29	1308.28	1307.94	1307.70	1307.69
12	1308.08	1307.85	1307.89	1308.89	1307.37	1306.94	1308.70	1308.27	1308.20	1307.94	1307.69	1307.65
13	1308.08	1308.11	1307.84	1308.96	1307.33	1306.95	1308.59	1308.24	1308.13	1307.93	1307.68	1307.63
14	1308.07	1308.23	1307.79	1309.11	1307.30	1307.00	1308.49	1308.22	1308.10	1307.91	1307.67	1307.63
15	1308.12	1308.24	1307.74	1309.03	1307.25	1306.98	1308.40	1308.21	1308.08	1307.88	1307.66	1307.64
16	1308.16	1308.23	1307.73	1308.94	1307.24	1306.97	1308.35	1308.20	1308.07	1307.86	1307.70	1307.65
17	1308.16	1308.20	1307.82	1308.84	1307.23	1307.00	1308.28	1308.19	1308.06	1307.84	1307.71	1307.63
18	1308.10	1308.19	1307.86	1308.75	1307.20	1307.03	1308.20	1308.17	1308.05	1307.82	1307.69	1307.61
19	1308.05	1308.17	1307.85	1308.64	1307.16	1307.04	1308.20	1308.14	1308.06	1307.83	1307.67	1307.59
20	1307.98	1308.13	1308.05	1308.54	1307.12	1307.04	1308.23	1308.13	1308.09	1307.82	1307.67	1307.58
21	1307.96	1308.17	1308.14	1308.44	1307.09	1307.03	1308.32	1308.12	1308.10	1307.80	1307.67	1307.58
22	1307.94	1308.38	1308.12	1308.43	1307.09	1307.02	1308.30	1308.10	1308.09	1307.77	1307.66	1307.56
23	1307.91	1308.65	1308.08	1308.41	1307.08	1307.04	1308.25	1308.09	1308.07	1307.74	1307.65	1307.58
24	1307.94	1308.68	1308.07	1308.41	1307.07	1307.11	1308.19	1308.11	1308.06	1307.72	1307.63	1307.56
25	1307.97	1308.80	1308.01	1308.47	1307.05	1307.28	1308.16	1308.11	1308.04	1307.70	1307.62	1307.55
26	1307.97	1308.80	1307.97	1308.42	1307.01	1307.46	1308.31	1308.10	1308.04	1307.69	1307.61	1307.60
27	1307.97	1308.74	1307.90	1308.35	1306.97	1307.74	1308.35	1308.10	1308.02	1307.69	1307.61	1307.62
28	1307.96	1308.67	1307.84	1308.28	1306.94	1308.09	1308.32	1308.09	1308.03	1307.67	1307.59	1307.67
29	1307.95	1308.60	1307.79	1308.22	---	1308.54	1308.28	1308.09	1308.04	1307.69	1307.56	1307.76
30	1307.94	1308.52	1307.94	1308.15	---	1308.91	1308.25	1308.07	1308.05	1307.73	1307.56	1307.79
31	1307.88	---	1308.76	1308.09	---	1309.19	---	1308.11	---	1307.74	1307.58	---
MEAN	1308.04	1308.17	1308.02	1308.79	1307.37	1307.23	1308.66	1308.20	1308.12	1307.86	1307.67	1307.64
MAX	1308.16	1308.80	1308.76	1309.53	1308.04	1309.19	1309.63	1308.34	1308.34	1308.03	1307.75	1307.79
MIN	1307.88	1307.69	1307.73	1308.09	1306.94	1306.85	1308.16	1308.07	1308.02	1307.67	1307.56	1307.55

CAL YR 1992 MEAN 1307.92 MAX 1308.85 MIN 1306.73
WTR YR 1993 MEAN 1307.98 MAX 1309.63 MIN 1306.85

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 sea level.

REMARKS.--Records good except those periods of estimated daily discharges (ice effect, missing record), which are 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.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	89	505	818	1030	705	e336	1150	79	39	59	43	54
2	88	502	810	1040	686	e337	1230	79	32	57	45	71
3	86	547	785	1010	667	e334	1230	79	12	55	45	73
4	86	574	787	1050	653	335	1190	80	35	54	44	45
5	88	577	760	1190	627	339	1130	84	69	55	41	43
6	87	583	724	1200	611	341	1100	80	67	37	47	45
7	87	574	711	1170	587	340	1070	111	66	39	54	43
8	87	566	691	1140	572	352	1020	158	72	24	37	42
9	91	558	653	1100	e540	353	978	158	377	23	37	41
10	87	548	622	1050	e510	349	971	159	535	36	40	44
11	88	563	633	1030	e490	352	943	159	632	34	41	40
12	89	580	e630	993	e470	348	903	159	623	24	36	37
13	89	644	e620	1040	e445	346	874	160	414	27	32	37
14	91	745	e630	1060	e430	335	833	118	68	46	31	37
15	181	784	e640	1030	e420	347	790	64	70	40	30	38
16	534	778	e700	996	e430	344	775	63	67	58	43	37
17	685	775	e820	967	e420	362	778	62	67	57	30	36
18	662	774	e900	936	e400	354	606	61	67	57	45	35
19	662	758	e850	905	e380	356	113	61	78	69	45	34
20	480	733	e950	867	e370	380	105	59	70	57	49	34
21	388	818	e900	833	e360	385	354	58	68	56	45	59
22	382	932	e700	827	e390	384	550	56	65	55	43	54
23	297	903	660	825	e380	393	550	54	64	54	44	59
24	190	937	662	823	e370	415	535	49	63	53	44	53
25	187	944	648	849	e360	453	380	45	63	53	44	53
26	186	945	646	825	e350	514	97	45	63	56	30	71
27	185	917	634	809	e340	582	305	44	62	41	43	53
28	185	897	622	787	e335	728	477	43	68	67	43	59
29	186	876	615	770	---	856	477	42	60	51	43	64
30	365	850	672	733	---	961	269	42	58	50	49	48
31	512	---	885	719	---	1040	---	54	---	46	58	---
TOTAL	7500	21687	22378	29604	13298	13651	21783	2565	4094	1490	1301	1439
MEAN	242	723	722	955	475	440	726	82.7	136	48.1	42.0	48.0
MAX	685	945	950	1200	705	1040	1230	160	632	69	58	73
MIN	86	502	615	719	335	334	97	42	12	23	30	34

e Estimated

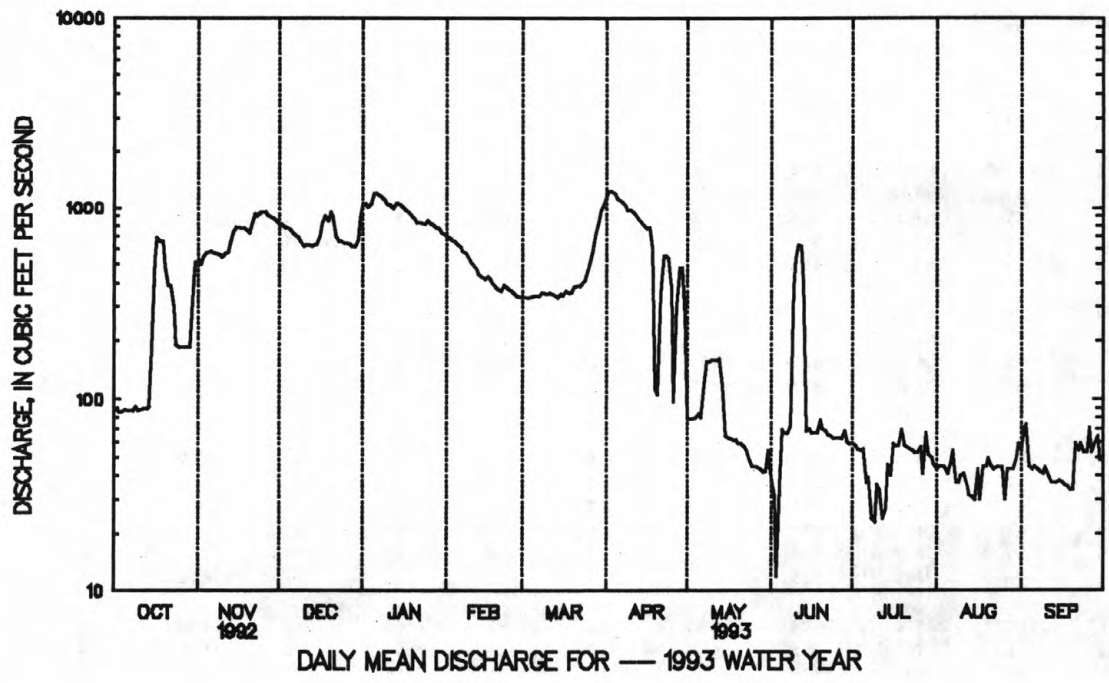
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 1993, BY WATER YEAR (WY)

MEAN	211	356	503	513	519	686	637	297	201	118	103	156
MAX	751	997	997	955	989	1358	1305	974	852	729	540	705
(WY)	1946	1986	1951	1993	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1935 - 1993	
ANNUAL TOTAL	146693		140790			
ANNUAL MEAN	401		386		359	
HIGHEST ANNUAL MEAN					527	1986
LOWEST ANNUAL MEAN					228	1962
HIGHEST DAILY MEAN	986	Sep 23	1230	a	2020	Mar 6 1976
LOWEST DAILY MEAN	27	Sep 15	12	Jun 3	3.0	Nov 20 1960
ANNUAL SEVEN-DAY MINIMUM	39	Jun 23	30	Jul 7	3.7	Nov 18 1960
INSTANTANEOUS PEAK FLOW			1240	Apr 2	2250	Sep 14 1979
INSTANTANEOUS PEAK STAGE			3.12	Apr 2	4.93	Sep 14 1979
INSTANTANEOUS LOW FLOW			3.2	Jul 9	2.7	b
10 PERCENT EXCEEDS	813		923		830	
50 PERCENT EXCEEDS	395		340		269	
90 PERCENT EXCEEDS	58		42		36	

a Apr. 2, 3.
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 sea level. 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)
Dec. 31	0530	*10,700	*7.74	Mar. 30	2300	10,200	7.60
Jan. 5	0630	9,000	7.20				

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	367	379	916	3400	e400	e310	6510	623	371	178	178	100
2	340	605	875	1640	e350	e310	5440	566	281	159	374	110
3	317	2150	828	1310	e420	e320	3210	519	239	157	237	521
4	297	1180	760	3040	e400	e340	2070	485	224	154	169	432
5	295	1200	765	6270	e460	e310	1660	517	355	149	133	221
6	277	1260	721	2540	e360	e300	1790	707	584	147	115	205
7	265	1110	743	1570	e320	e320	1860	537	336	188	154	355
8	256	831	704	1270	e310	e300	1820	463	280	193	144	210
9	311	679	674	e1000	e330	e370	1790	427	487	150	127	150
10	370	677	647	e800	e330	e350	1850	396	376	126	111	258
11	313	1240	696	e780	e310	e320	1880	364	274	125	285	570
12	331	1650	717	853	e310	e310	1260	339	230	286	198	304
13	331	2690	e660	2530	e300	e310	1070	317	217	200	129	208
14	300	1520	e600	2050	e330	e280	932	309	214	152	131	164
15	356	1200	e680	1210	e300	e320	875	312	210	160	111	150
16	576	1080	1770	1010	e280	e410	956	326	201	142	114	152
17	848	1070	2710	e840	e260	e560	1030	311	194	124	132	139
18	515	1070	2080	e620	e250	e620	956	297	183	118	127	130
19	454	1090	1350	e500	e240	e580	828	295	174	130	108	118
20	417	1040	4030	e480	e270	e520	824	299	227	152	170	117
21	459	2690	1900	e600	e280	e520	1160	279	231	126	236	107
22	518	3830	1210	e940	e310	e500	1020	264	220	113	154	108
23	415	3730	1010	e1000	e350	e480	822	256	191	106	122	120
24	861	2140	e840	1290	e320	e620	686	268	168	103	114	153
25	1550	3480	e720	1420	e300	e1700	668	302	156	98	103	122
26	824	1910	e640	951	e290	3450	2120	284	153	101	95	274
27	597	1350	e520	900	e310	4960	1240	255	154	101	81	255
28	508	1170	e600	e720	e330	6740	911	239	457	93	86	861
29	455	1090	e720	e620	---	8630	776	234	275	148	90	1100
30	437	987	3560	e560	---	7930	682	226	203	224	80	759
31	410	---	8850	e480	---	7020	---	311	---	234	85	---
TOTAL	14570	46098	43496	43194	9020	50010	48696	11327	7865	4637	4493	8473
MEAN	470	1537	1403	1393	322	1613	1623	365	262	150	145	282
MAX	1550	3830	8850	6270	460	8630	6510	707	584	286	374	1100
MIN	256	379	520	480	240	280	668	226	153	93	80	100
CFSM	1.08	3.52	3.22	3.20	.74	3.70	3.72	.84	.60	.34	.33	.65
IN.	1.24	3.93	3.71	3.69	.77	4.27	4.15	.97	.67	.40	.38	.72

e Estimated

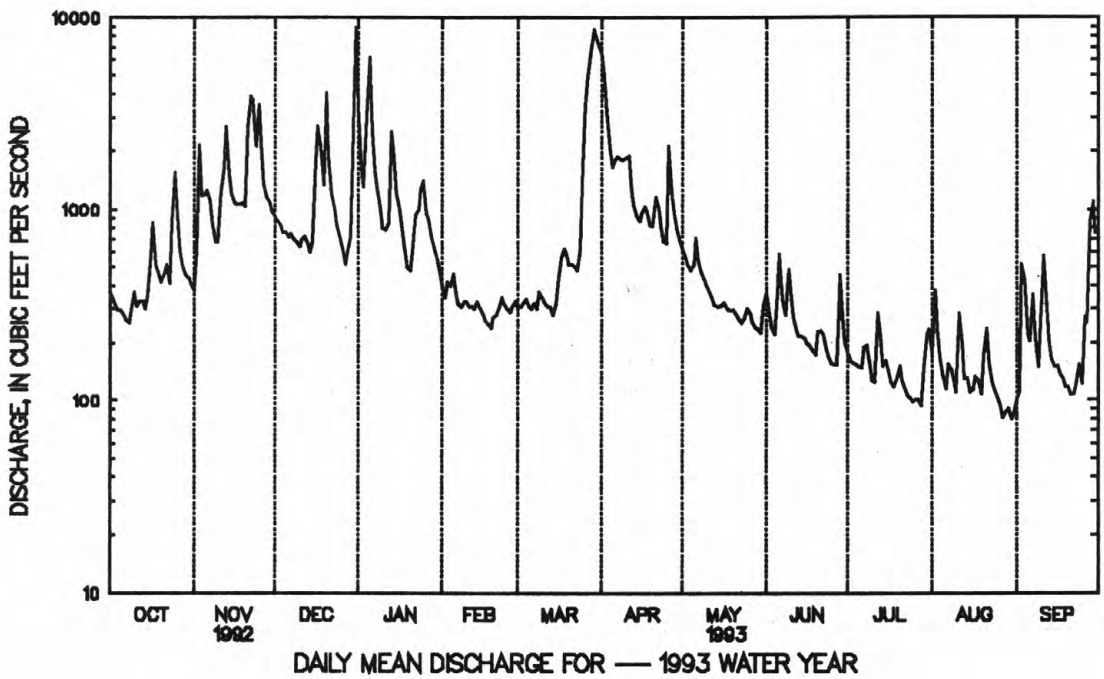
04213500 CATTARAUGUS CREEK AT GOWANDA, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1993, BY WATER YEAR (WY)

MEAN	406	696	968	816	935	1609	1456	728	491	293	240	316
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

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1940 - 1993	
ANNUAL TOTAL	318815		291879			
ANNUAL MEAN	871		800		743	
HIGHEST ANNUAL MEAN					1030	1977
LOWEST ANNUAL MEAN					536	1949
HIGHEST DAILY MEAN	8850	Dec 31	8850	Dec 31	22900	Mar 17 1942
LOWEST DAILY MEAN	119	Jul 2	80	Aug 30	52	a
ANNUAL SEVEN-DAY MINIMUM	140	Jun 27	88	Aug 26	57	Sep 7 1945
INSTANTANEOUS PEAK FLOW			10700	Dec 31	34600	Mar 7 1956
INSTANTANEOUS PEAK STAGE			b7.77	Mar 18	14.03	Mar 7 1956
INSTANTANEOUS LOW FLOW			45	Aug 27	c6.0	Aug 21 1941
ANNUAL RUNOFF (CFSM)	2.00		1.83		1.71	
ANNUAL RUNOFF (INCHES)	27.20		24.90		23.17	
10 PERCENT EXCEEDS	1750		1790		1610	
50 PERCENT EXCEEDS	632		367		417	
90 PERCENT EXCEEDS	214		128		124	

a Sept. 13, 1945, Aug. 1, 1955.
b Ice jam.
c 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) 1992-93 (b).
MINOR ELEMENTS DATA: 1972-74 (a), 1975 (b), 1976-77 (c), 1978-86 (b), 1987-89 (d), 1990-91 (c), 1992-93 (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), 1983-93 (b).
BIOLOGICAL DATA:
Bacterial--1978-80 (d), 1981-82 (c), 1983-93 (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), 1992-93 (b).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1958 to September 1959, unpublished; January 1978 to September 1981.
pH: October 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 microsiemens Oct. 7, 1958; minimum daily, 150 microsiemens Feb. 19, 1981.
WATER TEMPERATURES: Maximum daily, 29.0oC Aug. 19, 1978; minimum daily, 0.0o C on many days during winter periods.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TURBIDITY (NTU)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV											
05...	0800	1240	256	8.1	7.5	51	741	11.5	98	K1000	1200
APR											
27...	0800	1290	236	7.8	4.5	43	757	13.1	102	630	470
JUN											
08...	0800	265	378	8.2	16.5	5.7	740	9.5	100	83	21
SEP											
01...	0800	69	407	8.2	22.0	15	746	8.4	99	94	140

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
NOV											
05...	110	35	6.2	6.1	2.0	97	19	9.7	<0.10	4.8	155
APR											
27...	100	32	5.3	6.4	1.2	82	16	10	<0.10	3.8	131
JUN											
08...	180	55	9.3	10	1.5	139	27	18	0.10	2.9	217
SEP											
01...	180	54	11	13	2.0	144	32	21	<0.10	3.4	230

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

04213500 - CATTARAUGUS CREEK AT GOWANDA, NY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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, 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										
05...	151	0.55	0.02	<0.01	0.30	0.06	<0.01	<0.01	<10	40
APR										
27...	114	0.78	0.02	<0.01	0.50	0.06	<0.01	<0.01	10	35
JUN										
08...	217	1.0	0.04	<0.01	<0.20	<0.01	<0.01	<0.01	<10	59
SEP										
01...	213	0.54	0.04	<0.01	<0.20	0.01	<0.01	<0.01	10	74

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										
05...	<3	23	<4	4	<10	<1	<1	<1.0	61	<6
APR										
27...	<3	26	<4	6	<10	1	<1	<1.0	53	<6
JUN										
08...	<3	7	<4	4	<10	<1	<1	<1.0	90	<6
SEP										
01...	<3	11	7	3	<10	2	<1	<1.0	110	<6

04213500 - CATTARAUGUS CREEK AT GOWANDA, NY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK)	DEPTH AT SAMPLE LOCATION, TOTAL (FEET)	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)
NOV								
05...	0805	105	2.5	2.0	260	8.1	7.5	11.5
05...	0810	90	2.5	2.0	256	8.1	7.5	11.6
05...	0815	75	2.5	2.0	257	8.1	7.5	11.6
05...	0820	60	2.5	2.0	256	8.1	7.5	11.6
05...	0825	45	3.0	2.0	253	8.1	7.5	11.6
05...	0830	30	3.7	3.0	248	8.1	7.5	11.5
05...	0835	15	4.2	4.0	254	8.1	7.5	11.5
APR								
27...	0805	105	2.5	1.0	240	7.8	4.5	13.4
27...	0810	90	3.0	1.0	234	7.8	4.5	13.3
27...	0815	75	3.0	1.0	243	7.9	4.5	13.2
27...	0820	60	3.0	1.0	239	7.9	4.5	13.1
27...	0825	45	3.5	1.0	237	7.9	4.5	13.1
27...	0830	30	3.5	1.0	236	7.9	4.5	13.0
27...	0835	15	4.2	1.0	234	7.9	4.5	13.0
JUN								
08...	0805	105	1.5	1.0	378	8.2	16.5	9.8
08...	0810	90	1.0	1.0	378	8.2	16.5	9.5
08...	0815	75	1.0	1.0	375	8.2	16.5	9.4
08...	0820	60	1.5	1.0	377	8.2	16.5	9.4
08...	0825	45	1.5	1.0	379	8.2	16.5	9.4
08...	0830	30	1.5	1.0	379	8.2	16.5	9.4
08...	0835	15	1.0	1.0	378	8.2	16.5	9.5
SEP								
01...	0805	105	0.5	0.5	408	8.2	22.0	8.5
01...	0810	90	0.5	0.5	406	8.2	22.0	8.4
01...	0815	75	0.5	0.5	407	8.2	22.0	8.5
01...	0820	60	0.5	0.5	407	8.2	22.0	8.4
01...	0825	45	0.5	0.5	407	8.2	22.0	8.2
01...	0830	30	0.5	0.5	407	8.2	22.0	8.2
01...	0835	15	0.5	0.5	406	8.1	22.0	8.4

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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
NOV 1992					
05...	0800	1240	86	288	98
APR 1993					
27...	0800	1290	84	293	96
JUN					
08...	0800	265	22	16	94
SEP					
01...	0800	69	30	5.6	99

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, 577.51 ft, Nov. 13; minimum recorded, 570.54 ft, Sept. 26, but may have been lower during periods of missing or questionable gage-height record Feb. 3-Mar. 29,Mar. 31-Apr. 13, Aug. 15-18, 25-30, and Sept. 2-4.

ELEVATION (FEET IGLD), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	572.33	570.87	572.55	573.07	572.21	---	---	572.76	572.90	572.49	572.66	572.09
2	572.66	571.43	572.44	572.29	---	---	---	572.56	572.59	572.71	572.63	---
3	572.49	572.15	572.76	572.26	---	---	---	572.82	572.60	572.89	572.32	---
4	571.67	572.45	572.56	572.70	---	---	---	572.75	572.43	572.78	572.89	---
5	571.83	572.12	573.18	573.54	---	---	---	572.96	572.67	572.82	572.61	572.31
6	571.94	572.24	572.92	572.93	---	---	---	573.00	572.70	572.91	572.46	572.11
7	571.93	571.79	572.79	572.67	---	---	---	572.83	572.57	572.87	572.67	572.12
8	571.96	571.81	572.26	572.41	---	---	---	572.79	572.63	572.95	572.58	572.17
9	572.46	571.83	571.92	571.64	---	---	---	572.85	572.86	572.92	572.52	572.43
10	572.21	572.01	571.93	571.83	---	---	---	572.81	572.93	572.96	572.65	572.88
11	572.21	572.04	571.58	572.41	---	---	---	572.91	572.79	572.94	572.69	572.38
12	572.61	572.18	571.94	572.21	---	---	---	572.90	572.67	573.10	572.52	572.20
13	572.55	574.42	571.92	573.10	---	---	---	572.80	572.64	572.87	572.53	572.15
14	571.79	572.72	572.03	572.94	---	---	572.73	572.73	572.72	572.86	572.40	572.11
15	571.94	572.49	572.03	573.07	---	---	572.75	572.94	572.95	572.89	---	572.14
16	573.08	572.38	572.55	572.91	---	---	572.93	572.75	572.71	572.93	---	571.61
17	572.52	572.13	572.66	573.19	---	---	572.74	572.57	572.72	572.70	---	571.87
18	572.20	572.08	572.33	572.78	---	---	572.65	572.59	572.76	572.70	---	571.98
19	572.12	571.88	572.30	572.73	---	---	572.83	572.75	572.75	572.83	572.40	571.77
20	571.94	571.93	573.18	572.57	---	---	572.88	572.75	572.80	572.94	572.65	571.53
21	572.04	572.58	572.32	572.44	---	---	572.56	572.72	572.98	572.86	572.21	571.71
22	571.81	572.55	572.57	572.90	---	---	572.65	572.64	572.93	572.88	572.31	571.81
23	571.91	573.07	572.81	572.65	---	---	572.86	572.65	572.68	572.75	572.28	572.10
24	572.09	572.37	572.71	572.81	---	---	572.61	572.81	572.68	572.61	572.52	571.85
25	572.03	572.63	573.61	572.55	---	---	572.98	572.95	572.76	572.55	---	571.68
26	572.03	573.05	572.80	572.59	---	---	572.87	572.77	573.02	572.79	---	572.36
27	571.85	572.60	571.99	572.59	---	---	572.59	572.53	573.03	572.89	---	572.50
28	571.80	572.45	572.01	572.54	---	---	572.74	572.71	572.99	572.75	---	572.98
29	571.84	572.86	572.02	572.42	---	---	572.90	572.68	572.81	573.17	---	572.15
30	571.66	572.80	572.69	572.41	---	573.84	572.94	572.39	572.61	573.09	---	571.76
31	571.40	---	573.87	572.59	---	---	---	572.78	---	572.81	572.31	---
MEAN	572.09	572.33	572.49	572.64	---	---	---	572.76	572.76	572.85	---	---
MAX	573.08	574.42	573.87	573.54	---	---	---	573.00	573.03	573.17	---	---
MIN	571.40	570.87	571.58	571.64	---	---	---	572.39	572.43	572.49	---	---

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, 2.0 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 sea level. 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)
Jan. 5	1000	*4,740	*6.19	Mar. 30	2230	3,840	5.61

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	87	252	772	e120	e160	2020	119	127	30	20	16
2	86	438	286	321	e140	e160	1480	108	96	29	18	13
3	79	987	246	260	e160	e170	786	101	71	29	16	34
4	71	400	207	633	e170	e170	517	94	55	28	16	49
5	66	544	200	2480	e130	e180	410	95	122	26	14	24
6	62	596	e160	707	e120	e180	497	136	356	23	12	28
7	59	427	e180	375	e120	e190	483	123	169	22	14	59
8	58	238	e190	e290	e140	e210	423	93	101	29	14	36
9	72	185	e180	e190	e130	e350	393	81	124	31	16	24
10	115	175	e160	e140	e130	e330	363	73	122	22	14	87
11	80	293	e175	e170	e130	e280	461	67	83	20	12	55
12	68	454	e180	e220	e130	e250	273	65	63	25	11	39
13	67	939	e180	e640	e130	e210	226	61	51	27	11	24
14	65	438	e170	e940	e130	e190	198	56	44	25	11	19
15	66	382	e200	e390	e120	e270	183	55	42	22	10	17
16	111	365	992	e300	e110	e300	206	55	41	21	11	16
17	226	345	1190	e250	e110	e340	226	53	39	19	12	16
18	125	369	751	e170	e100	e400	190	51	35	17	25	17
19	95	422	375	e120	e120	e500	163	50	34	17	19	15
20	85	390	1220	e160	e140	e480	228	51	44	18	16	14
21	84	1220	531	e180	e130	e400	395	51	53	17	66	14
22	103	1390	283	e600	e120	e420	291	48	58	16	46	13
23	87	1570	232	617	e110	e460	205	46	46	14	23	16
24	175	754	e190	629	e95	e540	162	45	37	13	17	19
25	518	1190	e150	e600	e95	e760	160	53	31	13	15	20
26	195	571	e145	e250	e95	e1200	269	63	31	12	13	84
27	140	408	e120	e210	e120	e2000	240	52	30	14	11	106
28	114	336	e160	e170	e150	2420	163	46	31	17	14	134
29	103	314	184	e150	---	2950	139	44	36	15	11	150
30	103	299	839	e110	---	2440	130	41	37	14	10	79
31	95	---	2920	e100	---	2050	---	51	---	20	11	---
TOTAL	3466	16526	13248	13144	3495	20960	11880	2127	2209	645	529	1237
MEAN	112	551	427	424	125	676	396	68.6	73.6	20.8	17.1	41.2
MAX	518	1570	2920	2480	170	2950	2020	136	356	31	66	150
MIN	58	87	120	100	95	160	130	41	30	12	10	13
CFSM	.79	3.88	3.01	2.99	.88	4.76	2.79	.48	.52	.15	.12	.29
IN.	.91	4.33	3.47	3.44	.92	5.49	3.11	.56	.58	.17	.14	.32

e Estimated

04214500 BUFFALO CREEK AT GARDENVILLE, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1993, BY WATER YEAR (WY)

MEAN	91.4	199	294	244	298	505	379	175	102	50.8	47.2	71.0
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

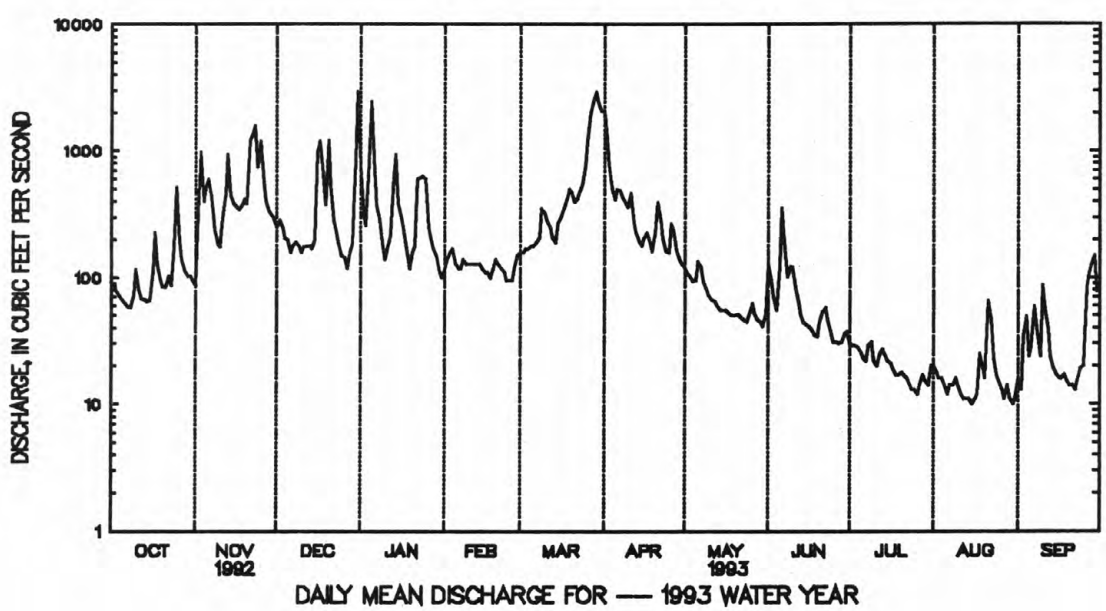
SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1939 - 1993	
ANNUAL TOTAL	111327		89466			
ANNUAL MEAN	304		245		204	
HIGHEST ANNUAL MEAN					301	1977
LOWEST ANNUAL MEAN					128	1965
HIGHEST DAILY MEAN	2920	Dec 31	2950	Mar 29	7650	Mar 7 1956
LOWEST DAILY MEAN	16	Jul 2	10	a	1.0	Sep 1 1964
ANNUAL SEVEN-DAY MINIMUM	22	Jun 27	11	Aug 11	2.6	Sep 13 1964
INSTANTANEOUS PEAK FLOW			4740	Jan 5	b11300	c
INSTANTANEOUS PEAK STAGE			6.19	Jan 5	d14.34	Mar 21 1978
INSTANTANEOUS LOW FLOW			9.8	Aug 16	.20	Sep 1 1964
ANNUAL RUNOFF (CFSM)	2.14		1.73		1.44	
ANNUAL RUNOFF (INCHES)	29.16		23.44		19.54	
10 PERCENT EXCEEDS	726		542		462	
50 PERCENT EXCEEDS	180		120		86	
90 PERCENT EXCEEDS	50		16		14	

a Aug 15, 30.

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.



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 sea level.

REMARKS.--Records good except those for estimated daily discharges (ice effect and missing record), 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)
Mar. 28	2315	*2,850	6.81	No other peaks above base discharge.			

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	34	142	e800	e65	e72	1470	58	35	6.3	4.9	2.3
2	48	289	149	e180	e72	e80	926	53	25	8.4	4.3	3.5
3	42	537	135	e130	e80	e80	469	47	17	8.3	3.8	8.9
4	39	237	110	e260	e80	e84	331	43	14	6.5	3.2	9.7
5	35	317	103	e1400	e70	e90	283	53	118	5.4	2.7	7.3
6	33	340	e75	e400	e65	e90	330	103	160	4.2	2.1	5.7
7	31	229	e85	240	e65	e94	304	62	56	3.8	2.9	28
8	29	132	90	e180	e70	e120	263	45	35	3.7	4.6	9.7
9	36	102	79	e100	e65	e190	229	38	271	4.7	3.2	5.8
10	52	101	e70	e80	e65	e180	243	31	107	3.9	2.6	45
11	38	176	e70	100	e65	e150	256	29	44	3.3	1.8	25
12	33	246	e80	120	e60	e130	162	29	33	5.1	1.6	11
13	30	562	e95	e400	e60	e110	132	26	32	5.4	1.3	6.1
14	27	234	e92	601	e60	e100	110	24	19	4.0	.95	4.7
15	30	195	e110	271	e54	e140	101	21	15	4.1	.83	3.7
16	54	173	e600	217	e50	e150	123	21	15	3.6	1.0	3.7
17	101	169	842	189	e50	e170	125	21	12	3.0	1.7	3.7
18	58	194	454	e130	e50	e200	106	21	9.3	2.7	2.3	3.6
19	43	243	231	e90	e60	e280	86	20	9.6	3.1	2.0	3.4
20	38	239	1010	e100	e70	e260	175	20	20	4.3	2.1	3.2
21	40	638	256	e110	e65	e220	254	18	26	3.9	4.4	3.0
22	49	512	166	e650	e55	e220	171	17	25	3.1	3.0	3.2
23	41	804	142	481	e50	e230	114	16	14	2.5	3.0	3.5
24	87	373	e110	705	e50	e400	84	17	8.3	2.1	2.0	4.6
25	204	698	e90	471	e50	e650	102	22	6.7	1.9	1.6	4.8
26	91	295	e66	e180	e50	e1000	173	22	7.0	2.2	1.2	35
27	61	228	e56	e150	e54	e1700	114	17	6.9	7.1	.86	40
28	49	180	e60	e110	e62	1880	83	15	7.3	5.7	.75	95
29	43	167	e74	e94	---	2090	71	14	7.2	3.9	1.4	120
30	40	167	e550	e60	---	1690	65	12	7.4	3.5	1.5	48
31	37	---	e1750	e60	---	1240	---	21	---	5.0	1.4	---
TOTAL	1592	8811	7942	9059	1712	14090	7455	956	1162.7	134.7	70.99	551.1
MEAN	51.4	294	256	292	61.1	455	248	30.8	38.8	4.35	2.29	18.4
MAX	204	804	1750	1400	80	2090	1470	103	271	8.4	4.9	120
MIN	27	34	56	60	50	72	65	12	6.7	1.9	.75	2.3
CFSM	.53	3.05	2.66	3.03	.63	4.71	2.58	.32	.40	.05	.02	.19
IN.	.61	3.40	3.06	3.50	.66	5.44	2.88	.37	.45	.05	.03	.21

e Estimated

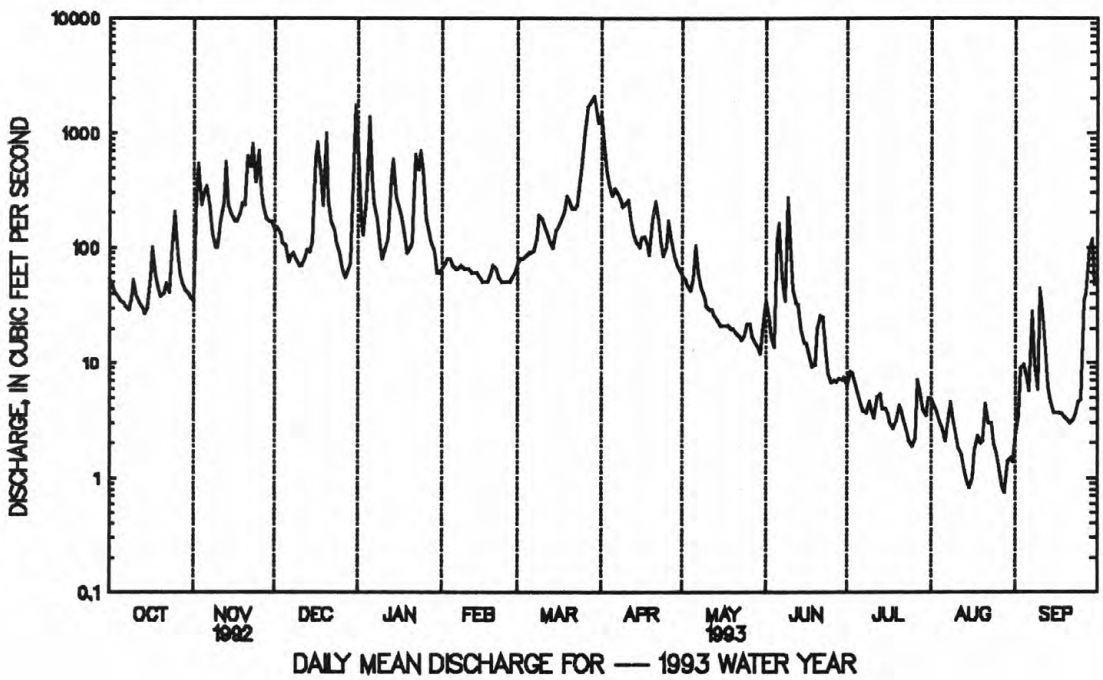
04215000 CAYUGA CREEK NEAR LANCASTER, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1993, BY WATER YEAR (WY)

MEAN	59.6	125	189	163	209	349	252	105	53.2	22.9	30.7	48.6
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

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1939 - 1968 1974 - 1993	
ANNUAL TOTAL	70093.4		53536.49			
ANNUAL MEAN	192		147		134	
HIGHEST ANNUAL MEAN					206	1956
LOWEST ANNUAL MEAN					78.5	1962
HIGHEST DAILY MEAN	2160	Sep 22	2090	Mar 29	5830	Feb 24 1985
LOWEST DAILY MEAN	7.5	Jul 2	.75	Aug 28	.10	Aug 9 1939
ANNUAL SEVEN-DAY MINIMUM	10	Jun 12	1.2	Aug 25	.19	Jul 11 1955
INSTANTANEOUS PEAK FLOW			2850	Mar 28	9440	Sep 14 1979
INSTANTANEOUS PEAK STAGE			a7.10	Dec 16	a12.58	Mar 30 1960
INSTANTANEOUS LOW FLOW			.60	Aug 28	b.00	c
ANNUAL RUNOFF (CFSM)	1.99		1.52		1.39	
ANNUAL RUNOFF (INCHES)	27.05		20.66		18.83	
10 PERCENT EXCEEDS	453		322		308	
50 PERCENT EXCEEDS	99		58		45	
90 PERCENT EXCEEDS	27		3.2		3.8	

a Ice jam.
b Practically no flow when stop logs were installed in the dam.
c 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 5.0 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 sea level. 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)
Nov. 22	2345	4,000	7.82	Jan. 5	0645	*5,080	*8.74
Dec. 31	0415	4,460	8.22				

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82	79	242	750	e110	e160	2110	108	134	23	20	e14
2	75	480	243	e320	e130	e160	1590	98	64	25	17	e11
3	67	914	216	e240	e150	e160	793	92	51	20	e15	e35
4	61	391	187	985	e150	e160	499	85	44	20	e13	e50
5	57	531	192	2840	e120	e170	396	96	228	19	e11	e20
6	54	552	e160	674	e110	e170	562	118	398	17	e10	e29
7	52	352	e170	376	e110	e180	616	91	129	17	e11	e58
8	50	208	e165	287	e130	e200	588	76	83	27	e12	e32
9	63	165	e160	e190	e120	e320	559	69	145	22	e14	e22
10	84	159	e150	e140	e120	e300	535	66	93	18	e12	e86
11	62	376	e150	e160	e120	e260	471	63	62	15	e10	e50
12	59	467	e160	e220	e120	e220	279	60	48	39	e9.0	e36
13	64	952	e160	e650	e120	e200	215	55	40	37	e9.0	e23
14	62	436	e150	795	e120	e180	181	53	37	22	e9.0	e16
15	63	378	e200	371	e110	e260	166	52	36	21	e9.0	e15
16	130	341	e1100	e260	e100	e300	237	51	38	20	e9.5	e14
17	287	336	922	e220	e100	e320	217	50	32	16	e10	e14
18	128	349	582	e160	e94	e380	181	49	29	15	e25	e16
19	104	366	329	e120	e110	e480	151	48	29	18	e18	e12
20	91	330	1650	e140	e130	e460	285	48	36	16	e25	e12
21	98	1540	485	e170	e120	e380	429	46	49	15	e60	e12
22	156	2300	280	e640	e110	e400	272	44	44	14	e40	e11
23	99	1840	e220	407	e100	e440	186	42	32	12	e20	e16
24	324	743	e180	726	e90	e500	144	44	27	11	e15	e18
25	494	1210	e150	e520	e90	e680	162	58	23	11	e12	e20
26	198	514	e140	e240	e90	e1100	303	55	27	14	e10	e84
27	137	389	e110	e200	e120	1710	195	46	24	14	e9.0	e100
28	110	316	e150	e160	e150	2150	145	42	23	12	e12	e130
29	97	314	e170	e150	---	2930	127	40	35	11	e9.0	e140
30	93	265	e1000	e110	---	2210	117	38	26	16	e8.0	e72
31	87	---	3310	e100	---	2000	---	58	---	25	e9.0	---
TOTAL	3588	17593	13483	13321	3244	19540	12711	1941	2066	582	472.5	1168
MEAN	116	586	435	430	116	630	424	62.6	68.9	18.8	15.2	38.9
MAX	494	2300	3310	2840	150	2930	2110	118	398	39	60	140
MIN	50	79	110	100	90	160	117	38	23	11	8.0	11
CFSM	.86	4.34	3.22	3.18	.86	4.67	3.14	.46	.51	.14	.11	.29
IN.	.99	4.85	3.72	3.67	.89	5.38	3.50	.53	.57	.16	.13	.32

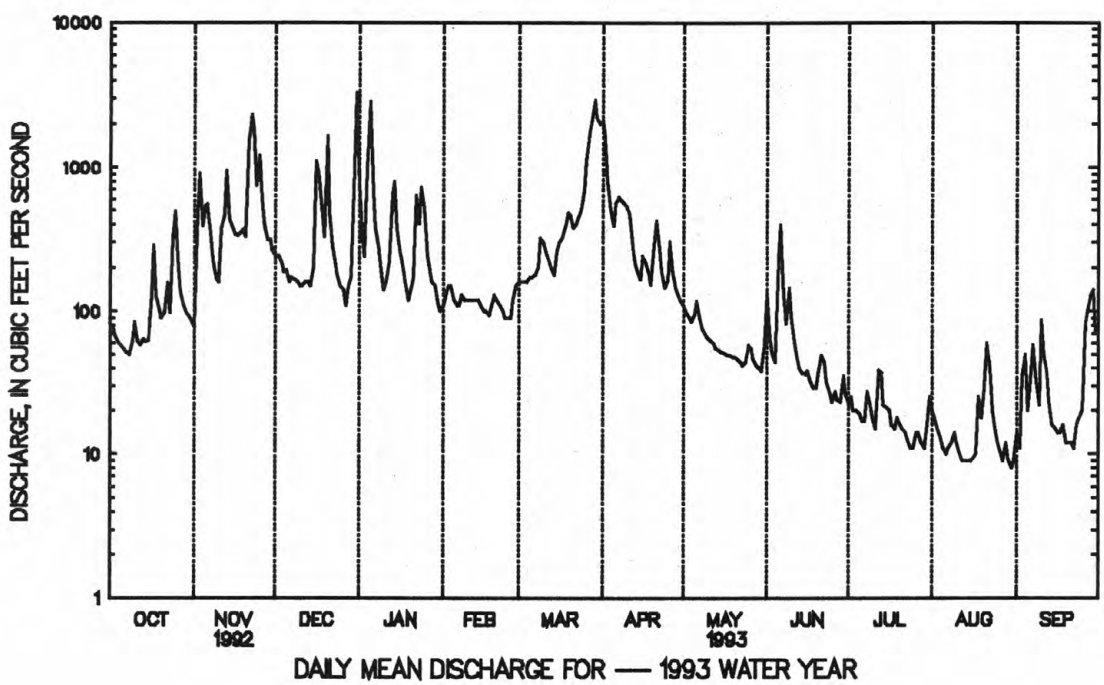
e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1993, BY WATER YEAR (WY)

MEAN	112	243	354	289	330	562	420	201	108	52.0	47.9	80.7
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

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1940 - 1993	
ANNUAL TOTAL	112656		89709.5			
ANNUAL MEAN	308		246		233	
HIGHEST ANNUAL MEAN					332	1977
LOWEST ANNUAL MEAN					163	1965
HIGHEST DAILY MEAN	3310	Dec 31	3310	Dec 31	7560	Mar 7 1956
LOWEST DAILY MEAN	18	Jul 2	8.0	Aug 30	3.1	Jul 20 1955
ANNUAL SEVEN-DAY MINIMUM	25	Jun 26	9.4	Aug 11	3.5	Jul 17 1955
INSTANTANEOUS PEAK FLOW			5080	Jan 5	a13500	Mar 1 1955
INSTANTANEOUS PEAK STAGE			8.74	Jan 5	b15.82	Mar 1 1955
INSTANTANEOUS LOW FLOW					2.6	Nov 7 1953
ANNUAL RUNOFF (CFSM)	2.28		1.82		1.72	
ANNUAL RUNOFF (INCHES)	31.04		24.72		23.43	
10 PERCENT EXCEEDS	700		542		546	
50 PERCENT EXCEEDS	165		110		96	
90 PERCENT EXCEEDS	52		14		15	

a From rating curve extended above 7,700 ft^3/s.
b Present datum.



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, 578.64 ft, Nov. 12; minimum elevation, 570.18 ft, Mar. 4.

ELEVATION (FEET IGLD), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	572.53	570.83	572.76	572.76	572.64	572.54	572.34	573.08	573.32	572.70	572.81	572.22
2	573.04	571.68	572.62	572.30	572.91	572.42	573.25	572.82	572.93	572.94	573.01	572.40
3	572.75	572.19	572.92	572.46	573.48	571.95	573.34	573.07	572.89	573.15	572.99	572.59
4	571.76	572.62	572.73	572.58	572.89	570.68	573.07	572.97	572.66	572.96	573.06	572.66
5	571.93	572.25	573.23	572.96	573.00	571.98	572.79	573.20	572.97	573.00	572.76	572.52
6	572.11	572.25	573.39	572.94	571.95	572.63	572.87	573.23	573.02	573.16	572.54	572.28
7	572.08	571.82	573.03	572.80	572.60	572.50	572.94	573.03	572.83	573.04	572.72	572.30
8	572.13	571.93	572.36	572.45	572.53	572.68	572.92	572.98	572.88	573.16	572.65	572.40
9	572.73	571.99	572.03	571.57	572.43	572.67	572.97	573.04	573.21	573.10	572.58	572.74
10	572.47	572.26	572.09	571.83	572.58	572.28	573.17	573.05	573.19	573.15	572.73	573.07
11	572.43	572.18	571.47	572.50	571.08	572.66	572.93	573.16	573.03	573.20	572.78	572.59
12	572.90	572.50	571.98	572.21	571.93	572.42	572.98	573.14	572.91	573.19	572.56	572.52
13	572.80	574.65	572.02	573.33	572.88	571.90	573.09	573.05	572.88	573.04	572.58	572.40
14	571.93	572.95	572.15	572.85	572.74	572.99	572.85	573.01	573.01	573.04	572.62	572.43
15	572.10	572.59	572.18	573.26	572.72	572.62	572.93	573.23	573.27	573.05	572.57	572.32
16	573.60	572.55	572.54	573.12	572.29	573.02	573.14	573.02	572.95	573.11	572.61	571.77
17	572.59	572.21	572.52	573.42	572.97	572.51	573.52	573.05	572.97	572.83	572.56	572.07
18	572.33	572.14	572.24	572.91	573.31	572.35	573.15	572.85	573.04	572.83	572.49	572.17
19	572.24	571.89	572.40	572.96	572.78	572.36	572.98	573.06	572.94	573.05	572.50	571.90
20	572.23	572.00	573.02	572.78	572.42	572.58	573.13	573.05	573.03	573.12	572.75	571.69
21	572.14	572.44	572.32	572.64	571.94	572.77	573.12	573.02	573.27	573.01	572.27	571.88
22	571.99	571.69	572.82	573.28	573.33	572.42	573.17	572.92	573.13	573.05	572.42	572.03
23	572.16	572.70	573.04	572.82	572.82	572.27	573.33	572.93	572.87	572.95	572.42	572.35
24	572.14	572.22	572.83	573.43	572.65	572.50	573.01	573.22	572.93	572.74	572.66	572.08
25	572.01	572.26	574.16	573.29	572.32	572.65	573.20	573.29	573.08	572.68	572.53	571.85
26	572.22	573.17	572.95	573.02	572.13	572.70	573.06	573.08	573.27	573.02	572.41	572.74
27	572.03	572.76	572.12	573.22	572.31	572.67	573.08	572.79	573.34	573.09	572.54	572.84
28	571.99	572.55	572.13	573.16	572.43	572.67	573.08	572.99	573.17	572.93	572.59	573.35
29	572.00	573.15	572.13	573.94	---	572.81	573.10	572.94	573.02	573.41	572.12	572.25
30	571.78	573.19	572.11	574.42	---	572.85	573.16	572.60	572.79	573.27	572.29	571.92
31	571.49	---	572.57	574.55	---	572.04	---	573.18	---	572.93	572.51	---
MEAN	572.28	572.39	572.54	572.96	572.57	572.45	573.06	573.03	573.03	573.03	572.60	572.34
MAX	573.60	574.65	574.16	574.55	573.48	573.02	573.52	573.29	573.34	573.41	573.06	573.35
MIN	571.49	570.83	571.47	571.57	571.08	570.68	572.34	572.60	572.66	572.68	572.12	571.69

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.--133 years, 205,900 ft^3/s.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	224000	190000	232000	241000	234000	229000	231000	245000	243000	223000	228000	214000
2	232000	203000	230000	230000	234000	225000	257000	239000	235000	228000	232000	216000
3	234000	220000	238000	230000	251000	216000	261000	242000	233000	236000	230000	225000
4	210000	230000	230000	235000	234000	192000	252000	243000	227000	232000	235000	222000
5	211000	222000	246000	245000	242000	206000	242000	246000	234000	233000	224000	222000
6	216000	223000	247000	247000	207000	231000	240000	248000	234000	234000	221000	215000
7	216000	215000	239000	241000	212000	227000	242000	242000	228000	232000	225000	216000
8	216000	218000	223000	232000	227000	232000	240000	243000	228000	235000	222000	218000
9	227000	212000	217000	210000	226000	233000	242000	243000	233000	233000	221000	224000
10	227000	215000	216000	210000	231000	219000	245000	241000	237000	237000	223000	233000
11	225000	223000	206000	226000	201000	233000	242000	245000	228000	234000	223000	224000
12	231000	214000	212000	224000	191000	223000	240000	246000	224000	239000	220000	221000
13	232000	289000	217000	241000	232000	210000	243000	239000	221000	231000	219000	220000
14	215000	242000	216000	239000	229000	237000	238000	242000	221000	233000	221000	220000
15	217000	229000	221000	249000	235000	234000	237000	247000	227000	232000	219000	218000
16	239000	229000	230000	244000	221000	240000	244000	243000	220000	233000	219000	203000
17	238000	221000	233000	251000	234000	228000	253000	242000	219000	229000	219000	210000
18	226000	220000	227000	239000	244000	223000	246000	237000	222000	228000	218000	214000
19	219000	214000	229000	238000	229000	225000	240000	239000	222000	228000	219000	208000
20	219000	216000	244000	236000	227000	232000	242000	242000	225000	234000	225000	203000
21	222000	226000	227000	230000	212000	237000	245000	240000	231000	231000	214000	206000
22	214000	219000	239000	250000	251000	228000	244000	239000	230000	231000	218000	209000
23	219000	226000	237000	243000	236000	224000	249000	238000	225000	230000	218000	216000
24	220000	225000	237000	252000	233000	231000	242000	242000	224000	226000	223000	210000
25	216000	228000	263000	257000	228000	238000	246000	247000	227000	224000	220000	207000
26	222000	239000	241000	243000	219000	241000	242000	237000	237000	228000	219000	224000
27	217000	240000	219000	249000	223000	242000	242000	234000	236000	233000	220000	219000
28	215000	228000	219000	241000	228000	246000	243000	236000	236000	228000	221000	249000
29	217000	241000	217000	259000	---	249000	241000	235000	230000	241000	214000	218000
30	210000	246000	221000	264000	---	250000	244000	229000	227000	237000	214000	207000
31	205000	---	236000	277000	---	232000	---	240000	---	232000	221000	---
TOTAL	6851000	6763000	7109000	7473000	6371000	7113000	7315000	7471000	6864000	7185000	6865000	6511000
MEAN	221000	225400	229300	241100	227500	229500	243800	241000	228800	231800	221500	217000
MAX	239000	289000	263000	277000	251000	250000	261000	248000	243000	241000	235000	249000
MIN	205000	190000	206000	210000	191000	192000	231000	229000	219000	223000	214000	203000

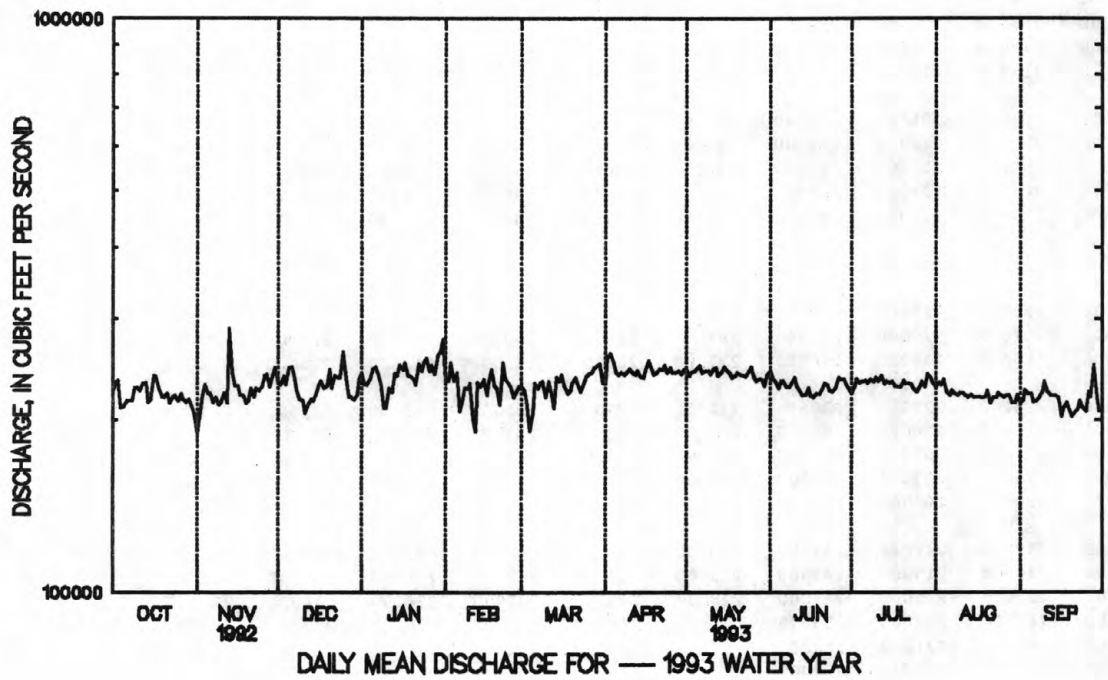
04216000 NIAGARA RIVER AT BUFFALO, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 1993, BY WATER YEAR (WY)

MEAN	199900	200100	200600	194500	191800	197900	207300	215900	216100	211700	208000	203900
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

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1926 - 1993	
ANNUAL TOTAL	78056000		83891000			
ANNUAL MEAN	213300		229800		204500	
HIGHEST ANNUAL MEAN					249600	1986
LOWEST ANNUAL MEAN					155300	1934
HIGHEST DAILY MEAN	289000	Nov 13	289000	Nov 13	a347000	Dec 2 1985
LOWEST DAILY MEAN	158000	Jan 25	190000	Nov 1	90000	Jan 13 1964
ANNUAL SEVEN-DAY MINIMUM	174000	Jan 25	208000	Sep 16	105000	Feb 6 1936
10 PERCENT EXCEEDS	230000		245000		238000	
50 PERCENT EXCEEDS	214000		230000		205000	
90 PERCENT EXCEEDS	194000		215000		169000	

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 was 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 recorded elevation, 577.77 ft, Nov. 13; minimum recorded, 570.08 ft, Mar. 4.

ELEVATION (FEET IGLD), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	572.62	570.95	---	---	---	572.55	---	573.02	573.29	572.68	572.85	572.29
2	573.11	571.60	---	---	---	572.43	---	572.81	572.99	572.94	573.07	572.38
3	572.92	572.29	---	---	---	572.14	---	573.17	572.99	573.14	572.94	572.80
4	571.90	572.66	---	---	---	570.88	---	573.00	572.72	572.99	573.20	572.74
5	571.97	572.23	---	---	---	---	---	573.05	572.93	573.07	572.74	572.66
6	572.14	572.30	---	---	---	---	---	572.84	573.13	573.17	572.55	572.41
7	572.11	571.82	---	---	---	---	---	572.88	572.93	573.07	572.74	572.44
8	572.19	571.93	---	---	---	---	573.23	572.99	572.98	573.25	572.64	572.52
9	572.86	572.07	---	---	---	---	573.24	573.03	573.17	573.18	572.60	572.73
10	572.62	572.21	---	---	---	---	573.42	573.00	573.25	573.17	572.76	573.17
11	572.55	572.33	---	---	---	---	573.24	573.00	573.05	573.13	572.90	572.65
12	573.05	572.06	---	---	---	---	573.33	573.13	572.92	573.32	572.64	572.59
13	572.89	---	---	---	---	---	573.38	573.10	572.94	573.05	572.62	572.57
14	572.03	---	---	---	---	---	573.22	573.21	573.04	573.00	572.64	572.46
15	572.19	---	---	---	---	---	572.92	573.31	573.32	573.05	572.59	572.53
16	573.39	---	---	---	---	---	573.14	573.10	573.00	573.09	572.71	572.01
17	572.77	---	---	---	---	---	573.58	573.09	573.00	572.82	572.61	572.08
18	572.44	---	---	---	---	---	573.15	572.87	573.05	572.86	572.67	572.20
19	572.26	---	---	---	---	---	573.07	573.05	573.01	573.00	572.60	572.00
20	572.26	---	---	---	---	---	573.13	573.07	573.08	573.13	572.85	571.81
21	572.35	---	---	---	---	---	573.20	573.04	573.29	573.00	572.31	572.03
22	572.03	---	---	---	---	---	573.13	572.96	573.19	573.04	572.44	572.18
23	572.25	---	---	---	---	---	573.36	572.97	572.89	572.92	572.43	572.49
24	572.25	---	---	---	---	---	573.04	573.14	572.94	572.77	572.71	572.21
25	572.00	---	---	---	---	---	573.24	573.36	573.04	572.69	572.55	572.05
26	572.27	---	---	---	572.21	---	573.09	573.09	573.41	573.00	572.45	572.80
27	572.05	---	---	---	572.29	---	573.08	572.83	573.36	573.15	572.57	572.79
28	571.95	---	---	---	572.45	---	573.17	573.02	573.29	572.94	572.74	573.59
29	572.13	---	---	---	---	---	573.10	572.95	573.02	573.51	572.24	572.40
30	571.89	---	---	---	---	---	573.19	572.68	572.80	573.28	572.38	572.06
31	571.57	---	---	---	---	---	---	573.17	---	573.01	572.68	---
MEAN	572.35	---	---	---	---	---	---	573.03	573.07	573.05	572.66	572.45
MAX	573.39	---	---	---	---	---	---	573.36	573.41	573.51	573.20	573.59
MIN	571.57	---	---	---	---	---	---	572.68	572.72	572.68	572.24	571.81

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 was 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, 570.68 ft, Nov. 13, but may have been higher during period of no gage-height record; minimum recorded, 565.53 ft, Nov. 23, but may have been lower during periods of no gage-height record.

ELEVATION (FEET IGLD), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	566.99	---	---	---	---	---	567.45	---	---	---
2	---	---	567.22	---	---	---	---	---	567.16	---	---	---
3	---	---	567.59	---	---	---	---	---	567.17	---	567.30	---
4	---	---	567.45	---	---	---	---	---	567.02	---	---	---
5	---	567.17	---	---	---	---	---	---	567.21	---	---	---
6	---	---	---	---	---	---	---	---	567.30	---	---	---
7	---	---	567.48	---	---	---	---	---	567.19	---	---	---
8	---	566.56	---	---	---	---	---	---	567.24	---	567.10	---
9	---	566.49	---	---	---	---	---	---	567.45	---	566.97	---
10	---	566.72	---	---	---	---	---	---	567.57	---	567.04	---
11	---	567.08	---	---	---	---	---	---	567.39	---	567.08	---
12	---	566.58	---	---	---	---	---	---	567.27	---	566.98	---
13	---	568.46	---	---	---	---	---	567.21	567.30	---	566.89	---
14	---	---	---	---	---	---	---	567.14	567.39	---	566.90	---
15	---	---	566.57	567.55	---	---	---	567.37	567.63	---	566.69	---
16	567.38	---	566.59	567.37	---	---	---	567.20	567.33	---	566.92	---
17	567.40	---	566.75	567.61	---	---	---	567.08	567.29	---	566.88	---
18	566.89	---	566.77	567.25	---	---	---	567.07	567.31	---	566.85	---
19	566.74	566.64	---	567.23	---	---	---	567.25	567.21	---	566.92	---
20	566.82	566.60	---	567.12	---	---	---	567.04	567.30	---	---	---
21	566.80	566.97	---	566.94	---	---	---	567.20	---	567.32	---	---
22	566.62	566.75	567.26	---	---	---	---	567.17	---	567.37	---	---
23	566.85	566.63	567.18	---	---	---	---	567.15	---	567.34	---	---
24	566.56	---	---	---	---	---	---	567.28	---	567.12	---	---
25	566.66	---	---	---	---	---	---	567.48	---	567.00	566.95	---
26	566.86	---	---	---	---	---	---	567.23	---	567.21	566.84	---
27	566.53	---	---	---	---	---	---	567.05	---	567.37	566.94	---
28	566.54	---	---	---	---	---	---	567.19	---	567.23	567.02	---
29	566.48	---	566.74	---	---	---	---	567.19	---	---	566.79	---
30	566.50	---	566.79	---	---	---	---	566.95	---	---	566.73	---
31	---	---	566.80	---	---	---	---	567.37	---	---	567.03	---
MEAN	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---

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 sea level (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)
Jan. 5	0215	*813	*6.24	Sept.27	2215	626	5.27

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	1.9	10	e26	e4.0	4.4	122	4.3	17	2.1	1.3	4.2
2	1.4	116	12	e10	e3.5	6.4	51	3.3	5.6	3.9	10	2.4
3	1.3	87	14	15	5.0	22	29	3.1	3.9	1.9	2.0	45
4	1.2	46	6.6	115	5.6	19	18	3.0	2.4	1.6	6.2	13
5	1.1	57	7.1	315	4.9	17	13	11	152	1.5	1.5	2.7
6	1.1	48	3.9	38	e3.9	e18	11	4.5	25	1.4	1.0	17
7	1.1	16	e3.5	18	e3.5	e20	8.6	4.4	8.9	1.6	20	7.2
8	1.2	6.3	e4.5	e12	e4.3	e24	7.6	2.7	25	1.5	4.2	2.3
9	29	4.2	e3.0	e5.8	e3.5	e30	6.9	2.5	103	2.4	1.4	1.8
10	3.7	5.1	e2.8	e4.0	e3.5	e22	21	3.1	16	1.8	1.2	52
11	17	38	e4.0	5.7	e3.9	e12	10	2.9	5.0	1.6	1.1	8.2
12	4.3	25	e7.4	6.0	3.9	e10	6.7	2.8	4.0	50	1.7	2.6
13	3.5	95	e8.0	e120	4.3	e5.0	5.5	2.4	2.7	2.7	.99	1.8
14	1.8	28	e7.4	53	4.2	e9.0	5.9	3.2	2.4	2.5	1.2	1.7
15	39	23	e8.6	26	4.5	e18	4.2	3.1	15	3.1	1.0	3.3
16	38	18	176	17	4.5	e20	12	2.3	3.2	1.6	6.8	3.0
17	15	22	68	e12	e5.0	e30	6.2	2.2	2.3	1.4	2.4	1.9
18	8.5	37	31	e8.0	e4.5	e38	4.4	2.2	2.1	1.3	1.4	1.2
19	11	50	19	e5.8	4.0	e30	3.8	3.0	15	3.2	2.7	1.2
20	3.9	41	135	e5.0	4.3	e24	43	2.1	29	2.6	65	1.2
21	46	83	21	e25	4.5	e38	47	1.9	42	1.3	24	1.6
22	9.9	97	11	158	e10	62	15	2.0	5.7	1.2	2.7	1.3
23	5.1	81	e11	62	e8.0	68	7.4	1.9	4.0	1.3	1.7	14
24	38	27	e8.0	116	e5.2	136	5.2	3.4	2.5	1.2	1.6	4.7
25	21	73	e6.0	e38	e4.3	141	41	4.7	2.2	1.2	1.5	1.8
26	7.8	21	e4.0	e9.2	e4.3	153	19	2.0	23	14	1.9	114
27	4.9	15	3.5	e6.0	e4.3	145	8.0	2.0	3.1	3.5	1.1	93
28	4.7	8.6	3.9	e5.0	e3.9	123	5.4	2.2	12	1.5	14	158
29	3.9	9.1	e10	e4.0	---	91	4.5	2.3	5.4	1.2	1.7	36
30	2.7	6.8	155	e3.0	---	49	4.1	2.0	2.4	5.1	7.7	9.3
31	2.2	---	190	e4.0	---	31	---	71	---	4.4	3.1	---
TOTAL	330.9	1186.0	955.2	1247.5	129.3	1415.8	546.4	163.5	541.8	125.6	194.09	607.4
MEAN	10.7	39.5	30.8	40.2	4.62	45.7	18.2	5.27	18.1	4.05	6.26	20.2
MAX	46	116	190	315	10	153	122	71	152	50	65	158
MIN	1.1	1.9	2.8	3.0	3.5	4.4	3.8	1.9	2.1	1.2	.99	1.2

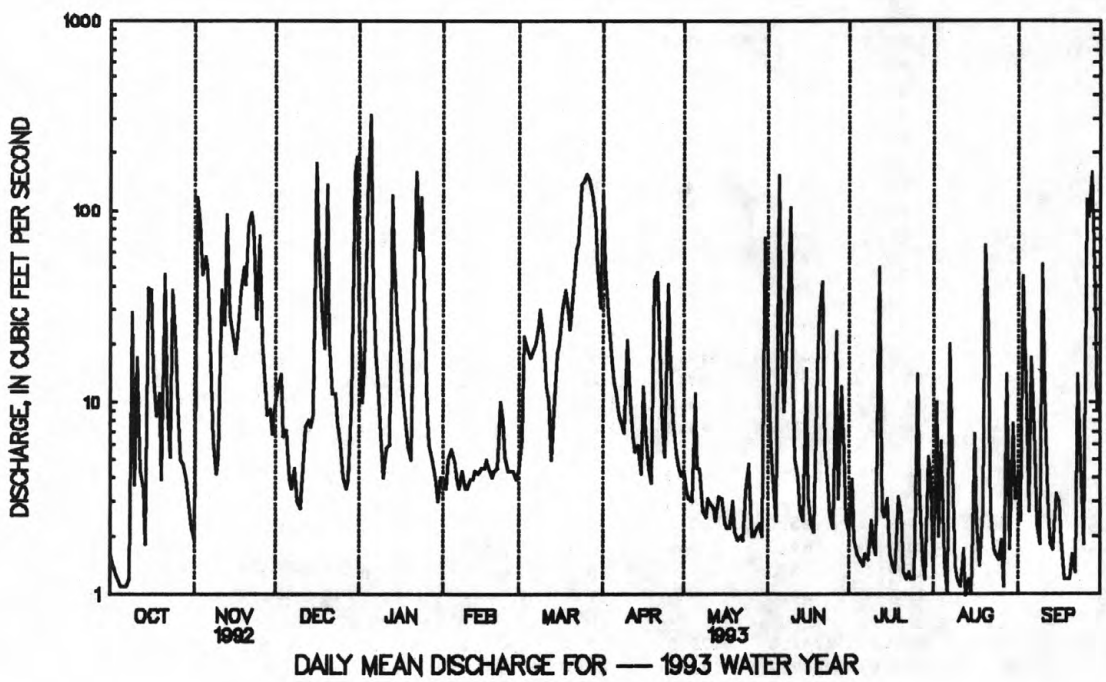
e Estimated

04216200 SCAJAQUADA CREEK AT BUFFALO, NY--continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1993, BY WATER YEAR (WY)

MEAN	22.4	37.3	41.2	30.7	39.6	52.2	36.0	24.6	22.4	17.0	23.5	23.3
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	4.62	13.9	16.0	4.40	2.48	3.42	3.99	5.09
(WY)	1985	1991	1990	1983	1993	1990	1988	1987	1991	1989	1989	1988

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1957 - 1993	
ANNUAL TOTAL	8874.2		7443.49			
ANNUAL MEAN	24.2		20.4		30.9	
HIGHEST ANNUAL MEAN					47.6	1977
LOWEST ANNUAL MEAN					14.9	1988
HIGHEST DAILY MEAN	452	Jul 15	315	Jan 5	1370	Sep 14 1979
LOWEST DAILY MEAN	1.0	Sep 17	.99	Aug 13	.45	Sep 2 1991
ANNUAL SEVEN-DAY MINIMUM	1.2	Oct 2	1.2	Oct 2	.65	Aug 28 1991
INSTANTANEOUS PEAK FLOW			813	Jan 5	2820	Jun 22 1987
INSTANTANEOUS PEAK STAGE			6.24	Jan 5	15.17	Jun 22 1987
INSTANTANEOUS LOW FLOW			.45	Jul 11	.16	Sep 11 1991
10 PERCENT EXCEEDS	55		52		64	
50 PERCENT EXCEEDS	8.2		5.2		16	
90 PERCENT EXCEEDS	2.3		1.6		3.7	



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 was 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, 574.87 ft, Jan. 29; minimum recorded, 570.02 ft, Mar. 4.

ELEVATION (FEET IGLD), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	572.50	570.79	572.64	572.71	572.63	572.53	572.27	---	573.07	572.28	572.38	572.06
2	572.88	571.46	572.51	572.26	572.85	572.40	573.22	---	572.77	572.35	572.36	572.24
3	572.75	572.09	572.80	572.42	573.45	571.96	573.31	---	572.70	572.20	572.51	572.31
4	571.77	572.50	572.60	572.56	572.85	570.68	573.04	---	572.56	571.96	572.60	572.33
5	571.92	572.11	573.11	572.90	572.97	571.90	572.77	---	572.65	571.81	572.64	572.43
6	572.08	572.20	573.27	572.91	571.90	572.61	572.84	---	572.74	571.98	572.46	572.24
7	572.08	571.70	572.92	572.78	572.55	572.49	572.92	---	572.54	572.04	572.61	572.21
8	572.13	571.82	572.24	572.41	572.50	572.67	---	---	572.53	572.06	572.40	572.33
9	572.52	571.88	571.92	571.54	572.41	572.67	---	---	572.39	572.02	572.28	572.46
10	572.44	572.12	572.00	571.77	572.56	572.24	---	---	572.35	572.09	572.32	572.61
11	572.43	572.12	571.37	572.44	571.11	572.66	---	---	572.38	572.11	572.35	572.55
12	572.72	571.94	571.86	572.19	571.86	572.41	---	---	572.30	572.28	572.17	572.45
13	572.70	573.50	571.93	573.08	572.84	571.86	---	---	572.12	572.29	572.14	572.27
14	571.92	572.81	572.05	572.83	572.71	572.94	---	572.94	572.21	572.53	572.19	572.12
15	572.08	572.46	572.09	573.23	572.72	572.59	---	572.89	572.42	572.49	572.12	572.19
16	572.65	572.42	572.47	573.10	572.25	573.00	---	572.98	572.52	572.57	572.31	571.72
17	572.59	572.07	572.43	573.40	572.93	572.47	---	572.98	572.32	572.45	572.26	572.03
18	572.38	571.98	572.17	572.88	573.27	572.31	---	572.83	572.30	572.38	572.20	572.16
19	572.19	571.74	572.34	572.93	572.77	572.33	---	573.00	572.44	572.61	572.12	571.91
20	572.14	571.85	572.94	572.77	572.41	572.54	---	572.93	572.34	572.49	572.23	571.67
21	572.20	572.32	572.25	572.60	571.92	572.75	---	572.86	572.40	572.51	572.16	571.85
22	571.93	571.55	572.76	573.22	573.26	572.39	---	572.79	572.37	572.60	572.27	572.00
23	572.10	572.50	572.92	572.83	572.80	572.23	---	572.81	572.38	572.43	572.28	572.35
24	572.16	572.08	572.75	573.33	572.63	572.47	---	572.94	572.23	572.33	572.26	572.06
25	571.96	572.14	573.61	573.27	572.32	572.62	---	573.01	572.04	572.31	572.04	571.89
26	572.18	572.97	572.88	573.00	572.12	572.67	---	572.81	572.25	572.45	571.94	572.35
27	571.98	572.65	572.06	573.21	572.31	572.62	---	572.70	572.32	572.43	571.98	572.32
28	571.93	572.42	572.09	573.09	572.41	572.63	---	572.73	572.46	572.28	572.08	572.89
29	571.97	572.99	572.04	573.83	---	572.79	---	572.76	572.46	572.36	572.05	572.27
30	571.71	573.10	572.07	574.14	---	572.82	---	572.51	572.46	572.73	571.99	571.89
31	571.41	---	572.52	574.06	---	572.02	---	572.86	---	572.40	572.10	---
MEAN	572.21	572.21	572.44	572.89	572.55	572.43	---	---	572.43	572.32	572.25	572.21
MAX	572.88	573.50	573.61	574.14	573.45	573.00	---	---	573.07	572.73	572.64	572.89
MIN	571.41	570.79	571.37	571.54	571.11	570.68	---	---	572.04	571.81	571.94	571.67

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 was 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, 569.74 ft, Nov. 13; minimum recorded, 564.56 ft, Nov. 1.

ELEVATION (FEET IGLD), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	566.10	564.89	---	---	---	---	---	566.08	566.45	565.85	566.25	---
2	566.49	565.26	---	---	---	---	---	565.85	566.20	566.08	566.41	---
3	566.40	566.14	---	---	---	---	---	566.02	566.20	566.18	566.34	---
4	565.62	566.37	---	---	---	---	---	565.97	566.06	566.09	566.50	---
5	565.72	566.24	---	---	---	---	---	566.12	566.20	566.14	566.18	---
6	565.84	566.35	---	---	---	---	---	566.14	566.31	566.25	566.06	---
7	565.82	565.77	---	---	---	---	---	566.02	566.23	566.23	566.17	---
8	565.86	565.61	---	565.78	---	---	565.97	566.00	566.25	566.33	---	---
9	566.22	565.66	---	565.25	---	---	566.03	565.98	566.45	566.24	---	---
10	566.13	565.93	---	565.09	---	---	566.16	566.01	566.54	566.31	---	---
11	566.05	566.20	---	565.81	---	---	566.04	566.09	566.39	566.27	---	---
12	566.37	565.86	---	565.64	---	---	566.05	566.13	566.27	566.41	---	---
13	566.35	567.94	---	566.06	---	---	566.12	566.22	566.33	566.27	---	---
14	565.74	566.66	---	566.26	---	---	566.02	566.25	566.40	566.22	---	---
15	565.82	566.42	---	566.26	---	---	565.99	566.43	566.57	566.29	---	---
16	566.58	---	---	566.12	---	---	566.20	566.28	566.30	566.34	---	---
17	566.52	---	---	566.34	---	---	566.40	566.29	566.26	566.10	---	---
18	566.01	---	---	566.04	---	---	566.08	566.13	566.27	566.08	---	---
19	565.89	---	---	566.01	---	---	566.10	566.31	566.15	566.23	---	---
20	565.79	---	---	---	---	---	566.12	566.28	566.15	566.33	---	---
21	565.99	---	---	---	---	---	566.18	566.25	566.28	566.29	---	---
22	565.74	---	---	---	---	---	566.23	566.21	566.21	566.34	---	---
23	565.80	---	---	---	---	---	566.35	566.20	565.98	566.26	---	---
24	565.96	---	---	---	---	---	566.01	566.34	565.98	566.15	---	---
25	565.80	---	---	---	---	---	566.19	566.49	566.06	566.03	---	---
26	565.91	---	---	---	---	---	566.10	566.28	566.33	566.19	---	---
27	565.73	566.07	---	---	---	---	566.13	566.14	566.25	566.37	---	---
28	565.72	565.90	---	---	---	---	566.04	566.22	566.28	566.24	---	---
29	565.77	---	---	---	---	---	566.05	566.21	566.11	566.62	---	---
30	565.60	---	---	---	---	---	566.12	566.02	565.94	566.52	---	---
31	565.42	---	---	---	---	---	---	566.39	---	566.36	---	---
MEAN	---	---	---	---	---	---	---	566.17	566.25	566.25	---	---
MAX	---	---	---	---	---	---	---	566.49	566.57	566.62	---	---
MIN	---	---	---	---	---	---	---	565.85	565.94	565.85	---	---

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 sea level.

REMARKS.--Records 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)
Jan. 5	0600	*2,080	*6.75	No other peak greater than base discharge.			

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	47	126	351	e54	e48	e950	67	65	20	16	15
2	50	248	123	191	e66	e60	855	60	40	18	12	12
3	43	410	111	167	e70	e60	619	58	30	20	12	32
4	39	183	97	468	e80	e58	434	53	28	19	12	21
5	37	189	e90	931	e80	e60	414	52	123	17	12	16
6	34	203	e72	342	e52	e72	500	80	125	16	11	20
7	33	149	e74	225	e58	e62	505	60	56	18	12	34
8	32	104	84	e170	e64	e64	502	51	45	19	15	20
9	53	87	e88	e120	e72	e70	491	50	93	16	13	15
10	54	102	e90	e110	e74	e58	530	46	54	16	12	21
11	41	166	e90	123	e64	e60	357	43	39	14	9.5	27
12	38	183	e110	128	e64	e52	219	41	32	18	9.8	18
13	35	367	e100	326	e54	e58	164	38	30	20	11	16
14	32	198	e88	311	e60	e50	140	36	25	16	11	12
15	36	182	e100	195	e50	e70	129	35	23	16	11	11
16	55	160	e320	162	e44	e90	168	35	23	16	12	11
17	83	156	e420	143	e36	e110	159	34	23	14	17	11
18	50	157	325	e100	e32	e140	128	34	21	12	21	11
19	45	160	215	e80	e30	e140	105	34	20	12	15	11
20	42	153	e330	e90	e40	e120	138	34	24	12	19	11
21	45	688	e220	e90	e50	e110	176	34	31	12	40	11
22	48	584	166	e260	e64	e100	138	30	27	12	21	11
23	42	565	e140	e200	e70	e80	105	28	23	12	16	13
24	156	343	e110	e230	e70	e140	85	31	20	11	14	17
25	165	624	e110	e230	e66	e230	92	41	18	11	14	16
26	87	275	e100	e140	e60	e480	164	37	16	44	12	44
27	66	210	e88	e130	e52	729	108	31	16	41	11	34
28	58	172	e110	e100	e60	952	88	28	19	24	11	67
29	52	152	125	e80	---	e940	78	26	28	19	11	55
30	53	133	e500	e60	---	988	71	23	22	16	11	32
31	47	---	e900	e54	---	917	---	46	---	15	13	---
TOTAL	1706	7350	5622	6307	1636	7168	8612	1296	1139	546	437.3	645
MEAN	55.0	245	181	203	58.4	231	287	41.8	38.0	17.6	14.1	21.5
MAX	165	688	900	931	80	988	950	80	125	44	40	67
MIN	32	47	72	54	30	48	71	23	16	11	9.5	11
CFSM	.72	3.19	2.36	2.65	.76	3.01	3.73	.54	.49	.23	.18	.28
IN.	.83	3.56	2.72	3.05	.79	3.47	4.17	.63	.55	.26	.21	.31

e Estimated

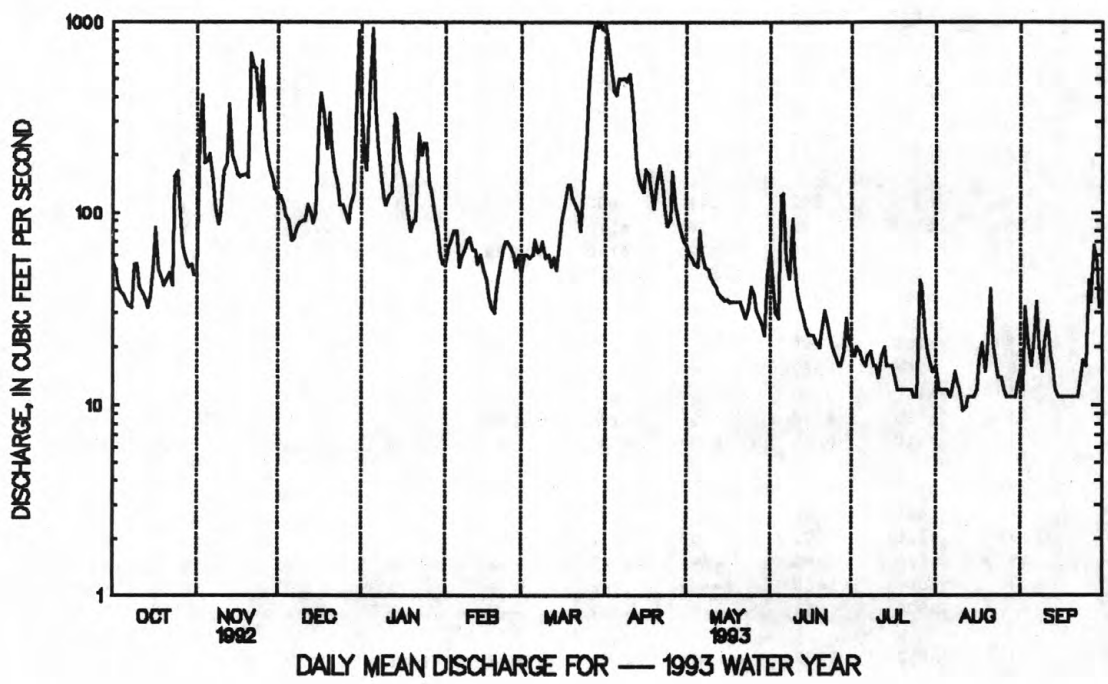
04216418 TONAWANDA CREEK AT ATTICA, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1993, BY WATER YEAR (WY)

MEAN	74.1	132	171	126	139	235	214	99.7	64.4	40.4	39.2	50.8
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

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1978 - 1993	
ANNUAL TOTAL	56506.5		42464.3			
ANNUAL MEAN	154		116		115	
HIGHEST ANNUAL MEAN					157	1978
LOWEST ANNUAL MEAN					88.9	1988
HIGHEST DAILY MEAN	1120	Apr 25	988	Mar 30	2630	Feb 24 1985
LOWEST DAILY MEAN	9.5	Jul 2	9.5	Aug 11	4.4	a
ANNUAL SEVEN-DAY MINIMUM	14	Jun 27	11	Aug 10	4.4	Aug 25 1991
INSTANTANEOUS PEAK FLOW			2080	Jan 5	4700	Dec 29 1984
INSTANTANEOUS PEAK STAGE			6.75	Jan 5	12.40	Feb 18 1979
INSTANTANEOUS LOW FLOW			9.5	b	4.4	c
ANNUAL RUNOFF (CFSM)	2.01		1.51		1.50	
ANNUAL RUNOFF (INCHES)	27.33		20.54		20.35	
10 PERCENT EXCEEDS	370		289		258	
50 PERCENT EXCEEDS	91		55		62	
90 PERCENT EXCEEDS	28		13		15	

a Aug. 18, 19, 26-31, 1991.
b Aug. 10-12.
c Aug. 17-20, 24-31, Sept. 1, 3, 4, 9, 12-14, 1991.



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 sea level.

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)
Jan. 1	0300	2,480	7.54	Mar. 29	2100	*3,580	*9.33
Jan. 6	0430	2,080	6.73				

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	117	82	289	2000	e120	120	2360	145	89	29	34	20
2	104	127	283	748	e140	115	2580	133	69	28	27	18
3	92	684	263	413	e150	118	1680	121	49	35	24	24
4	85	630	232	521	e160	127	1020	113	41	31	22	46
5	80	444	e180	1110	e160	120	741	111	60	28	19	28
6	74	456	e150	1680	e120	133	804	133	288	23	16	27
7	70	412	e160	749	e120	e130	867	129	130	21	19	65
8	66	271	e170	e420	e130	e130	864	103	80	25	27	48
9	69	208	e160	e300	e130	e140	863	92	286	23	23	29
10	113	184	144	e210	e120	e120	818	84	237	19	19	40
11	87	223	167	232	e120	e110	890	77	119	17	16	55
12	75	310	153	260	e120	e110	607	72	79	18	14	43
13	70	489	182	306	e110	e110	408	68	63	24	15	29
14	66	545	170	668	e120	e90	340	64	52	20	13	22
15	66	376	194	586	e100	e130	303	64	46	18	12	18
16	81	332	336	415	e90	e160	312	61	44	19	17	17
17	135	299	e800	347	e80	201	357	59	39	16	17	18
18	117	303	e900	262	e66	292	316	58	37	14	22	20
19	89	321	e600	197	e60	297	255	58	37	14	21	19
20	80	326	e580	220	e86	261	248	61	50	16	18	16
21	79	408	e800	203	e110	230	344	59	55	17	41	15
22	88	841	e500	450	e120	e210	316	54	58	15	42	15
23	84	1050	e320	690	e140	e180	256	51	43	13	24	17
24	80	1090	e280	533	e140	e300	204	50	34	13	18	21
25	322	904	e210	756	e120	488	188	55	30	11	15	24
26	196	993	200	460	e110	673	262	62	28	26	14	37
27	139	647	164	359	e110	1100	266	52	30	131	13	86
28	112	439	175	e240	e120	1910	193	46	28	48	13	63
29	99	358	193	e180	---	2930	170	44	34	30	12	144
30	92	330	438	e140	---	3200	158	39	36	25	11	80
31	88	---	1420	e130	---	2780	---	39	---	33	16	---
TOTAL	3115	14082	10813	15785	3272	17015	18990	2357	2271	800	614	1104
MEAN	100	469	349	509	117	549	633	76.0	75.7	25.8	19.8	36.8
MAX	322	1090	1420	2000	160	3200	2580	145	288	131	42	144
MIN	66	82	144	130	60	90	158	39	28	11	11	15

e Estimated

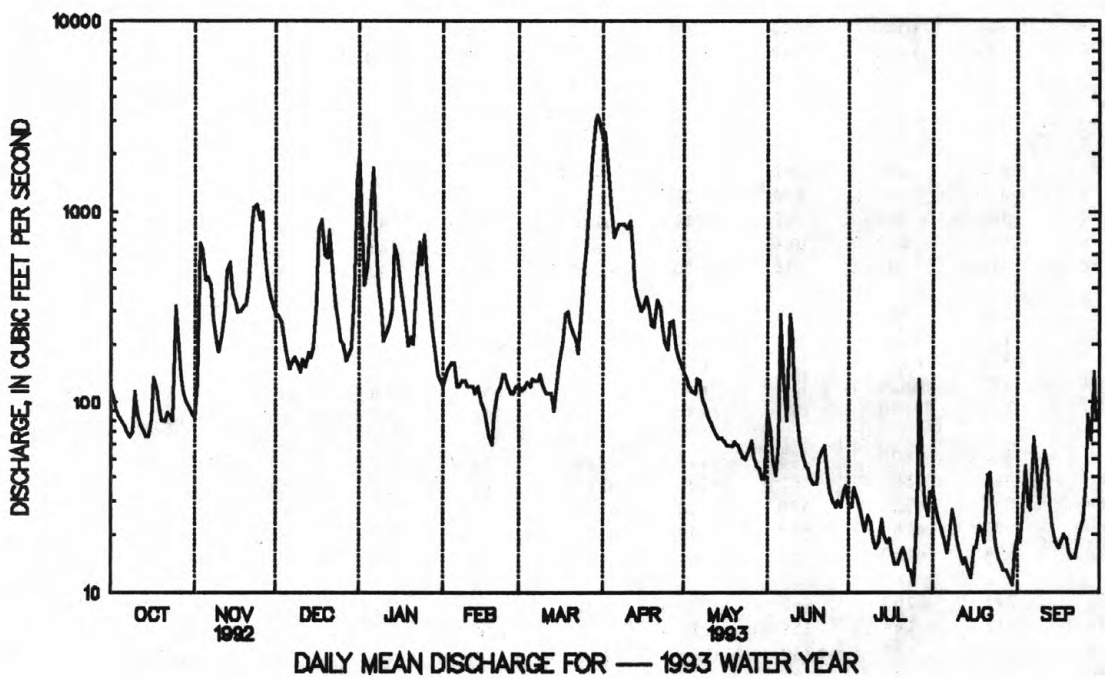
04217000 TONAWANDA CREEK AT BATAVIA, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1993, BY WATER YEAR (WY)

MEAN	82.1	169	266	251	307	547	462	201	106	53.7	50.5	65.3
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

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1944 - 1993	
ANNUAL TOTAL	102353		90218			
ANNUAL MEAN	280		247		213	
HIGHEST ANNUAL MEAN					311	1976
LOWEST ANNUAL MEAN					124	1965
HIGHEST DAILY MEAN	1460	Mar 28	3200	Mar 30	6660	Mar 31 1960
LOWEST DAILY MEAN	16	Jul 2	11	Jul 25	.60	Aug 2 1955
ANNUAL SEVEN-DAY MINIMUM	24	Jun 27	13	Aug 25	1.1	Jul 31 1955
INSTANTANEOUS PEAK FLOW			3580	Mar 29	7200	Mar 31 1960
INSTANTANEOUS PEAK STAGE			9.33	Mar 29	13.85	Apr 6 1947
INSTANTANEOUS LOW FLOW			10	a	.40	b
10 PERCENT EXCEEDS	664		637		510	
50 PERCENT EXCEEDS	182		117		96	
90 PERCENT EXCEEDS	49		18		14	

a Aug. 29-31.
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 sea level.

REMARKS.--Records poor. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Maximum daily discharge, 1200 ft^3/s, Mar. 30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	33	89	515	e40	45	869	52	e19	e8.6	e16	e6.0
2	33	39	85	e300	e46	45	828	39	e16	e8.6	e18	e7.0
3	30	76	82	e200	e50	42	661	31	e17	e9.4	e14	e6.0
4	28	94	78	e260	e58	45	399	28	e14	e8.6	e10	e10
5	28	110	e60	385	e60	48	281	28	e16	e8.6	e8.0	e12
6	28	107	e48	564	e50	45	232	27	e44	e7.2	e6.4	e10
7	23	109	e52	e300	e40	e40	221	41	e29	e6.6	e7.0	e20
8	20	103	e54	e180	e42	e42	202	47	e35	e7.0	e9.0	e18
9	21	86	50	e120	e40	e44	166	28	e62	e6.4	e8.0	e11
10	21	71	51	e94	e40	e44	157	23	e48	e6.0	e7.0	e12
11	24	69	58	e86	e46	e40	148	19	e50	e5.4	e6.0	e12
12	27	71	54	92	e46	e40	129	18	e34	e5.2	e4.6	e12
13	28	104	50	108	e40	e40	115	17	e23	e6.0	e4.0	e9.6
14	24	124	53	166	e38	e36	86	17	e19	e5.4	e4.0	e6.6
15	25	134	56	184	e38	e40	74	14	e16	e5.6	e3.6	e4.6
16	30	117	77	e180	e38	e40	65	14	e14	e5.4	e5.0	e4.0
17	39	110	142	e150	e34	45	66	17	e12	e4.6	e5.0	e3.6
18	25	106	244	e120	e30	50	65	19	e11	e4.4	e6.0	e3.8
19	26	115	e200	e100	e26	59	58	20	e11	e4.1	e7.0	e3.6
20	24	125	e180	e90	e30	61	60	20	e13	e4.3	e7.0	e3.4
21	25	136	e160	e100	e40	72	100	16	e14	e4.5	e12	e3.0
22	25	152	e170	e180	e46	e66	123	16	e16	e4.3	e16	e2.8
23	27	176	e100	e210	e48	e56	95	14	e13	e3.9	e9.0	e3.2
24	28	174	e80	e220	e50	e80	75	16	e12	e3.8	e6.8	e3.8
25	29	185	e66	e210	e60	e110	61	16	e9.8	e3.2	e5.2	e4.6
26	37	170	e64	e180	e50	202	70	16	e8.8	e5.7	e4.0	e7.6
27	36	153	e52	e160	e52	383	77	16	e8.8	e16	e4.0	e12
28	34	119	e54	e120	e50	771	69	16	e8.2	e11	e3.8	e12
29	34	100	58	e76	---	1080	57	17	e9.4	e13	e3.2	e32
30	34	94	88	e56	---	1200	56	19	e9.4	e10	e3.0	e20
31	33	---	205	e50	---	956	---	30	---	e12	e4.6	---
TOTAL	883	3362	2860	5756	1228	5867	5665	711	612.4	214.8	227.2	276.2
MEAN	28.5	112	92.3	186	43.9	189	189	22.9	20.4	6.93	7.33	9.21
MAX	39	185	244	564	60	1200	869	52	62	16	18	32
MIN	20	33	48	50	26	36	56	14	8.2	3.2	3.0	2.8
CFSM	.48	1.91	1.57	3.16	.75	3.22	3.21	.39	.35	.12	.12	.16
IN.	.56	2.13	1.81	3.64	.78	3.71	3.58	.45	.39	.14	.14	.17

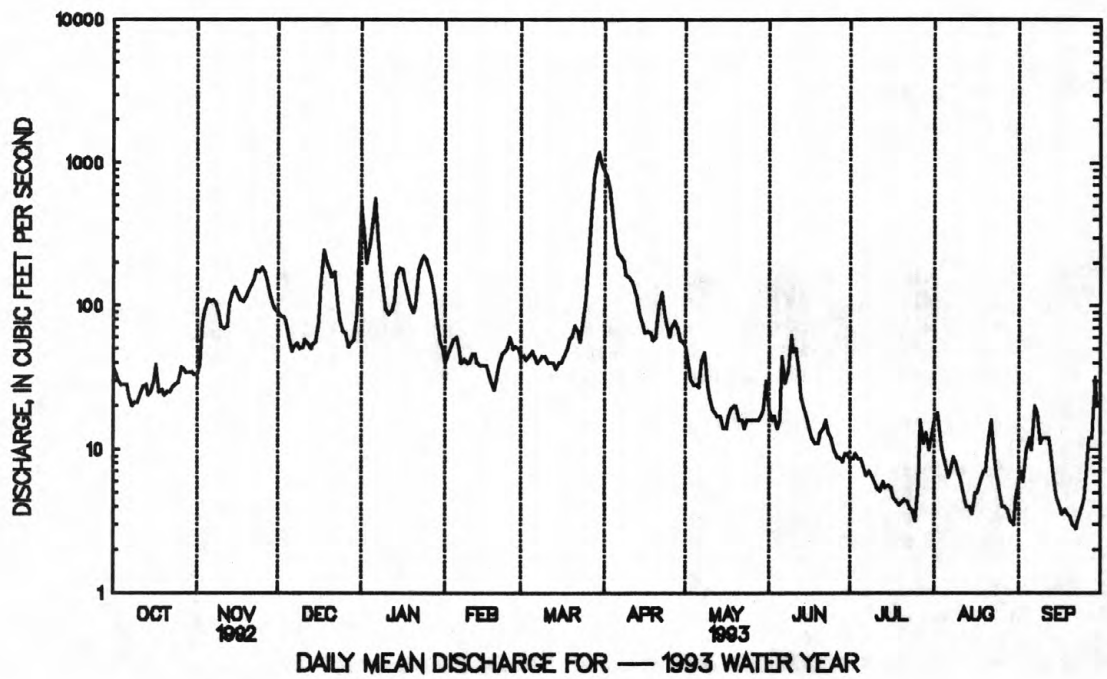
e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1993, BY WATER YEAR (WY)

MEAN	26.5	71.9	112	84.5	111	135	141	70.3	39.1	15.5	15.8	17.9
MAX	87.3	183	222	186	243	214	191	157	183	58.8	96.2	109
(WY)	1987	1986	1984	1993	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1983 - 1993	
ANNUAL TOTAL	30653.6		27662.6			
ANNUAL MEAN	83.8		75.8		70.9	
HIGHEST ANNUAL MEAN					81.7	1984
LOWEST ANNUAL MEAN					58.5	1988
HIGHEST DAILY MEAN	524	Mar 29	1200	Mar 30	2710	Feb 25 1985
LOWEST DAILY MEAN	3.8	Jul 4	2.8	Sep 22	.86	Aug 24 1991
ANNUAL SEVEN-DAY MINIMUM	4.4	Jun 28	3.3	Sep 17	1.4	Aug 23 1991
INSTANTANEOUS PEAK FLOW					3000	Feb 25 1985
INSTANTANEOUS PEAK STAGE					7.16	Feb 25 1985
INSTANTANEOUS LOW FLOW					.53	Aug 24 1991
ANNUAL RUNOFF (CFSM)	1.42		1.29		1.20	
ANNUAL RUNOFF (INCHES)	19.39		17.50		16.37	
10 PERCENT EXCEEDS	178		172		174	
50 PERCENT EXCEEDS	58		38		36	
90 PERCENT EXCEEDS	13		5.4		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 sea level.

REMARKS.--Records good except those for estimated daily discharges 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)
Jan. 2	--	2,740	9.11	Apr. 2	--	*5,480	*14.61

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	262	171	e710	e1780	e280	e200	e5000	275	95	71	62	46
2	233	184	e610	e2510	e320	e210	e5400	262	100	73	55	43
3	209	535	e580	e1670	e320	e210	5160	239	121	67	61	40
4	189	958	e520	e1410	e350	e210	4700	230	92	64	58	46
5	171	1120	e470	e1470	e280	e230	3370	213	88	67	49	61
6	160	1010	e380	e1870	e240	e230	2050	207	187	63	45	70
7	148	949	e320	e2430	e230	e240	1540	212	356	57	46	60
8	138	863	e330	e1600	e260	e250	1460	247	270	51	50	69
9	135	668	e330	e1140	e270	e250	1400	209	255	48	48	90
10	140	513	e320	e740	e260	e230	1320	183	586	44	47	80
11	164	438	e300	e520	e250	e210	1270	172	621	44	46	102
12	173	498	e340	e510	e250	e230	1250	157	374	53	42	116
13	151	678	e310	e570	e210	e230	1060	144	232	52	37	102
14	137	871	e350	e650	e220	e210	793	135	170	46	33	81
15	136	976	e330	e1060	e180	e200	624	128	139	44	29	62
16	166	828	e450	e980	e170	e210	559	122	120	43	30	49
17	205	697	e660	e920	e150	e310	540	114	104	39	33	42
18	232	639	e1200	e750	e130	e390	567	107	92	35	43	37
19	257	694	e1390	e560	e120	e530	521	102	85	36	43	34
20	204	768	e1380	e450	e160	e570	441	98	87	38	40	33
21	187	e810	e1320	e450	e210	e560	504	95	93	37	44	34
22	196	e930	e1450	837	e250	e490	611	93	115	36	46	34
23	190	e1520	e1020	1230	e250	e450	576	90	111	36	54	34
24	191	e1740	e780	1560	e240	e490	468	83	100	35	62	34
25	193	e2310	e640	1490	e220	e650	389	82	85	31	48	37
26	341	e1920	e470	1260	e190	e960	391	82	77	40	40	45
27	375	e2010	e430	e920	e200	e1350	422	85	72	67	34	67
28	269	e1400	e360	e640	e200	e2160	444	86	75	106	30	121
29	224	e1080	e380	e480	---	e3200	349	78	76	124	28	220
30	201	e830	e460	e330	---	e4700	299	72	74	87	28	212
31	183	---	e900	e300	---	e5200	---	72	---	73	33	---
TOTAL	6160	28608	19490	33087	6410	25560	43478	4474	5052	1707	1344	2101
MEAN	199	954	629	1067	229	825	1449	144	168	55.1	43.4	70.0
MAX	375	2310	1450	2510	350	5200	5400	275	621	124	62	220
MIN	135	171	300	300	120	200	299	72	72	31	28	33
CFSM	.57	2.73	1.80	3.06	.66	2.36	4.15	.41	.48	.16	.12	.20
IN.	.66	3.05	2.08	3.53	.68	2.72	4.63	.48	.54	.18	.14	.22

e Estimated

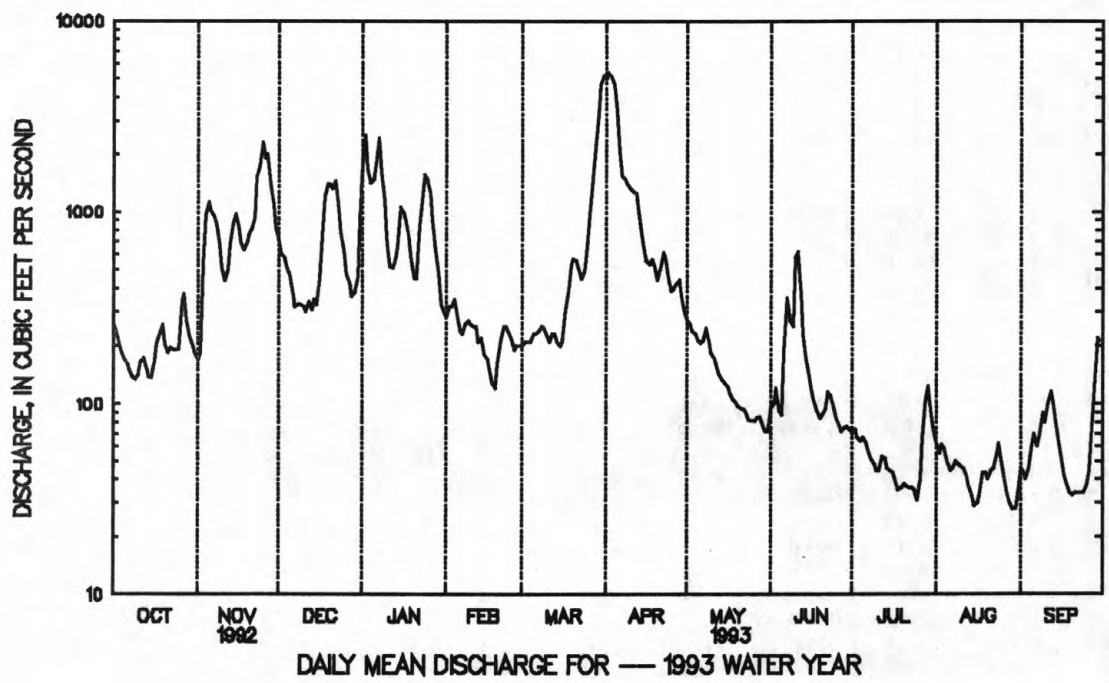
04218000 TONAWANDA CREEK AT RAPIDS, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 1993, BY WATER YEAR (WY)

MEAN	143	308	489	470	616	959	945	396	204	94.2	91.7	101
MAX	642	1239	1116	1067	1363	1650	1533	1046	1372	463	601	613
(WY)	1987	1986	1987	1993	1981	1956	1960	1956	1989	1992	1992	1992
MIN	14.8	25.7	23.3	29.4	103	452	422	144	45.6	26.1	15.9	10.0
(WY)	1965	1961	1961	1961	1963	1981	1981	1993	1965	1991	1991	1991

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1955 - 1993	
ANNUAL TOTAL	199197		177471			
ANNUAL MEAN	544		486		400	
HIGHEST ANNUAL MEAN					556	1956
LOWEST ANNUAL MEAN					255	1965
HIGHEST DAILY MEAN	2440	Mar 29	5400	Apr 2	6130	Apr 1 1960
LOWEST DAILY MEAN	37	Jul 3	28	Aug 29	4.8	Jul 28 1983
ANNUAL SEVEN-DAY MINIMUM	47	Jun 29	34	Aug 26	6.8	Sep 1 1991
INSTANTANEOUS PEAK FLOW			5480	Apr 2	6280	Apr 1 1960
INSTANTANEOUS PEAK STAGE			14.61	Apr 2	16.96	Apr 1 1960
INSTANTANEOUS LOW FLOW			28	a	4.5	Jul 28 1983
ANNUAL RUNOFF (CFSM)	1.56		1.39		1.15	
ANNUAL RUNOFF (INCHES)	21.23		18.92		15.59	
10 PERCENT EXCEEDS	1230		1260		1050	
50 PERCENT EXCEEDS	368		212		190	
90 PERCENT EXCEEDS	110		43		29	

a Aug. 16, 29, and 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 sea level.

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)
Jan. 1	0400	1,240	5.92	Mar. 28	2230	*1,660	*6.97
Jan. 6	0700	1,280	6.19				

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	42	157	982	e90	80	904	74	77	19	19	13
2	52	102	151	286	e100	80	1070	71	73	32	30	14
3	45	321	153	182	e105	83	612	66	48	37	35	20
4	42	323	135	255	e110	90	365	65	58	36	35	35
5	42	246	129	866	e100	91	264	70	180	33	17	35
6	46	278	113	1050	e95	96	237	73	277	18	16	35
7	44	261	112	372	e90	99	224	87	179	15	35	33
8	41	160	106	226	e95	e120	197	76	126	24	33	43
9	45	97	102	175	e90	e130	179	62	250	19	32	28
10	39	99	e95	e120	e90	e130	167	59	350	15	17	52
11	52	115	e100	e110	e75	e120	186	e56	125	41	16	81
12	43	152	e100	e120	e85	e110	173	e52	84	32	15	60
13	30	275	e98	e160	e82	e90	141	e50	64	34	14	41
14	41	353	e100	401	e80	e90	131	e48	53	21	13	22
15	58	227	e110	421	e80	e110	121	e46	55	15	13	20
16	65	191	e200	282	e75	e120	119	e44	49	14	24	18
17	86	178	722	e200	e70	e160	123	e45	44	14	36	17
18	90	191	649	e160	e65	e190	124	47	43	14	27	30
19	73	241	336	e150	e76	e210	111	42	45	25	13	32
20	56	276	374	e130	e80	210	122	46	51	31	66	28
21	79	310	567	e140	e72	202	227	46	65	22	57	15
22	65	460	231	e300	e70	212	197	48	e70	14	47	15
23	64	453	156	e600	e70	243	121	45	e40	14	38	19
24	67	463	e140	566	e75	313	103	41	21	14	31	19
25	100	391	e110	560	e75	429	104	38	48	13	17	19
26	99	448	e100	317	e80	673	127	35	38	31	15	70
27	67	260	e90	199	e85	1080	130	34	36	40	13	87
28	53	207	e84	e130	e85	1490	97	32	23	40	26	170
29	50	164	e86	e120	---	1590	77	31	23	25	26	165
30	46	163	e210	e100	---	1370	74	31	20	24	25	129
31	44	---	873	e95	---	1100	---	63	---	21	13	---
TOTAL	1780	7447	6689	9775	2345	11111	6827	1623	2615	747	814	1365
MEAN	57.4	248	216	315	83.7	358	228	52.4	87.2	24.1	26.3	45.5
MAX	100	463	873	1050	110	1590	1070	87	350	41	66	170
MIN	30	42	84	95	65	80	74	31	20	13	13	13
CFSM	.70	3.04	2.64	3.86	1.03	4.39	2.79	.64	1.07	.30	.32	.56
IN.	.81	3.39	3.05	4.46	1.07	5.07	3.11	.74	1.19	.34	.37	.62

e Estimated

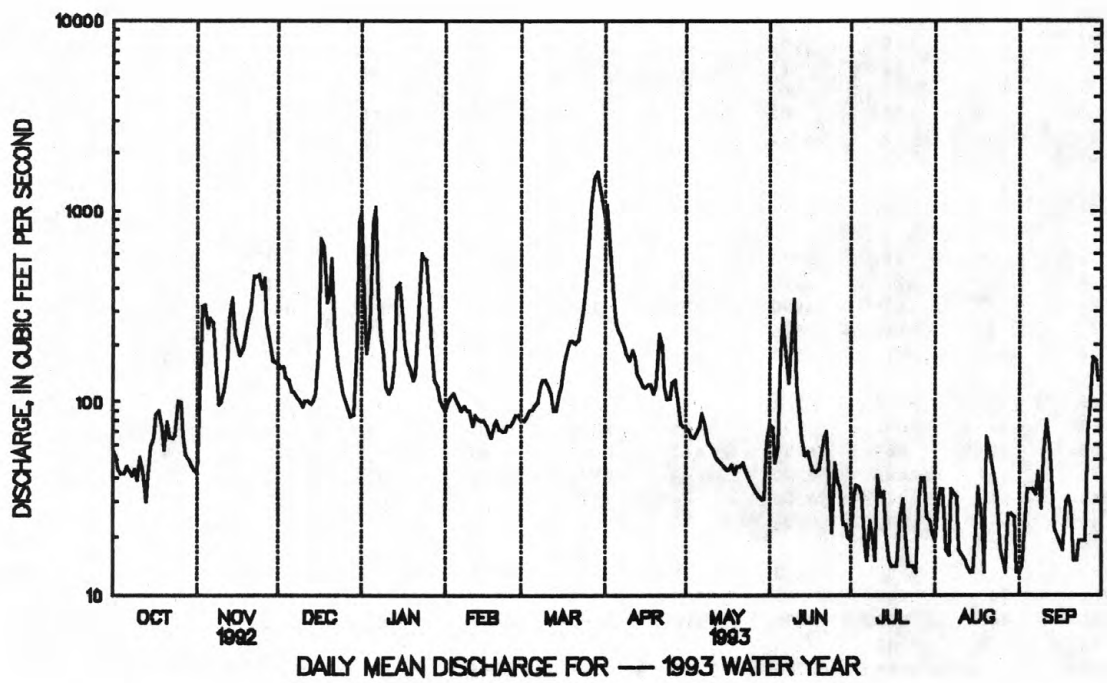
04218518 ELLICOTT CREEK BELOW WILLIAMSVILLE, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1993, BY WATER YEAR (WY)

MEAN	69.0	140	210	147	176	277	210	109	74.1	42.3	58.1	73.3
MAX	175	342	441	315	377	519	298	258	275	144	397	425
(WY)	1987	1986	1978	1993	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

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1973 - 1993	
ANNUAL TOTAL	60000		53138			
ANNUAL MEAN	164		146		132	
HIGHEST ANNUAL MEAN					177	1977
LOWEST ANNUAL MEAN					102	1988
HIGHEST DAILY MEAN	1270	Sep 23	1590	Mar 29	3280	Feb 25 1985
LOWEST DAILY MEAN	20	Jun 28	13	a	2.7	Aug 15 1978
ANNUAL SEVEN-DAY MINIMUM	25	Jun 26	16	Aug 10	3.6	Jul 15 1978
INSTANTANEOUS PEAK FLOW			1660	Mar 28	3640	Feb 25 1985
INSTANTANEOUS PEAK STAGE			6.97	Mar 28	11.19	Feb 25 1985
INSTANTANEOUS LOW FLOW			b4.4	Jun 23	c.00	Jul 27 1976
ANNUAL RUNOFF (CFSM)	2.01		1.78		1.62	
ANNUAL RUNOFF (INCHES)	27.35		24.22		21.96	
10 PERCENT EXCEEDS	390		315		302	
50 PERCENT EXCEEDS	96		80		71	
90 PERCENT EXCEEDS	41		20		17	

a Jul 25, Aug 14, 15, 19, 27, 31, Sep 1.
b Result of regulation.
c 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 sea level. 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 and daily discharges during the non-navigational period, which are poor. 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 was published during the non-navigational period this year due to discharges recorded from leakage during installation of new canal gates.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	241	256	e83	94	e8.0	e2.0	262	e27	164	284	264	244
2	238	256	e63	75	e6.0	e3.0	290	e27	159	252	258	259
3	247	261	e33	52	e7.0	e3.0	295	e28	157	279	263	257
4	263	267	---	47	12	e4.0	260	e28	166	288	262	290
5	254	261	---	70	15	e6.0	207	e109	157	287	260	291
6	252	259	---	72	11	e7.0	166	e140	189	265	272	260
7	260	261	---	60	e8.0	e7.0	134	57	163	255	258	251
8	250	248	---	45	21	10	108	37	203	269	290	236
9	246	246	---	31	43	17	89	41	203	250	271	246
10	248	249	---	20	33	19	78	43	177	264	258	241
11	255	252	---	14	24	22	77	44	182	294	257	259
12	248	247	---	e9.0	17	21	70	45	185	264	248	256
13	230	221	---	16	15	22	62	44	192	264	253	263
14	218	171	---	35	e10	22	52	44	172	252	268	257
15	222	129	---	40	e7.0	15	43	43	176	272	280	247
16	224	98	---	37	e6.0	11	42	45	174	264	255	250
17	221	54	---	32	e7.0	14	56	44	190	272	254	249
18	224	35	---	25	e5.0	15	65	45	171	284	259	278
19	221	35	---	18	e4.0	14	62	45	207	267	252	272
20	213	39	---	12	e3.0	14	55	45	187	273	252	256
21	242	40	e6.0	e8.0	e3.0	17	52	44	170	267	262	248
22	273	40	27	23	e4.0	19	54	42	178	264	263	235
23	264	44	30	46	e4.0	24	81	46	175	275	258	254
24	269	45	27	63	e3.0	33	86	50	178	264	253	244
25	272	e112	18	74	e3.0	45	84	44	195	275	250	246
26	266	e140	13	63	e3.0	60	81	73	239	266	267	241
27	276	e198	e5.0	49	e3.0	83	93	74	258	262	250	235
28	262	e217	e3.0	33	e3.0	120	94	108	255	266	269	237
29	258	e215	e2.0	26	---	164	62	187	251	254	262	242
30	256	e155	13	15	---	208	24	197	250	260	269	240
31	256	---	70	11	---	242	---	164	---	268	247	---
TOTAL	7669	5051	---	1215.0	288.0	1263.0	3184	2010	5723	8320	8084	7584
MEAN	247	168	---	39.2	10.3	40.7	106	64.8	191	268	261	253
MAX	276	267	---	94	43	242	295	197	258	294	290	291
MIN	213	35	---	8.0	3.0	2.0	24	27	157	250	247	235

e Estimated

ST. LAWRENCE RIVER MAIN STEM

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), 1992-93 (b).
MINOR ELEMENT DATA: 1971 (a), 1972 (b), 1987-89 (d), 1990-91 (c), 1992-93 (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), 1990-93 (b).
BIOLOGICAL DATA:
Bacteria--1973 (b), 1974 (d), 1975-82 (c), 1983-93 (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), 1992-93 (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 DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TURBIDITY (NTU)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV											
04...	1500	230000	277	8.0	11.0	3.5	751	10.9	100	K1900	93
APR											
26...	1500	242000	278	8.1	5.0	2.5	768	14.4	112	90	13
JUN											
07...	1500	228000	288	8.0	13.5	1.1	761	11.2	108	24	K4
AUG											
31...	1400	221000	274	8.1	24.5	0.70	755	8.6	104	120	K8

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
NOV											
04...	110	32	8.3	8.8	1.6	91	24	15	0.20	0.53	158
APR											
26...	120	34	8.3	9.6	1.4	88	24	16	0.10	0.53	154
JUN											
07...	120	34	8.5	11	1.4	88	26	18	0.20	0.26	168
AUG											
31...	120	32	8.6	9.5	1.4	90	25	14	0.10	0.36	151

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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, 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										
04...	153	0.25	0.03	0.01	0.20	0.02	<0.01	<0.01	<10	20
APR										
26...	148	0.33	0.04	<0.01	0.30	<0.01	<0.01	<0.01	<10	21
JUN										
07...	158	0.43	0.05	<0.01	0.20	<0.01	0.02	<0.01	<10	20
AUG										
31...	142	0.25	0.05	<0.01	0.40	<0.01	<0.01	0.02	<10	21

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										
04...	<3	8	<4	2	<10	<1	<1	<1.0	160	<6
APR										
26...	<3	9	<4	2	<10	1	<1	<1.0	150	<6
JUN										
07...	<3	7	<4	2	<10	2	<1	<1.0	160	<6
AUG										
31...	<3	<3	5	2	<10	1	<1	<1.0	160	<6

04219640 NIAGARA RIVER (LAKE ONTARIO) AT FORT NIAGARA, NY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK)	DEPTH AT SAMPLE LOCATION, TOTAL (FEET)	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)
NOV								
04...	1505	1000	32.0	3.0	273	8.0	11.0	11.2
04...	1510	1000	32.0	10.0	273	8.1	11.0	11.1
04...	1515	1000	32.0	20.0	271	8.0	11.0	10.9
04...	1520	1000	32.0	30.0	278	8.2	11.0	11.0
04...	1525	1700	40.0	3.0	281	8.0	11.0	10.7
04...	1530	1700	40.0	10.0	277	8.0	11.0	10.7
04...	1535	1700	40.0	20.0	271	8.0	11.0	10.7
04...	1540	1700	40.0	30.0	279	8.0	11.0	10.7
04...	1545	1700	40.0	40.0	271	8.0	11.0	10.8
APR								
26...	1505	1000	52.0	3.0	279	8.1	5.5	14.4
26...	1510	1000	52.0	10.0	275	8.1	5.5	14.3
26...	1515	1000	52.0	20.0	272	8.1	5.5	14.2
26...	1520	1000	52.0	40.0	280	8.1	5.5	14.2
26...	1525	1700	42.0	3.0	277	8.1	5.0	13.6
26...	1530	1700	42.0	10.0	274	8.1	5.5	13.7
26...	1535	1700	42.0	20.0	273	8.1	5.5	13.7
26...	1540	1700	42.0	30.0	271	8.1	5.0	13.7
26...	1545	1700	42.0	40.0	267	8.1	5.0	13.6
JUN								
07...	1505	1000	47.0	3.0	286	8.0	13.5	11.5
07...	1510	1000	47.0	10.0	292	8.0	13.5	11.1
07...	1515	1000	47.0	25.0	291	8.0	13.5	11.0
07...	1520	1000	47.0	40.0	290	8.0	13.5	10.9
07...	1525	1700	40.0	3.0	290	8.0	13.5	10.8
07...	1530	1700	40.0	10.0	293	8.0	13.5	10.7
07...	1535	1700	40.0	24.0	290	8.0	13.5	10.6
07...	1540	1700	40.0	38.0	289	8.0	13.5	10.4
AUG								
31...	1405	1000	45.0	3.0	274	8.1	24.5	8.8
31...	1410	1000	45.0	10.0	274	8.1	24.5	8.7
31...	1415	1000	45.0	25.0	277	8.1	24.5	8.7
31...	1420	1000	45.0	40.0	275	8.1	24.5	8.8
31...	1425	1700	45.0	3.0	275	8.1	24.5	8.4
31...	1430	1700	45.0	10.0	271	8.1	24.5	8.4
31...	1435	1700	45.0	25.0	271	8.1	24.5	8.6
31...	1440	1700	45.0	40.0	280	8.1	24.5	8.6

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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
NOV 1992					
04...	1500	230000	5	3110	--
APR 1993					
26...	1500	242000	6	3920	87
JUN					
07...	1500	228000	7	4310	79
AUG					
31...	1400	221000	2	1190	79

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 sea level, from topographic map.

REMARKS.--Records 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.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	6.3	9.7	e45	e9.5	e7.0	229	8.3	5.9	1.8	1.7	3.2
2	4.2	13	8.6	e20	e9.5	e8.0	127	7.6	3.3	1.9	2.0	1.8
3	3.9	38	9.3	16	e9.0	e10	63	7.4	3.1	2.0	1.9	3.3
4	3.9	19	e9.0	32	e9.0	e11	38	7.1	2.5	1.8	1.9	2.5
5	3.9	19	e8.5	85	e8.5	e11	30	5.7	9.2	1.6	1.6	2.0
6	3.8	24	e8.0	32	e9.0	e12	26	5.5	7.6	1.6	1.5	2.8
7	3.8	14	e7.4	19	e9.0	e14	20	4.8	4.3	1.6	1.6	3.1
8	3.7	12	e7.0	15	e8.0	e18	17	4.4	5.0	1.6	1.7	2.0
9	6.3	9.9	e7.4	e12	e8.0	e20	14	4.6	10	1.6	1.6	1.9
10	5.4	9.2	e7.4	e11	e8.0	e16	21	4.7	8.5	1.5	1.5	2.8
11	4.6	11	e6.9	e10	e8.0	e11	21	4.1	5.1	1.4	1.5	2.2
12	4.4	10	e7.5	e10	e7.5	e10	13	4.0	3.6	3.2	1.5	2.0
13	4.5	21	e7.6	e15	e8.0	e7.0	10	3.9	2.7	1.7	1.5	2.0
14	4.1	17	e8.2	e33	e8.0	e9.0	9.4	4.2	2.6	1.7	1.5	1.9
15	13	15	e12	e20	e7.5	e14	8.9	4.8	2.2	1.8	1.5	1.8
16	13	12	e30	e15	e7.5	e12	9.2	4.5	2.3	1.7	1.5	2.0
17	9.3	13	61	e13	e7.0	e22	19	4.8	2.0	1.7	1.6	2.0
18	6.7	20	50	e12	e7.0	e20	13	4.6	2.1	1.7	1.5	2.0
19	6.0	20	31	e11	e7.0	e18	9.5	4.2	2.7	5.0	1.1	2.0
20	5.6	16	69	e12	e7.0	e16	10	4.6	4.8	2.9	2.7	2.1
21	5.8	21	28	e15	e7.0	e20	12	4.0	3.9	1.9	1.9	2.1
22	5.6	24	17	e80	e7.5	e26	11	3.9	3.1	1.8	1.5	2.0
23	5.3	54	e14	e59	e7.5	e40	8.4	4.2	2.5	1.7	1.5	2.7
24	9.8	26	e12	56	e7.5	e60	7.1	4.3	2.1	1.7	1.3	2.4
25	9.7	42	e10	40	e7.0	e70	7.7	4.1	2.3	1.7	1.4	2.0
26	7.6	25	e9.0	e23	e7.0	e80	8.0	3.7	2.4	2.5	1.1	5.0
27	6.7	17	e8.0	e16	e7.0	92	9.2	3.0	2.2	2.3	1.2	2.5
28	6.1	14	e15	e15	e6.5	127	11	3.4	2.9	1.7	1.5	2.9
29	5.8	12	20	e12	---	194	10	3.1	2.5	1.7	1.6	3.6
30	5.7	11	e80	e9.5	---	176	9.6	2.9	2.0	2.0	1.7	2.3
31	5.5	---	e120	e10	---	111	---	7.4	---	1.9	1.9	---
TOTAL	188.1	565.4	698.5	773.5	219.0	1262.0	802.0	147.8	115.4	60.7	49.5	72.9
MEAN	6.07	18.8	22.5	25.0	7.82	40.7	26.7	4.77	3.85	1.96	1.60	2.43
MAX	13	54	120	85	9.5	194	229	8.3	10	5.0	2.7	5.0
MIN	3.7	6.3	6.9	9.5	6.5	7.0	7.1	2.9	2.0	1.4	1.1	1.8
CFSM	.52	1.61	1.93	2.13	.67	3.48	2.28	.41	.33	.17	.14	.21
IN.	.60	1.80	2.22	2.46	.70	4.01	2.55	.47	.37	.19	.16	.23

e Estimated

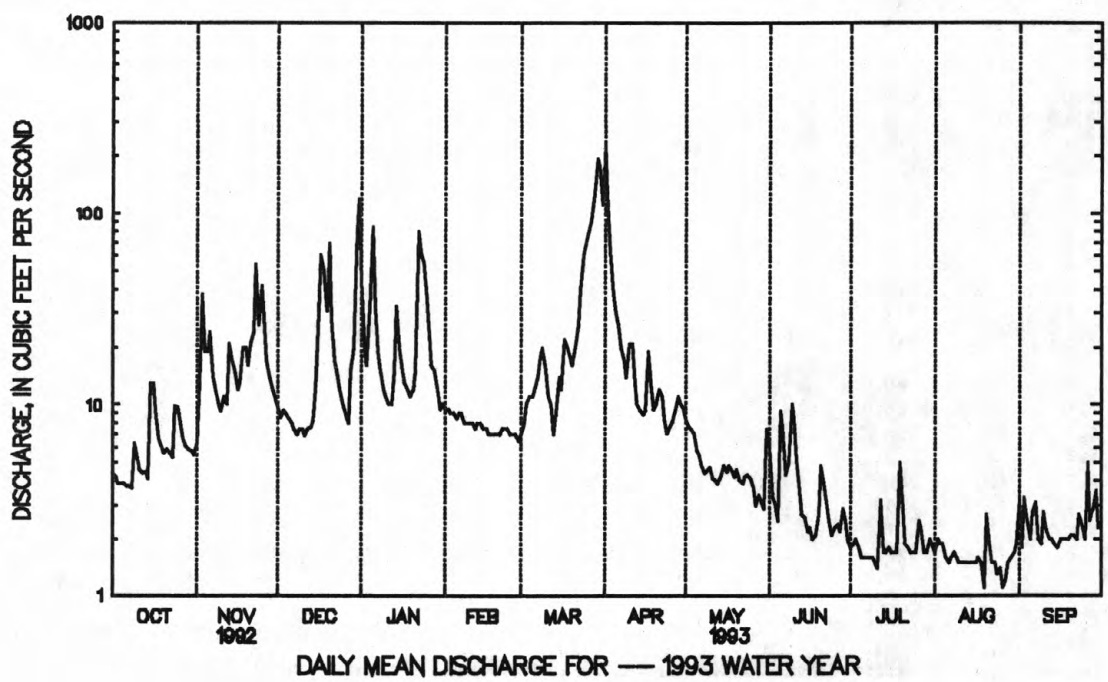
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1993, BY WATER YEAR (WY)

MEAN	7.88	10.4	13.5	17.8	19.5	30.0	28.2	13.6	4.28	3.79	3.82	3.08
MAX	14.7	18.8	23.1	25.0	38.9	40.7	31.7	27.1	5.12	6.31	7.43	5.33
(WY)	1990	1993	1991	1993	1990	1993	1991	1990	1990	1992	1992	1992
MIN	2.54	2.49	3.65	10.2	7.82	17.1	26.7	4.77	3.06	1.96	1.60	1.10
(WY)	1992	1992	1992	1992	1993	1990	1993	1993	1991	1993	1993	1989

0422026250 NORTHRUP CREEK AT NORTH GREECE, NY--Continued

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1989 - 1993	
ANNUAL TOTAL	5138.9		4954.8			
ANNUAL MEAN	14.0		13.6		13.0	
HIGHEST ANNUAL MEAN					15.0	1990
LOWEST ANNUAL MEAN					10.8	1992
HIGHEST DAILY MEAN	266	Mar 27	229	Apr 1	420	Apr 22 1991
LOWEST DAILY MEAN	2.0	Jul 2	1.1	Aug 19	.89	Aug 18 1989
ANNUAL SEVEN-DAY MINIMUM	2.9	Sep 12	1.4	Aug 22	1.0	Aug 18 1989
INSTANTANEOUS PEAK FLOW			327	Apr 1	573	Apr 22 1991
INSTANTANEOUS PEAK STAGE			3.11	Apr 1	3.89	Apr 22 1991
INSTANTANEOUS LOW FLOW			.39	a	.39	a
ANNUAL RUNOFF (CFSM)	1.20		1.16		1.11	
ANNUAL RUNOFF (INCHES)	16.34		15.75		15.10	
10 PERCENT EXCEEDS	27		26		24	
50 PERCENT EXCEEDS	8.5		7.0		6.4	
90 PERCENT EXCEEDS	3.5		1.7		2.0	

a Aug 19, 26, 27, 1993.



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 sea level. 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 (ice effect), 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)
Dec. 31	0530	3,760	8.05	Apr. 16	1530	4,730	8.68
Mar. 30	2030	7,280	10.19	Apr. 17	0700	5,600	9.22
Apr. 1	1330	*7,720	*10.43	Apr. 26	0500	3,760	8.05

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	254	303	515	1760	e210	e110	7410	707	123	39	27	24
2	227	421	461	1090	e200	106	5890	594	85	39	23	34
3	205	1120	419	874	e190	e120	3610	515	74	41	30	520
4	181	665	375	1060	e190	e120	2060	458	70	39	28	424
5	162	645	361	1750	e180	e120	1480	535	73	34	26	157
6	147	722	e310	1070	e170	e120	1300	548	84	30	25	88
7	136	632	e300	874	e160	e130	1220	405	69	29	23	78
8	127	520	290	758	e170	e140	1170	353	66	29	23	60
9	205	463	268	601	e165	e180	1150	328	271	27	22	48
10	223	445	238	e480	e160	e160	1500	292	233	25	19	49
11	163	452	e230	499	e160	e140	1620	263	120	25	22	71
12	146	690	280	480	e155	e130	1070	238	88	28	25	62
13	131	1640	260	908	e150	e110	888	217	74	27	23	48
14	122	895	233	812	e150	e220	755	202	64	25	20	39
15	296	751	e230	579	e145	e250	657	192	57	25	18	35
16	610	648	356	509	e140	e200	2430	180	54	24	32	37
17	705	595	1370	474	e130	e175	4410	165	53	22	47	37
18	458	581	1220	e390	e120	173	2300	151	52	21	104	36
19	443	534	851	e260	e120	167	1460	149	52	25	48	33
20	377	475	1250	e270	e130	157	1140	153	54	43	37	31
21	362	467	878	e290	142	151	1300	133	69	31	32	30
22	348	860	705	e350	151	154	1130	122	87	25	30	29
23	308	2190	627	352	122	173	1320	113	60	23	25	30
24	567	1180	e500	396	e110	264	1420	106	50	21	23	33
25	783	1420	e400	e450	e110	607	1220	116	45	18	23	35
26	532	1030	e340	e310	e110	1200	2930	104	42	17	22	48
27	470	869	e300	e300	e110	1750	1650	90	41	17	20	74
28	425	739	e350	e290	e110	3130	1240	82	53	17	18	163
29	391	650	380	e250	---	4660	1010	78	49	22	19	116
30	383	575	1130	e230	---	5620	838	74	41	30	19	108
31	339	---	3240	e220	---	5670	---	81	---	33	20	---
TOTAL	10226	23177	18667	18936	4160	26407	57578	7744	2353	851	873	2577
MEAN	330	773	602	611	149	852	1919	250	78.4	27.5	28.2	85.9
MAX	783	2190	3240	1760	210	5670	7410	707	271	43	104	520
MIN	122	303	230	220	110	106	657	74	41	17	18	24
CFSM	1.15	2.68	2.09	2.12	.52	2.96	6.66	.87	.27	.10	.10	.30
IN.	1.32	2.99	2.41	2.45	.54	3.41	7.44	1.00	.30	.11	.11	.33

e Estimated

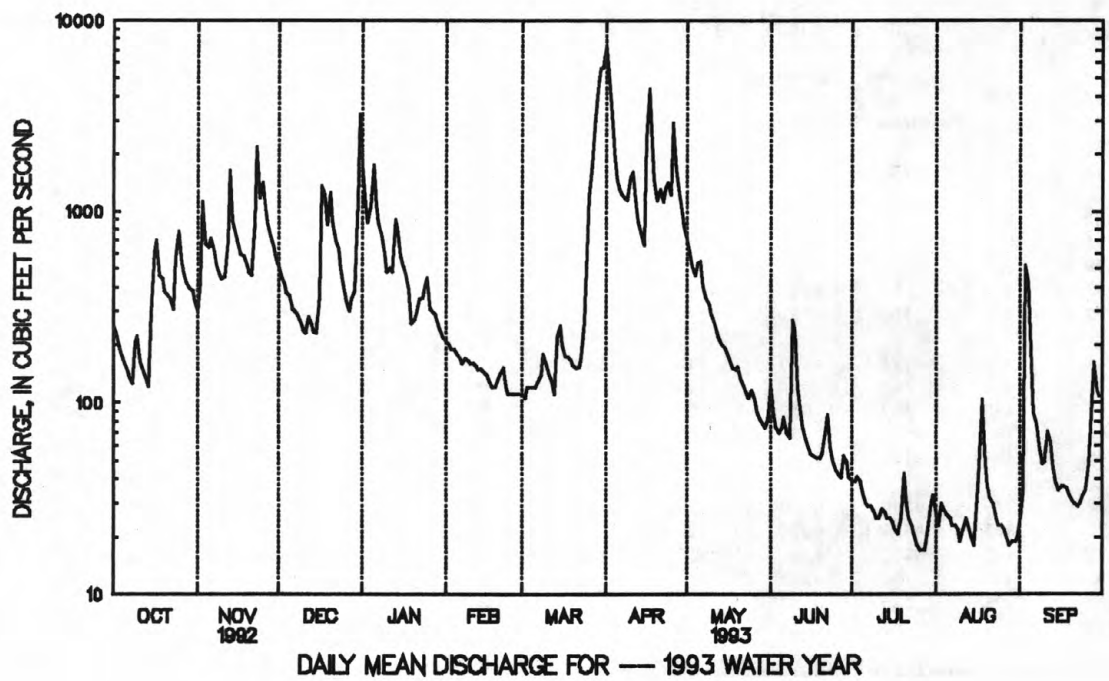
04221000 GENESEE RIVER AT WELLSVILLE, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 1993, BY WATER YEAR (WY)

MEAN	239	322	467	340	462	776	858	458	279	170	111	186
MAX	784	773	1016	919	1443	1689	1925	1115	1262	656	529	1246
(WY)	1991	1993	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	27.5	25.0	22.1
(WY)	1958	1958	1990	1981	1958	1981	1976	1985	1991	1993	1957	1991

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1955 - 1958, 1973 - 1993	
ANNUAL TOTAL	153027		173549			
ANNUAL MEAN	418		475		389	
HIGHEST ANNUAL MEAN					564	1956
LOWEST ANNUAL MEAN					261	1981
HIGHEST DAILY MEAN	3240	Dec 31	7410	Apr 1	11700	Mar 8 1956
LOWEST DAILY MEAN	35	Jul 1	17	a	13	b
ANNUAL SEVEN-DAY MINIMUM	39	Jun 28	19	Jul 23	15	Aug 28 1991
INSTANTANEOUS PEAK FLOW			7720	Apr 1	c15800	d
INSTANTANEOUS PEAK STAGE			10.43	Apr 1	13.60	Oct 28 1981
INSTANTANEOUS LOW FLOW			17	f	11	g
ANNUAL RUNOFF (CFSM)	1.45		1.65		1.35	
ANNUAL RUNOFF (INCHES)	19.77		22.42		18.34	
10 PERCENT EXCEEDS	939		1170		879	
50 PERCENT EXCEEDS	301		175		205	
90 PERCENT EXCEEDS	74		25		41	

a July 26, 27, 28.
b Sept. 2, 3, 1991.
c From graph based on stage readings.
d Mar. 8, 1956 and Oct. 28, 1981.
f July 25, 26, 27, 28, Aug. 10, 11, 30, 31.
g 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 sea level (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 poor. 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)
Mar. 31	0430	21,200	17.63	Apr. 2	0330	*23,000	*18.23

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	690	1220	1770	6970	e1000	e340	18100	1790	470	229	165	128
2	627	1720	1440	4270	e900	e340	18300	1510	441	213	220	101
3	573	4840	1280	3670	e800	e340	9560	1300	347	184	286	632
4	518	3060	1170	4150	e700	e350	5470	1170	309	170	188	1780
5	470	2200	1120	6770	e650	e350	4180	1220	326	160	135	910
6	491	2320	999	4280	e600	e350	4090	2040	452	145	119	482
7	584	2360	1030	2870	e550	e380	4070	1430	388	140	126	374
8	395	1700	966	2310	e600	e420	3960	1090	337	150	120	312
9	830	1410	915	1800	e550	e500	3980	891	350	150	112	255
10	1750	1310	841	1410	e550	e440	4040	816	856	140	106	230
11	1180	1800	881	1410	e550	e420	4910	776	572	117	136	407
12	1050	2490	980	1500	e520	e400	3240	717	427	123	124	303
13	974	5200	1450	2020	e500	e380	2380	643	343	118	124	243
14	795	3330	1360	3460	e500	e360	1960	566	305	113	112	203
15	546	2240	1350	2100	e480	e600	1770	539	278	130	107	172
16	1500	1840	1900	1690	e460	e550	3850	530	258	114	130	158
17	2790	1660	5220	1520	e440	e500	11500	523	242	102	214	151
18	1860	1640	5500	e1300	e400	e480	6270	553	227	95	309	144
19	1550	1720	3460	e900	e400	e480	3900	482	226	94	279	134
20	1430	1590	4800	e950	e420	e450	3080	482	253	115	222	125
21	1180	1870	3560	e1200	e440	e450	3630	474	269	116	217	124
22	1040	2750	2280	1830	e500	e460	3540	446	280	110	163	119
23	894	7450	1850	1970	e440	e600	3060	426	289	96	135	119
24	1410	4900	1670	e2000	e400	e1000	3600	417	245	87	121	128
25	3290	6090	e1400	e2500	e380	e2400	2800	427	200	82	111	126
26	1900	4160	e1300	e1800	e350	e4400	9770	417	182	85	105	171
27	1420	3270	e1200	e1700	e340	6620	5160	373	185	116	97	361
28	1190	2700	e1100	e1500	e340	9210	3430	352	248	95	90	1040
29	1050	2410	e1050	e1400	---	14000	2590	325	275	98	88	1250
30	1210	2090	3160	e1200	---	16300	2070	310	233	130	86	1150
31	1340	---	12100	e1100	---	17200	---	319	---	225	119	---
TOTAL	36527	83340	69102	73550	14760	81070	158260	23354	9813	4042	4666	11832
MEAN	1178	2778	2229	2373	527	2615	5275	753	327	130	151	394
MAX	3290	7450	12100	6970	1000	17200	18300	2040	856	229	309	1780
MIN	395	1220	841	900	340	340	1770	310	182	82	86	101

e Estimated

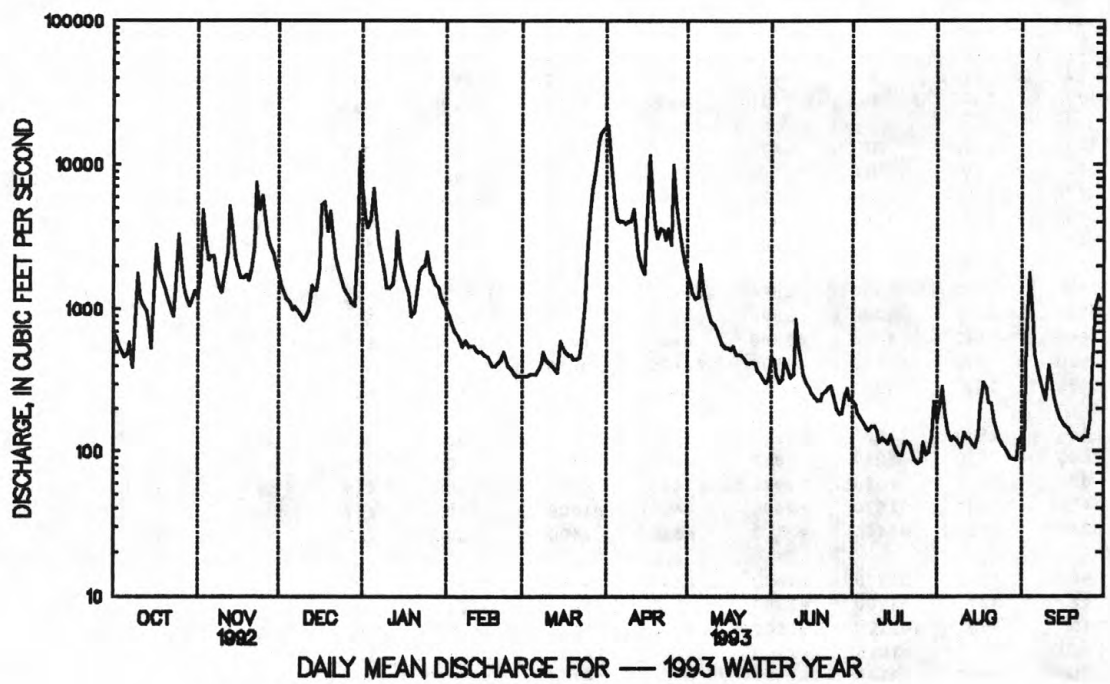
04223000 GENESEE RIVER AT PORTAGEVILLE, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1908 - 1993, BY WATER YEAR (WY)

MEAN	628	1044	1330	1371	1448	2930	2795	1511	885	447	318	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

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1908 - 1993	
ANNUAL TOTAL	581164		570316			
ANNUAL MEAN	1588		1563		1259	
HIGHEST ANNUAL MEAN					2038	1916
LOWEST ANNUAL MEAN					766	1962
HIGHEST DAILY MEAN	12100	Dec 31	18300	Apr 2	72000	Jun 23 1972
LOWEST DAILY MEAN	132	Jul 2	82	Jul 25	20	Oct 5 1913
ANNUAL SEVEN-DAY MINIMUM	165	Jun 27	94	Jul 23	34	Jul 25 1934
INSTANTANEOUS PEAK FLOW			23000	Apr 2	a90000	Jun 23 1972
INSTANTANEOUS PEAK STAGE			18.23	Apr 2	b35.25	Jun 23 1972
INSTANTANEOUS LOW FLOW			81	c	18	d
10 PERCENT EXCEEDS	3520		3920		2900	
50 PERCENT EXCEEDS	1090		600		600	
90 PERCENT EXCEEDS	316		124		132	

a 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.
b From high-water mark, site and datum then in use.
c Jul 25, 26.
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, 5.0 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 sea level (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, 745.59 ft, Apr. 5, 6, contents, 291,000 acre-ft; minimum, 586.33 ft, Aug. 31, contents 853 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 ABOVE SEA LEVEL), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	591.24	592.24	636.87	638.42	592.36	589.77	707.22	702.73	590.13	587.86	587.59	587.00
2	590.67	593.11	633.92	642.52	591.16	588.63	723.77	698.05	590.28	587.79	587.23	586.64
3	590.14	606.16	630.42	643.09	592.04	588.62	735.28	693.06	589.50	587.63	588.45	587.46
4	589.77	614.54	626.82	643.13	592.70	589.15	741.15	687.96	588.90	587.40	587.91	598.24
5	589.38	610.39	628.07	646.16	592.11	589.12	744.66	682.83	589.02	587.29	587.09	597.69
6	590.72	605.06	630.01	652.06	589.74	588.91	e745.15	678.21	590.09	587.17	586.81	591.71
7	601.94	602.08	627.35	652.65	588.87	589.15	e743.94	673.12	589.94	587.01	586.77	590.11
8	e593.00	595.33	e621.34	650.32	588.95	589.40	e742.16	667.37	589.34	587.01	586.78	589.35
9	591.28	593.79	e616.82	646.33	589.62	590.05	740.09	661.31	589.24	587.16	586.70	588.80
10	603.95	592.83	e617.73	641.39	589.25	590.74	738.02	654.86	592.19	587.04	586.59	588.40
11	605.85	594.57	619.80	635.87	589.36	590.50	e737.35	647.43	592.06	586.92	586.96	589.40
12	e604.00	599.47	617.62	e630.04	589.05	590.71	e734.76	639.59	590.37	586.83	587.00	589.41
13	e601.50	611.31	613.53	e624.13	589.21	590.25	e732.04	631.79	589.40	e586.88	586.82	588.63
14	605.41	617.69	607.91	621.08	589.02	587.93	e728.48	622.70	588.86	586.77	586.80	588.03
15	607.17	613.81	599.26	617.31	589.17	588.38	724.62	612.49	588.54	586.90	586.65	587.68
16	608.79	606.34	596.75	610.07	588.98	589.79	e720.40	595.42	588.28	586.91	586.79	587.52
17	613.00	595.22	609.70	598.08	588.92	590.88	723.60	591.30	588.09	586.70	587.53	587.47
18	615.78	594.39	625.61	593.17	588.71	591.44	727.40	591.58	587.97	586.57	588.16	587.40
19	616.76	594.51	630.80	591.38	588.40	e592.08	726.61	590.95	587.91	586.54	588.50	587.33
20	619.50	594.39	631.96	591.10	588.87	e590.81	724.43	590.77	588.07	586.64	588.22	587.23
21	622.84	594.75	634.86	591.34	590.10	590.59	e721.65	590.70	588.29	586.80	588.15	587.20
22	623.87	601.09	633.63	594.80	e588.45	590.37	718.47	590.46	588.31	586.81	587.62	587.15
23	621.12	614.27	629.24	596.50	e589.40	590.68	715.02	590.20	588.40	586.66	587.22	587.13
24	e613.20	627.18	623.40	596.07	589.03	592.03	712.96	590.06	588.19	586.49	587.03	587.21
25	610.72	632.46	e616.00	603.59	589.06	599.31	710.93	590.14	587.75	586.40	586.86	587.27
26	608.83	638.76	e605.00	599.31	589.87	614.53	711.45	590.07	587.50	587.41	586.72	587.69
27	595.95	641.24	591.40	594.22	590.00	628.49	714.45	589.72	587.53	587.21	586.62	588.33
28	592.13	642.18	591.52	593.99	590.29	641.62	712.75	589.39	587.82	586.92	586.52	593.62
29	591.41	641.04	591.97	593.79	---	657.50	709.82	589.13	588.38	586.60	586.42	596.24
30	591.61	639.17	595.48	593.14	---	674.74	706.47	588.88	588.08	586.77	586.39	596.11
31	592.86	---	623.68	592.58	---	692.01	---	588.97	---	587.39	586.38	---
MEAN	603.04	609.98	618.02	616.70	589.74	602.20	725.84	625.85	588.95	586.98	587.14	589.45
MAX	623.87	642.18	636.87	652.65	592.70	692.01	745.15	702.73	592.19	587.86	588.50	598.24
MIN	589.38	592.24	591.40	591.10	588.40	587.93	706.47	588.88	587.50	586.40	586.38	586.64

CAL YR 1992 MEAN 606.56 MAX 653.17 MIN 586.38
WTR YR 1993 MEAN 611.99 MAX 745.15 MIN 586.38

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 sea level.

REMARKS.--Records fair except those for estimated daily discharges(ice effect and plugged intakes), which are 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)
Dec. 31	0315	1,420	2.86	Apr. 23	1800	1,020	2.49
Mar. 30	1900	2,190	3.66	Apr. 26	0330	*2,450	*3.92
Apr. 17	0330	2,200	3.67				

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	52	144	379	e104	e43	1680	235	66	25	15	12
2	32	129	128	201	e94	e39	1450	e194	47	24	41	16
3	30	336	114	168	e99	e38	818	e166	42	25	38	76
4	27	167	99	220	e87	e38	504	e132	39	22	21	129
5	25	154	e87	580	e83	e39	333	e166	43	19	16	45
6	24	166	e83	246	e76	e38	383	272	48	18	14	33
7	22	160	e70	e157	e63	e41	404	e175	42	17	13	30
8	22	126	e66	e136	e64	e48	392	e122	39	16	13	24
9	43	104	e63	e118	e63	e60	353	e102	44	15	12	21
10	65	103	e66	e118	e56	e58	462	e94	47	14	12	21
11	44	140	e70	e118	e52	e56	439	e87	38	13	13	23
12	44	166	e76	e118	e56	e50	225	e83	33	14	13	21
13	39	303	e70	e118	e52	e48	204	e81	29	12	12	18
14	36	166	e52	e112	e54	e46	179	72	27	13	11	16
15	35	146	87	e107	e52	e80	163	69	25	15	11	15
16	58	123	189	e102	e46	e72	631	65	24	13	20	15
17	93	115	508	e104	e43	e64	1400	61	23	13	28	15
18	59	115	373	e99	e46	e74	534	59	22	12	38	14
19	50	120	192	e87	e38	e68	271	61	22	14	21	13
20	45	112	477	e115	e41	e64	223	63	23	13	23	13
21	40	133	214	e125	e38	e62	310	57	22	11	40	13
22	40	203	172	e136	e41	e64	265	54	21	11	25	13
23	38	627	e157	156	e45	e74	479	51	19	11	18	13
24	122	287	e118	180	e46	e92	352	51	17	11	15	12
25	205	611	e102	e148	e46	e180	259	50	16	10	14	12
26	133	280	e87	e112	e46	454	1480	47	18	44	12	18
27	98	190	e87	e112	e43	782	544	45	19	31	12	22
28	76	172	e87	e118	e39	1170	311	43	47	16	11	29
29	67	167	e97	e107	---	1430	265	41	52	13	11	37
30	68	156	e205	e118	---	1610	255	38	31	17	11	33
31	59	---	1060	e104	---	1460	---	49	---	19	11	---
TOTAL	1776	5829	5400	4819	1613	8442	15568	2885	985	521	565	772
MEAN	57.3	194	174	155	57.6	272	519	93.1	32.8	16.8	18.2	25.7
MAX	205	627	1060	580	104	1610	1680	272	66	44	41	129
MIN	22	52	52	87	38	38	163	38	16	10	11	12
CFSM	.64	2.19	1.96	1.75	.65	3.06	5.84	1.05	.37	.19	.21	.29
IN.	.74	2.44	2.26	2.02	.67	3.53	6.51	1.21	.41	.22	.24	.32

e Estimated

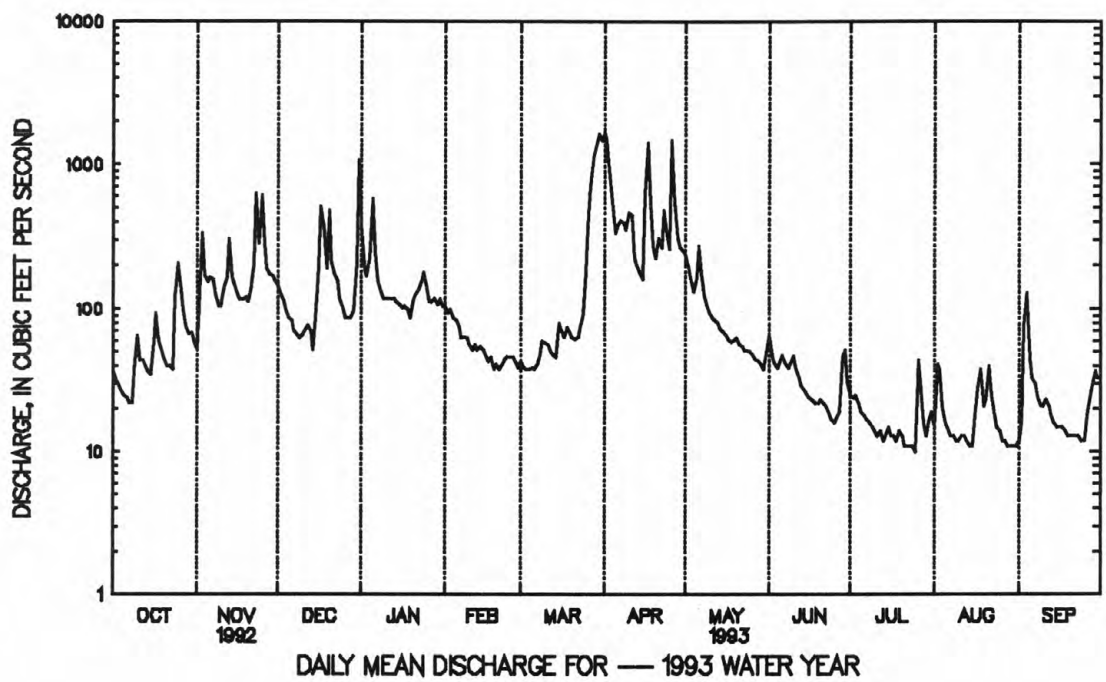
04224775 CANASERAGA CREEK ABOVE DANSVILLE, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1993, BY WATER YEAR (WY)

MEAN	57.1	82.4	112	90.1	135	203	207	114	70.0	39.6	31.4	47.0
MAX	175	194	252	217	432	419	519	292	270	128	77.1	331
(WY)	1991	1993	1978	1975	1976	1979	1993	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

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1974 - 1993	
ANNUAL TOTAL	41215		49175			
ANNUAL MEAN	113		135		98.4	
HIGHEST ANNUAL MEAN					135	1978
LOWEST ANNUAL MEAN					65.5	1985
HIGHEST DAILY MEAN	1060	Dec 31	1680	Apr 1	1980	Sep 20 1977
LOWEST DAILY MEAN	13	Jul 2	10	Jul 25	6.8	Sep 7 1985
ANNUAL SEVEN-DAY MINIMUM	16	Jun 28	11	Aug 26	6.9	Sep 17 1985
INSTANTANEOUS PEAK FLOW			2450	Apr 26	a4050	Jun 20 1989
INSTANTANEOUS PEAK STAGE			3.92	Apr 26	5.70	Jun 20 1989
INSTANTANEOUS LOW FLOW			9.9	Jul 24	6.7	b
ANNUAL RUNOFF (CFSM)	1.27		1.52		1.11	
ANNUAL RUNOFF (INCHES)	17.25		20.58		15.03	
10 PERCENT EXCEEDS	220		293		217	
50 PERCENT EXCEEDS	62		58		53	
90 PERCENT EXCEEDS	23		14		13	

a From rating curve extended above 1,400 ft^3/s.
b 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 sea level. 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 fair. 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)
Dec. 31	0600	3,030	10.14	Apr. 17	0930	3,200	11.22
Mar. 27	2130	3,200	10.34	Apr. 26	0800	3,560	12.17
Apr. 2	0930	*4,260	11.64				

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	123	175	398	1470	e250	e140	3590	472	191	84	75	64
2	114	409	379	980	e240	163	4160	495	144	76	134	52
3	104	1140	313	622	e260	185	3260	443	127	80	192	152
4	95	627	282	768	e240	210	2230	387	125	89	89	361
5	89	454	315	1560	e220	196	1760	357	135	79	76	158
6	86	690	257	1100	e210	213	1660	486	158	54	64	103
7	85	574	226	702	e160	202	1490	431	124	49	61	105
8	82	391	210	503	e200	289	1380	390	120	48	60	85
9	198	333	211	367	e200	431	1300	353	140	47	56	73
10	274	316	221	582	e190	e350	1370	e320	145	45	52	81
11	167	365	249	732	e185	e300	1340	e280	118	44	66	74
12	175	480	248	571	191	e240	1070	e250	105	47	68	70
13	140	849	228	623	197	e160	871	185	97	45	53	60
14	119	554	e180	890	187	e100	649	165	93	43	48	54
15	118	391	e240	532	183	e200	530	137	82	50	47	50
16	160	317	745	433	181	e250	1120	172	77	45	57	54
17	222	327	1720	392	184	e400	2880	195	73	43	171	53
18	153	373	1560	e298	166	e450	1870	184	70	42	139	53
19	149	429	1040	e198	e127	395	1160	184	75	42	85	51
20	137	392	1340	e214	e134	343	861	207	83	45	86	49
21	128	438	956	e244	e125	334	863	184	83	42	284	49
22	125	563	621	e400	e130	369	970	177	80	40	118	49
23	87	1830	438	e500	e150	501	1050	166	68	40	77	48
24	237	1280	345	e600	e150	1040	980	161	63	38	63	54
25	768	1830	e350	e500	e150	1560	648	164	60	38	57	49
26	381	1280	e350	400	e150	1960	2750	156	60	169	52	65
27	274	960	352	398	e140	2380	1860	148	71	251	49	70
28	241	668	356	e300	e130	2710	1130	139	97	87	48	83
29	214	536	384	e280	---	3000	763	133	134	67	46	87
30	213	447	870	231	---	3190	545	125	99	83	46	82
31	194	---	2450	261	---	3320	---	130	---	92	45	---
TOTAL	5652	19418	17834	17651	5030	25581	46110	7776	3097	2044	2564	2438
MEAN	182	647	575	569	180	825	1537	251	103	65.9	82.7	81.3
MAX	768	1830	2450	1560	260	3320	4160	495	191	251	284	361
MIN	82	175	180	198	125	100	530	125	60	38	45	48
CFSM	.54	1.93	1.72	1.70	.54	2.46	4.59	.75	.31	.20	.25	.24
IN.	.63	2.16	1.98	1.96	.56	2.84	5.12	.86	.34	.23	.28	.27

e Estimated

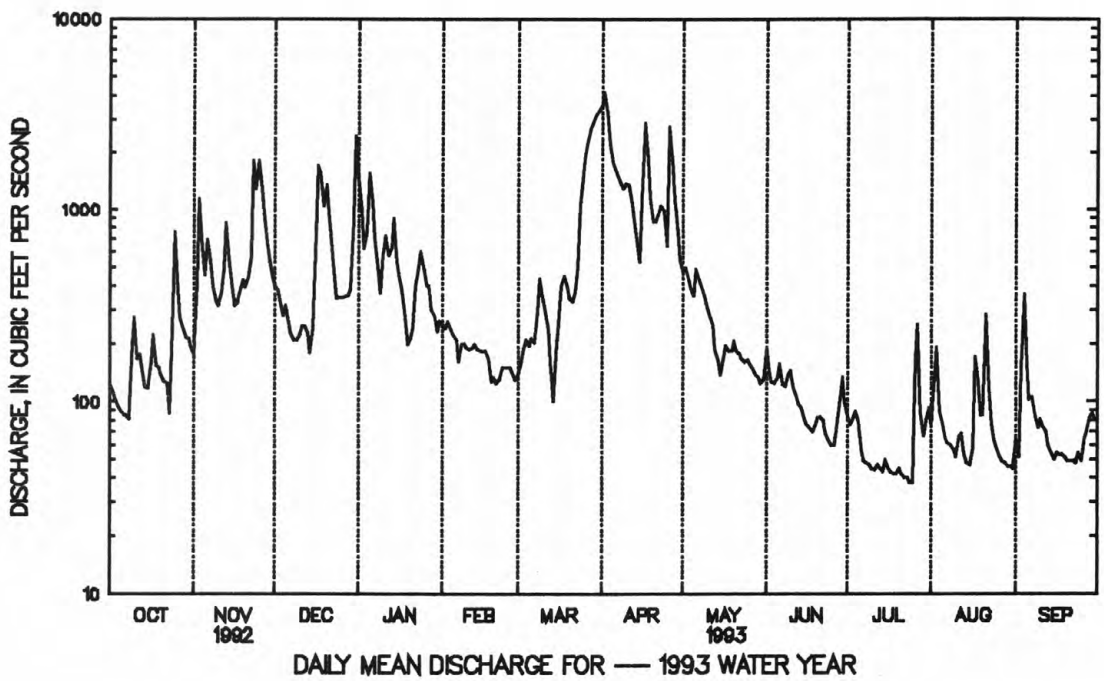
04227000 CANASERAGA CREEK AT SHAKERS CROSSING, NY--continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1993, BY WATER YEAR (WY)

MEAN	151	213	309	284	408	661	674	338	209	107	86.1	113
MAX	601	647	906	886	1452	1575	1537	1009	913	454	297	1162
(WY)	1978	1993	1978	1979	1976	1979	1993	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1959 - 1970 1975 - 1993	
ANNUAL TOTAL	141194		155195			
ANNUAL MEAN	386		425		296	
HIGHEST ANNUAL MEAN					461	1978
LOWEST ANNUAL MEAN					137	1965
HIGHEST DAILY MEAN	2750	Mar 27	4160	Apr 2	4970	Mar 4 1976
LOWEST DAILY MEAN	40	Feb 10	38	Jul 24	8.5	Aug 18 1970
ANNUAL SEVEN-DAY MINIMUM	45	Feb 8	41	Jul 19	15	Jul 26 1965
INSTANTANEOUS PEAK FLOW			4260	Apr 2	5270	Mar 4 1976
INSTANTANEOUS PEAK STAGE			a12.43	Apr 23	b13.33	Mar 4 1976
INSTANTANEOUS LOW FLOW			37	Jul 25	c4.3	Aug 19 1970
ANNUAL RUNOFF (CFSM)	1.15		1.27		.88	
ANNUAL RUNOFF (INCHES)	15.68		17.23		12.02	
10 PERCENT EXCEEDS	959		1110		700	
50 PERCENT EXCEEDS	221		194		147	
90 PERCENT EXCEEDS	77		53		38	

a Backwater from Genesee River.
b Maximum gage height, 23.62 ft, present datum, May 17, 1916 (backwater from Genesee River).
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 sea level. Prior to Sept. 11, 1915, nonrecording gage on bridge at datum 2.85 ft lower.

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

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1000	1600	3860	5650	e1450	e740	3410	7190	629	284	267	139
2	885	1860	3750	4220	e1300	e700	3940	7880	608	276	267	220
3	765	3880	3580	4270	e1400	e750	3220	7810	514	275	418	350
4	694	4210	2840	4610	e1500	e800	2310	7580	433	221	311	1710
5	611	3800	364	4390	e1500	e800	2430	7330	448	219	240	1600
6	510	3650	1080	3290	e1100	e760	6500	7390	585	207	162	733
7	494	3380	3270	4400	e900	e700	7750	7760	559	208	182	511
8	861	2580	3580	5510	e940	e800	8490	7580	484	200	184	414
9	641	2040	2010	5790	e860	e1000	8690	7280	484	198	198	354
10	1600	1860	583	5480	e900	e1200	8220	7200	853	195	138	290
11	1620	2060	814	5230	e960	e1250	7930	7370	867	191	211	354
12	1590	2520	2270	4950	e920	e1100	8400	6720	596	162	211	394
13	1250	3410	2630	4820	e950	e900	8290	5610	466	176	158	312
14	590	4350	2660	5090	e850	e750	7980	4710	395	147	144	236
15	609	4020	2270	4500	e840	e800	7970	3340	354	213	155	212
16	959	3510	2330	3930	e820	e900	8440	1830	328	166	202	204
17	1890	2430	3760	2930	e800	e1200	7080	859	305	139	307	204
18	2330	2190	3730	e1900	e720	e1400	7840	849	290	155	351	198
19	1140	2390	3550	e1500	e680	e1600	7780	781	289	185	347	194
20	638	2270	4510	e1400	e650	e1400	7320	763	308	159	307	188
21	395	2300	4390	e1500	e700	e1300	7990	722	327	175	527	194
22	1290	3130	4450	e2400	e800	e1300	9150	686	324	169	311	150
23	2710	4750	5000	2890	e780	e1500	8750	636	319	120	242	188
24	3270	4690	4640	2920	e700	e2300	7160	609	305	175	197	187
25	3610	4600	4080	3630	e680	3330	6530	619	265	92	162	187
26	3480	3420	3580	e3000	e750	3860	7600	603	239	311	160	201
27	2490	3120	e1800	e2300	e740	4100	7340	559	244	453	152	263
28	1690	3350	e1700	e2000	e750	3570	7950	502	278	226	144	832
29	1510	4110	e1700	e1950	---	3140	7650	473	381	187	85	1310
30	1460	3980	e2400	e1800	---	3110	7290	436	323	194	162	1350
31	1710	---	6020	e1600	---	3210	---	442	---	205	133	---
TOTAL	44292	95460	93201	109850	25940	50270	211400	114119	12800	6283	7035	13679
MEAN	1429	3182	3006	3544	926	1622	7047	3681	427	203	227	456
MAX	3610	4750	6020	5790	1500	4100	9150	7880	867	453	527	1710
MIN	395	1600	364	1400	650	700	2310	436	239	92	85	139

e Estimated

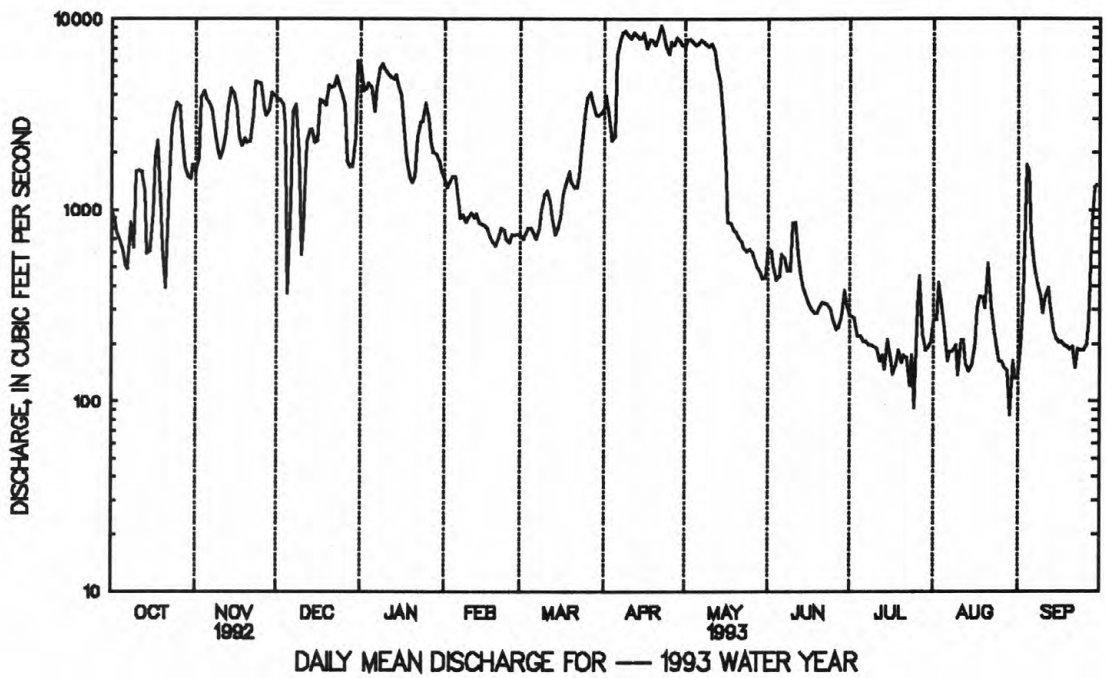
04227500 GENESEE RIVER NEAR MOUNT MORRIS, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903 - 1993, BY WATER YEAR (WY)

MEAN	824	1293	1728	1811	1880	3959	3909	2104	1124	658	424	476
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

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1903 - 1906 1908 - 1914 1915 - 1993	
ANNUAL TOTAL	779326		784329			
ANNUAL MEAN	2129		2149		1684	
HIGHEST ANNUAL MEAN					2641	1916
LOWEST ANNUAL MEAN					972	1934
HIGHEST DAILY MEAN	6810	Apr 11	9150	Apr 22	45700	May 17 1916
LOWEST DAILY MEAN	170	Jul 3	85	Aug 29	15	Oct 9 1980
ANNUAL SEVEN-DAY MINIMUM	220	Jun 28	139	Aug 26	54	Sep 2 1934
INSTANTANEOUS PEAK FLOW			9440	Apr 23	55100	May 17 1916
INSTANTANEOUS PEAK STAGE			16.29	Apr 23	a25.80	Mar 13 1920
INSTANTANEOUS LOW FLOW			b72	Aug 29	12	Jul 23 1955
10 PERCENT EXCEEDS	4440		6510		4320	
50 PERCENT EXCEEDS	1670		960		810	
90 PERCENT EXCEEDS	400		194		189	

a Ice jam.
b Result of regulation.



STREAMS TRIBUTARY TO LAKE ONTARIO

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 sea level. 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, 819.48 ft, Apr. 2, 3; minimum, 816.75 ft, Mar. 13.

ELEVATION (FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	817.89	818.29	818.26	817.78	817.43	816.94	819.10	818.71	818.76	818.35	817.95	817.74
2	817.89	818.35	818.22	817.79	817.35	816.93	819.41	818.73	818.75	818.33	817.94	817.73
3	817.88	818.45	818.18	817.79	817.27	816.89	819.41	818.76	818.73	818.32	817.92	817.75
4	817.88	818.47	818.13	817.81	817.20	816.86	819.19	818.78	818.72	818.31	817.90	817.74
5	817.86	818.47	818.08	817.92	817.12	816.87	818.92	818.82	818.76	818.30	817.88	817.71
6	817.85	818.47	818.03	817.94	817.06	816.85	818.67	818.87	818.79	818.29	817.86	817.72
7	817.84	818.43	817.97	817.90	817.03	816.82	818.52	818.88	818.78	818.28	817.85	817.73
8	817.83	818.37	817.93	817.85	817.00	816.79	818.53	818.90	818.79	818.27	817.84	817.71
9	817.90	818.31	817.86	817.78	816.97	816.79	818.58	818.90	818.84	818.25	817.83	817.68
10	818.01	818.25	817.81	817.70	816.94	816.78	818.66	818.91	818.80	818.23	817.82	817.69
11	818.02	818.19	817.79	817.64	816.91	816.79	818.78	818.91	818.69	818.21	817.82	817.68
12	818.04	818.16	817.77	817.56	816.89	816.78	818.85	818.90	818.60	818.22	817.82	817.65
13	818.04	818.13	817.66	817.54	816.90	816.79	818.89	818.88	818.54	818.19	817.81	817.62
14	818.03	818.12	817.53	817.57	816.91	816.88	818.92	818.87	818.52	818.18	817.80	817.60
15	818.04	818.07	817.39	817.59	816.91	816.87	818.93	818.87	818.51	818.16	817.79	817.58
16	818.07	818.03	817.31	817.58	816.92	816.85	818.97	818.86	818.48	818.13	817.82	817.57
17	818.08	817.99	817.38	817.58	816.95	816.85	819.06	818.84	818.47	818.10	817.86	817.56
18	818.07	817.95	817.47	817.56	816.95	816.86	819.03	818.83	818.45	818.08	817.86	817.54
19	818.06	817.92	817.52	817.53	816.95	816.86	818.89	818.83	818.44	818.07	817.85	817.52
20	818.05	817.89	817.57	817.51	816.95	816.86	818.77	818.82	818.45	818.06	817.86	817.49
21	818.04	817.86	817.59	817.48	816.95	816.87	818.76	818.81	818.46	818.03	817.86	817.47
22	818.04	817.87	817.58	817.49	816.98	816.88	818.76	818.80	818.45	818.00	817.84	817.45
23	818.04	817.99	817.57	817.53	816.98	816.92	818.81	818.79	818.43	817.97	817.82	817.45
24	818.07	818.07	817.56	817.59	816.98	816.99	818.89	818.80	818.41	817.94	817.81	817.44
25	818.18	818.24	817.54	817.68	816.97	817.12	818.91	818.81	818.39	817.93	817.80	817.42
26	818.21	818.33	817.51	817.69	816.97	817.32	819.08	818.79	818.38	817.96	817.79	817.48
27	818.23	818.35	817.48	817.70	816.96	817.55	819.10	818.78	818.36	817.98	817.79	817.47
28	818.25	818.34	817.44	817.70	816.95	817.87	818.96	818.77	818.37	817.97	817.77	817.48
29	818.27	818.32	817.42	817.65	---	818.27	818.79	818.75	818.38	817.95	817.75	817.46
30	818.28	818.29	817.47	817.57	---	818.60	818.72	818.74	818.37	817.97	817.74	817.44
31	818.29	---	817.71	817.50	---	818.88	---	818.75	---	817.97	817.74	---
MEAN	818.04	818.20	817.70	817.66	817.01	817.10	818.90	818.82	818.56	818.13	817.83	817.59
MAX	818.29	818.47	818.26	817.94	817.43	818.88	819.41	818.91	818.84	818.35	817.95	817.75
MIN	817.83	817.86	817.31	817.48	816.89	816.78	818.52	818.71	818.36	817.93	817.74	817.42

CAL YR 1992 MEAN 818.14 MAX 819.17 MIN 816.64
WTR YR 1993 MEAN 817.97 MAX 819.41 MIN 816.78

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 sea level.

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

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1170	1690	4130	7180	1880	e880	e6000	7260	498	342	242	169
2	1040	1680	4020	5170	1630	e840	e6600	7500	630	321	281	171
3	922	3510	3870	4580	1740	e900	e6100	7730	587	313	327	213
4	824	4860	3680	4570	1890	1080	e5000	7570	477	308	379	619
5	752	4590	1860	5860	1870	1180	4160	7330	457	255	302	1640
6	677	4490	634	4580	1620	1140	5900	7270	531	253	235	1180
7	478	4230	2360	4390	e1200	1120	8170	7490	607	241	194	642
8	868	3600	3680	5210	e1300	1130	8820	7500	535	244	201	490
9	742	2680	3230	5810	e1200	1270	9180	7230	648	235	199	404
10	1320	2230	1430	5630	e1200	1500	9100	6930	736	229	216	360
11	1710	2140	642	5360	1240	1510	8540	7120	1120	223	177	309
12	1680	2630	1740	5120	1170	e1350	8710	6890	866	224	238	402
13	1590	3120	2610	4960	1200	e1100	8720	5900	636	197	215	372
14	1000	4430	2930	5510	1220	e900	8400	5070	e440	209	192	312
15	721	4690	2780	5150	1180	e1050	8000	3890	e380	181	164	269
16	749	4280	2470	4540	e1150	1160	8430	2850	e400	225	175	240
17	1560	3500	4040	3890	e1150	1570	8460	1210	e370	208	243	228
18	2110	2630	5130	2660	e1150	1980	8490	915	352	170	406	228
19	1950	2730	4140	1920	e1000	1990	8490	895	342	178	370	222
20	1210	2780	4610	1690	e920	1780	8190	816	348	211	334	216
21	594	2700	4980	1680	e950	1660	7780	791	363	185	397	212
22	686	3170	4530	2230	e1000	1590	8820	745	368	194	422	212
23	1930	4810	4890	3480	e1000	1670	9530	698	360	189	297	180
24	3260	5490	4840	3660	e900	2270	8410	656	354	154	252	214
25	3760	5710	4380	4020	e880	3840	7260	642	330	186	207	204
26	3860	4870	3880	3790	e920	5040	7400	644	297	143	196	237
27	3520	3880	2860	2950	e900	5830	8220	612	280	449	190	236
28	2140	3470	1880	2480	e850	6800	8360	557	283	357	183	349
29	1660	4090	1890	2270	---	e5600	8390	510	344	241	170	978
30	1500	4260	2100	2170	---	e5900	7760	471	393	213	132	1230
31	1650	---	5490	1910	---	e6200	---	450	---	222	184	---
TOTAL	47633	108940	101706	124420	34310	71830	235390	116142	14332	7300	7720	12738
MEAN	1537	3631	3281	4014	1225	2317	7846	3747	478	235	249	425
MAX	3860	5710	5490	7180	1890	6800	9530	7730	1120	449	422	1640
MIN	478	1680	634	1680	850	840	4160	450	280	143	132	169

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 1993, BY WATER YEAR (WY)

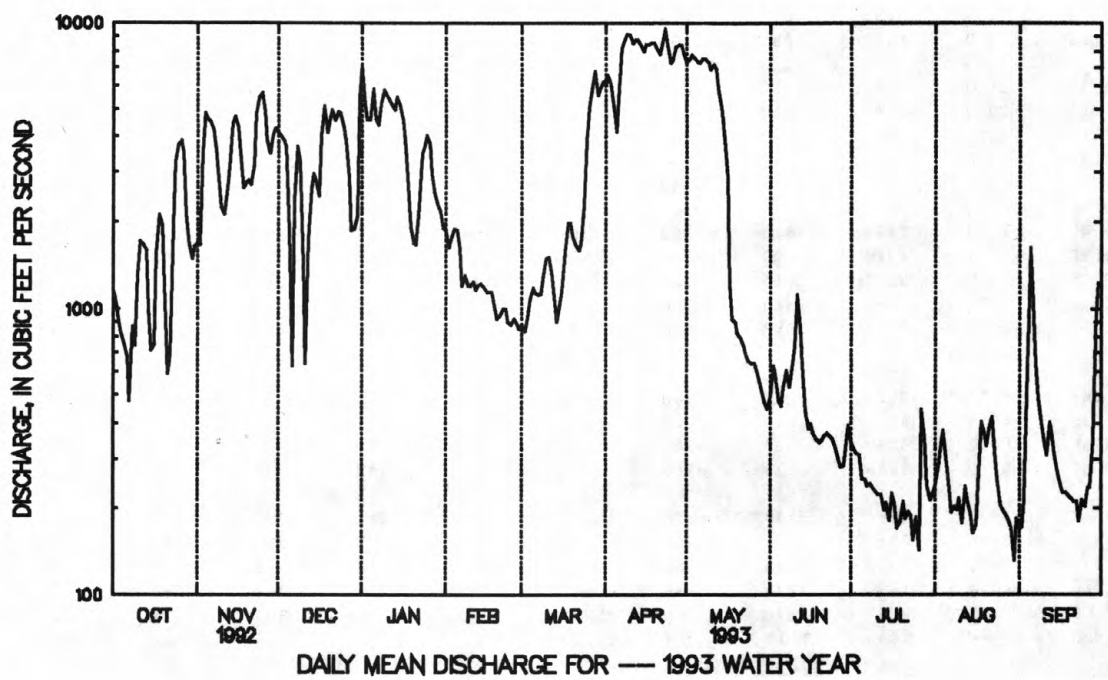
MEAN	1046	1565	2270	1964	2276	4162	4635	2343	1329	853	514	623
MAX	5146	3637	5942	4781	6036	8916	7846	5761	4906	7032	2408	4569
(WY)	1978	1971	1973	1979	1990	1956	1993	1984	1989	1972	1992	1977
MIN	145	182	325	155	397	1813	1912	613	334	172	142	111
(WY)	1964	1965	1961	1961	1958	1960	1981	1985	1991	1962	1965	1955

e Estimated

04228500 GENESEE RIVER AT AVON, NY--Continued

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1955 - 1993	
ANNUAL TOTAL	859009		882461			
ANNUAL MEAN	2347		2418		1964	
HIGHEST ANNUAL MEAN					2846	1978
LOWEST ANNUAL MEAN					1130	1965
HIGHEST DAILY MEAN	7310	May 3	9530	Apr 23	16200	Jun 25 1972
LOWEST DAILY MEAN	210	Jul 3	132	Aug 30	49	Oct 10 1980
ANNUAL SEVEN-DAY MINIMUM	255	Jun 28	171	Aug 27	88	Aug 1 1955
INSTANTANEOUS PEAK FLOW			9690	Apr 23	16500	Jun 25 1972
INSTANTANEOUS PEAK STAGE			33.62	Apr 2	40.67	Jun 25 1972
INSTANTANEOUS LOW FLOW			123	Aug 30	47	a
10 PERCENT EXCEEDS	4930		6910		5370	
50 PERCENT EXCEEDS	1870		1210		1100	
90 PERCENT EXCEEDS	478		215		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 sea level. 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, 805.49 ft, Apr. 2,; minimum, 802.63 ft, Aug. 29.

ELEVATION (FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	803.73	803.71	804.09	804.05	803.61	803.39	805.09	804.04	803.42	803.27	802.95	802.78
2	803.72	803.79	804.06	804.02	803.59	803.39	805.41	803.97	803.40	803.26	802.98	802.77
3	803.70	803.92	804.01	803.99	803.56	803.38	805.41	803.92	803.38	803.25	802.96	802.92
4	803.68	803.96	803.99	803.98	803.55	803.39	805.21	803.85	803.37	803.22	802.94	802.83
5	803.65	803.97	803.96	804.06	803.54	803.40	804.99	803.81	803.42	803.22	802.90	802.79
6	803.63	804.00	803.94	804.04	803.53	803.40	804.83	803.84	803.45	803.21	802.87	802.81
7	803.61	804.00	803.91	803.99	803.51	803.40	804.74	803.81	803.42	803.18	802.88	802.86
8	803.60	803.99	803.88	803.95	803.50	803.40	804.59	803.78	803.42	803.16	802.87	802.84
9	803.63	803.96	803.85	803.90	803.49	803.41	804.50	803.75	803.51	803.13	802.84	802.83
10	803.65	803.95	803.84	803.85	803.47	803.41	804.43	803.72	803.54	803.11	802.82	802.93
11	803.64	803.94	803.84	803.82	803.47	803.42	804.48	803.70	803.51	803.10	802.82	802.95
12	803.64	803.96	803.84	803.78	803.48	803.42	804.38	803.67	803.50	803.12	802.80	802.89
13	803.62	803.97	803.82	803.81	803.49	803.44	804.27	803.62	803.47	803.08	802.77	802.84
14	803.60	803.98	803.79	803.85	803.48	803.54	804.16	803.59	803.43	803.07	802.76	802.80
15	803.60	803.96	803.77	803.83	803.47	803.52	804.07	803.57	803.41	803.09	802.75	802.76
16	803.64	803.95	803.80	803.80	803.48	803.50	804.06	803.55	803.39	803.05	802.85	802.75
17	803.63	803.94	803.96	803.77	803.48	803.49	804.24	803.52	803.38	803.02	802.89	802.74
18	803.62	803.92	804.06	803.75	803.47	803.49	804.27	803.51	803.37	802.98	802.87	802.73
19	803.60	803.91	804.06	803.72	803.47	803.48	804.19	803.49	803.37	803.00	802.84	802.72
20	803.59	803.91	804.08	803.68	803.46	803.48	804.12	803.49	803.38	803.02	802.84	802.71
21	803.58	803.90	804.06	803.67	803.45	803.47	804.07	803.48	803.40	802.97	802.85	802.69
22	803.56	803.91	804.00	803.67	803.46	803.46	804.05	803.45	803.37	802.95	802.80	802.69
23	803.54	804.03	803.96	803.68	803.43	803.47	804.10	803.45	803.35	802.92	802.80	802.69
24	803.62	804.09	803.91	803.70	803.41	803.51	804.21	803.45	803.33	802.92	802.80	802.69
25	803.73	804.22	803.85	803.73	803.41	803.58	804.22	803.44	803.32	802.88	802.78	802.68
26	803.75	804.25	803.80	803.71	803.40	803.68	804.45	803.44	803.31	802.92	802.75	802.72
27	803.75	804.23	803.76	803.69	803.40	803.81	804.46	803.43	803.29	802.91	802.73	802.73
28	803.75	804.20	803.72	803.67	803.40	804.02	804.36	803.43	803.28	802.89	802.71	802.75
29	803.75	804.16	803.71	803.65	---	804.33	804.24	803.41	803.29	802.93	802.68	802.73
30	803.74	804.12	803.78	803.62	---	804.62	804.14	803.39	803.28	803.02	802.69	802.72
31	803.73	---	804.00	803.62	---	804.86	---	803.41	---	803.00	802.73	---
MEAN	803.65	803.99	803.91	803.81	803.48	803.60	804.46	803.61	803.39	803.06	802.82	802.78
MAX	803.75	804.25	804.09	804.06	803.61	804.86	805.41	804.04	803.54	803.27	802.98	802.95
MIN	803.54	803.71	803.71	803.62	803.40	803.38	804.05	803.39	803.28	802.88	802.68	802.68

CAL YR 1992 MEAN 804.02 MAX 804.81 MIN 803.49
WTR YR 1993 MEAN 803.55 MAX 805.41 MIN 802.68

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.--WDR NY-82-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 610.00 ft above sea level. Prior to Sept. 30, 1970, water-stage recorder at same site at datum 609.76 ft above sea level.

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)
Apr. 2	1530	*3,960	*5.33	Apr. 26	2400	1,280	3.49
Apr. 17	0030	1,210	2.67				

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	79	238	870	e110	e60	2920	520	41	15	2.0	e.81
2	73	102	228	406	e110	e60	3820	447	45	14	1.6	e.81
3	65	427	211	319	e100	e65	3180	394	36	12	5.9	e.81
4	60	448	190	361	e100	e70	2090	361	31	12	15	e.81
5	52	294	e190	648	e95	e70	1470	331	35	10	10	e.81
6	46	296	e160	718	e90	e70	1350	435	80	7.8	5.0	e1.1
7	43	321	e170	503	e85	e72	1210	335	69	6.1	3.2	1.9
8	41	246	e150	398	e80	e78	1080	237	58	4.9	2.4	1.4
9	55	188	e120	e280	e80	e90	951	199	119	4.4	2.0	1.3
10	86	162	e130	e240	e75	e110	871	171	175	4.1	1.5	2.8
11	79	159	e140	e260	e75	e100	1010	149	105	3.1	1.3	2.1
12	82	172	e140	e250	e75	e96	887	133	65	3.6	1.2	1.6
13	66	197	e140	e280	e70	e85	728	118	43	3.8	1.2	1.5
14	57	251	e140	e420	e70	e80	569	97	34	3.6	1.2	2.0
15	51	212	e150	e400	e70	e90	458	88	36	3.1	1.1	1.3
16	56	183	e220	e310	e65	e80	493	85	27	2.4	1.1	1.1
17	68	164	695	e260	e65	e100	969	75	27	3.6	1.1	e.90
18	73	165	969	e200	e65	e140	1050	69	25	4.6	1.2	e.81
19	60	183	665	e170	e60	e140	709	64	20	3.9	1.2	e.81
20	52	174	614	e220	e60	148	580	63	20	2.8	1.1	e.81
21	43	183	574	e190	e65	160	527	62	25	2.3	1.1	e.81
22	41	239	385	e290	e65	e155	545	57	38	2.0	1.1	e.81
23	41	460	e280	508	e70	e170	793	53	40	1.7	1.1	e1.3
24	43	505	e230	e470	e65	e220	1020	50	31	1.6	1.1	1.5
25	205	678	e150	e500	e60	e410	816	56	18	1.5	1.1	1.2
26	226	706	e200	e290	e60	e680	993	62	14	1.5	e1.0	4.9
27	152	494	e180	e220	e60	e960	1140	52	12	1.4	e1.0	4.1
28	121	364	e170	e150	e60	e1420	862	44	11	1.3	e.90	9.5
29	102	300	e160	e140	---	2200	702	43	14	2.0	e.85	12
30	89	265	e280	e80	---	2340	600	37	16	2.5	e.81	7.2
31	85	---	946	e130	---	2690	---	34	---	2.2	e.81	---
TOTAL	2397	8617	9215	10481	2105	13209	34393	4921	1310	144.8	71.17	68.80
MEAN	77.3	287	297	338	75.2	426	1146	159	43.7	4.67	2.30	2.29
MAX	226	706	969	870	110	2690	3820	520	175	15	15	12
MIN	41	79	120	80	60	60	458	34	11	1.3	.81	.81

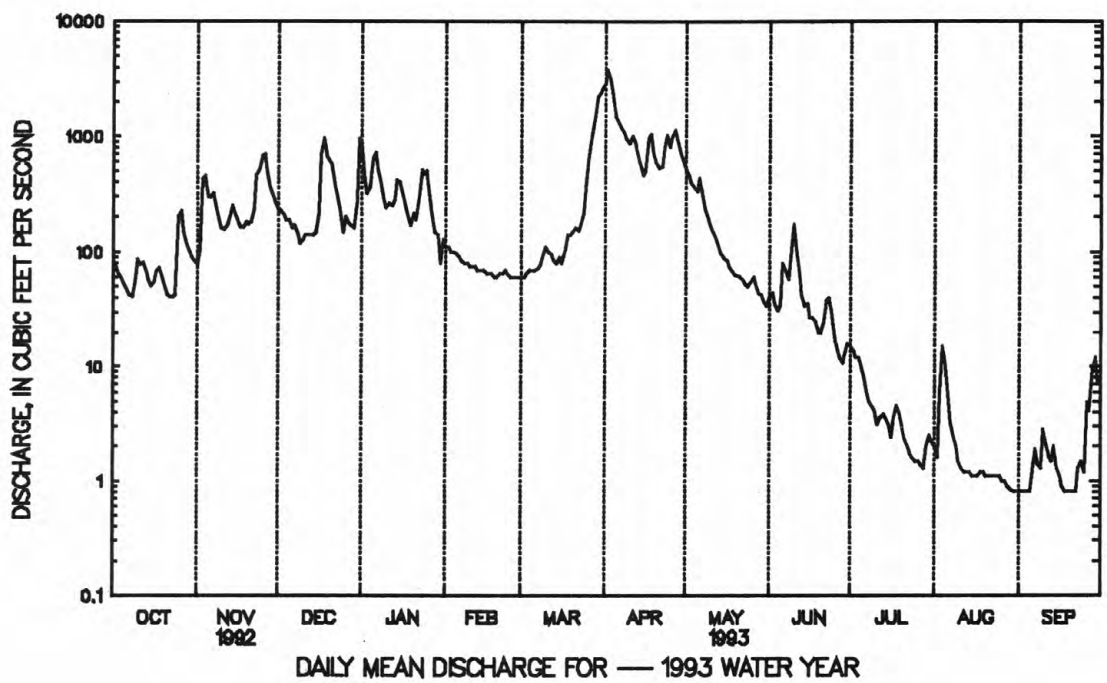
e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 1993, BY WATER YEAR (WY)

MEAN	43.3	77.9	133	125	163	297	336	172	79.9	33.4	24.8	23.3
MAX	443	345	493	369	664	685	1146	500	344	377	336	538
(WY)	1978	1978	1946	1979	1976	1976	1993	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

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1946 - 1970, 1973 - 1993	
ANNUAL TOTAL	74469		86932.77			
ANNUAL MEAN	203		238		125	
HIGHEST ANNUAL MEAN					238	1993
LOWEST ANNUAL MEAN					46.4	1965
HIGHEST DAILY MEAN	2060	Jul 18	3820	Apr 2	3820	Apr 2 1993
LOWEST DAILY MEAN	16	Jul 2	.81	a	.10	Aug 24 1949
ANNUAL SEVEN-DAY MINIMUM	19	Jul 1	.81	Aug 30	.13	Aug 22 1949
INSTANTANEOUS PEAK FLOW			3960	Apr 2	b4630	Mar 28 1950
INSTANTANEOUS PEAK STAGE			5.33	Apr 2	c6.42	Mar 28 1950
INSTANTANEOUS LOW FLOW			d		.06	Aug 28 1949
10 PERCENT EXCEEDS	452		670		327	
50 PERCENT EXCEEDS	117		80		54	
90 PERCENT EXCEEDS	37		1.3		2.4	

a Aug. 30 to Sep. 5, Sep. 18-22.
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 sea level (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)
Dec. 31	0530	769	3.87	Mar. 30	2030	*1,370	*5.23
Jan. 5	0530	942	4.28				

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	25	77	193	e48	e32	797	49	31	8.5	6.4	6.3
2	29	137	75	104	e46	e32	602	45	21	11	6.2	7.4
3	25	183	67	90	e46	e35	289	43	17	9.9	5.7	13
4	24	78	59	213	e42	e36	203	40	14	8.3	5.4	8.8
5	23	78	58	536	e42	e36	236	48	61	7.4	5.2	7.0
6	22	98	52	174	e42	e36	288	66	46	7.0	5.1	12
7	22	72	51	e113	e42	e38	280	44	24	7.1	5.4	14
8	20	51	49	e90	e40	e40	280	38	22	6.9	5.8	8.3
9	42	43	47	e61	e40	e45	279	35	27	6.6	5.2	7.2
10	33	48	e44	e55	e38	e50	304	31	21	6.4	5.0	12
11	27	66	e42	e60	e38	e46	202	29	16	6.3	5.5	11
12	27	77	e45	e61	e38	e42	137	27	13	10	5.1	8.0
13	26	165	e46	140	e36	e38	107	25	12	7.1	4.8	7.2
14	24	91	e50	135	e36	e32	95	24	11	7.0	4.6	6.4
15	27	83	52	92	e36	e40	91	24	10	7.8	4.5	6.4
16	36	72	180	78	e34	e42	110	23	9.7	6.7	7.1	7.3
17	42	72	230	e67	e34	e46	116	23	9.3	6.3	6.3	7.2
18	31	73	163	e55	e33	e50	92	22	8.8	6.0	5.4	6.9
19	28	75	104	e50	e32	e55	76	23	9.2	7.0	5.0	6.7
20	25	74	329	e48	e32	49	92	23	12	7.0	31	6.5
21	27	285	110	e49	e35	49	109	21	14	7.4	30	6.6
22	26	248	77	101	e35	49	93	20	11	6.3	12	6.6
23	25	308	e65	91	e38	e55	73	19	9.0	5.9	8.4	7.1
24	80	185	e58	165	e36	e90	61	21	8.0	5.6	7.4	8.1
25	79	358	e54	128	e34	138	63	28	7.5	5.5	7.0	6.9
26	43	155	e50	e78	e32	215	142	22	7.6	78	6.5	32
27	34	117	e49	e67	e32	347	81	18	7.5	23	6.3	14
28	30	97	e48	e60	e32	499	65	17	12	8.2	6.1	27
29	29	85	e53	e46	---	704	59	16	15	6.4	6.2	18
30	29	75	e300	e47	---	846	55	15	9.4	7.3	6.1	12
31	26	---	e600	e50	---	734	---	23	---	7.9	6.0	---
TOTAL	992	3574	3284	3297	1049	4546	5477	902	496.0	311.8	236.7	307.9
MEAN	32.0	119	106	106	37.5	147	183	29.1	16.5	10.1	7.64	10.3
MAX	80	358	600	536	48	846	797	66	61	78	31	32
MIN	20	25	42	46	32	32	55	15	7.5	5.5	4.5	6.3
CFSM	.82	3.05	2.71	2.72	.96	3.75	4.67	.74	.42	.26	.20	.26
IN.	.94	3.40	3.12	3.14	1.00	4.33	5.21	.86	.47	.30	.23	.29

e Estimated

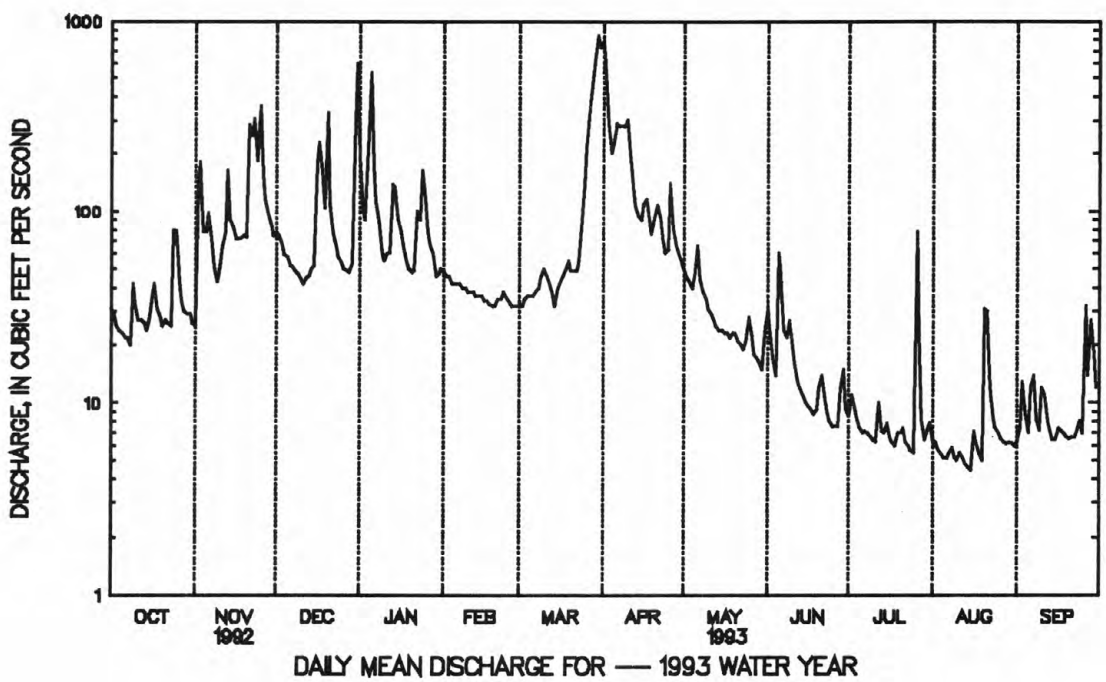
04230380 OATKA CREEK AT WARSAW, NY--continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1993, BY WATER YEAR (WY)

MEAN	24.7	50.0	70.5	62.5	74.1	126	112	50.3	31.4	17.3	14.1	19.4
MAX	76.7	131	130	234	235	228	183	129	165	116	86.8	166
(WY)	1978	1986	1978	1979	1976	1979	1993	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

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1964 - 1993	
ANNUAL TOTAL	27152.0		24473.4			
ANNUAL MEAN	74.2		67.1		54.5	
HIGHEST ANNUAL MEAN					73.8	1978
LOWEST ANNUAL MEAN					29.6	1965
HIGHEST DAILY MEAN	600	Dec 31	846	Mar 30	1600	Jan 26 1979
LOWEST DAILY MEAN	7.5	Jul 2	4.5	Aug 15	1.0	Aug 1 1965
ANNUAL SEVEN-DAY MINIMUM	9.1	Jun 26	5.0	Aug 9	1.4	Jul 26 1965
INSTANTANEOUS PEAK FLOW			1370	Mar 30	a4010	Jun 23 1972
INSTANTANEOUS PEAK STAGE			5.23	Mar 30	9.75	Jun 23 1972
INSTANTANEOUS LOW FLOW			3.7	Aug 5	.90	Aug 1 1965
ANNUAL RUNOFF (CFSM)	1.90		1.71		1.39	
ANNUAL RUNOFF (INCHES)	25.83		23.28		18.93	
10 PERCENT EXCEEDS	167		147		122	
50 PERCENT EXCEEDS	46		35		29	
90 PERCENT EXCEEDS	14		6.5		4.8	

a From rating curve extended above 1,770 ft^3/s on basis of slope-area measurement of peak discharge.



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 sea level.

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. 31	0630	*4,130	*7.83	No other peak greater than base discharge.			

REVISIONS.--Revised maximum discharges for water year 1991, revised daily mean discharges, in cubic feet per second, for affected periods during the year, revised monthly and yearly discharges are given below. These figures supercede those published in the reports for 1991 and 1992.

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. 7	1715	1,750	5.90	Apr. 23	1515	*2,480	*6.64

Daily discharges:

Mar. 1	240	Mar. 9	1270	Mar. 17	353	Mar. 25	570
2	373	10	786	18	400	26	565
3	662	11	584	19	514	27	550
4	1030	12	459	20	565	28	910
5	1410	13	399	21	550	29	986
6	1310	14	375	22	426	30	860
7	1610	15	360	23	445	31	532
8	1630	16	348	24	550		
Apr. 1	404	Apr. 9	250	Apr. 17	335	Apr. 25	1040
2	372	10	258	18	260	26	745
3	350	11	260	19	232	27	600
4	325	12	245	20	430	28	445
5	305	13	223	21	885	29	390
6	286	14	212	22	1930	30	365
7	274	15	228	23	2390		
8	260	16	322	24	1750		
May 1	330	May 9	212	May 17	199	May 25	146
2	302	10	207	18	235	26	142
3	286	11	207	19	234	27	147
4	268	12	200	20	206	28	191
5	254	13	192	21	187	29	163
6	246	14	203	22	173	30	139
7	230	15	215	23	186	31	127
8	223	16	200	24	159		

MONTH	TOTAL	MEAN	MAX	MIN	CFSM	IN
March 1991	21622	697	1630	240	3.49	4.02
April 1991	16371	546	2390	212	2.73	3.05
May 1991	6409	207	330	127	1.03	1.19
Wtr Yr 1991	91306	250	2390	21	1.25	16.98
Cal Yr 1991	74329	204	2390	18	1.02	13.83

04230500 OATKA CREEK AT GARBUTT, NY--Continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	164	120	332	1260	e240	e150	3520	241	94	56	39	34
2	150	134	314	1160	e230	157	3740	219	103	58	40	33
3	137	339	305	632	e230	161	2670	204	93	58	39	37
4	125	427	282	462	e230	169	1610	194	84	56	38	35
5	116	422	265	796	e220	171	1120	184	102	54	38	33
6	109	393	e240	1050	e210	169	1020	190	150	53	37	38
7	105	383	e220	1050	e210	174	994	206	156	52	37	38
8	102	330	e220	647	e210	184	985	179	110	51	37	35
9	111	264	e210	e420	e200	206	928	163	172	49	36	34
10	126	234	e190	e310	e200	e210	889	154	216	48	36	36
11	152	227	e200	e280	e200	e200	900	147	131	49	36	34
12	125	242	e180	e310	e200	e190	821	142	106	50	35	33
13	115	285	e200	e340	e200	e170	668	136	93	47	35	32
14	109	353	e190	462	e190	e130	518	130	85	46	35	32
15	108	361	e200	e460	e190	e130	461	128	80	45	35	32
16	112	326	e260	e420	e190	e170	439	126	75	45	37	33
17	125	304	534	e390	e180	e210	463	123	72	45	36	33
18	139	296	708	e320	e160	e220	457	121	70	43	35	32
19	131	312	754	e250	e150	e240	404	120	69	45	35	32
20	118	321	762	e250	e150	e240	378	118	70	44	36	32
21	112	328	684	e260	e160	240	394	117	70	42	36	32
22	107	399	640	e370	e170	238	404	112	70	41	35	31
23	107	618	510	544	176	248	374	109	69	40	34	33
24	119	750	e360	574	174	286	334	112	65	40	34	33
25	147	876	e270	e620	e160	390	305	109	61	40	34	31
26	234	847	e250	e460	e150	553	314	112	59	43	33	38
27	184	778	e230	e420	e150	848	386	108	57	42	32	34
28	153	603	e220	e330	e150	1420	327	101	58	74	32	35
29	139	437	e240	e320	---	2430	284	95	58	51	32	34
30	129	366	e320	e250	---	3260	261	92	57	45	32	35
31	124	---	917	e230	---	3790	---	92	---	41	33	---
TOTAL	4034	12075	11207	15647	5280	17354	26368	4384	2755	1493	1099	1014
MEAN	130	402	362	505	189	560	879	141	91.8	48.2	35.5	33.8
MAX	234	876	917	1260	240	3790	3740	241	216	74	40	38
MIN	102	120	180	230	150	130	261	92	57	40	32	31
CFSM	.65	2.01	1.81	2.52	.94	2.80	4.39	.71	.46	.24	.18	.17
IN.	.75	2.25	2.08	2.91	.98	3.23	4.90	.82	.51	.28	.20	.19

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 1993, BY WATER YEAR (WY)

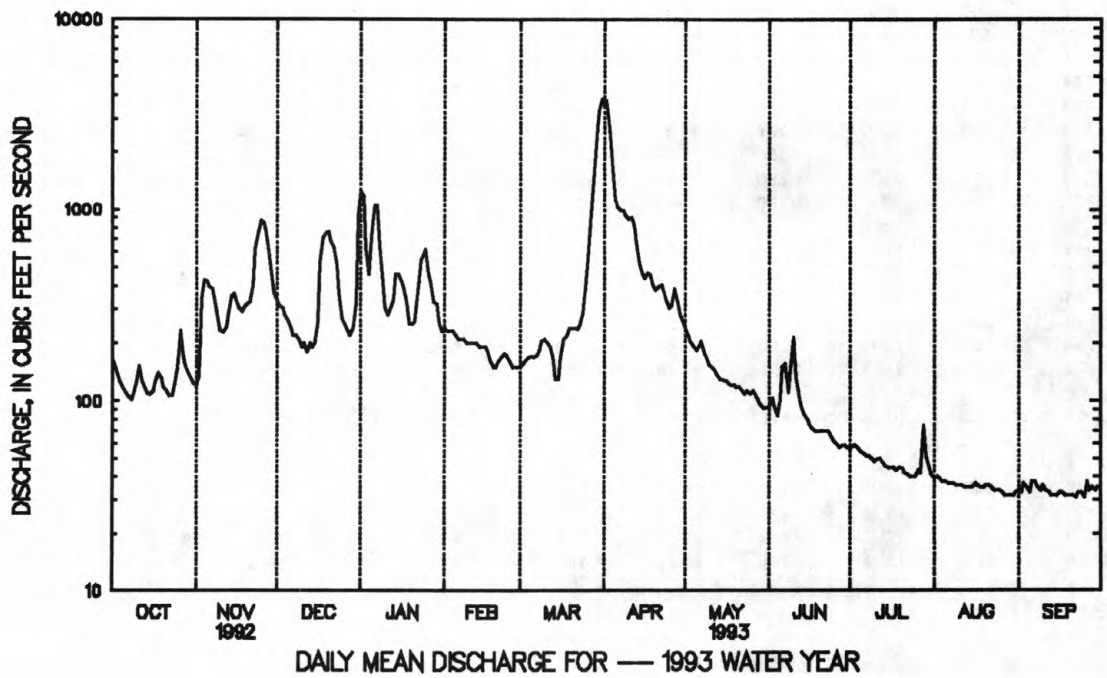
MEAN	76.6	138	224	224	292	560	515	246	135	73.3	59.3	62.5
MAX	400	567	798	505	868	1048	1069	581	760	249	294	748
(WY)	1978	1986	1978	1993	1976	1956	1947	1984	1989	1972	1992	1977
MIN	18.0	17.2	20.1	22.9	33.4	244	117	113	45.6	31.8	22.5	19.2
(WY)	1966	1965	1961	1961	1958	1965	1946	1985	1949	1965	1965	1965

e Estimated

04230500 OATKA CREEK AT GARBUTT, NY--Continued

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1946 - 1993	
ANNUAL TOTAL	95203		102710			
ANNUAL MEAN	260		281		217	
HIGHEST ANNUAL MEAN					371	1978
LOWEST ANNUAL MEAN					117	1965
HIGHEST DAILY MEAN	1260	Mar 29	3790	Mar 31	6500	Mar 31 1960
LOWEST DAILY MEAN	28	Feb 13	31	Sep 22	13	a
ANNUAL SEVEN-DAY MINIMUM	35	Feb 8	32	Sep 19	14	Oct 26 1966
INSTANTANEOUS PEAK FLOW			4130	Mar 31	7050	Mar 31 1960
INSTANTANEOUS PEAK STAGE			7.83	Mar 31	8.64	Mar 31 1960
INSTANTANEOUS LOW FLOW			30	b	3.3	c
ANNUAL RUNOFF (CFSM)	1.30		1.41		1.08	
ANNUAL RUNOFF (INCHES)	17.71		19.10		14.72	
10 PERCENT EXCEEDS	561		619		520	
50 PERCENT EXCEEDS	190		160		108	
90 PERCENT EXCEEDS	62		35		30	

a Oct. 30, 31, Nov. 1, 1966.
b Sep 20, 21, 22, 23, 25.
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 sea level.

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, 19.93 ft, Apr. 2-3, 1993; minimum recordable, 8.20 ft, Nov. 9, 1979, result of regulation.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 19.93 ft, Apr. 2-3; minimum, 9.10 ft, Jan. 20.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.36	11.66	12.84	15.36	11.86	11.33	19.17	14.19	11.66	11.41	11.50	11.50
2	11.40	11.53	12.77	14.38	12.32	11.35	19.75	14.11	11.64	11.50	11.67	11.47
3	11.29	12.42	12.60	13.60	12.22	11.24	19.64	14.29	11.40	11.65	11.57	11.58
4	11.46	13.24	12.44	13.50	12.47	11.24	17.74	14.31	11.53	11.70	11.58	11.65
5	11.27	13.09	12.02	14.30	12.03	11.15	14.95	14.17	11.42	11.48	11.56	11.79
6	11.22	12.93	11.14	14.07	11.64	11.24	14.49	14.09	11.34	11.47	11.59	11.62
7	11.32	12.82	11.58	13.62	11.11	11.28	15.70	14.17	11.61	11.55	11.51	11.56
8	11.40	12.29	12.53	13.89	11.41	11.21	15.91	14.13	11.64	11.58	11.53	11.51
9	11.56	11.82	12.42	13.99	11.56	11.70	15.94	13.96	11.66	11.58	11.50	11.44
10	11.73	12.14	11.19	13.69	11.76	11.78	15.85	13.76	11.72	11.52	11.52	11.62
11	11.74	12.02	10.91	13.45	11.74	11.77	15.69	13.78	11.82	11.46	11.58	11.63
12	11.57	12.15	11.03	13.23	11.68	11.54	15.60	13.76	11.67	11.51	11.63	11.64
13	11.57	12.28	11.59	13.24	11.42	11.44	15.48	13.29	11.60	11.54	11.58	11.57
14	11.51	12.79	11.70	13.84	11.22	11.10	15.14	12.89	11.46	11.57	11.44	11.35
15	11.32	12.83	11.55	13.79	10.91	11.34	14.73	12.23	11.52	11.56	11.49	11.32
16	11.34	12.31	11.35	13.30	11.36	11.33	14.74	11.65	11.61	11.51	11.41	11.41
17	11.62	12.65	12.62	12.92	11.37	11.80	15.12	11.13	11.50	11.45	11.57	11.41
18	11.85	12.05	13.96	12.32	11.34	12.03	15.27	11.06	11.66	11.45	11.59	11.41
19	11.74	12.07	13.43	11.38	11.23	11.90	15.17	11.02	11.54	11.48	11.71	11.52
20	11.51	12.23	13.58	10.88	11.35	11.38	14.84	11.11	11.52	11.53	11.60	11.49
21	11.49	11.87	13.93	12.06	11.50	11.43	14.50	10.91	11.45	11.61	11.41	11.44
22	11.49	12.12	13.46	12.21	11.34	11.53	14.92	11.11	11.30	11.53	11.56	11.54
23	11.76	13.27	13.42	12.94	11.20	11.40	15.48	11.17	11.35	11.55	11.37	11.50
24	12.01	14.04	13.19	13.07	11.19	11.64	15.28	11.10	11.48	11.51	11.47	11.51
25	12.34	14.29	12.75	13.31	11.44	12.56	14.51	11.17	11.45	11.54	11.51	11.49
26	12.44	13.99	12.69	12.89	11.08	13.76	14.13	11.59	11.44	11.55	11.48	11.55
27	12.36	13.14	12.51	12.44	11.33	14.60	14.77	11.48	11.59	11.60	11.43	11.45
28	11.74	12.70	11.94	12.03	11.47	15.68	14.76	11.46	11.41	11.56	11.38	11.50
29	11.74	13.00	11.85	12.11	---	16.71	14.83	11.39	11.46	11.56	11.46	11.65
30	11.62	13.01	11.72	11.05	---	17.83	14.56	11.43	11.61	11.50	11.42	11.72
31	11.62	---	13.85	11.81	---	18.87	---	11.43	---	11.45	11.44	---
MEAN	11.63	12.62	12.41	13.05	11.52	12.42	15.62	12.49	11.54	11.53	11.52	11.53
MAX	12.44	14.29	13.96	15.36	12.47	18.87	19.75	14.31	11.82	11.70	11.71	11.79
MIN	11.22	11.53	10.91	10.88	10.91	11.10	14.13	10.91	11.30	11.41	11.37	11.32

CAL YR 1992 MEAN 11.94 MAX 15.25 MIN 10.27
WTR YR 1993 MEAN 12.32 MAX 19.75 MIN 10.88

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 sea level.

REMARKS.--Records good except those for estimated daily discharges (ice effect), 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)
Jan. 1	1830	1,170	5.79	Mar. 30	2230	*2,550	*8.52
Jan. 6	1900	906	5.12				

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	56	167	1060	e110	e75	2170	107	60	24	14	9.6
2	61	74	150	845	e120	e80	2250	100	59	24	13	12
3	55	161	139	477	e110	e86	1810	94	49	28	12	15
4	51	244	130	366	e110	e90	1070	91	42	28	11	15
5	48	306	125	528	e100	95	696	94	56	23	9.4	14
6	45	271	111	836	e95	93	549	95	94	20	8.5	19
7	46	239	104	722	e95	96	519	97	97	16	10	23
8	46	216	104	415	e95	101	457	92	76	15	13	25
9	52	157	e90	e260	e92	111	394	86	94	14	12	19
10	62	118	e80	e170	e90	e120	369	82	142	13	9.8	24
11	63	107	e86	164	e90	e130	377	77	161	13	8.7	37
12	58	106	e90	172	e90	e120	375	72	101	14	7.8	27
13	52	127	e90	189	e90	e110	296	67	64	14	6.9	18
14	49	165	e90	230	e90	e100	236	65	50	14	6.1	13
15	54	198	e100	276	e90	e100	205	64	41	13	5.1	11
16	73	175	145	350	e88	e110	195	63	37	12	6.3	9.9
17	83	149	232	329	e86	e140	210	60	34	9.9	10	9.6
18	80	147	417	e230	e85	e190	205	58	31	9.7	11	9.9
19	72	172	679	e170	e80	e190	189	57	30	13	11	9.3
20	67	204	705	e140	e80	e200	178	55	35	15	12	7.8
21	64	230	627	e150	e78	204	192	58	39	13	14	7.9
22	61	252	593	e230	e82	202	196	58	44	12	13	7.8
23	60	346	362	496	e86	207	169	55	41	11	11	9.5
24	66	405	e240	778	e80	231	144	54	30	9.8	9.5	9.3
25	74	500	e180	e650	e78	280	134	53	25	9.2	8.2	9.4
26	79	460	e160	e460	e75	391	139	49	24	12	6.5	17
27	78	440	e130	e340	e75	638	139	45	22	18	5.9	26
28	71	314	118	e210	e75	1120	127	43	24	18	5.4	25
29	65	232	113	e170	---	1790	116	40	28	16	4.9	28
30	61	189	205	e130	---	2220	111	39	27	14	5.0	26
31	61	---	592	e96	---	2420	---	46	---	14	7.8	---
TOTAL	1924	6760	7154	11639	2515	12040	14217	2116	1657	479.6	288.8	494.0
MEAN	62.1	225	231	375	89.8	388	474	68.3	55.2	15.5	9.32	16.5
MAX	83	500	705	1060	120	2420	2250	107	161	28	14	37
MIN	45	56	80	96	75	75	111	39	22	9.2	4.9	7.8
CFSM	.48	1.73	1.78	2.89	.69	2.99	3.65	.53	.42	.12	.07	.13
IN.	.55	1.93	2.05	3.33	.72	3.45	4.07	.61	.47	.14	.08	.14

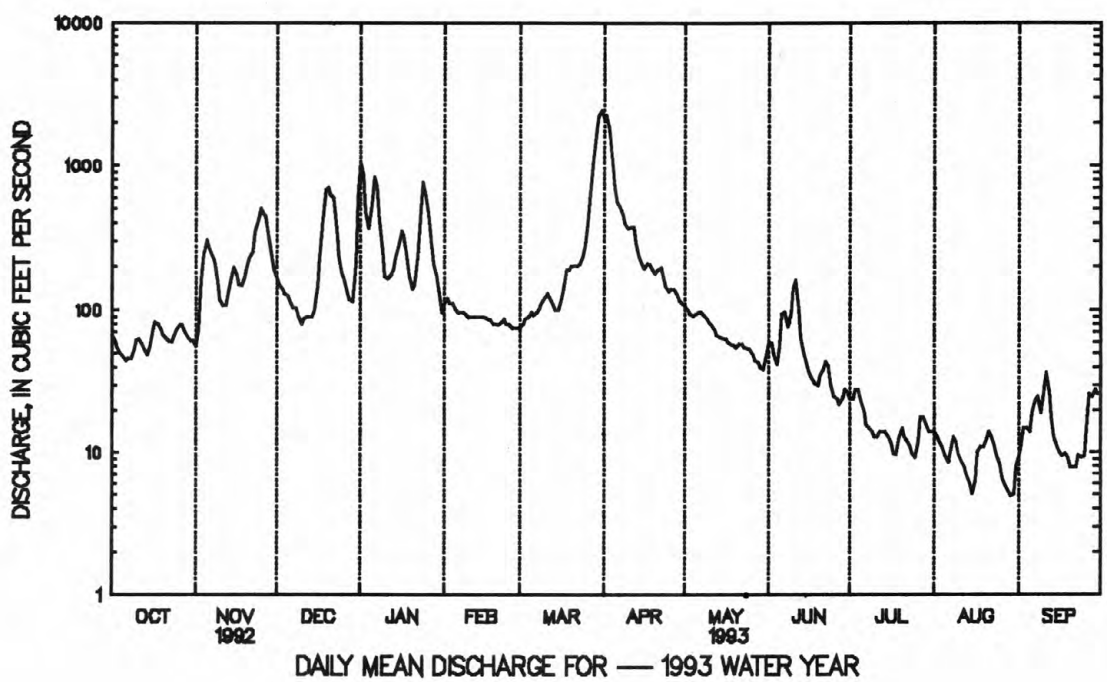
e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 1993, BY WATER YEAR (WY)

MEAN	38.5	75.9	126	122	183	336	258	124	60.6	25.9	21.8	25.9
MAX	235	405	497	375	460	664	497	325	348	143	201	284
(WY)	1946	1971	1978	1993	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

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1946 - 1993	
ANNUAL TOTAL	56158		61284.4			
ANNUAL MEAN	153		168		116	
HIGHEST ANNUAL MEAN					207	1978
LOWEST ANNUAL MEAN					52.3	1953
HIGHEST DAILY MEAN	1200	Mar 29	2420	Mar 31	4120	Mar 31 1960
LOWEST DAILY MEAN	16	Feb 12	4.9	Aug 29	.30	Aug 5 1959
ANNUAL SEVEN-DAY MINIMUM	19	Feb 9	6.2	Aug 25	.47	Aug 3 1959
INSTANTANEOUS PEAK FLOW			2550	Mar 30	4880	Mar 31 1960
INSTANTANEOUS PEAK STAGE			8.52	Mar 30	9.44	Mar 31 1960
INSTANTANEOUS LOW FLOW			4.9	a	.22	Aug 19 1970
ANNUAL RUNOFF (CFSM)	1.18		1.29		.89	
ANNUAL RUNOFF (INCHES)	16.07		17.54		12.14	
10 PERCENT EXCEEDS	387		383		290	
50 PERCENT EXCEEDS	87		83		47	
90 PERCENT EXCEEDS	30		11		6.6	

a Aug. 15, 16, 28-31.



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 sea level (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.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1990	2250	5640	10100	2650	1270	18300	9700	e820	e550	e360	e280
2	1700	2160	5400	8530	2150	1160	19800	9430	e1000	e500	e450	e290
3	1520	4070	5290	7000	2190	1320	19500	9170	e1100	e480	e500	e350
4	1240	6600	4900	6890	2630	1470	15600	9320	e900	e470	e600	e500
5	1420	6690	3320	8060	2790	1490	10700	9280	e800	e400	e500	1780
6	1180	6550	1640	8220	2480	1590	9400	9130	e950	e390	e400	1890
7	1060	6470	2340	7100	1490	1420	11300	9160	e1100	e380	e300	1090
8	1010	5790	4150	7700	1680	1600	11700	9060	e1000	e400	e320	e800
9	1360	3800	4090	7920	1560	1800	11900	8970	e1100	e380	e320	e650
10	1590	3110	2480	7540	1690	2120	11600	8670	e1400	e360	e340	e600
11	2470	2870	1500	7040	1800	2250	11300	8650	e1400	e350	e280	e500
12	2390	2860	1770	7010	1580	2140	11200	8640	e1500	e340	e380	e650
13	2170	3860	3260	6760	1580	1880	11100	7910	e1100	e300	e340	e600
14	1700	5030	3570	7660	1490	967	10600	6900	e750	e320	e300	e500
15	1320	6220	3590	7680	1630	1210	9920	5910	e650	e290	e260	e450
16	1250	5610	3370	6810	1400	1370	9890	e4300	e650	e350	e280	e400
17	1600	4630	5430	5970	1520	1630	10500	e2500	e600	e330	e400	e360
18	2540	3380	8180	4290	1340	2340	10600	e1600	e560	e280	e650	e360
19	2840	3070	7360	3070	1320	2620	10500	e1500	e540	e280	e600	e340
20	1800	3230	7510	2520	1040	2510	10200	e1500	e540	e340	e550	e340
21	1150	3580	8080	2540	1100	2360	9570	e1400	e560	e300	e650	e330
22	1020	3820	7350	3330	1380	2410	10000	e1350	e560	e320	e700	e320
23	1810	6220	7170	5440	1330	2650	10900	e1300	e540	e310	e500	e320
24	3640	7910	6990	6390	1190	3270	10700	e1200	e520	e260	e400	e320
25	4060	8670	5720	6900	1220	5320	9690	e1100	e500	e300	e340	e300
26	4870	8460	5080	6550	1370	7730	8410	e1100	e480	e240	e300	e380
27	4220	6650	3840	5100	1210	9490	8940	e1100	e440	e650	e300	e400
28	3160	5790	2610	3770	1120	11700	9180	e1000	e440	e600	e280	e500
29	2070	5600	2680	3400	---	13200	9610	e900	e550	e400	e260	e1000
30	2280	6090	3030	2940	---	15000	10100	e860	e600	e340	e200	1480
31	2010	---	7470	2740	---	17200	---	e840	---	e360	e300	---
TOTAL	64440	151040	144810	186970	45930	124487	342710	153450	23650	11570	12360	18080
MEAN	2079	5035	4671	6031	1640	4016	11420	4950	788	373	399	603
MAX	4870	8670	8180	10100	2790	17200	19800	9700	1500	650	700	1890
MIN	1010	2160	1500	2520	1040	967	8410	840	440	240	200	280

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 1993, BY WATER YEAR (WY)

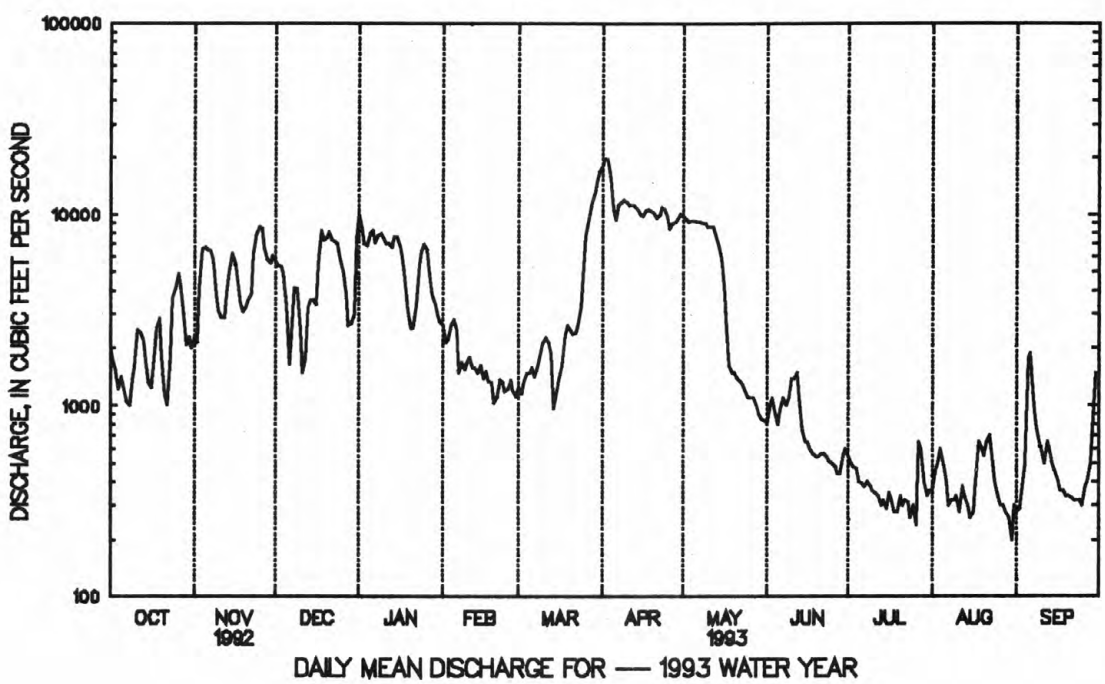
MEAN	1451	2127	2769	2840	3201	6269	6026	3532	2068	1325	980	1019
MAX	7095	7383	9973	8830	9157	14300	14160	10230	7311	8524	3927	6722
(WY)	1978	1928	1928	1913	1925	1945	1940	1943	1972	1972	1992	1977
MIN	338	436	502	152	560	2213	1561	1140	479	350	229	199
(WY)	1914	1910	1910	1961	1920	1937	1946	1915	1915	1913	1913	1913

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1904 - 1918, 1920 - 1993	
ANNUAL TOTAL	1221886		1279497			
ANNUAL MEAN	3338		3505		2804	
HIGHEST ANNUAL MEAN					4426	1978
LOWEST ANNUAL MEAN					1666	1965
HIGHEST DAILY MEAN	11000	Mar 28	19800	Apr 2	46300	Mar 31 1916
LOWEST DAILY MEAN	512	Feb 14	200	Aug 30	91	a
ANNUAL SEVEN-DAY MINIMUM	585	Jul 3	273	Aug 27	104	Jan 26 1961
INSTANTANEOUS PEAK FLOW			21000	Apr 2	b48300	Mar 30 1916
INSTANTANEOUS PEAK STAGE			15.54	Apr 2	17.08	Apr 2 1940
INSTANTANEOUS LOW FLOW			Unknown		c	
10 PERCENT EXCEEDS	7260		9300		6790	
50 PERCENT EXCEEDS	2410		1700		1570	
90 PERCENT EXCEEDS	843		340		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 mi2 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), 1992-93 (b).
MINOR ELEMENTS DATA: 1971-73 (a), 1974-87 (b), 1988 (c), 1989-90 (d), 1991 (c), 1992-93 (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), 1992-93 (b).
BIOLOGICAL DATA:
Bacteria--1974 (b), 1975-82 (c), 1983-93 (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), 1992-93 (b).

REMARKS.--Water-discharge data are based on records for station 04232000 Genesee River at Rochester.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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											
04...	1100	7040	526	8.0	7.5	49	751	13.3	113	3000	K13000
APR											
26...	1000	8460	329	7.8	8.0	69	766	12.6	106	310	K80
JUN											
07...	1000	1250	750	7.9	17.5	10	762	8.7	91	70	22
AUG											
31...	1000	300	703	7.5	26.5	3.4	756	7.0	88	82	K12

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 LAB (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											
04...	190	55	13	29	3.9	143	50	50	0.20	4.3	309
APR											
26...	120	36	7.6	16	1.6	82	33	28	<0.10	3.5	184
JUN											
07...	260	77	15	48	2.5	141	100	86	0.20	2.0	450
AUG											
31...	210	61	13	59	3.1	110	95	93	0.20	2.3	411

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 1992 TO SEPTEMBER 1993

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, 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										
04...	324	0.85	0.11	0.03	1.0	0.18	0.03	0.03	<10	39
APR										
26...	189	0.93	0.08	<0.01	0.50	0.04	0.01	0.02	<10	31
JUN										
07...	424	1.0	0.20	0.03	0.50	0.03	0.04	0.01	10	45
AUG										
31...	379	0.64	0.19	0.04	0.60	0.05	0.02	0.02	<10	43

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										
04...	<3	35	8	25	<10	<1	<1	<1.0	420	<6
APR										
26...	<3	15	<4	8	<10	<1	<1	<1.0	280	<6
JUN										
07...	<3	4	12	40	<10	2	<1	<1.0	960	<6
AUG										
31...	<3	10	19	54	<10	2	<1	<1.0	730	<6

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)
NOV								
04...	1105	20	23.0	3.0	518	8.0	7.5	12.9
04...	1110	20	23.0	7.0	520	8.0	7.5	13.1
04...	1115	20	23.0	15.0	522	8.0	7.5	13.1
04...	1120	20	23.0	20.0	527	8.0	7.5	13.2
04...	1130	100	18.0	3.0	526	8.0	7.5	13.3
04...	1135	100	18.0	7.0	526	8.0	7.5	13.3
04...	1140	100	18.0	12.0	531	8.0	7.5	13.3
04...	1145	100	18.0	16.0	519	8.0	7.5	13.3
04...	1150	180	13.0	3.0	527	8.0	7.5	13.6
04...	1155	180	13.0	7.0	525	8.0	7.5	13.7
04...	1200	180	13.0	12.0	525	8.0	7.5	13.7

04232006 GENESEE RIVER AT CHARLOTTE DOCKS AT ROCHESTER, NY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK)	DEPTH AT SAMPLE LOCATION, TOTAL (FEET)	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)
APR								
26...	1005	20	21.0	3.0	329	7.8	8.0	13.1
26...	1010	20	21.0	7.0	323	7.8	8.0	12.8
26...	1015	20	21.0	14.0	320	7.8	8.0	12.7
26...	1020	20	21.0	20.0	322	7.8	8.0	12.6
26...	1025	100	20.0	3.0	323	7.8	8.0	12.4
26...	1030	100	20.0	7.0	323	7.8	8.0	12.5
26...	1035	100	20.0	12.0	333	7.8	8.0	12.5
26...	1040	100	20.0	18.0	336	7.8	8.0	12.5
26...	1045	180	13.0	3.0	333	7.8	8.0	12.6
26...	1050	180	13.0	7.0	322	7.8	8.0	12.3
26...	1055	180	13.0	10.0	327	7.8	8.0	12.3
26...	1100	180	13.0	12.0	320	7.8	8.0	12.3
JUN								
07...	1005	20	25.0	3.0	750	7.9	17.5	8.8
07...	1010	20	25.0	10.0	753	7.9	17.5	8.8
07...	1015	20	25.0	17.0	752	7.9	17.5	8.8
07...	1020	20	25.0	24.0	749	7.9	17.0	8.8
07...	1025	100	18.0	3.0	750	7.9	17.5	8.7
07...	1030	100	18.0	7.0	752	7.9	17.5	8.7
07...	1035	100	18.0	12.0	752	7.9	17.5	8.8
07...	1040	100	18.0	17.0	753	7.9	17.5	8.7
07...	1045	180	15.0	3.0	749	7.9	17.5	8.6
07...	1050	180	15.0	7.0	748	7.9	17.5	8.7
07...	1055	180	15.0	10.0	749	7.9	17.5	8.7
07...	1100	180	15.0	14.0	755	7.9	17.5	8.4
AUG								
31...	1005	20	21.0	3.0	703	7.6	26.5	6.9
31...	1010	20	21.0	7.0	706	7.5	26.0	6.4
31...	1015	20	21.0	12.0	710	7.5	26.0	6.3
31...	1020	20	21.0	16.0	726	7.4	26.0	5.4
31...	1025	20	21.0	20.0	743	7.4	25.5	4.5
31...	1030	100	16.0	3.0	703	7.5	26.5	7.0
31...	1035	100	16.0	7.0	702	7.5	26.0	6.8
31...	1040	100	16.0	10.0	708	7.5	26.0	6.5
31...	1045	100	16.0	15.0	714	7.5	26.0	6.1
31...	1050	180	14.0	3.0	701	7.5	26.5	7.1
31...	1055	180	14.0	7.0	707	7.5	26.5	6.9
31...	1100	180	14.0	12.0	712	7.5	26.0	6.7

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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
NOV 1992					
04...	1100	7040	162	3080	--
APR 1993					
26...	1000	8460	131	2990	96
JUN					
07...	1000	1250	24	81	92
AUG					
31...	1000	300	12	10	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 sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges (ice effect and sluggish intakes), 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 YEAR.--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. 31	0600	555	9.14	Apr. 2	0500	*588	*9.36

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	30	47	e131	e38	e30	478	e55	33	18	e18	18
2	25	57	45	e62	e44	e31	553	e53	e29	e20	17	15
3	24	176	44	e54	e40	e32	351	52	e26	e23	17	18
4	23	100	42	e93	e39	e34	178	e48	e25	e20	16	16
5	23	67	42	e158	e38	e33	142	e51	49	19	16	15
6	23	91	e38	107	e37	e34	153	e55	51	e17	e15	21
7	23	70	e36	e69	e36	e40	126	e48	e34	e16	e15	22
8	23	51	e35	e62	e37	e45	107	e44	33	e16	e18	19
9	72	43	e34	e50	e37	e50	94	e42	e44	e15	e18	18
10	111	41	e34	e44	e37	e45	106	e40	e36	e15	16	30
11	48	46	e35	e45	e37	e42	139	40	30	e15	15	21
12	42	55	e35	e46	e36	e38	90	e42	e26	e17	e18	18
13	35	52	e36	e77	e37	e32	80	e38	e25	e17	e16	17
14	31	46	e38	e134	e36	e36	72	e37	e23	15	15	15
15	32	41	e41	e84	e35	e48	68	e37	e22	e17	15	15
16	40	38	e60	e70	e34	e52	89	37	e21	e16	15	16
17	42	39	152	e62	e33	e45	176	e34	e21	e14	e18	16
18	35	45	185	e52	e32	e42	127	e35	e20	e16	e18	16
19	31	51	101	e48	e30	e44	78	e36	e23	18	15	15
20	29	48	147	e46	e30	e41	73	36	e27	19	17	15
21	29	47	98	e47	e33	e44	79	36	28	17	17	15
22	29	56	e60	93	e33	e58	110	36	e25	16	15	15
23	28	131	e53	130	e33	e71	217	33	e22	15	15	16
24	53	99	e52	130	e32	98	126	34	e20	15	14	20
25	97	161	e48	e128	e31	e128	85	e33	e19	15	14	17
26	60	112	e38	e65	e31	e156	116	e30	19	e16	13	40
27	50	72	e34	e58	e29	e197	89	30	18	e21	13	24
28	41	58	33	e50	e28	265	e70	e32	18	e18	13	25
29	36	52	42	e45	---	358	e65	e28	e21	e16	13	22
30	33	49	111	e36	---	417	e60	28	e18	e18	13	21
31	31	---	252	e36	---	451	---	31	---	e20	14	---
TOTAL	1226	2024	2048	2312	973	3037	4297	1211	806	530	482	571
MEAN	39.5	67.5	66.1	74.6	34.7	98.0	143	39.1	26.9	17.1	15.5	19.0
MAX	111	176	252	158	44	451	553	55	51	23	18	40
MIN	23	30	33	36	28	30	60	28	18	14	13	15
CFSM	1.01	1.72	1.69	1.90	.89	2.50	3.65	1.00	.69	.44	.40	.49
IN.	1.16	1.92	1.94	2.19	.92	2.88	4.08	1.15	.76	.50	.46	.54

e Estimated

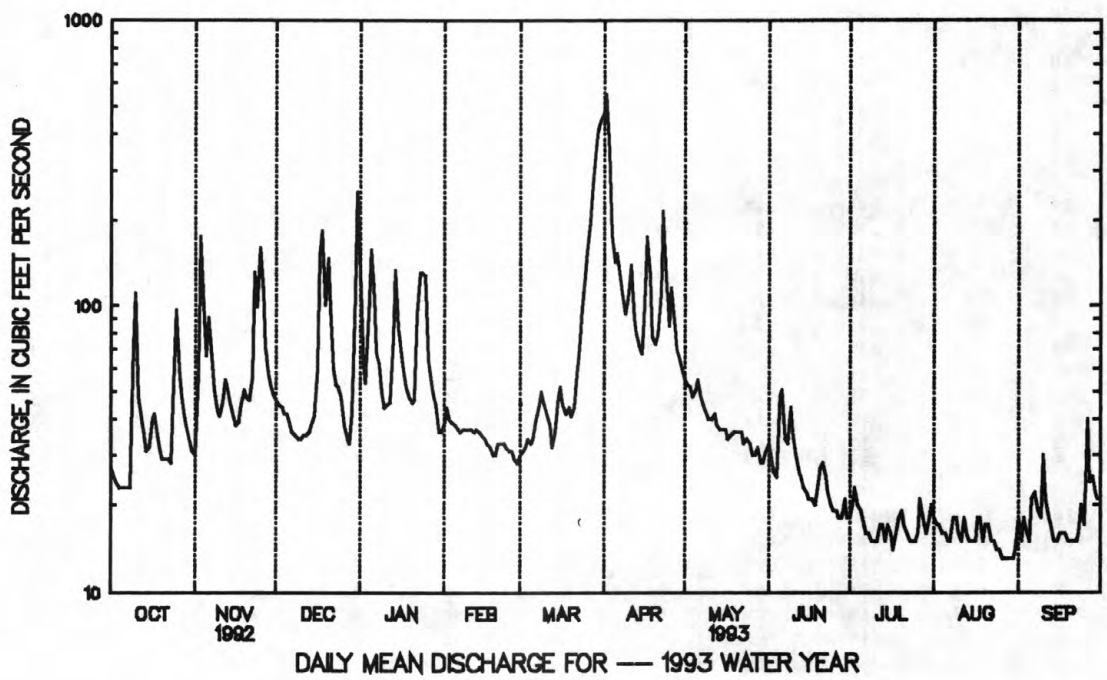
04232034 IRONDEQUOIT CREEK AT RAILROAD MILLS NEAR FISHERS, NY--continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1993, BY WATER YEAR (WY)

MEAN	26.8	42.5	45.2	50.5	31.8	80.9	101	38.8	25.6	27.7	28.7	22.4
MAX	39.5	67.5	66.1	74.6	34.7	98.0	143	39.1	26.9	52.5	58.0	35.8
(WY)	1993	1993	1993	1993	1993	1993	1993	1993	1993	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 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1991 - 1993	
ANNUAL TOTAL	17116		19517			
ANNUAL MEAN	46.8		53.5		45.2	
HIGHEST ANNUAL MEAN					53.5	1993
LOWEST ANNUAL MEAN					37.0	1992
HIGHEST DAILY MEAN	381	Mar 27	553	Apr 2	553	Apr 2 1993
LOWEST DAILY MEAN	13	Jul 2	13	Aug 26	9.5	Aug 2 1991
ANNUAL SEVEN-DAY MINIMUM	17	Feb 8	13	Aug 24	9.9	Jul 27 1991
INSTANTANEOUS PEAK FLOW			588	Apr 2	588	Apr 2 1993
INSTANTANEOUS PEAK STAGE			9.36	Apr 2	9.36	Apr 2 1993
INSTANTANEOUS LOW FLOW			12	a	8.5	Aug 2 1991
ANNUAL RUNOFF (CFSM)	1.19		1.36		1.15	
ANNUAL RUNOFF (INCHES)	16.24		18.52		15.67	
10 PERCENT EXCEEDS	86		110		79	
50 PERCENT EXCEEDS	35		36		28	
90 PERCENT EXCEEDS	19		16		13	

a Aug 27, 28, 29.



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 sea level.

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.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	1.4	6.7	20	e4.6	e3.2	163	3.0	2.0	5.5	3.0	5.7
2	1.6	20	6.2	e8.5	e4.4	e3.6	161	2.6	1.0	6.9	3.9	8.8
3	1.3	38	6.8	e7.5	e4.0	e4.2	54	2.9	.94	5.8	2.7	13
4	1.2	15	5.9	e16	e4.0	e4.8	24	3.4	1.5	5.3	2.6	5.8
5	1.1	18	5.8	e49	e3.8	e5.0	20	5.8	36	5.0	2.5	5.1
6	1.1	20	4.9	16	e4.6	5.6	17	5.4	14	4.8	2.9	19
7	1.4	11	e4.5	10	e4.4	6.3	12	3.9	9.2	4.8	7.9	3.0
8	1.3	8.7	e4.2	e8.0	e3.8	10	8.3	3.2	11	4.7	5.2	2.2
9	14	7.6	e4.5	e6.0	e3.8	12	6.7	2.9	13	4.7	4.7	3.2
10	4.5	7.6	e4.2	e5.0	e3.6	e9.0	18	2.6	12	4.6	4.6	9.0
11	2.4	8.3	e4.0	e4.8	e3.6	e6.5	12	2.5	6.4	4.6	6.1	2.7
12	2.1	7.6	e4.4	e4.5	e3.4	e5.5	6.1	2.1	5.1	5.0	4.9	2.2
13	2.1	12	e4.5	e22	e3.6	e4.0	4.8	1.7	4.4	2.4	4.6	2.1
14	2.5	9.2	e5.1	e21	e3.6	e5.0	4.0	1.5	3.9	3.2	4.6	2.0
15	4.6	6.9	e6.2	e12	e3.4	e8.0	3.7	1.9	4.5	3.6	4.6	2.1
16	4.4	5.4	25	e9.0	e3.4	e6.5	11	1.7	6.2	3.6	5.2	2.2
17	3.0	5.7	54	e6.4	e3.2	e12	32	1.6	6.4	4.2	4.9	2.1
18	2.2	8.0	37	e5.5	e3.2	e9.0	10	1.6	6.0	4.2	4.6	2.1
19	2.0	7.6	19	e4.5	e3.2	e7.0	5.7	2.1	6.4	9.4	4.6	2.0
20	1.8	6.8	45	e5.0	e3.2	5.5	6.3	2.0	12	1.3	9.9	2.1
21	2.4	7.2	15	e5.5	e3.2	6.5	7.3	2.1	8.6	1.5	5.3	2.1
22	2.1	16	9.3	e38	e3.4	9.3	32	1.8	6.8	1.8	4.7	2.9
23	1.9	27	e7.4	36	e3.4	e14	36	1.3	6.0	1.8	3.3	10
24	14	15	e6.5	e37	e3.4	30	9.0	1.9	5.6	1.8	3.6	5.9
25	12	54	e6.0	e23	e3.2	41	6.7	1.7	4.3	1.8	3.1	3.1
26	6.3	18	e5.0	e9.0	e3.2	49	13	1.2	3.5	2.5	3.0	14
27	2.9	12	e4.5	e7.0	e3.2	72	5.8	1.0	5.2	2.5	3.0	3.7
28	2.1	9.6	e4.5	e6.0	e3.0	89	4.4	1.5	11	2.7	4.1	5.1
29	1.6	8.5	e8.9	e4.8	---	134	3.8	.93	7.0	2.8	4.3	3.5
30	1.5	7.4	e40	e4.6	---	141	3.5	.85	5.7	4.1	4.4	3.4
31	1.5	---	68	e5.0	---	103	---	5.3	---	3.1	7.6	---
TOTAL	104.9	399.5	433.0	416.6	100.8	821.5	701.1	73.98	225.64	120.0	140.4	150.1
MEAN	3.38	13.3	14.0	13.4	3.60	26.5	23.4	2.39	7.52	3.87	4.53	5.00
MAX	14	54	68	49	4.6	141	163	5.8	36	9.4	9.9	19
MIN	1.1	1.4	4.0	4.5	3.0	3.2	3.5	.85	.94	1.3	2.5	2.0
CFSM	.49	1.91	2.01	1.93	.52	3.81	3.36	.34	1.08	.56	.65	.72
IN.	.56	2.14	2.31	2.23	.54	4.39	3.75	.40	1.21	.64	.75	.80

e Estimated

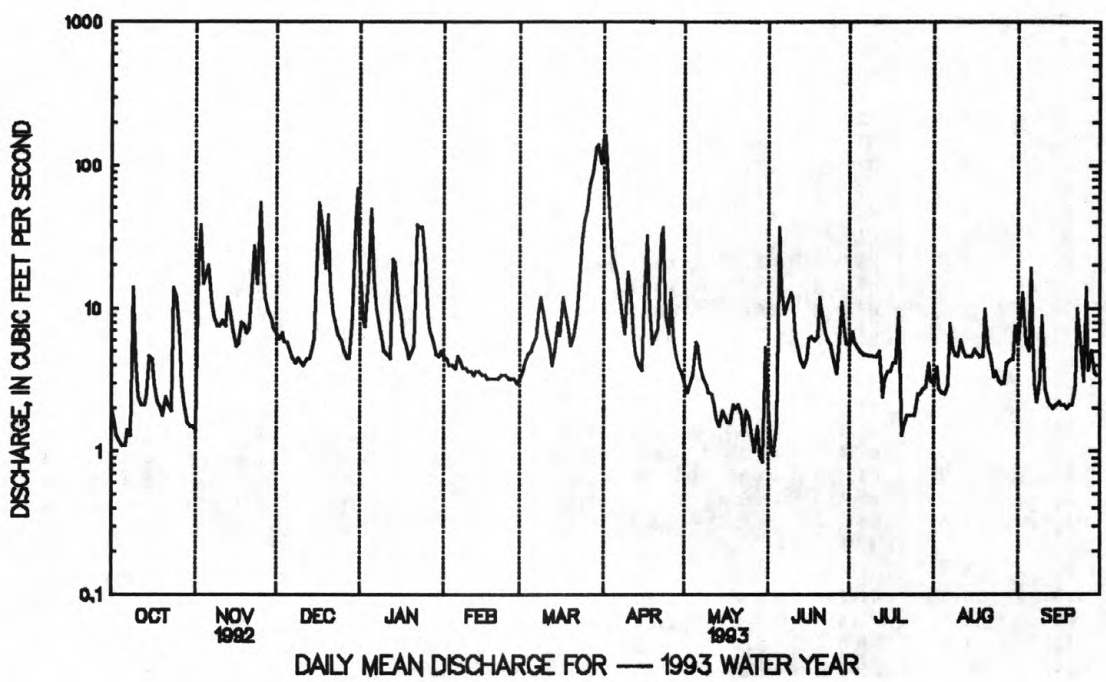
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1993, BY WATER YEAR (WY)

MEAN	5.81	7.54	11.7	9.13	6.46	23.8	19.5	8.49	5.06	6.03	8.43	4.84
MAX	10.3	13.3	18.1	13.4	9.67	26.7	23.4	16.4	7.52	12.3	21.7	6.76
(WY)	1991	1993	1991	1993	1991	1991	1993	1990	1993	1992	1992	1992
MIN	3.38	2.23	2.97	3.57	3.60	18.1	16.4	2.39	3.96	3.67	2.97	3.25
(WY)	1993	1992	1992	1992	1993	1992	1992	1993	1991	1991	1991	1991

0423204920 EAST BRANCH ALLEN CREEK AT PITTSFORD, NY--continued

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1990 - 1993	
ANNUAL TOTAL	3984.2		3687.52			
ANNUAL MEAN	10.9		10.1		9.74	
HIGHEST ANNUAL MEAN					10.1	1993
LOWEST ANNUAL MEAN					9.07	1992
HIGHEST DAILY MEAN	167	Mar 27	163	Apr 1	230	Mar 4 1991
LOWEST DAILY MEAN	1.1	Oct 5	.85	May 30	.85	May 30 1993
ANNUAL SEVEN-DAY MINIMUM	1.3	Oct 2	1.3	Oct 2	1.2	Nov 17 1991
INSTANTANEOUS PEAK FLOW			215	Apr 1	319	Aug 27 1992
INSTANTANEOUS PEAK STAGE			5.61	Apr 1	7.18	Aug 27 1992
INSTANTANEOUS LOW FLOW			.81	a	.81	a
ANNUAL RUNOFF (CFSM)	1.56		1.45		1.40	
ANNUAL RUNOFF (INCHES)	21.29		19.71		19.01	
10 PERCENT EXCEEDS	23		19		18	
50 PERCENT EXCEEDS	5.1		4.8		4.4	
90 PERCENT EXCEEDS	1.9		1.9		2.0	

a May 30, 31, 1993.



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 sea level.

REMARKS.--Records good except those for estimated daily discharges (ice effect), 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)
Apr. 1	1815	*739	*4.62	No other peak greater than base discharge.			

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.4	7.3	18	66	e13	9.4	445	18	14	8.0	7.9	14
2	8.0	45	16	e32	e13	11	482	15	8.7	11	12	14
3	6.4	100	19	e27	e12	17	168	13	7.1	10	8.9	65
4	5.6	39	17	e61	e12	19	81	13	6.2	8.2	6.8	23
5	5.4	48	e16	146	e11	19	64	22	107	6.9	6.9	12
6	5.1	59	e13	55	e12	e22	56	20	39	5.9	6.0	69
7	5.2	30	e12	e34	e12	e24	46	14	22	6.5	23	31
8	5.9	21	e12	e27	e11	e30	38	12	28	6.9	13	13
9	41	17	e13	e20	e11	e34	33	11	40	6.0	7.9	11
10	19	16	e12	e16	e11	e30	61	9.9	39	6.2	7.1	46
11	13	22	e12	e15	e11	e20	52	11	18	5.4	14	16
12	9.9	19	e13	e14	10	e16	32	8.5	15	11	16	9.9
13	10	30	e14	e63	e11	e12	26	8.2	12	6.5	8.8	8.3
14	9.0	22	e18	74	11	e18	22	7.2	12	5.5	8.1	7.6
15	19	16	e21	45	10	e25	20	7.5	11	6.7	8.9	6.5
16	21	13	e76	34	e10	e20	43	7.3	13	5.7	8.2	8.4
17	18	15	145	e27	e9.5	e40	94	6.1	12	5.4	11	7.3
18	10	24	107	e22	e9.5	e38	47	6.7	12	5.1	7.4	6.6
19	8.9	24	61	e16	e9.5	e36	29	7.1	14	37	6.6	6.7
20	7.7	21	122	e16	e9.5	30	31	7.4	36	12	26	6.1
21	8.5	20	50	e19	e9.5	35	39	6.0	23	6.7	15	6.0
22	8.6	44	31	113	10	49	97	7.0	15	7.9	8.6	6.1
23	7.2	94	e22	102	10	68	101	6.2	13	6.3	6.6	25
24	33	48	e19	99	10	110	43	6.5	12	5.4	5.1	15
25	30	134	e17	71	e9.5	128	36	6.3	12	5.7	6.1	9.2
26	19	52	e14	e34	e9.5	142	54	6.1	9.9	13	5.2	56
27	16	32	12	e25	e9.5	209	31	4.9	9.9	9.8	5.3	17
28	13	24	12	e20	e9.0	245	25	8.1	30	7.4	4.8	30
29	10	20	26	e14	---	360	22	6.4	23	6.6	4.9	18
30	9.9	18	123	e13	---	344	20	5.9	12	11	5.8	15
31	8.9	---	194	e14	---	222	---	25	---	10	13	---
TOTAL	401.6	1074.3	1257	1334	296.0	2382.4	2338	313.3	625.8	265.7	294.9	578.7
MEAN	13.0	35.8	40.5	43.0	10.6	76.9	77.9	10.1	20.9	8.57	9.51	19.3
MAX	41	134	194	146	13	360	482	25	107	37	26	69
MIN	5.1	7.3	12	13	9.0	9.4	20	4.9	6.2	5.1	4.8	6.0

e Estimated

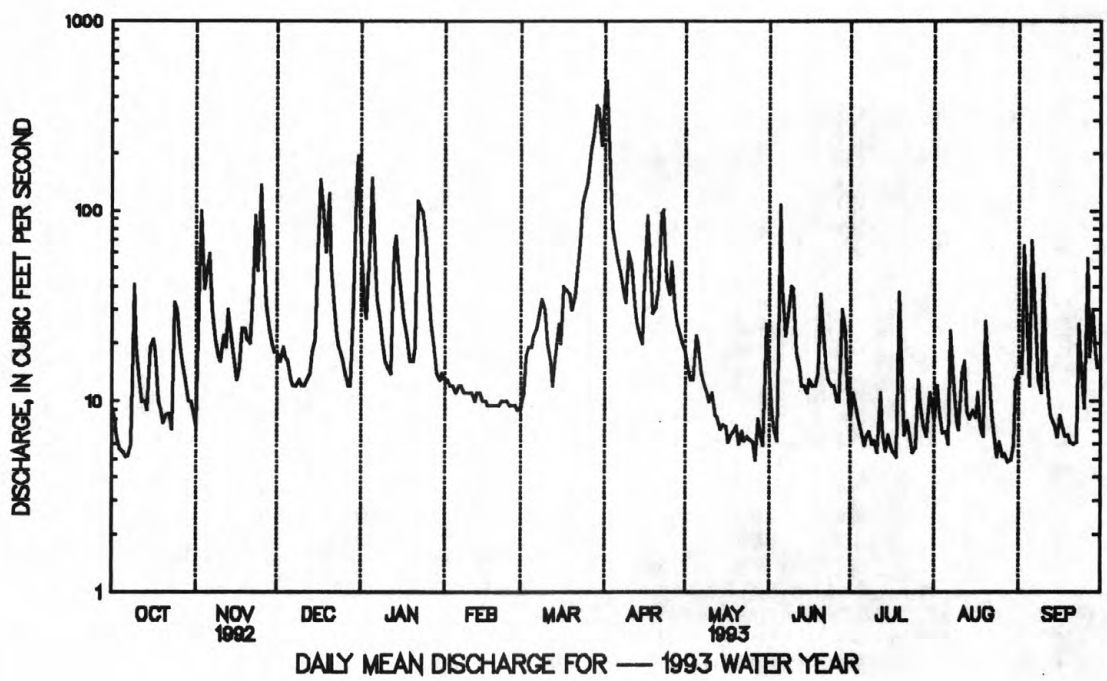
04232050 ALLEN CREEK NEAR ROCHESTER, NY--continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1993, BY WATER YEAR (WY)

MEAN	26.2	32.3	31.9	22.7	35.0	58.3	47.7	34.1	28.5	22.6	25.3	23.9
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	10.1	11.2	7.18	8.84	6.07
(WY)	1962	1961	1961	1963	1989	1981	1981	1993	1991	1960	1961	1961

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1960 - 1993	
ANNUAL TOTAL	11860.7		11161.7			
ANNUAL MEAN	32.4		30.6		32.1	
HIGHEST ANNUAL MEAN					50.6	1978
LOWEST ANNUAL MEAN					16.9	1962
HIGHEST DAILY MEAN	537	Mar 27	482	Apr 2	1970	Mar 30 1960
LOWEST DAILY MEAN	5.1	Oct 6	4.8	Aug 28	1.7	Jan 24 1963
ANNUAL SEVEN-DAY MINIMUM	5.8	Feb 8	5.3	Aug 24	2.3	Feb 15 1962
INSTANTANEOUS PEAK FLOW			739	Apr 1	a3280	May 17 1974
INSTANTANEOUS PEAK STAGE			4.62	Apr 1	7.42	May 17 1974
INSTANTANEOUS LOW FLOW			2.6	Aug 25	1.7	Jan 24 1963
10 PERCENT EXCEEDS	63		63		57	
50 PERCENT EXCEEDS	18		14		21	
90 PERCENT EXCEEDS	7.8		6.4		8.1	

a From rating curve extended above 1,000 ft^3/s on basis of contracted-opening measurement of peak discharge and step-backwater analysis.



0423205010 IRONDEQUOIT CREEK ABOVE 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 sea level (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)
Apr. 2	1500	*1,710	*9.12	No other peak greater than base discharge.			

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	97	86	155	560	e153	e109	1480	188	111	69	58	76
2	90	157	144	310	e177	e115	1630	177	92	70	63	59
3	80	446	144	245	e159	e120	1370	168	85	73	56	159
4	74	308	133	301	e147	e123	865	161	88	69	49	88
5	71	246	132	538	e144	e121	586	184	267	64	49	62
6	68	277	124	415	e136	e127	516	193	199	57	47	157
7	67	222	122	287	e126	e144	437	171	135	54	75	125
8	67	170	e120	e244	e129	e181	332	150	129	56	65	77
9	190	141	e118	e210	e128	e200	256	144	161	53	52	67
10	255	126	e118	e176	e127	e181	335	139	165	53	49	155
11	156	147	e118	e166	e122	e177	392	136	113	49	53	96
12	121	145	e118	e170	e120	e158	287	132	98	60	61	70
13	110	168	e118	e270	e120	e146	247	127	89	52	50	68
14	94	143	e124	387	e120	e140	222	122	85	49	46	60
15	116	123	e133	303	e120	e215	247	120	80	52	50	55
16	131	92	e226	249	e118	e232	289	115	80	49	49	60
17	134	81	426	e220	e116	e193	442	110	76	46	73	56
18	109	102	495	e191	e114	e189	406	107	74	45	55	54
19	99	118	373	e169	e112	e194	265	110	82	123	49	54
20	92	136	461	e169	e110	e182	238	111	139	76	87	53
21	91	138	380	e165	e115	e191	250	106	113	59	78	52
22	91	173	e250	339	e110	e212	352	104	95	55	55	52
23	85	409	e216	415	e110	258	593	98	84	51	50	90
24	144	323	e199	435	e110	358	451	96	77	47	47	80
25	213	487	e161	446	e110	450	304	90	74	48	46	61
26	164	372	e144	e288	e110	533	332	85	69	65	43	177
27	137	248	e131	e244	e106	681	283	80	64	63	43	100
28	116	197	e133	e208	e102	956	232	83	107	52	42	114
29	104	172	e159	e195	---	1230	214	80	102	49	42	88
30	98	160	360	e159	---	1330	201	80	72	63	42	76
31	94	---	732	e166	---	1350	---	115	---	66	62	---
TOTAL	3558	6113	6767	8640	3471	10796	14054	3882	3205	1837	1686	2541
MEAN	115	204	218	279	124	348	468	125	107	59.3	54.4	84.7
MAX	255	487	732	560	177	1350	1630	193	267	123	87	177
MIN	67	81	118	159	102	109	201	80	64	45	42	52

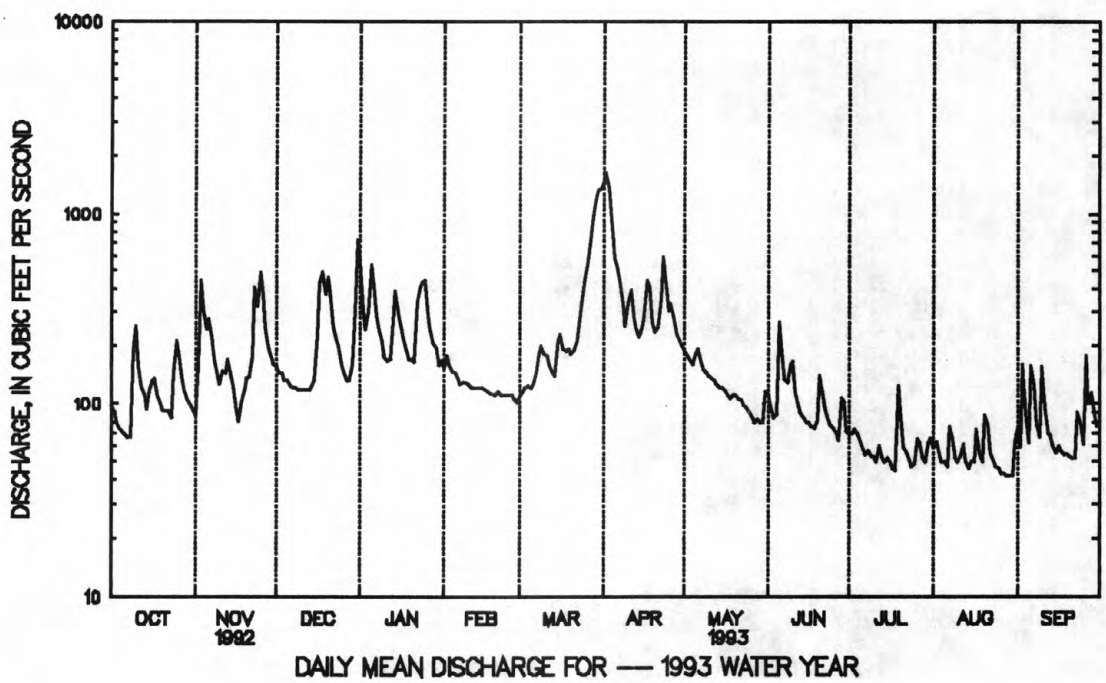
e Estimated

0423205010 IRONDEQUOIT CREEK ABOVE BLOSSOM ROAD, ROCHESTER, NY--continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1993, BY WATER YEAR (WY)

MEAN	87.9	123	148	131	173	211	239	148	93.7	72.3	85.9	73.9
MAX	188	224	242	279	347	348	468	292	186	181	253	132
(WY)	1987	1986	1987	1993	1981	1993	1993	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

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1981 - 1993	
ANNUAL TOTAL	60905		66550			
ANNUAL MEAN	166		182		134	
HIGHEST ANNUAL MEAN					182	1993
LOWEST ANNUAL MEAN					98.2	1988
HIGHEST DAILY MEAN	970	Mar 28	1630	Apr 2	1630	Apr 2 1993
LOWEST DAILY MEAN	39	Feb 9	42	Aug 28	29	Aug 20 1985
ANNUAL SEVEN-DAY MINIMUM	44	Feb 6	44	Aug 24	30	Aug 17 1985
INSTANTANEOUS PEAK FLOW			1710	Apr 2	1710	Apr 2 1993
INSTANTANEOUS PEAK STAGE			9.12	Apr 2	9.12	Apr 2 1993
INSTANTANEOUS LOW FLOW			40	Aug 29	28	Sep 11 1982
10 PERCENT EXCEEDS	322		365		259	
50 PERCENT EXCEEDS	122		122		90	
90 PERCENT EXCEEDS	63		54		46	



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 sea level (levels by Corps of Engineers).

REMARKS.--Records good except those for April 25 to July 15, 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)
Apr. 3	0045	*2,130	*5.82	No other peak greater than base discharge.			

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	107	93	149	635	153	133	1440	144	86	e80	71	79
2	94	141	137	385	149	137	1870	139	65	e70	69	58
3	76	415	134	261	177	151	1630	130	61	e80	61	150
4	85	354	133	293	175	154	937	114	75	e70	43	104
5	80	257	128	474	135	158	608	141	230	e60	56	55
6	74	282	132	465	165	159	507	143	197	e60	60	127
7	70	241	108	320	136	156	438	139	114	e60	75	162
8	70	180	125	248	156	193	348	e123	119	e50	82	71
9	161	148	116	215	138	223	254	e112	136	e50	59	59
10	279	136	105	191	136	206	294	e109	131	e50	53	133
11	173	147	103	169	139	207	404	e99	98	e50	49	96
12	124	160	161	170	132	189	313	e91	e84	e70	64	68
13	118	163	151	230	130	115	247	e103	73	e60	52	58
14	100	149	148	410	137	105	228	e93	78	e50	50	54
15	120	129	145	326	127	151	249	e70	e80	e43	53	36
16	138	102	202	259	124	164	286	e76	e80	41	49	61
17	139	83	399	215	137	221	405	e76	e70	84	75	52
18	114	99	511	204	125	254	429	e76	e70	64	59	47
19	100	112	435	161	117	226	276	e82	e80	140	51	48
20	101	134	433	169	129	233	247	e83	e150	87	51	45
21	89	135	443	166	119	233	246	e77	e130	62	105	42
22	99	153	288	301	131	240	306	e78	e100	62	60	47
23	90	390	231	411	128	272	574	e75	e90	70	49	70
24	120	372	213	431	123	373	497	e75	e80	65	41	79
25	219	446	171	452	135	472	311	e55	e70	61	44	53
26	169	428	137	343	127	539	316	61	e70	79	47	173
27	147	276	141	242	125	635	253	62	e60	56	48	101
28	125	206	147	222	124	831	194	71	e100	60	29	104
29	106	169	158	190	---	1080	165	63	e110	49	46	79
30	104	154	325	149	---	1270	156	70	e90	54	46	71
31	96	---	614	150	---	1410	---	82	---	80	45	---
TOTAL	3687	6254	6823	8857	3829	10890	14428	2912	2977	2017	1742	2382
MEAN	119	208	220	286	137	351	481	93.9	99.2	65.1	56.2	79.4
MAX	279	446	614	635	177	1410	1870	144	230	140	105	173
MIN	70	83	103	149	117	105	156	55	60	41	29	36

e Estimated

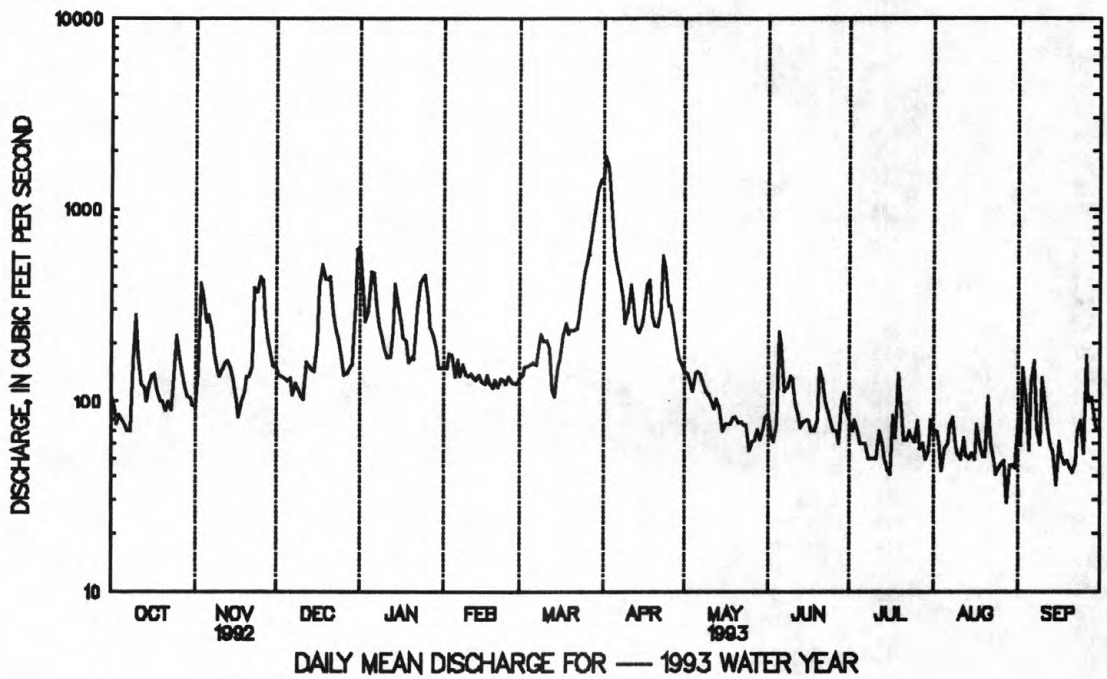
0423205025 IRONDEQUOIT CREEK AT EMPIRE BOULEVARD, ROCHESTER, NY--continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1993, BY WATER YEAR (WY)

MEAN	99.3	132	178	190	138	313	334	119	83.9	87.5	109	79.4
MAX	124	208	226	286	170	351	481	150	99.2	181	262	132
(WY)	1991	1993	1991	1993	1991	1993	1993	1992	1993	1992	1992	1992
MIN	54.9	63.3	88.6	93.6	109	267	259	93.9	60.4	50.3	50.4	47.1
(WY)	1992	1992	1992	1992	1992	1992	1992	1993	1991	1991	1991	1991

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1990 - 1993	
ANNUAL TOTAL	63990		66798			
ANNUAL MEAN	175		183		158	
HIGHEST ANNUAL MEAN					183	1993
LOWEST ANNUAL MEAN					145	1991
HIGHEST DAILY MEAN	1350	Mar 28	1870	Apr 2	1870	Apr 2 1993
LOWEST DAILY MEAN	49	Jul 1	29	Aug 28	29	Aug 2 1991
ANNUAL SEVEN-DAY MINIMUM	58	Feb 8	43	Aug 24	37	Aug 27 1990
INSTANTANEOUS PEAK FLOW			2130	Apr 3	2130	Apr 3 1993
INSTANTANEOUS PEAK STAGE			a6.64	Apr 23	a6.64	Apr 23 1993
10 PERCENT EXCEEDS	345		387		293	
50 PERCENT EXCEEDS	131		129		102	
90 PERCENT EXCEEDS	68		55		46	

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 sea level.

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)
Apr. 2	0500	*1,130	*4.80	No other peak greater than base discharge.			

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	54	96	318	e70	e37	954	88	22	15	7.1	3.4
2	48	53	86	e220	e65	e39	1020	76	20	17	9.0	3.3
3	42	183	80	e200	e55	e40	872	68	18	17	9.6	3.6
4	36	177	81	215	e65	43	626	63	18	15	8.2	4.9
5	31	197	80	408	e70	43	424	69	21	13	7.1	6.3
6	27	200	79	358	e65	43	410	90	33	11	6.4	6.1
7	25	161	75	256	e55	e42	363	62	29	8.7	6.0	8.9
8	22	125	69	188	e52	48	309	55	26	7.6	11	5.9
9	35	106	e65	e130	e52	e55	251	52	25	6.9	5.9	5.0
10	52	92	e60	e110	e50	e50	285	46	27	5.7	5.1	10
11	55	98	56	e90	e48	e42	510	43	22	5.1	4.3	28
12	52	98	55	72	e48	e38	399	40	19	8.0	4.1	15
13	49	94	54	72	e48	e28	272	37	17	6.6	4.1	11
14	44	83	e50	89	e48	e20	185	35	15	5.1	3.7	7.3
15	50	80	e50	e85	48	e34	144	34	14	5.4	3.4	5.6
16	52	71	68	85	46	e55	140	39	16	5.4	5.6	4.9
17	61	72	119	84	e46	e50	219	35	14	4.6	4.1	4.6
18	55	74	180	e80	e46	e54	224	32	14	4.6	4.1	4.6
19	48	74	165	e75	e46	e50	182	30	13	6.8	4.1	4.5
20	44	71	228	e70	e42	e50	149	32	16	11	5.7	4.1
21	45	78	205	e70	e44	e48	186	30	18	9.2	8.4	3.9
22	46	92	170	101	e50	e48	268	27	18	7.9	5.9	5.3
23	45	201	141	134	e44	e56	546	24	17	6.4	4.9	5.5
24	68	165	e120	191	e40	e70	531	26	15	5.7	4.6	5.1
25	82	221	e90	e220	e38	e90	349	26	14	5.1	4.5	4.9
26	76	213	e70	e160	e38	114	288	24	13	4.6	3.8	15
27	79	197	e60	e130	e38	150	223	21	12	9.6	3.6	14
28	74	155	e60	e100	e37	232	164	20	14	4.8	3.3	17
29	68	129	69	e90	---	388	120	19	16	4.6	3.2	15
30	73	108	175	e80	---	552	102	18	15	4.6	2.9	14
31	63	---	403	e75	---	779	---	19	---	6.6	3.0	---
TOTAL	1604	3722	3359	4556	1394	3388	10715	1280	551	248.6	166.7	246.7
MEAN	51.7	124	108	147	49.8	109	357	41.3	18.4	8.02	5.38	8.22
MAX	82	221	403	408	70	779	1020	90	33	17	11	28
MIN	22	53	50	70	37	20	102	18	12	4.6	2.9	3.3
CFSM	1.17	2.79	2.44	3.31	1.12	2.46	8.04	.93	.41	.18	.12	.19
IN.	1.34	3.12	2.81	3.82	1.17	2.84	8.98	1.07	.46	.21	.14	.21

e Estimated

STREAMS TRIBUTARY TO LAKE ONTARIO

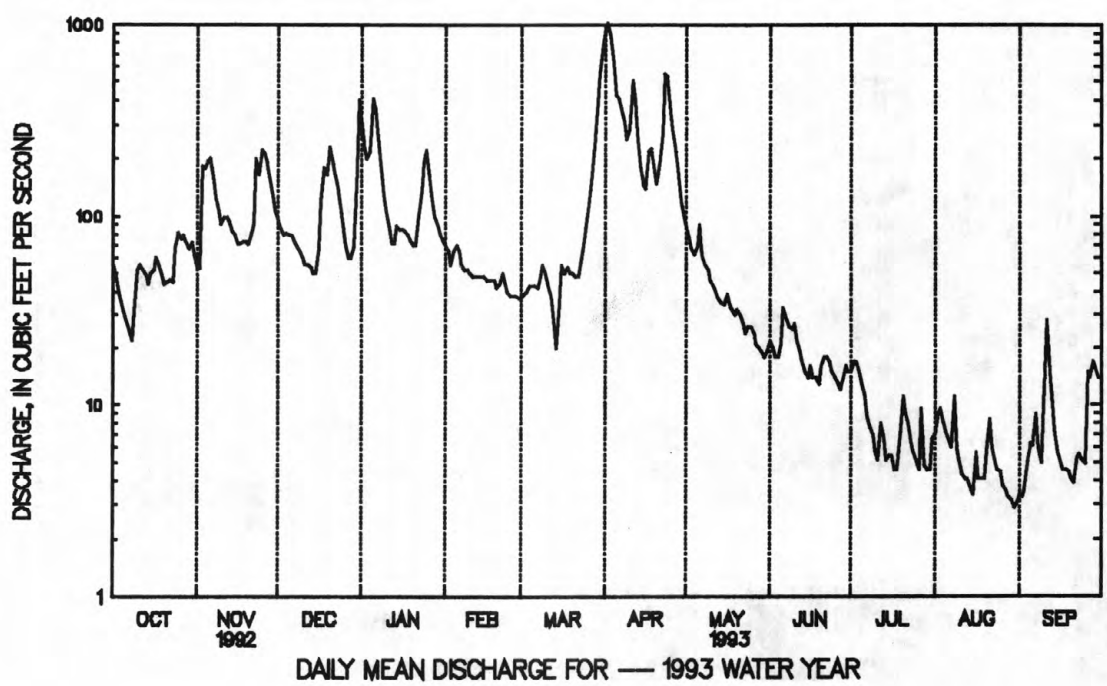
04232100 STERLING CREEK AT STERLING, NY

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1993, BY WATER YEAR (WY)

MEAN	27.4	59.1	80.7	75.0	101	178	144	61.6	29.5	15.6	11.6	16.0
MAX	125	168	186	152	299	387	357	170	160	96.9	120	100
(WY)	1987	1978	1960	1959	1981	1979	1993	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

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1957 - 1993	
ANNUAL TOTAL	37659.2		31231.0			
ANNUAL MEAN	103		85.6		66.5	
HIGHEST ANNUAL MEAN					114	1976
LOWEST ANNUAL MEAN					36.1	1988
HIGHEST DAILY MEAN	1050	Mar 28	1020	Apr 2	2170	Mar 22 1980
LOWEST DAILY MEAN	7.1	Jul 2	2.9	Aug 30	.37	a
ANNUAL SEVEN-DAY MINIMUM	9.6	Jun 17	3.2	Aug 27	.60	Sep 10 1966
INSTANTANEOUS PEAK FLOW			1130	Apr 2	1760	Mar 22 1980
INSTANTANEOUS PEAK STAGE			4.80	Apr 2	5.99	Mar 22 1980
INSTANTANEOUS LOW FLOW			2.8	b	.32	Sep 14 1966
ANNUAL RUNOFF (CFSM)	2.32		1.93		1.50	
ANNUAL RUNOFF (INCHES)	31.55		26.17		20.36	
10 PERCENT EXCEEDS	206		208		156	
50 PERCENT EXCEEDS	70		48		35	
90 PERCENT EXCEEDS	24		5.1		3.4	

a Sept. 14, 15, 1966.
b Aug. 30, 31.



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 sea level (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, 448.95 ft, April 26, 27, 1993; minimum, 442.64 ft, Mar. 14, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 448.95 ft, Apr. 26, 27; minimum, 443.73 ft, Mar. 24.

ELEVATION (FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	445.09	444.62	444.87	444.61	444.13	443.91	445.58	448.69	446.52	445.07	444.77	444.65
2	445.00	444.60	444.80	444.58	444.04	443.93	446.05	448.62	446.42	445.01	444.76	444.59
3	444.97	444.70	444.77	444.51	443.98	443.94	446.35	448.53	446.33	445.00	444.77	444.61
4	445.01	444.75	444.71	444.50	443.97	443.97	446.43	448.47	446.26	445.07	444.77	444.74
5	444.94	444.80	444.71	444.58	443.91	444.01	446.47	448.42	446.18	445.04	444.77	444.68
6	444.87	444.81	444.62	444.60	443.94	444.03	446.52	448.41	446.13	445.00	444.76	444.71
7	444.79	444.80	444.58	444.58	443.88	444.03	446.59	448.35	446.02	445.03	444.71	444.72
8	444.74	444.76	444.57	444.59	443.92	444.05	446.65	448.27	445.94	445.02	444.76	444.68
9	444.74	444.72	444.50	444.56	443.91	444.10	446.70	448.20	445.87	444.99	444.71	444.64
10	444.70	444.65	444.45	444.51	443.93	444.12	446.83	448.12	445.83	445.00	444.68	444.62
11	444.68	444.62	444.53	444.47	443.97	444.16	447.17	448.04	445.80	445.00	444.64	444.67
12	444.66	444.62	444.51	444.45	443.94	444.16	447.31	447.96	445.76	444.97	444.68	444.55
13	444.60	444.65	444.45	444.44	443.98	444.22	447.34	447.91	445.69	445.00	444.69	444.51
14	444.54	444.63	444.37	444.48	443.99	444.26	447.33	447.81	445.60	444.93	444.67	444.53
15	444.50	444.62	444.30	444.45	443.98	444.16	447.31	447.71	445.55	444.96	444.68	444.52
16	444.51	444.57	444.25	444.43	444.02	444.09	447.40	447.65	445.55	444.96	444.66	444.61
17	444.48	444.55	444.34	444.40	444.00	444.13	447.75	447.57	445.50	444.93	444.69	444.50
18	444.42	444.54	444.48	444.38	443.93	444.10	447.93	447.49	445.42	444.88	444.74	444.55
19	444.41	444.53	444.46	444.31	443.88	444.01	447.94	447.43	445.38	444.82	444.68	444.54
20	444.39	444.50	444.55	444.28	443.88	443.93	447.91	447.38	445.37	444.91	444.68	444.47
21	444.35	444.48	444.56	444.20	443.88	443.91	447.99	447.29	445.31	444.91	444.78	444.45
22	444.40	444.58	444.55	444.20	443.90	443.86	448.16	447.23	445.29	444.86	444.67	444.48
23	444.37	444.79	444.52	444.19	443.89	443.80	448.35	447.14	445.28	444.87	444.60	444.41
24	444.39	444.84	444.53	444.17	443.90	443.80	448.50	447.06	445.19	444.81	444.60	444.47
25	444.54	444.90	444.41	444.19	443.90	443.80	448.57	447.01	445.11	444.80	444.61	444.41
26	444.52	444.93	444.42	444.14	443.91	443.83	448.85	446.94	445.11	444.75	444.64	444.36
27	444.51	444.94	444.34	444.11	443.91	443.90	448.89	446.89	445.14	444.75	444.58	444.47
28	444.54	444.94	444.29	444.06	443.91	444.06	448.84	446.80	445.16	444.82	444.64	444.43
29	444.54	444.93	444.26	444.04	---	444.33	448.80	446.75	445.17	444.74	444.62	444.45
30	444.58	444.89	444.30	444.04	---	444.72	448.74	446.65	445.14	444.79	444.60	444.48
31	444.61	---	444.51	444.05	---	445.17	---	446.56	---	444.80	444.55	---
MEAN	444.63	444.71	444.50	444.36	443.94	444.08	447.51	447.66	445.63	444.92	444.68	444.55
MAX	445.09	444.94	444.87	444.61	444.13	445.17	448.89	448.69	446.52	445.07	444.78	444.74
MIN	444.35	444.48	444.25	444.04	443.88	443.80	445.58	446.56	445.11	444.74	444.55	444.36

CAL YR 1992 MEAN 444.77 MAX 445.64 MIN 443.78
WTR YR 1993 MEAN 445.10 MAX 448.89 MIN 443.80

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 sea level. 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, 716.97 ft, Apr. 26, 27; minimum, 712.31 ft, Mar. 23.

ELEVATION (FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	713.99	712.99	713.38	713.68	713.23	e712.50	714.46	716.79	714.70	714.62	714.37	714.26
2	713.92	712.99	713.35	713.67	713.18	e712.40	715.04	716.73	714.69	714.62	714.37	714.23
3	713.90	713.12	713.33	713.63	713.13	---	715.36	716.66	714.68	714.62	714.37	714.33
4	713.87	713.16	713.30	713.63	713.11	712.44	715.43	716.60	714.71	714.64	714.36	714.40
5	713.83	713.17	713.28	713.70	713.07	712.45	715.46	716.55	714.75	714.63	714.36	714.39
6	713.75	713.21	713.23	713.72	713.06	712.42	715.50	716.52	714.78	714.61	714.34	714.39
7	713.68	713.21	713.20	713.71	e713.00	712.39	715.53	716.48	714.79	714.62	714.33	714.40
8	713.62	713.19	713.20	713.71	e713.00	712.39	715.55	716.40	714.79	714.62	714.32	714.37
9	713.60	713.16	713.15	713.68	e713.00	712.38	715.55	716.34	714.82	714.61	714.31	714.34
10	713.56	713.12	713.13	713.63	e713.00	712.38	715.62	716.27	714.83	714.60	714.28	714.33
11	713.53	713.10	713.21	713.61	712.89	712.37	715.80	716.20	714.82	714.58	714.27	714.31
12	713.47	713.09	713.19	713.59	712.85	712.38	715.81	716.12	714.79	714.56	714.29	714.27
13	713.42	713.11	713.15	713.60	712.84	712.52	715.78	716.06	714.74	714.56	714.29	714.25
14	713.37	713.10	713.11	713.62	712.81	e712.45	715.75	715.98	714.69	714.53	714.27	714.23
15	713.34	713.08	713.07	713.60	712.78	e712.45	715.71	715.90	714.63	714.54	714.27	714.23
16	713.31	713.05	713.06	713.58	712.77	e712.45	715.77	715.84	714.62	714.51	714.29	714.25
17	713.29	713.04	713.15	713.55	712.75	e712.70	716.07	715.76	714.61	714.50	714.34	714.22
18	713.24	713.03	713.28	713.52	712.72	712.60	716.19	715.69	714.59	714.46	714.34	714.22
19	713.21	713.00	713.29	713.48	712.68	e712.50	716.22	715.63	714.60	714.45	714.32	714.22
20	713.16	712.96	713.39	713.44	e712.70	712.45	716.22	715.58	714.61	714.46	714.31	714.17
21	713.12	712.93	713.43	713.40	e712.60	712.38	716.26	715.51	714.59	714.44	714.35	714.17
22	713.12	712.99	713.43	713.39	e712.60	712.36	716.32	715.43	714.60	714.42	714.29	714.16
23	713.06	713.21	713.41	713.38	712.61	712.35	716.45	715.34	714.61	714.40	714.27	714.13
24	713.09	713.25	713.41	713.37	e712.60	712.39	716.64	715.25	714.57	714.39	714.25	714.13
25	713.13	713.37	713.34	713.40	e712.60	712.42	716.68	715.17	714.55	714.38	714.26	714.12
26	713.12	713.42	713.33	713.37	e712.50	712.48	716.89	715.10	714.54	714.36	714.26	714.11
27	713.09	713.43	713.28	713.35	e712.50	712.61	716.94	715.04	714.54	714.38	714.24	714.15
28	713.07	713.43	713.25	713.32	e712.50	712.80	716.91	714.97	714.59	714.38	714.24	714.14
29	713.04	713.41	713.24	713.29	---	713.09	716.88	714.90	714.64	714.35	714.23	714.15
30	713.05	713.39	713.32	713.27	---	713.50	716.84	714.83	714.64	714.38	714.22	714.15
31	713.02	---	713.58	713.24	---	713.99	---	714.75	---	714.39	714.18	---
MEAN	713.39	713.16	713.27	713.52	712.82	---	715.99	715.82	714.67	714.50	714.30	714.24
MAX	713.99	713.43	713.58	713.72	713.23	---	716.94	716.79	714.83	714.64	714.37	714.40
MIN	713.02	712.93	713.06	713.24	712.50	---	714.46	714.75	714.54	714.35	714.18	714.11

CAL YR 1992 MEAN 713.49 MAX 714.91 MIN 712.08

e Estimated

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 sea level. 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.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	285	188	281	446	291	204	990	650	392	25	23	26
2	281	226	278	385	e280	194	1060	650	20	25	26	25
3	276	298	270	379	e280	178	791	649	18	26	23	35
4	266	237	261	419	290	176	696	636	20	26	23	29
5	280	240	260	510	286	179	720	634	28	25	23	29
6	300	251	255	409	273	178	767	621	33	25	22	26
7	294	240	247	379	277	178	753	612	32	24	21	25
8	288	233	236	362	260	182	734	598	34	24	21	24
9	297	249	228	340	253	196	720	579	40	27	21	24
10	298	263	224	335	249	189	800	569	111	50	21	26
11	289	261	223	335	241	182	844	562	187	52	21	26
12	287	262	226	324	240	176	744	562	237	53	21	26
13	284	267	229	352	241	170	656	538	198	40	21	26
14	277	254	226	375	236	177	548	531	262	31	21	26
15	272	250	227	364	231	198	533	529	324	27	21	26
16	272	245	234	356	229	184	606	524	174	26	26	25
17	264	244	393	343	229	180	866	514	56	25	37	25
18	259	242	430	329	225	173	528	509	56	24	36	25
19	231	244	345	325	222	176	369	513	105	25	35	24
20	205	242	556	320	216	178	418	517	101	25	34	24
21	202	246	357	317	215	178	637	611	89	25	27	24
22	198	295	319	327	212	177	763	656	63	23	26	24
23	151	412	308	354	205	184	1000	652	53	23	26	24
24	127	301	291	383	202	231	799	648	48	23	26	24
25	135	431	294	375	e200	311	760	638	37	23	26	24
26	169	344	271	336	e200	372	1060	606	33	24	25	25
27	204	318	e265	297	200	457	814	555	31	24	25	26
28	199	301	e270	330	200	558	752	551	31	23	25	26
29	201	296	295	296	---	771	705	551	31	23	24	29
30	198	290	435	327	---	1080	670	545	27	24	23	48
31	194	---	632	318	---	812	---	552	---	23	31	---
TOTAL	7483	8170	9366	11047	6683	8779	22103	18062	2871	863	781	796
MEAN	241	272	302	356	239	283	737	583	95.7	27.8	25.2	26.5
MAX	300	431	632	510	291	1080	1060	656	392	53	37	48
MIN	127	188	223	296	200	170	369	509	18	23	21	24

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1993, BY WATER YEAR (WY)

MEAN	120	184	231	208	210	301	335	253	195	112	88.3	90.7
MAX	404	534	532	465	421	601	737	629	676	892	450	256
(WY)	1978	1978	1978	1978	1978	1976	1993	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

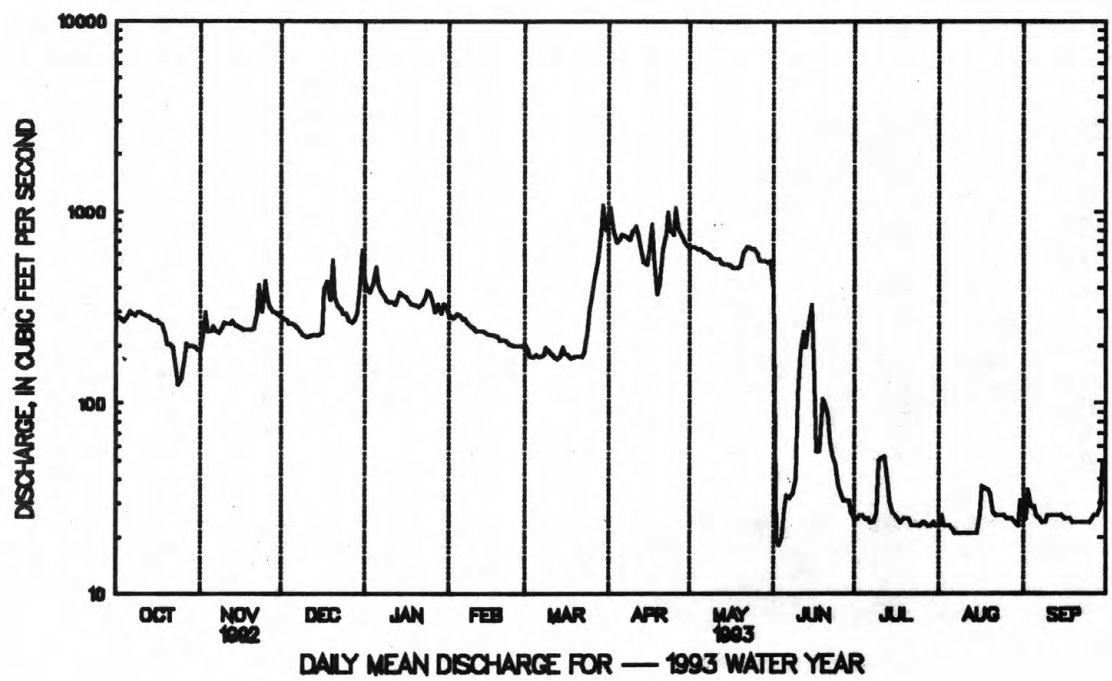
SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1965 - 1993	
ANNUAL TOTAL	71586		97004			
ANNUAL MEAN	196		266		196	
HIGHEST ANNUAL MEAN					362	1978
LOWEST ANNUAL MEAN					81.1	1981
HIGHEST DAILY MEAN	897	Mar 27	1080	Mar 30	2200	Jun 22 1972
LOWEST DAILY MEAN	23	Jul 22	18	Jun 3	3.2	a
ANNUAL SEVEN-DAY MINIMUM	31	Jul 7	21	Aug 7	3.4	Sep 4 1982
INSTANTANEOUS PEAK FLOW			1710	Mar 30	b4000	Jun 22 1972
INSTANTANEOUS PEAK STAGE			5.57	Mar 30	c10.37	Jun 22 1972
INSTANTANEOUS LOW FLOW			17	Jun 2	3.2	d
10 PERCENT EXCEEDS	318		633		446	
50 PERCENT EXCEEDS	167		237		140	
90 PERCENT EXCEEDS	86		24		21	

a Sep. 9,10,1982.

b From rating curve extended above 730 ft^3/s on basis of contracted-opening measurement at Mays Mill, adjusted for intervening area.

c Datum then in use.

d Sep. 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 sea level (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. 30	1700	1,100	3.73	Apr. 16	1300	*2,200	*5.38
Apr. 1	0400	1,060	3.66	Apr. 17	0315	1,740	4.77
Apr. 10	2315	1,390	4.23				

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	22	45	125	e28	e16	812	106	40	11	e7.0	e4.5
2	20	43	40	90	e26	e16	646	93	28	10	e8.5	e6.0
3	18	83	39	79	e32	e17	291	83	25	11	e12	52
4	16	61	35	83	e30	17	189	75	23	e24	e7.0	39
5	14	57	34	120	e26	17	173	106	26	e12	e6.0	20
6	14	75	30	88	e24	18	179	105	37	e9.0	e5.5	13
7	13	58	29	75	e24	20	171	80	27	e8.0	e5.0	12
8	13	45	e28	69	e22	e24	166	70	25	e7.5	e6.0	9.3
9	13	40	e24	56	e22	e28	165	64	37	e12	e5.0	8.4
10	14	38	e30	e50	e22	e22	531	58	34	e9.0	e4.6	9.1
11	16	39	29	52	e20	e18	688	54	25	e7.0	e4.8	7.4
12	20	50	28	53	e20	e15	253	49	21	e6.5	e4.8	5.5
13	15	76	27	117	e20	e12	191	45	19	e6.0	e4.4	e5.0
14	13	50	e27	103	e19	e17	153	43	17	e5.5	e4.2	e5.0
15	23	42	e27	83	e19	e24	129	43	17	e5.5	e4.2	e5.0
16	45	38	28	72	e19	e35	701	41	19	e5.0	e7.0	6.0
17	31	38	89	66	e18	e30	754	39	15	e4.8	24	e6.0
18	22	37	96	56	e18	e30	274	36	13	e4.8	13	e5.5
19	26	35	73	e50	e18	e30	184	42	12	e5.0	8.5	e5.5
20	22	32	104	e52	e17	e32	148	58	12	e8.5	20	e5.0
21	21	34	79	54	e17	32	381	42	20	e6.0	28	5.6
22	20	48	71	66	e24	29	286	38	25	e5.0	14	4.3
23	19	101	69	62	e20	27	349	34	15	e4.4	9.9	5.1
24	37	77	e58	63	e19	57	294	33	12	e4.2	14	5.9
25	56	91	e52	65	e18	75	223	32	10	e4.2	16	e5.5
26	38	75	e40	51	e17	99	343	28	9.4	e4.2	11	10
27	32	65	e40	e45	e17	152	205	27	9.7	e4.8	8.3	20
28	29	62	49	e40	e16	242	160	27	15	e5.0	5.7	18
29	27	57	54	e35	---	397	134	26	23	e4.6	e4.6	8.5
30	28	51	113	e30	---	659	117	25	13	e4.8	e4.2	6.5
31	25	---	215	e28	---	555	---	30	---	e9.0	e4.0	---
TOTAL	722	1620	1702	2078	592	2762	9290	1632	624.1	228.3	281.2	318.6
MEAN	23.3	54.0	54.9	67.0	21.1	89.1	310	52.6	20.8	7.36	9.07	10.6
MAX	56	101	215	125	32	659	812	106	40	24	28	52
MIN	13	22	24	28	16	12	117	25	9.4	4.2	4.0	4.3
CFSM	.66	1.53	1.56	1.90	.60	2.53	8.80	1.50	.59	.21	.26	.30
IN.	.76	1.71	1.80	2.20	.63	2.92	9.82	1.72	.66	.24	.30	.34

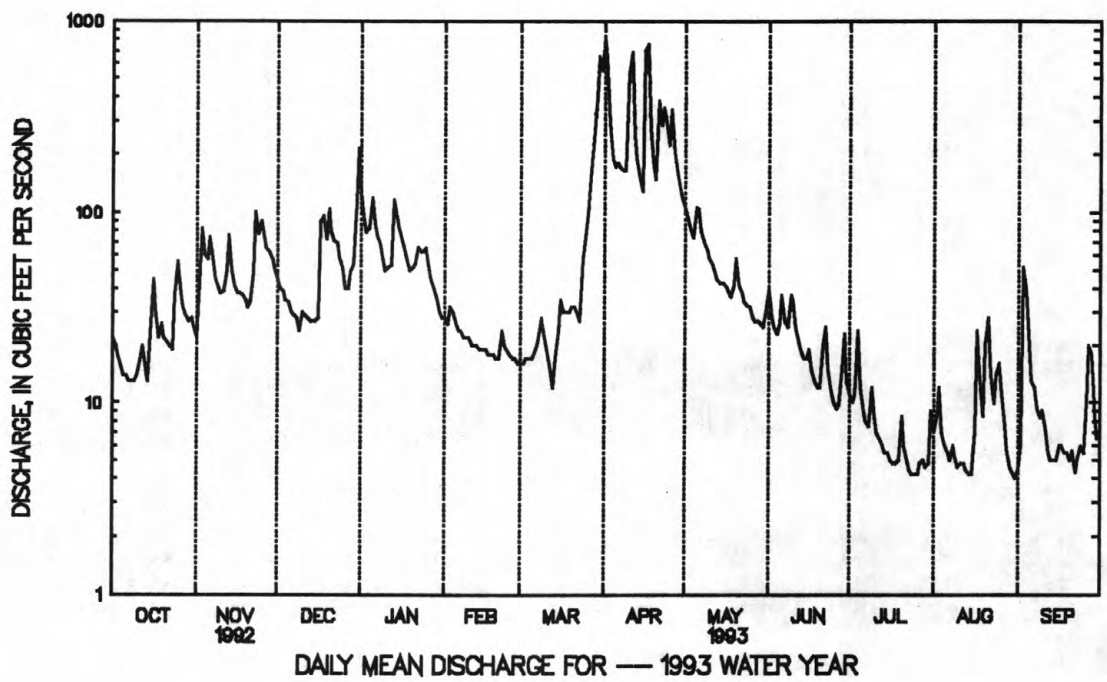
e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 1993, BY WATER YEAR (WY)

MEAN	20.5	29.9	39.2	34.9	46.7	89.6	87.5	51.2	26.9	14.2	11.5	11.5
MAX	106	93.5	118	93.5	113	182	310	132	162	57.4	66.2	61.0
(WY)	1956	1978	1973	1978	1976	1945	1993	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

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1937 - 1993	
ANNUAL TOTAL	17343.0		21850.2			
ANNUAL MEAN	47.4		59.9		38.4	
HIGHEST ANNUAL MEAN					61.7	1978
LOWEST ANNUAL MEAN					15.3	1965
HIGHEST DAILY MEAN	860	Mar 27	812	Apr 1	1690	Jun 22 1972
LOWEST DAILY MEAN	8.0	Jul 3	4.0	Aug 31	1.9	Jul 22 1955
ANNUAL SEVEN-DAY MINIMUM	9.6	Jun 29	4.5	Jul 23	2.2	Aug 28 1939
INSTANTANEOUS PEAK FLOW			2200	Apr 16	a4800	Jun 23 1972
INSTANTANEOUS PEAK STAGE			5.38	Apr 16	8.10	Jun 23 1972
INSTANTANEOUS LOW FLOW					1.7	Jul 22 1955
ANNUAL RUNOFF (CFSM)	1.35		1.70		1.09	
ANNUAL RUNOFF (INCHES)	18.33		23.09		14.82	
10 PERCENT EXCEEDS	84		122		85	
50 PERCENT EXCEEDS	37		27		20	
90 PERCENT EXCEEDS	16		5.5		5.3	

a 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 sea level (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 Thruway Authority. 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, 386.46 ft, April 26, 1993; minimum daily, 377.64 ft, present datum, Mar. 28, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 386.46 ft, Apr. 26; minimum, 378.59 ft, Feb. 7.

ELEVATION (FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	382.49	381.55	382.17	381.46	379.42	378.89	382.28	385.80	382.32	382.52	382.22	382.08
2	382.42	381.37	382.10	381.41	379.23	378.90	383.12	385.62	382.31	382.45	382.19	381.96
3	382.40	381.45	382.10	381.28	379.13	378.92	383.71	385.35	382.32	382.47	382.23	382.01
4	382.42	381.52	382.02	381.28	379.12	378.93	384.01	385.16	382.33	382.53	382.20	382.13
5	382.35	381.66	382.03	381.42	378.98	378.95	384.21	384.98	382.30	382.47	382.24	382.09
6	382.27	381.77	381.91	381.47	378.87	378.97	384.39	384.85	382.38	382.40	382.18	382.12
7	382.18	381.82	381.87	381.49	378.63	378.95	384.52	384.68	382.37	382.46	382.14	382.13
8	382.13	381.79	381.85	381.54	378.61	378.96	384.61	384.47	382.36	382.43	382.19	382.07
9	382.09	381.76	381.87	381.49	378.60	379.02	384.64	384.27	382.37	382.38	382.15	382.02
10	382.07	381.71	381.86	381.38	378.60	379.02	384.85	384.06	382.42	382.44	382.12	382.04
11	382.06	381.74	381.97	381.30	378.60	379.07	385.49	383.84	382.45	382.43	382.08	382.08
12	382.03	381.72	381.94	381.22	378.60	379.06	385.59	383.64	382.43	382.42	382.11	381.93
13	382.00	381.83	381.83	381.13	378.61	379.18	385.46	383.52	382.40	382.46	382.13	381.90
14	381.91	381.81	381.73	381.15	378.61	379.27	385.31	383.33	382.35	382.38	382.12	381.91
15	381.89	381.79	381.63	381.08	378.61	379.14	385.11	383.15	382.33	382.46	382.12	381.93
16	381.91	381.73	381.49	380.99	378.61	379.06	385.12	383.03	382.40	382.43	382.09	382.00
17	381.92	381.69	381.56	380.90	378.77	379.17	385.42	382.87	382.38	382.41	382.09	381.88
18	381.86	381.67	381.71	380.81	378.79	379.18	385.68	382.71	382.33	382.33	382.14	381.95
19	381.88	381.57	381.67	380.66	378.83	379.13	385.71	382.56	382.34	382.29	382.10	381.93
20	381.87	381.41	381.81	380.54	378.84	379.13	385.56	382.46	382.35	382.36	382.08	381.85
21	381.83	381.24	381.82	380.34	378.80	379.22	385.55	382.39	382.33	382.39	382.23	381.81
22	381.82	381.23	381.79	380.27	378.86	379.27	385.74	382.37	382.42	382.35	382.08	381.85
23	381.72	381.40	381.74	380.21	378.93	379.27	385.94	382.31	382.43	382.34	382.06	381.77
24	381.71	381.49	381.75	380.11	378.95	379.36	386.03	382.26	382.32	382.26	382.02	381.85
25	381.84	381.64	381.44	380.13	378.93	379.40	386.09	382.28	382.22	382.24	382.06	381.75
26	381.75	381.79	381.44	380.02	378.92	379.45	386.35	382.28	382.25	382.17	382.05	381.70
27	381.71	381.92	381.22	379.95	378.92	379.56	386.36	382.30	382.28	382.16	382.02	381.82
28	381.67	382.00	381.11	379.85	378.92	379.78	386.22	382.25	382.33	382.24	382.07	381.78
29	381.62	382.07	381.03	379.80	---	380.18	386.10	382.32	382.45	382.17	382.05	381.83
30	381.67	382.12	381.04	379.61	---	380.82	385.95	382.27	382.50	382.22	382.01	381.84
31	381.63	---	381.28	379.42	---	381.51	---	382.24	---	382.23	381.95	---
MEAN	381.97	381.68	381.70	380.76	378.83	379.31	385.17	383.41	382.36	382.36	382.11	381.93
MAX	382.49	382.12	382.17	381.54	379.42	381.51	386.36	385.80	382.50	382.53	382.24	382.13
MIN	381.62	381.23	381.03	379.42	378.60	378.89	382.28	382.24	382.22	382.16	381.95	381.70

CAL YR 1992 MEAN 381.61 MAX 383.53 MIN 379.37
WTR YR 1993 MEAN 381.81 MAX 386.36 MIN 378.60

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 sea level. 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), 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)
Apr. 1	1730	3,320	4.65	Apr. 21	1800	2,230	3.92
Apr. 11	0330	*4,470	*5.29	Apr. 24	0300	1,910	3.68
Apr. 17	0300	3,570	4.80				

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	161	159	220	746	e90	e65	3030	344	173	68	45	19
2	148	214	203	e380	e85	e65	2800	295	120	57	53	23
3	128	564	195	304	e75	e75	1870	258	90	71	73	108
4	113	344	179	459	e100	e80	953	227	79	141	42	135
5	100	272	176	662	e110	e75	740	354	82	76	36	83
6	93	372	157	466	e90	e70	878	552	209	55	32	47
7	91	307	161	335	e80	e65	904	325	156	48	31	46
8	89	222	e150	291	e75	e70	859	246	106	43	35	40
9	87	185	e120	e210	e75	e75	867	208	163	69	30	34
10	125	178	123	e160	e75	e70	1630	186	198	53	27	33
11	107	233	176	182	e70	e60	3400	170	113	41	28	39
12	111	358	173	198	e70	e50	1240	162	89	37	28	33
13	115	431	e155	372	e70	e40	820	148	76	37	26	29
14	89	268	e130	459	e68	e28	665	138	67	34	25	24
15	86	214	e130	282	e68	e50	533	136	59	34	25	24
16	154	187	157	235	e66	e80	1670	153	83	31	25	27
17	187	182	379	e200	e65	e70	3140	134	76	29	38	27
18	136	185	634	e170	e65	e75	1430	121	60	28	88	27
19	164	180	337	e130	e65	e78	759	130	59	31	40	27
20	168	161	450	e130	e60	e80	562	187	74	50	35	24
21	140	189	375	e140	e65	e80	1480	137	178	37	69	24
22	162	337	254	204	e90	e80	1280	113	323	30	48	27
23	130	1060	221	254	e80	e90	1220	106	126	27	32	25
24	188	620	e180	239	e74	e100	1530	103	85	25	29	30
25	461	641	e130	e280	e72	e130	1270	111	70	25	29	29
26	300	461	e120	e160	e70	e200	1470	99	60	25	25	33
27	260	352	e110	e140	e70	e300	933	91	61	28	22	53
28	205	292	e110	e110	e65	e550	597	86	76	29	21	106
29	180	258	e150	e95	---	e1000	468	94	133	27	20	74
30	228	245	649	e95	---	e1900	399	85	90	28	19	51
31	184	---	1400	e90	---	2290	---	83	---	54	18	---
TOTAL	4890	9671	8104	8178	2108	8041	39397	5582	3334	1368	1094	1301
MEAN	158	322	261	264	75.3	259	1313	180	111	44.1	35.3	43.4
MAX	461	1060	1400	746	110	2290	3400	552	323	141	88	135
MIN	86	159	110	90	60	28	399	83	59	25	18	19
CFSM	1.25	2.56	2.07	2.09	.60	2.06	10.4	1.43	.88	.35	.28	.34
IN.	1.44	2.86	2.39	2.41	.62	2.37	11.63	1.65	.98	.40	.32	.38

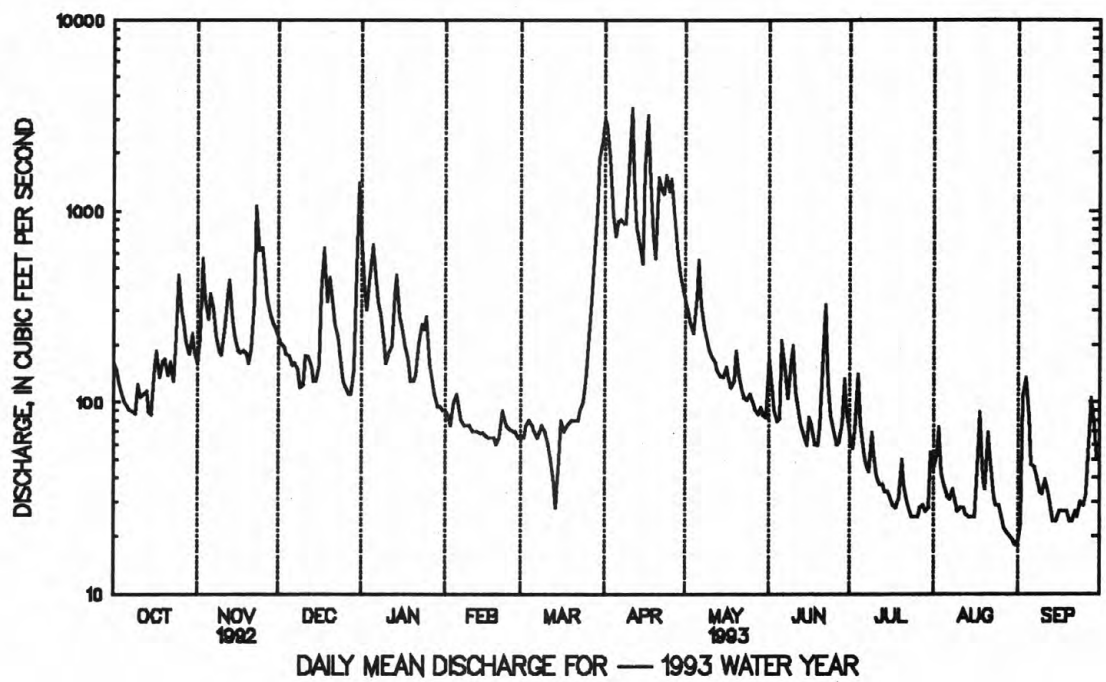
e Estimated

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

MEAN	105	174	206	185	216	415	412	210	117	71.7	48.9	65.3
MAX	594	497	540	417	595	1037	1313	529	615	608	179	561
(WY)	1982	1928	1973	1978	1981	1936	1993	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

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1925 - 1993	
ANNUAL TOTAL	77044		93068			
ANNUAL MEAN	211		255		186	
HIGHEST ANNUAL MEAN					271	1978
LOWEST ANNUAL MEAN					83.6	1965
HIGHEST DAILY MEAN	2340	Mar 27	3400	Apr 11	8280	Jul 8 1935
LOWEST DAILY MEAN	29	Jul 3	18	Aug 31	3.6	Aug 17 1965
ANNUAL SEVEN-DAY MINIMUM	34	Jun 29	20	Aug 27	5.0	Sep 20 1964
INSTANTANEOUS PEAK FLOW			4470	Apr 11	a15500	Jul 8 1935
INSTANTANEOUS PEAK STAGE			5.29	Apr 11	b11.16	Feb 21 1971
INSTANTANEOUS LOW FLOW			6.9	Mar 14	c3.0	Aug 25 1927
ANNUAL RUNOFF (CFSM)	1.67		2.02		1.47	
ANNUAL RUNOFF (INCHES)	22.75		27.48		20.01	
10 PERCENT EXCEEDS	414		606		417	
50 PERCENT EXCEEDS	157		110		100	
90 PERCENT EXCEEDS	62		29		23	

a From average of computed flow over each of four dams.
b Ice jam.
c Approximate discharge, result of regulation.



04234500 CANANDAIGUA LAKE AT CANANDAIGUA, NY

LOCATION.--Lat 42°53'30", long 77°17'22", 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 sea level. 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, 690.87 ft, Apr. 26, 27; minimum, 687.10 ft, Mar. 4.

ELEVATION (FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	688.09	687.73	687.99	688.35	688.05	687.25	689.43	690.53	688.57	688.55	688.03	687.64
2	688.06	687.81	687.98	688.40	688.03	687.22	690.07	690.45	688.56	688.56	688.06	687.65
3	688.02	687.87	687.95	688.44	688.00	687.20	690.50	690.37	688.54	688.53	688.05	687.71
4	688.00	687.90	687.93	688.43	687.95	687.19	690.55	690.28	688.53	688.51	688.02	687.68
5	687.96	687.91	687.89	688.46	687.91	687.23	690.53	690.20	688.59	688.51	687.99	687.67
6	687.96	687.92	687.88	688.50	687.87	687.23	690.52	690.16	688.62	688.52	687.97	687.65
7	687.94	687.91	687.84	688.49	687.84	687.21	690.52	690.08	688.60	688.49	687.94	687.65
8	687.93	687.90	687.79	688.47	687.79	687.19	690.51	689.99	688.62	688.47	687.92	687.63
9	687.95	687.88	687.77	688.44	687.75	687.20	690.51	689.89	688.70	688.46	687.90	687.63
10	687.96	687.87	687.82	688.41	687.72	687.19	690.51	689.80	688.71	688.45	687.91	687.61
11	687.94	687.84	687.75	688.39	687.68	687.20	690.64	689.71	688.68	688.42	687.89	687.59
12	687.95	687.88	687.77	688.36	687.66	687.18	690.62	689.62	688.69	688.41	687.88	687.59
13	687.93	687.84	687.75	688.38	687.66	687.20	690.56	689.50	688.68	688.38	687.86	687.55
14	687.91	687.81	687.74	688.40	687.63	687.33	690.48	689.41	688.70	688.37	687.84	687.54
15	687.89	687.77	687.71	688.40	687.59	687.30	690.42	689.34	688.68	688.33	687.83	687.50
16	687.93	687.75	687.71	688.38	687.58	687.28	690.37	689.25	688.64	688.30	687.84	687.47
17	687.90	687.73	687.77	688.36	687.58	687.27	690.46	689.15	688.64	688.25	687.85	687.46
18	687.89	687.70	687.90	688.33	687.55	687.25	690.51	689.07	688.64	688.24	687.84	687.44
19	687.84	687.68	688.00	688.29	687.51	687.23	690.47	688.99	688.63	688.24	687.83	687.40
20	687.84	687.70	688.05	688.25	687.47	687.22	690.40	688.93	688.65	688.23	687.83	687.40
21	687.81	687.73	688.13	688.28	687.44	687.21	690.34	688.85	688.66	688.19	687.78	687.37
22	687.79	687.63	688.13	688.23	687.44	687.20	690.33	688.78	688.63	688.16	687.78	687.35
23	687.80	687.73	688.14	688.23	687.42	687.20	690.41	688.71	688.61	688.12	687.76	687.36
24	687.82	687.78	688.10	688.25	687.40	687.24	690.57	688.67	688.61	688.10	687.76	687.33
25	687.87	687.91	688.15	688.27	687.37	687.28	690.59	688.61	688.61	688.08	687.73	687.32
26	687.90	688.00	688.05	688.28	687.33	687.36	690.76	688.57	688.59	688.13	687.72	687.38
27	687.91	688.02	688.06	688.23	687.30	687.49	690.85	688.55	688.59	688.09	687.71	687.36
28	687.89	688.03	688.02	688.20	687.28	687.71	690.80	688.57	688.58	688.06	687.68	687.39
29	687.86	688.02	687.98	688.14	---	688.05	690.72	688.55	688.58	688.07	687.66	687.33
30	687.81	688.01	688.02	688.12	---	688.47	690.63	688.54	688.56	688.06	687.65	687.30
31	687.77	---	688.23	688.10	---	688.95	---	688.59	---	688.04	687.68	---
MEAN	687.91	687.84	687.94	688.33	687.64	687.38	690.49	689.35	688.62	688.30	687.84	687.50
MAX	688.09	688.03	688.23	688.50	688.05	688.95	690.85	690.53	688.71	688.56	688.06	687.71
MIN	687.77	687.63	687.71	688.10	687.28	687.18	689.43	688.54	688.53	688.04	687.65	687.30

CAL YR 1992 MEAN 688.11 MAX 689.61 MIN 686.82
WTR YR 1993 MEAN 688.26 MAX 690.85 MIN 687.18

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 sea level. Prior to June 25, 1974, at site 0.1 mi upstream at datum 676.90 ft above sea level.

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.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	328	280	361	458	342	e195	1030	990	64	69	49	53
2	298	290	356	445	340	192	1150	962	62	70	48	51
3	91	420	351	445	338	188	1060	934	61	69	47	57
4	63	338	345	461	331	185	1040	910	61	67	53	51
5	70	352	341	515	341	e190	1040	909	73	67	58	50
6	73	380	332	468	338	e185	1050	906	73	67	57	51
7	74	372	331	451	386	191	1030	868	65	66	56	39
8	76	354	329	442	318	e190	1020	852	66	66	55	29
9	80	347	325	431	307	e170	1010	832	72	69	55	40
10	83	344	324	420	299	e150	1050	808	83	67	54	42
11	75	343	327	416	290	e140	1080	786	81	65	58	42
12	85	341	327	411	284	e135	1050	767	80	66	56	40
13	69	360	328	425	282	e130	1020	737	78	64	53	40
14	65	347	328	465	e275	e135	1000	717	77	64	53	39
15	65	336	324	453	e265	e220	978	696	75	63	51	32
16	67	327	327	444	e250	e230	978	674	71	62	53	37
17	68	323	392	436	e235	210	1060	650	68	57	46	35
18	67	320	485	e420	e220	e200	1020	626	65	56	43	35
19	63	319	411	e400	e210	e190	996	608	64	53	42	35
20	60	312	442	e375	e210	196	973	592	66	50	44	31
21	60	321	423	e350	e200	194	965	576	65	49	42	30
22	60	323	392	e350	e190	194	988	558	61	48	41	39
23	60	405	386	424	e190	200	1080	540	60	51	41	28
24	68	350	386	e460	e190	230	1040	527	58	57	41	40
25	101	443	367	438	e190	263	1030	455	57	57	50	39
26	84	385	363	398	e190	313	1110	127	57	62	49	50
27	87	373	e350	390	e190	366	1090	62	56	61	42	42
28	205	369	e250	e360	e190	431	1070	59	60	58	40	44
29	287	365	e300	e360	---	577	1040	58	73	59	39	40
30	293	363	396	e370	---	737	1020	59	69	67	48	37
31	286	---	538	e350	---	839	---	61	---	60	53	---
TOTAL	3511	10502	11237	13031	7391	7966	31068	18906	2021	1906	1517	1218
MEAN	113	350	362	420	264	257	1036	610	67.4	61.5	48.9	40.6
MAX	328	443	538	515	386	839	1150	990	83	70	58	57
MIN	60	280	250	350	190	130	965	58	56	48	39	28

e Estimated

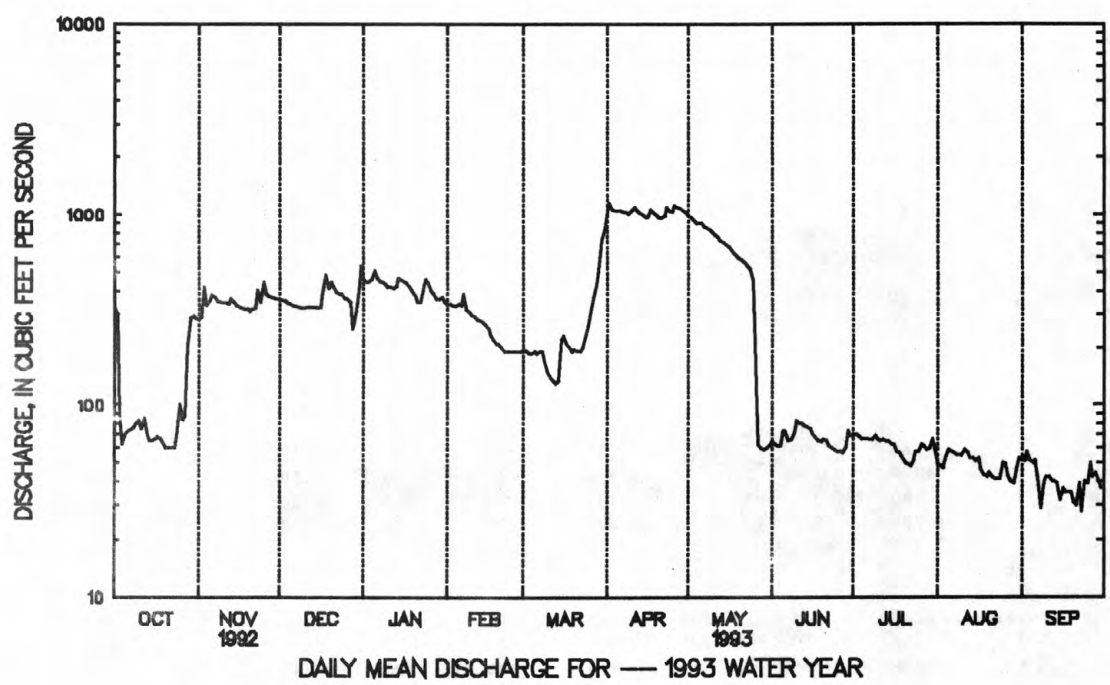
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1993, BY WATER YEAR (WY)

MEAN	75.5	95.2	129	142	156	286	409	268	151	92.5	62.7	52.6
MAX	613	419	521	420	518	748	1036	725	566	852	483	363
(WY)	1978	1978	1973	1993	1976	1976	1993	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1940 - 1993	
ANNUAL TOTAL	88108		110274			
ANNUAL MEAN	241		302		158	
HIGHEST ANNUAL MEAN					302	1993
LOWEST ANNUAL MEAN					57.7	1965
HIGHEST DAILY MEAN	798	Aug 1	1150	Apr 2	1680	Jun 24 1972
LOWEST DAILY MEAN	27	Jan 2	28	Sep 23	5.2	Sep 15 1948
ANNUAL SEVEN-DAY MINIMUM	31	Jan 1	33	Sep 17	7.1	Feb 23 1967
INSTANTANEOUS PEAK FLOW			1300	Apr 2	1710	Jun 24 1972
INSTANTANEOUS PEAK STAGE			6.61	Apr 2	a11.08	Jun 24 1972
INSTANTANEOUS LOW FLOW			17	Sep 7	4.4	Sep 24 1991
10 PERCENT EXCEEDS	545		883		455	
50 PERCENT EXCEEDS	114		210		66	
90 PERCENT EXCEEDS	42		48		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 sea level.

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)
Dec 31	1130	800	3.96	Apr 24	0130	1,230	4.31
Mar 30	2330	*2.170	*5.34	Apr 26	1300	1,430	4.44
Apr 11	0300	905	4.06				

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	60	136	642	e45	e42	1350	198	31	12	4.0	2.2
2	55	96	127	397	e41	e38	1780	169	29	12	5.0	2.3
3	48	374	119	238	e38	e35	1450	150	23	12	5.7	4.8
4	41	335	106	225	e35	e32	901	133	21	11	5.5	12
5	35	252	101	403	e33	e31	677	143	30	9.3	4.9	27
6	31	242	90	358	e32	e29	642	202	44	8.4	3.5	21
7	30	203	85	254	e30	e28	572	160	34	7.7	2.9	12
8	31	158	81	e190	e30	e27	524	128	28	6.9	2.6	8.5
9	35	126	73	e130	e30	e26	493	110	44	7.0	2.6	7.4
10	44	110	56	84	e31	e27	540	95	54	6.7	2.6	6.6
11	54	111	74	100	e36	e29	815	84	35	5.6	2.5	5.8
12	63	117	73	127	e41	e31	559	74	26	5.5	2.3	5.3
13	47	138	95	e150	e39	e36	355	65	21	4.9	2.2	4.8
14	39	137	91	220	e37	e46	264	60	18	4.5	1.8	4.2
15	37	121	92	197	e35	e60	219	56	15	4.0	1.4	4.1
16	43	101	113	e160	e32	84	243	53	14	3.5	1.8	4.1
17	51	96	226	e120	e31	108	592	49	14	3.4	2.3	3.5
18	51	97	456	e90	e31	102	577	47	13	2.7	3.2	3.4
19	45	97	413	e82	e31	104	381	47	14	4.0	5.0	3.4
20	39	91	478	e76	e31	104	260	56	17	5.3	5.2	3.3
21	37	91	422	e92	e31	89	248	54	18	5.0	4.6	3.3
22	39	113	266	126	e32	74	343	46	15	3.7	3.7	3.4
23	38	336	e190	207	e33	71	700	41	13	2.9	3.5	3.9
24	58	328	e130	282	e38	111	817	39	12	2.4	4.0	3.9
25	162	473	e90	314	e48	176	531	40	10	2.0	3.0	4.9
26	160	407	e96	179	e50	250	1000	36	9.9	2.6	1.8	6.0
27	137	298	e70	144	e50	388	745	33	9.2	3.0	1.4	4.9
28	105	212	e85	e100	e46	634	428	30	11	3.6	1.7	6.0
29	85	170	100	e70	---	960	292	29	12	3.1	1.6	5.3
30	73	148	275	55	---	1480	234	26	14	5.9	1.5	6.0
31	66	---	742	e50	---	1280	---	26	---	4.4	1.4	---
TOTAL	1844	5638	5551	5862	1017	6532	18532	2479	649.1	175.0	95.2	193.3
MEAN	59.5	188	179	189	36.3	211	618	80.0	21.6	5.65	3.07	6.44
MAX	162	473	742	642	50	1480	1780	202	54	12	5.7	27
MIN	30	60	56	50	30	26	219	26	9.2	2.0	1.4	2.2
CFSM	.58	1.84	1.76	1.85	.36	2.07	6.06	.78	.21	.06	.03	.06
IN.	.67	2.06	2.02	2.14	.37	2.38	6.76	.90	.24	.06	.03	.07

e Estimated

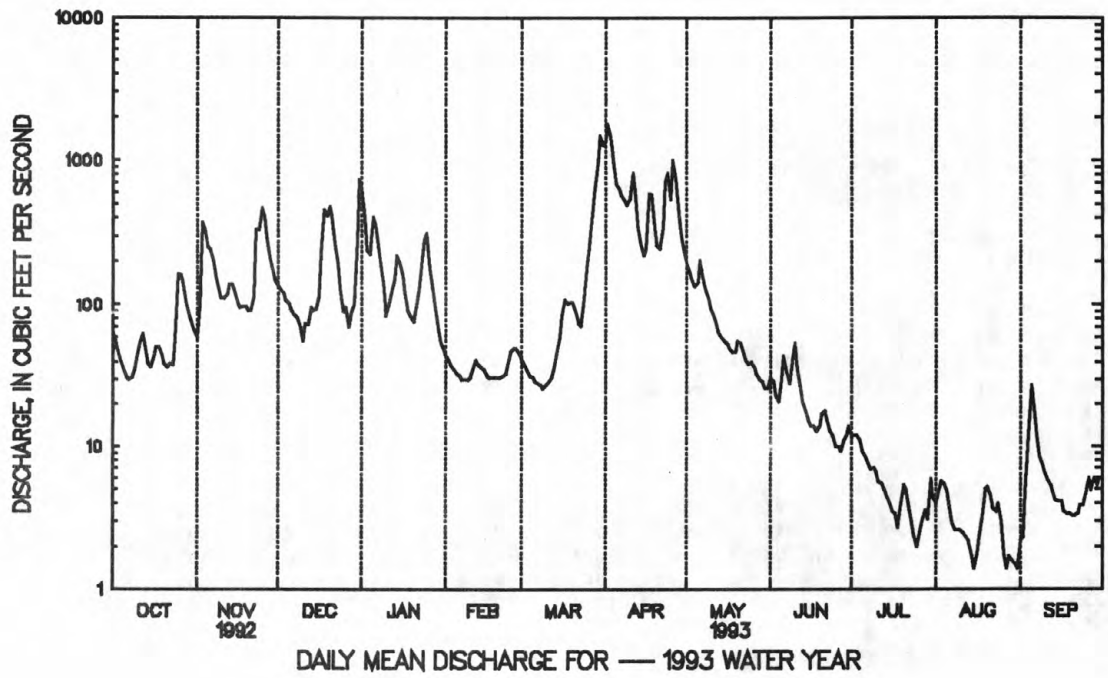
04235250 FLINT CREEK AT PHELPS, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1993, BY WATER YEAR (WY)

MEAN	39.9	70.3	101	77.9	116	229	221	102	61.9	24.1	16.1	22.1
MAX	257	249	330	189	455	484	618	259	502	167	131	249
(WY)	1978	1978	1973	1993	1976	1978	1993	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

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1960 - 1993	
ANNUAL TOTAL	44243		48567.6			
ANNUAL MEAN	121		133		89.9	
HIGHEST ANNUAL MEAN					162	1978
LOWEST ANNUAL MEAN					32.2	1965
HIGHEST DAILY MEAN	1230	Mar 27	1780	Apr 2	2670	Jun 24 1972
LOWEST DAILY MEAN	11	Jul 2	1.4	a	.00	Sep 16 1962
ANNUAL SEVEN-DAY MINIMUM	14	Jun 29	1.7	Aug 26	.00	Sep 16 1962
INSTANTANEOUS PEAK FLOW			2170	Mar 30	2940	Mar 30 1960
INSTANTANEOUS PEAK STAGE			5.34	Mar 30	b6.20	Mar 17 1963
INSTANTANEOUS LOW FLOW			.94	Aug 27	.00	c
ANNUAL RUNOFF (CFSM)	1.19		1.30		.88	
ANNUAL RUNOFF (INCHES)	16.14		17.71		11.97	
10 PERCENT EXCEEDS	256		377		231	
50 PERCENT EXCEEDS	73		46		37	
90 PERCENT EXCEEDS	24		3.5		3.4	

a Aug. 15, 27, 31.
b Ice jam.
c 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 sea level. 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)
Nov. 23	0930	164	2.00	Apr. 11	0630	179	2.10
Dec. 18	0330	174	2.07	Apr. 17	1430	203	2.25
Dec. 31	0730	234	2.43	Apr. 23	1300	382	3.19
Apr. 1	1800	*656	*4.29	Apr. 26	1030	272	2.64

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	12	20	108	e9.5	e6.5	620	19	2.8	1.2	.92	.74
2	13	20	17	e58	e8.5	e6.0	588	16	2.6	1.5	1.5	.71
3	9.8	107	15	e44	e7.5	e5.5	429	13	2.3	1.6	2.0	1.1
4	7.6	80	14	62	e7.2	e5.0	204	11	2.2	1.5	1.0	1.9
5	6.0	71	14	106	6.9	e4.6	135	13	3.3	1.3	.87	1.4
6	5.0	75	13	77	e6.5	e4.4	125	48	4.2	1.2	1.0	1.2
7	4.4	52	11	47	e6.0	e4.0	92	30	3.8	1.2	1.3	1.1
8	3.9	33	11	32	e5.8	4.6	65	19	3.3	1.1	1.3	.83
9	5.4	23	e13	e25	e5.5	5.6	45	14	3.2	1.1	.75	.74
10	7.0	18	14	e18	5.8	e6.0	57	11	3.4	1.1	.68	.77
11	20	19	16	e14	7.9	e5.5	148	8.7	3.0	1.0	.65	.86
12	43	26	11	e12	8.4	e5.0	72	7.3	2.7	1.1	.63	.79
13	30	36	7.5	20	6.1	e4.5	43	6.1	2.2	1.0	.62	.72
14	21	30	e10	e55	4.7	e4.0	31	5.2	1.9	3.6	.59	.72
15	16	23	e12	e42	e4.5	e8.0	23	4.8	1.9	3.4	.57	.76
16	18	19	21	31	e4.4	e12	50	4.4	2.5	2.3	.61	.78
17	23	18	92	27	e4.0	e19	162	4.0	3.2	1.4	.66	1.1
18	19	19	162	e22	e4.0	e17	105	3.8	3.1	1.1	.66	2.1
19	15	22	113	e20	e4.0	e18	50	4.0	2.8	1.5	.64	1.4
20	13	21	118	e18	e4.0	e18	32	4.2	2.7	1.3	1.6	1.1
21	12	19	86	e20	e4.0	e15	36	3.7	2.5	1.1	1.4	.92
22	13	27	50	22	e5.2	e12	99	3.6	3.0	1.0	1.0	.88
23	12	139	32	55	e5.6	e11	318	3.2	2.9	.93	1.0	1.2
24	14	90	41	81	e5.5	e17	159	3.2	2.1	.87	1.1	1.0
25	38	132	79	e80	e4.6	e40	81	4.2	1.7	.82	1.4	.82
26	32	101	69	e50	e5.0	e65	221	4.9	1.5	.94	1.0	1.5
27	30	66	38	e24	e6.0	e80	104	4.3	1.4	.96	.96	1.3
28	26	42	18	e20	e7.0	119	51	3.2	1.4	.87	.79	1.7
29	21	30	9.0	e13	---	203	32	2.6	1.4	.88	.70	1.3
30	17	23	57	e11	---	339	25	2.5	1.3	1.3	.67	1.3
31	14	---	208	e10	---	500	---	2.9	---	1.1	.69	---
TOTAL	527.1	1393	1391.5	1224	164.1	1564.2	4202	284.8	76.3	41.27	29.26	32.74
MEAN	17.0	46.4	44.9	39.5	5.86	50.5	140	9.19	2.54	1.33	.94	1.09
MAX	43	139	208	108	9.5	500	620	48	4.2	3.6	2.0	2.1
MIN	3.9	12	7.5	10	4.0	4.0	23	2.5	1.3	.82	.57	.71
CFSM	.89	2.44	2.36	2.08	.31	2.66	7.37	.48	.13	.07	.05	.06
IN.	1.03	2.73	2.72	2.40	.32	3.06	8.23	.56	.15	.08	.06	.06

e Estimated

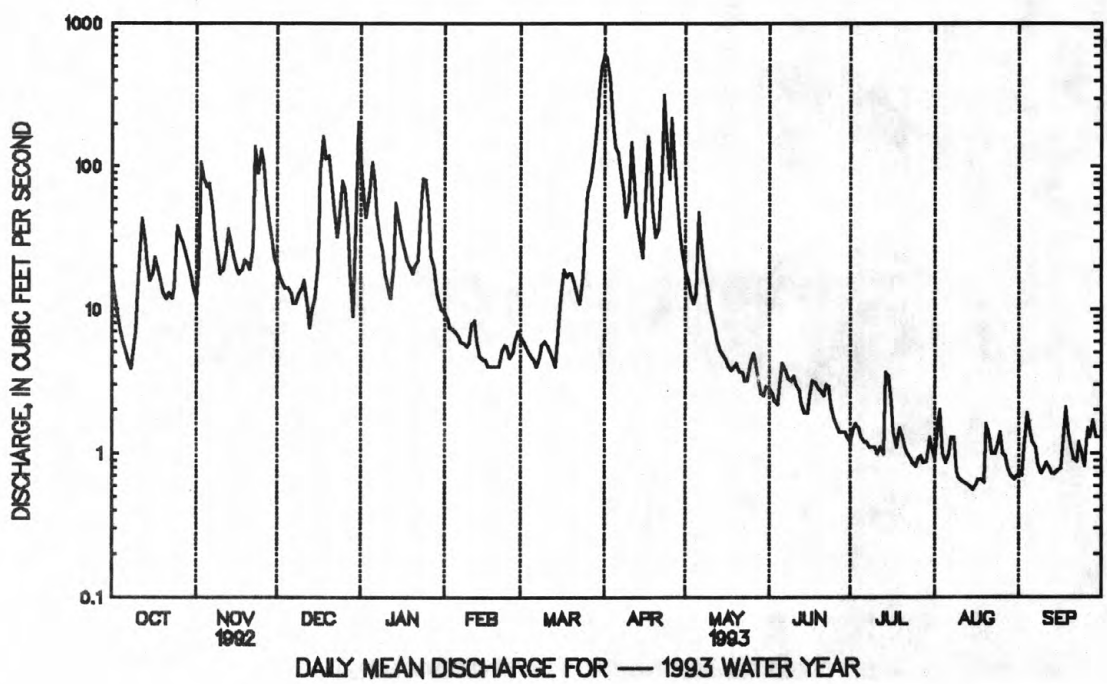
04235276 BLACK BROOK AT TYRE, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 1993, BY WATER YEAR (WY)

MEAN	11.7	22.1	28.0	25.1	25.6	38.8	49.4	17.4	6.91	8.76	5.78	5.11
MAX	23.6	46.4	61.5	41.5	65.6	55.1	140	51.2	19.4	43.8	27.5	24.7
(WY)	1991	1993	1991	1986	1990	1992	1993	1990	1989	1992	1992	1992
MIN	.81	1.87	2.22	2.74	5.01	22.3	11.8	2.79	1.19	1.33	.76	.56
(WY)	1992	1992	1989	1989	1989	1988	1988	1987	1988	1993	1988	1991

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1986 - 1993	
ANNUAL TOTAL	10922.8		10930.27			
ANNUAL MEAN	29.8		29.9		20.1	
HIGHEST ANNUAL MEAN					29.9	1993
LOWEST ANNUAL MEAN					9.58	1988
HIGHEST DAILY MEAN	451	Mar 27	620	Apr 1	620	Apr 1 1993
LOWEST DAILY MEAN	1.1	Jun 26	.57	Aug 15	.30	Sep 18 1991
ANNUAL SEVEN-DAY MINIMUM	1.2	Jun 24	.62	Aug 11	.35	Sep 16 1991
INSTANTANEOUS PEAK FLOW			656	Apr 1	786	Dec 14 1977
INSTANTANEOUS PEAK STAGE			4.29	Apr 1	a6.68	Nov 5 1970
INSTANTANEOUS LOW FLOW			.49	Aug 9	.26	Sep 18 1991
ANNUAL RUNOFF (CFSM)	1.57		1.58		1.06	
ANNUAL RUNOFF (INCHES)	21.39		21.40		14.38	
10 PERCENT EXCEEDS	76		80		50	
50 PERCENT EXCEEDS	16		7.0		7.0	
90 PERCENT EXCEEDS	2.3		.94		.90	

a Discharge not determined.



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 sea level. 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 sea level.

REMARKS.--Lake elevation regulated by gates on outlet at State dam. Area of water surface, 10.6 mi^2. Records for Feb. 1 to Mar. 26 and May 31 to June 23 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, 708.45 ft, Mar. 22, 23, 1993.

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, 714.91 ft, Apr. 26-27; minimum observed, 708.45 ft, Mar. 22, 23.

ELEVATION (FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	712.73	711.88	712.21	711.75	e710.56	e709.10	712.26	713.86	e712.32	712.50	712.11	711.54
2	712.70	711.86	712.21	711.75	e710.50	e709.21	713.37	713.67	e712.34	712.44	712.16	711.53
3	712.68	712.00	712.14	711.54	e710.43	e709.23	713.98	713.50	e712.34	712.46	712.12	711.59
4	712.64	712.05	712.11	711.64	e710.36	e709.22	714.04	713.44	e712.34	712.53	712.11	711.58
5	712.58	712.08	712.03	711.80	e710.30	e709.28	713.97	713.41	e712.37	712.53	712.07	711.55
6	712.52	712.13	711.98	711.88	e710.25	e709.28	713.93	713.39	e712.42	712.51	712.06	711.54
7	712.44	712.15	711.92	711.79	e710.15	e709.29	713.85	713.38	e712.46	712.56	712.02	711.57
8	712.38	712.17	711.86	711.68	e710.05	e709.30	713.77	713.33	e712.47	712.54	712.00	711.53
9	712.32	712.16	711.79	711.56	e709.98	e709.32	713.69	713.29	e712.54	712.52	711.98	711.51
10	712.30	712.13	711.67	711.43	e709.89	e709.35	713.72	713.24	e712.57	712.51	712.02	711.51
11	712.23	712.15	711.67	711.34	e709.82	e709.36	714.51	713.18	e712.49	712.49	711.99	711.51
12	712.21	712.07	711.58	711.19	e709.82	e709.42	714.77	713.11	e712.39	712.48	711.93	711.47
13	712.14	712.26	711.48	711.13	e709.84	e709.38	714.61	713.03	e712.29	712.46	711.89	711.42
14	712.11	712.27	711.40	711.11	e709.87	e709.28	714.37	712.94	e712.21	712.44	711.86	711.44
15	712.06	712.25	711.35	711.06	e709.90	e709.23	714.12	712.85	e712.13	712.42	711.85	711.42
16	712.04	712.23	711.23	711.03	e709.94	e709.19	713.94	712.78	e712.12	712.39	711.84	711.38
17	711.99	712.24	711.37	711.02	e709.92	e709.11	714.44	712.68	e712.12	712.36	711.81	711.22
18	711.95	712.20	711.58	710.96	e709.85	e708.95	714.81	712.62	e712.11	712.36	711.79	711.08
19	711.90	712.17	711.55	710.95	e709.76	e708.88	714.69	712.53	e712.13	712.38	711.76	711.05
20	711.86	712.11	711.78	710.94	e709.70	e708.81	714.46	712.46	e712.13	712.32	711.76	711.04
21	711.84	711.91	711.85	710.85	e709.60	e708.71	714.24	712.38	e712.15	712.28	711.75	711.03
22	711.84	712.11	711.89	710.88	e709.56	e708.45	714.28	712.38	e712.23	712.24	711.73	710.98
23	711.89	712.33	711.87	710.91	e709.51	e708.45	714.34	712.34	e712.24	712.21	711.72	710.99
24	711.87	712.42	711.72	710.93	e709.43	e708.54	714.53	712.30	712.46	712.23	711.73	710.95
25	711.89	712.53	711.50	710.97	e709.38	e708.61	714.73	712.36	712.40	712.20	711.66	710.97
26	711.95	712.55	711.48	710.94	e709.34	e708.70	714.86	712.38	712.40	712.19	711.64	710.95
27	711.94	712.46	711.27	710.89	e709.25	708.98	714.86	712.37	712.40	712.18	711.62	710.98
28	711.96	712.39	711.17	710.85	e709.17	709.23	714.64	712.41	712.49	712.14	711.59	711.00
29	711.97	712.29	711.25	710.78	---	709.70	714.35	712.36	712.51	712.13	711.56	710.94
30	711.93	712.21	711.32	710.69	---	710.40	714.07	712.37	712.51	712.10	711.54	710.91
31	711.92	---	711.62	710.64	---	711.25	---	e712.31	---	712.09	711.56	---
MEAN	712.15	712.19	711.67	711.19	709.86	709.20	714.21	712.86	712.34	712.36	711.85	711.27
MAX	712.73	712.55	712.21	711.88	710.56	711.25	714.86	713.86	712.57	712.56	712.16	711.59
MIN	711.84	711.86	711.17	710.64	709.17	708.45	712.26	712.30	712.11	712.09	711.54	710.91

CAL YR 1992 MEAN 711.83 MAX 713.19 MIN 709.53
WTR YR 1993 MEAN 711.77 MAX 714.86 MIN 708.45

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 sea level.

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.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	322	348	394	557	e450	e130	e650	1260	65	e82	76	72
2	360	364	471	552	e420	100	e1000	1150	61	e85	85	74
3	368	320	464	622	e390	88	e1750	903	61	e85	78	80
4	365	377	462	493	e360	86	e1850	694	60	e85	82	72
5	362	373	456	487	e325	86	e1800	577	65	e85	90	70
6	359	367	448	881	e295	86	e1750	524	48	e82	84	74
7	355	358	440	934	e265	88	e1700	498	72	e80	89	71
8	353	355	434	895	e250	95	e1700	483	64	e77	83	83
9	312	355	428	854	e245	92	e1600	459	65	e75	83	74
10	347	311	420	815	e240	91	e1750	465	251	e75	81	68
11	350	371	497	811	e275	90	e1950	465	414	e75	70	72
12	345	325	599	802	e315	256	e2000	458	415	e75	76	69
13	340	354	618	814	e340	384	e2000	452	421	e75	76	69
14	337	357	398	826	e380	329	e1950	448	419	e80	76	68
15	285	356	301	655	e400	273	e1850	457	223	e69	76	67
16	371	354	306	503	e405	273	e1810	466	78	e69	82	66
17	367	307	267	502	e390	316	1910	463	72	68	70	64
18	360	352	198	360	e370	355	2010	462	73	66	113	64
19	359	357	199	274	e340	353	1970	457	71	85	84	64
20	327	357	316	271	e325	353	1870	452	79	84	82	58
21	202	356	218	277	e290	356	1810	233	78	81	76	63
22	89	379	248	382	e280	185	1850	84	71	e81	73	60
23	193	437	633	377	e275	96	1910	83	71	e75	73	64
24	366	758	536	381	e245	e112	1960	80	70	e75	78	59
25	382	599	554	372	e235	e115	2000	113	70	e77	73	58
26	381	935	544	375	e220	e115	2020	86	72	e75	73	68
27	373	703	536	415	e195	e130	2020	76	e71	e75	72	62
28	335	825	534	497	e160	e160	1960	64	e75	e77	72	60
29	358	785	411	e550	---	e195	1840	61	e80	e77	72	59
30	330	468	307	e570	---	e275	1540	61	e82	e84	68	57
31	349	---	462	e495	---	e480	---	70	---	77	71	---
TOTAL	10302	13263	13099	17599	8680	6143	53780	12604	3817	2411	2437	2009
MEAN	332	442	423	568	310	198	1793	407	127	77.8	78.6	67.0
MAX	382	935	633	934	450	480	2020	1260	421	85	113	83
MIN	89	307	198	271	160	86	650	61	48	66	68	57

e Estimated

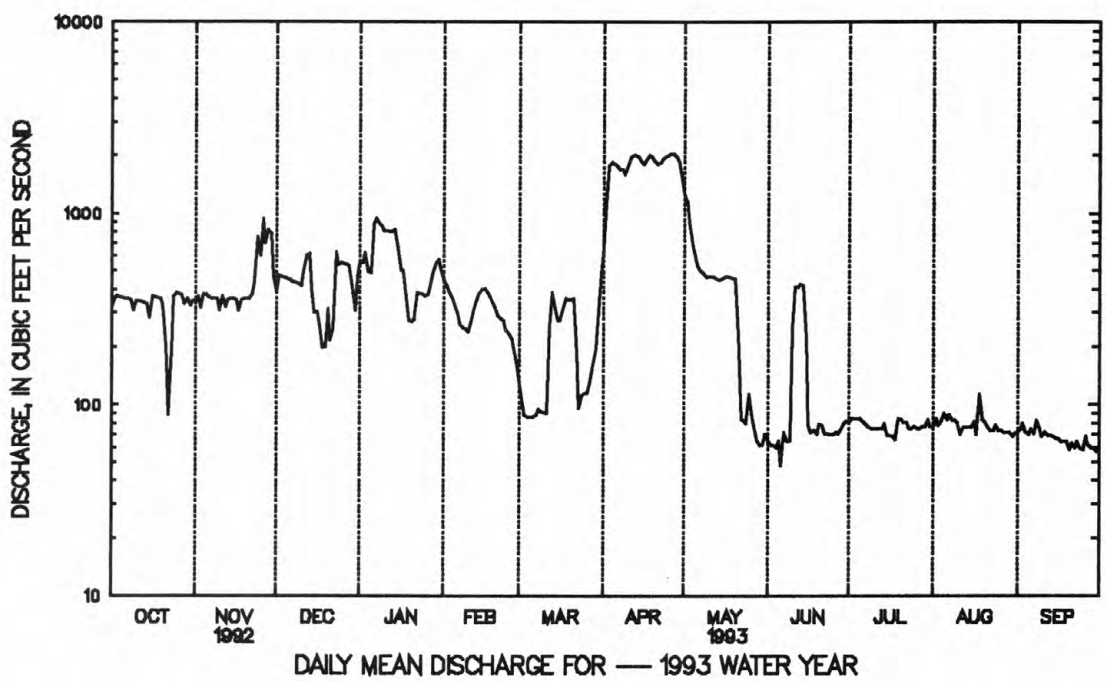
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 1993, BY WATER YEAR (WY)

MEAN	147	211	299	312	336	537	632	359	239	165	119	122
MAX	1013	773	1054	851	810	1255	1793	892	1066	620	366	597
(WY)	1978	1982	1928	1943	1990	1945	1993	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1913 - 1993	
ANNUAL TOTAL	136210		146144			
ANNUAL MEAN	372		400		290	
HIGHEST ANNUAL MEAN					436	1978
LOWEST ANNUAL MEAN					122	1965
HIGHEST DAILY MEAN	1510	Aug 1	2020	Apr 26	3200	Jun 24 1972
LOWEST DAILY MEAN	26	Feb 18	48	Jun 6	5.0	Nov 11 1934
ANNUAL SEVEN-DAY MINIMUM	71	Jul 1	60	Sep 24	11	Jan 29 1961
INSTANTANEOUS PEAK FLOW			2070	a	3250	Jun 23 1972
INSTANTANEOUS PEAK STAGE			4.53	a	6.28	Jun 23 1972
INSTANTANEOUS LOW FLOW			20	May 26	b2.0	Dec 5 1936
10 PERCENT EXCEEDS	637		865		650	
50 PERCENT EXCEEDS	366		311		199	
90 PERCENT EXCEEDS	88		70		47	

a Sometime during the period Apr. 1-16.
b 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 sea level. 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, 866.44 ft, Apr. 27; minimum observed, 862.65 ft, Mar. 24, 25, 27, 28.

ELEVATION (FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	864.20	863.60	863.65	863.36	863.22	862.95	863.35	866.32	864.85	864.53	863.98	863.54
2	864.15	863.58	863.61	863.38	863.20	862.94	863.65	866.29	864.85	864.53	863.95	863.51
3	864.13	863.63	863.57	863.38	863.21	862.95	863.92	866.25	864.81	864.55	863.98	863.55
4	864.11	863.63	863.55	863.40	863.18	862.92	863.99	866.21	864.78	864.53	863.97	863.53
5	864.09	863.67	863.55	863.45	863.16	862.89	864.04	866.18	864.75	864.50	863.97	863.50
6	864.02	863.70	863.54	863.50	863.15	862.86	864.05	866.15	864.81	864.46	863.95	863.47
7	863.95	863.68	863.51	863.53	863.13	862.83	864.12	866.12	864.81	864.44	863.93	863.47
8	863.88	863.65	863.45	863.52	863.11	862.83	864.17	866.08	864.78	864.42	863.94	863.45
9	863.81	863.62	863.40	863.54	863.10	862.83	864.25	866.00	864.85	864.42	863.91	863.43
10	863.75	863.59	863.36	863.48	863.10	862.81	864.31	865.92	864.80	864.41	863.88	863.41
11	863.71	863.56	863.30	863.48	863.07	862.81	864.75	865.85	864.77	864.40	863.85	863.41
12	863.75	e863.58	863.35	863.47	863.05	862.79	864.91	865.79	864.75	864.38	863.82	863.39
13	863.75	e863.60	863.31	863.47	863.09	862.78	865.01	865.73	864.70	864.35	863.79	863.36
14	863.75	863.61	863.28	863.47	863.09	862.90	865.02	865.67	864.68	864.32	863.78	863.33
15	863.78	863.61	863.26	863.50	863.09	862.90	865.03	865.61	864.65	864.28	863.75	863.30
16	863.80	863.61	863.29	863.53	863.06	862.90	865.10	865.54	864.65	864.27	863.75	863.26
17	863.75	863.59	863.35	863.50	863.09	862.87	865.37	865.49	864.62	864.24	863.73	863.23
18	863.72	863.58	863.40	863.43	863.07	862.84	865.57	865.42	864.60	864.22	863.71	863.19
19	863.70	863.57	863.40	863.36	863.05	862.80	865.60	865.34	864.65	864.20	863.67	863.15
20	863.67	863.55	863.45	863.30	863.03	862.75	865.57	865.29	864.71	864.25	863.65	863.11
21	863.65	863.55	863.42	863.29	863.01	862.75	865.70	865.20	864.73	864.23	863.66	863.07
22	863.65	863.53	863.38	863.25	863.05	862.71	865.70	865.13	864.68	864.18	863.68	863.03
23	863.62	863.68	863.35	863.25	863.05	862.67	865.85	865.09	864.65	864.14	863.66	863.00
24	863.60	863.68	863.35	863.23	863.03	862.65	865.96	865.05	864.62	864.11	863.64	863.00
25	863.62	863.75	863.32	863.22	863.01	862.65	865.97	864.97	864.59	864.08	863.66	862.98
26	863.64	863.75	863.29	863.28	863.00	862.67	866.38	864.91	864.56	864.05	863.65	863.02
27	863.62	863.71	863.25	863.26	862.98	862.65	866.44	864.87	864.55	864.03	863.63	863.03
28	863.60	863.68	863.22	863.25	862.98	862.65	866.41	864.84	864.55	864.01	863.60	863.05
29	863.57	863.68	863.25	863.25	---	862.70	866.39	864.82	864.57	863.98	863.57	863.01
30	863.62	863.70	863.28	863.25	---	862.95	866.35	864.81	864.56	864.01	863.53	862.96
31	863.63	---	863.33	863.24	---	863.08	---	864.79	---	864.01	863.49	---
MEAN	863.78	863.63	863.39	863.38	863.08	862.82	865.10	865.54	864.70	864.28	863.77	863.26
MAX	864.20	863.75	863.65	863.54	863.22	863.08	866.44	866.32	864.85	864.55	863.98	863.55
MIN	863.57	863.53	863.22	863.22	862.98	862.65	863.35	864.79	864.55	863.98	863.49	862.96

WTR YR 1993 MEAN 863.90 MAX 866.44 MIN 862.65

e Estimated

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 sea level (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 500 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 Thruway Authority, Office of Canals.

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

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4880	4260	5130	8040	6460	e1160	12200	16100	2880	808	1010	995
2	4860	4750	5340	8250	7690	e1560	14000	15300	2650	876	604	752
3	4870	5120	5610	8200	6840	e1610	15400	14600	2950	1470	904	982
4	4660	5760	5730	8160	6090	1630	16100	13900	2890	1650	1040	1260
5	4530	6190	6090	8270	6170	1040	16300	13300	2890	1550	1010	1180
6	4310	6190	6160	8260	6120	744	16300	13000	3110	1510	1020	809
7	4280	6110	6020	8100	e5950	1260	15900	12500	3300	1030	970	596
8	4280	5890	5790	7840	e5650	1600	15100	12000	3300	1830	858	643
9	4270	5530	2930	7550	e4650	1590	14100	11600	3100	2420	904	891
10	4310	5220	3260	7220	e3250	1620	13500	11200	3280	750	598	1330
11	4500	5110	4830	7000	e2250	1600	14300	10900	3380	684	561	1350
12	4710	4800	5190	6900	e2050	1310	14600	10600	3170	786	1080	1310
13	4820	4870	5430	7020	e1950	1950	14800	10200	2850	1450	974	800
14	4340	5290	5490	7250	e2050	2370	14800	9570	2480	1320	681	493
15	4450	5600	5690	7400	e2350	2790	14600	8780	2860	452	421	547
16	3940	5640	6040	7450	e1750	3090	14500	8350	2530	141	584	986
17	4140	5570	6280	7390	1760	3360	15100	8040	2460	340	1130	1150
18	4350	5240	6820	7260	e1390	3450	15500	7920	2400	620	1070	1080
19	4510	5280	7090	7070	701	3240	15500	7840	2320	939	943	786
20	2890	5570	7250	6880	782	3000	15400	7790	2420	1980	560	478
21	2400	5630	7240	6750	1570	3030	15400	7310	2520	561	472	581
22	3290	5890	7250	6810	2000	3390	15600	6570	2710	542	862	896
23	3380	6070	7220	6960	1800	3490	16600	5920	2690	616	1140	1070
24	3740	6230	7280	7230	e2160	4030	17300	5190	2630	291	1140	652
25	4150	6480	7160	7650	e2060	4470	17500	4590	2530	385	965	510
26	4760	6270	6770	7640	e1960	5010	18000	4290	1250	738	1070	1000
27	5050	6000	6130	7540	e1860	5600	18100	3980	332	987	1170	1210
28	4750	5870	6500	7240	e1660	6150	17800	3230	300	908	1110	1300
29	4490	5570	6490	7050	---	7300	17300	2840	479	907	847	1300
30	3790	5290	6790	6180	---	8800	16800	2850	826	972	433	1210
31	4020	---	7490	6030	---	10500	---	2850	---	976	511	---
TOTAL	131720	167290	188490	228590	90973	101744	468400	273110	73487	30489	26642	28147
MEAN	4249	5576	6080	7374	3249	3282	15610	8810	2450	984	859	938
MAX	5050	6480	7490	8270	7690	10500	18100	16100	3380	2420	1170	1350
MIN	2400	4260	2930	6030	701	744	12200	2840	300	141	421	478

e Estimated

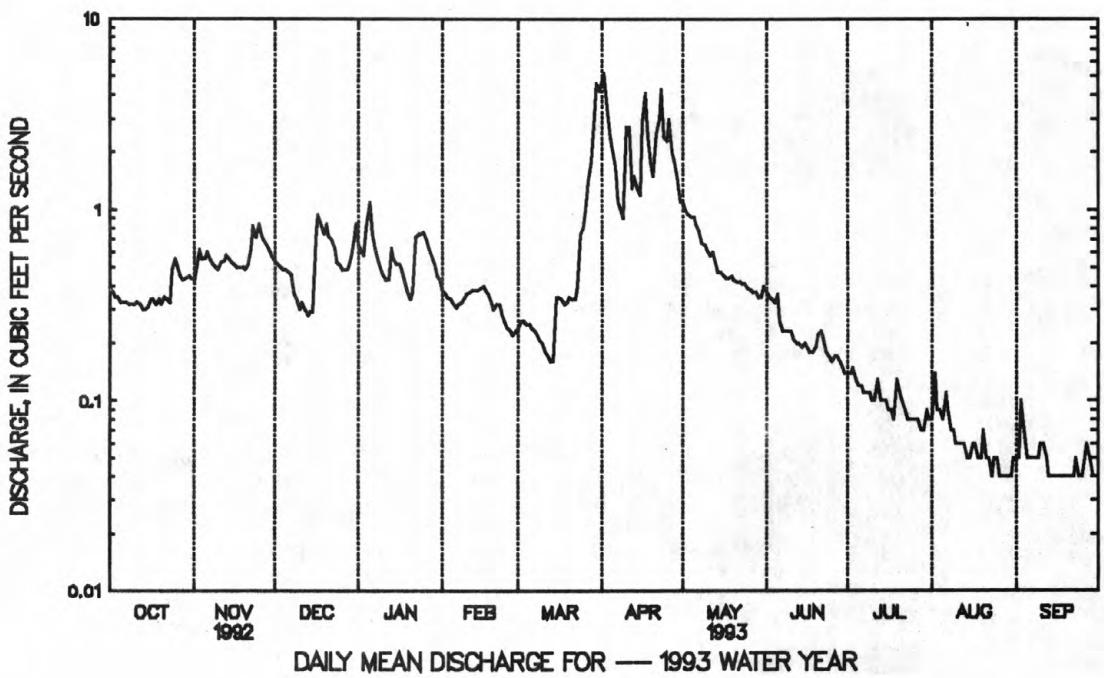
04237500 SENECA RIVER AT BALDWINSVILLE, NY--continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1993, BY WATER YEAR (WY)

MEAN	2236	3240	4380	3974	3873	5821	6118	4005	2638	1995	1581	1513
MAX	11020	9491	10330	8807	8313	11650	15610	8882	6456	12100	6214	4760
(WY)	1978	1978	1978	1978	1976	1956	1993	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

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1950 - 1993	
ANNUAL TOTAL	1634859		1809082			
ANNUAL MEAN	4467		4956		3442	
HIGHEST ANNUAL MEAN					5998	1978
LOWEST ANNUAL MEAN					1357	1965
HIGHEST DAILY MEAN	9520	Aug 4	18100	Apr 27	18100	Apr 27 1993
LOWEST DAILY MEAN	772	Feb 6	141	Jul 16	a34	Sep 17 1985
ANNUAL SEVEN-DAY MINIMUM	902	Feb 9	589	Jul 21	283	Sep 23 1988
10 PERCENT EXCEEDS	6910		12300		7640	
50 PERCENT EXCEEDS	4490		4260		2340	
90 PERCENT EXCEEDS	1580		770		924	

a 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 current year.

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.-- Maximum discharge, 9.2 ft3/s, Apr. 10, gage height 1.24 ft; maximum gage height, 1.26 ft, Mar 30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.39	.43	.54	e.66	e.38	e.24	4.8	1.1	.37	.14	.08	.05
2	.37	.50	.52	e.60	e.36	e.26	5.2	.98	.35	.14	.14	.05
3	.35	.62	.50	e.58	e.35	e.26	3.4	.95	.34	.15	.09	.10
4	.35	.55	.49	.86	e.34	e.25	2.4	.92	.33	.13	.09	.07
5	.33	.56	.48	1.1	e.32	e.25	2.0	.92	.36	.12	.08	.05
6	.33	.61	.47	e.75	e.31	e.24	1.7	.83	.26	.12	.11	.05
7	.33	.55	e.46	e.63	e.32	e.23	1.1	.78	.23	.11	.09	.05
8	.32	.52	e.36	e.56	e.33	e.22	.98	.67	.23	.11	.07	.05
9	.32	.50	e.34	e.49	e.35	e.21	.90	.65	.23	.11	.07	.05
10	.32	.49	e.30	e.46	e.36	e.20	2.7	.62	.23	.10	.06	.06
11	.33	.53	e.33	e.43	e.37	e.18	2.7	.58	.21	.10	.06	.06
12	.32	.54	e.30	e.43	e.38	e.17	1.3	.60	.20	.13	.06	.05
13	.30	.58	e.28	e.63	e.38	e.16	1.5	.55	.20	.10	.06	.04
14	.30	.55	e.29	e.56	e.38	e.16	1.3	.47	.19	.10	.05	.04
15	.31	.53	e.29	e.52	.39	e.35	1.2	.47	.20	.10	.05	.04
16	.34	.51	e.70	e.52	.40	e.35	2.9	.45	.19	.09	.06	.04
17	.34	.50	e.94	e.49	.38	e.34	4.1	.44	.18	.09	.06	.04
18	.32	.50	e.84	e.42	e.36	e.32	2.4	.44	.18	.08	.05	.04
19	.34	.50	e.75	e.37	e.33	e.33	1.8	.45	.19	.13	.05	.04
20	.32	.49	e.84	e.34	e.30	e.35	1.5	.43	.22	.11	.07	.04
21	.35	.51	e.73	e.37	e.32	e.34	2.5	.42	.23	.10	.05	.04
22	.34	.62	e.69	.72	e.32	e.34	3.0	.42	.21	.09	.05	.04
23	.33	.82	e.63	.75	e.28	e.40	4.3	.41	.18	.08	.04	.05
24	.48	.72	e.53	e.75	e.26	e.75	2.4	.41	.17	.08	.05	.04
25	.56	.84	e.51	.76	e.24	e.80	2.3	.39	.16	.08	.05	.04
26	.49	.74	e.48	.70	e.23	1.0	3.0	.38	.17	.08	.04	.05
27	.45	.69	e.48	.64	e.22	1.4	2.0	.37	.17	.08	.04	.06
28	.43	.65	e.49	.58	e.23	1.8	1.7	.37	.16	.07	.04	.05
29	.44	.61	e.56	e.52	---	3.1	1.4	.35	.15	.07	.04	.04
30	.45	.57	e.70	e.45	---	4.6	1.1	.35	.14	.09	.04	.04
31	.44	---	e.84	e.43	---	4.2	---	.40	---	.08	.05	---
TOTAL	11.39	17.33	16.66	18.07	9.19	23.80	69.58	17.57	6.63	3.16	1.94	1.46
MEAN	.37	.58	.54	.58	.33	.77	2.32	.57	.22	.10	.063	.049
MAX	.56	.84	.94	1.1	.40	4.6	5.2	1.1	.37	.15	.14	.10
MIN	.30	.43	.28	.34	.22	.16	.90	.35	.14	.07	.04	.04
CFSM	1.41	2.22	2.07	2.24	1.26	2.95	8.92	2.18	.85	.39	.24	.19
IN.	1.63	2.48	2.38	2.59	1.31	3.41	9.96	2.51	.95	.45	.28	.21

e Estimated

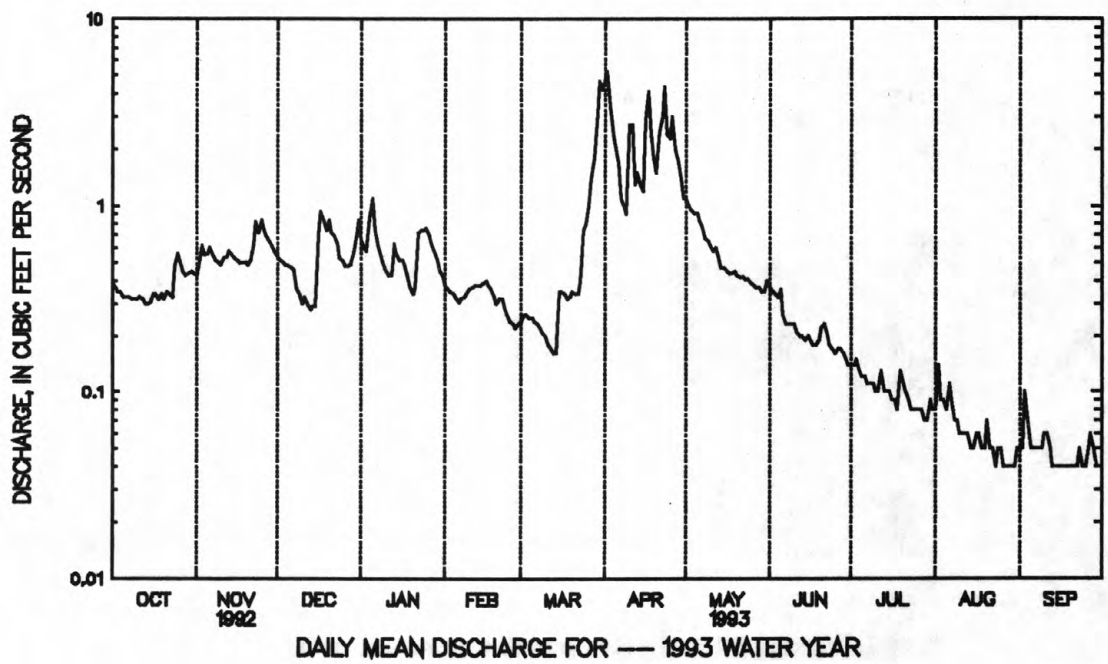
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1993, BY WATER YEAR (WY)

MEAN	.22	.42	.93	1.38	1.36	2.31	3.18	1.07	.67	.32	.33	.22
MAX	.37	.58	1.32	2.17	2.36	3.85	4.04	1.58	1.11	.54	.60	.39
(WY)	1993	1993	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992
MIN	.068	.26	.54	.58	.33	.77	2.32	.57	.22	.10	.063	.049
(WY)	1992	1992	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993

04237944 ONONDAGA CREEK TRIBUTARY NO. 6 ABOVE MAIN MUDBOIL DEPRESSION AREA, NEAR TULLY, NY -- continued

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1992 - 1993	
ANNUAL TOTAL	550.34		196.78			
ANNUAL MEAN	1.50		.54		1.03	
HIGHEST ANNUAL MEAN					1.52	1992
LOWEST ANNUAL MEAN					.54	1993
HIGHEST DAILY MEAN	12	Mar 27	5.2	Apr 2	12	Mar 27 1992
LOWEST DAILY MEAN	.17	Jul 2	.04	Aug 23	.04	Oct 3 1991
ANNUAL SEVEN-DAY MINIMUM	.20	Jul 1	.04	Sep 13	.04	Sep 13 1993
INSTANTANEOUS PEAK FLOW			9.2	Apr 10	16	Mar 27 1992
INSTANTANEOUS PEAK STAGE			1.26	Mar 30	1.66	May 31 1992
INSTANTANEOUS LOW FLOW			.03	a	.03	Oct 8 1991
ANNUAL RUNOFF (CFSM)	2.31		2.07		2.03	
ANNUAL RUNOFF (INCHES)	31.77		28.15		27.70	
10 PERCENT EXCEEDS	3.8		.99		3.0	
50 PERCENT EXCEEDS	.69		.35		.48	
90 PERCENT EXCEEDS	.32		.05		.06	

a Aug. 27,31, Sep. 13,14,19-22,24,25, and 30.



04237944 ONONDAGA CREEK TRIBUTARY NO. 6 ABOVE MAIN MUDBOIL DEPRESSION AREA, NEAR TULLY, NY--continued

PERIOD OF RECORD.--October 1991 to current year.
CHEMICAL DATA: 1992-93 (d).
SEDIMENT DATA: 1992-93 (d).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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												
21...	0900	0.36	614	7.6	8.5	--	8.7	75	320	100	18	8.3
NOV												
20...	0930	0.49	601	7.7	5.0	--	11.4	84	310	93	19	8.9
DEC												
09...	0900	0.42	636	7.6	3.0	762	11.1	82	360	110	20	8.0
JAN												
20...	0900	0.34	604	7.7	3.0	765	11.0	82	320	97	19	8.0
MAR												
02...	0930	0.26	597	7.4	2.5	742	12.7	96	300	92	18	10
30...	0830	3.1	388	7.4	7.0	747	11.6	98	190	59	11	5.7
APR												
02...	0930	5.0	369	7.5	4.5	742	11.8	94	180	53	11	5.5
MAY												
04...	1100	0.92	534	7.6	12.0	758	14.1	132	280	83	17	9.5
26...	0930	0.42	571	7.7	10.0	755	10.8	97	290	88	17	7.3
JUN												
30...	0830	0.15	583	7.8	13.5	751	10.2	99	290	87	17	8.5
AUG												
03...	0815	0.10	614	7.4	16.0	750	8.1	84	290	86	18	9.6
SEP												
08...	0800	0.05	554	7.7	13.0	753	5.8	56	300	91	18	11

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												
21...	1.6	12	25	264	322	6.8	382	21	53	0.020	7	0.01
NOV												
20...	1.4	21	24	276	337	5.6	383	9	28	0.040	47	0.06
DEC												
09...	1.5	13	220	292	356	8.7	350	12	28	0.020	156	0.18
JAN												
20...	1.5	22	27	270	329	6.0	381	12	24	<0.010	1	0.00
MAR												
02...	1.5	19	26	276	337	5.7	375	13	33	0.030	73	0.05
30...	3.4	10	21	160	195	5.1	237	14	20	<0.010	17	0.14
APR												
02...	3.7	11	21	170	207	5.0	217	15	19	0.010	23	0.31
MAY												
04...	1.3	19	25	232	283	5.0	410	10	40	0.020	131	0.33
26...	1.3	--	23	238	290	5.5	344	20	52	0.040	6	0.01
JUN												
30...	1.4	16	25	252	308	6.6	336	14	58	0.040	16	0.01
AUG												
03...	2.8	12	29	240	293	7.4	368	18	150	<0.010	25	0.01
SEP												
08...	2.3	10	35	246	300	7.2	140	13	120	0.020	--	--

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 current year.

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.--Maximum discharge 9.0 ft3/s, Apr 10, gage height 1.60 ft.

REVISIONS.--The maximum discharge for water year 1992 has been revised to 45 ft3/s. Mar. 27, 1992, gage height, 2.08 ft.

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

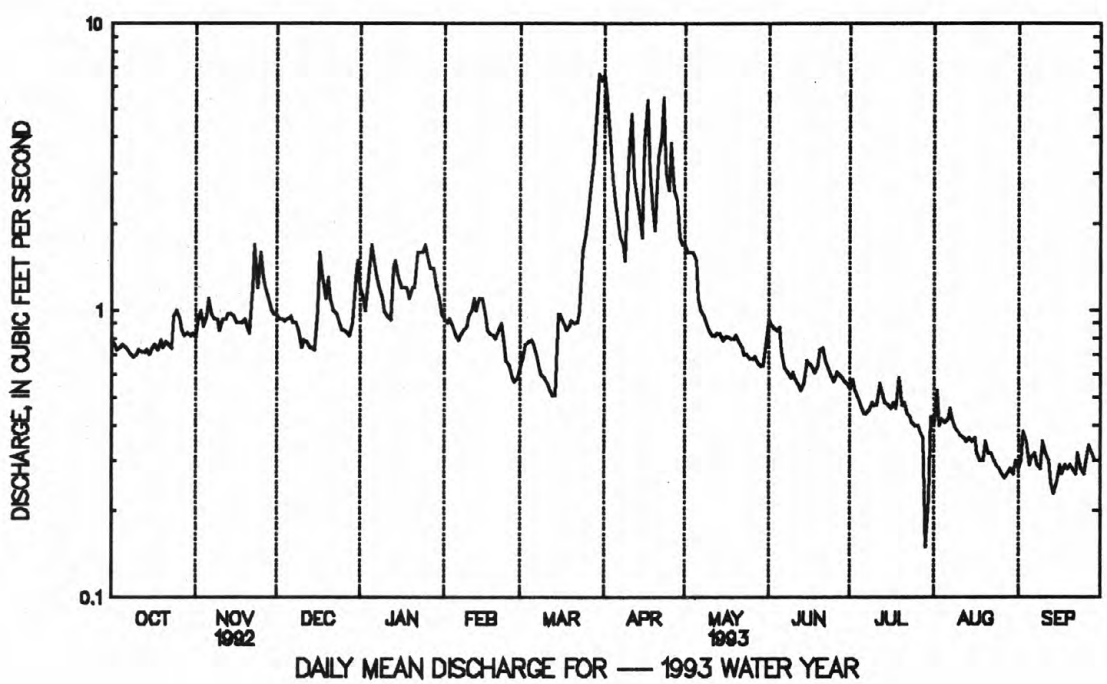
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.79	.81	.97	1.2	e.94	e.63	6.7	1.7	.93	.54	.40	.28
2	.76	.94	.94	1.1	e.91	e.69	5.8	1.6	.89	.58	.53	.30
3	.73	1.0	.93	1.0	e.94	e.76	4.2	1.6	.87	.53	.40	.38
4	.74	.88	.92	1.3	e.89	.78	2.9	1.6	.85	.50	.42	.35
5	.76	.95	.94	1.7	e.82	.79	2.4	1.5	.87	.47	.41	.29
6	.75	1.1	.95	1.5	e.79	.77	2.1	1.1	.72	.44	.42	.31
7	.73	.97	.91	1.3	e.82	e.70	1.8	1.0	.63	.44	.46	.32
8	.71	.94	.91	1.2	e.85	e.63	1.7	.96	.61	.45	.41	.29
9	.69	.93	.85	1.1	e.88	e.60	1.5	.89	.59	.48	.39	.28
10	.70	.85	.75	.99	e.95	e.59	3.3	.85	.61	.47	.38	.35
11	.73	.93	.79	.95	1.0	e.56	4.8	.82	.58	.47	.37	.32
12	.72	.93	.78	.93	1.1	e.53	2.9	.82	.55	.56	.36	.30
13	.72	.98	.75	1.4	1.0	e.51	2.6	.83	.53	.51	.35	.25
14	.73	.98	.74	1.5	1.1	e.51	e2.2	.83	.56	.48	.36	.23
15	.71	.96	.73	1.3	1.1	e.97	1.8	.79	.67	.47	.35	.25
16	.75	.91	1.0	1.2	e.95	.97	3.9	.81	.66	.46	.36	.29
17	.76	.91	1.6	1.2	e.85	e.91	5.4	.81	.64	.48	.32	.27
18	.73	.91	1.3	1.2	e.83	e.86	3.0	.80	.61	.46	.30	.29
19	.79	.93	1.1	1.1	e.82	e.88	2.3	.80	.64	.59	.30	.28
20	.75	.89	1.3	1.2	e.80	.92	1.9	.82	.73	.47	.35	.29
21	.78	.84	1.1	1.2	e.85	.90	3.4	.78	.74	.48	.32	.28
22	.76	1.2	1.0	1.6	e.90	.91	4.0	.75	.67	.44	.32	.27
23	.74	1.7	.98	1.6	e.77	1.0	5.5	.70	.63	.43	.30	.32
24	.95	1.2	.93	1.6	e.67	1.6	3.0	.71	.60	.41	.29	.28
25	1.0	1.6	.86	1.7	e.65	1.8	2.6	.68	.57	.40	.28	.27
26	.94	1.3	.85	1.5	e.59	2.1	3.8	.68	.61	.40	.27	.31
27	.86	1.2	.84	1.4	e.57	2.6	2.6	.69	.60	.38	.26	.34
28	.82	1.1	.82	1.4	e.59	3.3	2.4	.66	.59	.36	.27	.32
29	.84	1.0	.91	e1.2	---	5.0	1.8	.64	.57	.15	.28	.30
30	.82	.98	1.3	e1.1	---	6.7	1.7	.64	.56	.22	.27	.30
31	.83	---	1.5	e.97	---	6.3	---	.76	---	.43	.30	---
TOTAL	24.09	30.82	30.25	39.64	23.93	46.77	94.0	28.62	19.88	13.95	10.80	8.91
MEAN	.78	1.03	.98	1.28	.85	1.51	3.13	.92	.66	.45	.35	.30
MAX	1.0	1.7	1.6	1.7	1.1	6.7	6.7	1.7	.93	.59	.53	.38
MIN	.69	.81	.73	.93	.57	.51	1.5	.64	.53	.15	.26	.23
CFSM	2.43	3.21	3.05	4.00	2.67	4.71	9.79	2.89	2.07	1.41	1.09	.93
IN.	2.80	3.58	3.52	4.61	2.78	5.44	10.93	3.33	2.31	1.62	1.26	1.04
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1993, BY WATER YEAR (WY)												
MEAN	.58	.85	1.44	2.05	1.97	3.33	4.03	1.67	1.20	.94	.67	.54
MAX	.78	1.03	1.90	2.82	3.05	5.15	4.93	2.42	1.74	1.43	1.00	.78
(WY)	1993	1993	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992
MIN	.39	.66	.98	1.28	.85	1.51	3.13	.92	.66	.45	.35	.30
(WY)	1992	1992	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993

e Estimated

04237946 ONONDAGA CREEK TRIBUTARY NO. 6 BELOW MAIN MUDBOIL DEPRESSION AREA AT TULLY, NY--continued

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1992-1993	
ANNUAL TOTAL	794.12		371.66			
ANNUAL MEAN	2.17		1.02		1.60	
HIGHEST ANNUAL MEAN					2.19	1992
LOWEST ANNUAL MEAN					1.02	1993
HIGHEST DAILY MEAN	20	Mar 27	6.7	Mar 30	20	Mar 27 1992
LOWEST DAILY MEAN	.64	Sep 15	.15	Jul 29	.15	Jul 29 1993
ANNUAL SEVEN-DAY MINIMUM	.68	Sep 12	.27	Sep 13	.27	Sep 13 1993
INSTANTANEOUS PEAK FLOW			9.0	Apr 10	45	Mar 27 1992
INSTANTANEOUS PEAK STAGE			1.60	Apr 10	2.08	Mar 27 1992
INSTANTANEOUS LOW FLOW			a .00	Jul 29	a .00	Jul 29 1993
ANNUAL RUNOFF (CFSM)	3.53		3.18		3.02	
ANNUAL RUNOFF (INCHES)	45.50		43.21		41.06	
10 PERCENT EXCEEDS	5.0		1.7		3.9	
50 PERCENT EXCEEDS	1.3		.81		.95	
90 PERCENT EXCEEDS	.75		.32		.38	

a Result of dam construction.



04237946 ONONDAGA CREEK TRIBUTARY NO. 6 BELOW MAIN MUDBOIL DEPRESSION AREA AT TULLY, NY--continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1991 to current year.
CHEMICAL DATA: 1992-93 (d).
SEDIMENT DATA: 1992-93 (e).

PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT DISCHARGE: October 1991 to current year.

EXTREMES FOR CURRENT YEAR.--
SUSPENDED-SEDIMENT CONCENTRATION: Maximum daily mean 17,900 mg/L, July 29; minimum daily mean 22 mg/L, Aug.19.
SUSPENDED-SEDIMENT DISCHARGE: Maximum daily mean 36 tons, Dec. 3; minimum daily mean 0.02 tons, on many days during August and September.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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												
21...	0800	0.76	5930	7.8	8.0	--	9.0	80	680	150	74	960
NOV												
20...	0830	0.97	5300	7.9	5.5	--	11.2	88	630	140	68	870
DEC												
09...	0800	1.0	5960	7.8	3.5	762	10.9	84	710	160	75	980
JAN												
20...	0830	0.94	5170	7.6	4.0	765	11.3	87	620	140	65	850
MAR												
02...	0900	0.88	5970	8.0	5.5	742	9.7	81	710	160	76	1000
30...	0900	5.2	1620	7.7	4.0	747	11.4	89	280	77	22	210
APR												
02...	0830	5.7	1600	7.8	5.0	742	12.0	97	250	69	20	240
MAY												
04...	1130	1.6	4750	8.0	14.0	758	10.5	104	560	130	57	800
26...	0830	0.70	6270	7.9	11.0	755	10.8	101	680	150	74	1100
JUN												
30...	0745	0.59	7760	7.8	12.5	751	10.3	100	800	170	90	1300
AUG												
03...	0845	0.44	7230	7.4	16.0	750	7.1	75	430	160	8.5	1200
SEP												
08...	0830	0.30	7400	7.5	12.5	753	6.8	66	860	190	94	1400

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												
21...	4.2	1600	200	196	239	9.7	3400	<10	240	2.5	4500	9.2
NOV												
20...	3.5	1500	170	200	244	8.0	2820	20	150	2.3	6240	16
DEC												
09...	3.6	1700	220	184	225	8.6	3410	20	150	0.090	4240	11
JAN												
20...	3.3	1600	190	192	234	8.7	3140	10	140	4.4	2410	6.1
MAR												
02...	4.2	1800	270	176	215	9.4	3050	<10	220	6.8	3940	9.4
30...	3.6	400	56	172	210	5.7	1180	8	76	0.47	1000	14
APR												
02...	3.9	430	62	172	210	5.3	1010	6	62	0.53	773	12
MAY												
04...	3.4	1400	180	190	232	7.5	2910	<6	98	0.75	5810	25
26...	19	1700	210	156	190	8.1	3680	<10	160	2.7	3460	6.5
JUN												
30...	14	2500	270	164	200	9.8	4530	<10	140	3.3	4300	6.8
AUG												
03...	26	1700	260	148	181	9.6	4410	70	350	3.1	47	0.06
SEP												
08...	4.7	2300	280	158	193	10	4790	20	170	3.4	52	0.04

04237946 ONONDAGA CREEK TRIBUTARY NO. 6 BELOW MAIN MUDBOIL DEPRESSION AREA AT TULLY, NY--continued

SEDIMENT, SUSPENDED CONCENTRATION (MG/L), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5360	5330	4320	3970	7290	5310	723	6570	4220	4060	100	44
2	6710	4950	8230	4760	6380	4940	955	5720	4050	4370	59	36
3	11000	5130	14300	5450	6130	7450	1440	6450	4280	4620	69	38
4	12100	6580	7390	6000	6610	6420	1820	5780	3720	4100	44	37
5	9260	4680	7090	3290	7180	6960	1640	4370	3530	4280	30	35
6	7080	4280	7820	5760	7270	6510	1160	5000	3340	5540	23	34
7	5470	3880	4830	4300	7690	5970	832	5100	2960	7440	30	38
8	5220	4280	4370	5440	6880	4890	2270	4810	3580	8610	29	47
9	5270	4930	4200	4850	8060	5410	2400	4700	3160	7460	24	33
10	5240	6140	6890	4350	9620	5470	1070	5120	4030	6840	27	49
11	5220	6010	5310	3770	11700	4660	735	4070	3610	6670	34	38
12	5350	5470	3920	2720	8070	4560	3000	3720	4050	6330	40	24
13	5550	3460	4290	2140	7780	5700	3630	3260	4660	5130	31	37
14	5440	4250	4970	2500	7320	4210	2480	4380	4330	3340	29	40
15	5060	3700	4680	2590	5260	3240	3120	3910	4040	2990	29	34
16	4550	5280	3840	2990	5950	3550	1150	3190	4440	3610	39	31
17	4530	4260	3730	2860	5590	2110	954	3820	4310	4500	37	31
18	5540	3570	2700	2710	6120	1720	2350	3840	4200	4910	26	32
19	5610	4090	2330	2390	5870	2120	4480	4000	4200	4240	22	27
20	4030	5440	2310	2960	8160	2950	4260	4490	3730	6540	34	36
21	4210	6160	5510	4370	6360	3090	1840	6040	4520	6810	30	50
22	4930	4820	3800	3280	4510	2380	1780	5650	3710	8380	25	30
23	5380	2960	3490	2640	6680	1830	1170	5170	3730	11200	38	37
24	3740	4020	4180	3920	7190	1180	1940	5300	3930	10300	34	23
25	2730	4760	6360	3010	6380	1400	2240	4770	3230	10400	29	28
26	3490	3850	6250	2620	4860	2080	1300	3810	2390	10500	39	37
27	3570	2800	6750	3180	4970	1640	2140	3970	2610	9640	34	40
28	3040	2660	5700	3360	4340	1210	4460	4360	3580	9990	34	41
29	2820	3450	4860	4500	---	1150	5630	5250	3570	17900	40	31
30	3200	3930	3120	7990	---	1050	5840	5980	4190	8560	29	35
31	3330	---	2830	6720	---	1350	---	5430	---	495	43	---
MEAN	5290	4500	5170	3920	6790	3630	2290	4780	3800	6770	36	36
MAX	12100	6580	14300	7990	11700	7450	5840	6570	4660	17900	100	50
MIN	2730	2660	2310	2140	4340	1050	723	3190	2390	495	22	23

04237946 ONONDAGA CREEK TRIBUTARY NO. 6 BELOW MAIN MUDBOIL DEPRESSION AREA AT TULLY, NY--continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	12	11	13	18	9.0	13	30	11	5.9	.11	.03
2	14	12	21	14	16	9.2	15	25	9.8	6.9	.08	.03
3	22	14	36	15	16	15	16	27	10	6.6	.07	.04
4	24	16	18	22	16	14	14	24	8.5	5.6	.05	.03
5	19	12	18	15	16	15	11	18	8.3	5.4	.03	.03
6	14	13	20	23	15	14	6.5	15	6.6	6.5	.03	.03
7	11	10	12	15	17	11	4.1	14	5.0	8.8	.04	.03
8	10	11	11	18	16	8.3	10	13	5.9	10	.03	.04
9	9.8	12	9.6	14	19	8.8	9.7	11	5.1	9.7	.03	.03
10	9.9	14	14	12	25	8.7	7.7	12	6.6	8.6	.03	.05
11	10	15	11	9.7	33	7.1	8.7	9.0	5.6	8.5	.03	.03
12	10	14	8.3	6.8	23	6.5	24	8.3	6.0	9.7	.04	.02
13	11	9.1	8.7	8.2	22	7.9	26	7.4	6.6	6.9	.03	.02
14	11	11	10	9.9	21	5.8	15	9.7	6.6	4.3	.03	.03
15	9.6	9.6	9.3	9.2	15	8.5	15	8.3	7.3	3.8	.03	.02
16	9.2	13	10	10	15	9.3	10	6.9	7.9	4.5	.04	.02
17	9.3	10	15	9.4	13	5.2	13	8.3	7.4	5.8	.03	.02
18	11	8.8	9.8	8.6	14	4.0	19	8.3	6.9	6.1	.02	.02
19	12	10	6.8	7.3	13	5.0	27	8.6	7.2	6.6	.02	.02
20	8.1	13	8.1	9.3	18	7.4	22	10	7.4	8.3	.03	.03
21	8.9	14	17	14	15	7.5	16	13	9.0	8.9	.03	.04
22	10	13	11	14	11	5.9	19	11	6.7	10	.02	.02
23	11	13	9.2	11	14	5.1	17	9.7	6.4	13	.03	.03
24	9.1	13	10	17	13	5.2	15	10	6.4	11	.03	.02
25	7.7	20	15	14	11	6.8	16	8.7	5.0	11	.02	.02
26	8.8	13	14	11	7.7	12	13	7.0	3.9	11	.03	.03
27	8.3	9.1	15	12	7.6	11	15	7.4	4.2	10	.02	.04
28	6.8	7.9	13	12	6.9	11	29	7.8	5.7	9.7	.02	.04
29	6.4	9.5	12	15	---	15	27	9.1	5.5	4.4	.03	.02
30	7.1	10	10	24	---	19	27	10	6.3	2.4	.02	.03
31	7.5	---	12	18	---	21	---	11	---	.59	.04	---
TOTAL	337.5	362.0	405.8	411.4	447.2	299.2	480.7	378.5	204.8	230.49	1.09	0.86
MEAN	11	12	13	13	16	9.7	16	12	6.8	7.4	.04	.03
MAX	24	20	36	24	33	21	29	30	11	13	.11	.05
MIN	6.4	7.9	6.8	6.8	6.9	4.0	4.1	6.9	3.9	.59	.02	.02

04237946 ONONDAGA CREEK TRIBUTARY NO. 6 BELOW MAIN MUDBOIL DEPRESSION AREA AT TULLY, NY--continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, PERIOD AUGUST 1992 TO SEPTEMBER 1993

WATER-QUALITY DATA

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
NOV							
23...	1630	1.5	3360	14	--	--	--
JAN							
02...	1618	1.1	8530	25	48	58	71
MAR							
30...	0800	5.5	1750	26	30	37	47
30...	0900	5.2	1000	14	--	--	--
APR							
02...	0830	5.7	773	12	--	--	--
10...	1900	4.8	786	10	46	57	67
17...	0950	5.2	939	13	--	--	--
23...	1230	6.9	1130	21	--	--	--
JUN							
30...	0745	0.59	4300	6.8	--	--	--
AUG							
03...	0845	0.44	47	0.06	--	--	--
06...	1630	0.39	20	0.02	--	--	--
SEP							
14...	1800	0.21	39	0.02	--	--	--
23...	1845	0.35	46	0.04	--	--	--

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
NOV							
23...	--	--	85	--	--	--	--
JAN							
02...	80	83	83	92	94	100	100
MAR							
30...	57	67	79	93	99	100	--
30...	--	--	98	--	--	--	--
APR							
02...	--	--	99	--	--	--	--
10...	77	82	94	99	100	--	--
17...	--	--	97	--	--	--	--
23...	--	--	77	--	--	--	--
JUN							
30...	--	--	97	--	--	--	--
AUG							
03...	--	--	100	--	--	--	--
06...	--	--	93	--	--	--	--
SEP							
14...	--	--	100	--	--	--	--
23...	--	--	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, 4.0 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 sea level (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, 479.00 ft, Apr. 3, contents, 3,200 acre-ft; minimum elevation, 459.74 ft, July 30, Aug. 31, and Sep. 1, 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 ABOVE SEA LEVEL), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	462.37	461.99	462.86	463.92	462.49	461.61	474.75	464.67	461.71	460.37	459.88	459.75
2	462.14	461.95	462.74	463.84	462.34	461.75	477.08	464.10	461.65	460.30	459.96	459.77
3	461.93	462.58	462.62	463.54	462.30	461.77	478.75	463.81	461.30	460.36	460.33	459.79
4	461.72	462.92	462.52	463.47	462.33	461.81	478.04	463.47	461.05	460.37	460.24	459.91
5	461.51	462.84	462.44	463.94	462.31	461.80	475.61	463.43	460.98	460.29	460.14	459.97
6	461.35	462.88	462.35	464.33	462.23	461.80	472.76	463.61	461.78	460.20	460.09	459.96
7	461.25	462.90	462.27	464.03	461.94	461.78	470.32	463.44	461.78	460.13	460.04	460.02
8	461.16	462.81	462.21	463.65	462.02	461.87	468.13	463.23	461.37	460.07	460.11	460.05
9	461.11	462.67	462.06	463.33	462.01	462.09	466.64	463.07	461.16	460.01	460.13	460.02
10	461.23	462.54	461.84	463.12	462.07	462.15	466.58	462.92	461.16	459.96	460.07	459.99
11	461.29	462.47	461.84	462.92	462.12	462.13	470.84	462.80	461.17	459.92	460.03	459.99
12	461.48	462.56	461.85	462.82	462.10	461.98	473.94	462.67	461.03	459.92	459.99	459.99
13	461.56	462.59	461.84	462.83	462.09	461.84	472.30	462.53	460.86	459.94	459.94	459.96
14	461.49	462.57	461.81	463.23	462.09	461.29	470.06	462.42	460.71	459.91	459.89	459.92
15	461.48	462.51	461.78	463.22	462.03	461.39	467.37	462.34	460.59	459.89	459.86	459.87
16	461.77	462.44	461.81	463.09	462.02	461.88	---	462.28	460.54	459.87	459.82	459.85
17	462.44	462.37	462.41	462.97	462.01	462.12	---	462.21	460.47	459.84	459.81	459.84
18	462.57	462.31	463.56	462.84	461.99	462.16	---	462.14	460.40	459.81	459.79	459.83
19	462.34	462.25	463.64	462.71	461.83	462.11	---	462.12	460.35	459.82	459.77	459.83
20	462.27	462.20	463.51	462.56	461.74	462.16	---	462.16	460.48	460.03	459.75	459.82
21	462.16	462.14	463.52	462.49	461.60	462.12	467.40	462.13	461.08	460.06	459.78	459.81
22	462.17	462.14	463.35	462.61	461.66	462.12	468.52	462.05	461.95	459.99	459.78	459.81
23	462.09	463.03	463.19	462.90	461.78	462.12	469.22	461.97	461.71	459.94	459.77	459.80
24	462.15	463.48	463.06	463.02	461.80	462.37	470.60	461.89	461.25	459.89	459.75	459.82
25	463.21	463.55	462.87	463.17	461.72	462.82	472.13	461.87	460.93	459.84	459.77	459.83
26	463.45	463.64	462.70	463.12	461.66	463.13	473.12	461.82	460.72	459.81	459.79	459.85
27	463.31	463.50	462.50	462.98	461.62	463.54	473.55	461.74	460.60	459.79	459.78	459.90
28	463.01	463.31	462.37	462.83	461.59	464.52	471.96	461.64	460.52	459.78	459.77	460.20
29	462.38	463.14	462.34	462.70	---	466.71	469.43	461.57	460.51	459.76	459.77	460.44
30	462.20	462.99	462.64	462.72	---	469.81	466.56	461.41	460.45	459.75	459.75	460.43
31	462.09	---	463.37	462.58	---	472.69	---	461.07	---	459.83	459.75	---
MEAN	462.02	462.71	462.58	463.14	461.98	462.89	---	462.53	461.01	459.98	459.91	459.93
MAX	463.45	463.64	463.64	464.33	462.49	472.69	---	464.67	461.95	460.37	460.33	460.44
MIN	461.11	461.95	461.78	462.49	461.59	461.29	---	461.07	460.35	459.75	459.75	459.75
†	-3.48	6.66	8.67	-11.5	-5.70	822	-776	-44.8	-3.08	-1.06	0	1.06
††	-0.11	+0.22	+0.28	-0.37	-0.20	+26.5	-25.9	-1.45	-0.10	-0.03	0	+0.04

CAL YR 1992 MEAN 461.77 MAX 472.22 MIN 459.66

† 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 sea level.

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.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	90	82	133	323	e105	e66	1030	316	139	48	41	32
2	81	98	127	204	e100	e66	1030	282	93	47	53	30
3	74	208	122	169	e110	68	990	275	75	57	52	36
4	70	159	116	260	e105	66	914	246	70	49	40	52
5	64	145	117	363	e100	65	845	245	88	45	39	35
6	62	180	103	327	e95	65	783	270	145	42	38	34
7	61	159	106	238	e95	65	705	225	96	41	42	49
8	60	126	103	204	e90	76	585	193	76	39	51	35
9	58	110	e100	e160	e90	90	491	172	79	38	42	31
10	63	105	e95	e150	86	81	615	155	89	38	36	31
11	61	122	94	152	82	79	935	144	76	37	38	37
12	69	136	96	143	e80	72	843	133	68	42	34	33
13	63	143	93	201	e80	e64	797	123	62	40	32	28
14	59	121	87	261	e78	e68	718	118	59	37	30	25
15	60	111	93	190	e76	e75	549	116	56	38	29	24
16	78	102	122	166	76	e80	592	112	59	36	30	27
17	107	101	272	153	e74	e85	908	107	55	34	32	28
18	85	103	369	e140	e72	e80	840	101	53	34	31	27
19	79	100	231	e130	e72	e80	761	107	54	44	29	29
20	78	93	260	e125	e72	e85	635	120	68	56	31	26
21	74	93	228	e120	e70	e85	595	103	97	42	39	26
22	75	117	177	163	e80	83	653	94	129	37	30	25
23	68	333	161	204	e75	90	741	90	73	34	28	26
24	93	242	e140	192	e70	134	837	90	58	32	30	33
25	174	314	e130	231	e70	185	862	92	51	31	38	28
26	132	258	e120	168	e66	230	933	86	50	31	30	31
27	117	197	e110	151	e64	320	822	81	53	33	27	39
28	102	166	e100	131	e64	469	735	79	55	33	26	54
29	93	150	129	120	---	739	588	77	56	31	26	39
30	102	141	247	e115	---	907	422	74	51	41	25	33
31	88	---	416	e110	---	929	---	86	---	51	26	---
TOTAL	2540	4515	4797	5764	2297	5647	22754	4512	2233	1238	1075	983
MEAN	81.9	150	155	186	82.0	182	758	146	74.4	39.9	34.7	32.8
MAX	174	333	416	363	110	929	1030	316	145	57	53	54
MIN	58	82	87	110	64	64	422	74	50	31	25	24

e Estimated

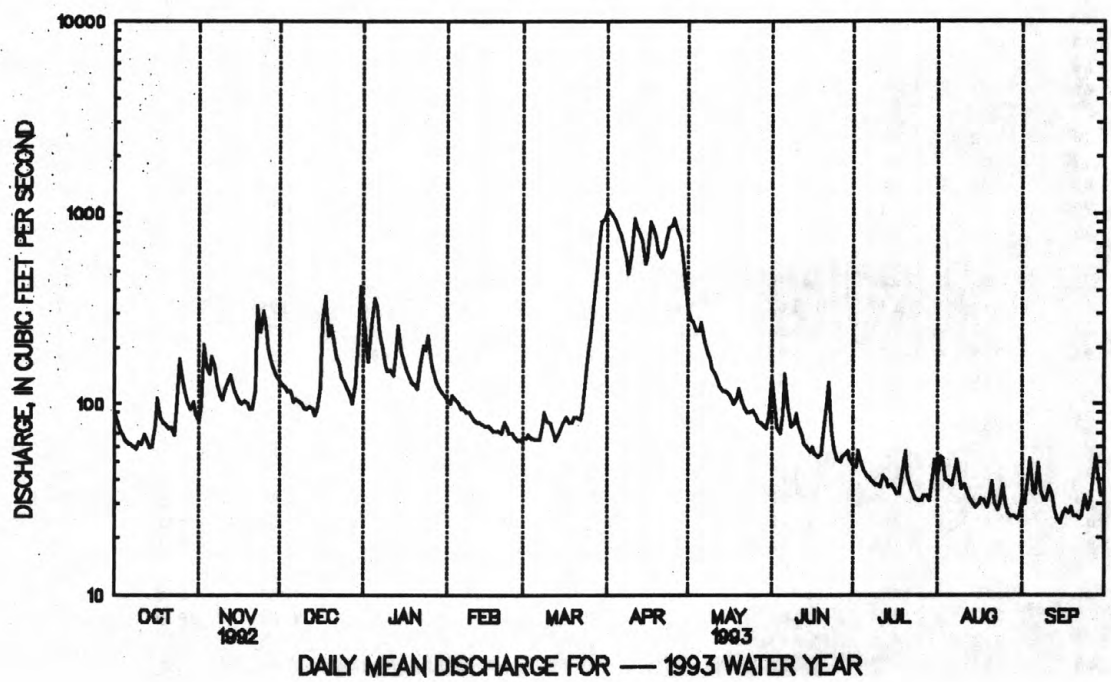
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1993, BY WATER YEAR (WY)

MEAN	67.2	105	142	133	165	262	268	140	94.7	59.1	41.4	45.4
MAX	328	312	365	309	390	535	758	301	563	166	125	216
(WY)	1978	1969	1973	1979	1990	1979	1993	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1951 - 1993	
ANNUAL TOTAL	52542		58355			
ANNUAL MEAN	144		160		127	
HIGHEST ANNUAL MEAN					198	1978
LOWEST ANNUAL MEAN					58.8	1965
HIGHEST DAILY MEAN	788	Mar 27	1030	a	1710	Mar 31 1960
LOWEST DAILY MEAN	39	Jul 2	24	Sep 15	5.5	Aug 17 1965
ANNUAL SEVEN-DAY MINIMUM	45	Jun 26	27	Sep 14	7.4	Aug 11 1965
INSTANTANEOUS PEAK FLOW			1090	Apr 2	3260	Jul 3 1974
INSTANTANEOUS PEAK STAGE			4.39	Apr 2	6.48	Jul 3 1974
INSTANTANEOUS LOW FLOW			23	b	c	Aug 17 1965
10 PERCENT EXCEEDS	246		365		259	
50 PERCENT EXCEEDS	110		87		80	
90 PERCENT EXCEEDS	58		32		25	

a Apr. 1, 2.
b Sep. 15, 23.
c 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 sea level.

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. 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.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	121	111	157	380	144	92	1320	389	152	75	67	51
2	114	134	153	246	126	94	1310	364	122	104	137	53
3	105	238	149	205	142	93	1280	349	108	92	112	60
4	100	196	143	305	144	93	1110	334	102	81	67	73
5	93	183	143	447	136	93	1010	341	135	73	63	58
6	91	208	129	394	117	93	931	388	162	69	60	62
7	90	191	132	287	102	94	805	328	128	67	103	75
8	87	157	128	246	124	107	642	267	116	66	82	62
9	88	142	102	193	112	126	618	217	116	63	66	57
10	90	138	105	156	118	115	785	188	145	61	82	56
11	89	147	120	172	120	113	1220	187	113	60	59	59
12	94	166	121	177	115	99	1030	183	104	81	56	55
13	90	175	118	243	116	78	938	172	97	62	53	47
14	85	155	113	311	115	70	801	166	92	59	51	44
15	88	142	110	234	110	89	614	165	91	59	50	44
16	119	138	147	207	111	105	724	156	90	58	49	44
17	134	134	332	190	112	116	1100	148	88	56	50	44
18	113	134	421	169	101	110	1010	142	85	55	50	44
19	106	131	271	141	98	105	883	146	87	122	50	45
20	105	123	291	149	100	109	691	152	114	85	65	45
21	104	124	264	146	93	106	666	142	162	65	58	44
22	104	167	209	200	106	109	821	132	161	59	51	44
23	97	361	190	246	105	118	1050	128	114	56	50	51
24	136	276	173	243	96	175	1160	125	94	54	137	49
25	203	370	129	280	e88	225	1170	126	85	53	60	47
26	164	295	138	212	e88	278	1210	120	83	53	52	75
27	147	230	118	192	91	388	1060	115	83	52	50	60
28	131	193	128	169	91	569	877	112	101	52	48	75
29	121	176	157	165	---	898	713	109	86	51	46	59
30	129	166	298	135	---	1120	509	103	79	83	46	53
31	117	---	486	154	---	1200	---	141	---	84	54	---
TOTAL	3455	5501	5675	6994	3121	7180	28058	6135	3295	2110	2024	1635
MEAN	111	183	183	226	111	232	935	198	110	68.1	65.3	54.5
MAX	203	370	486	447	144	1200	1320	389	162	122	137	75
MIN	85	111	102	135	88	70	509	103	79	51	46	44

e Estimated

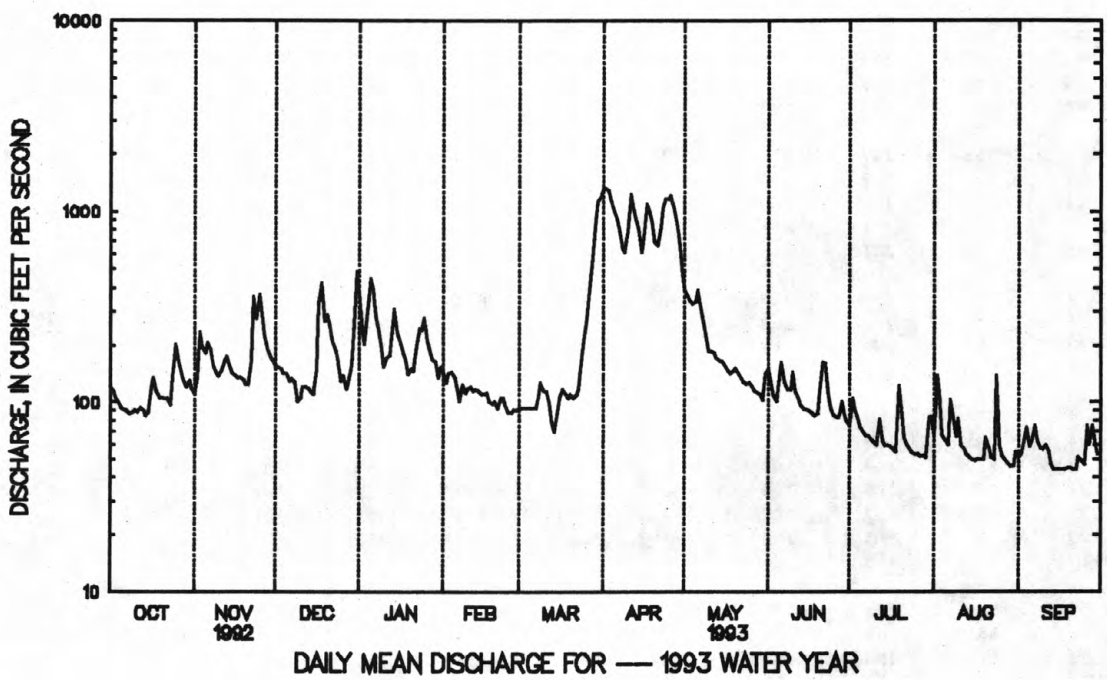
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1993, BY WATER YEAR (WY)

MEAN	125	163	209	183	217	329	369	208	152	108	81.2	93.4
MAX	424	324	452	381	457	653	935	379	617	237	171	275
(WY)	1978	1978	1973	1979	1976	1979	1993	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1970 - 1993	
ANNUAL TOTAL	70676		75183			
ANNUAL MEAN	193		206		186	
HIGHEST ANNUAL MEAN					273	1976
LOWEST ANNUAL MEAN					109	1988
HIGHEST DAILY MEAN	1130	Mar 27	1320	Apr 1	2040	Mar 5 1979
LOWEST DAILY MEAN	72	Jul 2	44	a	23	Sep 26 1985
ANNUAL SEVEN-DAY MINIMUM	80	Jun 26	44	Sep 14	27	Aug 26 1981
INSTANTANEOUS PEAK FLOW			b	unknown	c4050	Jul 3 1974
INSTANTANEOUS PEAK STAGE			d7.98	Apr 26	8.73	Jul 3 1974
INSTANTANEOUS LOW FLOW			28	Mar 13	20	Sep 26 1985
10 PERCENT EXCEEDS	316		431		370	
50 PERCENT EXCEEDS	151		118		130	
90 PERCENT EXCEEDS	92		54		52	

a Sep. 14-18, 21, 22.
b Discharge not determined.
c From rating curve extended above 1,600 ft^3/s on basis of runoff comparisons with nearby stations.
d Affected by backwater from Onondaga Lake.



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 sea level. 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.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.4	e5.0	e8.0	12	7.5	e5.4	121	26	7.8	4.7	4.6	e4.4
2	5.9	e8.2	7.9	e9.0	7.2	e5.4	103	23	7.0	7.9	8.7	e4.8
3	5.7	e13	8.2	e8.0	7.4	e5.2	67	20	6.8	5.0	6.0	e5.4
4	5.6	e8.0	7.7	e16	7.4	e5.2	48	18	6.8	5.0	5.0	e4.6
5	5.3	e10	7.5	e24	7.3	e5.0	47	19	9.7	5.4	4.8	e4.0
6	5.6	e10	6.2	e14	6.9	e5.0	49	18	7.1	5.5	5.1	e6.0
7	6.3	e7.5	6.2	e13	6.5	e5.0	45	15	6.8	5.8	6.8	5.4
8	6.2	e6.5	6.1	e12	6.6	5.8	39	14	7.3	5.7	5.2	4.6
9	6.6	e6.2	5.5	e8.5	6.1	6.2	36	13	7.3	e5.0	5.6	4.8
10	6.2	e6.0	5.3	e8.0	6.0	5.5	81	12	9.6	e5.0	7.2	e5.0
11	6.2	e7.0	5.5	e8.0	5.9	5.4	109	12	6.9	e4.8	5.1	e4.8
12	5.2	e6.8	5.3	e8.0	5.9	5.4	48	12	6.8	e6.5	e4.4	e4.2
13	e4.0	e5.8	5.2	e13	6.1	5.0	53	11	6.8	e5.0	e4.2	e4.0
14	e5.0	e5.6	5.3	e12	5.9	5.5	45	9.9	6.5	e5.0	e4.0	e4.0
15	e6.0	e5.4	5.4	e9.4	5.8	5.0	37	9.8	7.1	e5.0	e4.2	e4.0
16	e8.0	e5.0	9.1	e8.8	6.1	5.0	71	9.4	6.4	e4.8	e4.0	e4.0
17	e7.4	e5.6	26	e8.0	5.9	5.1	91	9.2	6.3	e4.8	e4.6	4.1
18	e5.6	e5.8	16	e7.8	5.5	5.2	46	8.8	6.3	e4.6	e4.0	4.1
19	e5.6	e5.6	e9.5	e8.0	5.4	5.2	39	8.9	6.3	e9.0	e4.4	4.2
20	e5.2	e5.4	e12	8.8	5.4	5.1	37	8.6	8.3	5.3	e5.0	4.3
21	e5.6	e5.4	e8.0	8.9	5.7	5.1	50	8.3	10	5.1	e4.2	4.2
22	e5.2	e9.0	e7.8	12	6.0	5.1	47	8.1	7.2	e4.8	e4.2	4.0
23	e5.0	18	e7.4	13	5.7	5.9	77	7.9	6.4	e4.6	e4.2	5.1
24	e9.4	9.6	7.1	16	5.7	8.2	94	7.9	6.0	e4.6	e8.0	4.0
25	e9.2	21	6.0	14	e5.6	9.0	58	7.2	5.6	e4.6	e5.0	4.1
26	e6.8	11	5.7	10	e5.6	11	90	6.9	6.1	4.8	e4.0	6.9
27	e6.4	9.4	5.2	9.7	e5.5	14	47	7.2	5.8	e4.6	e4.0	5.2
28	e6.0	e9.0	5.9	8.5	e5.4	25	41	7.4	6.6	e4.4	e4.0	5.0
29	e5.8	e8.0	8.7	8.2	---	63	36	6.7	4.9	e4.6	e4.0	4.1
30	e5.4	e7.5	21	7.9	---	96	31	6.5	4.9	e7.0	e4.0	3.8
31	e5.0	---	26	7.7	---	87	---	10	---	4.6	e4.8	---
TOTAL	187.8	246.3	276.7	332.2	172.0	434.9	1783	361.7	207.4	163.5	153.3	137.1
MEAN	6.06	8.21	8.93	10.7	6.14	14.0	59.4	11.7	6.91	5.27	4.95	4.57
MAX	9.4	21	26	24	7.5	96	121	26	10	9.0	8.7	6.9
MIN	4.0	5.0	5.2	7.7	5.4	5.0	31	6.5	4.9	4.4	4.0	3.8
CFSM	.61	.82	.89	1.07	.61	1.40	5.94	1.17	.69	.53	.49	.46
IN.	.70	.92	1.03	1.24	.64	1.62	6.63	1.35	.77	.61	.57	.51

e Estimated

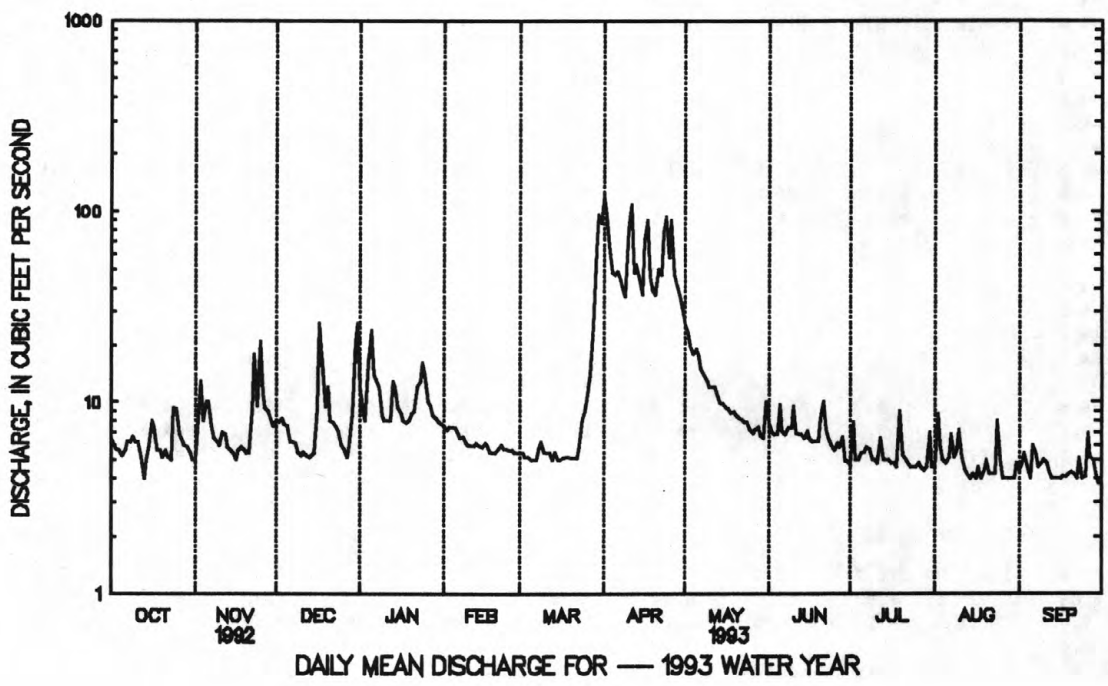
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1993, BY WATER YEAR (WY)

MEAN	5.89	6.73	8.37	8.14	10.6	17.3	18.0	9.79	7.28	6.00	4.78	5.10
MAX	21.7	21.6	26.0	16.2	33.5	39.6	59.4	22.6	32.2	13.5	11.4	20.7
(WY)	1978	1969	1978	1969	1976	1979	1993	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1959 - 1993	
ANNUAL TOTAL	3457.3		4455.9			
ANNUAL MEAN	9.45		12.2		9.00	
HIGHEST ANNUAL MEAN					15.7	1976
LOWEST ANNUAL MEAN					4.53	1967
HIGHEST DAILY MEAN	139	Mar 27	121	Apr 1	248	Mar 30 1960
LOWEST DAILY MEAN	4.0	Oct 13	3.8	Sep 30	.51	Jun 15 1984
ANNUAL SEVEN-DAY MINIMUM	4.6	Jul 6	4.1	Sep 12	1.6	Nov 10 1988
INSTANTANEOUS PEAK FLOW			203	Apr 11	a726	Jul 3 1974
INSTANTANEOUS PEAK STAGE			4.41	Apr 11	b8.34	Jul 3 1974
INSTANTANEOUS LOW FLOW			.13	Oct 14	c.11	Aug 8 1980
ANNUAL RUNOFF (CFSM)	.94		1.22		.90	
ANNUAL RUNOFF (INCHES)	12.86		16.58		12.22	
10 PERCENT EXCEEDS	16		25		17	
50 PERCENT EXCEEDS	7.4		6.3		5.6	
90 PERCENT EXCEEDS	5.1		4.6		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 sea level.

REMARKS.--Records good except those for estimated daily discharges (manometer malfunction and backwater from Onondaga Lake), 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.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.9	5.6	8.0	13	8.8	6.5	127	e30	9.0	5.5	4.7	4.4
2	6.9	10	7.8	10	8.4	6.5	114	e26	7.7	14	18	5.0
3	6.6	16	8.7	8.8	8.5	6.2	e80	e24	7.1	5.9	9.6	6.0
4	6.3	9.6	7.8	18	8.5	6.2	e60	e22	7.2	5.2	5.3	4.8
5	6.3	13	7.6	30	8.1	6.0	e55	e22	13	5.1	5.3	4.2
6	6.2	12	6.8	16	8.3	6.0	e60	21	8.3	5.0	5.1	7.3
7	6.4	9.5	6.8	13	7.8	6.2	e54	18	7.7	4.8	11	4.7
8	6.4	7.4	6.9	12	8.0	7.8	e48	17	8.5	5.0	5.4	4.4
9	7.0	7.1	6.5	9.4	7.4	7.5	e42	16	7.7	5.0	6.8	4.6
10	6.0	6.8	6.1	8.7	7.4	7.0	e90	14	14	4.8	11	4.9
11	6.0	7.4	6.2	8.6	7.4	6.9	e130	15	7.2	4.7	4.6	4.6
12	6.1	7.3	6.2	8.6	7.4	6.7	e56	13	6.9	8.2	4.3	4.1
13	6.3	6.6	6.2	14	7.4	5.9	e60	13	6.9	5.3	4.2	4.0
14	6.8	6.2	6.2	13	7.4	6.0	e55	12	7.0	5.2	4.2	4.0
15	6.8	6.2	6.2	10	7.4	6.2	e44	12	7.9	5.2	4.3	4.2
16	9.9	6.1	9.3	9.4	7.4	6.1	e80	11	6.7	5.1	4.5	4.0
17	8.0	6.3	30	8.6	7.4	7.0	e100	10	6.7	4.9	5.2	3.9
18	6.5	6.7	17	8.0	7.1	6.7	e55	e9.5	6.7	4.9	4.3	3.9
19	6.4	6.5	11	8.4	6.9	6.6	e44	e10	6.5	18	4.6	3.9
20	6.5	6.3	15	8.9	6.9	6.2	e42	e10	8.8	5.5	7.2	4.1
21	7.0	6.3	10	8.9	6.9	6.9	e55	e9.5	12	5.1	4.4	4.3
22	6.0	13	8.9	12	6.9	7.1	e54	e9.5	7.3	4.8	4.4	4.2
23	5.8	23	8.5	e14	6.8	8.0	e90	e9.0	6.3	4.7	4.4	6.2
24	12	12	7.5	e17	6.7	11	e105	9.5	6.0	4.7	28	4.2
25	9.5	28	6.7	16	6.7	11	e70	9.2	5.8	4.7	4.7	4.0
26	7.5	13	6.7	11	6.7	12	e100	8.9	6.2	5.0	3.9	11
27	6.9	11	6.7	10	6.5	15	e65	8.5	5.8	4.5	3.9	5.7
28	6.5	9.0	6.7	9.3	6.5	28	e55	8.4	11	4.5	3.9	5.3
29	6.6	8.9	8.6	9.3	---	67	e40	8.0	5.8	4.9	3.9	4.2
30	6.8	8.6	23	8.5	---	102	e35	7.8	5.6	13	3.9	4.2
31	5.6	---	31	8.6	---	89	---	15	---	6.2	4.9	---
TOTAL	215.5	295.4	310.6	361.0	207.6	487.2	2065	428.8	233.3	189.4	199.9	144.3
MEAN	6.95	9.85	10.0	11.6	7.41	15.7	68.8	13.8	7.78	6.11	6.45	4.81
MAX	12	28	31	30	8.8	102	130	30	14	18	28	11
MIN	5.6	5.6	6.1	8.0	6.5	5.9	35	7.8	5.6	4.5	3.9	3.9
CFSM	.62	.87	.89	1.03	.66	1.39	6.09	1.22	.69	.54	.57	.43
IN.	.71	.97	1.02	1.19	.68	1.60	6.80	1.41	.77	.62	.66	.48

e Estimated

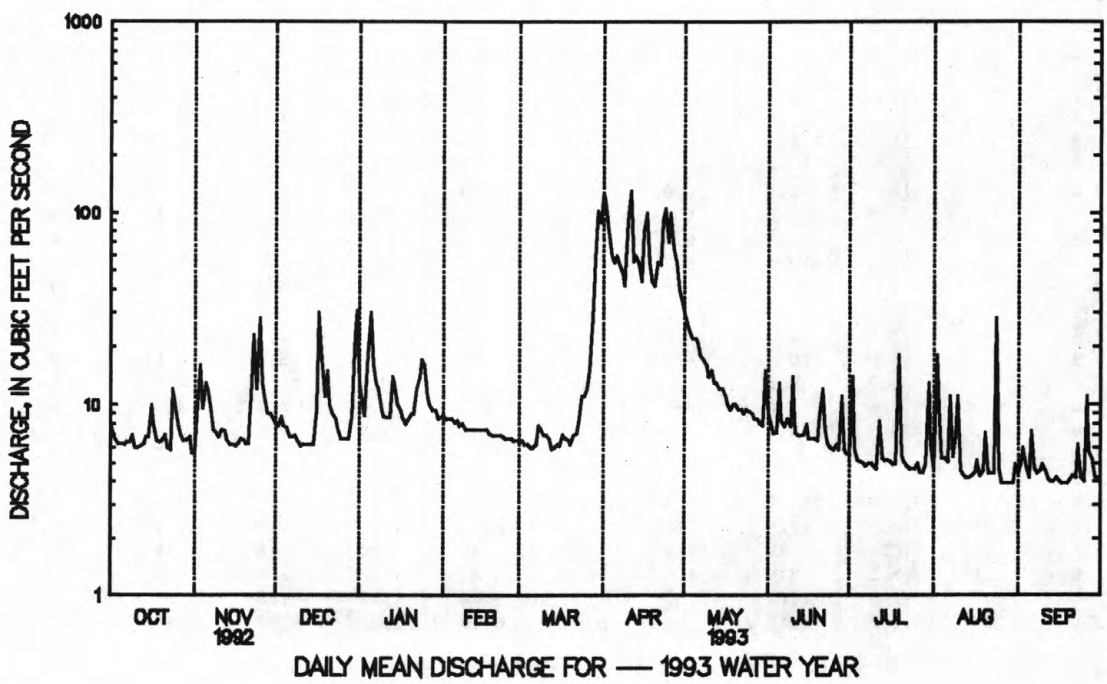
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1993, BY WATER YEAR (WY)

MEAN	9.41	9.64	12.5	11.7	13.7	23.4	24.8	13.6	11.4	9.91	7.33	8.62
MAX	34.0	26.6	35.8	31.0	38.4	68.8	68.8	27.9	51.9	25.4	12.0	28.7
(WY)	1978	1978	1978	1973	1976	1979	1993	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1971 - 1993	
ANNUAL TOTAL	4260.5		5138.0			
ANNUAL MEAN	11.6		14.1		13.0	
HIGHEST ANNUAL MEAN					21.3	1973
LOWEST ANNUAL MEAN					6.73	1988
HIGHEST DAILY MEAN	159	Mar 27	130	Apr 11	567	Mar 5 1979
LOWEST DAILY MEAN	5.4	Sep 16	3.9	a	1.3	Nov 4 1988
ANNUAL SEVEN-DAY MINIMUM	6.0	Sep 12	4.0	Sep 13	1.8	Nov 10 1988
INSTANTANEOUS PEAK FLOW			415	Aug 24	b824	Jul 3 1974
INSTANTANEOUS PEAK STAGE			5.82	Aug 24	c8.15	Sep 26 1975
INSTANTANEOUS LOW FLOW			1.2	Oct 13	.00	d
ANNUAL RUNOFF (CFSM)	1.03		1.25		1.15	
ANNUAL RUNOFF (INCHES)	14.03		16.91		15.62	
10 PERCENT EXCEEDS	19		30		24	
50 PERCENT EXCEEDS	8.4		7.3		8.2	
90 PERCENT EXCEEDS	6.3		4.6		4.3	

a Aug. 26-30, Sep. 17-19.
b From rating curve extended above 76 ft^3/s on basis of step-backwater computations.
c Backwater from debris jam.
d 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 sea level. 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 poor. Flow may be affected by backwater from Onondaga Lake at times when the lake elevation exceeds 364.0 ft. Several measurements of water temperature were made during the year.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	20	27	e125	e19	16	e460	e120	56	12	16	20
2	17	56	25	e95	21	16	e480	e75	22	40	41	13
3	15	205	28	e80	23	19	e420	e65	18	47	129	25
4	14	96	27	e135	e20	20	e380	e56	16	18	28	34
5	12	93	31	e225	e18	19	e350	e52	59	16	23	14
6	12	112	28	e144	e15	20	e330	e70	61	14	17	35
7	12	64	29	e100	e10	23	e300	e60	27	16	24	39
8	12	42	28	e80	e10	46	e260	e52	32	18	19	16
9	18	33	21	e56	e14	46	e240	e48	40	27	14	13
10	20	29	17	e40	17	38	e300	e44	69	12	23	20
11	14	45	20	e32	17	40	e600	e40	27	11	16	33
12	14	41	21	e28	15	33	e410	e35	21	40	11	17
13	14	38	21	e52	16	23	e380	e32	17	14	11	13
14	14	31	22	e60	16	21	e300	e30	15	12	10	11
15	24	28	21	e50	16	26	e240	e28	21	12	9.6	13
16	37	28	47	e48	16	29	e290	e24	17	11	10	13
17	41	35	153	e40	17	40	e450	e23	14	11	11	11
18	21	38	153	e36	17	34	e300	e22	14	10	11	11
19	29	33	89	e28	15	29	e230	e45	14	145	10	10
20	28	29	e87	e22	15	29	e160	e80	25	53	22	9.4
21	33	33	e70	e20	13	34	e200	e42	26	20	20	9.8
22	29	64	e40	e40	14	38	e270	e27	26	15	11	11
23	23	181	e38	e65	17	50	e350	21	16	12	9.8	28
24	127	83	e46	e80	17	122	e350	22	13	11	140	18
25	96	177	e36	e140	16	126	e390	19	13	10	295	12
26	58	94	e32	e70	16	153	e450	18	15	11	49	101
27	47	62	e20	e50	16	184	e380	18	13	13	21	49
28	34	45	e20	e35	15	241	e330	17	33	11	15	62
29	30	36	36	e30	---	350	e240	14	21	10	13	25
30	27	30	105	e22	---	e400	e190	13	13	37	11	19
31	22	---	223	e18	---	e420	---	47	---	38	15	---
TOTAL	915	1901	1561	2046	451	2685	10030	1259	774	727	1055.4	705.2
MEAN	29.5	63.4	50.4	66.0	16.1	86.6	334	40.6	25.8	23.5	34.0	23.5
MAX	127	205	223	225	23	420	600	120	69	145	295	101
MIN	12	20	17	18	10	16	160	13	13	10	9.6	9.4
CFSM	.99	2.12	1.68	2.21	.54	2.90	11.2	1.36	.86	.78	1.14	.79
IN.	1.14	2.37	1.94	2.55	.56	3.34	12.48	1.57	.96	.90	1.31	.88

e Estimated

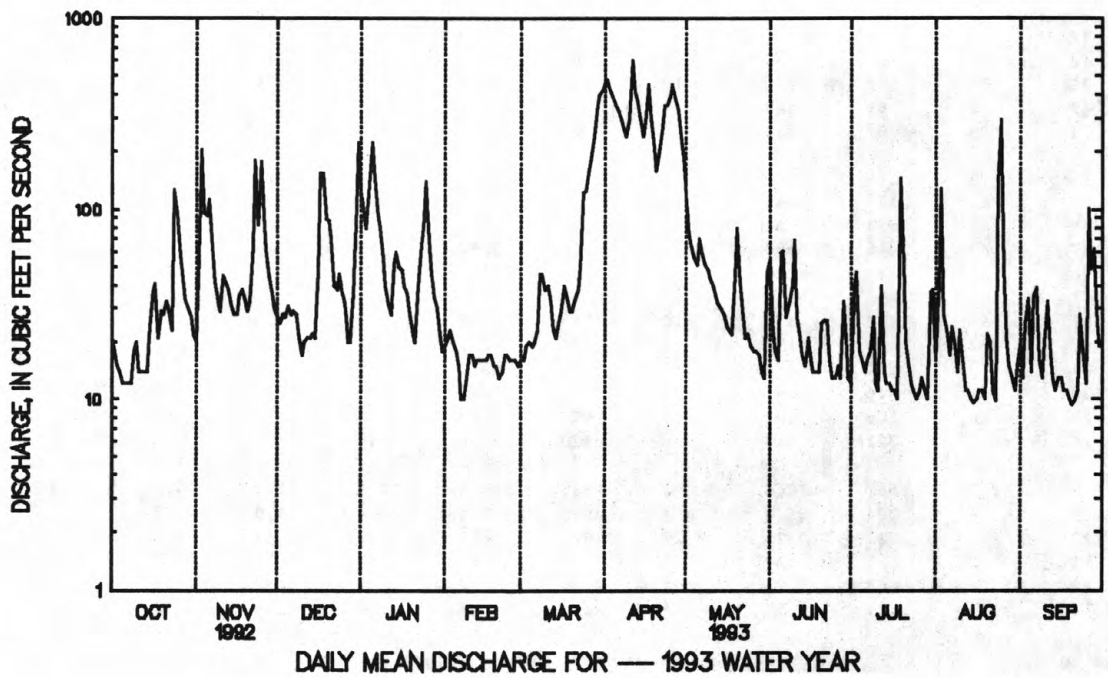
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1993, BY WATER YEAR (WY)

MEAN	39.5	48.8	57.4	39.2	52.0	74.3	79.7	40.8	32.4	29.0	24.2	33.1
MAX	129	102	145	70.9	125	154	334	88.7	71.4	61.6	46.7	99.1
(WY)	1978	1978	1978	1973	1976	1978	1993	1976	1973	1992	1976	1975
MIN	7.01	17.3	18.5	11.0	16.1	25.0	22.5	12.7	13.0	10.9	8.22	14.3
(WY)	1983	1979	1989	1977	1993	1981	1981	1987	1981	1981	1987	1980

04240120 LEY CREEK AT PARK STREET, SYRACUSE, NY--Continued

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1973 - 1993	
ANNUAL TOTAL	17978.8		24109.6			
ANNUAL MEAN	49.1		66.1		45.1	
HIGHEST ANNUAL MEAN					69.8	1978
LOWEST ANNUAL MEAN					26.1	1981
HIGHEST DAILY MEAN	500	Mar 27	600	Apr 11	831	Sep 26 1975
LOWEST DAILY MEAN	8.6	Aug 24	9.4	Sep 20	1.9	a
ANNUAL SEVEN-DAY MINIMUM	9.8	Aug 20	10	Aug 13	2.3	Feb 2 1977
INSTANTANEOUS PEAK FLOW			b		c1310	Sep 26 1975
INSTANTANEOUS PEAK STAGE			d7.02	Apr 26	d7.02	Apr 26 1993
INSTANTANEOUS LOW FLOW			9.1	f	1.9	Aug 19 1987
ANNUAL RUNOFF (CFSM)	1.64		2.21		1.51	
ANNUAL RUNOFF (INCHES)	22.37		30.00		20.51	
10 PERCENT EXCEEDS	106		194		100	
50 PERCENT EXCEEDS	31		28		25	
90 PERCENT EXCEEDS	13		12		11	

a Feb. 6, 7, 1977.
b Discharge not determined.
c From rating curve extended above 530 ft^3/s
d Backwater from Onondaga Lake.
f Aug. 15, 16.



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 sea level.

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 by the Onondaga County Water Authority for water supply. Several measurements of water temperature were made during the year.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	43	52	29	61	52	211	276	12	9.0	7.4	6.1
2	62	47	44	27	60	52	234	242	11	11	9.8	6.4
3	61	47	26	27	60	52	275	219	11	12	6.8	7.8
4	61	43	26	49	60	52	272	194	10	8.1	6.8	7.6
5	61	44	26	88	60	52	261	140	13	7.5	7.0	6.1
6	61	45	26	106	59	51	258	61	9.6	7.4	7.0	7.1
7	60	40	26	139	59	52	255	59	8.4	7.3	7.0	7.3
8	59	36	25	127	59	53	250	57	8.4	7.3	6.9	6.5
9	60	35	25	121	58	35	248	54	11	7.4	6.7	6.5
10	58	34	25	118	58	15	314	51	12	7.5	7.1	7.7
11	59	35	26	117	48	15	479	48	11	7.5	6.7	7.1
12	58	34	25	117	21	15	429	44	10	7.9	6.3	6.3
13	55	25	26	124	21	20	392	38	9.6	7.1	6.1	5.7
14	52	16	26	121	22	40	353	36	8.9	7.0	6.1	5.5
15	51	16	26	119	21	27	317	35	10	6.9	6.0	5.5
16	57	15	31	118	22	19	355	32	9.2	6.9	6.2	5.9
17	55	15	45	118	21	30	453	30	8.7	7.3	6.1	e5.8
18	50	16	30	116	22	49	437	28	8.9	7.6	6.1	e6.0
19	51	16	25	116	27	49	386	27	9.7	11	5.8	e6.0
20	48	18	27	115	23	47	343	27	12	8.2	11	e5.5
21	47	32	25	115	27	47	341	24	14	7.4	6.2	e5.3
22	46	38	24	118	22	47	353	23	14	7.6	4.8	e5.5
23	45	51	25	118	21	48	388	22	11	7.9	4.7	e5.8
24	50	40	24	122	23	81	439	22	10	7.4	5.3	e6.0
25	50	48	26	118	39	89	469	19	9.7	7.7	5.3	e5.6
26	48	39	24	115	53	59	512	18	9.9	7.9	5.1	e6.5
27	47	37	24	114	53	63	459	17	9.9	7.5	5.1	e7.0
28	45	36	24	98	53	70	405	17	12	7.5	5.4	e8.0
29	45	36	27	62	---	90	359	15	9.8	7.3	5.4	e7.0
30	45	43	36	61	---	99	318	15	9.1	8.2	5.4	e6.5
31	44	---	42	62	---	116	---	15	---	7.7	7.0	---
TOTAL	1653	1020	889	3115	1133	1586	10565	1905	313.8	246.0	198.6	191.6
MEAN	53.3	34.0	28.7	100	40.5	51.2	352	61.5	10.5	7.94	6.41	6.39
MAX	62	51	52	139	61	116	512	276	14	12	11	8.0
MIN	44	15	24	27	21	15	211	15	8.4	6.9	4.7	5.3

e Estimated

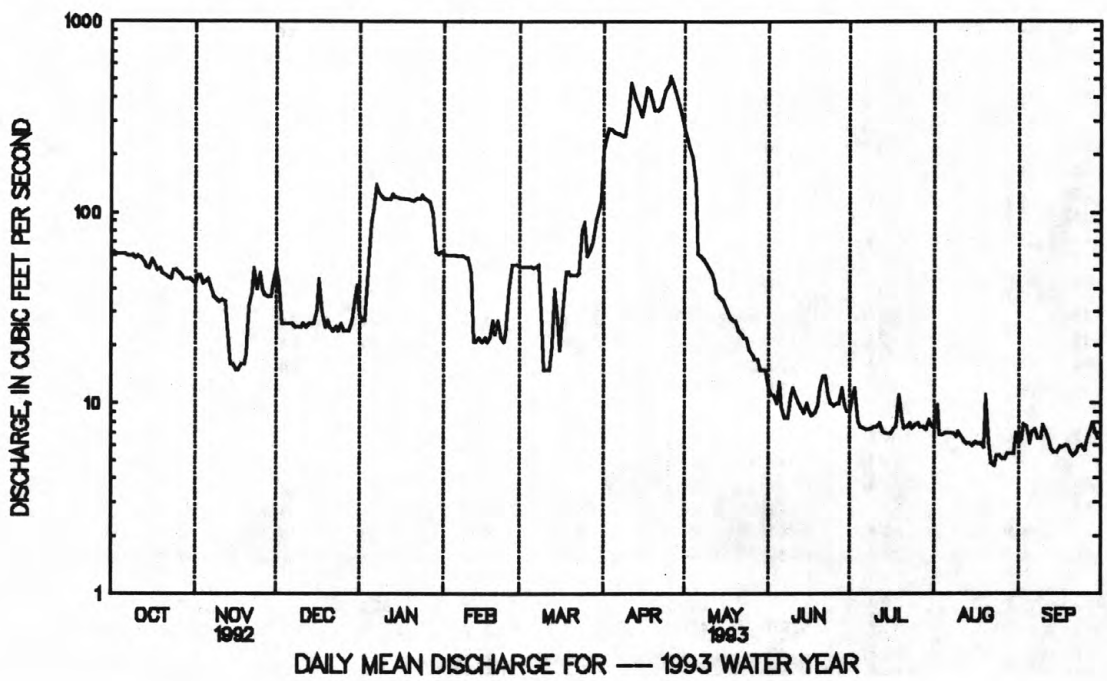
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1993, BY WATER YEAR (WY)

MEAN	24.9	33.2	44.4	50.2	52.5	59.7	101	49.0	30.8	18.1	12.0	12.3
MAX	147	125	160	157	143	159	352	134	278	74.0	76.2	36.3
(WY)	1978	1978	1973	1973	1990	1976	1993	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1964 - 1993	
ANNUAL TOTAL	16080.6		22816.0			
ANNUAL MEAN	43.9		62.5		40.6	
HIGHEST ANNUAL MEAN					76.3	1976
LOWEST ANNUAL MEAN					3.95	1965
HIGHEST DAILY MEAN	209	Mar 28	512	Apr 26	931	Jun 23 1972
LOWEST DAILY MEAN	7.1	Jul 7	4.7	Aug 23	.80	a
ANNUAL SEVEN-DAY MINIMUM	7.8	Jun 26	5.1	Aug 22	.89	Sep 13 1966
INSTANTANEOUS PEAK FLOW			543	Apr 26	1030	Jun 23 1972
INSTANTANEOUS PEAK STAGE			6.46	Apr 26	8.65	Jun 23 1972
INSTANTANEOUS LOW FLOW			4.5	Aug 23	.80	a
10 PERCENT EXCEEDS	118		132		105	
50 PERCENT EXCEEDS	25		27		16	
90 PERCENT EXCEEDS	8.2		6.5		3.1	

a 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 sea level.

REMARKS.--Records good except those for estimated daily discharges (missing record), which are fair. Flow regulated by Otisco Lake from which water is diverted by the Onondaga County Water Authority for water supply. Telephone gage-height telemeter at station.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	138	104	121	158	136	107	769	457	82	53	47	45
2	132	119	119	114	130	107	765	398	71	55	54	38
3	128	180	99	107	134	108	670	351	69	60	65	47
4	124	133	96	155	129	107	545	312	68	54	49	44
5	121	149	97	256	127	106	495	291	78	50	50	39
6	119	166	93	213	123	106	515	180	86	50	46	41
7	118	137	94	245	126	106	505	161	73	49	53	46
8	116	115	93	225	123	114	479	154	71	49	57	39
9	118	109	87	e200	118	113	459	139	76	48	48	37
10	117	106	87	e195	117	79	543	130	86	48	46	37
11	116	110	94	192	116	77	1150	125	76	47	48	40
12	120	112	93	189	89	74	706	118	72	51	46	38
13	114	109	91	229	87	68	650	114	69	47	46	36
14	110	91	90	259	87	170	598	113	68	46	46	35
15	110	88	88	216	84	75	536	110	70	47	46	35
16	118	85	108	204	85	72	607	106	70	45	48	37
17	148	86	217	200	85	72	836	103	68	45	49	37
18	116	87	225	189	82	99	730	99	66	46	48	37
19	116	87	130	184	80	e100	625	99	66	59	48	37
20	111	84	149	183	80	101	563	101	77	54	48	35
21	111	96	123	181	76	103	583	96	93	46	64	35
22	109	109	111	213	83	105	615	93	83	45	46	36
23	106	232	108	240	80	106	686	90	66	44	43	38
24	121	148	103	236	80	143	856	89	61	44	52	39
25	149	218	94	258	81	190	854	89	57	44	48	36
26	128	160	93	209	109	162	891	85	56	46	40	44
27	126	129	92	203	108	204	711	79	56	46	39	43
28	114	116	95	194	106	279	628	75	62	46	39	50
29	111	111	106	153	---	498	568	73	58	45	38	40
30	112	109	172	136	---	643	514	71	55	52	38	38
31	107	---	298	142	---	626	---	76	---	53	38	---
TOTAL	3704	3685	3666	6078	2861	5020	19652	4577	2109	1514	1473	1179
MEAN	119	123	118	196	102	162	655	148	70.3	48.8	47.5	39.3
MAX	149	232	298	259	136	643	1150	457	93	60	65	50
MIN	106	84	87	107	76	68	459	71	55	44	38	35

e Estimated

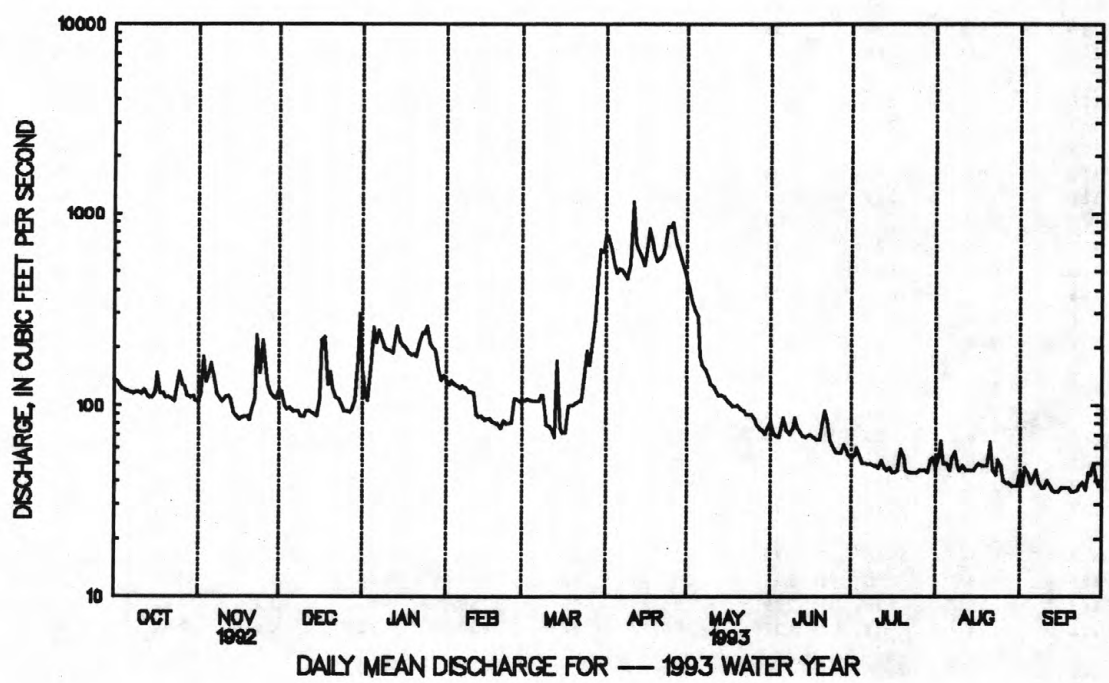
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1993, BY WATER YEAR (WY)

MEAN	67.8	98.0	119	127	142	203	247	131	95.1	68.3	49.3	49.8
MAX	263	259	320	331	361	398	655	273	503	190	162	136
(WY)	1978	1978	1973	1973	1990	1979	1993	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1958 - 1982, 1988 - 1993	
ANNUAL TOTAL	48939		55518			
ANNUAL MEAN	134		152		116	
HIGHEST ANNUAL MEAN					182	1976
LOWEST ANNUAL MEAN					41.9	1965
HIGHEST DAILY MEAN	900	Mar 27	1150	Apr 11	1660	Jun 23 1972
LOWEST DAILY MEAN	45	Jul 2	35	Sep 14	16	Oct 1 1961
ANNUAL SEVEN-DAY MINIMUM	48	Jun 26	36	Sep 14	17	Oct 15 1988
INSTANTANEOUS PEAK FLOW			1460	Apr 11	2760	Mar 30 1960
INSTANTANEOUS PEAK STAGE			7.43	Apr 11	a10.83	Sep 26 1975
INSTANTANEOUS LOW FLOW			34	Sep 15	16	b
10 PERCENT EXCEEDS	231		328		242	
50 PERCENT EXCEEDS	110		100		72	
90 PERCENT EXCEEDS	66		45		30	

a Backwater from construction activities.
b Sep 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 sea level.

REMARKS.--Records poor. Flow regulated by Otisco Lake from which water is diverted by Onondaga County Water Authority for water supply. Flow affected by backwater from Onondaga Lake whenever lake level exceeds about 362 ft msl. Several measurements of water temperature were made during the year.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e195	e140	e155	e210	e190	141	e950	e550	e120	e78	e68	e64
2	e190	e160	e130	e150	e180	143	e1000	e500	e130	e84	e70	e62
3	e185	e220	e130	e140	e180	142	e850	e440	e105	e90	e100	e70
4	e175	e180	e125	e200	e175	143	e700	e390	e100	e80	e68	e66
5	e170	e195	e125	e330	e170	141	e600	e350	e110	e75	e70	e62
6	e165	e200	e120	e280	e170	128	e650	e310	e120	e70	e60	e62
7	e155	e180	e120	e310	e170	138	e650	e250	e105	e68	e64	e64
8	e155	e150	e120	e290	e165	150	e600	e200	e105	e68	e70	e54
9	e155	e145	e115	e270	e160	164	e580	e185	e110	e68	e60	e54
10	e150	e140	e115	e260	e155	e120	e700	e170	e125	e68	e56	e52
11	e140	e145	e125	e250	e150	e115	e1400	e160	e110	e66	e62	e56
12	e135	e150	e120	e250	e130	e105	e1000	e155	e105	e75	e62	e56
13	e130	e155	e120	e280	e120	e100	e800	e155	e100	e70	e62	e56
14	e130	e130	e115	e330	e120	201	e720	e150	e98	e68	e58	e56
15	e135	e120	e115	e280	e120	e110	e650	e145	e98	e69	e56	e56
16	e140	e110	e140	e270	e120	e100	e700	e140	e100	e68	e56	e55
17	e160	e110	e210	e260	e120	e100	e1000	e135	e100	e66	e58	e55
18	e140	e110	e300	e250	e115	e135	e900	e130	e95	e67	e60	e55
19	e130	e110	e180	e240	e115	e140	e750	e125	e94	e85	e60	e55
20	e135	e110	e190	e240	e115	e140	e650	e130	e96	e80	e60	e56
21	e130	e120	e165	e240	e110	e145	e680	e130	e115	e72	e72	e55
22	e130	e150	e145	e260	e115	e150	e720	e130	e125	e70	e64	e52
23	e130	e260	e140	e290	e110	e155	e800	e125	e98	e70	e62	e55
24	e170	e200	e135	e300	e115	e200	e1000	e125	e88	e65	e98	e58
25	e190	e240	e120	e330	e120	e250	e1050	e125	e84	e62	e84	e55
26	e180	e190	e120	e270	139	e240	e1100	e120	e82	e64	e68	e66
27	e170	e165	e120	e260	148	e280	e950	e115	e80	e66	e64	e62
28	e160	e155	e125	e240	145	e370	e750	e110	e88	e62	e62	e70
29	e150	e150	e140	e200	---	e700	e690	e110	e84	e60	e58	e60
30	e150	e140	e210	e180	---	e860	e620	e110	e76	e70	e58	e58
31	e140	---	e380	e195	---	e860	---	e110	---	e76	e58	---
TOTAL	4770	4730	4670	7855	3942	6866	24210	6080	3046	2200	2028	1757
MEAN	154	158	151	253	141	221	807	196	102	71.0	65.4	58.6
MAX	195	260	380	330	190	860	1400	550	130	90	100	70
MIN	130	110	115	140	110	100	580	110	76	60	56	52

e Estimated

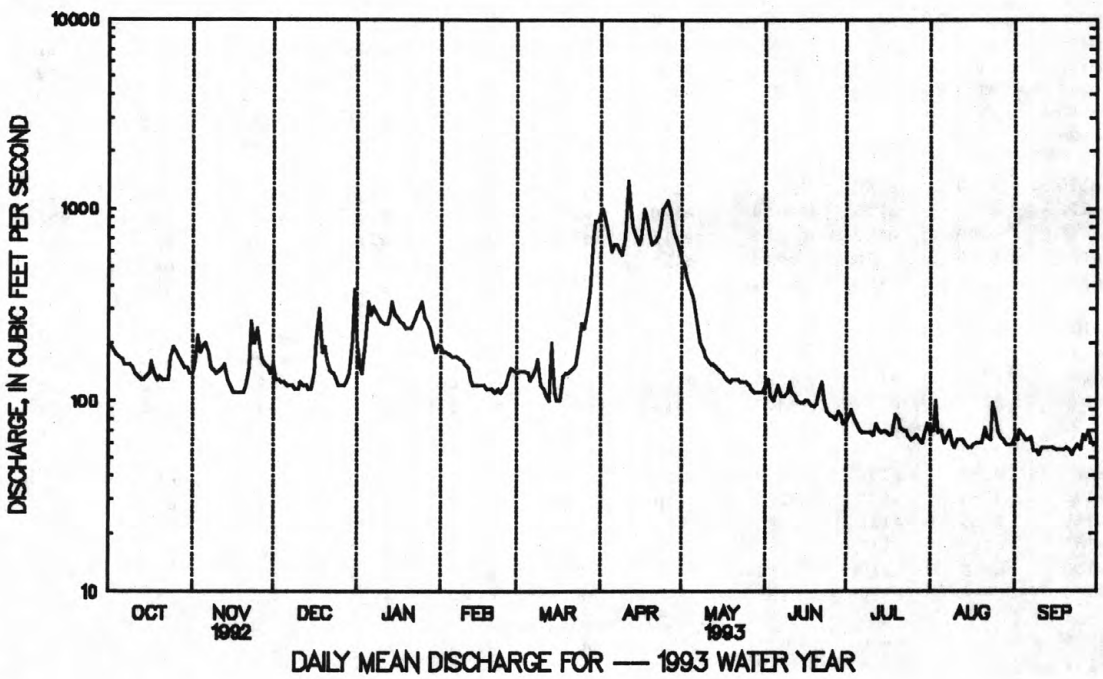
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1993, BY WATER YEAR (WY)

MEAN	149	186	233	213	235	327	363	217	161	112	98.0	105
MAX	529	439	623	492	549	669	807	385	676	289	216	308
(WY)	1978	1978	1973	1973	1990	1979	1993	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1971 - 1973, 1975 - 1993	
ANNUAL TOTAL	67235		72154			
ANNUAL MEAN	184		198		195	
HIGHEST ANNUAL MEAN					310	1973
LOWEST ANNUAL MEAN					95.7	1988
HIGHEST DAILY MEAN	1200	Mar 27	1400	Apr 11	2960	Mar 5 1979
LOWEST DAILY MEAN	70	a	52	b	13	Aug 18 1985
ANNUAL SEVEN-DAY MINIMUM	72	Jun 26	55	Sep 16	16	Sep 20 1985
INSTANTANEOUS PEAK STAGE			c9.63	Apr 27	c9.63	Apr 27 1993
10 PERCENT EXCEEDS	300		410		393	
50 PERCENT EXCEEDS	155		130		144	
90 PERCENT EXCEEDS	100		62		58	

a Jun 29, 30, Jul 1, 2, 8.
b Sep 10, 22.
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 sea level.

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, 369.78 ft, Apr. 26, 27, 1993; minimum, 361.54 ft, Mar. 13, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 369.78 ft, Apr. 26, 27; minimum, 362.46 ft, July 15, 24.

ELEVATION (FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	363.77	363.59	363.88	364.75	364.21	362.90	366.85	368.92	363.23	362.72	362.63	362.69
2	363.67	363.66	363.84	364.75	363.89	362.89	367.57	368.58	363.12	362.72	362.63	362.65
3	363.65	363.94	363.87	364.75	363.94	362.92	368.21	368.22	363.14	362.73	362.78	362.67
4	363.59	364.05	363.89	364.77	364.01	362.91	368.55	367.86	363.20	362.75	362.69	362.75
5	363.57	364.17	363.88	364.96	364.10	362.87	368.66	367.54	363.27	362.69	362.69	362.74
6	363.50	364.22	363.87	365.02	364.15	362.73	368.70	367.37	363.57	362.71	362.66	362.81
7	363.43	364.17	363.87	364.93	364.07	362.85	368.63	367.12	363.61	362.68	362.70	362.83
8	363.43	364.15	363.87	364.84	364.10	362.90	368.38	366.84	363.64	362.70	362.65	362.72
9	363.45	364.00	363.60	364.70	363.92	362.93	367.99	366.58	363.63	362.79	362.63	362.72
10	363.48	363.87	363.19	364.56	363.69	362.94	367.71	366.38	363.58	362.63	362.66	362.86
11	363.47	363.79	363.50	364.49	363.43	362.97	368.16	366.23	363.52	362.72	362.62	362.88
12	363.51	363.80	363.56	364.41	363.30	362.90	368.34	366.08	363.42	362.64	362.73	362.90
13	363.56	363.69	363.60	364.42	363.40	362.93	368.41	365.92	363.38	362.66	362.64	362.77
14	363.49	363.85	363.64	364.45	363.38	363.10	368.43	365.67	363.23	362.78	362.64	362.60
15	363.47	363.87	363.68	364.46	363.18	363.26	368.31	365.08	363.12	362.58	362.62	362.59
16	363.44	363.87	363.82	364.51	363.23	363.48	368.25	364.57	363.07	362.67	362.66	362.71
17	363.43	363.87	364.01	364.51	363.15	363.50	368.58	364.22	362.98	362.70	362.62	362.72
18	363.49	363.87	364.33	364.52	363.15	363.56	368.81	364.32	363.02	362.70	362.63	362.72
19	363.56	363.80	364.32	364.50	362.96	363.56	368.76	364.57	363.17	362.75	362.66	362.70
20	363.38	363.78	364.36	364.42	363.00	363.47	368.67	364.62	363.30	362.75	362.61	362.60
21	363.25	363.76	364.38	364.36	362.93	363.44	368.65	364.50	363.37	362.69	362.68	362.74
22	363.48	363.88	364.37	364.36	363.16	363.57	368.74	364.26	363.53	362.68	362.65	362.66
23	363.37	364.18	364.36	364.42	363.18	363.59	369.12	364.04	363.47	362.69	362.64	362.68
24	363.52	364.17	364.31	364.48	363.06	363.70	369.40	363.90	363.24	362.55	362.77	362.70
25	363.68	364.28	364.21	364.57	363.02	363.84	369.52	363.70	363.26	362.66	362.82	362.59
26	363.72	364.32	364.13	364.58	362.98	363.95	369.72	363.65	363.07	362.59	362.67	362.75
27	363.82	364.18	364.04	364.59	362.97	364.17	369.77	363.58	362.72	362.66	362.68	362.86
28	363.86	364.14	363.98	364.60	362.96	364.43	369.63	363.40	362.68	362.66	362.65	362.96
29	363.74	364.05	364.03	364.57	---	364.93	369.44	363.22	362.67	362.70	362.74	363.10
30	363.61	363.90	364.21	364.40	---	365.57	369.21	363.14	362.73	362.65	362.64	363.04
31	363.52	---	364.65	364.28	---	366.23	---	363.18	---	362.66	362.76	---
MEAN	363.55	363.96	363.98	364.58	363.45	363.52	368.64	365.40	363.23	362.69	362.67	362.76
MAX	363.86	364.32	364.65	365.02	364.21	366.23	369.77	368.92	363.64	362.79	362.82	363.10
MIN	363.25	363.59	363.19	364.28	362.93	362.73	366.85	363.14	362.67	362.55	362.61	362.59

CAL YR 1992 MEAN 363.76 MAX 365.78 MIN 362.62
WTR YR 1993 MEAN 364.03 MAX 369.77 MIN 362.55

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 sea level. 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)
Jan. 5	1430	6,110	6.52	Apr. 17	0045	7,040	7.53
Apr. 10	2230	*11,100	*9.07				

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	301	290	486	1730	e350	e210	e2460	654	1360	211	60	174
2	260	281	428	941	e370	e200	2640	553	695	171	74	174
3	234	1070	389	597	e380	e200	2310	477	418	181	86	150
4	213	970	363	788	e310	e200	1620	421	290	194	110	389
5	198	846	341	4340	e290	e200	1250	460	263	156	145	280
6	187	811	253	3170	e270	e200	1430	1130	798	190	116	201
7	175	670	288	1490	e240	e210	1760	893	656	589	93	247
8	169	459	263	967	e250	e230	2200	589	423	281	79	220
9	292	347	245	566	e250	e250	2940	466	519	184	74	157
10	1290	335	253	e460	e240	e240	6630	370	681	146	79	403
11	693	630	282	e470	e230	e220	7350	315	526	125	106	977
12	474	1020	303	e490	e230	e210	3740	274	360	121	122	461
13	497	1230	295	e480	e230	e210	2280	246	274	120	100	265
14	484	1030	e270	e470	e230	e200	1740	223	219	112	132	186
15	486	643	e250	e440	e220	e220	2190	220	380	101	108	158
16	1050	475	302	e420	e220	e240	4670	242	956	89	81	145
17	1570	431	541	e410	e220	e250	5470	226	485	78	90	133
18	1000	392	840	e370	e220	e240	3080	201	313	76	99	123
19	844	359	585	e340	e220	e220	2090	186	263	87	91	120
20	733	305	725	e330	e220	e220	2020	224	540	155	82	110
21	604	368	606	e350	e230	e240	3290	229	817	132	100	97
22	584	819	427	e490	e240	e250	3010	201	914	105	95	93
23	510	1360	369	718	e230	e250	2110	182	531	85	78	107
24	677	1090	e300	689	e220	253	1850	203	331	76	64	227
25	1090	1220	e240	e840	e220	285	1780	455	247	70	142	189
26	675	1140	e230	e720	e210	331	2490	384	210	89	180	446
27	519	1090	e230	e600	e210	410	1690	292	198	139	123	588
28	426	816	e260	e480	e210	e530	1080	256	336	138	93	876
29	365	628	e290	e430	---	e760	844	255	429	88	82	912
30	350	555	e550	e380	---	e1300	733	214	295	64	68	571
31	312	---	e1600	e370	---	e1900	---	417	---	67	76	---
TOTAL	17262	21680	12804	25336	6960	10879	78747	11458	14727	4420	3028	9179
MEAN	557	723	413	817	249	351	2625	370	491	143	97.7	306
MAX	1570	1360	1600	4340	380	1900	7350	1130	1360	589	180	977
MIN	169	281	230	330	210	200	733	182	198	64	60	93

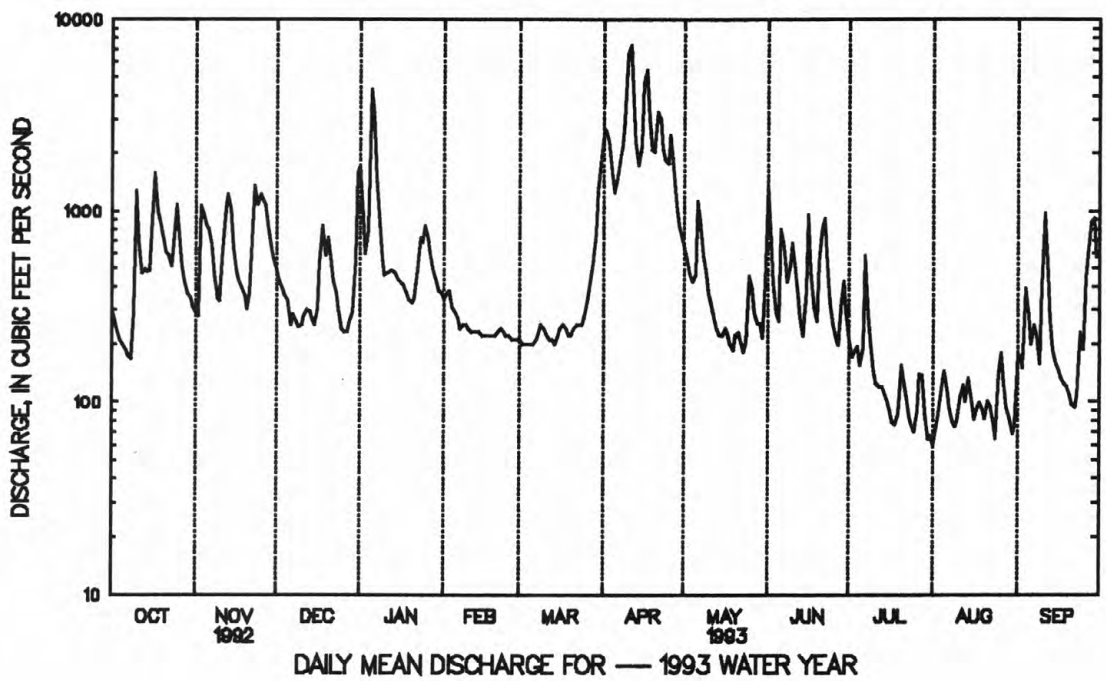
e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 1993, BY WATER YEAR (WY)

MEAN	415	614	575	461	411	817	1630	682	287	182	156	259
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

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1923 - 1993	
ANNUAL TOTAL	212592		216480			
ANNUAL MEAN	581		593		a541	
HIGHEST ANNUAL MEAN					909	1947
LOWEST ANNUAL MEAN					357	1931
HIGHEST DAILY MEAN	4730	Apr 12	7350	Apr 11	10900	Jun 22 1972
LOWEST DAILY MEAN	100	Jul 2	60	Aug 1	5.2	Aug 15 1949
ANNUAL SEVEN-DAY MINIMUM	116	Jun 27	78	Jul 29	6.3	Aug 11 1949
INSTANTANEOUS PEAK FLOW			11100	Apr 10	b21600	Dec 29 1984
INSTANTANEOUS PEAK STAGE			9.07	Apr 10	13.81	Dec 29 1984
INSTANTANEOUS LOW FLOW			42	Jul 29	4.9	c
10 PERCENT EXCEEDS	1230		1290		1290	
50 PERCENT EXCEEDS	370		301		290	
90 PERCENT EXCEEDS	165		106		67	

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 ft3/s on same date as earlier time when adjusted for storage effects).
c 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 sea level.

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)
Mar. 31	0100	3,490	11.13	Apr. 11	0630	*4,140	*11.98

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	101	182	e350	e120	e80	1860	299	121	44	51	181
2	53	121	166	e200	e120	e75	1570	253	85	45	61	54
3	48	474	159	e210	e130	e75	1250	221	68	54	57	73
4	46	249	154	e420	e130	e75	780	201	61	47	42	170
5	42	226	151	585	e120	e75	636	239	81	42	40	72
6	41	349	e120	385	e110	e75	682	305	158	41	36	67
7	42	256	e100	e280	e95	e80	686	228	121	42	39	97
8	41	178	e90	e220	e100	e85	670	190	98	46	42	56
9	50	145	e90	e170	e100	e95	697	170	92	57	38	48
10	256	135	e95	e150	e95	e90	1520	153	110	41	37	47
11	117	273	e100	e150	e90	e85	2870	142	87	38	31	81
12	187	299	e100	e160	e90	e80	1070	136	75	42	31	55
13	113	273	e95	e170	e90	e80	805	127	66	38	38	45
14	87	197	e85	e160	e90	e75	640	118	61	35	36	39
15	86	163	e95	e150	e85	e85	519	116	57	38	36	37
16	122	144	e150	e150	e85	e95	648	117	58	36	41	39
17	143	141	488	e140	e85	e100	984	111	56	34	42	38
18	97	139	445	e120	e85	e95	693	106	52	33	37	38
19	108	133	252	e110	e85	e90	490	109	51	95	34	38
20	108	118	357	e110	e85	e90	405	119	72	112	40	35
21	102	123	263	e120	e90	e100	1010	106	100	49	80	34
22	123	177	206	e150	e95	e110	1000	98	112	41	40	35
23	97	833	e180	219	e90	e120	1120	91	73	38	35	39
24	251	416	e130	236	e85	e140	963	92	58	37	126	46
25	357	628	e100	e360	e85	e200	786	92	53	35	202	37
26	205	385	e85	e210	e80	e350	1190	84	52	35	54	55
27	177	312	e90	e190	e80	e500	674	82	53	39	42	61
28	144	246	e100	e160	e80	e800	491	84	50	38	37	80
29	127	215	e120	e140	---	1720	403	79	49	36	35	51
30	139	198	e230	e130	---	2580	347	75	46	42	33	45
31	112	---	686	e120	---	2300	---	81	---	133	58	---
TOTAL	3679	7647	5664	6425	2675	10600	27459	4424	2276	1483	1551	1793
MEAN	119	255	183	207	95.5	342	915	143	75.9	47.8	50.0	59.8
MAX	357	833	686	585	130	2580	2870	305	158	133	202	181
MIN	41	101	85	110	80	75	347	75	46	33	31	34
CFSM	1.05	2.26	1.62	1.83	.85	3.03	8.10	1.26	.67	.42	.44	.53
IN.	1.21	2.52	1.86	2.12	.88	3.49	9.04	1.46	.75	.49	.51	.59

e Estimated

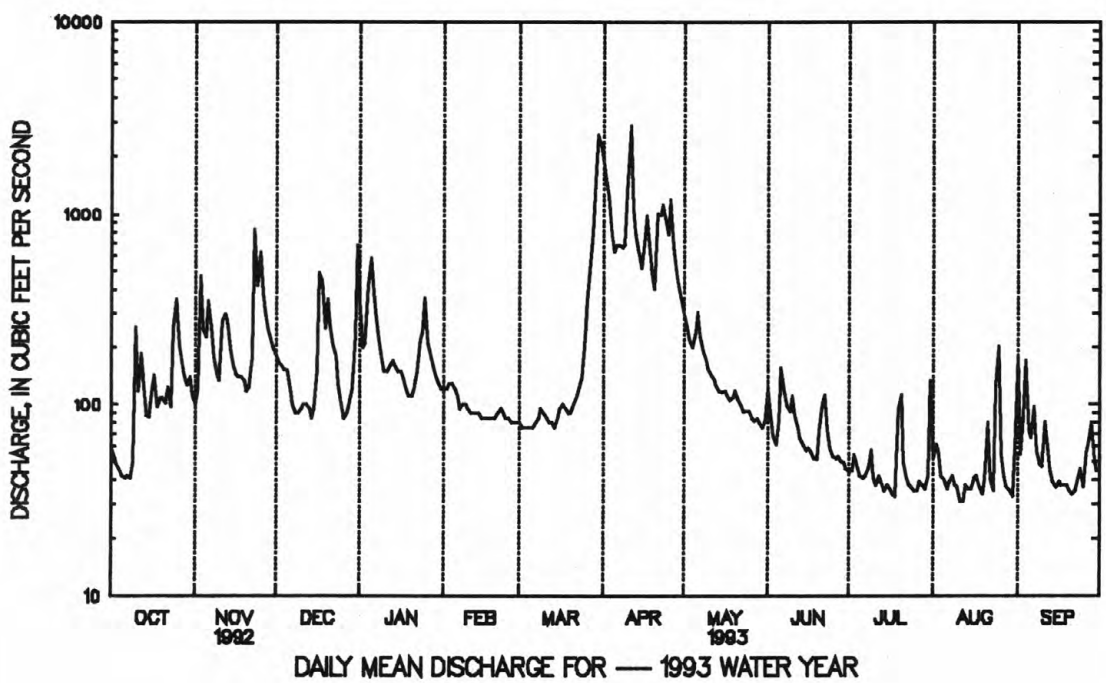
04243500 ONEIDA CREEK AT ONEIDA, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1993, BY WATER YEAR (WY)

MEAN	91.7	150	194	187	216	370	344	162	102	65.9	53.0	63.4
MAX	472	382	481	443	589	781	915	361	539	225	253	297
(WY)	1978	1973	1974	1979	1976	1977	1993	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

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1950 - 1993	
ANNUAL TOTAL	66461		75676			
ANNUAL MEAN	182		207		166	
HIGHEST ANNUAL MEAN					284	1976
LOWEST ANNUAL MEAN					89.7	1988
HIGHEST DAILY MEAN	1250	Jun 1	2870	Apr 11	5210	Mar 5 1979
LOWEST DAILY MEAN	39	Sep 18	31	a	13	Oct 28 1964
ANNUAL SEVEN-DAY MINIMUM	44	Oct 3	35	Aug 9	15	Sep 15 1964
INSTANTANEOUS PEAK FLOW			4140	Apr 11	9100	Oct 9 1976
INSTANTANEOUS PEAK STAGE			11.98	Apr 11	15.01	Oct 9 1976
INSTANTANEOUS LOW FLOW			20	a	12	b
ANNUAL RUNOFF (CFSM)	1.61		1.83		1.47	
ANNUAL RUNOFF (INCHES)	21.88		24.91		19.99	
10 PERCENT EXCEEDS	358		489		358	
50 PERCENT EXCEEDS	138		100		95	
90 PERCENT EXCEEDS	59		39		30	

a Aug 11, 12.
b Aug. 5, 6, 1962, Oct. 28, 1964.



DAILY MEAN DISCHARGE FOR — 1993 WATER YEAR

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 sea level.

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)
Apr. 1	1700	950	7.91	Apr. 21	1500	585	7.43
Apr. 11	0130	*1,430	*8.38	Apr. 24	2330	775	7.70
Apr. 17	0330	1,030	8.00	Apr. 26	0530	839	7.78

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	31	53	99	e34	e20	789	114	47	12	11	7.6
2	26	42	50	e70	e32	e22	679	100	29	17	28	6.7
3	24	68	49	e65	e34	e24	427	88	24	18	20	13
4	22	52	46	108	e32	26	208	79	23	12	11	21
5	21	49	e44	157	e34	24	181	100	32	11	9.5	10
6	21	59	e42	110	e32	23	203	114	54	9.9	8.0	9.8
7	21	50	42	86	e30	22	205	80	34	9.1	11	11
8	20	42	40	e75	e34	25	200	69	27	8.7	12	9.9
9	20	41	e36	e58	e30	27	212	62	28	8.3	9.9	7.6
10	23	40	e38	e52	e28	e22	543	56	32	8.4	8.6	8.9
11	22	52	e40	e55	e27	e20	1010	56	25	7.8	8.5	10
12	26	53	39	61	e26	e20	356	53	22	16	8.1	8.1
13	24	54	37	e85	e25	e18	251	50	19	10	8.8	6.8
14	22	46	e34	e90	e24	e18	209	48	17	8.9	9.4	6.1
15	22	42	e32	66	e24	e24	169	46	18	9.4	7.2	6.1
16	30	40	49	59	e23	e30	489	44	18	8.1	7.5	7.2
17	30	40	117	e56	e23	e34	857	42	16	7.5	8.6	7.1
18	25	40	111	e48	e22	e32	359	39	15	7.9	7.9	7.2
19	30	38	70	e48	e22	e30	204	42	16	19	6.9	8.4
20	27	36	101	e46	e22	e28	165	44	27	17	7.9	7.2
21	28	40	79	e54	e22	e26	410	37	38	11	10	6.4
22	27	59	64	68	e26	e28	338	34	36	9.1	7.6	6.2
23	25	147	61	69	e24	e30	336	32	23	8.2	6.8	8.0
24	49	92	52	e60	e22	e45	505	32	17	7.7	10	9.3
25	62	130	e48	e70	e22	e60	603	31	14	7.5	9.3	6.6
26	47	89	e42	e50	e21	e65	652	28	16	7.8	6.4	10
27	43	73	e40	e46	e20	90	268	26	17	8.8	5.8	13
28	37	65	e50	e42	e20	143	186	27	15	8.2	5.9	16
29	36	60	64	e40	---	328	152	25	14	7.5	6.5	10
30	38	56	109	e40	---	521	131	23	12	16	6.0	8.4
31	33	---	168	e35	---	561	---	33	---	17	6.3	---
TOTAL	910	1726	1847	2068	735	2386	11297	1654	725	334.8	290.4	273.6
MEAN	29.4	57.5	59.6	66.7	26.2	77.0	377	53.4	24.2	10.8	9.37	9.12
MAX	62	147	168	157	34	561	1010	114	54	19	28	21
MIN	20	31	32	35	20	18	131	23	12	7.5	5.8	6.1
CFSM	.91	1.79	1.85	2.07	.82	2.39	11.7	1.66	.75	.34	.29	.28
IN.	1.05	1.99	2.13	2.39	.85	2.76	13.05	1.91	.84	.39	.34	.32

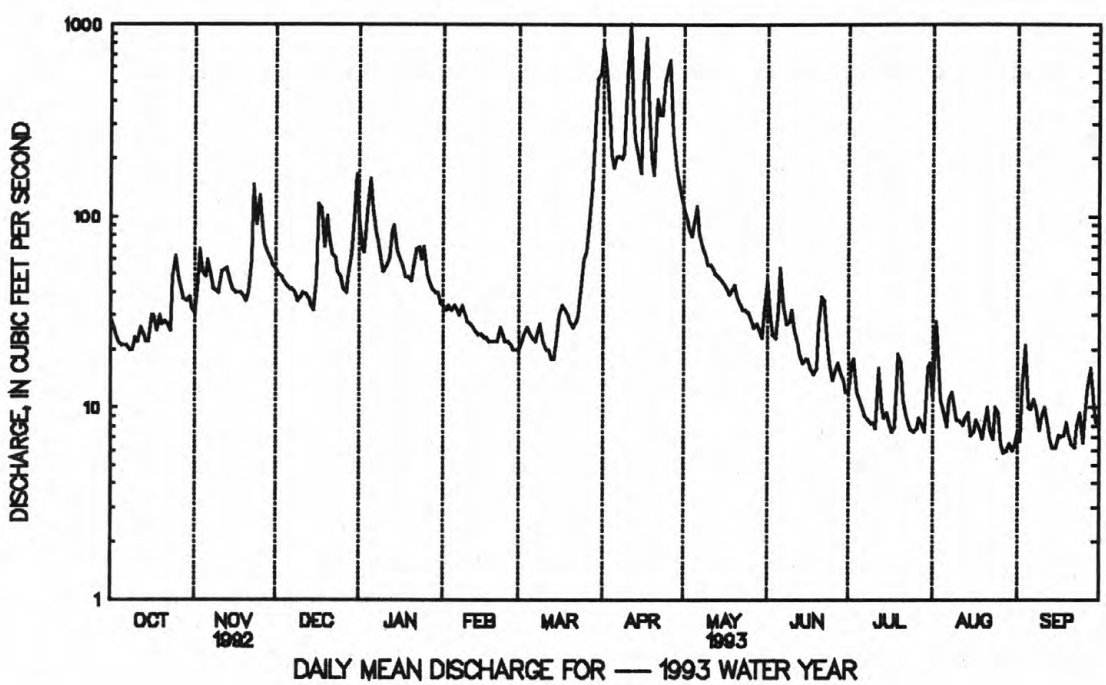
e Estimated

04245200 BUTTERNUT CREEK NEAR JAMESVILLE, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1993, BY WATER YEAR (WY)

MEAN	29.7	45.2	56.7	53.5	67.6	101	111	52.8	32.6	20.7	13.6	17.3
MAX	138	124	145	127	191	198	377	106	200	71.6	45.7	66.6
(WY)	1978	1973	1973	1979	1976	1977	1993	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

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1958 - 1993	
ANNUAL TOTAL	21019		24246.8			
ANNUAL MEAN	57.4		66.4		50.0	
HIGHEST ANNUAL MEAN					82.6	1976
LOWEST ANNUAL MEAN					24.2	1965
HIGHEST DAILY MEAN	400	Mar 27	1010	Apr 11	1260	Oct 28 1981
LOWEST DAILY MEAN	12	Jul 2	5.8	Aug 27	3.0	Sep 27 1959
ANNUAL SEVEN-DAY MINIMUM	15	Jun 27	6.4	Aug 26	3.4	Sep 17 1964
INSTANTANEOUS PEAK FLOW			1430	Apr 11	2820	Jul 3 1974
INSTANTANEOUS PEAK STAGE			8.38	Apr 11	8.46	Oct 28 1981
INSTANTANEOUS LOW FLOW			3.8	Aug 7	2.0	Sep 27 1959
ANNUAL RUNOFF (CFSM)	1.78		2.06		1.55	
ANNUAL RUNOFF (INCHES)	24.28		28.01		21.09	
10 PERCENT EXCEEDS	108		136		103	
50 PERCENT EXCEEDS	42		30		31	
90 PERCENT EXCEEDS	22		8.1		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 sea level.

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)
Aug. 24	1600	*131	*3.39	No other peak greater than base discharge.			

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.88	.76	1.1	1.8	e1.2	1.0	15	3.2	3.2	1.1	1.6	.96
2	.84	4.6	1.1	1.6	e1.6	1.1	12	2.8	1.3	4.6	9.4	1.5
3	.78	3.3	1.4	2.0	e1.2	1.3	7.5	2.8	1.3	1.9	3.4	1.8
4	.73	1.4	1.2	3.9	e1.2	1.2	4.4	2.8	1.3	1.5	1.5	1.2
5	.69	2.9	1.4	7.5	e1.1	1.2	4.0	3.8	4.9	1.8	1.8	.73
6	.77	2.1	1.2	2.3	e1.1	1.3	3.5	3.2	2.7	1.8	1.2	2.3
7	.76	.97	1.3	1.8	e2.0	1.6	3.2	2.6	1.3	1.6	3.3	1.2
8	.80	.84	1.3	1.8	e1.2	2.8	2.8	2.6	1.9	3.4	.99	.76
9	1.3	.84	1.2	1.4	1.1	2.0	2.8	2.6	2.2	1.8	.70	.76
10	.89	.90	1.1	1.3	1.1	1.5	19	2.5	4.0	1.1	1.2	1.1
11	1.1	1.8	1.3	1.3	e1.0	1.7	13	3.4	1.4	1.0	.79	1.2
12	.89	1.3	1.3	1.3	e1.0	1.5	4.9	2.9	1.3	4.1	.76	.98
13	.89	1.5	1.3	4.5	e1.3	e1.4	6.0	2.6	1.5	.90	.76	.93
14	.99	1.4	1.3	2.3	1.1	e1.3	3.5	2.4	1.5	.90	.78	.97
15	1.3	1.3	1.2	1.5	1.1	e1.6	3.0	2.3	1.8	.90	.84	1.3
16	3.5	1.4	4.2	1.5	1.1	e1.8	12	2.3	1.4	.89	.84	1.1
17	1.6	2.1	9.1	1.5	1.1	e2.6	17	2.1	1.3	.94	.88	.95
18	.84	1.8	2.6	1.3	1.0	1.5	4.4	2.1	1.3	.86	.88	.93
19	1.1	1.5	1.7	1.5	e1.0	e1.4	3.6	2.4	1.3	9.8	.84	.93
20	.83	1.5	3.0	1.3	e1.0	1.4	4.0	2.6	3.8	1.6	2.6	.93
21	1.4	1.7	1.6	1.6	e1.0	1.8	8.3	2.1	7.1	1.2	1.1	.88
22	.89	6.3	1.5	3.2	e1.0	1.8	10	1.9	2.3	1.2	.84	.80
23	.76	4.9	1.4	2.5	e1.0	3.1	21	1.7	1.2	1.2	.84	1.7
24	5.4	1.8	1.3	3.5	e1.0	7.3	6.5	1.7	1.2	1.2	5.2	.70
25	1.4	6.6	1.3	2.7	e1.0	5.9	5.1	1.6	1.2	1.2	e1.0	.61
26	1.0	1.4	1.4	1.8	e1.0	8.0	14	1.5	1.9	1.4	e.65	4.0
27	.97	1.3	1.4	1.8	e.95	10	4.2	1.6	1.8	1.4	.61	2.6
28	.84	1.2	1.4	1.6	e.95	14	3.7	1.6	5.4	1.2	.61	2.0
29	1.1	1.1	2.1	e1.5	---	18	3.4	1.6	1.9	1.2	.62	.79
30	.91	1.1	7.1	e1.3	---	16	3.4	1.6	1.2	6.1	.73	.76
31	.77	---	5.9	e1.2	---	10	---	6.1	---	2.9	2.2	---
TOTAL	36.92	61.61	65.7	66.1	31.40	127.1	225.2	77.0	65.9	62.69	49.46	37.37
MEAN	1.19	2.05	2.12	2.13	1.12	4.10	7.51	2.48	2.20	2.02	1.60	1.25
MAX	5.4	6.6	9.1	7.5	2.0	18	21	6.1	7.1	9.8	9.4	4.0
MIN	.69	.76	1.1	1.2	.95	1.0	2.8	1.5	1.2	.86	.61	.61
CFSM	.41	.71	.73	.74	.39	1.41	2.59	.86	.76	.70	.55	.43
IN.	.47	.79	.84	.85	.40	1.63	2.89	.99	.85	.80	.63	.48

e Estimated

04245236 MEADOW BROOK AT HURLBURT ROAD, SYRACUSE, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1993, BY WATER YEAR (WY)

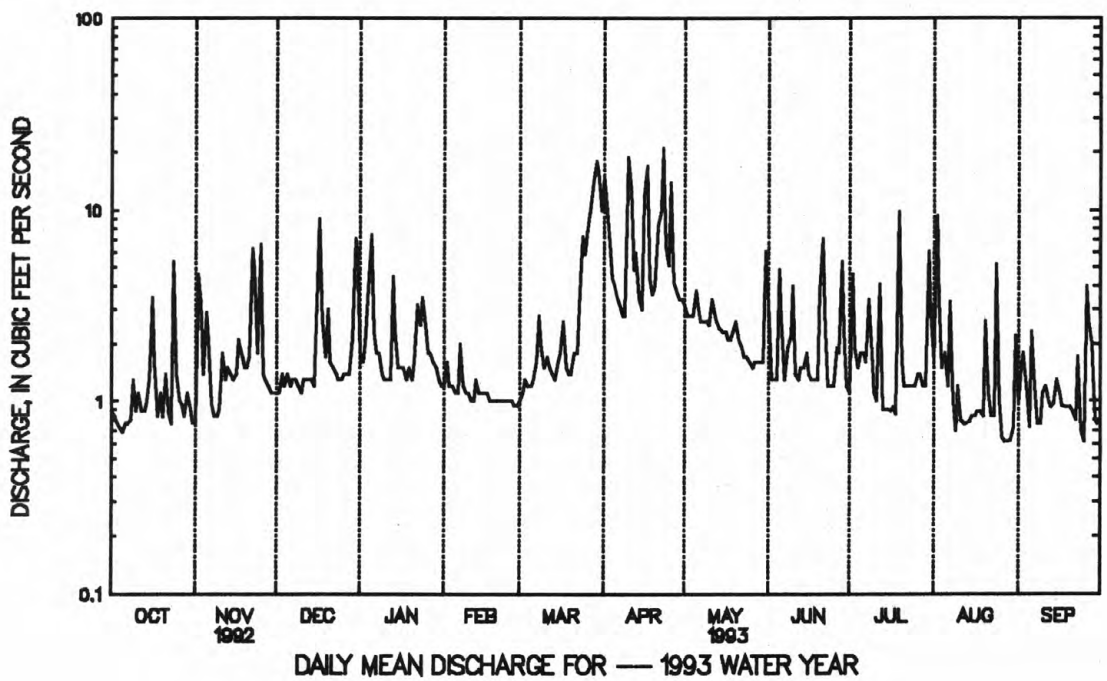
MEAN	1.67	1.96	2.24	1.93	2.44	3.88	3.27	2.61	2.30	1.83	1.29	1.62
MAX	4.73	2.82	4.66	4.26	4.37	6.93	7.51	5.21	6.12	5.04	5.16	3.03
(WY)	1982	1989	1991	1979	1990	1972	1993	1990	1972	1988	1990	1989
MIN	.19	.71	1.04	.67	1.12	1.38	1.34	1.08	.86	.48	.32	.31
(WY)	1972	1979	1971	1981	1993	1981	1981	1971	1981	1980	1971	1971

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1971 - 1973, 1979 - 1993	
ANNUAL TOTAL	891.99		906.45			
ANNUAL MEAN	2.44		2.48		2.28	
HIGHEST ANNUAL MEAN					3.27	1990
LOWEST ANNUAL MEAN					1.27	1981
HIGHEST DAILY MEAN	36	Mar 27	21	Apr 23	84	Oct 28 1981
LOWEST DAILY MEAN	.68	Sep 2	.61	Aug 27	.04	a
ANNUAL SEVEN-DAY MINIMUM	.77	Oct 2	.77	Oct 2	.04	Oct 13 1971
INSTANTANEOUS PEAK FLOW			131	Aug 24	b418	Jul 3 1974
INSTANTANEOUS PEAK STAGE			3.39	Aug 24	6.51	Jul 3 1974
INSTANTANEOUS LOW FLOW			.53	Sep 2	.02	c
ANNUAL RUNOFF (CFSM)	.84		.86		.79	
ANNUAL RUNOFF (INCHES)	11.44		11.63		10.70	
10 PERCENT EXCEEDS	4.7		5.0		4.2	
50 PERCENT EXCEEDS	1.5		1.4		1.4	
90 PERCENT EXCEEDS	.84		.84		.43	

a Oct. 13-21, 1971.

b 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.

c 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 sea level (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 sea level, 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, 373.14 ft, Apr. 24,1993; 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, 373.14 ft, Apr. 24; minimum, 366.94 ft, Mar. 19.

ELEVATION (FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	369.53	369.44	369.39	368.33	368.23	367.17	369.07	372.21	369.84	369.72	369.77	369.84
2	369.48	369.77	369.36	368.48	368.18	367.14	369.61	372.01	369.98	369.77	369.83	369.91
3	369.42	369.55	369.19	368.52	368.12	367.10	370.07	371.85	370.03	369.71	369.86	369.83
4	369.37	369.45	369.23	368.54	368.06	367.09	370.37	371.60	370.05	369.68	369.88	369.85
5	369.33	369.38	369.09	368.65	368.02	367.07	370.51	371.41	370.22	369.73	369.85	369.83
6	369.35	369.36	369.02	368.97	367.97	367.02	370.58	371.24	370.02	369.73	369.90	369.84
7	369.37	369.42	368.88	369.12	367.91	367.01	370.63	371.12	370.04	369.74	369.91	369.84
8	369.41	369.41	368.94	369.14	367.86	367.00	370.69	371.00	370.02	369.77	369.86	369.84
9	369.43	369.39	368.86	369.12	367.80	366.98	370.76	370.83	369.90	369.77	369.86	369.79
10	369.49	369.43	369.19	369.06	367.74	366.99	370.93	370.66	369.79	369.70	369.87	369.68
11	369.59	369.29	368.83	368.98	367.68	366.99	371.59	370.44	369.87	369.75	369.85	369.71
12	369.59	369.43	368.48	368.89	367.67	366.99	372.25	370.29	369.92	369.68	369.83	369.85
13	369.62	369.11	368.44	368.86	367.63	367.01	372.53	370.11	369.92	369.71	369.82	369.85
14	369.74	369.23	368.38	368.80	367.61	367.05	372.59	370.02	369.92	369.73	369.80	369.85
15	369.78	369.23	368.33	368.74	367.58	367.06	372.57	369.88	369.93	369.64	369.80	369.79
16	369.80	369.19	368.27	368.68	367.56	367.05	372.53	369.68	369.97	369.56	369.84	369.83
17	369.74	369.20	368.23	368.61	367.52	367.02	372.66	369.59	370.07	369.59	369.83	369.86
18	369.95	369.12	368.27	368.55	367.50	367.01	372.87	369.58	370.08	369.61	369.78	369.76
19	369.88	369.07	368.43	368.48	367.46	367.01	372.93	369.57	370.03	369.70	369.81	369.70
20	369.96	369.19	368.20	368.40	367.42	367.01	372.87	369.56	370.15	369.64	369.82	369.71
21	369.99	369.04	368.44	368.36	367.41	367.01	372.78	369.57	370.04	369.61	369.81	369.71
22	369.91	369.01	368.43	368.31	367.41	367.00	372.83	369.60	369.90	369.54	369.85	369.65
23	369.88	369.10	368.41	368.29	367.38	367.01	372.92	369.66	369.85	369.57	369.87	369.62
24	369.82	369.29	368.14	368.31	367.34	367.03	373.04	369.70	369.88	369.62	369.88	369.59
25	369.85	369.45	368.33	368.35	367.31	367.04	372.95	369.65	369.87	369.61	369.94	369.63
26	369.86	369.49	368.15	368.41	367.28	367.08	372.93	369.68	369.77	369.66	369.98	369.72
27	369.81	369.47	368.23	368.40	367.24	367.16	372.91	369.68	369.75	369.56	369.99	369.72
28	369.77	369.52	368.16	368.39	367.20	367.28	372.84	369.81	369.69	369.61	369.88	369.66
29	369.71	369.47	368.11	368.34	---	367.51	372.64	369.65	369.70	369.60	369.89	369.66
30	369.59	369.42	368.11	368.30	---	367.89	372.44	369.77	369.68	369.64	369.91	369.66
31	369.52	---	368.22	368.28	---	368.43	---	369.91	---	369.71	369.84	---
MEAN	369.66	369.33	368.57	368.60	367.65	367.14	371.90	370.30	369.93	369.67	369.86	369.76
MAX	369.99	369.77	369.39	369.14	368.23	368.43	373.04	372.21	370.22	369.77	369.99	369.91
MIN	369.33	369.01	368.11	368.28	367.20	366.98	369.07	369.56	369.68	369.54	369.77	369.59

CAL YR 1992 MEAN 369.24 MAX 370.75 MIN 367.24
WTR YR 1993 MEAN 369.37 MAX 373.04 MIN 366.98

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 sea level (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, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3710	3850	4090	3300	3190	1710	4290	9740	689	1170	283	1140
2	2620	4170	4050	3510	3140	1710	5200	9400	791	903	333	1160
3	1870	4300	3810	3590	3070	1690	6050	9150	855	663	308	1280
4	1860	4360	3900	3600	2990	1690	6660	8750	877	662	551	1290
5	1140	4260	3640	3770	2940	1550	6920	8400	1410	663	633	1290
6	663	4220	3550	4270	2860	1460	7030	8080	2950	658	631	1400
7	660	4290	3260	4500	2790	1450	7110	7880	3950	660	655	1450
8	669	4270	3130	4530	2650	1450	7200	7680	4320	665	652	1440
9	659	3890	4100	4500	2570	1430	7300	7390	4540	667	643	1440
10	676	3700	4650	4400	2500	1430	7550	7130	2560	653	637	1450
11	667	3540	4060	4300	2410	1440	8630	6760	1350	661	629	1440
12	666	3700	3520	4150	2390	1440	9790	6480	1360	660	628	1420
13	666	3200	3470	4090	2330	1450	10300	6130	1350	652	633	1060
14	653	3430	3380	3990	2290	1470	10500	5970	959	743	633	1050
15	664	3420	3330	3920	2270	1500	10400	5710	726	848	633	1040
16	1030	3360	3250	3820	2240	1490	10400	5330	724	851	614	1040
17	1240	3370	3180	3720	2160	1460	10600	3910	758	866	617	1040
18	1250	3290	3220	3620	2120	1430	11000	2140	1390	864	488	1040
19	1580	2720	3460	3550	2100	1430	11100	1380	1690	846	226	1030
20	1790	2040	3120	3460	2060	1430	11000	961	1710	866	222	1020
21	3000	2000	3480	3410	2010	1440	10800	688	3680	843	236	1040
22	3890	1990	3450	3370	2020	1440	10900	679	4560	842	233	1050
23	3850	2060	3440	3310	1980	1440	11100	692	3550	490	226	1020
24	3810	2100	2990	3310	1930	1470	11300	689	1710	502	259	1030
25	3840	3400	3290	3320	1920	1490	11100	693	1720	762	618	1040
26	3840	4250	3050	3390	1870	1520	11100	703	1710	438	804	1050
27	4070	4200	3160	3430	1780	1570	11000	696	1700	275	1040	1040
28	4170	4260	3070	3400	1740	1670	10900	707	1680	279	1160	2000
29	4120	4180	3010	3320	---	1880	10500	685	1410	290	1180	2510
30	3990	4120	3030	3280	---	2240	10200	695	1170	284	1150	2480
31	3950	---	3160	3260	---	3100	---	717	---	300	1150	---
TOTAL	67263	105940	107300	115390	66320	49370	277930	136015	57849	20526	18705	38780
MEAN	2170	3531	3461	3722	2369	1593	9264	4388	1928	662	603	1293
MAX	4170	4360	4650	4530	3190	3100	11300	9740	4560	1170	1180	2510
MIN	653	1990	2990	3260	1740	1430	4290	679	689	275	222	1020

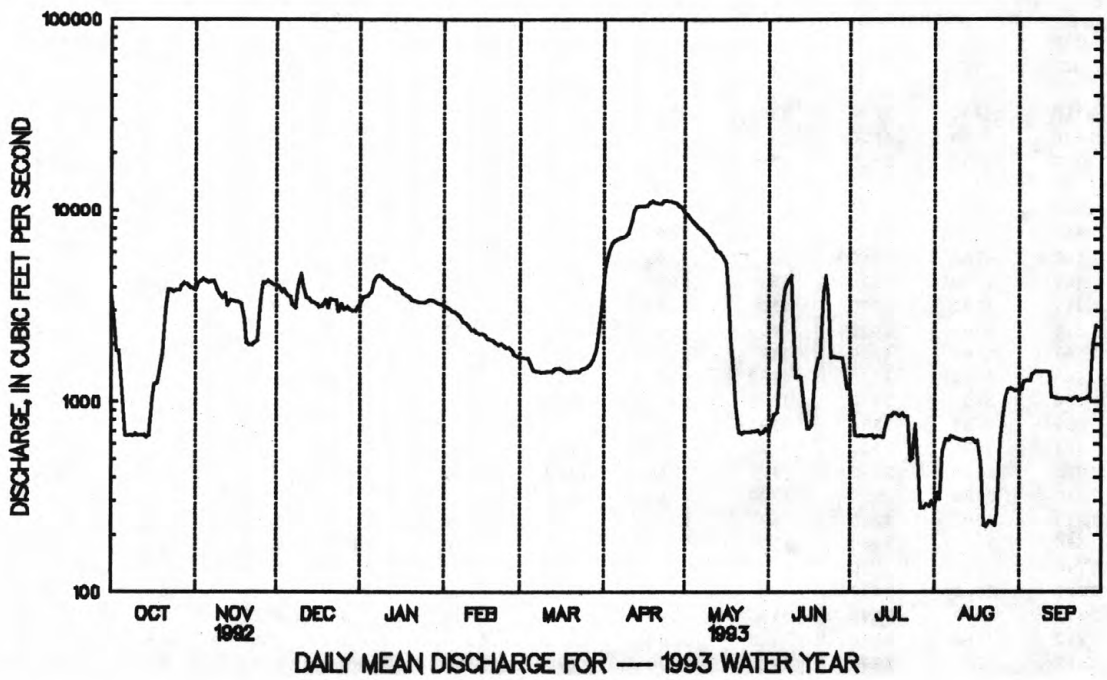
04246500 ONEIDA RIVER AT CAUGHDENOY, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 1993, BY WATER YEAR (WY)

MEAN	1559	2579	3738	2949	2670	3622	5232	2993	1594	1104	789	1129
MAX	5591	5635	5686	5206	4442	6325	9264	7427	5710	5151	2066	3524
(WY)	1978	1982	1978	1950	1951	1979	1993	1972	1972	1972	1986	1977
MIN	113	260	2093	1397	1048	1122	2122	815	366	281	133	129
(WY)	1965	1965	1961	1963	1963	1983	1981	1987	1988	1979	1965	1964

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1948 - 1993	
ANNUAL TOTAL	1035325		1061388			
ANNUAL MEAN	2829		2908		2494	
HIGHEST ANNUAL MEAN					3777	1976
LOWEST ANNUAL MEAN					1600	1965
HIGHEST DAILY MEAN (1903-1912)					13800	a
HIGHEST DAILY MEAN (1948-1993)	7080	Jun 3	11300	Apr 24	11300	Apr 24 1993
LOWEST DAILY MEAN (1903-1912)					52	Oct 24 1910
LOWEST DAILY MEAN (1948-1993)	474	Jun 22	222	Aug 20	62	Jul 29 1950
ANNUAL SEVEN-DAY MINIMUM	486	Jun 16	270	Aug 18	72	Jul 28 1950
10 PERCENT EXCEEDS	4640		6820		5280	
50 PERCENT EXCEEDS	2870		2040		2090	
90 PERCENT EXCEEDS	665		657		310	

a Mar. 25, 26, 27, 1903.



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 sea level. 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 Thruway Authority, record of elevations of Lake Ontario by U.S. Army Corps of Engineers, daily discharge records for Oswego River High Dam upstream by Niagara Mohawk Power Corp.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9020	8370	10100	14100	9500	3760	23400	31200	5050	3150	1710	1890
2	8470	9160	10100	13900	10100	3450	26200	29500	4880	2790	1260	2350
3	7800	10900	9960	13800	8890	3740	27800	27900	4890	2790	1620	1920
4	7500	11200	10300	14200	9230	3760	28300	26500	5290	2870	2080	2550
5	6740	11800	10400	15800	9610	3810	28400	25300	5070	2930	1810	2250
6	5220	12600	10500	16300	9400	2730	28500	24900	7470	2800	1640	2550
7	5090	12000	10400	15500	8980	3090	28300	23800	9020	2480	1900	2360
8	4860	11500	10300	15000	8820	3800	27800	22900	9070	2340	2210	2350
9	5230	10800	9560	14100	8170	3940	27000	22100	9770	2960	1420	2380
10	5460	10000	7110	13500	7270	4020	26700	20900	8810	2590	1930	2680
11	5470	9490	9100	13000	5510	3860	28800	19900	7050	1760	938	3180
12	5630	9640	8970	12400	4890	3750	29800	19200	6470	2580	1910	2870
13	5870	8970	9340	12500	4480	3480	29900	18200	6120	1970	1490	2450
14	5790	9110	9140	13000	5040	4010	29700	18000	5500	2880	1320	1640
15	4750	9750	9480	12900	5400	4820	29200	17700	5030	1730	1350	1380
16	5920	9810	9800	12700	4020	5000	28900	16200	5720	1710	1800	1910
17	6450	9780	10400	12600	5230	6010	30200	14900	4970	1140	1330	2110
18	6210	9480	11800	12300	4180	5870	31600	11000	4520	2290	2070	2230
19	6770	9310	12200	11900	3530	6040	31800	10300	5810	1920	1040	2090
20	6980	8570	12200	11800	3490	5990	31300	10400	5960	2470	1230	1500
21	5420	8890	12700	11200	3780	5550	31300	9650	6990	2410	654	1410
22	7060	8940	12500	11600	4050	5330	31700	8880	8720	1630	1180	2090
23	7520	10500	12100	11800	4560	6320	33500	7900	8490	1790	1460	2220
24	7770	10400	11400	12300	4560	6590	34200	7280	6730	1190	1460	2010
25	8740	11600	11400	13500	4690	7830	34100	6790	5680	1680	3270	1860
26	9200	12900	10200	13300	4220	8200	34500	6310	5360	1810	1970	1930
27	9690	12100	10500	13100	3990	9360	34600	6060	3630	1440	2190	2600
28	9980	11600	10200	12700	4040	10900	34100	5500	3890	1530	2300	3370
29	9400	11200	10500	12000	---	13200	33300	4540	3260	1510	2330	4640
30	8910	10600	11200	11000	---	17000	32500	4710	2630	1370	1350	4420
31	8230	---	13700	10500	---	20600	---	4500	---	1940	2080	---
TOTAL	217150	310970	327560	404300	169630	195810	907400	482920	181850	66450	52302	71190
MEAN	7005	10370	10570	13040	6058	6316	30250	15580	6062	2144	1687	2373
MAX	9980	12900	13700	16300	10100	20600	34600	31200	9770	3150	3270	4640
MIN	4750	8370	7110	10500	3490	2730	23400	4500	2630	1140	654	1380

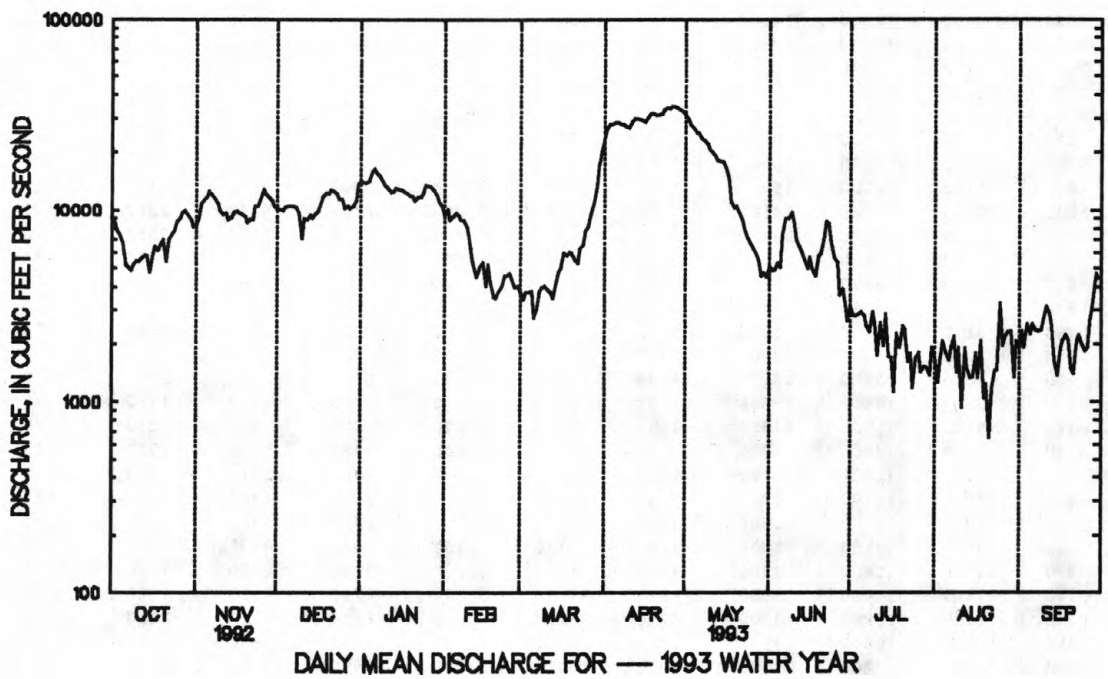
04249000 OSWEGO RIVER AT LOCK 7, OSWEGO, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 1993, BY WATER YEAR (WY)

MEAN	3865	5917	8332	7864	7787	11590	13300	8248	5090	3480	2537	2755
MAX	17950	16070	17920	16370	15130	21720	30250	20350	17000	19660	8951	8702
(WY)	1978	1978	1978	1943	1976	1979	1993	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1934 - 1993	
ANNUAL TOTAL	3141950		3387532			
ANNUAL MEAN	8585		9281		6716	
HIGHEST ANNUAL MEAN					11030	1976
LOWEST ANNUAL MEAN					3433	1965
HIGHEST DAILY MEAN	19800	Mar 28	34600	Apr 27	37000	Mar 28 1936
LOWEST DAILY MEAN	1380	Jun 18	654	Aug 21	261	Sep 18 1985
ANNUAL SEVEN-DAY MINIMUM	1760	Jun 17	1280	Aug 17	709	Sep 2 1934
INSTANTANEOUS PEAK FLOW			36900	Apr 27	a37500	Mar 28 1936
INSTANTANEOUS PEAK STAGE			13.13	Apr 27	13.46	Apr 10 1940
INSTANTANEOUS LOW FLOW			225	Aug 21	b30	Nov 6 1944
10 PERCENT EXCEEDS	13700		23600		14300	
50 PERCENT EXCEEDS	8540		7110		5100	
90 PERCENT EXCEEDS	3780		1840		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), 1983-93 (b).
MINOR ELEMENTS DATA: 1971-73 (a), 1975 (b), 1976 (a), 1977-93 (b).
ORGANIC DATA: OC--1975 (b), 1978-81 (d).
NUTRIENT DATA: 1971 (a), 1974 (a), 1975 (c), 1976-81 (d), 1982 (c), 1983-93 (b).
BIOLOGICAL DATA:
Bacteria--1974 (a), 1975 (c), 1976-81 (d), 1982 (c), 1983-93 (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), 1983-93 (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): Minimum, 0.0° C on many days during winter periods.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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											
03...	0900	10700	535	7.8	7.0	2.5	759	12.1	101	K190	120
APR											
29...	0900	33400	462	8.6	8.5	6.9	764	12.9	110	85	K30
JUN											
09...	0900	7240	560	7.7	16.5	5.0	753	9.6	99	K18	K9
SEP											
02...	0800	2800	720	7.6	25.0	0.80	760	8.0	97	K10	K10

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 LAB (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											
03...	190	55	12	30	2.3	129	55	54	0.20	4.0	311
APR											
29...	170	50	11	26	1.8	115	39	47	0.10	1.6	259
JUN											
09...	180	52	11	42	2.0	108	52	77	0.20	1.2	332
SEP											
02...	200	59	13	60	2.4	99	75	110	0.10	3.0	404

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 1992 TO SEPTEMBER 1993

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, 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										
03...	287	0.57	0.17	0.03	0.60	0.04	0.03	0.03	<10	37
APR										
29...	245	0.71	0.09	0.01	0.40	0.02	0.01	0.01	<10	31
JUN										
09...	325	0.59	0.13	0.02	0.40	0.03	0.03	0.02	<10	36
SEP										
02...	377	0.58	0.09	0.04	0.60	0.06	0.04	0.04	<10	42

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										
03...	<3	24	8	15	<10	<1	<1	<1.0	600	<6
APR										
29...	<3	24	6	8	<10	1	<1	<1.0	430	<6
JUN										
09...	<3	14	9	15	<10	1	<1	<1.0	540	<6
SEP										
02...	<3	8	13	11	<10	1	<1	<1.0	810	<6

04249000 OSWEGO RIVER AT LOCK 7, OSWEGO, NY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK)	DEPTH AT SAMPLE LOCATION, TOTAL (FEET)	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L
NOV								
03...	0905	40	16.0	3.0	535	7.8	7.0	12.7
03...	0910	40	16.0	7.0	531	7.8	7.0	11.9
03...	0915	40	16.0	12.0	526	7.8	7.0	11.9
03...	0920	40	16.0	15.0	526	7.8	7.0	11.9
03...	0925	100	15.0	3.0	537	7.8	7.0	11.9
03...	0930	100	15.0	7.0	526	7.8	7.0	11.8
03...	0935	100	15.0	12.0	521	7.8	7.0	11.8
03...	0940	100	15.0	15.0	520	7.8	7.0	11.8
03...	0945	150	13.0	3.0	541	7.8	7.0	12.0
03...	0950	150	13.0	7.0	524	7.8	7.0	11.9
03...	0955	150	13.0	12.0	527	7.8	7.0	11.9
03...	1000	200	7.0	3.0	526	7.9	7.5	12.1
03...	1005	200	7.0	6.0	527	7.9	7.5	12.2
JUN								
09...	0905	40	12.0	3.0	558	7.5	16.5	9.7
09...	0910	40	12.0	7.0	561	7.6	16.5	9.6
09...	0915	40	12.0	12.0	554	7.6	16.5	9.5
09...	0920	100	12.0	3.0	564	7.6	16.5	9.5
09...	0925	100	12.0	7.0	561	7.6	16.5	9.6
09...	0930	100	12.0	12.0	559	7.6	16.5	9.5
09...	0935	150	12.0	3.0	562	7.7	16.5	9.6
09...	0940	150	12.0	7.0	558	7.7	16.5	9.6
09...	0945	150	12.0	12.0	564	7.7	16.5	9.6
09...	0950	200	5.0	3.0	560	7.8	16.5	9.9
09...	0955	200	5.0	5.0	561	7.8	16.5	9.9
SEP								
02...	0805	40	11.0	3.0	720	7.6	25.0	7.7
02...	0810	40	11.0	7.0	717	7.6	25.0	7.7
02...	0815	40	11.0	10.0	722	7.6	25.0	7.7
02...	0820	100	11.0	3.0	720	7.6	25.0	7.9
02...	0825	100	11.0	7.0	721	7.6	25.0	7.8
02...	0830	100	11.0	10.0	722	7.6	25.0	7.9
02...	0835	150	10.0	3.0	723	7.6	25.0	8.0
02...	0840	150	10.0	7.0	719	7.6	25.0	7.9
02...	0845	150	10.0	10.0	718	7.6	25.0	7.8
02...	0850	200	3.0	2.0	713	8.0	24.0	8.5

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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
NOV 1992					
03...	0900	10700	7	202	--
APR 1993					
29...	0900	33400	25	2250	62
JUN					
09...	0900	7240	11	215	88
SEP					
02...	0800	2800	4	30	89

LAKES AND RESERVOIRS IN STREAMS TRIBUTARY TO LAKE ONTARIO

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, 248.30 ft, May 6,7; minimum, 244.59 ft, Sept. 26.

ELEVATION (FEET IGLD), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	245.86	245.30	245.59	245.82	246.69	246.62	246.59	248.17	247.82	247.23	246.56	245.56
2	245.84	245.13	245.53	245.64	246.62	246.62	246.74	248.16	247.75	247.12	246.49	245.46
3	245.85	245.31	245.72	245.48	246.71	246.62	246.86	248.09	247.74	247.14	246.49	245.55
4	245.77	245.40	245.57	245.61	246.68	246.49	246.90	248.11	247.72	247.11	246.52	245.51
5	245.73	245.51	245.72	245.91	246.65	246.49	246.87	248.16	247.68	247.04	246.53	245.55
6	245.65	245.57	245.70	245.90	246.55	246.59	246.90	248.19	247.77	247.03	246.42	245.57
7	245.60	245.47	245.74	245.93	246.51	246.55	246.91	248.20	247.70	247.02	246.37	245.53
8	245.56	245.43	245.58	245.99	246.55	246.55	246.92	248.17	247.65	246.99	246.33	245.45
9	245.56	245.34	245.47	245.98	246.47	246.66	246.93	248.15	247.68	246.98	246.27	245.39
10	245.57	245.31	245.35	245.95	246.52	246.56	247.12	248.14	247.71	247.04	246.20	245.53
11	245.58	245.40	245.61	246.02	246.45	246.65	247.23	248.16	247.71	246.98	246.17	245.57
12	245.64	245.26	245.69	246.05	246.37	246.52	247.31	248.16	247.66	247.06	246.16	245.37
13	245.69	245.62	245.65	246.07	246.60	246.55	247.34	248.15	247.61	246.98	246.14	245.33
14	245.55	245.49	245.58	246.18	246.57	246.79	247.41	248.10	247.56	246.93	246.12	245.27
15	245.59	245.48	245.58	246.22	246.51	246.54	247.42	248.09	247.56	246.97	246.12	245.35
16	245.69	245.44	245.53	246.25	246.50	246.39	247.48	248.11	247.55	246.96	246.08	245.27
17	245.76	245.45	245.65	246.36	246.67	246.55	247.59	248.06	247.49	246.86	246.05	245.24
18	245.60	245.45	245.69	246.34	246.65	246.47	247.64	248.05	247.46	246.80	246.01	245.21
19	245.76	245.44	245.53	246.36	246.61	246.42	247.64	248.04	247.47	246.77	245.95	245.15
20	245.57	245.35	245.85	246.37	246.56	246.38	247.66	248.04	247.41	246.81	245.96	245.04
21	245.56	245.36	245.61	246.22	246.39	246.47	247.83	248.00	247.47	246.86	245.89	245.00
22	245.52	245.45	245.64	246.38	246.61	246.47	247.94	247.97	247.52	246.84	245.83	244.95
23	245.47	245.49	245.70	246.44	246.73	246.37	248.01	247.90	247.47	246.79	245.81	244.99
24	245.59	245.46	245.80	246.47	246.76	246.42	247.88	247.87	247.40	246.70	245.79	244.99
25	245.54	245.48	245.66	246.69	246.61	246.43	247.96	247.91	247.35	246.62	245.79	244.90
26	245.49	245.51	245.81	246.46	246.59	246.43	248.11	247.90	247.37	246.51	245.79	244.92
27	245.49	245.64	245.49	246.62	246.61	246.45	248.08	247.89	247.34	246.61	245.74	244.99
28	245.45	245.60	245.50	246.52	246.63	246.46	248.10	247.83	247.34	246.53	245.82	245.07
29	245.45	245.63	245.55	246.88	---	246.50	248.14	247.90	247.34	246.56	245.75	245.05
30	245.41	245.61	245.59	246.63	---	246.54	248.14	247.77	247.30	246.61	245.65	245.00
31	245.39	---	245.70	246.71	---	246.54	---	247.76	---	246.63	245.65	---
MEAN	245.61	245.45	245.63	246.21	246.58	246.52	247.45	248.04	247.55	246.87	246.08	245.26
MAX	245.86	245.64	245.85	246.88	246.76	246.79	248.14	248.20	247.82	247.23	246.56	245.57
MIN	245.39	245.13	245.35	245.48	246.37	246.37	246.59	247.76	247.30	246.51	245.65	244.90

CAL YR 1992 MEAN 245.53 MAX 246.50 MIN 244.06
WTR YR 1993 MEAN 246.44 MAX 248.20 MIN 244.90

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 1993 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.	1978-93	4-11-93	17.35	142	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.	1988-93	3-31-93	20.17	36,600	3-31-93	20.17	36,600
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.	1988-93	4- 1-93	19.45	37,200	4- 1-93	19.45	37,200
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, 1967-93	4-11-93	7.89	1,580	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 0.3 mi downstream from bridge on State Highway 206 at Greene, and 0.6 mi downstream from Birdsall Brook. Drainage area is 593 mi^2.	1937-70‡, 1971-93	4-11-93	15.62	14,200	12-31-42	18.33	18,900

‡ Operated as a continuous-record gaging station.

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1993 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						
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.	1988-93	4-10-93	9.31	12,100	4-10-93	9.31	12,100
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, 1983-93	4-10-93	2.64	544	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‡, 1968-93	4-11-93	9.26	14,400	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, 1974-93	4-11-93	26.25	79,400	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 right bank at the upstream side of bridge on State Highway 96 over the Susquehanna River, at Owego. Drainage area is 4,216 mi^2.	1988-93	4-11-93	31.97	76,300	3-18-36 4-11-93	g 31.97	107,000 76,300
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‡, 1979-93	4-11-93	9.29	8,400	7- 8-35	11.50	23,500
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, 1.4 mi north of Owego, and 1.2 mi upstream from mouth. Drainage area is 151 mi^2.	1988-93	4-11-93	10.73	5,320	10-24-90	12.41	5,560

‡ 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 1993 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						
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.	1977-93	4-17-93	13.55	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, 1974-93	3-30-93	12.68	7,810	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.	1989-93	3-31-93	9.27	7,780	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‡, 1982-93	4- 1-93	6.30	740	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.	1988-93	4- 1-93	10.18	7,000	4- 1-93	10.18	7,000
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, 1983-93	4-16-93	15.03	324	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 1993 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, 1.0 mi downstream from Hoffman Brook, at Elmira. Drainage area is 2,162 mi^2.	1988-93	4- 1-93	12.43	32,800	10-24-90 4- 1-93	g 12.43	e34,200 32,800
		ALLEGHENY RIVER BASIN						
Ischua Creek tributary near Machias, NY (03010734)	Lat 42°24'28", long 78°31'33", 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, 1983-93	3-30-93	8.81	123	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 left 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‡, 1969-93	1- 1-93 4- 1-93	8.49 8.28	a 4,000	9-29-67	16.06	18,200
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‡, 1975-93	12-31-92	14.13	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, 1987-93	12-31-92	4.42	c	12-30-90	5.33	c
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.	1963-93	3-30-93	5.50	1,080	9-14-79	11.18	4,350

‡ Operated as a continuous-record gaging station.
§ Operated as a low-flow partial-record station.
a Ice jam.
b Miscellaneous measurements made.
c Discharge not determined.
e Estimate.
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 1993 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
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.	1985-93	11-12-92	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.	1985-93	11-12-92	7.16	d	6-22-87	11.20	d
Little Tonawanda Creek at Linden, NY (04216500)	Lat 42°52'37", long 78°09'48", Genesee County, Hydrologic Unit 041201041, 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 is 22.1 mi^2.	1913-68‡, 1970-72‡, 1977-92‡, 1993	1- 5-93	5.09	485	6-23-89	16.99	2,900
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, 1976-93	3-30-93	7.02	1,880	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.	1978-93	11-13-92	4.69	1,120	12-30-90 6-21-89	6.56 7.06	1,560 760
West Creek near Hilton, NY (04220250)	Lat 43°18'10", long 77°48'50", Monroe County, Hydrologic Unit 04130001, on right bank just downstream from bridge on Collamer Road, 0.5 mi north of Collamer, and 1.5 mi northwest of Hilton. Drainage area is 31.0 mi^2.	1989-93	6-23-89 5-17-90 4-22-91 3-27-92 4- 1-93	6.35 4.94 6.47 5.65 5.78	994 603 1,030 785 821	4-22-91	6.47	1,030
Slater Creek near Greece, NY (0422028490)	Lat 43°15'10", long 77°38'54", Monroe County, Hydrologic Unit, 04130001, on left bank about 25 ft upstream from bridge on Latta Road near Mt. Read Blvd., 4.3 mi east of North Greece, and 1.7 mi above mouth. Drainage area is 1.52 mi^2.	1989-93	6-23-89 5-17-90 3- 4-91 3-27-92 4- 1-93	3.07 3.62 2.93 3.15 3.80	71.2 112 61.9 76.6 126	4- 1-93	3.80	126
Stony Brook tributary at South Dansville, NY (04224807)	Lat 42°28'16", long 77°40'21" Steuben County, Hydrologic Unit 04130002, at culvert on Willey Road, 0.6 mi upstream from mouth, and 0.9 mi west of South Dansville. Drainage area is 3.15 mi^2.	1977-82, 1984-91, 1993	3-30-93	9.48	120	8- 3-81	15.89	790

‡ Operated as a continuous-record gaging station.
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 1993 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							
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, 1975-93	4- 2-93	12.97	194	4- 2-93 12-29-84	12.97 13.33	199 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‡, 1987-93	4-17-93	5.73	706	9-26-75 12-19-75	6.40 7.52	1,680 c
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.	1966-93	3-30-93	4.87	475	7-31-92	4.97	511
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, 1975-93	4-16-93	10.10	4,260	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.	1983-93	4-16-93	19.68	302	10-23-90	20.87	530
Schaeffer Creek near Canandaigua, NY (04234138)	Lat 42°54'25", long 77°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.	1980-93	3-30-93	12.84	332	3- 5-79 3-30-93	g 12.84	520 332
Mud Creek at East Victor, NY (04234200)	Lat 42°58'28", long 77°22'58", Ontario County, Hydrologic Unit 04140201, on left bank, 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, 1976-93	4- 2-93	6.85	1,680	6-22-72 4-21-91	7.85 7.22	1,800 1,880

‡ Operated as a continuous-record gaging station.
§ Operated as a low-flow partial-record station.
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 1993 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						
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.	1978-93	3-30-93	7.13	92	7-31-92	7.22	116
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‡, 1987-93	4-11-93	6.88	3,310	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 bridge on Cemetery Road, and about 0.8 mi north of village of Constantia. Drainage area is 38.4 mi^2.	1966-68‡, 1969, 1971-93	4-11-93	6.34	922	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, 1968-93	4-11-93	5.48	562	3-18-73	7.85	1,350

Discharge measurements made at miscellaneous sites during water year 1993

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		SUSQUEHANNA RIVER BASIN				
*01502632 Susquehanna River	Atlantic Ocean	Lat 42°17'29", long 75°28'36", Chenango County, Hydrologic Unit 02050101, on right bank at downstream side of bridge on State Highway 206 over the Susquehanna River, at Bainbridge.	1,610	1970-71, 1987-92	3-31-93	35,500
*01502731 Susquehanna River	Atlantic Ocean	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.	1,820	1987-92	3-31-93	33,300
*01503980 Chenango River	Susquehanna River	Lat 42°51'02", long 76°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.	24.3	1964-65, 1970-72, 1974, 1977-81, 1983, 1990	3-31-93	430

‡ Operated as a continuous-record gaging station.
* Also a crest-stage partial-record station.

Discharge measurements made at miscellaneous sites during water year 1993--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		SUSQUEHANNA RIVER BASIN--Continued				
*01507000 Chenango River	Susquehanna River	Lat 42°19'28", long 75°46'18", Chenango County, Hydrologic Unit 02050102, on left bank 0.3 mi downstream from bridge on State Highway 206 at Greene, and 0.6 mi downstream from Birdsall Brook.	593	1937-70‡, 1971-79, 1982-83, 1986, 1988-92	4- 1-93 4-11-93	10,500 13,300
*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	1987-92	4- 1-93	9,660
*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, 1988-92	4- 1-93	70,700
*01513831 Susquehanna River	Atlantic Ocean	Lat 42°06'05", long 76°15'41", Tioga County, Hydrologic Unit 02050103, on right bank at upstream side of bridge on State Highway 96 over the Susquehanna River, at Owego.	4,216	1987-92	4- 1-93	73,500
*01514000 Owego Creek	Susquehanna River	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.	185	1930-78‡, 1987, 1989-92	4-17-93	3,380
*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, 1.4 mi north of Owego, and 1.2 mi upstream from mouth.	151	1987-92	4-12-93 4-17-93	1,680 3,750
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, 1988-92	12-15-92 4- 1-93 5- 4-93 6- 7-93	76.4 3,440 199 42.1
*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	1988-92	3-26-93 4- 6-93	544 327

‡ Operated as a continuous-record gaging station.
* Also a crest-stage partial-record station.

Discharge measurements made at miscellaneous sites during water year 1993

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		SUSQUEHANNA RIVER BASIN--Continued				
*01527000 Cohocton River	Chemung River	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.	52.2	1951-81‡, 1985, 1990-92	1- 5-93	194
*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	1988-92	3-30-93	6,110
*01530301 Cuthrie Run	Sing Sing Creek	Lat 42°10'43", long 76°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.	5.39	1976, 1983-84, 1988-90	3-31-93 4-21-93	83.5 80.8
*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, 1.0 mi downstream from Hoffman Brook, at Elmira.	2,162	1988-92	3-31-93	22,000
		OHIO RIVER MAIN STEM				
*03010800 Olean Creek	Allegheny River	Lat 42°07'12", long 78°25'12", Cattaraugus County, Hydrologic Unit 05010001, on left 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.	198	1958-68‡, 1969, 1973, 1975-76, 1983, 1987	3-27-93 3-30-93	1,820 3,840
		NIAGARA RIVER BASIN				
*04216500 Little Tonawanda Creek	Tonawanda Creek	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.	22.1	1912-19, 1920-43, 1944-68‡, 1977-92‡	10-20-92	9.02

‡ Operated as a continuous-record gaging station.
* Also a crest-stage partial-record station.

Discharge measurements made at miscellaneous sites during water year 1993

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		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, 1988-92	11-23-92 3-30-93	143 513
*0422028490 Slater Creek	Lake Ontario	Lat 43°15'10", long 77°38'55", Monroe County, Hydrologic Unit 04130001, at bridge on Latta Road, 0.6 mi upstream from Fleming Creek, and 3.9 mi northeast of Greece.	1.52	1988-91	11-23-92 3-30-93	3.52 10.1
*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, 1992	4- 2-93 4- 4-93	174 139
*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‡, 1990-92	4-12-93	252
0423406130 Seneca River	Oswego River	Lat 42°57'46", long 76°44'17", Cayuga County, Hydrologic Unit 04140201, at bridge on U.S. Highway 20, 0.2 mi west of Free Bridge Corners, and 1.0 mi downstream from Cayuga-Seneca Canal Lock No. 1 (Mud Lock) at north end of Cayuga Lake.	1,566	---	7-28-93	446
*04234200 Mud Creek	Ganargua Creek	Lat 42°58'28", long 77°22'58", Ontario County, Hydrologic Unit 04140201, on left bank, 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, 1990-92	11-25-92	438
0423527688 Seneca River	Oswego River	Lat 43°01'03", long 76°42'42", Cayuga County, Hydrologic Unit 04140201, at bridge on State Highway 31, 0.9 mi northwest of Montezuma, and 1.6 mi downstream from confluence with Clyde River.	2,476	---	7-28-93	933

§ 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 1993

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		STREAMS TRIBUTARY TO LAKE ONTARIO--Continued				
04237936 Onondaga Creek	Onondaga Lake	Lat 42°51'18", long 76°08'15", Onondaga County, Hydrologic Unit 04140201, 1600 ft upstream of the collapsed Otisco Road bridge, 860 ft east of the main depression area, 1100 ft west of State Route 11A, and 0.3 mi southwest of Tully Valley.	14.2	---	10-30-91 10- 6-92	4.11 13.0
0423794605 Onondaga Creek Tributary No. 6	Onondaga Creek	Lat 42°51'22", long 76°08'20", Onondaga County, Hydrologic Unit 04140201, at mouth of Onondaga Creek Tributary No. 6, 860 ft east of main depression area, 1100 ft west of State Route 11A, and 1500 ft upstream of the collapsed Otisco Road bridge.	0.33	---	10-30-91 10- 6-92	0.460 0.540
0423794905 Onondaga Creek Tributary No. 8	Onondaga Creek	Lat 42°51'27", long 76°08'19", Onondaga County, Hydrologic Unit 04140201, 375 ft upstream of the collapsed Otisco Road bridge, 1150 west of State Route 11A, 325 ft west-southwest of the Bailey Cemetery, at Tully Valley.	1.04	---	10-30-91 10- 6-92	0.073 0.310
04237950 Onondaga Creek	Onondaga Lake	Lat 42°51'31", long 76°08'19", Onondaga County, Hydrologic Unit 04140201, 25 ft north (downstream) of the collapsed Otisco Road bridge, 1100 ft west of State Route 11A, and 450 ft west-northwest of the Bailey Cemetery, at Tully Valley.	16.4	---	10-30-91 10- 6-92	4.82 13.9
0423795620 Onondaga Creek Tributary No. 9	Onondaga Creek	Lat 42°52'29", long 76°09'04", Onondaga County, Hydrologic Unit 04140201, 35 ft west (upstream) of 2, 2-ft culverts under Tully Farms Road, 10 ft east (downstream) of water intake for adjacent homes, and 1.1 mi southwest of the village of Cardiff.	0.56	---	4-30-93 4-30-93 5- 1-93 5- 3-93 5- 4-93 5- 7-93 5-13-93 5-26-93 6- 8-93 7-10-93 7-29-93 9- 9-93	2.96 2.85 2.96 2.29 1.88 1.30 1.40 0.848 0.706 0.342 0.247 0.158
0423795630 North Branch of South Diversion Channel	Onondaga Creek Tributary No. 9	Lat 42°52'33", long 76°09'15", Onondaga County, Hydrologic Unit 04140201, 10 ft north (upstream) of 2 ft PVC culvert pipe, 625 ft west of Tully Farms Road, and 1.1 mi southwest of the village of Cardiff.	0.03	---	6- 8-93 7-10-93 7-29-93 9- 9-93	0.511 0.377 0.320 0.264

Discharge measurements made at miscellaneous sites during water year 1993

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		STREAMS TRIBUTARY TO LAKE ONTARIO--Continued				
0423795631 West Branch of South Diversion Channel	Onondaga Creek Tributary No. 9	Lat 42°52'33", long 76°09'15", Onondaga County, Hydrologic Unit 04140201, 10 ft west (upstream) of 2 ft PVC culvert pipe, 625 ft west of Tully Farms Road, and 1.1 mi southwest of the village of Cardiff.		---	6- 8-93	0.312
					7-10-93	0.241
					7-29-93	0.201
					9- 9-93	0.148
0423795635 South Diversion Channel	Onondaga Creek Tributary No. 9	Lat 42°52'30", long 76°09'04", Onondaga County, Hydrologic Unit 04140201, Outlet of 2 ft PVC culvert pipe for the south diversion of the 1993 LaFayette Mudslide, 10 ft west of 2, 2-ft culverts under Tully Farms Road, 20 ft east (downstream) of water intake for adjacent homes, and 1.1 mi southwest of the village of Cardiff.	0.06	---	4-30-93	1.17
					4-30-93	0.890
					5- 1-93	0.865
					5- 3-93	1.36
					5- 4-93	1.20
					5- 7-93	1.06
					5-13-93	0.924
					5-26-93	1.01
					6- 8-93	0.823
					7-10-93	0.619
					7-29-93	0.522
					9- 9-93	0.412
0423795670 Onondaga Creek Tributary No. 10	Onondaga Creek	Lat 42°52'45", long 76°09'17", Onondaga County, Hydrologic Unit 04140201, 10 ft south (upstream) of logging road culvert, 225 ft west of Tully Farms Road and 0.9 mi southwest of the village of Cardiff.	0.10	---	4-30-93	0.348
					4-30-93	0.493
					5- 1-93	0.270
					5- 3-93	0.210
					5- 4-93	0.183
					5- 7-93	0.195
					5-13-93	0.219
					5-26-93	0.126
					6- 8-93	0.127
					7-10-93	0.084
					7-29-93	0.071
					9- 9-93	0.068
*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, 1990-92	1- 6-93	353.0

‡ Operated as a continuous-record gaging station.
* Also a crest-stage partial-record station.

425129076082701 AT OTISCO ROAD NEAR TULLY, NY

LOCATION.--Lat 42°51'29", long 76°08'27", Onondaga County, Hydrologic unit 04140201, in backyard of Stafford residence at 5445 Otisco Road.

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

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 equivalent to .01 in. of precipitation. Tips of the raingage bucket are recorded and accumulated at hourly intervals 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.

PERIOD OF RECORD MAXIMUM.--Maximum daily precipitation 1.80 in. on April 10, 1993.

ANNUAL MAXIMUM.--Maximum daily precipitation 1.80 in. on April 10.

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.00	.00	.01	.00	.00	.01	.18	.00	.07	.00	.09	.02
2	e.00	.45	.00	.00	.00	e.00	.46	.00	.00	.31	.75	.17
3	e.00	.07	.06	.18	.12	e.00	.02	.00	.00	.00	.00	.84
4	e.00	.09	.01	.14	.00	e.00	.00	.00	.00	.00	.04	.10
5	e.00	.15	.00	.32	.00	e.05	.00	.26	.52	.00	.00	.00
6	e.02	.16	.00	.00	.00	e.04	.00	.00	.08	.02	.00	.21
7	e.00	.00	.01	.00	.00	e.02	.00	.00	.00	.00	.28	.01
8	e.00	.00	.00	.00	.00	e.13	.00	.00	.09	.00	.00	.00
9	e.07	.00	.00	.01	.01	.03	.01	.00	.09	.00	.00	.00
10	e.00	.08	.00	.00	.00	.22	1.80	.00	.20	.00	.02	.48
11	e.27	.22	.17	.00	.00	.00	.16	.01	.00	.00	.00	.07
12	e.00	.20	.00	.00	.01	.00	.22	.00	.00	.53	.00	.00
13	e.00	.00	.11	.90	.00	.70	.00	.00	.00	.00	.00	.00
14	e.04	.02	.00	.00	.00	.02	.00	.00	.00	.06	.00	.00
15	e.19	.00	.00	.00	.08	.00	.02	.06	.15	.00	.00	.09
16	e.18	.00	.09	.00	.00	.00	1.70	.02	.00	.00	.16	.00
17	e.14	.02	.50	.00	.00	.14	.41	.00	.00	.00	.00	.00
18	e.02	.03	.01	.00	.00	.00	.00	.01	.03	.00	.00	.04
19	e.20	.00	.00	.00	.00	.00	.00	.21	.08	.97	.00	.00
20	e.00	.00	.35	.00	.00	.00	.27	.00	.71	.00	.36	.00
21	e.17	.11	.00	.06	.00	.07	.77	.00	.35	.00	.00	.00
22	e.00	.78	.00	.12	.25	.00	.67	.05	.00	.00	.00	.00
23	e.00	.14	.01	.02	.00	.26	.23	.00	.00	.00	.00	.32
24	e.63	.37	.01	.23	.00	.01	.10	.08	.00	.00	.13	.00
25	e.27	.01	.00	.00	.00	.00	.60	.00	.00	.00	.00	.01
26	e.05	.00	.00	.01	.01	.00	.20	.02	.13	.08	.00	.32
27	.00	.00	.00	.00	.00	.00	.02	.01	.03	.01	.00	.55
28	.00	.00	.01	.00	.00	.03	.00	.08	.08	.00	.01	.03
29	.19	.00	.21	.01	---	.27	.00	.00	.00	.05	.00	.00
30	.00	.00	.46	.00	---	.00	.00	.00	.00	.47	.00	.00
31	.00	---	.05	.24	---	.00	---	.61	---	.06	.34	---
TOTAL	2.44	2.90	2.07	2.24	0.48	2.00	7.84	1.42	2.61	2.56	2.18	3.26

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 sea level. Measuring point: Top of shelter base, 2.87 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.

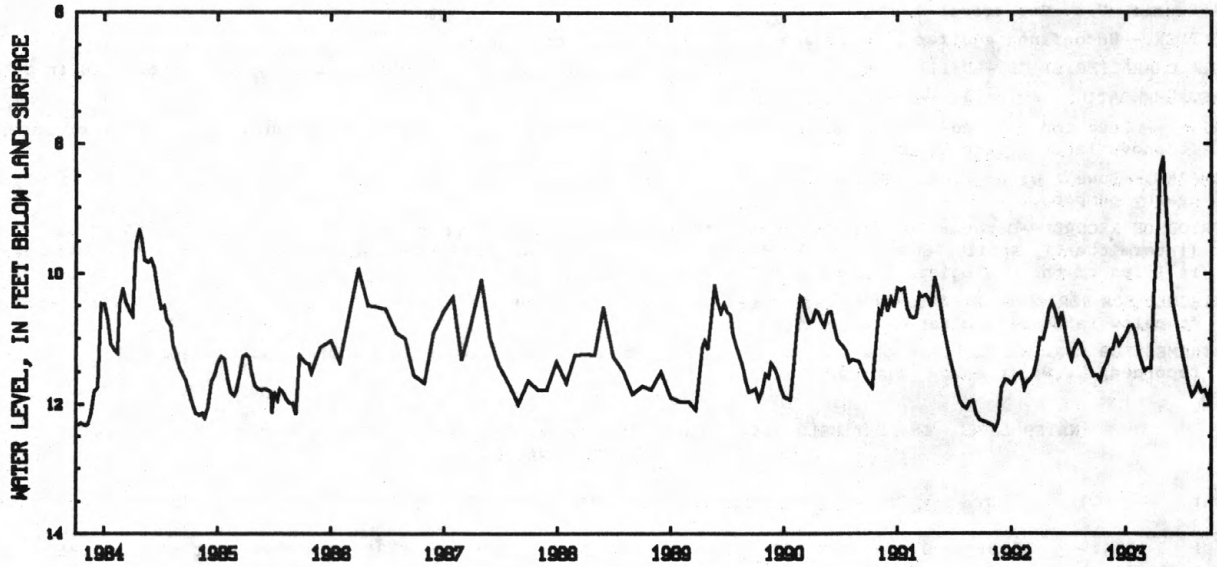
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.13 ft below land-surface datum, Apr. 28-29, 1993; lowest, 13.18 ft below land-surface datum, June 25, 1985.

EXTREMES FOR CURRENT YEAR.--Highest water level recorded, 8.13 ft below land-surface datum, Apr. 28, 29; lowest recorded, 11.96 ft below land-surface datum, Sep. 16.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.57	11.36	10.97	10.93	11.00	11.48	10.01	8.31	10.50	11.30	11.85	11.82
2	11.57	11.34	10.96	10.92	11.05	11.49	9.92	8.41	10.56	11.31	11.83	11.84
3	11.59	11.29	11.00	10.88	11.03	11.54	9.83	8.51	10.59	11.32	11.85	11.81
4	11.64	11.23	11.00	10.83	11.08	11.52	9.74	8.59	10.64	11.36	11.84	11.79
5	11.67	11.21	10.99	10.81	11.07	11.51	9.65	8.65	10.67	11.40	11.85	11.78
6	11.69	11.21	11.04	10.83	11.12	11.53	9.59	8.72	10.72	11.41	11.85	11.78
7	11.69	11.21	11.03	10.79	11.12	11.54	9.56	8.82	10.75	11.43	11.83	11.78
8	11.69	11.19	11.09	10.78	11.14	11.50	9.54	8.92	10.77	11.45	11.82	11.78
9	11.68	11.19	11.12	10.81	11.19	11.50	9.52	9.00	10.76	11.46	11.80	11.77
10	11.65	11.17	11.09	10.80	11.19	11.45	9.45	9.08	10.75	11.48	11.79	11.77
11	11.61	11.14	11.07	10.78	11.23	11.43	9.12	9.13	10.77	11.50	11.77	11.81
12	11.55	11.11	11.13	10.78	11.19	11.46	8.78	9.18	10.81	11.50	11.75	11.87
13	11.53	11.11	11.16	10.73	11.15	11.35	8.64	9.29	10.83	11.55	11.75	11.88
14	11.53	11.13	11.15	10.75	11.26	11.38	8.57	9.39	10.83	11.55	11.77	11.91
15	11.50	11.13	---	10.73	11.31	11.51	8.54	9.46	10.85	11.57	11.79	11.91
16	11.46	11.13	---	10.71	11.27	11.48	8.52	9.54	10.90	11.59	11.78	11.94
17	11.47	11.10	---	10.69	11.30	11.47	8.48	9.62	10.93	11.63	11.72	11.95
18	11.45	11.13	---	10.77	11.32	11.50	8.46	9.68	10.95	11.65	11.69	11.93
19	11.43	11.15	---	10.79	11.35	11.49	8.43	9.73	10.98	11.65	11.69	11.91
20	11.46	11.16	---	10.79	11.36	11.45	8.44	9.82	11.01	11.67	11.67	11.91
21	11.45	11.11	---	10.79	11.36	11.46	8.47	9.89	11.01	11.71	11.69	11.91
22	11.47	11.10	---	10.76	11.34	11.48	8.43	9.97	11.04	11.73	11.70	11.90
23	11.44	11.08	---	10.83	11.40	11.44	8.38	10.03	11.10	11.75	11.68	11.91
24	11.40	11.11	---	10.82	11.44	11.34	8.30	10.07	11.13	11.78	11.70	11.90
25	11.38	11.05	---	10.89	11.48	11.23	8.20	10.14	11.13	11.80	11.73	11.91
26	11.34	11.00	---	10.90	11.46	11.12	8.20	10.23	11.15	11.81	11.75	11.91
27	11.34	11.00	---	10.87	11.48	10.99	8.18	10.28	11.17	11.82	11.75	11.87
28	11.33	10.99	---	10.91	11.49	10.84	8.14	10.32	11.20	11.85	11.76	11.82
29	11.32	10.97	---	10.94	---	10.62	8.14	10.38	11.24	11.85	11.79	11.78
30	11.34	10.96	10.98	10.95	---	10.36	8.20	10.44	11.27	11.86	11.81	11.72
31	11.35	---	10.92	10.91	---	10.16	---	10.44	---	11.86	11.81	---
MEAN	11.50	11.14	---	10.82	11.26	11.31	8.85	9.49	10.90	11.60	11.77	11.85
LOW	11.69	11.36	---	10.95	11.49	11.54	10.01	10.44	11.27	11.86	11.85	11.95
HIGH	11.32	10.96	---	10.69	11.00	10.16	8.14	8.31	10.50	11.30	11.67	11.72

420646075531201. Local number, Bm 100--Continued.



BROOME COUNTY

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 sea level. 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, 9.69 ft below land-surface datum, Apr. 12, 1993; lowest, 33.47 ft below land-surface datum, Sept. 23, 1965.

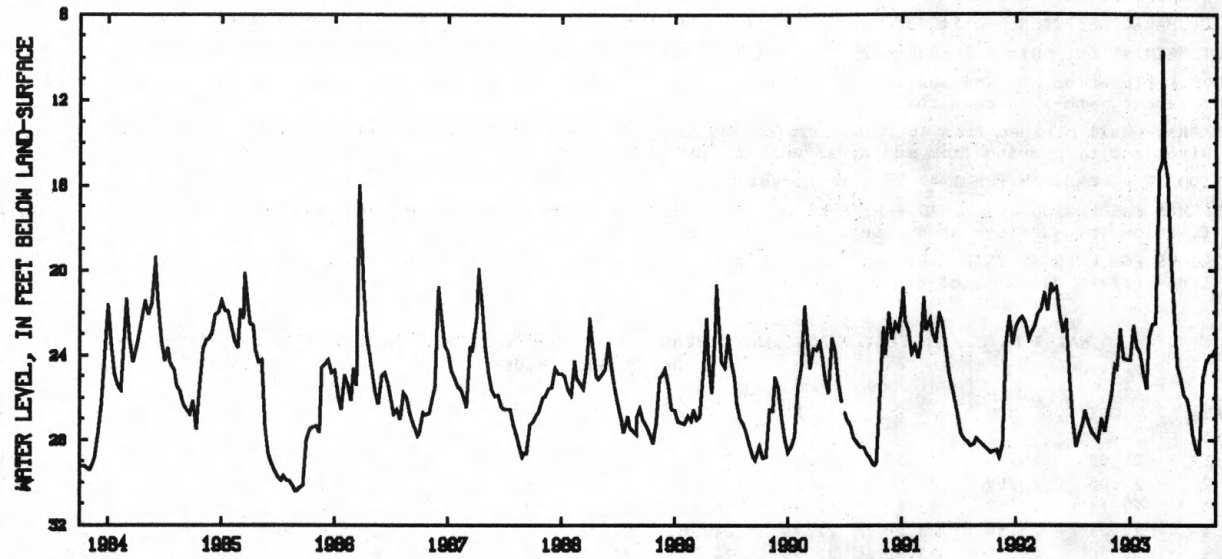
EXTREMES FOR CURRENT YEAR.--Highest water level, 9.69 ft below land-surface datum, Apr. 12; lowest, 28.63 ft below land-surface datum, Aug. 6, 7.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.98	25.91	22.93	23.53	24.07	23.07	12.98	16.34	24.56	26.18	28.46	24.34
2	27.05	25.98	23.07	22.97	24.23	22.97	11.12	16.90	24.62	26.25	28.51	24.34
3	27.14	25.87	23.17	22.70	24.31	22.91	10.53	17.38	24.74	26.32	28.54	24.31
4	27.23	25.54	23.28	22.70	24.36	22.84	11.17	17.81	24.90	26.40	28.56	24.26
5	27.30	25.03	23.48	22.73	24.37	22.77	12.39	18.18	25.02	26.46	28.59	24.19
6	27.41	24.67	23.65	22.51	24.47	22.73	13.63	18.43	25.05	26.53	28.62	24.13
7	27.52	24.58	23.75	22.28	24.60	22.70	14.39	18.67	25.02	26.62	28.62	24.08
8	27.57	24.54	23.91	22.27	24.76	22.65	14.80	18.91	25.08	26.71	28.61	24.04
9	27.61	24.48	24.06	22.44	24.85	22.62	15.08	19.12	25.12	26.77	28.61	24.02
10	27.61	24.45	24.18	22.62	24.89	22.58	14.80	19.33	25.08	26.87	28.60	24.06
11	27.39	24.54	24.33	22.78	24.93	22.55	11.33	19.54	25.12	26.97	28.51	24.08
12	27.18	24.66	24.45	22.91	24.97	22.55	9.79	19.75	25.23	27.05	28.21	24.06
13	27.06	24.67	24.51	22.98	25.06	22.50	10.33	19.98	25.29	27.16	27.70	24.04
14	27.01	24.50	24.56	23.02	25.14	22.56	11.53	20.19	25.30	27.25	27.15	24.03
15	26.98	24.38	24.67	23.06	25.22	22.66	12.96	20.39	25.38	27.33	26.65	24.02
16	26.96	24.35	24.80	23.15	25.30	22.66	14.07	20.56	25.51	27.42	26.24	24.01
17	26.93	24.42	24.84	23.21	25.41	22.64	14.05	20.67	25.64	27.51	25.86	24.00
18	26.87	24.47	24.63	23.28	25.49	22.62	13.86	20.99	25.74	27.59	25.56	23.97
19	26.78	24.53	24.33	23.42	25.55	22.57	14.07	21.48	25.83	27.65	25.32	23.94
20	26.69	24.62	24.19	23.61	25.57	22.52	14.70	21.95	25.92	27.74	25.12	23.93
21	26.69	24.68	24.13	23.79	25.33	22.48	15.39	22.34	25.98	27.82	24.95	23.91
22	26.72	24.65	24.08	23.86	24.88	22.47	15.41	22.70	25.95	27.89	24.78	23.91
23	26.67	24.45	24.09	23.87	24.45	22.45	15.18	23.00	25.91	27.96	24.63	23.91
24	26.64	24.04	24.13	23.81	24.09	22.35	14.83	23.28	25.87	28.02	24.54	23.91
25	26.59	23.48	24.13	23.77	23.79	22.22	14.55	23.57	25.86	28.08	24.49	23.90
26	26.44	23.01	24.20	23.72	23.54	22.03	14.61	23.85	25.89	28.13	24.45	23.88
27	26.27	22.70	24.32	23.76	23.35	21.73	14.21	24.10	25.94	28.20	24.40	23.84
28	26.19	22.58	24.47	23.87	23.20	21.23	14.44	24.31	25.98	28.26	24.38	23.75
29	26.11	22.67	24.60	23.90	---	20.23	15.03	24.49	26.05	28.32	24.37	23.67
30	25.97	22.77	24.58	23.90	---	18.14	15.71	24.55	26.11	28.38	24.34	23.63
31	25.88	---	24.19	23.91	---	15.30	---	24.56	---	28.42	24.33	---
MEAN	26.89	24.37	24.12	23.24	24.65	22.07	13.56	20.88	25.46	27.36	26.51	24.01
LOW	27.61	25.98	24.84	23.91	25.57	23.07	15.71	24.56	26.11	28.42	28.62	24.34
HIGH	25.88	22.58	22.93	22.27	23.20	15.30	9.79	16.34	24.56	26.18	24.33	23.63

CAL YR 1992 MEAN 24.35 HIGH 20.57 LOW 28.54
WTR YR 1993 MEAN 23.60 HIGH 9.79 LOW 28.62

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 sea level. 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.

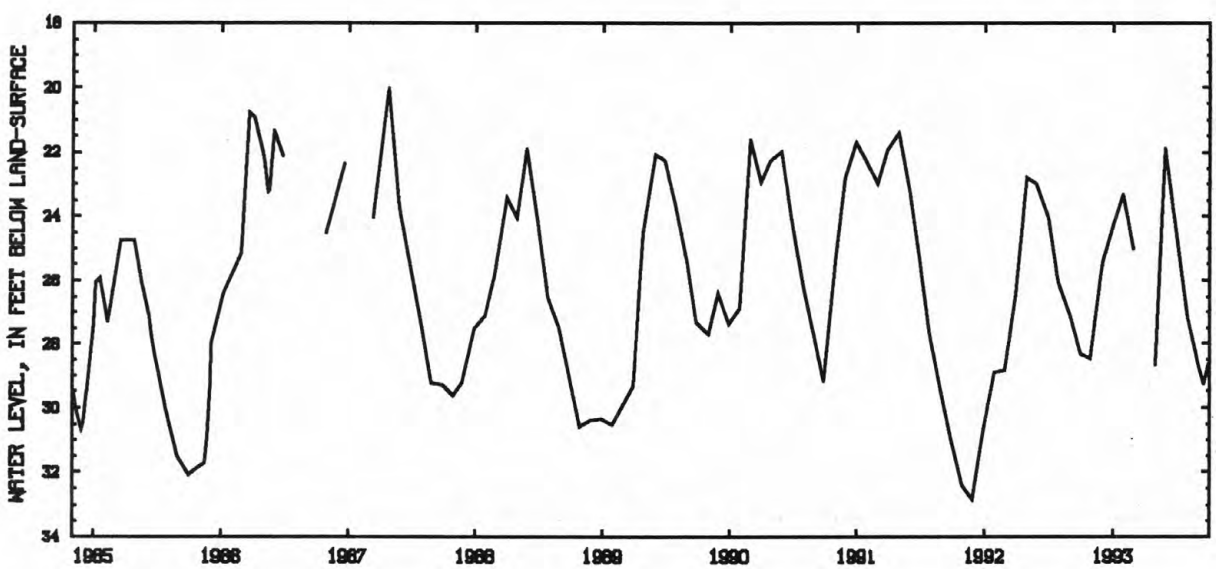
PERIOD OF RECORD.-- September 1980 to current year. Records for September 1980 to February 1982 are unpublished and available in files of the Geological Survey.

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, 21.85 ft below land-surface datum, May 28; lowest measured, 29.29 ft below land-surface datum, Sep. 15.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28	28.46	DEC 29	24.39	FEB 26	25.02	MAY 28	21.85	JUL 30	27.16	SEP 15	29.29
NOV 30	25.47	JAN 28	23.30	APR 29	28.67	JUN 30	24.43	AUG 30	28.69	27	28.63



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 sea level. 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.

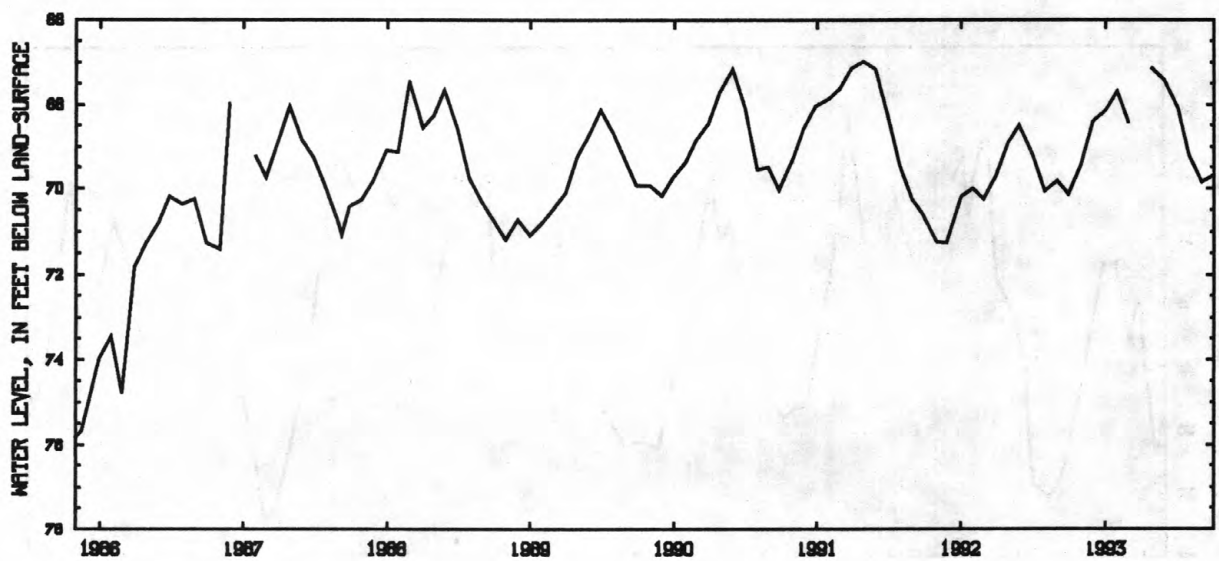
PERIOD-OF-RECORD.--November 1985 to current year.

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, 67.13 ft below land-surface datum, Apr. 29; lowest measured, 69.86 ft below land-surface datum, Aug. 30.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28	69.47	DEC 29	68.15	FEB 26	68.42	MAY 28	67.42	JUL 30	69.20	SEP 27	69.70
NOV 30	68.39	JAN 28	67.68	APR 29	67.13	JUN 30	68.07	AUG 30	69.86		



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 sea level. Measuring point: Top of casing, 0.28 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, 2.59 ft below land-surface datum, Jan. 5; lowest recorded, 8.43 ft below land-surface datum, Sep. 24.

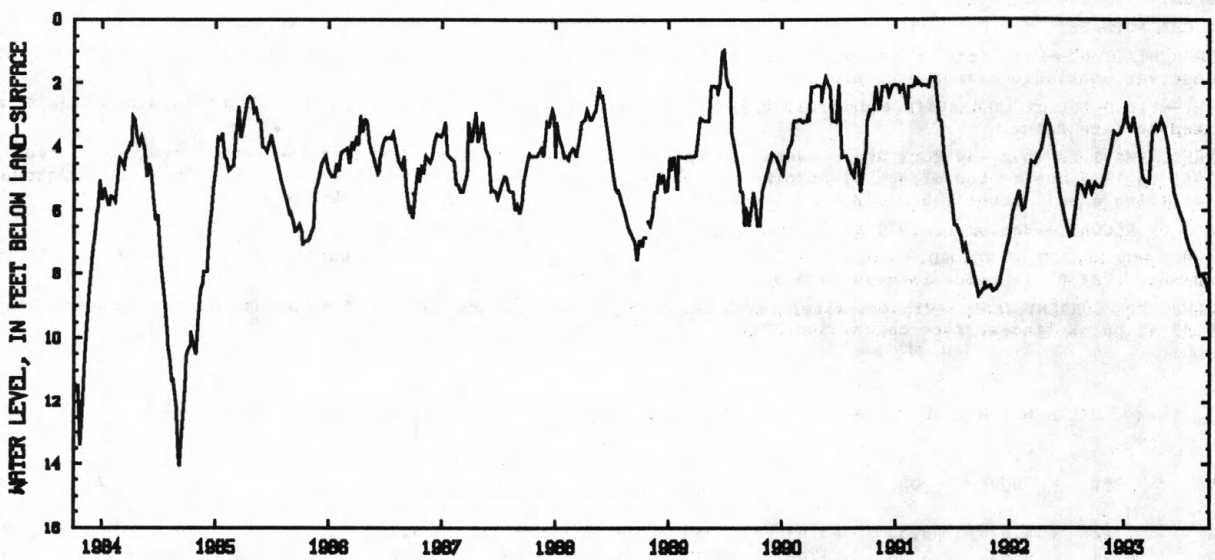
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.12	4.87	3.53	3.43	3.50	4.79	3.21	3.23	4.89	6.12	7.11	8.17
2	4.98	4.63	3.49	3.48	3.73	4.81	3.28	3.20	4.98	6.07	7.08	8.15
3	4.99	4.64	3.78	3.24	3.61	4.98	3.52	3.22	5.03	6.11	7.24	8.06
4	5.20	4.46	3.73	2.95	3.79	4.84	3.56	3.21	5.09	6.22	7.27	8.10
5	5.32	4.44	3.75	2.83	3.64	4.80	3.50	3.17	5.10	6.25	7.32	8.15
6	5.38	4.52	3.70	2.95	3.77	5.03	3.51	3.25	5.35	6.20	7.27	8.18
7	5.34	4.56	3.63	2.86	3.45	5.08	3.52	3.33	5.36	6.27	7.33	8.20
8	5.29	4.52	3.85	2.90	3.46	4.96	---	3.36	5.32	6.30	7.45	8.13
9	5.21	4.53	3.94	3.14	3.65	5.21	3.32	3.39	5.34	6.33	7.45	8.01
10	5.28	4.39	3.64	3.19	3.67	5.09	3.31	3.38	5.45	6.38	7.40	8.05
11	5.26	4.25	3.61	3.16	3.81	5.21	3.46	3.31	5.58	6.37	7.41	8.26
12	5.28	3.89	3.92	3.10	3.58	5.23	3.56	3.17	5.64	6.39	7.43	8.24
13	5.43	4.00	4.09	e2.90	3.42	4.81	3.63	3.30	5.64	6.55	7.48	8.25
14	5.55	4.14	4.03	3.17	3.82	4.90	3.57	3.35	5.59	6.57	7.54	8.17
15	5.54	4.15	3.82	3.14	4.07	5.38	3.50	3.39	5.59	6.63	7.56	8.19
16	5.40	4.15	3.77	3.05	3.82	5.15	3.56	3.62	5.78	6.67	7.53	8.31
17	5.53	3.96	3.72	2.96	4.04	5.12	3.66	3.70	5.79	6.74	7.56	8.25
18	5.36	4.11	3.89	3.39	4.10	5.44	3.69	3.70	5.76	6.78	7.65	8.24
19	5.31	4.16	3.64	3.56	4.27	5.34	3.59	3.71	5.77	6.71	7.65	8.33
20	5.26	4.11	3.55	3.53	4.31	5.13	3.46	3.87	5.77	6.81	7.59	8.31
21	5.23	3.88	3.57	3.34	4.14	5.08	3.53	4.03	5.72	6.90	7.79	8.26
22	5.34	3.72	3.41	3.19	4.10	5.06	3.43	4.20	5.79	6.95	7.84	8.35
23	5.09	3.70	3.31	3.34	---	4.85	3.45	4.25	5.95	6.98	7.83	8.27
24	4.81	3.85	3.56	3.15	4.73	4.75	3.58	4.22	5.99	7.04	7.85	8.39
25	4.84	3.72	3.39	3.56	4.89	4.75	3.47	4.41	5.94	7.06	8.00	8.29
26	4.71	3.56	3.67	3.49	4.80	4.67	3.56	4.55	5.92	7.00	8.02	8.17
27	4.79	3.62	3.73	3.28	4.92	4.44	3.53	4.64	5.92	7.04	7.96	8.20
28	4.73	3.60	3.74	3.26	4.94	4.14	3.32	4.61	5.94	7.08	8.00	8.27
29	4.73	3.60	3.65	3.46	---	3.94	3.16	4.85	6.03	7.04	8.10	8.34
30	4.83	3.53	3.49	3.43	---	3.82	3.13	4.80	---	7.08	8.09	8.33
31	4.86	---	3.26	3.09	---	3.56	---	4.65	---	7.17	8.08	---
MEAN	5.16	4.11	3.67	3.21	---	4.85	---	3.78	---	6.64	7.61	8.22
MAX	5.55	4.87	4.09	3.56	---	5.44	---	4.85	---	7.17	8.10	8.39
MIN	4.71	3.53	3.26	2.83	---	3.56	---	3.17	---	6.07	7.08	8.01

CAL YR 1992 MEAN 4.96 HIGH 3.02 LOW 6.97

e Estimated

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 sea level. Measuring point: Top of shelter base, 3.10 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.

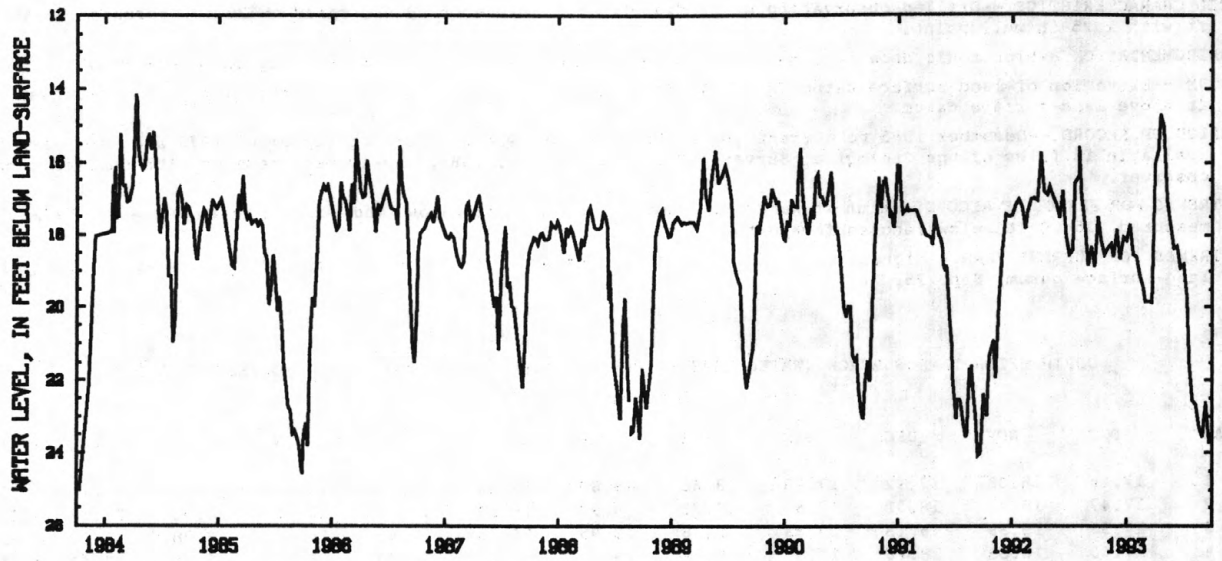
EXTREMES FOR CURRENT YEAR.--Highest water level, 13.96 ft below land-surface datum, Apr. 3; lowest, 24.06 ft below land-surface datum, Sep. 25, 26.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.46	18.38	17.92	17.99	18.66	19.89	15.22	15.40	18.44	18.75	22.60	23.64
2	17.47	18.40	18.02	17.87	18.72	19.93	14.34	15.72	18.45	18.73	22.57	23.70
3	17.53	18.39	18.13	17.83	18.76	19.95	14.00	15.99	18.45	18.78	22.53	23.74
4	17.60	18.33	18.26	17.80	18.79	19.97	14.04	16.23	18.45	18.80	22.49	23.73
5	17.70	18.27	18.38	17.74	18.82	19.97	14.31	16.45	18.47	18.79	22.46	23.57
6	17.81	18.22	18.52	17.66	18.81	19.97	14.64	16.62	18.48	18.85	22.48	23.16
7	17.93	18.18	18.61	17.59	18.89	19.99	14.94	16.75	18.45	19.00	22.50	22.90
8	18.02	18.16	18.67	17.57	18.97	19.99	15.23	16.87	18.40	19.22	22.55	22.69
9	18.11	18.19	18.67	17.61	19.05	19.94	15.49	16.98	18.37	19.48	22.62	22.58
10	18.20	18.25	18.66	17.71	19.12	19.85	15.67	17.07	18.32	19.72	22.67	22.58
11	18.26	18.30	18.61	17.82	19.15	19.78	15.46	17.15	18.27	19.95	22.74	22.65
12	18.31	18.31	18.55	17.90	19.17	19.76	14.96	17.22	18.24	20.17	22.83	22.75
13	18.35	18.25	18.49	17.93	19.18	19.74	14.87	17.30	18.24	20.39	22.92	22.86
14	18.42	18.23	18.43	17.98	19.19	19.76	15.01	17.37	18.25	20.59	23.02	22.99
15	18.48	18.24	18.38	18.05	19.21	19.80	15.24	17.44	18.31	20.77	23.10	23.13
16	18.53	18.30	18.34	18.14	19.25	19.83	15.48	17.50	18.43	20.94	23.15	23.27
17	18.54	18.36	18.30	18.23	19.28	19.84	15.31	17.56	18.51	21.09	23.18	23.40
18	18.51	18.45	18.20	18.33	19.33	19.77	14.74	17.61	18.59	21.25	23.20	23.53
19	18.52	18.54	18.10	18.49	19.38	19.83	14.57	17.66	18.76	21.41	23.26	23.65
20	18.55	18.62	18.06	18.54	19.44	19.88	14.69	17.72	18.91	21.55	23.32	23.73
21	18.56	18.69	18.05	18.54	19.51	19.90	14.93	17.77	18.99	21.57	23.37	23.80
22	18.61	18.73	18.01	18.52	19.61	19.92	15.06	17.83	18.95	21.57	23.34	23.87
23	18.63	18.67	18.00	18.50	19.69	19.92	15.05	17.89	18.86	21.65	23.18	23.95
24	18.63	18.47	18.02	18.47	19.73	19.85	14.56	17.94	18.78	21.77	23.07	24.01
25	18.60	18.25	18.06	18.45	19.77	19.66	14.30	18.00	18.75	21.90	23.06	24.05
26	18.53	18.06	18.12	18.45	19.81	19.29	14.31	18.05	18.79	22.05	23.12	24.06
27	18.48	17.92	18.16	18.45	19.84	18.85	14.36	18.09	18.90	22.19	23.21	24.03
28	18.43	17.84	18.20	18.49	19.85	18.35	14.48	18.15	18.97	22.31	23.33	23.93
29	18.41	17.82	18.23	18.53	---	17.76	14.75	18.22	18.93	22.40	23.43	23.59
30	18.40	17.86	18.23	18.58	---	16.92	15.06	18.29	18.83	22.49	23.51	22.99
31	18.38	---	18.15	18.62	---	16.05	---	18.37	---	22.57	23.58	---
MEAN	18.26	18.29	18.28	18.14	19.25	19.48	14.84	17.33	18.58	20.67	22.98	23.42
MAX	18.63	18.73	18.67	18.62	19.85	19.99	15.67	18.37	18.99	22.57	23.58	24.06
MIN	17.46	17.82	17.92	17.57	18.66	16.05	14.00	15.40	18.24	18.73	22.46	22.58

CAL YR 1992 MEAN 17.59 HIGH 15.60 LOW 19.60
WTR YR 1993 MEAN 19.13 HIGH 14.00 LOW 24.06

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.--Prior to Apr. 17, 1990 and after Sep. 30, 1992, periodic measurement with chalked tape by USGS personnel. Electronic data recorder--60-minute average, Apr. 17, 1990 through Sep. 30, 1992.

DATUM.--Elevation of land surface datum is 1,752.51 ft above sea level. Measuring point: Top of 0.25-in steel-plate well cover, inside shelter door, 0.44 ft below land-surface datum.

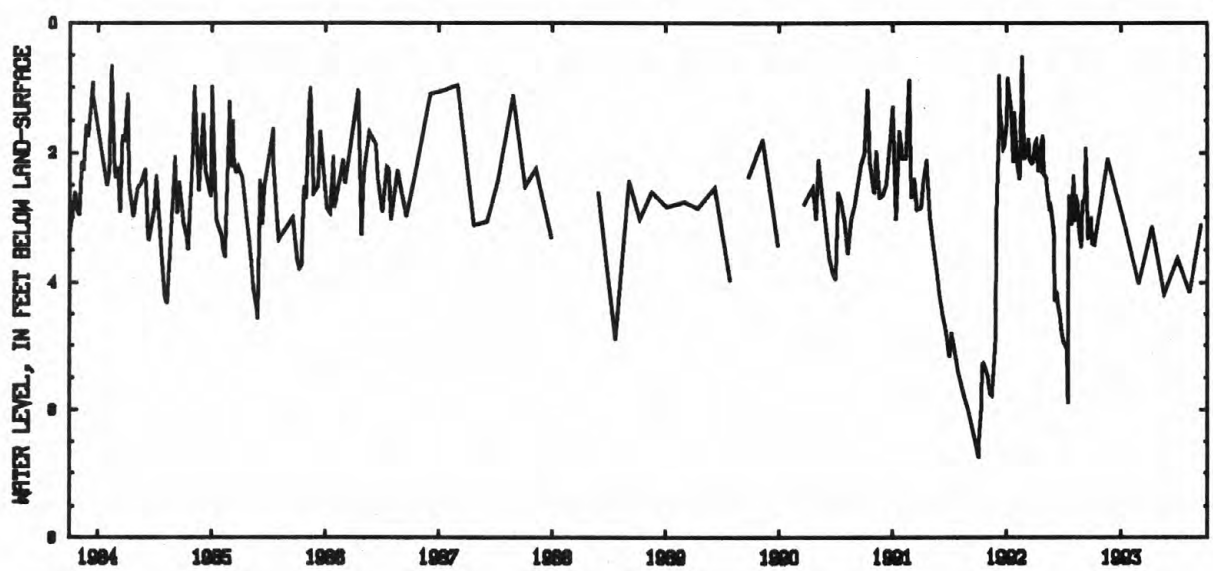
PERIOD OF RECORD.--May 1949 to current year.

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 measured, 2.09 ft below land-surface datum, Nov. 19; lowest measured, 4.18 ft below land-surface datum, May 18.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 08	3.42	JAN 13	3.15	APR 07	3.13	JUN 29	3.63	AUG 05	4.16
NOV 19	2.09	FEB 24	4.02	MAY 18	4.18	AUG 04	4.15	SEP 08	3.12



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 from 0 ft to 130 ft, diameter 10 in from 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 sea level. Measuring point: Top of plywood sheet, 5.53 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.

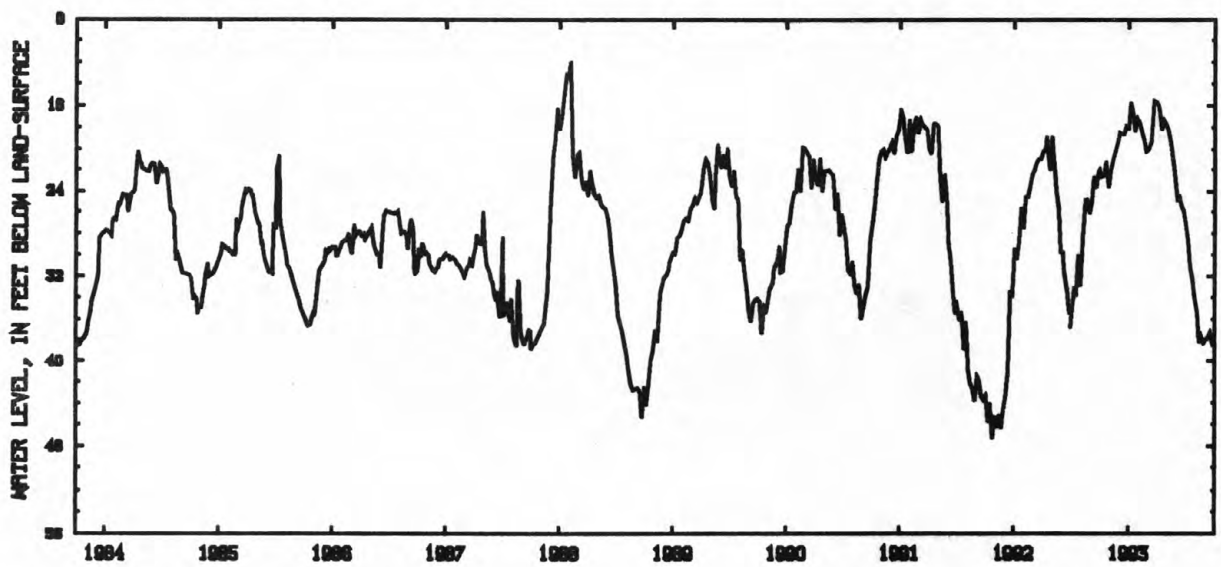
REVISED RECORD.--WDR NY-87-3: 1983-86. WDR NY-91-3: 1988-90.

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, 15.52 ft below land-surface datum, Mar. 22; lowest measured, 38.50 ft below land-surface datum, Sep. 24.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM,WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02	21.94	DEC 04	18.45	FEB 05	17.50	APR 08	16.23	JUN 11	24.48	AUG 13	38.20
09	22.53	14	18.59	12	18.22	16	18.13	18	25.59	20	37.52
16	22.50	18	18.58	19	18.90	23	17.32	25	25.87	27	38.31
23	21.11	23	17.90	26	20.24	30	17.71	JUL 01	27.11	SEP 03	37.92
30	23.59	30	18.09	MAR 05	20.02	MAY 07	18.20	09	28.61	10	37.62
NOV 06	22.02	JAN 08	15.65	12	19.49	14	19.44	16	31.02	17	37.24
13	20.92	15	16.38	15	19.16	21	20.83	23	32.32	24	38.50
20	20.27	22	18.29	22	15.52	28	22.31	30	33.92		
30	19.08	29	17.12	APR 02	15.65	JUN 04	24.72	AUG 06	35.29		



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 sea level. 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.

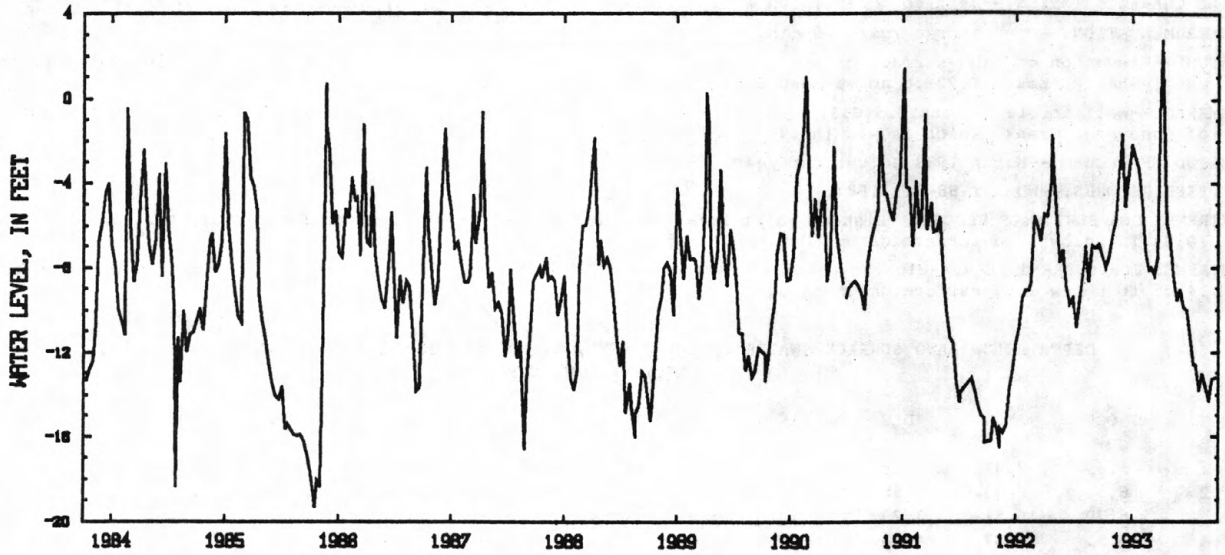
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 2.80 ft above land-surface datum, Apr. 3, 1993; lowest, 19.35 ft below land-surface datum, Oct. 16, 1985.

EXTREMES FOR CURRENT YEAR.--Highest water level recorded, 2.80 ft above land-surface datum, Apr. 3; lowest recorded, 14.65 ft below land-surface datum, Aug. 27.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.69	7.48	2.76	.20	4.94	7.81	---	5.87	9.48	11.04	13.73	14.28
2	6.58	6.73	2.85	---	6.01	8.01	-2.47	6.14	9.72	10.63	13.74	14.30
3	6.70	6.51	3.29	---	6.32	8.48	---	7.46	9.06	11.12	13.77	14.34
4	7.51	6.97	4.56	---	5.86	8.65	---	7.50	8.66	10.26	13.77	14.22
5	7.76	5.66	5.17	-1.63	5.65	8.80	---	7.78	9.46	10.44	13.73	14.11
6	8.12	5.13	4.67	-2.05	6.52	7.38	---	7.08	8.97	11.69	13.81	14.13
7	8.41	5.91	4.46	---	6.85	6.69	---	6.91	8.42	12.13	12.81	13.45
8	8.73	5.06	5.50	---	7.22	7.63	---	7.73	9.02	12.13	12.34	13.20
9	8.98	4.65	5.94	---	6.93	8.45	---	8.07	9.26	12.16	12.78	13.25
10	7.98	5.66	5.10	---	7.21	8.34	---	8.34	9.86	12.54	12.96	13.21
11	7.12	6.04	4.98	---	7.63	7.70	.64	8.58	9.79	12.58	13.00	13.12
12	8.11	5.95	5.91	---	7.87	7.27	2.15	8.87	9.72	12.68	13.08	13.00
13	8.47	4.11	5.45	1.64	6.89	7.98	3.10	9.19	8.64	12.69	13.15	12.95
14	8.84	3.57	4.88	1.52	6.33	8.25	3.50	9.35	9.46	12.76	13.23	13.07
15	7.71	3.59	5.77	.37	7.02	7.57	4.72	8.72	9.82	12.87	13.33	13.55
16	8.40	3.43	6.09	.17	7.83	7.24	5.24	7.87	10.10	12.88	13.48	13.30
17	7.05	4.14	5.59	1.18	7.18	7.87	4.49	8.65	10.40	12.95	13.51	13.23
18	6.22	3.08	3.76	2.40	6.93	7.93	4.21	9.06	10.63	12.98	13.53	13.18
19	6.81	2.92	3.26	2.60	7.83	8.14	5.35	9.27	10.77	12.42	13.57	13.16
20	7.44	3.85	3.61	3.34	8.11	7.49	5.85	9.54	10.01	12.56	13.57	13.18
21	7.82	3.14	3.54	4.62	7.30	6.40	6.06	8.45	10.23	13.23	13.69	13.17
22	8.16	2.24	2.30	5.16	6.98	7.26	4.81	8.79	10.59	13.07	13.71	13.27
23	7.05	2.94	1.96	4.24	7.85	7.53	5.52	9.04	10.79	13.15	13.58	13.60
24	7.57	3.17	2.94	3.40	8.12	7.50	6.18	8.53	11.00	13.21	13.70	13.70
25	6.70	2.01	---	4.15	8.40	5.77	6.67	8.33	11.16	13.28	13.73	13.79
26	7.04	.91	---	4.49	7.36	4.18	6.47	9.22	10.54	13.34	13.53	13.91
27	7.59	1.79	---	4.82	7.26	3.63	6.43	9.50	10.67	13.47	14.31	12.97
28	7.07	1.25	4.46	4.31	8.01	2.23	6.84	9.79	10.87	13.48	14.24	12.89
29	7.60	.77	5.15	4.39	---	.14	5.94	8.62	10.94	13.54	14.26	12.86
30	7.15	1.61	4.86	5.55	---	---	6.61	8.29	11.25	13.71	14.25	12.57
31	6.40	---	2.09	4.98	---	---	---	9.03	---	13.79	14.29	---
MEAN	7.51	4.01	---	---	7.09	---	---	8.37	9.98	12.54	13.55	13.43
MAX	8.98	7.48	---	---	8.40	---	---	9.79	11.25	13.79	14.31	14.34
MIN	5.69	.77	---	---	4.94	---	---	5.87	8.42	10.26	12.34	12.57

420748079062701. Local number, Cu 104--Continued.



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 sea level. 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.

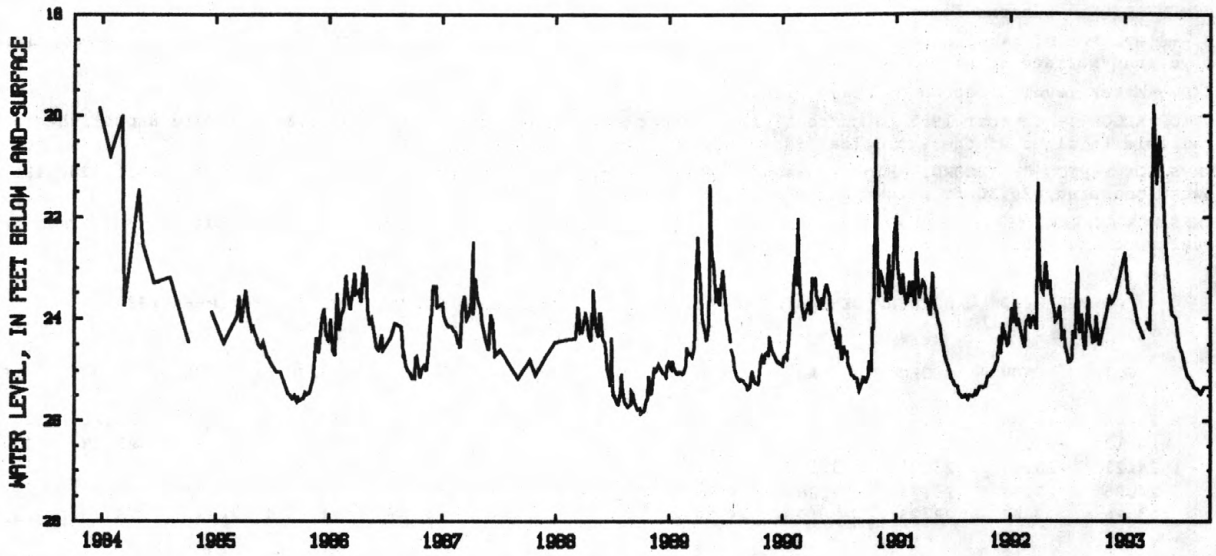
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.93 ft below land-surface datum, April 25, 1961; lowest measured, 26.30 ft below land-surface datum, July 18, 1980.

EXTREMES FOR CURRENT YEAR.--Highest water level recorded, 19.74 ft below land-surface datum, Mar. 30-31; lowest water level recorded, 25.55 ft below land-surface datum, Sep. 27.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.06	23.98	23.63	22.67	23.81	24.39	---	21.45	23.91	24.70	25.22	25.42
2	24.13	23.95	23.66	22.96	23.88	24.39	---	21.69	23.97	24.72	25.23	25.44
3	24.21	23.40	23.71	23.15	23.91	24.37	---	21.89	24.02	24.75	25.24	25.32
4	24.25	23.38	23.73	23.28	23.93	24.33	20.72	22.05	24.07	24.78	25.25	25.27
5	24.30	23.47	23.75	23.10	23.96	24.32	21.22	22.10	24.10	24.81	25.26	25.28
6	24.36	23.35	23.79	23.04	23.96	24.32	21.42	21.90	24.12	24.84	25.26	25.31
7	24.41	23.34	---	23.19	24.02	24.32	21.57	22.09	24.15	24.87	25.28	25.30
8	24.45	23.45	---	23.30	24.04	24.27	21.68	22.27	24.19	24.90	25.29	25.32
9	24.50	23.53	---	23.39	24.09	24.15	21.77	22.42	24.13	24.93	25.31	25.33
10	24.52	23.60	---	23.49	24.11	24.09	21.35	22.54	23.99	24.95	25.32	25.34
11	24.53	23.64	---	23.55	24.11	24.09	---	22.64	24.08	24.96	25.33	25.34
12	24.51	23.62	---	23.58	24.13	24.13	20.10	22.73	24.18	24.97	25.35	25.35
13	24.51	23.37	---	23.34	24.13	24.14	20.88	22.81	24.23	24.99	25.37	25.37
14	24.54	23.43	---	22.86	24.16	24.19	21.32	22.93	24.28	25.00	25.39	25.38
15	24.53	23.52	---	23.06	24.18	24.23	21.66	23.03	24.32	25.01	25.41	25.37
16	24.15	23.59	---	23.19	24.18	24.20	---	23.09	24.36	25.03	25.38	25.35
17	24.10	23.63	---	23.26	24.20	24.17	---	23.17	24.41	25.04	25.32	25.36
18	24.18	23.66	---	23.35	24.23	24.20	---	23.24	24.45	25.07	25.36	25.35
19	24.21	23.67	---	23.47	24.25	24.22	---	23.29	24.49	25.07	25.38	25.34
20	24.23	23.71	---	23.53	24.26	24.21	20.42	23.30	24.52	25.09	25.38	25.34
21	24.27	23.77	---	23.57	24.28	24.23	---	23.36	24.51	25.10	25.37	25.34
22	24.29	23.78	---	23.57	24.30	24.21	---	23.43	24.44	25.11	25.38	25.33
23	24.30	23.50	---	23.52	24.29	24.15	---	23.51	24.48	25.14	25.40	25.33
24	24.21	23.44	---	23.52	24.31	23.99	---	23.57	24.54	25.16	25.41	25.31
25	23.70	23.38	---	23.46	24.34	23.64	---	23.63	24.59	25.18	25.41	25.30
26	23.67	23.40	---	23.55	24.35	23.31	---	23.69	24.62	25.18	25.42	25.26
27	23.78	23.43	---	23.60	24.36	22.87	---	23.75	24.64	25.17	25.44	25.38
28	23.85	23.50	---	23.66	24.37	22.08	20.44	23.81	24.64	25.20	25.44	25.22
29	23.89	23.55	---	23.69	---	21.04	20.87	23.85	24.63	25.21	25.44	25.16
30	23.92	23.59	23.54	23.76	---	20.21	21.18	23.91	24.67	25.21	25.46	25.16
31	23.95	---	22.70	23.78	---	19.79	---	23.93	---	25.20	25.46	---
MEAN	24.21	23.55	---	23.37	24.15	23.69	---	22.94	24.32	25.01	25.35	25.32
LOW	24.54	23.98	---	23.78	24.37	24.39	---	23.93	24.67	25.21	25.46	25.44
HIGH	23.67	23.34	---	22.67	23.81	19.79	---	21.45	23.91	24.70	25.22	25.16

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 sea level. 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, 2.45 ft below land-surface datum, Apr. 3-4, 1993; lowest, 11.81 ft below land-surface datum, Sept. 26-29, 1982.

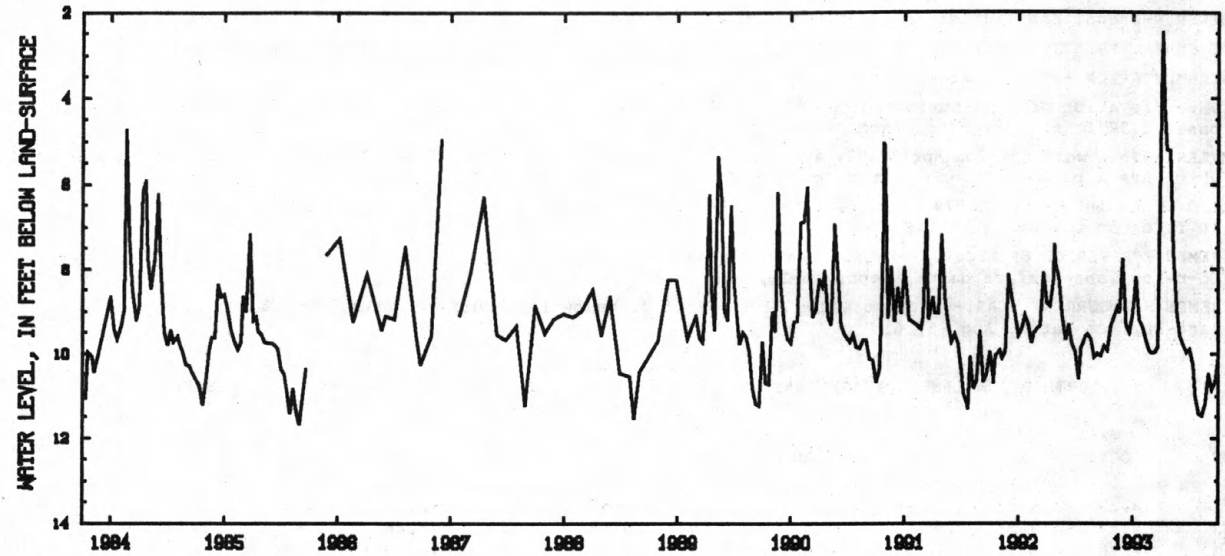
EXTREMES FOR CURRENT YEAR.--Highest water level, 2.45 ft below land-surface datum, Apr. 3, 4; lowest, 11.54 ft below land-surface datum, Aug. 5, 6.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.79	9.17	7.86	8.98	9.41	9.98	2.89	5.29	9.63	9.88	11.44	10.46
2	9.77	9.21	8.03	8.81	9.46	9.98	2.54	5.46	9.67	9.87	11.47	10.50
3	9.76	9.25	8.23	8.63	9.50	9.99	2.45	5.70	9.69	9.87	11.50	10.56
4	9.77	9.26	8.43	8.53	9.53	9.99	2.49	5.97	9.70	9.89	11.53	10.62
5	9.78	9.21	8.62	8.50	9.54	9.99	2.61	6.28	9.72	9.93	11.54	10.68
6	9.80	9.14	8.80	8.45	9.55	9.98	2.81	6.59	9.75	9.98	11.54	10.74
7	9.83	9.06	8.95	8.34	9.57	9.98	3.09	6.88	9.78	10.04	11.53	10.78
8	9.86	8.99	9.08	8.23	9.59	9.98	3.44	7.15	9.80	10.10	11.51	10.81
9	9.89	8.94	9.19	8.17	9.62	9.98	3.85	7.39	9.80	10.18	11.49	10.83
10	9.92	8.91	9.30	8.18	9.66	9.97	4.26	7.61	9.80	10.26	11.47	10.85
11	9.93	8.92	9.38	8.26	9.69	9.96	4.55	7.82	9.79	10.34	11.44	10.83
12	9.89	8.95	9.45	8.38	9.73	9.95	4.61	8.01	9.78	10.43	11.39	10.77
13	9.82	8.98	9.50	8.52	9.76	9.96	4.55	8.18	9.77	10.51	11.32	10.69
14	9.72	9.00	9.55	8.66	9.80	9.97	4.52	8.33	9.77	10.59	11.27	10.62
15	9.64	8.97	9.60	8.79	9.83	9.98	4.55	8.47	9.78	10.67	11.23	10.58
16	9.59	8.94	9.64	8.90	9.85	10.00	4.67	8.60	9.81	10.75	11.21	10.56
17	9.54	8.92	9.67	8.98	9.87	10.00	4.83	8.71	9.85	10.81	11.19	10.58
18	9.46	8.94	9.68	9.06	9.89	9.96	4.98	8.82	9.89	10.87	11.19	10.62
19	9.39	8.97	9.63	9.13	9.90	9.89	5.08	8.92	9.93	10.93	11.18	10.66
20	9.35	9.03	9.50	9.21	9.92	9.81	5.18	9.00	9.98	10.99	11.17	10.68
21	9.33	9.10	9.30	9.29	9.93	9.72	5.31	9.07	10.03	11.04	11.13	10.65
22	9.33	9.16	9.09	9.35	9.94	9.64	5.47	9.13	10.08	11.09	11.09	10.57
23	9.34	9.19	8.91	9.39	9.94	9.58	5.60	9.19	10.09	11.14	11.04	10.48
24	9.35	9.02	8.79	9.40	9.95	9.53	5.63	9.24	10.05	11.18	10.98	10.40
25	9.36	8.58	8.76	9.39	9.95	9.42	5.57	9.29	10.00	11.22	10.89	10.33
26	9.32	8.11	8.78	9.35	9.95	9.23	5.45	9.34	9.96	11.26	10.82	10.27
27	9.25	7.80	8.84	9.31	9.96	8.87	5.33	9.38	9.93	11.29	10.74	10.21
28	9.18	7.68	8.92	9.29	9.97	8.10	5.23	9.43	9.92	11.32	10.63	10.16
29	9.14	7.67	9.00	9.29	---	6.95	5.19	9.48	9.91	11.35	10.54	10.10
30	9.13	7.74	9.05	9.31	---	5.30	5.21	9.54	9.90	11.38	10.48	10.05
31	9.14	---	9.06	9.35	---	3.77	---	9.59	---	11.41	10.45	---
MEAN	9.56	8.83	9.05	8.88	9.76	9.34	4.40	8.12	9.85	10.66	11.17	10.55
LOW	9.93	9.26	9.68	9.40	9.97	10.00	5.63	9.59	10.09	11.41	11.54	10.85
HIGH	9.13	7.67	7.86	8.17	9.41	3.77	2.45	5.29	9.63	9.87	10.45	10.05

CAL YR 1992 MEAN 9.31 HIGH 7.41 LOW 10.59
WTR YR 1993 MEAN 9.19 HIGH 2.45 LOW 11.54

421556075281602. Local number, Cn 12--Continued.



CHENANGO COUNTY

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 sea level. 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.

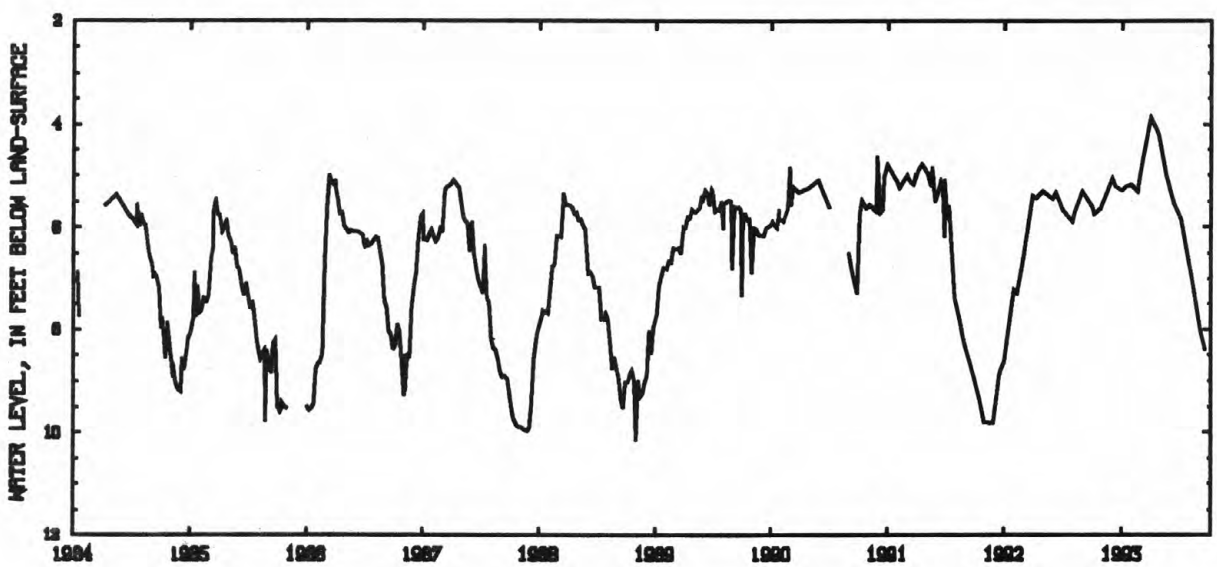
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.86 ft below land-surface datum, Mar. 31, 1993; lowest measured, 10.17 ft below land-surface datum, Nov. 1, 1988.

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, 3.86 ft below land-surface datum, Mar. 31; lowest measured, 8.40 ft below land-surface datum, Sep. 13.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05	5.75	DEC 09	5.23	JAN 28	5.18	MAR 31	3.86	JUN 10	5.54	AUG 30	8.03
28	5.63	29	5.29	FEB 16	5.32	APR 23	4.19	29	5.85	SEP 13	8.40
NOV 30	5.05	JAN 11	5.22	26	4.88	MAY 17	4.99	AUG 03	7.00		



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 sea level. 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.

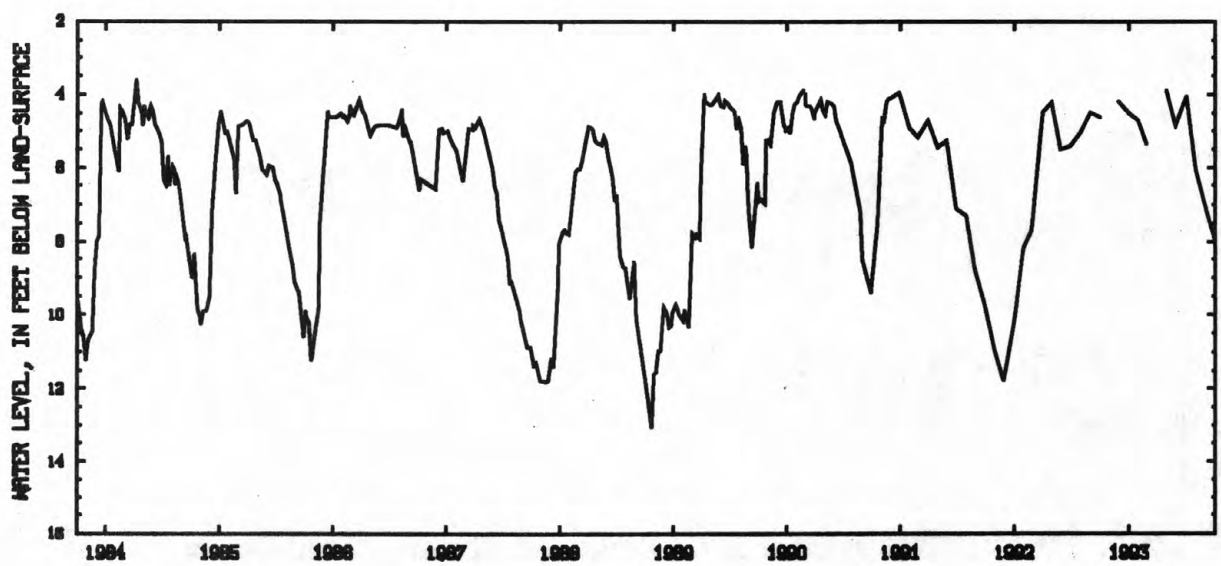
PERIOD OF RECORD.--October 1975 to current year. Records for October 1975 to September 1977 are unpublished and available in files of the Geological Survey.

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, 3.90 ft below land-surface datum, Apr. 30; lowest measured, 7.91 ft below land-surface datum, Sep. 27.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 30	4.18	JAN 28	4.69	APR 30	3.90	JUN 30	4.04	AUG 30	7.05
DEC 29	4.50	FEB 25	5.35	MAY 28	4.84	JUL 30	6.03	SEP 27	7.91



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 sea level. Measuring point: Top of flange, 3.07 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.

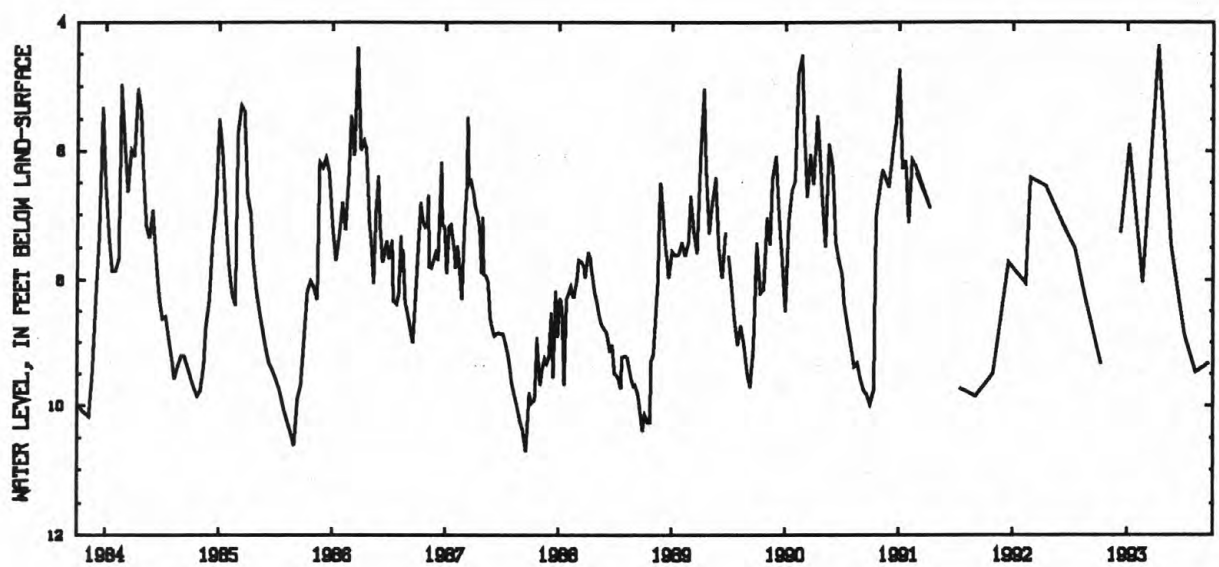
REVISED RECORDS.--WDR NY-91-3: 1990 water level.

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, 4.36 ft below land-surface datum, Apr. 8; lowest measured, 9.47 ft below land-surface datum, Aug. 5.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 07	9.32	JAN 06	5.89	APR 08	4.36	JUN 30	8.87	SEP 14	9.34
DEC 10	7.25	FEB 18	8.04	MAY 19	7.45	AUG 05	9.47		



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, 6 in diameter hole from 17 to 36 ft.

INSTRUMENTATION.--Periodic measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 595.61 ft sea level. Measuring point: top of 2 in plug in top of 8 in extended casing, 3.60 ft above land-surface datum.

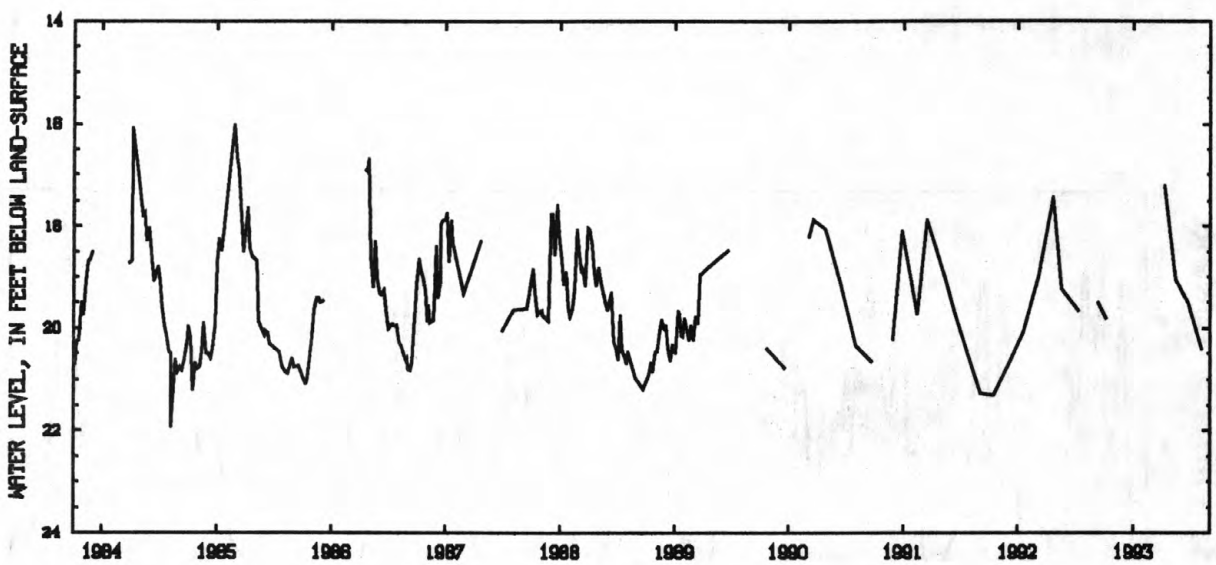
PERIOD OF RECORD.--October 1958 to current year. Records for October 1958 to September 1976 are unpublished and available in files of the Geological Survey.

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, 16.48 ft below land-surface datum, Jan. 7; lowest measured, 20.42 ft below land-surface datum, Aug. 4.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06	19.81	JAN 07	16.48	APR 07	17.20	MAY 12	19.05	JUN 23	19.52	AUG 04	20.42



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 335.95 ft above sea level. Measuring point: Top of 1 in hole in steel cover, 0.72 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.

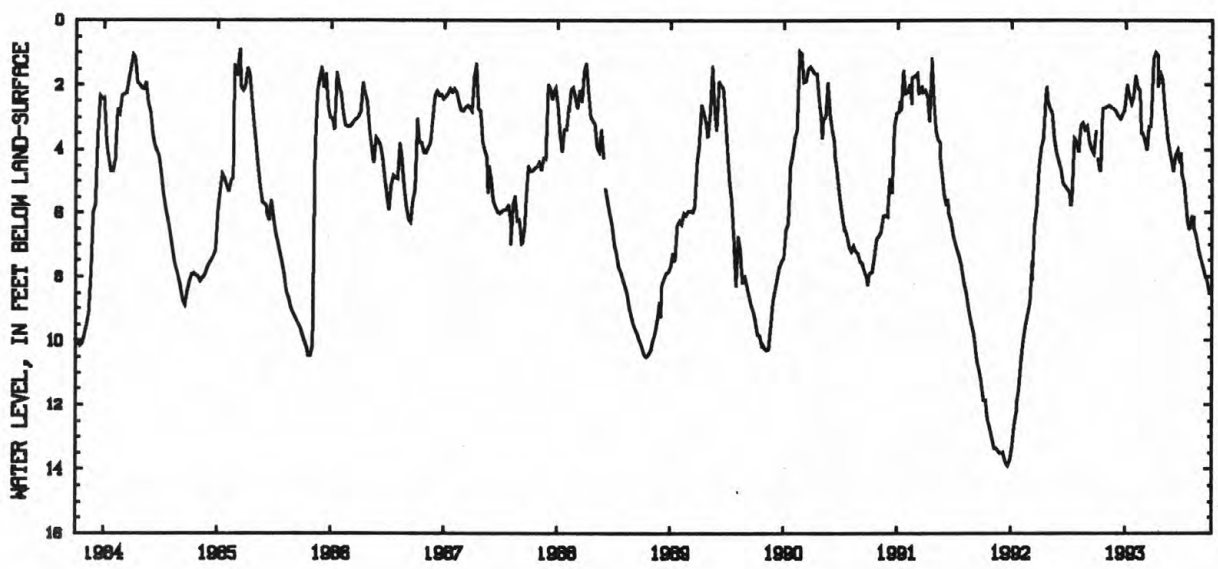
EXTREMES FOR CURRENT YEAR.--Highest water level measured, 0.98 ft below land-surface datum, Apr. 3; lowest measured, 8.49 ft below land-surface datum, Sep. 25.

REVISIONS.--Water levels measured by USGS personnel reported for the 1983 to 1991 water years have been revised: subtract 0.70 ft.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03	4.31	DEC 05	2.95	FEB 13	2.17	APR 12	z2.06	JUN 19	4.40	AUG 14	6.76
06	z4.59	12	3.05	19	z3.50	17	1.58	23	z4.10	21	7.13
10	4.68	19	2.92	20	3.48	24	1.80	26	4.75	28	7.37
17	2.75	26	2.78	27	3.65	MAY 01	2.67	JUL 03	5.09	SEP 04	7.65
24	2.71	JAN 02	2.00	MAR 06	3.99	08	3.18	11	5.77	11	7.93
31	2.68	09	2.30	13	3.28	12	z3.61	17	6.26	18	8.17
NOV 07	2.65	16	2.57	20	3.28	15	3.89	24	6.54	25	8.49
14	2.70	23	2.35	27	1.18	29	4.70	31	6.11		
21	2.75	30	1.70	APR 03	.98	JUN 05	4.22	AUG 04	z6.16		
28	2.85	FEB 06	2.08	10	1.10	12	4.00	07	6.46		

z Measured by USGS personnel.



ONTARIO COUNTY

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 sea level. 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.

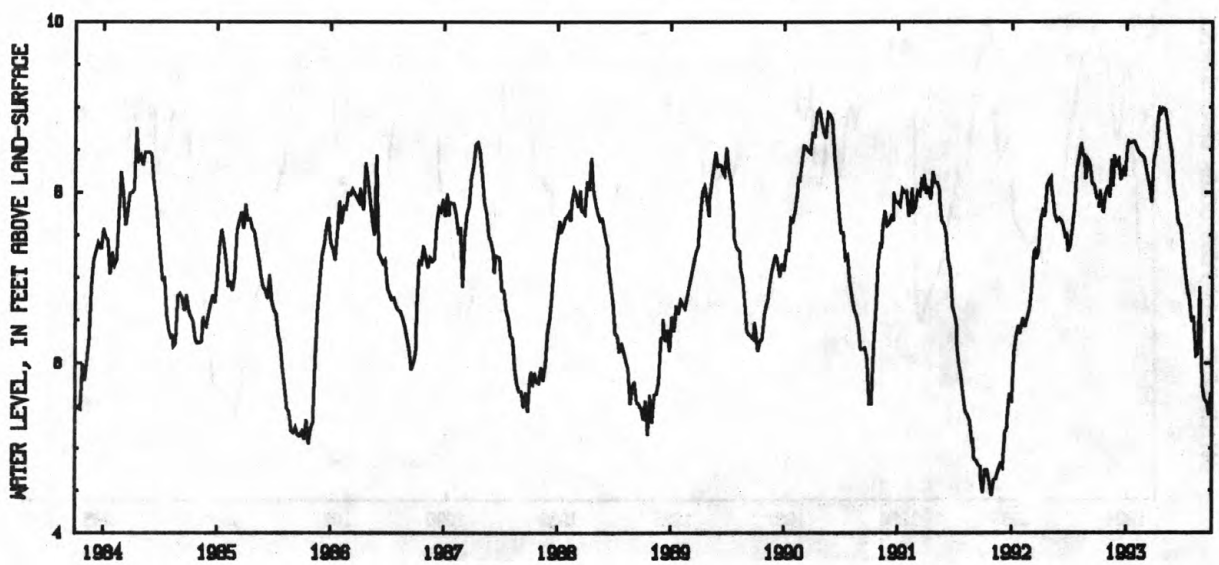
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.14 ft above land-surface datum, Mar. 15, 1976; lowest observed, 4.44 ft above land-surface datum, Oct. 28, 1991.

EXTREMES FOR CURRENT YEAR.--Highest water level observed, 8.99 ft above land-surface datum, Apr. 26; lowest observed, 5.40 ft above land-surface datum, Sep. 20.

WATER LEVELS IN FEET ABOVE LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05	7.83	NOV 30	8.32	FEB 08	8.48	APR 26	8.99	JUN 28	7.38	AUG 30	5.73
09	z8.02	DEC 07	8.38	25	z8.41	MAY 03	8.98	JUL 05	7.12	SEP 06	5.59
12	7.93	14	8.15	MAR 08	8.22	10	8.83	12	6.88	13	5.54
19	7.77	21	8.27	15	8.05	17	8.64	15	z6.80	16	z5.52
26	7.99	28	8.19	22	7.89	24	8.47	19	6.78	20	5.40
NOV 02	8.08	JAN 04	8.53	29	8.37	25	z8.49	26	6.49	27	5.64
09	7.95	08	z8.60	APR 05	8.54	31	8.07	AUG 02	6.54		
16	8.38	11	8.57	12	8.89	JUN 07	7.88	09	6.09		
19	z8.08	18	8.59	15	z8.97	14	7.64	16	6.12		
23	8.43	25	8.60	19	8.94	21	7.62	23	6.88		

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 sea level. 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.

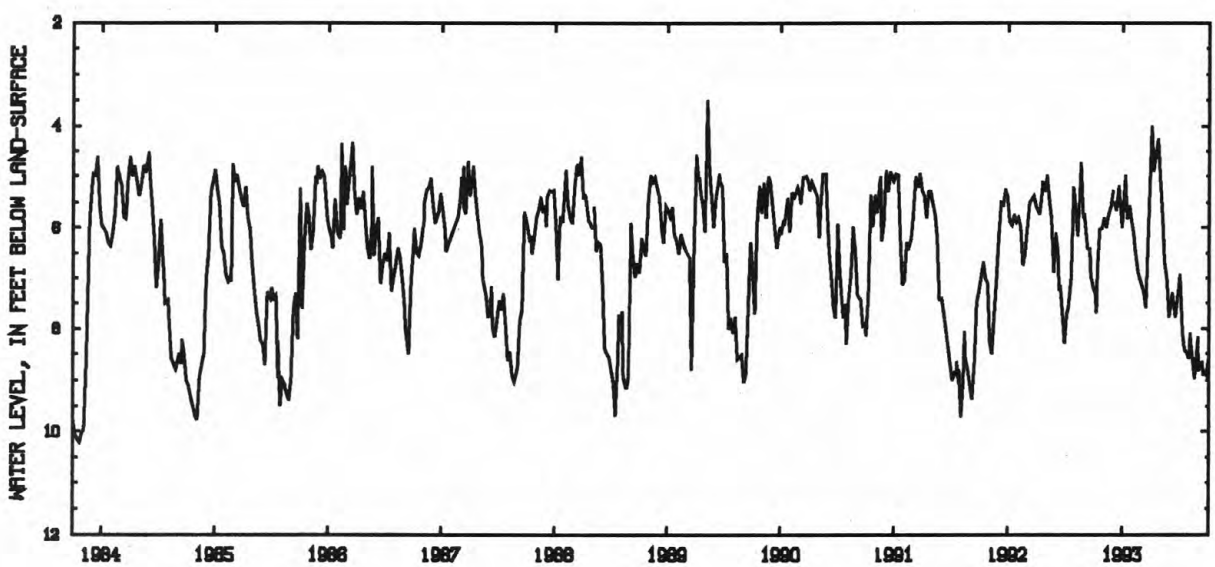
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.98 ft below land-surface datum, Apr. 2, 1960, Sept. 19, 1977; lowest measured, 12.66 ft below land-surface datum, Nov. 14, 1964.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 4.00 ft below land-surface datum, Mar. 31; lowest measured, 8.97 ft below land-surface datum, Aug. 15.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03	7.30	NOV 28	5.30	JAN 26	5.88	APR 13	4.70	JUN 16	7.76	AUG 15	8.97
06	z7.69	DEC 04	5.50	FEB 02	6.10	21	4.27	23	7.30	25	8.18
10	6.76	10	z5.64	08	6.40	28	5.00	30	z6.94	31	8.82
17	6.05	11	5.66	18	z6.89	MAY 05	5.80	JUL 07	8.10	SEP 09	8.65
24	6.02	18	5.18	MAR 06	7.30	13	6.69	14	8.42	13	z8.90
31	5.80	27	6.00	13	7.58	19	z7.06	21	8.50	16	8.85
NOV 07	6.00	JAN 05	4.98	31	4.00	21	7.11	30	8.58	23	8.91
14	5.75	12	z5.82	APR 05	4.56	28	7.77	AUG 03	8.10	30	8.56
21	5.60	19	5.57	07	z4.88	JUN 08	7.29	04	z8.28		

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 sea level. Measuring point: Top of casing, 2.99 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.

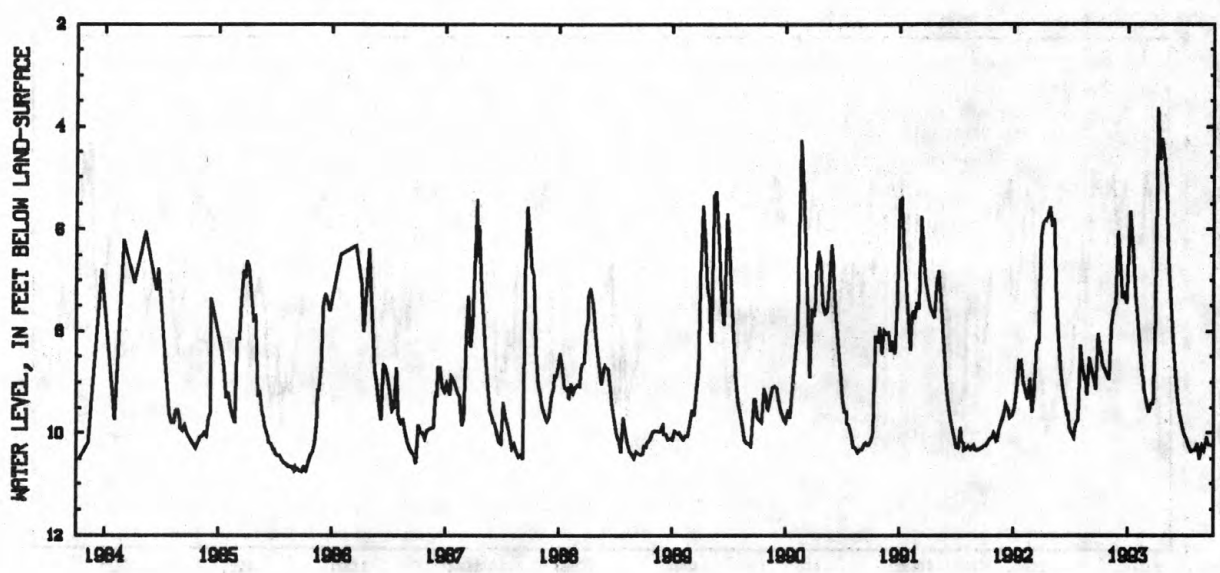
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.64 ft below land-surface datum, June 25, 1972; lowest measured, 10.84 ft below land-surface datum, Sept. 22, 1966.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 3.65 ft below land-surface datum, Apr. 4; lowest measured, 10.50 ft below land-surface datum, Aug. 15.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04	8.37	DEC 06	6.59	FEB 14	8.86	APR 13	z4.27	JUN 20	9.84	AUG 29	10.34
06	z8.43	13	7.34	16	z8.91	18	4.27	27	10.01	SEP 05	10.07
10	8.65	20	7.26	21	9.19	25	4.68	JUL 04	10.12	12	10.25
25	8.85	27	7.45	28	9.39	MAY 03	5.20	13	z10.24	14	z10.23
NOV 01	8.95	JAN 06	5.65	MAR 07	9.58	11	6.58	18	10.35	20	10.23
08	7.88	10	5.91	13	9.41	18	z7.46	25	10.33	26	10.24
15	7.58	17	6.47	21	9.41	23	8.15	AUG 01	10.34		
17	z7.52	24	7.25	28	7.75	30	8.87	08	10.21		
22	7.46	31	7.78	APR 04	3.65	JUN 06	9.29	15	10.50		
29	6.05	FEB 07	8.39	11	4.65	13	9.60	22	10.24		

z Measured by USGS personnel.



STEUBEN COUNTY

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.--Periodic measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 914.31 ft above sea level. Measuring point: Top of well casing, 3.20 ft above land-surface datum.

REMARKS.--Water level affected by stage of Chemung River.

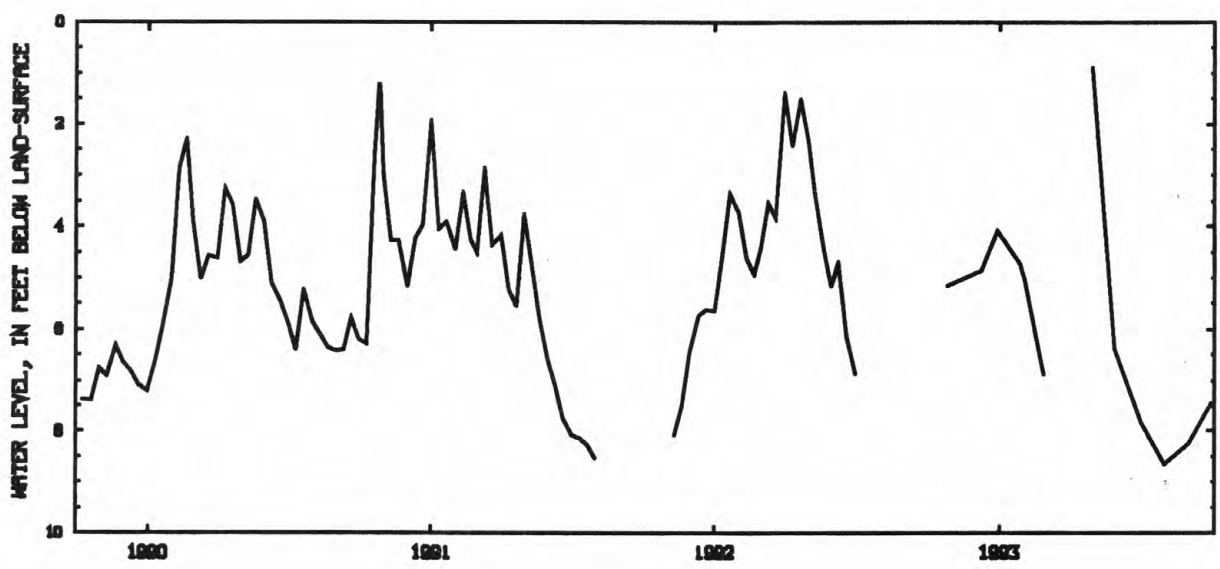
PERIOD OF RECORD.--September 1989 to current year. Records for December 1985 to August 1987 are published and available in files of the Susquehanna River Basin Commission.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.90 ft below land-surface datum, Apr. 29, 1993; lowest measured, 8.66 ft below land-surface datum, July 30, 1993.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 0.90 ft below land-surface datum, Apr. 29; lowest measured, 8.66 ft below land-surface datum, July 30.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	5.15	DEC 29	4.08	FEB 03	5.07	APR 29	.90	JUN 30	7.82	AUG 30	8.24
DEC 09	4.85	JAN 28	4.74	26	6.89	MAY 28	6.37	JUL 30	8.66	SEP 27	7.45



WYOMING COUNTY

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 sea level. Measuring point: Top of 2 in by 1 in reducing coupling, 3.30 ft above land-surface datum.

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

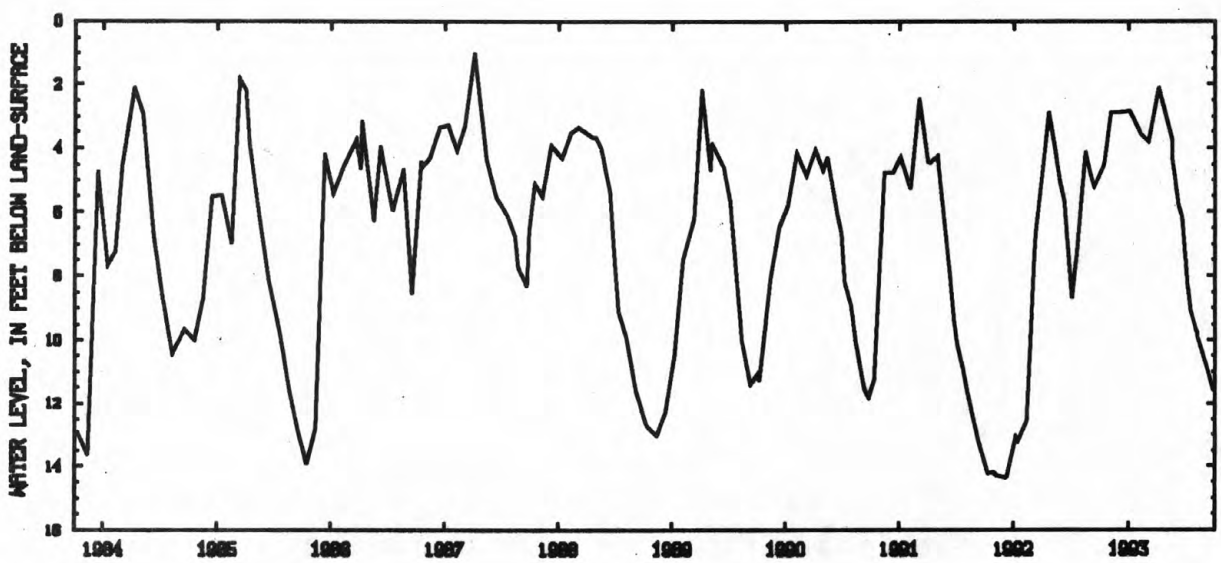
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.5 ft below land-surface datum, Apr. 5, 1947; lowest measured, dry, Dec. 6-27, 1964, Jan. 2, 1965.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 2.09 ft below land-surface datum, Apr. 5; lowest measured, 11.55 ft below land-surface datum, Sep. 22.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11	4.57	JAN 02	2.84	MAY 15	3.72	JUL 05	8.28	AUG 06	z9.88
13	z4.49	FEB 08	3.55	18	z4.25	14	9.10	SEP 08	11.03
NOV 04	2.89	MAR 03	3.81	JUN 07	5.80	AUG 01	9.71	22	z11.55
DEC 06	2.87	APR 05	2.09	16	z6.12	04	z9.75		

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 read weekly by observer; periodic measurement with chalked tape by USGS personnel..

DATUM.--Elevation of land-surface datum is 1,606.76 ft above sea level. Measuring point: Top of casing 2.59 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.

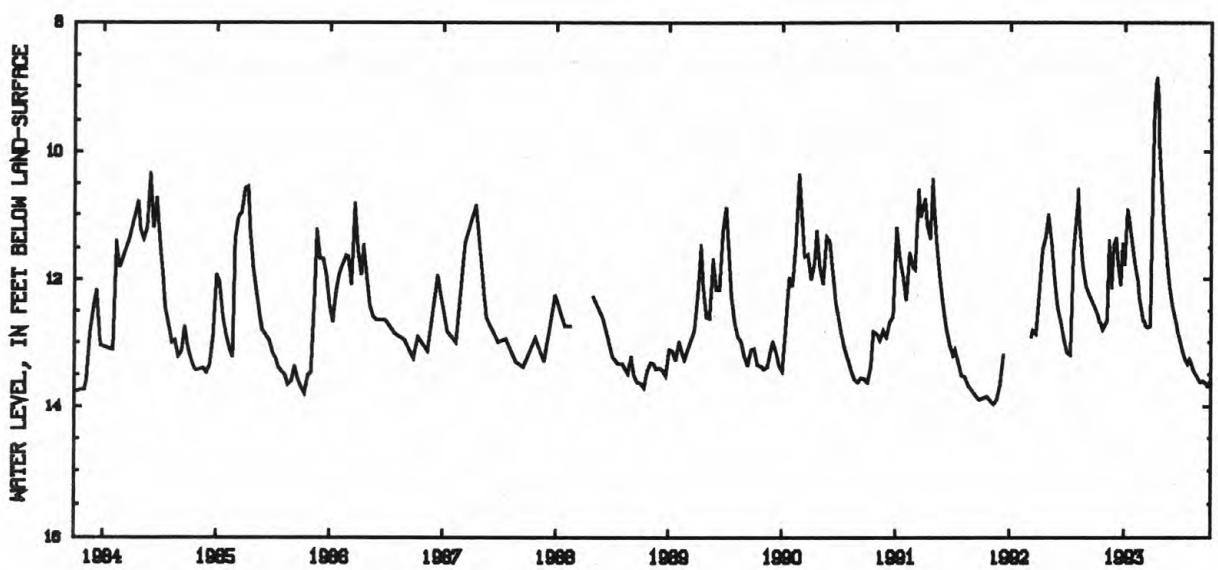
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.89 ft, below land-surface datum, Mar. 5, 1976; lowest, 14.00 ft, below land-surface datum, Nov. 3, 1974.

EXTREMES FOR CURRENT YEAR.--Highest water level observed, 8.86 ft, below land-surface datum, Apr. 11; lowest observed, 13.70 ft, below land-surface datum, Sep. 21, 22.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 07	12.57	DEC 15	12.09	MAR 02	12.65	APR 11	8.86	JUN 01	12.41	AUG 06	z13.40
12	12.66	22	11.43	03	z12.66	12	8.92	08	12.54	10	13.45
13	z12.69	29	11.78	09	12.74	14	9.16	15	12.72	17	13.53
21	12.79	JAN 05	10.90	16	12.75	17	9.52	16	z12.82	24	13.58
NOV 03	12.65	12	11.06	23	12.73	20	9.86	22	12.87	30	13.63
10	11.39	19	11.39	30	10.66	27	10.55	JUL 06	13.17	SEP 07	13.61
17	12.14	FEB 03	11.83	APR 01	9.63	MAY 04	11.09	13	13.27	15	13.66
24	11.47	09	12.04	03	9.10	11	11.49	20	13.34	21	13.70
DEC 01	11.35	15	12.27	05	9.22	18	11.86	27	13.27	22	z13.70
08	11.77	23	12.48	08	8.96	24	12.12	AUG 03	13.36	28	13.62

z Measured by USGS personnel.



CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
	Length	
inch (in.)	2.54×10^{1}	millimeter
	2.54×10^{-2}	meter
foot (ft)	3.048×10^{-1}	meter
mile (mi)	1.609×10^{0}	kilometer
	Area	
acre	4.047×10^{3}	square meter
	4.047×10^{-1}	square hectometer
	4.047×10^{-3}	square kilometer
square mile (mi^2)	2.590×10^{0}	square kilometer
	Volume	
gallon (gal)	3.785×10^{0}	liter
	3.785×10^{0}	cubic decimeter
	3.785×10^{-3}	cubic meter
million gallons (Mgal)	3.785×10^{3}	cubic meter
	3.785×10^{-3}	cubic hectometer
cubic foot (ft^3)	2.832×10^{1}	cubic decimeter
	2.832×10^{-2}	cubic meter
cubic–foot–per–second day [(ft^3/s) d]	2.447×10^{3}	cubic meter
	2.447×10^{-3}	cubic hectometer
acre–foot (acre–ft)	1.233×10^{3}	cubic meter
	1.233×10^{-3}	cubic hectometer
	1.233×10^{-6}	cubic kilometer
	Flow	
cubic foot per second (ft^3/s)	2.832×10^{1}	liter per second
	2.832×10^{1}	cubic decimeter per second
	2.832×10^{-2}	cubic meter per second
gallon per minute (gal/min)	6.309×10^{-2}	liter per second
	6.309×10^{-2}	cubic decimeter per second
	6.309×10^{-5}	cubic meter per second
million gallons per day (Mgal/d)	4.381×10^{1}	cubic decimeter per second
	4.381×10^{-2}	cubic meter per second
	Mass	
ton (short)	9.072×10^{-1}	megagram or metric ton

Sea level: In this report "sea level" refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)—a geodetic datum derived from a general adjustment for the first–order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

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