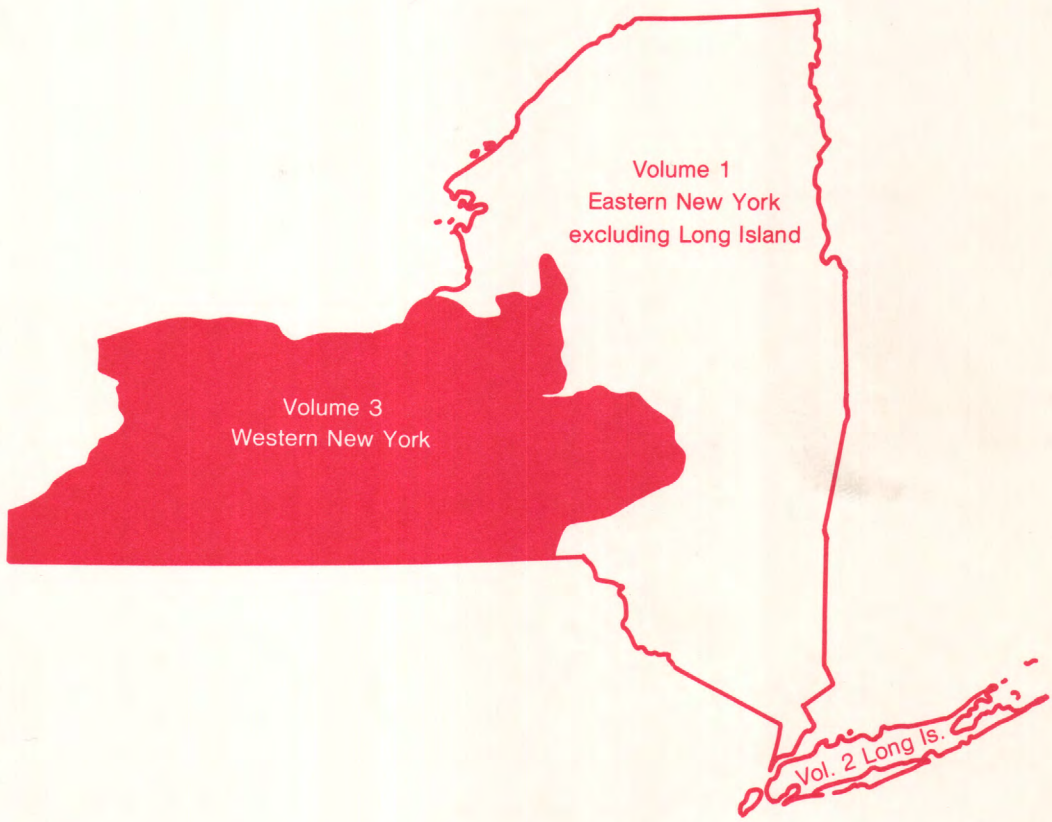
Water Resources Data New York Water Year 1987

Volume 3. Western New York



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NY-87-3
Prepared in cooperation with the State of New York
and with other agencies

Water Resources Data New York Water Year 1987

Volume 3. Western New York

by W.F. Coon, W.H. Johnston, D.A. Sherwood, and D.D. Deloff

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Prepared in cooperation with the State of New York
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UNITED STATES DEPARTMENT OF THE INTERIOR

DONALD PAUL HODEL, Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

For information on the water program in New York write to
District Chief, Water Resources Division
U.S. Geological Survey
U.S. Post Office and Courthouse
P.O. Box 1669
Albany, New York 12201
1987

PREFACE

This volume of the annual hydrologic data report of New York is one of a series of annual reports that document hydrologic data gathered from the U. S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and 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, Daniel C. Hahl, Subdistrict Chief
Potsdam, Howard G. Lent, Jr., Technician-in-charge
Volume 2. Syosset, Donald L. Bingham, Subdistrict Chief
Volume 3. Ithaca, Richard P. Novitzki, Subdistrict Chief

The authors, including J. B. Campbell, 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:

H. L. Dixson	C. O. Szabo	H. J. Zajd, Jr.
R. L. Mulks	M. J. Welsh	

S. J. Woodward and A. M. Weaver typed the text of the report.

This report was prepared in cooperation with the State of New York and with other agencies under the general supervision of Lawrence A. Martens, District Chief, New York.

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Water resources data for the 1987 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 77 gaging stations; stage only at 19 gaging stations; stage and contents at 6 gaging stations; water quality at 8 gaging stations; and water levels at 21 observation wells. Also included are data for 38 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.

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Department of Commerce

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[Letter after station name designates type of data: (d) discharge, (e) gage height, elevation, and/or contents, (c) chemical, (b) biological, (t) water temperature, (s) sediment]

(Continued)

DISCONTINUED SURFACE-WATER STATIONS

The following continuous-record streamflow, elevation, or stage (†) stations in western New York have been discontinued or converted to partial-record stations. Daily records were collected and published for the period of record shown for each station. Stations that are presently operated as crest-stage partial-record stations are preceded by an asterisk (*).

Station number	Station name	Drainage area (mi^2)	Period of record
	Susquehanna River Basin		
01496450	Canadarago Lake at Schuyler Lake	65.0	10/68 – 10/78
01497000	Cherry Valley Creek at Westville	81.4	1/30 – 6/31 6/38 – 7/41
01497500	Susquehanna River at Colliersville	349	5/07 – 12/08 7/24 – 9/68
01498000	Charlotte Creek at Davenport Center	164	9/38 – 9/56
01498500	Charlotte Creek at West Davenport	167	6/38 – 10/75
01499000	Otego Creek near Oneonta	108	8/40 – 9/68
01499050	Flax Island Creek near Otego	4.22	7/66 – 9/68
01499470	East Branch Handsome Brook at Franklin	9.12	9/66 – 9/68
01501000	Unadilla River near New Berlin	199	7/24 – 9/68
01501015	Mill Brook at New Berlin	4.64	5/74 – 11/80‡
01501500	Sage Brook near South New Berlin	0.70	11/32 – 9/68
01505500	Canasawacta Creek near South Plymouth	57.9	9/45 – 9/75
*01507000	Chenango River at Greene	593	2/37 – 9/70
01507470	Red Brook at Smithville Flats	7.06	7/66 – 9/68
01507500	Genegantslet Creek at Smithville Flats	82.3	6/38 – 9/70
01507975	Muller Gulf Creek near Cuyler	2.67	7/66 – 9/68
01508000	Shackham Brook near Truxton	2.95	11/32 – 9/68
01508500	Albright Creek at East Homer	6.81	10/38 – 9/68
*01508803	West Branch Tioughnioga River at Homer	71.5	11/66 – 9/68 10/72 – 9/86
01508962	Otter Creek at mouth at Cortland	14.3	12/75 – 12/76
01509150	Gridley Creek above East Virgil	10.36	7/74 – 9/81
01509500	Dudley Creek at Lisle	30.0	6/38 – 7/40
01510500	Otselic River near Upper Lisle	217	1/37 – 9/69
*01511500	Tioughnioga River at Itaska	730	10/29 – 6/67
*01513500	Susquehanna River at Vestal	3,941	3/37 – 6/67
01513719	East Branch Nanticoke Creek above Glen Aubrey	12.8	9/76 – 10/77
01513720	East Branch Nanticoke Creek at Glen Aubrey	15.4	3/76 – 7/76
01513790	Nanticoke Creek at Union Center	90.7	8/75 – 10/77
01513840	Pumpelly Creek at Owego	8.59	7/66 – 9/68
*01514000	Owego Creek near Owego	185	1/30 – 11/78
01514500	Dean Creek at Spencer	8.03	7/54 – 9/60
01515500	Cayuta Creek near Alpine	17.6	11/29 – 9/31
01522000	Canisteo River at Hornell	93.7	6/38 – 4/43
01522500	Karr Valley Creek at Almond	27.4	2/37 – 9/68
01524000	Canacadea Creek at Hornell	58.5	9/25 – 9/29
01525000	Bennett Creek at Canisteo	95.3	5/38 – 9/47
*01525500	Canisteo River at West Cameron	340	1/30 – 9/31 2/37 – 9/70
01525750	Tuscarora Creek Tributary near Woodhull	9.43	7/66 – 9/68
01526000	Tuscarora Creek near South Addison	114	2/37 – 9/70
01526495	Mulholland Creek near Erwins	5.06	7/66 – 9/68

‡ No winter record.

Station number	Station name	Drainage area (mi^2)	Period of record
	Susquehanna River Basin--continued		
01526980	Kirkwood Creek near Atlanta	4.65	8/66 – 9/68
*01527000	Cohocton River at Cohocton	52.2	10/50 – 10/81
01527050	Switzer Creek near Cohocton	3.45	11/78 – 10/80
01527500	Cohocton River at Avoca	157	5/38 – 9/45
01529000	Mud Creek near Savona	76.6	7/18 – 12/19 3/37 – 9/82
01530380	Newtown Creek at Breesport	20.6	8/75 – 11/78‡
	Allegheny River Basin		
*03010800	Olean Creek near Olean	198	4/58 – 9/68‡ 10/75 – 8/81
*03011000	Great Valley Creek near Salamanca	137	12/50 – 9/68
03011550	Quaker Run near Quaker Bridge	28.5	5/63 – 9/64‡
03012834	Conewango Creek below South Dayton	63.3	8/75 – 10/77‡
*03013800	Ball Creek at Stow	9.06	10/73 – 9/74
03013980	Chautauqua Lake at Celeron	189	10/72 – 8/73
03013990	Chautauqua Lake near Mayville	189	11/49 – 10/76
	Streams Tributary to Lake Erie		
04213410	Cattaraugus Creek near Arcade	79.0	3/63 – 6/68
04213440	Franks Creek near West Valley	0.28	12/75 – 10/79
04213441	Franks Creek tributary No. 4 near West Valley	0.12	12/75 – 9/76
04213442	Franks Creek tributary No. 2 to tributary No. 4 near West Valley	0.002	12/75 – 3/77
04213443	Franks Creek tributary No. 3 to tributary No. 4 near West Valley	0.004	12/75 – 3/77
04213450	Buttermilk Creek near Springville	30.0	10/61 – 9/68
04213492	South Branch Cattaraugus Creek near Cattaraugus	70.4	10/79 – 11/81
04214000	Cattaraugus Creek at Versailles	466	10/15 – 9/23
04214200	Eighteenmile Creek at North Boston	37.2	3/63 – 9/68
04214400	Buffalo Creek near Wales Hollow	76.9	3/63 – 9/68
	Streams Tributary to Niagara River		
04218190	Black Creek near Swormville	12.9	3/78 – 10/79
04218450	Ellicott Creek at Milgrove	40.8	3/63 – 9/68
04218500	Ellicott Creek at Williamsville	76.2	10/55 – 10/72
04218592	Donner Brook near Lockport	3.84	11/77 – 11/78‡
	Streams Tributary to Lake Ontario		
04219940	Manning Muckland Creek near Barre Center	5.80	5/74 – 11/78‡
04219940	Manning Muckland Creek tributary near Elba	21.9	5/74 – 11/78‡
04220250	West Creek near Hilton	31.0	5/57 – 9/64
04220470	Dyke Creek near Andover	38.0	2/64 – 9/68
04220500	Dyke Creek at Wellsville	72.1	8/55 – 9/60
04221500	Genesee River at Scio	308	6/16 – 9/72
04221600	Van Campen Creek at Friendship	45.9	1/64 – 9/68
04221720	Angelica Creek at Transit Bridge	86.7	2/64 – 6/68
04221820	Genesee River at Belfast	644	2/64 – 6/67
04222000	Caneadea Creek at Caneadea	62.0	7/49 – 9/68

‡ No winter record.

Station number	Station name	Drainage area (mi^2)	Period of record
	Streams Tributary to Lake Ontario--continued		
04222500	Lost Nation Brook near Centerville	1.21	10/34 – 8/35
04222900	East Koy Creek at East Koy	46.5	1/64 – 9/68
04223500	Genesee River at St. Helena	1,019	10/46 – 9/50
04224650	Canaseraga Creek near Canaseraga	58.4	1/64 – 9/68
04225000	Canaseraga Creek near Dansville	152	3/19 – 9/68 7/70 – 1/77
04225005	Canaseraga Creek at Cumminsville	155	7/10 – 12/12 7/15 – 6/17 10/17 – 9/19
04225500	Canaseraga Creek at Groverland	180	8/15 – 3/20 10/55 – 9/64
04226000	Keshequa Creek at Craig Colony, Sonyea	68.3	8/17 – 9/32 11/74 – 1/78
04226500	Keshequa Creek near Sonyea	68.4	9/15 – 12/16
0422660005	Keshequa Creek at mouth at Sonyea	69.0	3/11 – 12/13
04228000	Conesus Creek near Lakeville	72.0	10/19 – 9/34
04228900	Springwater Creek at Springwater	10.1	1/64 – 9/68
04231500	Genesee River below Erie Canal at Rochester	2,457	4/04 – 12/04 4/05 – 9/18
0423205023	Irondequoit Creek at Wetland Narrows at Rochester	144	3/81 – 11/83
04232200	Catharine Creek at Montour Falls	41.1	8/75 – 10/77‡
*04232630	Kendig Creek near MacDougall	13.8	10/64 – 9/68
04232650	Seneca River at Lock 4, Waterloo	742	1/31 – 12/66 1/69 – 9/79
04233678	Dryden Lake Inlet near Harford	2.73	8/73 – 11/74
04233700	Virgil Creek at Freeville	40.3	8/73 – 10/75
04234018	Salmon Creek at Ludlowville	81.7	10/64 – 9/68
04234055	Canoga Creek at Canoga	3.20	10/64 – 9/68
*04234200	Mud Creek at East Victor	64.2	4/58 – 9/68
04234270	Red Creek near Walworth	23.8	10/64 – 12/68 4/69 – 6/69
04235150	Flint Creek at Potter	31.0	3/64 – 9/68 10/70 – 10/78
04235271	Clyde River at Lock 26 Clyde	845	1/35 – 12/66
04235300	Owasco Inlet at Moravia	106	1/60 – 9/68
04236500	Skaneateles Creek at Willow Glen	75.8	4/1895 – 9/08
04239500	Onondaga Creek at Syracuse	95.0	11/39 – 7/49
04240000	Onondaga Creek at Temple Street Syracuse	104	6/49 – 9/51
04240145	Spafford Creek at Bromley Road near Spafford	3.14	11/81 – 10/83
04240150	Spafford Creek at Sawmill Road near Spafford	8.06	11/81 – 9/83 12/85 – 9/86
0424015305	Rice Brook at Rice Grove	2.64	11/81 – 9/83
0424016205	Willow Brook at Lader Point	3.73	11/81 – 9/83
0424016825	Amber Brook at Amber	3.75	11/81 – 9/83
0424016975	Van Benthuysen Brook near Amber	5.84	11/81 – 9/83
04240200	Ninemile Creek at Camillus	84.3	7/58 – 10/82
04241200	West Branch Fish Creek at Blossvale	204	12/65 – 9/68
04241500	East Branch Fish Creek at Fish Creek near Constableville	74.3	10/23 – 9/32
04244000	Chittenango Creek near Chittenango	66.3	8/50 – 9/68
*04245000	Limestone Creek at Fayetteville	85.5	11/39 – 9/86
04245250	Butternut Creek below Dewitt	58.6	6/64 – 6/66
*04245840	Scriba Creek near Constantia	38.4	3/66 – 9/68

‡ No winter record.

WATER RESOURCES DATA FOR NEW YORK, 1987
Volume 3.--Western New York

INTRODUCTION

Water resources data for the 1987 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 77 gaging stations; stage only at 19 gaging stations; stage and contents at 6 gaging stations; water quality at 8 gaging stations; and water levels at 21 observation wells. Locations of these sites are shown on figure 1. Also included are data for 38 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 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.

Beginning with the 1971 water year, the Geological Survey publishes annual water data for streamflow, water quality, and ground water for all States. These reports are identified by 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–87–3." 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.

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

COOPERATION

The U.S. Geological Survey and organizations of the State of New York and other agencies have had cooperative agreements for the systematic collection of water records since 1900. Organizations that assisted in collecting data included in Volume 3, water year 1987, 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

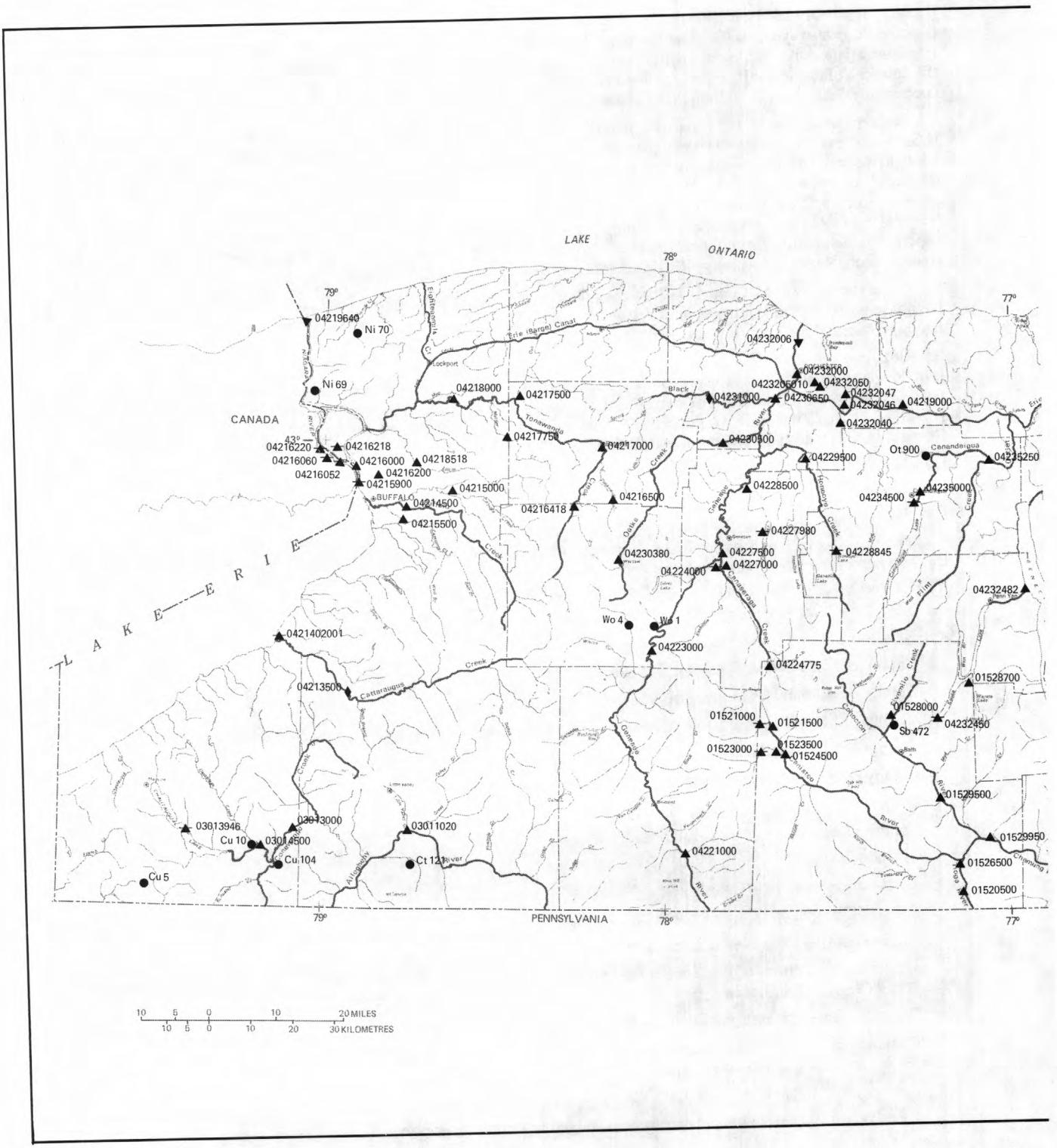
Irondequoit Bay Pure Waters District

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.

The following organizations aided in collecting records:

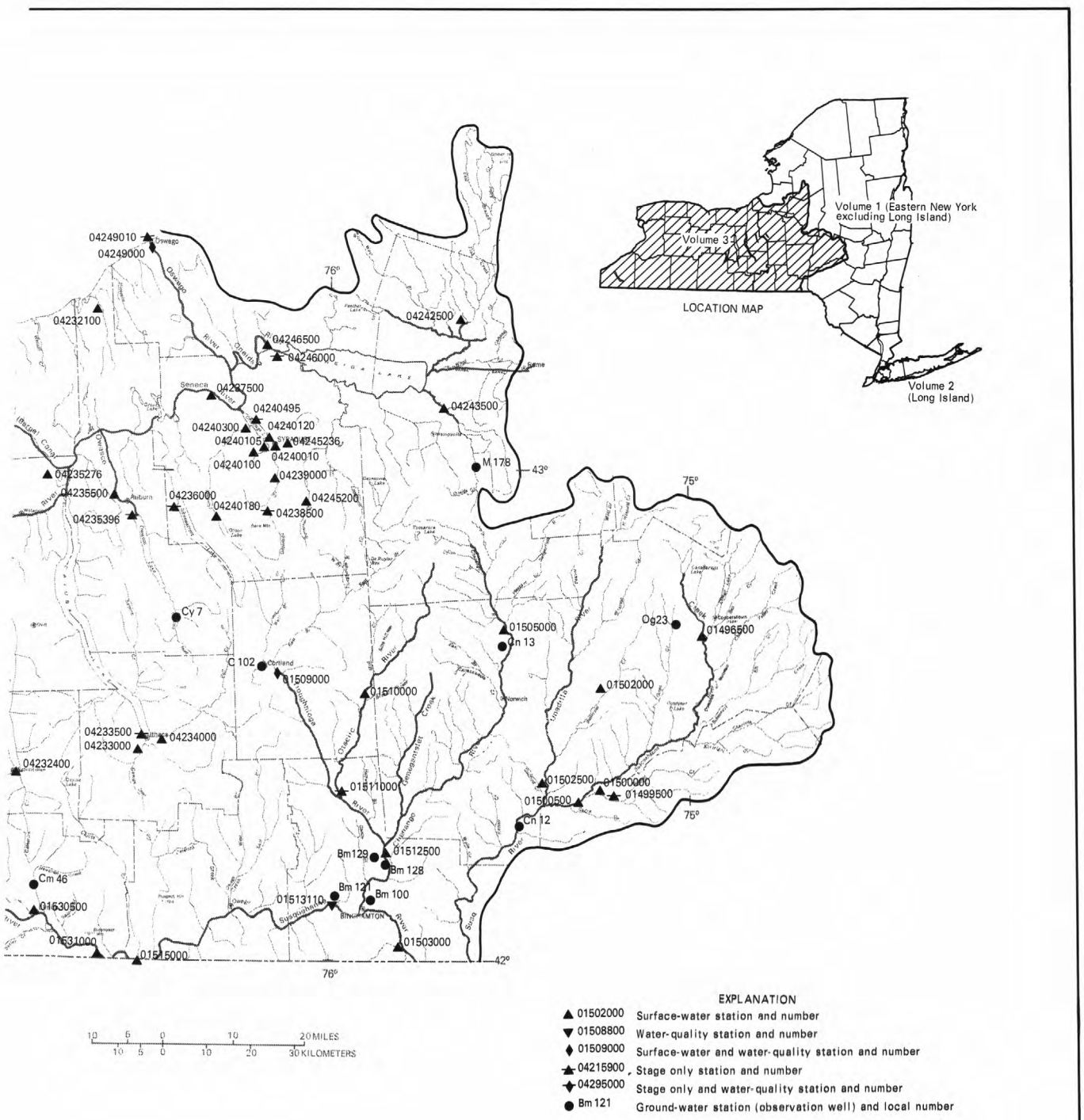
Municipalities of Batavia, Canandaigua, Cortland, Jamestown, Lancaster, Oneida, Rochester, Syracuse; Cornell University; New York State Electric and Gas Corporation; Niagara Mohawk Power Corporation; Rochester Gas and Electric Corporation.

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]

Annual mean discharges in western New York during the 1987 water year were in the normal range[2]. (See table 1.) Streamflows fluctuated between extreme conditions; monthly flows were in the excessive range during October, December, July, and September (see table 2) and in the deficient range during February and May (see table 3).

Table 1.— Comparison of annual mean discharge of the 1987 water year with average discharge for the period of record for selected streams.
(Locations are shown in figure 1.)

Station		Period of record	1987 Water year mean discharge (ft^3/s)	Percentage of period-of-record average discharge
01503000	Susquehanna River at Conklin	1914–87	3,547	99
01531000	Chemung River at Chemung	1906–13, 1915–87	2,220	88
03011020	Allegheny River at Salamanca	1904–87	2,734	98
04213500	Cattaraugus Creek at Gowanda	1941–87	755	102
04217000	Tonawanda Creek at Batavia	1945–87	239	113
04221000	Genesee River at Wellsville	1956–58, 1973–87	359	90
04234000	Fall Creek near Ithaca	1926–87	162	87
04242500	East Branch Fish Creek at Taberg	1924–87	452	84

Streamflow at the end of the 1986 water year was in the high-to-normal range as a result of several large storms that passed through the area during the last week of September. Frequent showers through October raised flows into the excessive range at most streamflow-measurement sites. (See table 2.) Heavy precipitation on October 4-5 produced monthly high flows with annual peaks at some sites on tributaries to Lake Erie and the Allegheny River. Flood warnings were issued in this area and urban flooding was reported in the Buffalo area.

Streamflow receded by the end of October but was sustained at higher-than-normal levels throughout November and December by a mixture of precipitation, including rain, sleet, and snow. Saturated soil conditions and approximately 1 inch of rain on November 26 produced monthly peak flows on most streams. Annual peaks were recorded at many gaging stations on the Susquehanna River between Bainbridge and Waverly, although no damages were reported. A storm on December 2-3 dropped 1 to 2 inches of rain and melted snow along the lake-effect snowbelt region east of Lake Erie. This produced high discharges in the Tonawanda Creek basin and tributaries to Lake Erie. Annual maximums were recorded for Lake Erie elevation and Niagara River discharge. Unseasonably mild temperatures for the remainder of December produced frequent rain and snowmelt, which caused high flows on most streams in western New York. (See table 2.)

Table 2.— Comparison of monthly mean discharges with period-of-record median monthly discharges for months with excessive streamflow conditions during the 1987 water year for selected streams.
(Locations are shown in figure 1.)

Station		Period of record used	Percentage of period-of-record median monthly discharge			
			Oct.	Dec.	July	Sept.
01503000	Susquehanna River at Conklin	1914–87	188	151	139	333
01531000	Chemung River at Chemung	1915–87	181	199	214	404
03011020	Allegheny River at Salamanca	1904–87	286	142	410	894
04213500	Cattaraugus Creek at Gowanda	1941–87	456	139	345	252
04217000	Tonawanda Creek at Batavia	1945–87	806	214	359	357
04221000	Genesee River at Wellsville	1956–58, 1973–87	270	91	193	819
04234000	Fall Creek near Ithaca	1930–87	198	147	146	176
04242500	East Branch Fish Creek at Taberg	1924–87	235	121	124	199

More seasonable temperatures prevailed throughout most of January and February, when snow was the predominant form of precipitation. Except for short periods of snowmelt, most snow remained on the ground. This reduced streamflow at most gaging stations to normal levels in January. Below-average precipitation resulted in the driest February on record for New

[1] Climatological data used in this summary are from monthly weather summaries published by the National Oceanic and Atmospheric Administration.

[2] Range refers to the quartile within which a given flow statistic fails. The excessive range is defined as flow in the upper quartile; deficient as flow in the lower quartile; and normal as flow in the two middle quartiles.

York State. Streamflows continued their decreasing trend and dropped into the deficient range at most streams during this month. (See table 3.) Rain and snowmelt on March 1 and 7-8 increased streamflow on all streams in the area, especially in the westernmost part of the State. No reports of flooding or damages were received, although ice jams increased the stage of some streams during these periods. Stream levels generally receded through the remainder of the month until a series of storms on March 26-27 and 31 produced significant runoff. The medium-to-high flows that resulted were increased by a heavy rainstorm on April 4 and by showers for the next 3 days. Monthly high flows and many annual peaks were recorded at streamflow-measurement sites throughout western New York. Minor flooding occurred on tributaries in the lower part of the Genesee River basin and in low-lying areas of the Susquehanna River basin, but no damages were reported. A storm on April 12-13 recharged the receding streams, although high flows generally were lower than during the previous storm. Scattered showers continued through April and kept streamflow in the normal range.

During May, the weather pattern shifted once again. New York experienced the driest May in 7 years and one of the 10 driest Mays in 98 years of record. Dry soil conditions kept scattered showers from producing any significant runoff, and streamflow receded into the deficient range throughout western New York. (See table 3.)

Table 3.— Comparison of monthly mean discharges with period-of-record median monthly discharges for months with deficient streamflow conditions during the 1987 water year for selected streams. (Locations are shown in figure 1.)

	Station	Period of record used	Percentage of period-of-record median monthly discharge	
			February	May
01503000	Susquehanna River at Conklin	1914–87	39	41
01531000	Chemung River at Chemung	1915–87	37	40
03011020	Allegheny River at Salamanca	1904–87	21	56
04213500	Cattaraugus Creek at Gowanda	1941–87	30	43
04217000	Tonawanda Creek at Batavia	1945–87	35	46
04221000	Genesee River at Wellsville	1956–58, 1973–87	26	48
04234000	Fall Creek near Ithaca	1930–87	34	38
04242500	East Branch Fish Creek at Taberg	1924–87	65	31

Frequent showers and thunderstorms during the first 3 weeks of June relieved the deficient flows of May, and streamflow increased to normal levels. On June 22, thunderstorms dropped rain throughout the area, with intense downpours in localized areas that resulted in flooding on small streams, primarily in the urbanized areas of Syracuse and Buffalo. Both communities experienced flooding from 2.74 inches of rain in Syracuse and 5.01 inches in Buffalo--the most rain ever recorded in Buffalo in a 24-hour period. The flooding and traffic problems in Syracuse were minor in comparison to those in the Buffalo area, where a period-of-record peak (30 years) was recorded on Scajaquada Creek. The midday flooding backed up traffic for 5 miles on the New York State Thruway and made the Scajaquada Expressway, which runs through downtown Buffalo, impassable. Many motorists were stranded for several hours, but no injuries were reported.

The June 22 storm marked the beginning of a weather pattern of frequent showers and thunderstorms that continued through the remainder of the water year. The unusually wet months of July and September both produced high flows (see table 2) and generally high-to-normal flows in August. Localized storms produced high flows on some streams, although few regional storms produced high flows throughout the area. High flows occurred on July 3 in the Allegheny River basin and August 28-29 in streams in the southern part of central New York. Precipitation totals for September marked this September as the wettest in 8 years and one of the 9 wettest Septembers since 1890. Heavy downpours produced high flows at most streamflow-measurement sites on September 13 and 19. Minor flooding occurred on small streams in the southwestern corner of the State, although no reports of damage were received.

Analysis of stream-water samples and associated discharge data collected from the four NASQAN stations in western New York indicated no significant changes in chemical or biological quality from previous years. Nearly all values for sampled constituents were within the historical extremes for each site. Of those values that exceeded the historical extremes, none indicated a trend in the data.

Ground-water levels, which were near normal at the end of the 1986 water year, rose above the monthly average in October in response to heavy precipitation during the first week of the month and frequent showers thereafter. Rainfall and snowmelt throughout November and December kept ground-water levels near the monthly averages through January. Less-than-normal precipitation in February caused a drop in ground water to below-average levels, but rain and snowmelt during March and April returned the levels to normal. The beginning of vegetation growth and below-average precipitation caused ground-water levels to drop below the monthly average in May, but frequent showers and greater-than-normal precipitation during July and September resulted in ground-water recharge and maintained normal ground-water levels throughout the remainder of the water year.

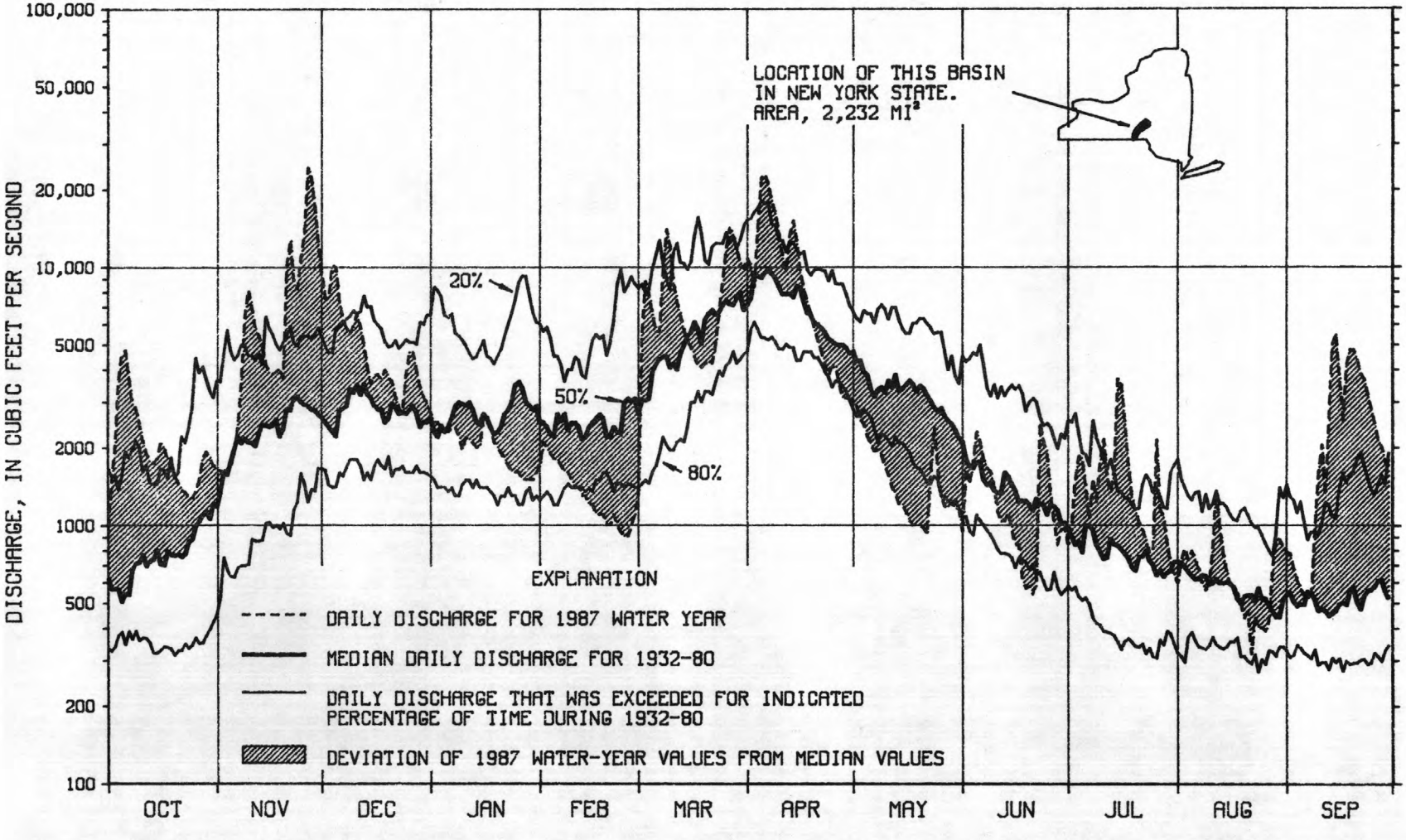


Figure 2.--Comparison of discharge at Susquehanna River at Conklin during 1987 water year with median discharge for period 1932-80.

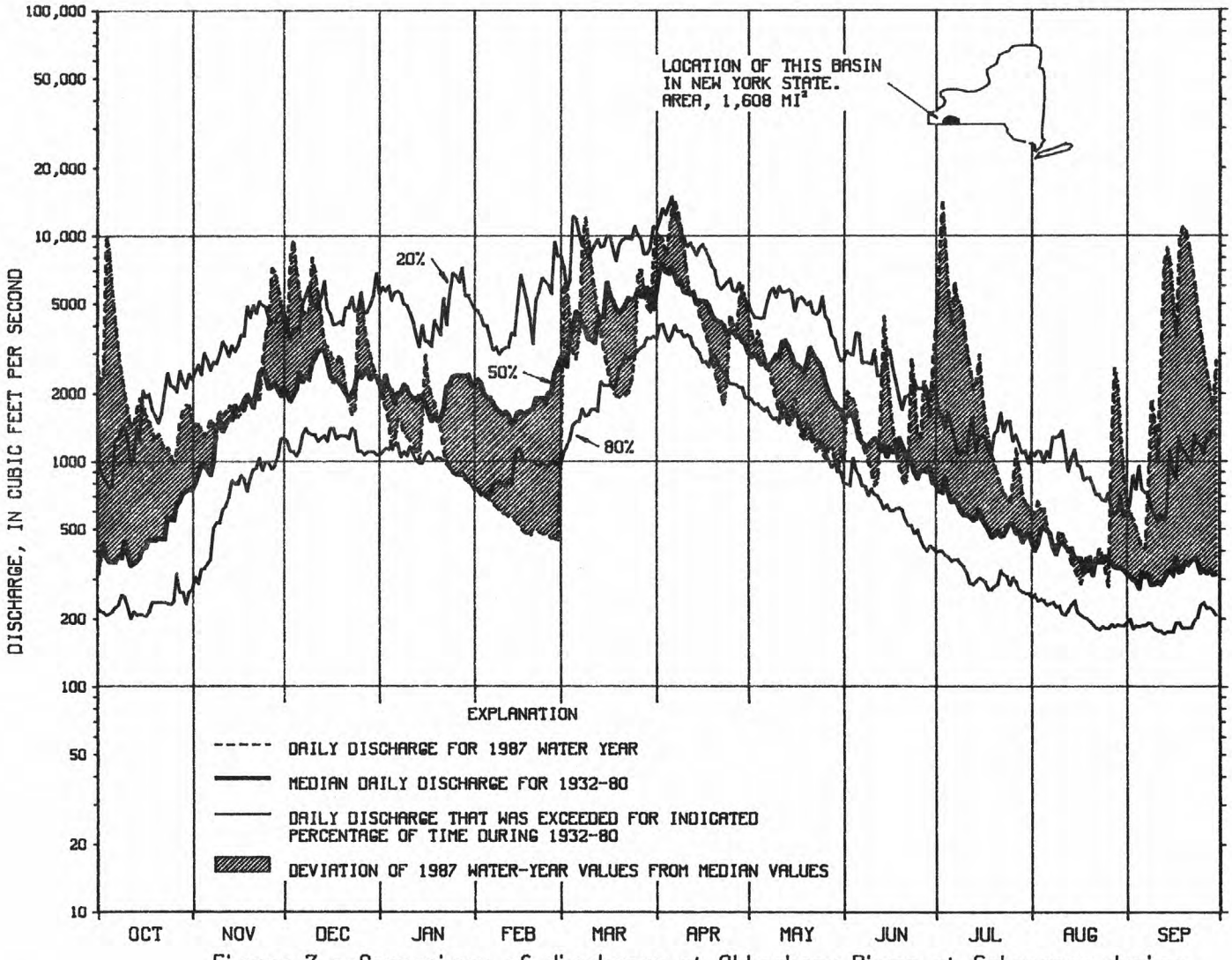


Figure 3.--Comparison of discharge at Allegheny River at Salamanca during 1987 water year with median discharge for period 1932-80

SPECIAL NETWORKS AND PROGRAMS

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 in this report are for the water year that began October 1, 1986, and ended September 30, 1987. 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, stage, surface area, 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. 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 4 below.

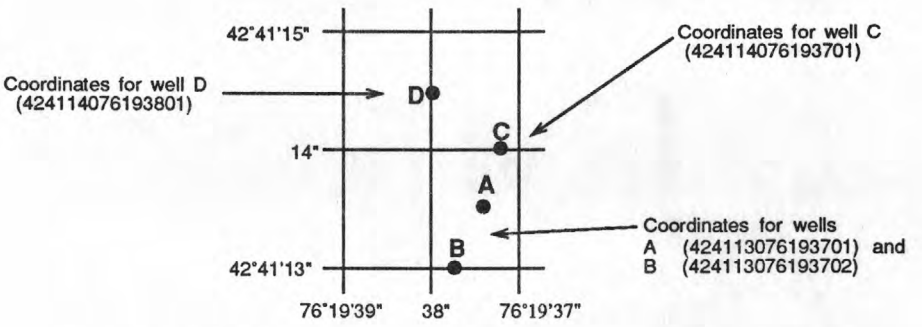


Figure 4. System for numbering wells (latitude and longitude)

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 either direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at selected time intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey. These methods are described in standard textbooks, in Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6.

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 hydrologist, 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 daily contents are computed from gage heights and capacity tables, then the daily, monthly, and yearly change of contents are computed from the daily figures. 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

The records published for each gaging station consist of two parts, the station description and the data table for the current water year. The station description provides, under different headings, information such as station location; period of record; average discharge; historical extremes; record accuracy; and other remarks pertinent to station operation and regulation. Following is a list of headings for complete record stations 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 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 are occasionally revised in light of new information, and revisions published in later reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years for which 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. It should be noted that for all stations for which cubic feet per second per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

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

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

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

AVERAGE DISCHARGE.--The discharge value given is the arithmetic mean of the water-year mean discharges. It is computed only for stations having at least 5 water years of complete record, and only water years of complete record are included in the computation. It is not computed for stations where diversions, storage, or other water-use practices cause the value to be meaningless. The median of yearly mean discharges also is given under this heading for stations having 10 or more water years of record, if the median differs from the average given by more than 10 percent.

EXTREMES FOR PERIOD OF RECORD.--Extremes may include maximum and minimum stages and maximum and minimum discharges or content. Unless otherwise qualified, the maximum discharge or content is the instantaneous maximum corresponding to the highest stage that occurred, as recorded on a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur on the same day as the maximum discharge or content, it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified.

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

EXTREMES FOR CURRENT YEAR.--Extremes given here are similar to those for the period of record, except secondary peaks are also included. Secondary peaks are those that are less than the peak for the year but that exceed a selected base discharge. The base discharge, which is given in the table 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. 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. The minimums for these stations are published in a separate paragraph following the table of peaks.

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.

The second part of the record for each gaging station is the table of daily mean discharges, followed by monthly and yearly summaries. In the monthly summary below the table, the "TOTAL" line gives the sum of the daily figures. The "MEAN" line gives the average glow in cubic feet per second during the month. The "MAX" and "MIN" lines give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in cubic feet per second per square mile ("CFSM" line), or in inches ("IN." line). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion, if the drainage area includes large noncontributing areas, or if the average annual rainfall over the drainage basin is usually less than 20 inches. In the yearly summary below the monthly summary, the figures shown are the appropriate daily discharges for the calendar and water years.

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

Identifying Estimated Daily Discharge

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

Accuracy of the Records

The accuracy of streamflow 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 and miscellaneous measurement sites.

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

Other Records Available

Information 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.

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)

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 or from the graph or punched tape of a water-stage recorder. Water-level measurements in this report are given in feet with reference to land-surface datum (lsd). Land-surface datum is a datum plane that is approximately at land surface at each well. If known, the altitude of the land-surface datum above National Geodetic Vertical Datum of 1929 (see DEFINITION OF TERMS) is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported as mean daily values; then monthly and yearly means are computed from the daily figures. Water levels in wells not equipped with recording gages are measured periodically, usually weekly, with a weighted tape.

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

Data Presentation

Each well record consists of two parts, the well description and a table of water levels observed in the current water year. The well description includes such information as location, aquifer, period of record, historical extremes, and other information pertinent to the well site. Following is a list of headings for well records and a discussion of the information provided under each heading.

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

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

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

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

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

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

PERIOD OF RECORD.--Identifies the period for which there are published records for the observation well or for an equivalent well. 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.

The second part of the well-record is a table of water levels, 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 well records longer than one year, a hydrograph of ground-water level fluctuations for the past ten water years (including the current water year) is presented following the data table.

ACCESS TO WATSTORE DATA

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

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

General inquiries about WATSTORE may be directed to:

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

DEFINITION OF TERMS

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

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

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.

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.

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.

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 044255/4455(m^2.time) for periphyton and macrophytes and mg 044255/(m^3.time) for phytoplankton] are the units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

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

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

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

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

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

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

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

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

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in microsemiens per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). 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.)

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.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

3-A9. *Measurement of time of travel and dispersion in streams by dye tracing,* by E. F. Hubbard, F. A. Kilpatrick, L. A. Martens, and J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1982. 44 pages.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

5-A1. *Methods for determination of inorganic substances in water and fluvial sediments* by M. W. Skougstad and others, editors: USGS--TWRI Book 5, Chapter A1. 1979. 626 pages.

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

5-A3. *Methods for analysis of organic substances in water*. by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages.

5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*. edited by P. E. Greeson, T. A. Ehlke, G. A. Irwin, B. W. Lium, and K. V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 pages.

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

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

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

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

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

7-C3. *A model for simulation of flow in singular and interconnected channels* by R. W. 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 mi southwest of Cooperstown.

DRAINAGE AREA.--102 mi^2

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

REVISED RECORDS.--WSP 2103: Drainage area.

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

REMARKS.--Records fair except those for estimated daily discharges, which are poor. 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 rain-gage telemeter at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--52 years (1931–32, 1938–87), 170 ft^3/s, 22.63 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,320 ft^3/s Oct. 17, 1977, from rating extended above 1,700 ft^3/s by logarithmic plotting, gage height, 7.62 ft; minimum, 1.3 ft^3/s Aug. 4, 5, 1962, gage height, 1.79 ft.

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)
Nov.27	0530	1,020	5.10	Apr. 5	0330	*1,430	*5.62

Minimum discharge, 4.9 ft^3/s Aug. 21, 26-27, gage height, 1.98 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	124	117	423	e150	e86	94	652	226	77	87	15	11
2	114	119	403	e140	e82	182	584	210	73	108	15	11
3	119	122	447	e120	e80	204	559	195	64	111	19	11
4	244	117	464	e130	e76	196	630	184	70	97	16	11
5	224	114	419	e130	e70	199	1110	173	57	91	13	10
6	207	162	391	e140	e70	197	863	166	51	85	13	8.8
7	202	163	375	e130	e68	223	990	154	51	94	11	8.9
8	194	155	361	e120	e64	311	976	141	49	119	10	13
9	189	237	350	e120	e64	388	834	103	47	131	12	63
10	185	232	384	e120	e64	280	738	54	43	93	26	41
11	174	217	356	e110	e64	317	658	51	41	84	18	30
12	165	223	334	e110	e62	318	594	59	40	46	14	28
13	160	224	e300	e110	e60	303	762	55	39	26	12	139
14	177	212	e270	e100	e60	285	684	52	35	30	9.9	164
15	176	206	e280	e110	e58	277	621	53	33	49	9.1	119
16	160	204	283	e120	e58	266	573	52	30	37	8.1	107
17	153	204	271	e100	e56	256	532	48	28	32	7.0	103
18	146	200	267	e100	e56	246	493	48	25	30	6.7	136
19	137	199	261	e100	e54	246	452	50	22	29	7.0	185
20	131	191	246	e92	e54	248	416	47	22	29	7.5	185
21	125	266	232	e92	e52	236	380	44	23	29	6.2	177
22	119	239	e210	e90	e52	268	355	43	51	28	6.0	169
23	116	217	e200	e88	e50	324	329	50	57	27	7.5	163
24	121	281	e200	e84	e50	387	327	46	55	24	6.7	155
25	115	297	220	e82	e48	454	318	44	53	23	6.2	148
26	119	400	231	e80	e48	633	285	48	52	22	5.4	138
27	128	802	213	e84	e47	631	263	49	91	19	7.8	128
28	125	557	198	e86	e47	649	252	52	107	17	13	125
29	120	501	191	e90	---	647	246	47	98	15	22	122
30	125	468	182	e88	---	619	246	47	94	14	21	120
31	124	---	e170	e86	---	627	---	41	---	20	14	---
TOTAL	4718	7646	9132	3302	1700	10511	16722	2632	1578	1646	365.1	2829.7
MEAN	152	255	295	107	60.7	339	557	84.9	52.6	53.1	11.8	94.3
MAX	244	802	464	150	86	649	1110	226	107	131	26	185
MIN	114	114	170	80	47	94	246	41	22	14	5.4	8.8
CFSM	1.49	2.50	2.89	1.04	.60	3.32	5.46	.83	.52	.52	.12	.92
IN.	1.72	2.79	3.33	1.20	.62	3.83	6.10	.96	.58	.60	.13	1.03

CAL YR	1986	TOTAL	73287.0	MEAN	201	MAX	1760	MIN	14	CFSM	1.97	IN. 26.7
WTR YR	1987	TOTAL	62781.8	MEAN	172	MAX	1110	MIN	5.4	CFSM	1.69	IN. 22.9

e Estimated

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

REMARKS.--Records good. Since November 1949, flow regulated by East Sidney Lake (see station 01499500). Satellite gage-height telemeter at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--47 years, 172 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,250 ft^3/s Dec. 30, 1942, gage height, 7.62 ft site and datum then in use, from rating curve extended above 4,000 ft^3/s; minimum, 1.2 ft^3/s Aug. 13, 14, 17, 1949, gage height, 0.32 ft.

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.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,880 ft^3/s Apr. 9 at 1415 hours, gage height, 4.76 ft; minimum, 1.7 ft^3/s Apr. 8, gage height, 0.68 ft (result of regulation).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	73	1190	125	76	112	546	73	35	34	11	28
2	71	73	468	116	64	737	357	74	36	40	11	39
3	71	73	456	116	65	442	312	75	87	145	11	43
4	214	73	657	99	66	420	171	75	112	148	10	41
5	260	73	385	88	66	270	2.3	53	111	49	16	28
6	115	73	295	89	74	230	1.6	38	107	8.6	21	20
7	75	117	255	90	86	290	1.6	38	107	21	21	20
8	75	229	230	91	86	683	333	38	94	31	21	21
9	75	535	230	91	85	875	1310	39	55	32	21	398
10	52	451	314	92	85	442	1780	40	31	38	36	172
11	33	299	266	91	74	427	1690	25	31	46	43	91
12	33	357	205	91	66	307	1560	14	30	46	27	70
13	34	205	162	91	66	255	1450	14	30	46	20	240
14	73	156	107	91	63	256	742	14	31	39	20	447
15	72	193	156	92	72	255	489	14	31	222	20	232
16	72	194	187	129	59	222	385	14	31	170	20	133
17	72	185	162	114	51	164	334	14	31	56	14	434
18	72	151	133	92	43	165	318	14	31	34	10	635
19	72	141	131	93	43	167	225	14	31	34	10	423
20	43	148	161	93	44	197	209	13	31	34	10	350
21	31	982	132	93	45	206	208	13	31	34	10	242
22	32	788	114	94	45	175	146	13	32	34	10	215
23	33	438	99	94	45	265	120	13	82	34	10	248
24	33	821	88	94	53	409	122	13	83	34	10	211
25	33	660	167	93	57	465	123	13	72	34	10	154
26	34	473	281	93	57	834	124	29	45	34	10	136
27	50	16	213	94	57	671	92	81	33	34	11	122
28	73	212	160	94	57	578	70	110	33	34	11	72
29	73	1240	142	93	---	498	71	48	33	19	10	72
30	73	1610	140	92	---	377	73	35	34	11	10	73
31	73	---	153	92	---	387	---	35	---	11	17	---
TOTAL	2182	11039	7839	3000	1750	11781	13365.5	1096	1561	1586.6	492	5410
MEAN	70.4	368	253	96.8	62.5	380	446	35.4	52.0	51.2	15.9	180
MAX	260	1610	1190	129	86	875	1780	110	112	222	43	635
MIN	31	16	88	88	43	112	1.6	13	30	8.6	10	20

CAL YR	1986	TOTAL	70215.8	MEAN	192	MAX	1610	MIN	2.3
WTR YR	1987	TOTAL	61102.1	MEAN	167	MAX	1780	MIN	1.6

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 and crest-stage gages. Datum of gage is 997.25 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Slight regulation by upstream lakes and reservoirs. Satellite and gage-height telemeters at station.

AVERAGE DISCHARGE.--49 years, 1,564 ft^3/s, 21.63 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,500 ft^3/s Mar. 14, 1977, gage height, 14.64 ft; minimum, 39 ft^3/s Oct. 17, 1964, gage height, 1.38 ft.

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

EXTREMES 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)
Apr. 5	1800	*14,300	*11.47	No other peak greater than base discharge.			

Minimum discharge, 175 ft^3/s Aug. 27, gage height, 1.98 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	737	705	4580	1010	e700	e760	5780	1440	446	431	431	328
2	985	760	3370	987	e740	e2400	4520	1200	383	487	347	310
3	809	750	3930	e900	e700	e2800	4030	1070	719	941	396	291
4	1630	741	5160	e880	e720	e2600	4860	1000	750	884	428	272
5	2140	676	3950	e860	e700	e2200	12000	909	975	607	361	244
6	1720	792	3230	e940	e680	e2000	11700	881	870	416	314	214
7	1330	1280	2920	e920	e660	2310	9980	973	718	413	276	210
8	1370	1350	2720	e820	e640	3880	9860	890	681	434	271	257
9	1130	2570	2560	e780	e600	5570	8840	783	580	1260	258	1570
10	947	3150	3060	e860	e580	4090	7550	752	451	1110	795	1210
11	854	2390	2970	e840	e560	3440	6340	599	394	727	710	580
12	805	2330	2440	e800	e520	3120	5620	586	378	616	473	491
13	739	2290	e2000	e780	e490	2780	7250	574	379	520	375	1650
14	870	1870	e1600	e780	e450	2460	7530	543	358	693	327	3610
15	970	1770	1720	e780	e420	2310	5640	520	341	1460	297	2100
16	878	1690	1790	e1000	e400	2140	4640	490	303	1070	344	1350
17	786	1730	1540	e880	e400	1910	4050	490	281	653	292	1960
18	748	1640	1660	e840	e390	1750	3680	460	259	524	227	2450
19	706	1440	1500	e820	e390	1760	3220	452	249	469	194	2860
20	653	1320	1650	e800	e400	1930	2870	466	239	449	211	2550
21	619	4530	1430	e800	e440	1800	2590	438	248	445	213	2210
22	598	3870	1320	e760	e500	1850	2290	420	265	398	200	2100
23	584	2880	1200	e720	e460	2470	2030	398	709	361	257	1830
24	600	4010	1200	e700	e440	3490	1930	487	700	338	210	1610
25	592	4600	1460	e660	e420	4250	2090	461	477	317	196	1450
26	613	5130	1850	e640	e410	6410	1810	410	387	449	185	1270
27	889	9470	1580	e620	e400	6780	1640	531	377	409	206	1200
28	865	8480	1290	e600	e420	6460	1550	555	549	327	284	1050
29	785	6800	1210	e600	---	6000	1500	510	505	279	392	951
30	752	5870	1140	e640	---	5440	1470	488	430	252	399	953
31	716	---	1090	e680	---	5180	---	330	---	376	348	---
TOTAL	28420	86884	69120	24697	14630	102340	148860	20106	14401	18115	10217	39131
MEAN	917	2896	2230	797	522	3301	4962	649	480	584	330	1304
MAX	2140	9470	5160	1010	740	6780	12000	1440	975	1460	795	3610
MIN	584	676	1090	600	390	760	1470	330	239	252	185	210
CFSM	.93	2.95	2.27	.81	.53	3.36	5.05	.66	.49	.60	.34	1.33
IN.	1.08	3.29	2.62	.94	.55	3.88	5.64	.76	.55	.69	.39	1.48

CAL YR	1986	TOTAL	633914	MEAN	1737	MAX	17300	MIN	167	CFSM	1.77	IN. 24.0
WTR YR	1987	TOTAL	576921	MEAN	1581	MAX	12000	MIN	185	CFSM	1.61	IN. 21.9

e Estimated

01502000 BUTTERNUT CREEK AT MORRIS, NY

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

DRAINAGE AREA.--59.7 mi^2.

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

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

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

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

AVERAGE DISCHARGE.--49 years, 99.7 ft^3/s, 22.68 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,980 ft^3/s Oct. 17, 1977, gage height, 9.44 ft; minimum daily, 1.3 ft^3/s Sept. 24, 1939.

EXTREMES 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)
Nov. 26	2400	*1,680	*7.21	No other peaks greater than base discharge.			

Minimum discharge, 14 ft^3/s June 19-21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74	63	190	e60	e38	58	328	72	20	22	35	24
2	50	70	177	e57	e38	211	260	64	37	25	32	24
3	49	75	348	e53	e37	227	259	59	30	45	52	23
4	242	66	305	e55	e36	189	459	55	28	31	39	22
5	187	61	215	e56	e35	176	715	53	29	26	34	21
6	136	122	183	e58	e35	157	414	54	24	25	32	20
7	115	111	168	e57	e34	190	533	53	23	24	31	21
8	99	103	157	61	e33	318	413	48	24	27	29	23
9	88	282	157	58	e33	386	318	44	23	71	37	48
10	81	219	231	57	e32	242	260	40	21	41	91	35
11	73	178	169	59	e31	221	222	37	19	33	49	29
12	66	171	147	56	e30	208	197	37	20	29	41	27
13	64	159	127	54	e29	186	491	37	20	27	37	136
14	80	130	103	51	e29	166	295	34	18	45	34	148
15	87	119	119	56	e28	159	243	32	18	86	31	89
16	71	116	112	66	e28	149	216	32	17	43	30	74
17	61	119	106	e44	e27	139	192	30	16	36	28	85
18	59	114	108	e45	e26	134	170	29	15	32	26	113
19	54	111	109	e44	e26	142	148	28	15	30	27	128
20	53	95	97	e43	e25	154	129	28	15	31	31	128
21	51	377	88	e42	e25	137	110	27	15	30	26	113
22	49	228	80	e40	e24	179	95	26	29	28	25	123
23	48	182	72	e39	e24	279	85	29	67	26	24	100
24	54	311	74	e39	e24	346	99	28	29	24	23	91
25	48	275	108	e39	e24	421	113	26	23	38	22	82
26	61	638	121	e39	e24	646	82	25	22	60	21	70
27	78	1090	97	e42	e24	496	74	27	23	37	24	58
28	77	447	86	e42	e23	427	70	26	25	32	29	57
29	71	317	81	e41	---	373	82	24	23	29	35	57
30	72	248	77	e40	---	324	80	21	22	28	32	59
31	68	---	e70	e39	---	321	---	21	---	56	26	---
TOTAL	2466	6597	4282	1532	822	7761	7152	1146	710	1117	1033	2028
MEAN	79.5	220	138	49.4	29.4	250	238	37.0	23.7	36.0	33.3	67.6
MAX	242	1090	348	66	38	646	715	72	67	86	91	148
MIN	48	61	70	39	23	58	70	21	15	22	21	20
CFSM	1.33	3.68	2.31	.83	.49	4.19	3.99	.62	.40	.60	.56	1.13
IN.	1.54	4.11	2.67	.95	.51	4.84	4.46	.71	.44	.70	.64	1.26

CAL YR	1986	TOTAL	44246	MEAN	121	MAX	1860	MIN	14	CFSM	2.03	IN. 27.6
WTR YR	1987	TOTAL	36646	MEAN	100	MAX	1090	MIN	15	CFSM	1.68	IN. 22.8

e Estimated

01502500 UNADILLA RIVER AT ROCKDALE, NY

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

DRAINAGE AREA.--520 mi^2.

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

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

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

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

AVERAGE DISCHARGE.--53 years (water years 1931–33, 1938–87), 840 ft^3/s, 21.94 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,400 ft^3/s Dec. 31, 1942, gage height, 12.98 ft; minimum daily, 27 ft^3/s Sept. 20–27, 1964.

EXTREMES 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)
Nov.27	1730	*8,280	*9.50	Apr. 5	1500	6,310	8.43

Minimum discharge, 84 ft^3/s Aug. 26-27, gage height, 3.70 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	568	527	1860	e540	e360	e420	3210	780	182	168	146	127
2	503	503	1520	e490	e350	e1800	2490	658	240	225	131	113
3	432	559	2710	e440	e350	e1700	2300	564	329	383	150	110
4	1270	539	3740	e470	e350	e1600	3080	519	341	397	156	105
5	1630	494	2540	e500	e330	e1500	6060	485	290	263	138	111
6	1150	771	1880	e500	e330	e1400	4660	477	251	200	127	103
7	906	1070	1600	e480	e330	e1500	4360	486	215	174	117	96
8	777	913	1440	e470	e310	e2500	4380	459	208	179	110	102
9	676	2020	1340	e450	e310	e3700	3350	409	209	305	118	160
10	603	2370	2020	e450	e310	e2500	2600	370	194	330	296	177
11	543	1540	1980	e440	e300	e2000	2070	337	180	229	240	162
12	499	1370	1430	e440	e290	e1800	1750	327	173	198	181	135
13	470	1340	e1000	e420	e280	e1500	3700	328	171	178	148	302
14	515	1110	e780	e400	e280	e1200	4280	307	165	319	128	831
15	614	954	e940	e430	e280	1160	3000	283	159	654	114	583
16	622	905	995	e520	e270	1060	2320	268	143	529	105	363
17	519	932	908	e440	e260	942	1950	260	132	304	97	462
18	477	936	887	e470	e260	874	1750	244	124	223	92	526
19	442	908	988	e450	e250	926	1490	238	118	189	90	701
20	405	788	884	e430	e250	1070	1270	238	115	177	106	738
21	385	3480	781	e420	e240	954	1090	236	117	176	101	727
22	375	2550	693	e400	e230	1030	962	226	159	165	92	737
23	361	1660	612	e400	e230	1880	844	254	539	150	88	595
24	403	2630	604	e380	e220	2750	853	298	401	138	87	489
25	416	2950	869	e360	e220	3220	1100	258	246	132	89	438
26	416	3630	1260	e360	e220	4440	863	230	185	181	84	369
27	555	7670	991	e380	e210	4650	697	247	174	161	100	319
28	581	6510	829	e390	e200	3930	638	254	191	132	123	289
29	574	3690	746	e400	---	3340	707	248	160	117	157	285
30	533	2600	e660	e390	---	2860	760	216	160	110	174	301
31	571	---	e580	e380	---	2640	---	193	---	120	152	---
TOTAL	18791	57919	40067	13490	7820	62846	68584	10697	6271	7206	4037	10556
MEAN	606	1931	1292	435	279	2027	2286	345	209	232	130	352
MAX	1630	7670	3740	540	360	4650	6060	780	539	654	296	831
MIN	361	494	580	360	200	420	638	193	115	110	84	96
CFSM	1.17	3.71	2.49	.84	.54	3.90	4.40	.66	.40	.45	.25	.68
IN.	1.34	4.14	2.87	.97	.56	4.50	4.91	.77	.45	.52	.29	.76

CAL YR	1986	TOTAL	359865	MEAN	986	MAX	12200	MIN	125	CFSM	1.90	IN. 25.7
WTR YR	1987	TOTAL	308284	MEAN	845	MAX	7670	MIN	84	CFSM	1.62	IN. 22.1

e Estimated

01503000 SUSQUEHANNA RIVER AT CONKLIN, NY

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

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

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

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

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

REMARKS.--Records good except those for estimated daily discharges, which are fair. Minor regulation by upstream lakes and reservoirs. Satellite telemeter at station. National Weather Service gage-height telemeter at station.

AVERAGE DISCHARGE.--74 years (water years 1914–87), 3,594 ft^3/s, 21.87 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 61,600 ft^3/s Mar. 18, 1936, gage height, 20.14 ft; maximum gage height, 20.83 ft Mar. 22, 1948; minimum discharge, 85 ft^3/s Oct. 14, 1964, gage height, 1.30 ft.

EXTREMES 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)
Nov.27	1000	*25,100	*12.50	Apr. 6	1700	23,500	12.04

Minimum discharge, 233 ft^3/s Aug. 22, gage height, 1.77 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	996	1650	9660	2730	e1700	e1300	10900	2990	950	846	597	789
2	1450	1620	7510	e2500	e2100	e5400	10100	2880	1660	1000	726	774
3	1970	1630	7590	e2500	e2000	e8800	8400	2570	1440	1510	816	678
4	3570	1650	10200	e2400	e1900	e7800	14400	2460	1760	1850	734	610
5	4660	1680	9930	e2300	e1800	e6600	22200	2210	2300	1790	797	568
6	4760	1920	7420	e2300	e1800	e5600	23100	2040	2090	1390	733	535
7	3780	2380	6310	e2400	e1700	e5800	20800	1930	1790	1050	678	523
8	2980	3560	5780	e2400	e1600	e9600	17900	1960	1660	1510	586	526
9	2830	6440	5470	2220	e1600	e14000	16000	1860	1610	1260	560	939
10	2490	8190	5910	1960	e1500	e12000	13300	1680	1400	1770	594	1600
11	2120	6930	6610	2190	e1400	8610	10900	1570	1130	2150	809	2050
12	1900	5690	5870	2140	e1400	7340	9600	1400	1030	1540	1370	1300
13	1780	5420	5000	2080	e1300	6520	13300	1320	1040	1340	999	2700
14	1740	4880	e4100	e2000	e1300	5700	15100	1210	1120	1660	778	5000
15	1810	4180	3530	2040	e1200	5160	12700	1210	968	3700	659	5490
16	2070	3900	3830	2600	e1200	4890	9620	1130	838	3490	581	3710
17	2010	3840	3840	e2500	e1100	4490	8200	1040	842	2510	550	2610
18	1810	3940	3660	e2400	e1100	4140	7290	1000	616	1720	544	4160
19	1670	4050	3990	e2100	e1100	4050	6570	1010	569	1290	495	4790
20	1570	3710	3720	e2000	e1000	4230	5770	994	580	1140	436	4770
21	1460	10200	3600	e1900	e1000	4310	5160	979	542	1030	462	4390
22	1370	12700	3150	e1800	e1100	4200	4680	926	595	966	318	3860
23	1340	8680	2850	e1700	e1000	4960	4160	1590	2510	866	445	3670
24	1290	8220	2700	e1600	e940	6740	3830	2420	2110	785	396	3190
25	1260	10900	3810	e1600	e900	8720	4090	1630	1880	793	403	2800
26	1370	13600	4680	e1600	e900	11700	4120	1310	1300	2140	390	2460
27	1500	24300	4700	e1500	e1000	14100	3510	1180	1030	1170	428	2130
28	1820	22100	3980	e1500	e1100	13300	3100	1180	848	1070	676	2000
29	1930	17100	3420	e1500	---	11700	3100	1240	969	855	899	1750
30	1830	12300	3140	e1500	---	10300	3050	1160	973	711	877	1810
31	1710	---	2970	e1600	---	9870	---	1160	---	634	827	---
TOTAL	64846	217360	158930	63560	37740	231930	294950	49239	38150	45536	20163	72182
MEAN	2092	7245	5127	2050	1348	7482	9832	1588	1272	1469	650	2406
MAX	4760	24300	10200	2730	2100	14100	23100	2990	2510	3700	1370	5490
MIN	996	1620	2700	1500	900	1300	3050	926	542	634	318	523
CFSM	.94	3.25	2.30	.92	.60	3.35	4.40	.71	.57	.66	.29	1.08
IN.	1.08	3.62	2.65	1.06	.63	3.87	4.92	.82	.64	.76	.34	1.20

CAL YR	1986	TOTAL	1522700	MEAN	4172	MAX	40300	MIN	488	CFSM	1.87	IN. 25.4
WTR YR	1987	TOTAL	1294590	MEAN	3547	MAX	24300	MIN	318	CFSM	1.59	IN. 21.6

e Estimated

01505000 CHENANGO RIVER AT SHERBURNE, NY

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

DRAINAGE AREA.--263 mi^2.

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

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

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

REMARKS.--Records good except those for estimated daily discharges, 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. National Weather Service gage-height telemeter at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--49 years, 401 ft^3/s, 20.71 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,400 ft^3/s Mar. 6, 1979, gage height, 9.94 ft; maximum gage height, 9.99 ft Dec. 30, 1942 (ice jam); minimum discharge, 12 ft^3/s Sept. 25, 1964; minimum gage height, 1.52 ft Sept. 19, 1963.

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

EXTREMES 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)
Nov. 27	0030	*3,260	*8.12	No peak greater than base discharge.			

Minimum discharge, 21 ft^3/s Aug. 25-27, gage height, 1.70 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	315	296	722	e340	e210	e250	1220	346	90	81	38	34
2	261	298	644	e320	e200	e800	996	300	147	95	37	32
3	236	311	1460	e300	e200	e740	1010	264	184	247	39	33
4	698	288	1540	e300	e200	e700	1410	243	138	175	39	33
5	655	273	1160	e300	e190	683	1750	221	128	128	37	30
6	542	489	951	e290	e190	614	1340	221	111	100	36	28
7	476	489	826	e280	e190	762	1500	215	100	93	35	31
8	405	439	738	e270	e180	1470	1270	199	110	88	34	35
9	354	782	705	e270	e180	1800	1060	183	113	112	38	44
10	315	672	1010	e260	e180	1120	892	175	105	90	52	42
11	280	576	846	e250	e180	1020	781	152	97	78	46	35
12	258	554	713	e250	e170	901	707	151	92	69	38	34
13	248	539	e600	e240	e160	780	2070	150	92	64	34	180
14	298	457	e580	e230	e160	685	1920	132	89	70	32	201
15	357	419	e560	e260	e160	639	1470	127	83	152	30	130
16	315	406	526	e310	e160	589	1200	125	76	141	28	106
17	287	416	508	e260	e150	533	1000	119	71	110	27	98
18	264	400	526	e270	e150	513	868	107	67	84	25	135
19	234	382	561	e260	e150	543	753	104	64	73	25	220
20	216	331	507	e250	e150	589	655	106	62	70	27	193
21	204	930	459	e240	e140	520	586	101	65	67	24	179
22	198	653	413	e230	e130	605	514	95	86	62	24	204
23	195	568	e360	e230	e130	906	461	134	157	57	26	172
24	228	864	e350	e240	e130	1140	473	153	129	53	24	151
25	208	855	663	e240	e130	1340	505	125	103	50	22	125
26	226	1390	722	e240	e130	2010	413	105	90	49	21	108
27	291	2400	583	e220	e120	1750	362	102	85	47	27	100
28	307	1570	524	e210	e120	1500	342	107	80	43	35	95
29	292	1240	481	e210	---	1290	362	109	80	41	38	93
30	330	982	450	e200	---	1110	365	95	83	40	35	90
31	324	---	419	e200	---	1150	---	91	---	38	31	---
TOTAL	9817	20269	21107	7970	4540	29052	28255	4857	2977	2667	1004	2991
MEAN	317	676	681	257	162	937	942	157	99.2	86.0	32.4	99.7
MAX	698	2400	1540	340	210	2010	2070	346	184	247	52	220
MIN	195	273	350	200	120	250	342	91	62	38	21	28
CFSM	1.20	2.57	2.59	.98	.62	3.56	3.58	.60	.38	.33	.12	.38
IN.	1.39	2.87	2.99	1.13	.64	4.11	4.00	.69	.42	.38	.14	.42

CAL YR	1986	TOTAL	163191	MEAN	447	MAX	5650	MIN	68	CFSM	1.70	IN. 23.1
WTR YR	1987	TOTAL	135506	MEAN	371	MAX	2400	MIN	21	CFSM	1.41	IN. 19.2

e Estimated

01509000 TIOUGHNIOGA RIVER AT CORTLAND, NY

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

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

WATER-DISCHARGE RECORDS

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

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

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

REMARKS.--Records good except those for estimated daily discharges, 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. Gage-height telemeter at station.

AVERAGE DISCHARGE.--49 years (water years 1939–87), 495 ft^3/s, 23.02 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,000 ft^3/s Mar. 5, 1964, gage height, 12.49 ft; maximum gage height, 13.82 ft (present datum) Apr. 5, 1950; minimum discharge, 9.8 ft^3/s Sept. 20, 1939, Sept. 29, 1959; minimum daily, 17 ft^3/s Sept. 26, 27, 1959.

EXTREMES 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)
Nov. 27	1430	*2,810	*6.93	No peak greater than base discharge.			

Minimum discharge, 50 ft^3/s, gage height, 2.68 ft Aug. 24-27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	405	415	778	478	e280	e330	1340	413	126	109	67	62
2	334	414	748	e440	282	e1100	1080	365	137	210	65	63
3	320	439	1810	e400	282	1130	1100	343	147	437	70	61
4	898	400	2070	e400	274	888	1800	331	138	285	85	60
5	876	379	1430	e390	e260	830	2670	330	130	201	76	59
6	675	649	1090	e390	e260	764	2010	326	123	159	73	58
7	548	611	943	e390	e250	886	1970	312	126	143	71	58
8	470	537	874	e370	e250	1690	1640	302	140	139	64	65
9	416	1010	811	e350	e240	2390	1300	292	136	139	90	67
10	385	901	1040	e350	e250	1560	1060	273	131	130	137	70
11	362	740	923	e340	e240	1250	902	236	120	117	113	64
12	340	701	761	e330	e230	1060	812	228	118	112	92	73
13	361	664	e640	e320	e220	895	1920	242	119	106	78	156
14	403	569	e580	e310	e220	750	1850	223	115	107	68	198
15	425	521	e590	e350	e210	706	1300	219	115	131	62	132
16	381	502	575	e430	e210	645	1060	207	104	124	59	108
17	357	504	546	e360	e210	588	928	191	99	111	56	141
18	358	498	561	e360	e200	570	843	178	94	105	54	171
19	342	472	611	e350	e200	594	740	182	96	96	61	159
20	320	430	555	e330	e200	631	658	181	86	96	54	152
21	309	856	501	e320	e190	560	589	174	84	95	53	150
22	296	722	457	e300	e180	674	531	176	113	87	57	137
23	293	636	410	e310	e180	980	496	276	186	83	53	134
24	333	849	e400	e300	e180	1220	488	304	161	80	51	115
25	315	872	e390	e300	e180	1520	527	221	129	77	50	109
26	326	1260	1000	e320	e170	2540	457	183	118	81	50	105
27	426	2560	761	e290	e170	2350	416	163	109	80	60	94
28	450	1880	658	e280	e170	1790	401	158	104	75	67	104
29	427	1300	603	e280	---	1490	426	152	102	71	73	115
30	504	1020	570	e280	---	1270	433	141	107	78	73	107
31	467	---	533	e270	---	1240	---	131	---	75	68	---
TOTAL	13122	23311	24219	10688	6188	34891	31747	7453	3613	3939	2150	3147
MEAN	423	777	781	345	221	1126	1058	240	120	127	69.4	105
MAX	898	2560	2070	478	282	2540	2670	413	186	437	137	198
MIN	293	379	390	270	170	330	401	131	84	71	50	58
CFSM	1.45	2.66	2.68	1.18	.76	3.85	3.62	.82	.41	.44	.24	.36
IN.	1.67	2.97	3.09	1.36	.79	4.45	4.04	.95	.46	.50	.27	.40

CAL YR	1986	TOTAL	197642	MEAN	541	MAX	6200	MIN	106	CFSM	1.85	IN. 25.2
WTR YR	1987	TOTAL	164468	MEAN	451	MAX	2670	MIN	50	CFSM	1.54	IN. 21.0

e Estimated

01509000 TIOUGHNIOGA RIVER AT CORTLAND, NY--Continued

WATER-QUALITY RECORDS

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

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

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

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

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

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum daily, 17.5°C July 9,10,13 and 14; minimum daily, 0.0°C Mar. 10.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
(ONCE DAILY AT 0900)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.0	7.0	2.5	3.0	3.0	3.0	5.5	8.0	15.0	14.5	15.5	13.0
2	15.0	7.0	3.0	3.0	2.5	3.0	5.0	9.0	15.5	15.0	15.5	13.5
3	15.0	7.0	3.5	2.5	5.0	1.0	5.0	9.0	15.0	16.0	16.0	12.5
4	14.0	7.5	3.0	1.5	4.0	1.0	4.5	8.0	16.0	16.0	16.0	12.0
5	14.0	7.0	2.5	1.0	2.5	1.5	5.5	8.0	16.0	16.5	16.5	12.5
6	10.5	7.0	2.0	2.5	2.5	1.0	5.5	11.0	13.5	15.0	16.0	12.5
7	10.0	7.0	2.0	4.0	4.0	2.5	6.5	11.0	14.0	15.0	15.5	15.0
8	10.5	8.0	2.0	2.5	3.5	2.5	6.0	10.0	15.0	17.0	16.0	15.5
9	11.0	8.0	1.5	4.0	3.0	2.0	6.0	10.5	14.0	17.5	15.0	16.0
10	10.5	7.0	5.0	3.0	2.0	.0	6.5	10.5	12.5	17.5	15.0	14.5
11	8.5	5.0	2.5	3.0	2.0	1.0	8.0	12.5	13.0	17.0	14.5	14.5
12	9.0	5.0	2.5	3.0	2.0	1.5	9.5	13.0	12.5	17.0	13.5	15.5
13	9.0	4.5	2.5	3.0	2.0	2.5	8.5	11.5	13.5	17.5	14.0	15.5
14	9.5	4.0	1.5	3.0	1.5	2.5	8.0	10.5	13.5	17.5	15.0	15.0
15	10.5	3.0	1.5	4.5	1.0	2.5	10.0	11.0	14.0	15.0	15.0	14.0
16	9.0	3.5	4.0	3.5	1.0	2.5	9.5	11.5	14.5	14.5	15.5	13.0
17	9.0	3.5	3.5	2.0	1.5	3.0	10.0	11.0	14.5	14.0	16.5	13.0
18	9.5	5.0	3.0	2.5	3.5	3.0	10.5	13.5	14.0	15.0	17.0	13.5
19	8.5	5.0	3.0	2.5	3.5	3.5	10.5	11.5	14.0	16.5	17.0	14.0
20	8.5	3.0	4.0	2.0	4.0	3.0	10.0	11.5	15.0	15.5	15.0	14.0
21	9.0	3.0	3.5	2.0	2.0	---	10.5	11.5	14.0	15.5	14.5	13.5
22	9.0	3.0	3.5	2.0	2.0	4.0	13.0	12.5	17.0	16.0	15.0	14.0
23	11.5	3.0	3.0	1.5	4.0	4.0	12.0	15.0	16.5	15.5	14.0	13.5
24	10.0	5.0	3.0	1.0	3.0	4.5	12.0	13.5	16.0	17.0	14.0	13.5
25	8.5	5.5	4.0	1.0	2.0	6.0	9.0	12.5	16.0	---	12.5	12.5
26	8.5	5.0	3.0	.5	2.0	5.0	10.0	13.0	15.5	17.0	13.0	12.0
27	9.5	5.5	4.0	.5	1.5	5.5	10.0	13.0	14.5	15.5	15.0	12.0
28	10.5	5.0	3.5	.5	3.5	6.5	9.0	13.0	15.0	14.5	15.0	12.5
29	9.5	4.0	4.0	2.5	---	5.5	9.0	14.5	15.0	13.0	14.5	13.0
30	7.0	4.0	4.0	2.0	---	5.5	8.5	16.0	15.0	14.5	14.5	15.0
31	10.0	---	4.0	3.0	---	9.5	---	16.0	---	15.0	15.0	---
MEAN	10.3	5.23	3.05	2.34	2.64	---	8.45	11.7	14.6	---	15.1	13.7
MAX	16.0	8.0	5.0	4.5	5.0	---	13.0	16.0	17.0	---	17.0	16.0
MIN	7.0	3.0	1.5	.5	1.0	---	4.5	8.0	12.5	---	12.5	12.0

01510000 OTSELIC RIVER AT CINCINNATUS, NY

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

DRAINAGE AREA.--147 mi^2.

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

REVISED RECORDS.--WSP 2103: Drainage area.

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

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Gage-height and satellite telemeters at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--44 years (water years 1939–64, 1970–87), 266 ft^3/s, 24.57 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,390 ft^3/s Dec. 30, 1942; maximum gage height, 10.68 ft Apr. 4, 1950; minimum discharge, 3.8 ft^3/s Sept. 25, 1939; minimum gage height, 0.11 ft Aug. 24, 28, 29, Sept. 25, 1985.

EXTREMES 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)
Nov. 26	2100	*3,520	*6.62	No other peak greater than base discharge.			

Minimum discharge, 11 ft^3/s Aug. 8-9; minimum gage height, 0.23 ft Aug. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	254	203	456	e200	e92	e150	767	190	45	32	13	29
2	183	203	441	e180	e88	e900	604	164	63	123	14	27
3	190	210	1300	e170	e82	e600	618	153	65	235	17	26
4	744	190	953	e170	e80	e450	1380	141	55	115	14	24
5	556	177	646	e160	e76	e400	1640	130	52	73	13	20
6	416	406	518	e150	e76	e350	1000	127	46	54	13	17
7	334	355	454	e140	e76	e400	1090	116	46	47	12	16
8	279	321	414	e140	e74	e1000	812	106	53	46	12	20
9	239	778	389	e130	e74	e1700	658	97	50	57	22	26
10	209	566	524	e130	e72	e600	543	90	46	45	72	26
11	180	466	425	e120	e68	e500	464	84	41	38	40	24
12	167	433	e300	e120	e64	e450	434	84	42	35	31	27
13	175	404	e240	e120	e62	e400	1720	79	41	32	27	323
14	225	337	e240	e110	e60	e320	1110	71	38	31	27	189
15	250	304	e280	e120	e58	e300	742	68	35	36	21	101
16	196	292	273	e150	e56	e270	600	68	32	34	16	75
17	174	296	253	e120	e54	e270	526	66	29	29	15	115
18	174	295	266	e140	e54	e260	464	60	28	27	14	177
19	154	274	275	e140	e52	e280	401	62	28	25	19	226
20	142	235	242	e140	e52	e300	348	59	27	26	25	178
21	134	749	e200	e130	e50	e270	306	55	27	27	19	155
22	128	479	e170	e130	e50	398	270	53	35	24	16	274
23	128	413	e160	e120	e50	616	242	92	87	23	15	189
24	172	669	e170	e120	e50	775	246	96	59	21	14	148
25	139	569	587	e120	e50	1030	257	74	44	21	13	127
26	158	1550	518	e130	e49	1870	212	68	38	26	13	101
27	226	2330	386	e120	e49	1260	183	64	34	22	20	88
28	223	1100	335	e110	e48	1010	188	57	33	18	28	80
29	206	757	304	e100	---	857	208	68	29	14	35	81
30	260	594	e260	e96	---	743	216	59	31	15	32	79
31	232	---	e220	e94	---	825	---	50	---	14	27	---
TOTAL	7247	15955	12199	4120	1766	19554	18249	2751	1279	1365	669	2988
MEAN	234	532	394	133	63.1	631	608	88.7	42.6	44.0	21.6	99.6
MAX	744	2330	1300	200	92	1870	1720	190	87	235	72	323
MIN	128	177	160	94	48	150	183	50	27	14	12	16
CFSM	1.59	3.62	2.68	.90	.43	4.29	4.14	.60	.29	.30	.15	.68
IN.	1.83	4.04	3.09	1.04	.45	4.95	4.62	.70	.32	.35	.17	.76

CAL YR	1986	TOTAL	101826	MEAN	279	MAX	4800	MIN	25	CFSM	1.90	IN. 25.8
WTR YR	1987	TOTAL	88142	MEAN	241	MAX	2330	MIN	12	CFSM	1.64	IN. 22.3

e Estimated

01512500 CHENANGO RIVER NEAR CHENANGO FORKS, NY

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

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

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

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

REMARKS.--Records good except those for estimated daily discharges, 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. Satellite telemeter at station. National Weather Service gage-height telemeter at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--74 years (water years 1914–87), 2,408 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 96,000 ft^3/s July 8, 1935, gage height, 20.3 ft, from floodmarks, from rating curve extended above 32,000 ft^3/s on basis of slope-area measurement of peak flow; minimum, 84 ft^3/s Sept. 19, 25, 1939, gage height, 2.24 ft.

EXTREMES 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)
Nov. 27	0030	*20,100	*9.93	No other peak greater than base discharge.			

Minimum discharge, 193 ft^3/s Aug. 26-27, gage height, 2.46 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1700	1560	6440	2220	1270	e1100	6770	1570	555	521	280	368
2	2110	1500	5450	2090	1310	e2500	5460	1370	573	934	256	333
3	1250	1560	7880	1900	1320	e6200	5400	1230	621	2200	307	332
4	4060	1500	10200	e1800	1380	e4500	8210	1150	744	1440	347	324
5	4260	1430	7680	e1700	e1300	e3700	13100	1080	772	898	330	308
6	3020	2370	5870	e1600	e1300	e3400	9200	1020	670	724	315	305
7	2520	3060	5130	e1600	e1200	e3800	9990	975	622	637	306	303
8	1920	3000	4460	e1600	e1200	e6000	9270	914	758	625	288	316
9	1740	5590	3940	e1500	e1100	11000	7790	851	719	589	261	366
10	1560	6070	4730	e1500	e1100	8080	6320	807	633	542	537	383
11	1330	3850	4650	e1400	e1100	5730	4660	763	579	512	660	355
12	1240	3760	3720	e1400	e1000	4730	3980	731	553	467	517	309
13	1210	3450	3160	e1400	e1000	4200	9420	734	556	526	364	1310
14	1450	2910	2640	e1300	e1000	3480	10400	699	535	454	323	2190
15	1760	2460	2560	e1500	e1000	3290	8160	662	503	516	297	1100
16	1630	2350	2600	e1900	e1000	3110	6300	637	446	506	281	831
17	1410	2360	2510	e1800	e1000	2750	4780	608	352	473	262	903
18	1260	2440	2600	e1700	e980	2500	4180	579	329	427	238	1610
19	1240	2450	2890	e1600	e960	2720	3600	582	310	396	207	1930
20	1190	2230	2710	e1600	e940	3120	3080	586	303	366	229	1990
21	1120	6720	2410	e1500	e920	2900	2710	617	300	359	244	1480
22	1080	6230	2070	e1500	e900	2860	2470	551	361	340	219	1380
23	1050	3850	1810	e1400	e900	3580	2200	648	952	317	222	1260
24	1120	6020	1770	e1300	e900	4770	2070	1020	779	300	213	1130
25	1150	6760	4280	e1300	e880	6870	2370	817	638	291	200	1010
26	1180	7490	6090	e1300	e860	10400	2050	679	529	350	196	842
27	1550	16200	4410	e1300	e840	10200	1740	779	480	374	243	658
28	1860	10900	3530	e1200	e840	8700	1550	760	449	327	372	583
29	1880	9350	2930	e1200	---	7510	1620	729	407	277	469	587
30	1640	7680	2730	e1200	---	6200	1640	682	404	271	494	653
31	1710	---	2500	e1200	---	5580	---	614	---	300	429	---
TOTAL	53200	137100	126350	47510	29500	155480	160490	25444	16432	17259	9906	25449
MEAN	1716	4570	4076	1533	1054	5015	5350	821	548	557	320	848
MAX	4260	16200	10200	2220	1380	11000	13100	1570	952	2200	660	2190
MIN	1050	1430	1770	1200	840	1100	1550	551	300	271	196	303

CAL YR	1986	TOTAL	946477	MEAN	2593	MAX	24700	MIN	380
WTR YR	1987	TOTAL	804120	MEAN	2203	MAX	16200	MIN	196

e Estimated

01513110 SUSQUEHANNA RIVER AT JOHNSON CITY, NY

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

DRAINAGE AREA.--3,891 mi.

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

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

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

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

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum daily, 29.0°C Aug. 4, 1979, July 21, 1980, July 13; minimum daily, 0.0°C on many days during winter periods, except 1967, 1976, 1978-80 and 1982-3.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum daily, 29.0°C July 13; minimum daily, 0.0°C on Feb. 7-14,16-27, Mar. 1-6 and Mar. 10-12.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

(ONCE DAILY AT 0800)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.0	8.0	2.0	2.0	1.0	.0	7.0	8.0	23.0	23.0	22.0	19.0
2	18.0	9.0	2.0	2.0	1.0	.0	6.0	9.0	23.0	22.0	23.0	17.0
3	17.0	7.0	2.0	2.0	1.0	.0	4.0	11.0	23.0	19.0	22.0	16.0
4	16.0	7.0	3.0	2.0	1.0	.0	4.0	10.0	21.0	21.0	23.0	16.0
5	16.0	6.0	2.0	1.0	1.0	.0	6.0	12.0	19.0	22.0	26.0	17.0
6	13.0	5.0	2.0	2.0	1.0	.0	6.0	12.0	20.0	24.0	23.0	17.0
7	12.0	6.0	2.0	2.0	.0	1.0	6.0	13.0	21.0	23.0	23.0	19.0
8	11.0	7.0	2.0	2.0	.0	1.0	6.0	14.0	19.0	23.0	23.0	19.0
9	12.0	8.0	2.0	2.0	.0	1.0	6.0	14.0	19.0	25.0	23.0	20.0
10	10.0	8.0	2.0	1.0	.0	.0	7.0	16.0	18.0	26.0	21.0	21.0
11	9.0	6.0	2.0	1.0	.0	.0	8.0	18.0	19.0	26.0	20.0	21.0
12	9.0	4.0	1.0	1.0	.0	.0	10.0	19.0	20.0	27.0	21.0	21.0
13	11.0	4.0	1.0	1.0	.0	1.0	9.0	16.0	20.0	29.0	23.0	19.0
14	12.0	2.0	1.0	1.0	.0	1.0	9.0	17.0	21.0	28.0	23.0	18.0
15	11.0	2.0	1.0	2.0	1.0	2.0	11.0	19.0	23.0	23.0	23.0	18.0
16	11.0	2.0	1.0	2.0	.0	2.0	11.0	16.0	24.0	22.0	24.0	17.0
17	10.0	3.0	2.0	1.0	.0	2.0	11.0	18.0	23.0	22.0	25.0	19.0
18	10.0	4.0	2.0	1.0	.0	2.0	11.0	20.0	22.0	23.0	26.0	18.0
19	9.0	2.0	2.0	1.0	.0	3.0	13.0	19.0	23.0	25.0	24.0	17.0
20	9.0	1.0	2.0	1.0	.0	3.0	13.0	16.0	24.0	26.0	24.0	16.0
21	9.0	1.0	2.0	1.0	.0	3.0	15.0	14.0	25.0	25.0	22.0	16.0
22	11.0	2.0	1.0	1.0	.0	3.0	16.0	16.0	24.0	26.0	22.0	16.0
23	11.0	2.0	1.0	1.0	.0	4.0	14.0	18.0	24.0	27.0	21.0	16.0
24	11.0	3.0	1.0	1.0	.0	6.0	14.0	19.0	22.0	27.0	19.0	16.0
25	9.0	3.0	2.0	1.0	.0	6.0	12.0	17.0	24.0	28.0	18.0	14.0
26	9.0	3.0	2.0	1.0	.0	6.0	12.0	17.0	24.0	27.0	18.0	13.0
27	9.0	4.0	2.0	1.0	.0	5.0	12.0	17.0	22.0	24.0	19.0	14.0
28	10.0	4.0	2.0	1.0	1.0	6.0	11.0	17.0	22.0	24.0	18.0	16.0
29	9.0	3.0	2.0	1.0	---	7.0	11.0	21.0	21.0	23.0	17.0	16.0
30	11.0	3.0	2.0	1.0	---	8.0	9.0	21.0	23.0	23.0	17.0	17.0
31	8.0	---	2.0	1.0	---	9.0	---	24.0	---	23.0	19.0	---
MEAN	11.4	4.30	1.77	1.32	.29	2.65	9.67	16.1	21.9	24.4	21.7	17.3
MAX	19.0	9.0	3.0	2.0	1.0	9.0	16.0	24.0	25.0	29.0	26.0	21.0
MIN	8.0	1.0	1.0	1.0	.0	.0	4.0	8.0	18.0	19.0	17.0	13.0

WTR YR 1987 MEAN 11.1 MAX 29.0 MIN .0

01515000 SUSQUEHANNA RIVER NEAR WAVERLY, NY

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

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

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

REVISED RECORDS.--WSP 2103: Drainage area.

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

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

AVERAGE DISCHARGE.--50 years (water years 1938–87), 7,558 ft^3/s, 21.50 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 121,000 ft^3/s June 23, 1972, gage height, 21.24 ft; minimum daily, 237 ft^3/s Sept. 22, 23, 1964; minimum gage height, 0.52 ft Sept. 24, 25, 1939.

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).

EXTREMES 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)
Nov. 27	1300	*64,300	*14.32	No other peak greater than base discharge.			

Minimum discharge, 633 ft^3/s Aug. 26, 27, gage height, 0.92 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2170	4060	22600	6820	e4000	e3100	21600	5770	2210	1610	1070	1530
2	3290	3770	18500	6310	e4300	e10200	20900	5480	2390	1820	1020	1480
3	4460	3690	19500	e5800	e4400	e18000	18900	5120	3070	3860	1030	1360
4	8030	3730	25000	e5200	e4400	e17600	21100	4800	2760	4820	1220	1260
5	13100	3700	25000	e5000	e4300	e15000	47400	4450	3530	4050	1210	1140
6	11400	4230	19400	e5000	e4200	13000	44600	4060	3670	3220	1200	1070
7	9660	6160	15700	e5300	e4000	13800	40600	3780	3210	2600	1180	1030
8	7490	7190	13800	e5400	e3800	23600	37500	3580	2870	3560	1100	1010
9	6100	13600	12500	5170	e3600	36100	31800	3480	2900	3660	1010	1070
10	5550	19700	13800	4810	e3400	29900	27200	3290	2740	3100	968	1200
11	4770	16700	14600	4530	e3200	21600	22400	3040	2420	3220	1040	1930
12	4090	13300	13600	4690	e3000	16900	18400	2890	2110	3460	1420	2450
13	3790	12200	e11200	4620	e2900	14800	22500	2680	2060	2570	1840	2430
14	3750	10900	e8800	4480	e2800	12900	32900	2550	2020	2280	1620	6330
15	4160	9120	e7800	4820	e2700	11400	30600	2410	1960	2610	1340	7930
16	4480	7970	7790	e6400	e2600	10600	25000	2350	1800	4920	1140	6460
17	4430	7730	8000	e6200	e2500	9850	19500	2230	1580	4350	1010	4680
18	4040	7770	8140	e5700	e2500	8920	16500	2130	1430	3260	928	5380
19	3650	8170	9740	e5300	e2400	8580	14500	2120	1230	2430	870	8240
20	3450	7950	9000	e4800	e2400	9010	12900	2130	1050	1960	834	8130
21	3270	15600	8220	e4600	e2300	9300	11200	2110	1080	1820	772	7710
22	3080	26300	7350	e4200	e2300	9030	9850	2080	1080	1600	723	6660
23	2920	20200	6460	e3800	e2400	9820	8630	2020	1330	1490	729	6370
24	2870	18800	5920	e3700	e2400	12200	7850	3340	3720	1360	660	5690
25	2900	23300	10400	e3600	e2500	15600	8650	4050	3280	1240	651	4930
26	2970	28900	14800	e3500	e2600	22900	8240	3120	2850	1450	635	4310
27	3430	60200	13600	e3500	e2700	27800	7440	2640	2260	2710	698	3740
28	3930	48500	11200	e3400	e2800	27600	6350	2560	1820	2030	938	3250
29	4680	38200	9310	e3500	---	24400	5930	2680	1580	1620	1220	2950
30	4700	29000	8120	e3600	---	21400	5900	2550	1600	1340	1450	2800
31	4320	---	7510	e3800	---	18700	---	2380	---	1190	1570	---
TOTAL	150930	480640	387360	147550	87400	503610	606840	97870	67610	81210	33096	114520
MEAN	4869	16020	12500	4760	3121	16250	20230	3157	2254	2620	1068	3817
MAX	13100	60200	25000	6820	4400	36100	47400	5770	3720	4920	1840	8240
MIN	2170	3690	5920	3400	2300	3100	5900	2020	1050	1190	635	1010
CFSM	1.02	3.36	2.62	.99	.65	3.40	4.24	.66	.47	.55	.22	.80
IN.	1.18	3.75	3.02	1.15	.68	3.93	4.73	.76	.53	.63	.26	.89

CAL YR	1986	TOTAL	3240030	MEAN	8877	MAX	87400	MIN	952	CFSM	1.86	IN.	25.3
WTR YR	1987	TOTAL	2758640	MEAN	7558	MAX	60200	MIN	635	CFSM	1.58	IN.	21.5

e Estimated

01520500 TIOGA RIVER AT LINDLEY, NY

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

DRAINAGE AREA.--771 mi^2.

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

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

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

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

AVERAGE DISCHARGE.--57 years, 801 ft^3/s, 14.11 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 128,000 ft^3/s June 23, 1972, gage height, 26.27 ft, from floodmark in gage house, 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; minimum, 6.1 ft^3/s Sept. 1, 1939; minimum gage height, 2.68 ft Aug. 28, 1980.

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

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Apr. 6	2330	*9,000	*11.29	No peak greater than base discharge.			

Minimum discharge, 68 ft^3/s Aug. 22-26, gage height, 2.96 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	166	120	1070	658	e330	e700	2980	1230	170	255	107	87
2	243	121	1090	633	e340	2670	1920	613	283	1020	108	75
3	250	120	4550	570	e350	1820	1950	609	365	1920	106	84
4	911	120	4300	e450	e360	828	2120	998	1810	832	96	81
5	856	122	1730	e440	e350	744	1920	876	843	326	95	79
6	581	138	1490	e360	e330	795	7630	766	664	298	96	80
7	447	194	1200	e430	e310	2140	7680	558	528	265	93	77
8	328	242	1190	e450	e260	4710	8200	471	473	699	87	80
9	294	584	1210	e430	e260	4230	7710	318	310	1200	89	84
10	244	773	1570	e410	e260	2580	5260	297	294	1270	86	93
11	181	502	1050	e400	e250	e1200	1850	274	277	788	82	89
12	198	494	e620	e390	e250	e960	1370	236	271	1080	81	128
13	200	493	e580	e380	e250	e1100	1880	232	275	1420	80	568
14	200	421	e520	e370	e250	e900	1660	233	309	819	80	466
15	216	271	e540	776	e250	e700	1230	248	459	390	80	172
16	219	269	e620	1160	e240	e640	1220	270	332	261	79	159
17	143	290	627	683	e240	e580	1190	258	296	241	79	163
18	134	339	869	e660	e220	e560	1160	204	170	230	78	589
19	137	346	1050	e640	e200	e520	1030	192	169	212	81	1460
20	133	300	687	e600	e190	484	863	212	165	156	78	716
21	126	390	643	e540	e190	475	752	224	118	151	75	553
22	120	1220	510	e520	e190	460	695	234	177	139	70	435
23	122	936	387	e490	e200	478	667	218	340	127	69	464
24	125	1090	433	e490	e210	525	829	203	346	106	68	381
25	120	2230	1450	e480	e200	589	1140	188	267	105	68	249
26	121	3700	1590	e470	e190	885	849	182	194	113	69	176
27	133	5740	1090	e460	e190	1070	769	155	171	118	90	142
28	148	2920	938	e400	e190	923	900	159	116	128	97	138
29	132	1920	814	e350	---	753	1370	161	114	109	95	141
30	129	1550	756	e340	---	822	1390	157	199	110	90	190
31	123	---	697	e330	---	2090	---	152	---	109	88	---
TOTAL	7480	27955	35871	15760	7050	37931	70184	11128	10505	14997	2640	8199
MEAN	241	932	1157	508	252	1224	2339	359	350	484	85.2	273
MAX	911	5740	4550	1160	360	4710	8200	1230	1810	1920	108	1460
MIN	120	120	387	330	190	460	667	152	114	105	68	75
CFSM	.31	1.21	1.50	.66	.33	1.59	3.03	.47	.45	.63	.11	.35
IN.	.36	1.35	1.73	.76	.34	1.83	3.39	.54	.51	.72	.13	.40

CAL YR	1986	TOTAL	299034	MEAN	819	MAX	8590	MIN	78	CFSM	1.06	IN. 14.4
WTR YR	1987	TOTAL	249700	MEAN	684	MAX	8200	MIN	68	CFSM	.89	IN. 12.0

e Estimated

01521500 CANISTEO RIVER AT ARKPORT, NY

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

DRAINAGE AREA.--30.6 mi^2.

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

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

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

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

AVERAGE DISCHARGE.--50 years, 35.3 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,000 ft^3/s Mar. 5, 1938, Feb. 20, 1939; maximum gage height, 5.63 ft Feb. 19, 1939 (ice jam); practically no flow July 30, 1938, Sept. 30, 1939 (result of construction operations).

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.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 632 ft^3/s Sept. 13 at 0545 hours, gage height, 3.05 ft; maximum gage height, 3.92 ft Mar. 2 at 0100 hours (ice jam); minimum daily discharge, 1.2 ft^3/s Aug. 26; minimum gage height, 0.64 ft part of each day Aug. 25-26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	18	e22	e12	e14	e86	79	43	4.1	19	e2.2	3.2
2	7.9	19	e17	e10	e14	e230	91	33	12	160	e2.0	3.2
3	7.6	20	e80	e9.6	e14	e86	78	28	7.6	61	e2.7	3.1
4	53	16	70	e9.4	e13	e52	171	24	5.9	23	e2.2	2.6
5	29	13	39	e9.0	e13	e40	556	21	4.8	11	e2.1	2.2
6	18	23	29	e10	e12	e40	442	19	3.9	7.0	e2.2	2.1
7	13	20	27	e12	e12	e260	310	16	4.5	5.4	e2.1	2.2
8	9.3	17	32	e13	e13	e330	111	14	5.9	6.2	e1.9	3.1
9	7.5	17	42	e13	e13	e160	68	12	11	12	e1.6	4.0
10	6.7	15	111	e13	e13	e64	49	11	5.6	6.4	e2.4	3.0
11	5.6	13	50	e13	e13	e45	39	9.3	4.3	4.9	e2.3	2.6
12	5.1	14	e30	e13	e13	e33	55	12	4.4	5.0	e2.0	64
13	7.4	17	e26	e13	e12	e26	126	10	20	3.6	e1.5	396
14	12	e13	e26	e14	e12	e24	66	8.0	11	3.8	e1.4	53
15	11	e12	e24	e64	e11	e21	53	17	5.6	4.6	e1.4	26
16	8.9	e13	e20	e60	e10	e18	46	13	4.0	3.5	e1.3	17
17	10	19	22	e44	e10	e15	37	9.1	3.2	2.8	e1.3	15
18	16	18	25	e34	e9.6	e16	33	7.9	2.8	2.4	e1.5	158
19	13	e17	26	e21	e9.4	e18	28	9.2	2.5	2.2	e1.4	80
20	10	e17	22	e20	e9.0	e21	25	8.3	2.3	e2.5	e1.6	66
21	8.7	e25	e18	e18	e9.4	25	22	7.3	2.6	e2.3	e1.4	43
22	7.6	24	e16	e16	e9.8	26	19	6.2	3.7	e2.1	e1.5	30
23	6.9	25	e14	e15	e10	35	17	5.4	4.8	e2.0	e2.0	29
24	8.0	69	e12	e15	e10	50	53	5.0	3.6	e1.9	e1.8	22
25	7.4	47	e45	e15	e9.8	60	50	4.7	2.8	e2.0	e1.5	17
26	13	70	39	e15	e9.8	133	31	4.5	3.1	e4.0	1.2	12
27	18	72	28	e14	e9.8	69	25	4.2	4.2	e2.6	18	8.7
28	19	41	23	e14	e10	50	236	3.9	3.4	e2.3	18	6.7
29	17	32	20	e13	---	38	130	3.6	2.8	e2.1	15	5.5
30	45	26	17	e13	---	36	61	3.3	9.3	e1.9	6.7	64
31	25	---	e15	e14	---	109	---	4.3	---	e2.3	4.1	---
TOTAL	439.6	762	987	569.0	318.6	2216	3107	377.2	165.7	371.8	108.3	1144.2
MEAN	14.2	25.4	31.8	18.4	11.4	71.5	104	12.2	5.52	12.0	3.49	38.1
MAX	53	72	111	64	14	330	556	43	20	160	18	396
MIN	5.1	12	12	9.0	9.0	15	17	3.3	2.3	1.9	1.2	2.1

CAL YR	1986	TOTAL	12354.6	MEAN	33.8	MAX	577	MIN	1.3
WTR YR	1987	TOTAL	10566.2	MEAN	28.9	MAX	556	MIN	1.2

e Estimated

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 mi upstream from mouth.

DRAINAGE AREA.--57.9 mi^2.

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

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

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

REMARKS.--Records good except those for estimated daily discharges, which are 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 telemeter at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--45 years (1940–42, 1944–87), 65.3 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,430 ft^3/s May 17, 1945, gage height, 5.14 ft, from rating curve extended above 3,400 ft^3/s; maximum gage height, 6.65 ft June 3, 1947; minimum discharge, 0.5 ft^3/s May 29, 1965, gage height, 0.61 ft; minimum daily, 0.6 ft^3/s May 30 to June 1, 1965.

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.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,500 ft^3/s Apr. 15 at 1130 hours, gage height, 3.40 ft; minimum, 3.0 ft^3/s June 18, gage height, 0.74 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	37	33	e30	e20	106	18	64	13	70	5.9	e18
2	48	37	31	e25	e20	318	101	15	49	400	5.7	11
3	33	36	154	e23	e20	113	185	41	41	180	18	5.1
4	187	25	179	e16	e20	64	98	36	26	65	21	5.6
5	184	16	32	e16	e20	50	456	38	20	39	16	13
6	43	24	57	e20	e20	91	1050	43	19	23	16	20
7	29	29	72	29	e22	398	869	22	18	20	14	20
8	29	29	72	29	e23	816	473	36	17	20	8.8	18
9	29	29	73	30	e23	503	211	131	17	34	8.8	10
10	20	29	212	31	e22	170	113	23	17	34	8.1	7.2
11	13	29	138	31	e21	6.3	59	26	17	24	7.5	8.1
12	13	29	50	31	e21	36	74	27	17	38	15	167
13	22	29	54	31	e21	54	213	27	19	45	19	471
14	29	28	46	32	e20	54	236	26	35	46	11	787
15	29	28	37	104	e20	54	283	25	27	41	5.7	328
16	29	28	37	153	e19	33	95	28	15	23	5.6	112
17	24	28	48	46	e19	23	96	32	9.5	21	5.5	47
18	17	30	56	23	e19	23	95	21	4.7	21	5.3	107
19	25	32	55	e24	e19	23	93	13	5.2	14	5.0	217
20	38	30	42	e26	e19	31	90	23	12	6.5	4.9	89
21	31	55	36	e28	e18	48	52	22	13	5.7	5.0	67
22	17	72	27	e22	e18	57	27	17	38	11	11	68
23	17	44	21	e16	e22	57	28	16	65	22	15	67
24	17	138	21	e15	e25	57	87	17	45	14	e9.6	67
25	17	117	55	e15	e24	58	101	20	30	6.3	e9.4	41
26	17	108	74	e15	e25	183	53	23	23	8.3	e9.8	6.7
27	30	165	73	e18	e25	141	49	20	23	23	e90	7.2
28	39	89	47	e20	e26	75	285	12	23	34	e60	6.4
29	39	62	34	e20	---	55	259	6.8	16	27	e42	28
30	41	57	e33	e20	---	55	140	7.8	30	14	e30	113
31	38	---	e32	e20	---	39	---	19	---	7.0	e20	---
TOTAL	1198	1489	1931	959	591	3791.3	5989	877.6	704.4	1336.8	508.6	2932.3
MEAN	38.6	49.6	62.3	30.9	21.1	122	200	28.3	23.5	43.1	16.4	97.7
MAX	187	165	212	153	26	816	1050	131	65	400	90	787
MIN	13	16	21	15	18	6.3	18	6.8	4.7	5.7	4.9	5.1

CAL YR	1986	TOTAL	25250.3	MEAN	69.2	MAX	826	MIN 3.0
WTR YR	1987	TOTAL	22307.9	MEAN	61.1	MAX	1050	MIN 4.7

e Estimated

01524500 CANISTEO RIVER BELOW CANACADEA CREEK, AT HORNELL, NY

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

DRAINAGE AREA.--158 mi^2.

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

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

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

REMARKS.--Records fair. Diversion from Carrington Creek, a tributary upstream from station, by City of Hornell for municipal supply (1987 average, 3.3 ft^3/s); sewage 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. Satellite and 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.

AVERAGE DISCHARGE.--45 years, 158 ft^3/s, 13.58 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,560 ft^3/s June 23, 1972, gage height, 13.45 ft from floodmark, from rating curve extended above 7,600 ft^3/s on basis of critical-depth measurement of peak flow; minimum, 7.4 ft^3/s Sept. 13, 14, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,810 ft^3/s Sept. 13 at 0230 hours, gage height, 8.29 ft; minimum, 18 ft^3/s Aug. 19, 24, 25, gage height, 0.47 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	74	81	72	e62	e260	210	220	41	119	25	37
2	73	74	145	70	e60	e780	317	146	101	469	25	34
3	59	78	320	e60	62	e280	433	156	93	472	43	27
4	279	64	365	e56	61	e130	580	151	67	155	42	26
5	244	52	138	e54	e60	e80	1540	137	54	83	35	29
6	87	72	134	e60	e62	e190	1890	148	47	59	34	34
7	63	76	143	68	e60	896	1580	123	52	49	33	35
8	58	71	151	68	e58	1700	928	86	55	54	27	37
9	56	71	168	67	e56	1110	486	176	54	66	31	32
10	47	67	499	67	e52	385	295	67	48	70	38	25
11	39	64	272	68	e52	e130	204	66	44	73	31	25
12	37	65	e130	67	e50	e130	216	71	45	90	32	345
13	49	70	e100	66	e50	146	533	67	64	107	35	2040
14	62	65	e110	e66	e48	129	463	63	84	132	29	1050
15	60	63	106	e210	e46	123	461	76	75	111	22	421
16	58	64	95	e300	e46	98	241	72	53	65	21	174
17	52	69	105	e110	e45	80	223	67	39	53	20	121
18	52	71	115	e96	e44	77	213	57	27	47	21	403
19	59	74	120	e90	e43	79	196	53	23	40	22	478
20	63	74	100	e94	e42	89	184	57	22	39	22	238
21	53	111	85	e96	e41	108	139	57	23	34	21	190
22	43	124	e58	e66	e40	117	99	51	54	33	24	156
23	43	101	e54	e54	e42	136	94	50	87	43	30	142
24	46	275	e60	e54	e44	152	200	48	70	35	24	125
25	45	233	e150	e58	e42	166	240	46	53	26	18	118
26	47	251	162	e62	e44	442	143	46	55	57	19	86
27	66	366	137	e64	e44	294	122	45	51	55	152	55
28	74	196	107	e62	e44	198	652	39	46	54	119	50
29	74	141	84	e60	---	143	622	28	38	40	77	58
30	109	124	80	e60	---	137	313	34	59	39	45	222
31	86	---	77	e62	---	260	---	43	---	34	37	---
TOTAL	2263	3300	4451	2507	1400	9045	13817	2546	1624	2803	1154	6813
MEAN	73.0	110	144	80.9	50.0	292	461	82.1	54.1	90.4	37.2	227
MAX	279	366	499	300	62	1700	1890	220	101	472	152	2040
MIN	37	52	54	54	40	77	94	28	22	26	18	25

CAL YR	1986	TOTAL	59320	MEAN	163	MAX	1810	MIN	22
WTR YR	1987	TOTAL	51723	MEAN	142	MAX	2040	MIN	18

e Estimated

01526500 TIOGA RIVER NEAR ERWINS, NY

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

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

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

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

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

REMARKS.--Records good except those for estimated daily discharges, which are fair. High flows regulated by upstream reservoirs. Satellite telemeter at station. National Weather Service gage-height telemeter at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--69 years, 1,374 ft^3/s, 13.55 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 190,000 ft^3/s June 23, 1972, 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, gage height, 26.74 ft, from floodmarks; minimum, 18 ft^3/s Sept. 2, 3, 1939; minimum gage height, 0.40 ft Sept. 8, 9, 1954, July 23, Aug. 10, 11, 1955.

EXTREMES 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)
Apr. 7	0200	*14,800	*9.59	No peak greater than base discharge.			

Minimum discharge, 105 ft^3/s Aug. 24, gage height, 0.65 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	396	338	1650	1000	e680	e800	5100	2080	303	494	187	182
2	535	316	1520	949	e660	5080	3370	1190	564	1350	179	166
3	507	313	5070	880	e640	3600	3590	1050	769	3860	175	160
4	1840	318	7480	e700	e620	1790	4580	1460	2080	1570	167	151
5	1990	303	2950	e700	e600	1450	10100	1330	1240	711	180	140
6	1270	345	2320	e680	e560	1490	12900	1180	870	564	170	135
7	895	494	1890	e720	e540	3820	13600	920	713	480	166	140
8	652	517	1890	e740	e500	9460	11800	798	694	837	155	150
9	573	879	1910	e720	e500	8840	9820	637	515	1500	155	160
10	498	1200	2990	e700	e540	4570	7370	650	476	1570	152	182
11	388	810	2480	e680	e490	e2200	3230	527	432	1140	154	163
12	373	794	e1300	e660	e480	e1500	2280	479	426	1150	151	367
13	369	816	e1100	e640	e480	e1800	3190	462	447	1720	141	5260
14	392	744	e980	635	e470	e1500	3390	447	490	1140	138	3210
15	449	538	e960	1200	e450	e1200	2370	441	689	718	139	1360
16	454	539	e980	2580	e440	e1000	2320	502	524	516	132	809
17	349	554	1070	1360	e430	e940	2050	473	461	428	125	578
18	324	616	1280	e1100	e420	e920	2010	401	296	385	123	1490
19	313	647	1590	e1100	e410	e880	1840	369	265	353	121	3290
20	307	593	1200	e1000	e390	e820	1550	383	252	283	122	1760
21	301	676	1050	e920	e370	828	1370	395	212	253	116	1340
22	283	1670	838	e820	e370	830	1200	404	354	246	114	1010
23	261	1460	670	e780	e370	857	1100	376	606	220	111	929
24	260	1890	716	e780	e370	955	1240	356	628	195	107	782
25	258	3440	1950	e800	e370	1080	2180	333	483	193	108	626
26	259	4240	2540	e780	e360	1570	1560	320	352	201	108	495
27	284	8270	1750	e780	e350	2070	1290	288	340	224	156	397
28	334	4400	1490	e760	e360	1730	1440	284	275	258	378	338
29	342	2760	1280	e760	---	1370	2830	279	239	216	418	312
30	334	2330	1180	e740	---	1350	2310	259	314	207	290	360
31	383	---	1090	e700	---	3290	---	272	---	191	218	---
TOTAL	16173	42810	57164	27364	13220	69590	122980	19345	16309	23173	5156	26442
MEAN	522	1427	1844	883	472	2245	4099	624	544	748	166	881
MAX	1990	8270	7480	2580	680	9460	13600	2080	2080	3860	418	5260
MIN	258	303	670	635	350	800	1100	259	212	191	107	135
CFSM	.38	1.04	1.34	.64	.34	1.63	2.98	.45	.39	.54	.12	.64
IN.	.44	1.16	1.54	.74	.36	1.88	3.32	.52	.44	.63	.14	.71

CAL YR	1986	TOTAL	525376	MEAN	1439	MAX	16000	MIN	120	CFSM	1.05	IN. 14.2
WTR YR	1987	TOTAL	439726	MEAN	1205	MAX	13600	MIN	107	CFSM	.87	IN. 11.9

e Estimated

01528000 FIVEMILE CREEK NEAR KANONA, NY

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

DRAINAGE AREA.--66.8 mi^2.

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

REVISED RECORDS.--WSP 2103: Drainage area.

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

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

AVERAGE DISCHARGE.--50 years, 75.8 ft^3/s, 15.41 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,110 ft^3/s June 23, 1972, gage height, 6.95 ft present datum; maximum gage height, 7.10 ft present datum, Mar. 31, 1940 (ice jam); minimum discharge, 0.04 ft^3/s Sept. 27, 29, 1941; minimum gage height, 0.42 ft Sept. 7, 8, 1985.

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

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 8	2300	957	4.13	Sept. 13	0700	*2,420	*5.76
Apr. 5	0300	1,100	4.40				

Minimum discharge, 1.4 ft^3/s Aug. 18-20, 25-26, gage height, 0.82 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74	38	56	e40	e31	e50	271	43	5.7	8.6	4.8	3.7
2	37	34	54	e39	e32	e180	237	36	8.9	45	4.2	3.6
3	29	35	325	e37	e32	e420	201	33	19	168	4.5	3.2
4	255	38	383	e36	e32	e360	347	30	20	59	3.9	3.0
5	133	31	183	e35	e31	e220	1060	27	15	29	4.0	2.7
6	69	45	115	e34	e30	e150	782	29	11	20	4.6	2.7
7	51	57	91	e33	e29	e290	604	25	8.0	15	4.0	2.5
8	32	45	90	e32	e28	828	456	22	7.6	11	3.5	2.7
9	29	42	109	e31	e27	833	233	20	7.2	11	4.6	2.6
10	24	40	269	e30	e27	333	153	18	9.2	9.1	5.6	4.2
11	21	35	171	e30	e26	153	114	16	7.6	11	8.7	3.3
12	19	39	103	e29	e26	122	102	16	6.8	16	7.1	22
13	21	40	e76	e29	e25	97	198	18	6.8	13	12	1350
14	39	e36	e78	e40	e25	86	206	15	11	16	8.9	923
15	39	e34	59	92	e24	72	124	15	9.9	98	4.7	340
16	36	29	62	191	e24	66	98	15	4.2	40	2.7	174
17	29	31	59	e100	e23	59	85	14	3.5	25	2.0	121
18	28	33	69	e60	e23	55	97	13	3.2	18	1.6	157
19	30	32	75	e50	e22	55	83	13	3.2	13	1.4	167
20	26	e40	67	e46	e21	57	70	15	7.1	9.0	1.7	148
21	24	36	e52	e45	e20	57	57	14	6.1	7.4	3.3	129
22	25	53	e48	e44	e19	59	53	14	4.4	8.1	3.1	176
23	22	44	53	e42	e19	65	44	15	38	13	2.7	147
24	23	120	40	e40	e19	74	52	16	23	9.4	2.0	103
25	32	133	120	e38	e18	81	76	17	12	5.2	1.5	116
26	31	142	133	e36	e18	101	56	13	10	5.4	1.4	75
27	43	210	88	e34	e18	103	48	11	11	4.8	5.7	56
28	46	121	72	e32	e18	77	47	8.8	7.5	6.9	9.0	44
29	45	93	59	e31	---	66	54	7.5	6.8	7.0	7.9	36
30	54	73	e50	e31	---	61	50	6.6	8.1	5.9	5.7	100
31	49	---	e44	e31	---	180	---	6.1	---	5.8	4.5	---
TOTAL	1415	1779	3253	1418	687	5410	6058	562.0	301.8	713.6	141.3	4418.2
MEAN	45.6	59.3	105	45.7	24.5	175	202	18.1	10.1	23.0	4.56	147
MAX	255	210	383	191	32	833	1060	43	38	168	12	1350
MIN	19	29	40	29	18	50	44	6.1	3.2	4.8	1.4	2.5
CFSM	.68	.89	1.57	.68	.37	2.61	3.02	.27	.15	.34	.07	2.20
IN.	.79	.99	1.81	.79	.38	3.01	3.37	.31	.17	.40	.08	2.46

CAL YR	1986	TOTAL	26018.2	MEAN	71.3	MAX	1070	MIN	1.7	CFSM	1.07	IN. 14.5
WTR YR	1987	TOTAL	26156.8	MEAN	71.7	MAX	1350	MIN	1.4	CFSM	1.07	IN. 14.6

e Estimated

SUSQUEHANNA RIVER BASIN

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

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

DRAINAGE AREA.--45.5 mi^2.

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

GAGE.--Daily power generation records.

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

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

AVERAGE DISCHARGE.--21 years, 20.5 ft^3/s.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 72 ft^3/s many days; no flow many days.

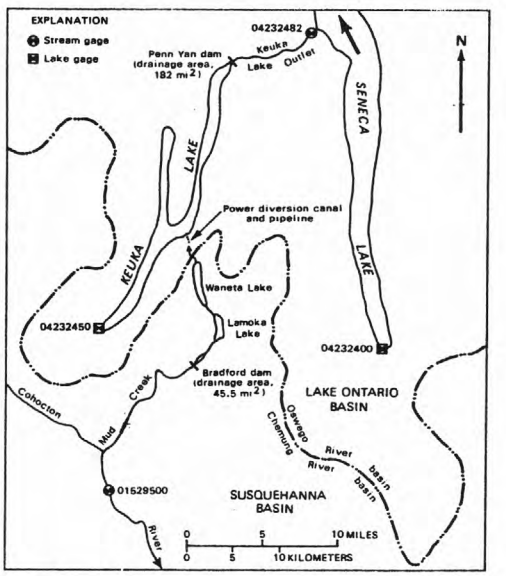


Figure 5.--Gaging stations and transbasin diversion, Cohocton River-Keuka Lake area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	33	58	48	.00	30	.00	.00	.00	.00	.00
2	.00	.00	60	58	44	32	56	.00	32	.00	.00	.00
3	.00	42	51	58	44	55	65	.00	59	.00	.00	.00
4	.00	68	72	58	44	55	60	30	59	.00	.00	.00
5	.00	55	38	58	44	55	72	72	32	.00	.00	.00
6	.00	48	.00	58	17	55	72	45	.00	.00	.00	.00
7	.00	45	.00	58	.00	55	72	72	.00	.00	.00	.00
8	.00	.00	33	58	.00	55	72	31	12	.00	.00	.00
9	.00	.00	72	58	24	59	72	.00	.00	.00	.00	.00
10	.00	.00	72	58	48	72	72	.00	.00	.00	.00	.00
11	.00	.00	72	58	48	72	72	30	.00	.00	.00	.00
12	.00	33	72	44	7.0	72	72	72	.00	.00	.00	.00
13	.00	56	72	45	.00	72	72	41	.00	.00	.00	.00
14	.00	33	72	24	.00	72	72	.00	.00	.00	.00	.00
15	.00	.00	72	8.0	.00	72	72	.00	.00	.00	.00	.00
16	.00	.00	72	.00	.00	72	72	.00	.00	.00	.00	.00
17	.00	.00	54	.00	26	72	72	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	48	66	72	.00	.00	.00	.00	.00
19	.00	.00	29	.00	48	61	72	.00	.00	.00	.00	.00
20	.00	.00	51	.00	21	61	71	.00	.00	.00	.00	.00
21	33	.00	39	.00	.00	61	71	.00	.00	.00	.00	.00
22	72	.00	27	.00	.00	61	71	.00	.00	.00	.00	.00
23	72	.00	51	.00	23	61	71	.00	.00	.00	.00	.00
24	38	33	54	.00	32	61	71	.00	.00	.00	.00	.00
25	.00	62	58	.00	.00	61	71	.00	.00	.00	.00	.00
26	.00	39	58	.00	.00	61	71	.00	.00	.00	.00	.00
27	39	.00	58	21	.00	32	71	.00	.00	.00	.00	.00
28	72	.00	58	26	.00	.00	71	.00	.00	.00	.00	.00
29	72	.00	58	.00	---	.00	17	.00	.00	.00	.00	.00
30	52	.00	58	23	---	.00	.00	.00	.00	.00	.00	.00
31	32	---	58	42	---	.00	---	.00	---	.00	.00	---
TOTAL	482.00	514.00	1574.00	871.00	566.00	1583.00	1947.00	393.00	194.00	.00	.00	.00
MEAN	15.5	17.1	50.8	28.1	20.2	51.1	64.9	12.7	6.47	.00	.00	.00
MAX	72	68	72	58	48	72	72	72	59	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

CAL YR	1986	TOTAL	10839.00	MEAN	29.7	MAX	72	MIN .00
WTR YR	1987	TOTAL	8124.00	MEAN	22.3	MAX	72	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 mi north of Campbell.

DRAINAGE AREA.--470 mi^2.

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

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

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

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

AVERAGE DISCHARGE.--69 years, 449 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 41,100 ft^3/s July 8, 1935, gage height, 11.6 ft, from floodmark, from rating curve extended above 24,200 ft^3/s on basis of velocity-area and slope-area measurements of peak flow; minimum, 8 ft^3/s Sept. 6, 7, 1934.

EXTREMES 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)
Apr. 5	0430	6,160	5.78	Sept. 13	1215	*8,520	*6.81

Minimum discharge, 30 ft^3/s Aug. 26; gage height 0.07 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	223	190	329	284	e230	e320	1250	394	108	168	104	89
2	194	179	316	e280	e240	e1000	1130	357	259	335	83	83
3	160	183	826	e270	e240	e1800	1050	333	210	790	105	84
4	506	182	1300	e250	e240	e1500	1630	314	206	433	109	79
5	456	173	810	e260	e230	e860	4950	288	166	324	84	70
6	334	190	616	e270	e220	e540	3450	274	137	262	78	72
7	264	242	538	e260	e220	e1300	3250	258	120	240	78	73
8	217	215	524	e250	e210	3210	2700	242	136	239	71	75
9	191	208	515	241	e200	3200	2010	229	132	204	70	83
10	172	196	932	232	e200	1690	1500	213	113	202	137	74
11	154	190	746	231	e190	e1000	1090	201	102	187	137	67
12	140	190	570	226	e190	e840	905	199	99	271	100	279
13	143	196	e460	221	e180	e680	1200	193	119	246	80	4770
14	187	177	e390	214	e180	e560	1110	181	122	198	77	2190
15	193	171	e410	382	e170	e500	879	191	113	342	67	1050
16	177	174	e390	714	e170	e460	789	195	84	268	60	642
17	163	168	385	e450	e160	439	712	173	70	202	56	531
18	158	170	395	e430	e160	408	717	157	65	163	49	896
19	173	171	416	e370	e150	393	629	162	61	141	53	1670
20	160	144	374	e340	e150	394	564	165	65	130	66	1060
21	149	199	332	e330	e150	379	509	156	67	128	66	799
22	144	212	e260	e320	e140	382	466	145	87	107	58	794
23	140	206	e280	e300	e140	392	430	145	278	97	60	733
24	138	440	e260	e290	e140	413	459	164	198	100	58	561
25	147	440	481	e280	e130	441	559	144	132	85	46	540
26	151	434	550	e260	e130	574	445	132	102	99	36	426
27	175	680	437	e250	e130	574	394	125	140	139	127	356
28	188	526	386	e240	e140	508	438	120	121	94	211	305
29	187	448	349	e230	---	461	483	113	106	88	183	266
30	203	397	325	e230	---	441	429	103	122	85	140	440
31	218	---	311	e230	---	1000	---	103	---	133	108	---
TOTAL	6205	7691	15213	9135	5030	26659	36127	6169	3840	6500	2757	19157
MEAN	200	256	491	295	180	860	1204	199	128	210	88.9	639
MAX	506	680	1300	714	240	3210	4950	394	278	790	211	4770
MIN	138	144	260	214	130	320	394	103	61	85	36	67

CAL YR	1986	TOTAL	157105	MEAN	430	MAX	4340	MIN	39
WTR YR	1987	TOTAL	144483	MEAN	396	MAX	4950	MIN	36

e Estimated

01529950 CHEMUNG RIVER AT CORNING, NY

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

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

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

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

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

REMARKS.--Records good except those for estimated daily discharges, 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. Satellite and gage-height telemeters at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--13 years, 2,140 ft^3/s, 14.49 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 127,000 ft^3/s Sept. 26, 1975, gage height, 32.46 ft; minimum, 102 ft^3/s Oct. 3, 1980, gage height, 14.22 ft.

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.

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

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Apr. 4	0400	*21,000	*21.40	No peak greater than base discharge.			

Minimum discharge, 157 ft^3/s Aug. 23, 24, 26 gage height, 14.40 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	570	543	2200	1390	e920	e960	7070	2500	414	608	318	281
2	754	508	2030	1300	e920	e4500	4880	1800	720	1230	290	251
3	687	496	5400	1220	e920	e3800	5020	1550	1040	4950	282	235
4	1870	498	9200	1010	e920	e2300	7050	1870	1970	2270	286	229
5	2450	484	3830	1150	e900	e2100	17100	1780	1670	1150	288	210
6	1840	514	2870	1230	e880	e2000	17400	1590	1130	862	269	204
7	1300	699	2420	1040	e860	e4500	18100	1300	937	736	263	207
8	930	739	2350	1100	e840	13500	15400	1130	932	1050	248	210
9	784	1080	2350	1030	e820	13100	12500	903	717	1830	247	216
10	681	1630	3650	951	e800	6700	9580	932	657	1990	253	233
11	574	1110	3220	926	e780	3680	4840	767	610	1580	296	214
12	561	1050	2200	897	e760	2670	3410	694	602	1350	282	269
13	565	1070	1910	860	e740	2850	4600	664	621	2190	248	8860
14	618	997	1620	801	e720	2380	4990	639	655	1610	233	6080
15	677	747	1560	1330	e700	2120	3450	617	854	1160	229	2740
16	677	751	1690	2960	e680	1930	3300	675	683	855	218	1640
17	572	742	1530	2010	e680	1730	2870	646	589	665	201	1180
18	535	808	1680	1830	e680	1620	2810	579	453	585	192	2030
19	525	830	2050	1790	e660	1570	2610	545	400	529	189	5030
20	515	749	1690	1540	e640	1440	2310	551	387	454	193	2940
21	501	813	1480	1430	e620	1400	2160	552	370	411	185	2280
22	482	1870	1180	1360	e600	1400	1950	554	465	389	181	1870
23	459	1840	1000	e1200	e600	1460	1810	532	796	351	165	1770
24	449	2040	1010	e1100	e580	1590	1880	524	878	322	160	1420
25	449	3680	2190	e1100	e580	1760	2800	498	659	315	161	1220
26	452	4300	2970	e1100	e580	2290	2230	477	490	319	161	977
27	474	9510	2250	e1100	e560	2690	1960	443	480	351	237	803
28	523	5160	2050	e1000	e540	2360	1950	426	424	393	514	696
29	537	3180	1820	e980	---	2080	3200	415	372	333	582	639
30	529	2730	1680	e960	---	2010	2680	394	421	320	445	739
31	591	---	1530	e940	---	4320	---	405	---	313	344	---
TOTAL	23131	51168	74610	38635	20480	98810	171910	26952	21396	31471	8160	45673
MEAN	746	1706	2407	1246	731	3187	5730	869	713	1015	263	1522
MAX	2450	9510	9200	2960	920	13500	18100	2500	1970	4950	582	8860
MIN	449	484	1000	801	540	960	1810	394	370	313	160	204
CFSM	.37	.85	1.20	.62	.36	1.59	2.86	.43	.36	.51	.13	.76
IN.	.43	.95	1.38	.72	.38	1.83	3.19	.50	.40	.58	.15	.85

CAL YR	1986	TOTAL	733470	MEAN	2010	MAX	24000	MIN	176	CFSM	1.00	IN. 13.6
WTR YR	1987	TOTAL	612396	MEAN	1678	MAX	18100	MIN	160	CFSM	.84	IN. 11.4

e Estimated

01530500 NEWTOWN CREEK AT ELMIRA, NY

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

DRAINAGE AREA.--77.5 mi^2.

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

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

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

REMARKS.--Records good except those for estimated daily discharges, which are fair. Diurnal fluctuation at low flow caused by numerous industrial operations upstream. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--49 years, 86.8 ft^3/s, 15.21 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 4,000 ft^3/s June 23, 1972 (backwater from Chemung River); maximum gage height, 19.28 ft June 23, 1972, from floodmarks (backwater from Chemung River); minimum daily discharge, 1.7 ft^3/s Sept. 16, 1985.

EXTREMES 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)
Nov.27	0030	1,540	11.24	Apr. 4	2245	*1,690	*11.64

Minimum daily discharge, 7.6 ft^3/s Aug. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	21	102	65	e30	171	212	47	34	29	12	11
2	34	21	93	58	e30	384	140	43	322	121	9.8	10
3	34	21	411	62	e32	191	126	42	94	112	12	11
4	87	21	239	49	e31	136	743	45	217	50	11	10
5	55	21	139	46	e30	116	648	40	128	35	12	9.8
6	37	49	112	e48	e29	114	300	37	77	31	11	9.5
7	29	51	97	e46	e30	390	432	35	57	42	11	10
8	26	46	88	e44	e30	610	249	33	55	84	9.9	11
9	23	178	111	e43	e27	445	177	31	51	104	8.6	13
10	21	102	202	e42	e24	219	138	30	40	138	9.9	12
11	19	72	115	e43	e23	165	114	29	34	173	10	11
12	18	69	89	e43	e22	112	129	31	38	157	10	14
13	20	88	70	e42	e21	99	351	28	37	73	9.9	32
14	28	56	50	e41	e20	79	180	28	34	54	9.1	33
15	33	45	58	125	e19	70	137	30	31	46	9.4	20
16	26	43	55	190	e19	60	116	27	30	35	8.5	20
17	24	45	55	e80	e18	53	109	23	26	28	9.4	21
18	21	43	112	e66	e18	49	106	24	24	24	13	123
19	20	48	135	e54	e18	49	86	26	24	24	14	199
20	19	44	83	e45	e18	50	73	26	23	28	14	98
21	18	130	68	e40	e17	48	63	27	25	19	11	70
22	17	106	54	e38	e17	50	56	27	31	16	9.1	69
23	16	96	48	e37	e17	57	51	27	28	14	8.5	117
24	17	244	50	e36	e17	59	94	25	26	13	8.3	65
25	17	197	403	e35	e16	62	125	22	24	13	8.3	56
26	18	600	196	e34	e16	146	74	24	24	14	7.6	41
27	25	804	142	e33	e16	97	61	25	30	15	26	30
28	31	280	119	e32	e17	79	58	26	25	12	39	26
29	26	177	102	e31	---	69	62	28	22	13	31	23
30	24	135	88	e30	---	63	53	27	31	12	17	28
31	23	---	76	e30	---	219	---	30	---	12	12	---
TOTAL	841	3853	3762	1608	622	4511	5263	943	1642	1541	392.3	1203.3
MEAN	27.1	128	121	51.9	22.2	146	175	30.4	54.7	49.7	12.7	40.1
MAX	87	804	411	190	32	610	743	47	322	173	39	199
MIN	16	21	48	30	16	48	51	22	22	12	7.6	9.5
CFSM	.35	1.66	1.57	.67	.29	1.88	2.26	.39	.71	.64	.16	.52
IN.	.40	1.85	1.81	.77	.30	2.17	2.53	.45	.79	.74	.19	.58

CAL YR	1986	TOTAL	33207.0	MEAN	91.0	MAX	1470	MIN	14	CFSM	1.17	IN. 15.9
WTR YR	1987	TOTAL	26181.6	MEAN	71.7	MAX	804	MIN	7.6	CFSM	.93	IN. 12.6

e Estimated

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 National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Jan. 10, 1930, nonrecording gage on highway bridge 60 ft upstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, 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. Satellite telemeter at station. National Weather Service gage-height telemeter at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--81 years (water years 1906–13, 1915–87), 2,537 ft^3/s, 13.75 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 189,000 ft^3/s June 23, 1972, gage height, 31.62 ft, from floodmark, 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 and 31.62 ft; minimum, 49 ft^3/s Aug. 14, 1911, gage height, 1.47 ft.

EXTREMES 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. 5	1100	*26,600	*12.24	No peak greater than base discharge.			

Minimum discharge, 211 ft^3/s Aug. 25, gage height, 3.04 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	615	708	3330	e2000	e1000	e1100	9240	3380	589	617	451	426
2	773	649	2740	e1900	e1000	e6600	6150	2780	1840	984	443	371
3	873	624	5330	e1700	e1100	e7000	6160	2090	1510	4670	432	342
4	1390	622	12200	e1500	e1100	e4200	8910	2170	1890	3620	409	326
5	3120	622	6390	e1200	e1100	e2900	23500	2390	3240	1890	404	315
6	2390	724	4450	e1300	e1000	e2700	19600	2060	1510	1170	397	307
7	1620	899	3760	e1300	e980	e5400	23300	1890	1200	1110	378	301
8	1240	1040	3390	e1300	e960	17200	19600	1620	1100	3060	360	313
9	1000	1720	3460	e1300	e940	18500	15300	1430	1030	2460	348	329
10	889	2140	4850	e1200	e920	10300	12300	1280	861	2810	345	322
11	779	1790	5150	e1100	e900	5710	6840	1200	778	2380	340	329
12	664	1490	3570	e1100	e860	4250	4880	1110	758	2010	361	335
13	641	1530	2730	e1000	e840	4050	5670	1050	771	2210	348	3150
14	661	1420	2060	e960	e800	3480	6800	1010	779	2300	320	9250
15	716	1220	2120	e1700	e800	2930	5070	1010	830	1620	298	4180
16	767	1060	2250	e4000	e780	2520	4700	1020	890	1380	288	2210
17	742	1050	2130	e3200	e780	2200	4160	1090	742	1110	276	1500
18	636	1080	2320	e2300	e780	2010	4090	1060	667	996	261	1330
19	590	1210	3090	e2100	e760	1950	3860	1010	543	859	253	4220
20	586	1140	2660	e1900	e740	1840	3380	962	499	791	264	3370
21	571	1500	2190	e1700	e700	1760	3010	917	499	714	251	2250
22	546	1990	1880	e1500	e660	1740	2690	875	522	659	245	1920
23	524	2530	1560	e1400	e700	1790	2430	823	660	615	244	2180
24	504	2970	1530	e1300	e660	1840	2380	754	948	561	227	1810
25	491	5150	3380	e1200	e640	1980	3660	716	874	531	219	1490
26	509	6970	5070	e1200	e640	2590	3500	664	731	534	225	1220
27	534	14800	3740	e1100	e640	3520	2790	627	640	514	288	1010
28	603	8140	3080	e1100	e640	3110	2480	588	605	510	400	861
29	653	5420	2690	e1100	---	2680	3290	611	541	531	684	763
30	654	4390	2430	e1100	---	2400	3810	552	547	495	658	748
31	653	---	2220	e1000	---	3430	---	653	---	482	519	---
TOTAL	26934	76598	107750	47760	23420	133680	223550	39392	28594	44193	10936	47478
MEAN	869	2553	3476	1541	836	4312	7452	1271	953	1426	353	1583
MAX	3120	14800	12200	4000	1100	18500	23500	3380	3240	4670	684	9250
MIN	491	622	1530	960	640	1100	2380	552	499	482	219	301
CFSM.	35	1.02	1.39	.61	.33	1.72	2.97	.51	.38	.57	.14	.63
IN.	.40	1.14	1.60	.71	.35	1.98	3.32	.58	.42	.66	.16	.70

CAL YR	1986	TOTAL	977155	MEAN	2677	MAX	32100	MIN	249	CFSM	1.07	IN. 14.5
WTR YR	1987	TOTAL	810285	MEAN	2220	MAX	23500	MIN	219	CFSM	.89	IN. 12.0

e Estimated

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, 4.0 mi upstream from mouth, and 4.5 mi east of Unadilla. DRAINAGE AREA, 103 mi^2. PERIOD OF RECORD, November 1949 to September 1952 (monthend elevations and contents), October 1952 to September 1985 (mean daily elevations and monthend contents), October 1986 to current year (monthend elevations and contents). Prior to October 1970, published as "East Sidney Reservoir at East Sidney". REVISED RECORDS, WSP 2103: Drainage area. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1979, at datum 0.05 ft lower.

REMARKS.--Lake is formed by concrete dam and rockfill dike, completed by Corps of Engineers in June 1950; regulation of outflow began in November 1949; first used for flood regulation on Mar. 28, 1950. Useable 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. Satellite, gage-height, and rain-gage telemeters at station.

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

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

EXTREMES FOR CURRENT YEAR.--Maximum contents, 13,250 acre-ft, Apr. 8-9, elevation, 1,177.56 ft; minimum, 1,572 acre-ft, Mar. 11, elevation, 1,139.53 ft.

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

REMARKS.--Lake is formed by earthfill dam with concrete spillway, completed by Corps of Engineers in 1942 for flood control; first used for flood regulation on Mar. 9, 1942. Useable 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. Satellite, gage-height, and rain-gage telemeters 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, 29,150 acre-ft, Nov. 28, elevation, 984.37 ft; minimum, 5,100 acre-ft, Jan. 2, elevation, 965.88 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	01499500 East Sidney Lake: Elevation (feet)	Contents (acre-feet)	Change in contents (equlivalent in cfs)	01511000 Whitney Point Lake: Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)
Sept. 30	1,151.18	3,352	--	973.08	12,790	--
Oct. 31	1,151.00	3,492	- 0.6	973.12	12,837	+ 0.8
Nov. 30	1,154.20	4,245	+ 12.6	979.12	20,968	+ 137
Dec. 31	1,140.08	1,640	- 42.4	966.10	5,314	- 255
CAL YR 1986	--	--	0.0	--	--	+ 0.4
Jan. 31	1,139.84	1,610	- 0.5	966.22	5,432	+ 1.9
Feb. 28	1,140.87	1,743	+ 2.4	966.10	5,314	- 2.1
Mar. 31	1,142.06	1,907	+ 2.7	966.51	5,717	+ 6.6
Apr. 30	1,143.98	2,194	+ 4.8	967.90	7,104	+ 23.3
May 31	1,150.76	3,441	+ 20.3	973.36	13,142	+ 98.2
June 30	1,150.62	3,412	- 0.5	973.23	12,977	- 2.8
July 31	1,151.03	3,499	+ 1.4	973.40	13,193	+ 3.5
Aug. 31	1,151.38	3,577	+ 1.3	973.39	13,180	- 0.2
Sept. 30	1,151.21	3,359	- 0.6	973.32	13,091	- 1.5
WTR YR 1987	--	--	0.0	--	--	+ 0.4

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

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

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

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

EXTREMES FOR CURRENT YEAR.--Maximum contents, 26,140 acre-ft, Mar. 16, elevation, 1,103.34 ft; minimum, 7,360 acre ft, Mar. 20, elevation, 1,076.10 ft.

01518498 HAMMOND LAKE.--Lat 41°53'56", long 77°08'52", Tioga County, Hydrologic Unit 02050104, at Hammond Dam on Crooked Creek, 3 mi upstream from mouth, and 0.8 mi southwest of Tioga. DRAINAGE AREA, 122 mi^2. PERIOD OF RECORD, November 1979 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

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

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

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

EXTREMES FOR CURRENT YEAR.--Maximum contents, 19,320 acre-ft, Mar. 17, elevation, 1,098.92 ft; minimum, 8,200 acre-ft, Nov. 3, elevation, 1,085.13 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	Elevation (feet)	Contents (acre-(feet)	Change in contents (equlivalent in cfs)	Elevation (feet)	Contents (acre-(feet)	Change in contents (equivalent in cfs)
	01517900 Tioga Lake			01518498 Hammond Lake		
Sept. 30	1,080.80	9,410	--	1,085.42	8,410	--
Oct. 31	1,081.47	9,730	+ 5.2	1,086.00	8,850	+ 7.2
Nov. 30	1,082.36	10,170	+ 7.4	1,088.15	10,300	+ 24.4
Dec. 31	1,083.18	10,590	+ 6.8	1,087.13	9,560	- 12.0
CAL YR 1986	--	--	- 0.3	--	--	- 0.1
Jan. 31	1,081.26	9,630	- 15.6	1,087.06	9,500	- 1.0
Feb. 28	1,078.97	8,590	- 18.7	1,085.83	8,720	- 14.0
Mar. 31	1,080.77	9,400	+ 13.2	1,086.55	9,190	+ 7.6
Apr. 30	1.077.63	8,000	- 23.5	1,085.52	8,490	- 11.8
May 31	1,081.03	9,510	+ 24.6	1,086.40	9,090	+ 9.8
June 30	1,081.70	9,840	+ 5.5	1,086.39	9,090	0
July 31	1,081.35	9,670	- 2.8	1,086.55	9,190	+ 1.6
Aug. 31	1,080.05	9,070	- 9.8	1,086.31	9,040	- 2.4
Sept. 30	1,081.49	9,740	+ 11.3	1,086.10	8,910	- 2.2
WTR YR 1987	--	--	+ 0.5	--	--	+ 0.7

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 tc current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 32,110 acre-ft, Feb. 16, 1984, elevation, 1,079.57 ft; minimum, 65 acre-ft, June 23, 1980, elevation, 1,011.50 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 18,220 acre-ft, Mar. 16, elevation, 1,064.39 ft; minimum, 6,820 acre-ft, Sept. 22, elevation, 1,043.74 ft.

01521000 ARKPORT RESERVOIR.--Lat 42°23'45", long 77°43'08", Steuben County, Hydrologic Unit 02050104, on right bank 1,000 ft upstream from Arkport Dam on Canisteo River, 1.3 mi west of Arkport, and 2.3 mi upstream from small tributary. DRAINAGE AREA, 30.5 mi^2. PERIOD OF RECORD, January 1951 to September 1985 (mean daily elevations and monthend contents), October 1985 to current year (monthend elevations and contents). REVISED RECORDS, WSP 1552: 1951–57. WRD NY 1974: 1973. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by earthfill dam with concrete spillway, completed by Corps of Engineers in 1940 for flood control; first used for flood regulation on Mar. 31, 1940. Usable capacity, 7,936 acre-ft between elevations 1,218.0 ft (sill of conduit) and 1,304.0 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. Satellite, gage-height, and rain-gage telemeters at station.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 7,944 acre-ft, June 23, 1972, elevation, 1,304.04 ft; minimum contents, 0.3 acre-ft, one or more days during water years 1978–81 and 1984–87; minimum elevation, 1,226.26 ft, several days in October 1980.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 643 acre-ft, Sept. 13, elevation, 1,243.63 ft; minimum, 0.3 acre-ft, many days in October, elevation, 1,226.34 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	Elevation (feet)	Contents (acre-(feet)	Change in contents (equlivalent in cfs)	Elevation (feet)	Contents (acre-(feet)	Change in contents (equivalent in cfs)
	01519995 Cowanesque Lake			01521000 Arkport Reservoir		
Sept. 30	1,045.01	7,330	--	1,228.30	20.9	--
Oct. 31	1,035.46	3,940	- 55.1	1,226.39	0.4	- 0.3
Nov. 30	1,045.35	7,480	+ 59.5	1,226.48	0.5	0.0
Dec. 31	1,045.32	7,460	- 0.3	1,226.51	0.5	0.0
CAL YR 1986	--	--	+ 0.5	--	--	0.0
Jan. 31	1,045.18	7,410	- 0.8	1,226.64	0.6	0.0
Feb. 28	1,045.12	7,380	- 0.5	1,226.64	0.6	0.0
Mar. 31	1,046.20	7,840	+ 7.5	1,229.49	85.8	+ 1.4
Apr. 30	1,045.16	7,400	- 7.7	1,227.49	4.4	- 1.4
May 31	1,045.36	7,480	+ 1.3	1,226.98	1.0	- 0.1
June 30	1,045.33	7,470	- 0.2	1,227.40	3.8	0.0
July 31	1,045.30	7,460	- 0.2	1,226.97	1.0	0.0
Aug. 31	1,045.39	7,490	+ 0.5	1,226.53	0.5	0.0
Sept. 30	1,045.30	7,460	- 0.5	1,227.39	3.7	0.0
WTR YR 1987	--	--	+ 0.2	--	--	0.0

01523000 ALMOND LAKE NEAR ALMOND, NY

LOCATION.--Lat 42°20'56", long 77°42'10", Steuben County, Hydrologic Unit 02050104, at Almond Dam on Canacadea Creek, 2 mi northeast of Almond, and 3 mi upstream from mouth.

DRAINAGE AREA.--55.8 mi^2.

PERIOD OF RECORD.--July 1949 to September 1952 (monthly elevations and contents), October 1952 to September 1985 (mean daily elevations and monthend contents), October 1985 to current year (monthend elevations and contents). Prior to October 1970, published as "Almond Reservoir near Almond".

REVISED RECORDS.--WSP 2103: Drainage area.

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

REMARKS.--Lake is formed by earthfill dam with concrete spillway, completed by Corps of Engineers in June 1949 for flood control; first used for flood regulation on Mar. 28, 1950. Usable capacity, 14,800 acre-ft between elevations 1,229.0 ft (sill of gates) and 1,300.0 ft (crest of spillway). No dead storage. Figures given herein represent usable contents. Discharge is controlled by the operation of three gates. Water is stored during high flows and released when downstream conditions warrant. Lake is used for flood control and recreation. Satellite and gage-height telemeters 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, 4,390 acre-ft, April 5, elevation, 1,272.57 ft; minimum, 1,080 acre-ft, Dec. 22 and Jan. 22, elevation, 1,255.00 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)
Sept. 30	1,255.79	1,175	--
Oct. 31	1,255.48	1,138	- 0.6
Nov. 30	1,255.17	1,100	- 0.6
Dec. 31	1,255.40	1,128	+ 0.4
CAL YR 1986	--	--	+ 0.4
Jan. 31	1,255.38	1,126	0.0
Feb. 28	1,255.23	1,108	- 0.3
Mar. 31	1,259.88	1,732	+10.1
Apr. 30	1,256.51	1,266	- 7.8
May 31	1,256.56	1,273	+ 0.1
June 30	1,257.11	1,344	+ 1.2
July 31	1,256.42	1,255	- 1.4
Aug. 31	1,255.98	1,198	- 0.9
Sept. 30	1,257.22	1,359	+ 2.7
WTR YR 1987	--	--	+ 0.2

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

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

AVERAGE DISCHARGE.--84 years, 2,784 ft^3/s, 23.51 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 73,000 ft^3/s June 23, 1972, gage height, 24.01 ft from floodmarks; minimum daily, 79 ft^3/s Sept. 10, 11, 1971.

EXTREMES 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)
July 3	0500	*15,800	*9.53	No peak greater than base discharge.			

Minimum discharge, 267 ft^3/s Aug. 26, gage height, 2.86 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2660	1530	3930	2080	e760	e1000	10300	4350	963	4110	595	676
2	2240	1440	3750	1920	e740	e6200	9830	3720	2030	7760	581	592
3	2420	1450	8170	e1700	e720	5830	9530	3260	1880	14500	659	548
4	9960	1380	9660	e1500	e700	4180	8110	3760	1870	9300	609	497
5	8800	1280	7010	e1100	e680	e3000	10200	3410	1660	5680	613	447
6	5800	1390	5480	e1200	e660	e2800	12900	2920	1360	4050	513	409
7	4250	1540	4610	1530	e640	e3800	14100	2680	1180	6260	454	408
8	3180	1420	4440	e1500	e620	e9200	12800	2400	1080	5090	420	800
9	2480	1480	4470	e1300	e600	e12000	10700	2090	981	5000	421	1880
10	2050	1670	7980	1270	e580	e9600	8640	1830	885	4080	491	1490
11	1670	1600	6890	1230	e580	7110	6540	1640	773	3160	472	991
12	1420	1650	5350	1170	e560	5620	5260	1540	816	2640	440	2730
13	1440	1770	e4400	e1100	e560	4540	5680	1610	1780	2050	387	7520
14	1690	1710	e3300	e1000	e540	3650	5110	1400	4370	2260	351	8710
15	1900	1560	e3200	1600	e520	3060	4380	1610	2690	2950	326	7480
16	1770	1560	e3000	2940	e500	2600	4070	1900	1780	1980	304	4960
17	1580	1660	2750	e2200	e480	2250	3650	1480	1360	1510	283	3570
18	1490	1680	2730	e1900	e470	2010	3270	1280	1110	1250	328	9740
19	1350	1820	2980	e1800	e460	1920	2850	1240	936	1070	313	10900
20	1220	1830	2600	e1500	e500	1910	2470	1240	826	949	357	10600
21	1320	1770	e2100	e1400	e490	1940	2170	1270	773	853	321	9190
22	1220	1880	e1800	e1100	e480	1950	1930	1190	1050	774	356	7650
23	1100	1880	e1600	e960	e470	2010	1760	1100	2850	714	406	6160
24	1150	2780	1620	e920	e470	2290	2340	1210	2030	685	380	4760
25	1050	3650	4670	e880	e460	2950	4460	1080	1250	657	327	3780
26	989	4160	5240	e880	e450	7040	4040	1020	1270	816	276	3050
27	1120	7170	4020	e860	e450	7050	3560	1130	2270	1110	1220	2480
28	1510	6850	3360	e840	e440	5570	5160	1150	2020	908	2600	2050
29	1680	5900	2920	e820	---	4760	5980	1010	1530	708	2140	1730
30	1780	4900	2600	e800	---	4560	5070	885	2860	643	1250	2790
31	1750	---	2330	e780	---	8530	---	1130	---	623	841	---
TOTAL	74039	72360	128960	41780	15580	140930	186860	57535	48233	94140	19034	118588
MEAN	2388	2412	4160	1348	556	4546	6229	1856	1608	3037	614	3953
MAX	9960	7170	9660	2940	760	12000	14100	4350	4370	14500	2600	10900
MIN	989	1280	1600	780	440	1000	1760	885	773	623	276	408
CFSM	1.49	1.50	2.59	.84	.35	2.83	3.87	1.15	1.00	1.89	.38	2.46
IN.	.71	1.67	2.98	.97	.36	3.26	4.32	1.33	1.12	2.18	.44	2.74

CAL YR	1986	TOTAL	1017890	MEAN	2789	MAX	15000	MIN	273	CFSM	1.73	IN. 23.5
WTR YR	1987	TOTAL	998039	MEAN	2734	MAX	14500	MIN	276	CFSM	1.70	IN. 23.1

e Estimated

03013000 CONEWANGO CREEK AT WATERBORO, N.Y.

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

DRAINAGE AREA.--290 mi^2.

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

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

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

AVERAGE DISCHARGE.--49 years, 538 ft^3/s, 25.19 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,600 ft^3/s Apr. 7, 1947; maximum gage height, 12.13 ft Feb. 22, 1981; minimum discharge observed, 22 ft^3/s Aug. 18, 1940, Sept. 27, 29, 1941.

EXTREMES 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)
Oct. 6	1700	*2,870	*8.94	Apr. 8	1300	2,340	8.23

Minimum discharge, 54 ft^3/s Aug. 21-22, 24, gage height, 3.12 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1700	417	715	411	e210	734	1520	321	113	278	71	113
2	1780	382	704	424	e220	1690	1570	291	183	605	72	118
3	1890	379	1680	414	e230	1810	1530	270	174	1070	92	118
4	2320	370	1990	e350	e230	1670	1400	253	136	805	94	100
5	2630	360	2120	e310	e230	1440	1630	231	120	623	90	86
6	2780	359	2030	e270	e230	1200	1950	216	110	364	83	78
7	2760	357	1690	e300	e240	1290	2220	207	108	246	73	75
8	2510	346	1460	e300	e240	1760	2330	200	109	245	68	117
9	2030	343	1390	e310	e230	2120	2280	192	104	315	70	383
10	1480	341	1770	e320	e220	2230	1930	185	101	406	87	330
11	1130	330	1860	e310	e210	2140	1440	180	99	296	84	217
12	839	335	1790	e300	e200	1760	1130	180	109	223	72	269
13	681	347	1470	e300	e190	1340	1050	178	129	189	65	275
14	704	338	1110	e290	e180	1020	844	172	127	264	62	204
15	681	333	875	528	e170	701	671	204	114	442	57	151
16	837	345	665	983	e160	504	613	211	103	348	55	131
17	852	454	590	804	e150	434	544	188	99	245	56	143
18	740	510	656	628	e140	406	472	169	96	182	57	372
19	587	502	857	506	e140	412	407	166	94	149	56	402
20	488	459	763	e400	e140	435	370	166	93	123	56	432
21	429	425	641	e370	e140	447	343	157	94	110	55	369
22	424	418	556	e320	e150	450	315	149	145	100	57	279
23	378	416	492	e290	e160	486	296	143	257	89	60	213
24	347	720	458	e260	e160	525	309	138	241	83	57	169
25	345	764	1180	e250	e150	562	331	131	170	82	55	150
26	355	892	1420	e240	e150	909	299	126	127	115	56	142
27	373	1480	1270	e230	e160	1030	276	139	119	144	257	119
28	465	1510	997	e210	e160	959	362	143	117	107	352	106
29	498	1300	714	e200	---	776	426	129	114	87	319	98
30	487	1020	534	e200	---	670	372	118	157	80	217	368
31	479	---	455	e210	---	1340	---	115	---	78	147	---
TOTAL	33999	16552	34902	11238	5190	33250	29230	5668	3862	8493	3052	6127
MEAN	1097	552	1126	363	185	1073	974	183	129	274	98.5	204
MAX	2780	1510	2120	983	240	2230	2330	321	257	1070	352	432
MIN	345	330	455	200	140	406	276	115	93	78	55	75
CFSM	3.78	1.90	3.88	1.25	.64	3.70	3.36	.63	.44	.94	.34	.70
IN.	4.36	2.12	4.48	1.44	.67	4.27	3.75	.73	.50	1.09	.39	.79

CAL YR	1986	TOTAL	270199	MEAN	740	MAX	3000	MIN	81	CFSM	2.55	IN. 34.7
WTR YR	1987	TOTAL	191563	MEAN	525	MAX	2780	MIN	55	CFSM	1.81	IN. 24.6

e Estimated

03013946 CHAUTAUQUA LAKE AT BEMUS POINT, NY

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

DRAINAGE AREA.--189 mi^2.

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

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

REMARKS.--Lake regulated for flood control by Warner Dam. Area of water surface, 20.98 mi^2. 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, 1,309.08 ft Oct. 4, 5, minimum, 1,306.34 ft Feb. 27–28.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1308.52	1307.97	1307.50	1307.79	1306.95	1306.50	1307.94	1307.86	1307.94	1308.11	1307.91	1308.11
2	1308.49	1307.91	1307.60	1307.76	1306.93	1306.91	1307.96	1307.86	1307.95	1308.22	1307.94	1308.10
3	1308.53	1307.86	1308.03	1307.73	1306.90	1307.07	1307.97	1307.86	1307.95	1308.35	1308.03	1308.11
4	1308.94	1307.85	1308.21	1307.66	1306.87	1307.11	1307.99	1307.86	1307.94	1308.28	1308.02	1308.11
5	1308.99	1307.81	1308.21	1307.60	1306.84	1307.12	1308.11	1307.85	1307.91	1308.25	1308.01	1308.10
6	1308.96	1307.75	1308.16	1307.55	1306.81	1307.12	1308.35	1307.84	1307.89	1308.23	1307.99	1308.10
7	1308.87	1307.69	1308.12	1307.52	1306.78	1307.19	1308.52	1307.84	1307.88	1308.25	1307.96	1308.08
8	1308.76	1307.64	1308.14	1307.48	1306.76	1307.48	1308.56	1307.83	1307.87	1308.27	1307.94	1308.15
9	1308.66	1307.59	1308.19	1307.44	1306.77	1307.74	1308.50	1307.82	1307.85	1308.26	1307.95	1308.27
10	1308.55	1307.52	1308.48	1307.41	1306.74	1307.74	1308.43	1307.81	1307.82	1308.24	1307.97	1308.23
11	1308.43	1307.47	1308.49	1307.38	1306.72	1307.70	1308.35	1307.81	1307.80	1308.23	1307.95	1308.25
12	1308.32	1307.43	1308.43	1307.36	1306.70	1307.65	1308.28	1307.82	1307.84	1308.23	1307.93	1308.24
13	1308.27	1307.39	1308.35	1307.31	1306.68	1307.61	1308.23	1307.81	1307.87	1308.22	1307.91	1308.24
14	1308.23	1307.34	1308.26	1307.27	1306.65	1307.56	1308.16	1307.80	1307.87	1308.28	1307.89	1308.21
15	1308.21	1307.28	1308.19	1307.30	1306.63	1307.51	1308.10	1307.88	1307.86	1308.26	1307.87	1308.21
16	1308.26	1307.24	1308.12	1307.39	1306.60	1307.46	1308.03	1307.88	1307.84	1308.20	1307.85	1308.20
17	1308.25	1307.23	1308.06	1307.37	1306.57	1307.42	1307.97	1307.88	1307.82	1308.18	1307.83	1308.21
18	1308.21	1307.22	1308.04	1307.35	1306.54	1307.36	1307.93	1307.88	1307.80	1308.17	1307.82	1308.35
19	1308.15	1307.22	1308.05	1307.33	1306.52	1307.33	1307.90	1307.89	1307.78	1308.15	1307.80	1308.39
20	1308.08	1307.19	1308.00	1307.31	1306.49	1307.30	1307.87	1307.88	1307.78	1308.13	1307.77	1308.36
21	1308.02	1307.18	1307.95	1307.27	1306.47	1307.29	1307.87	1307.87	1307.78	1308.12	1307.74	1308.29
22	1308.01	1307.15	1307.89	1307.24	1306.44	1307.27	1307.86	1307.87	1307.97	1308.10	1307.79	1308.25
23	1308.03	1307.11	1307.82	1307.23	1306.42	1307.28	1307.86	1307.86	1308.06	1308.09	1307.78	1308.23
24	1308.04	1307.15	1307.78	1307.21	1306.41	1307.27	1307.89	1307.85	1308.06	1308.07	1307.74	1308.21
25	1308.04	1307.17	1308.00	1307.18	1306.39	1307.28	1307.88	1307.84	1308.05	1308.07	1307.71	1308.20
26	1308.05	1307.26	1308.08	1307.14	1306.37	1307.40	1307.86	1307.86	1308.03	1308.06	1307.70	1308.18
27	1308.05	1307.56	1308.07	1307.10	1306.36	1307.46	1307.85	1307.95	1308.01	1308.04	1307.94	1308.18
28	1308.08	1307.60	1308.02	1307.06	1306.35	1307.47	1307.88	1307.96	1308.01	1308.01	1308.06	1308.17
29	1308.07	1307.58	1307.97	1307.02	---	1307.47	1307.88	1307.96	1307.99	1307.98	1308.12	1308.15
30	1308.07	1307.54	1307.91	1307.00	---	1307.51	1307.87	1307.95	1308.07	1307.96	1308.11	1308.31
31	1308.04	---	1307.85	1306.99	---	1307.85	---	1307.95	---	1307.94	1308.11	---
MEAN	1308.33	1307.46	1308.06	1307.34	1306.63	1307.37	1308.06	1307.86	1307.91	1308.16	1307.91	1308.20
MAX	1308.99	1307.97	1308.49	1307.79	1306.95	1307.85	1308.56	1307.96	1308.07	1308.35	1308.12	1308.39
MIN	1308.01	1307.11	1307.50	1306.99	1306.35	1306.50	1307.85	1307.80	1307.78	1307.94	1307.70	1308.08

CAL YR	1986	MEAN	1308.11	MAX	1309.97	MIN	1306.99
WTR YR	1987	MEAN	1307.76	MAX	1308.99	MIN	1306.35

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 and concrete control. Datum of gage is 1,256.41 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good except those for Oct. 7-20 and Oct. 31 to April 23, 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. Gage-height telemeter at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--52 years (water years 1936–87), 356 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,250 ft^3/s Sept. 14, 1979, gage height, 4.93 ft; minimum, 2.7 ft^3/s Nov. 20, 21, 1960, gage height, 0.15 ft; minimum daily, 3.0 ft^3/s Nov. 20, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,080 ft^3/s Oct. 6 at 0930 hours, gage height, 3.00 ft; minimum, 12 ft^3/s May 21, gage height, 0.32 ft (due to regulation at Warner Dam).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	903	582	474	584	365	241	593	92	72	65	75	54
2	879	583	515	587	340	252	621	82	67	429	97	63
3	895	284	659	585	346	371	626	80	73	635	77	60
4	1020	225	727	570	345	390	637	75	71	518	75	59
5	1030	556	715	521	341	392	662	75	71	242	74	58
6	1060	525	695	493	338	394	759	78	70	136	74	58
7	922	496	696	495	335	428	844	79	68	70	105	58
8	875	489	703	488	329	489	860	62	68	115	77	195
9	867	500	727	482	329	567	840	69	67	212	88	563
10	820	488	825	478	326	597	802	68	66	184	78	248
11	767	477	799	480	315	586	774	69	66	106	77	128
12	729	443	794	479	302	560	760	71	77	99	76	394
13	717	482	768	450	301	541	741	67	66	101	74	394
14	687	460	732	432	298	529	699	66	65	363	74	224
15	519	449	708	454	295	509	682	82	66	564	73	96
16	656	428	696	477	292	494	661	65	65	268	73	73
17	771	402	680	472	276	489	552	65	64	80	80	234
18	736	403	675	468	260	463	384	66	62	79	72	734
19	696	405	689	466	259	448	385	66	56	78	71	748
20	649	392	680	465	257	407	252	53	55	77	71	741
21	503	407	636	459	254	342	158	54	57	76	60	631
22	86	394	596	451	254	342	158	55	77	75	69	222
23	54	388	584	452	254	342	157	71	62	76	53	166
24	70	401	594	421	222	342	162	70	60	77	61	77
25	100	396	629	419	195	347	157	69	71	82	60	77
26	167	457	626	419	195	351	157	61	68	77	51	77
27	197	498	625	413	194	351	164	74	66	77	131	77
28	268	495	619	406	199	351	161	67	65	77	105	77
29	316	496	614	377	---	349	125	78	64	77	79	92
30	319	489	606	363	---	397	104	72	75	77	65	736
31	415	---	596	373	---	542	---	69	---	77	66	---
TOTAL	18693	13490	20682	14479	8016	13203	14637	2170	2000	5269	2361	7414
MEAN	603	450	667	467	286	426	488	70.0	66.7	170	76.2	247
MAX	1060	583	825	587	365	597	860	92	77	635	131	748
MIN	54	225	474	363	194	241	104	53	55	65	51	54

CAL YR	1986	TOTAL	190644	MEAN	522	MAX	1490	MIN	49
WTR YR	1987	TOTAL	122414	MEAN	335	MAX	1060	MIN	51

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

04213500 CATTARAUGUS CREEK AT GOWANDA, NY

(National stream-quality accounting network station)

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

DRAINAGE AREA.--436 mi^2.

WATER-DISCHARGE RECORDS

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

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

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

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

AVERAGE DISCHARGE.--47 years (water years 1941-87), 742 ft^3/s, 23.11 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 34,600 ft^3/s Mar. 7, 1956, gage height, 14.14 ft; minimum, about 6 ft^3/s Aug. 21, 1941, result of regulation; minimum gage height, 0.90 ft Oct. 26, 1951; minimum daily discharge, 52 ft^3/s Sept. 13, 1945, Aug. 1, 1955.

EXTREMES 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)
Oct. 4	0100	*13,900	*8.85	No other peak greater than base discharge			

Minimum discharge, 144 ft^3/s Aug. 26, 27, gage height, 1.51 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3750	585	610	547	e330	e2100	1900	525	272	999	247	236
2	1170	580	1830	536	e370	4470	1770	456	920	2010	253	246
3	2590	582	4990	524	e360	2100	1580	420	408	2690	384	293
4	7360	538	2620	e380	e350	1310	1490	414	350	1210	312	229
5	2520	503	1390	e340	e320	1100	5570	377	250	689	260	e184
6	2090	500	1080	e390	e320	1030	5160	352	208	480	226	e170
7	1210	464	1000	e560	e310	3000	3690	328	209	695	199	e190
8	881	433	1290	599	e280	5760	2200	311	218	765	197	e260
9	728	458	1750	525	e250	4000	1440	294	212	1050	232	e650
10	650	446	3910	498	e220	e1300	1140	286	196	584	518	e600
11	544	426	1660	501	e240	e860	964	285	175	419	318	461
12	489	459	1160	490	e240	e880	983	281	291	374	242	802
13	954	479	e890	477	e220	e780	1280	264	1180	350	207	830
14	1180	451	e740	473	e200	e640	1010	254	626	904	184	534
15	1020	444	839	1740	e190	e600	892	392	334	837	173	365
16	961	567	781	1780	e180	e560	793	324	256	443	167	322
17	861	867	793	e840	e190	e520	732	273	209	327	162	306
18	709	697	987	e720	e200	e520	671	255	171	277	305	723
19	587	594	1110	e630	e210	e500	609	269	174	245	216	925
20	531	502	875	e540	e200	e550	557	249	166	248	204	868
21	486	547	749	e540	e200	e600	515	237	183	313	183	649
22	447	499	647	e420	e240	701	470	226	470	226	177	506
23	435	542	579	e360	e260	753	453	237	869	203	188	418
24	464	1130	577	e230	e240	930	518	225	378	202	166	364
25	420	897	2320	e220	e220	1150	535	216	255	199	153	345
26	421	1800	1450	e200	e230	2970	448	218	235	2950	147	298
27	507	2770	993	e200	e260	1710	413	256	382	1230	629	272
28	1230	1280	819	e190	e270	1290	1050	210	337	530	707	255
29	852	933	700	e210	---	1020	906	196	298	351	654	258
30	1010	762	634	e240	---	1100	638	184	560	344	423	915
31	745	---	588	e280	---	2820	---	206	---	294	293	---
TOTAL	37802	21735	40361	16180	7100	47624	40377	9020	10792	22438	8726	13474
MEAN	1219	724	1302	522	254	1536	1346	291	360	724	281	449
MAX	7360	2770	4990	1780	370	5760	5570	525	1180	2950	707	925
MIN	420	426	577	190	180	500	413	184	166	199	147	170
CFSM	2.80	1.66	2.99	1.20	.58	3.52	3.09	.67	.83	1.66	.65	1.03
IN.	3.23	1.85	3.44	1.38	.61	4.06	3.45	.77	.92	1.91	.74	1.15

CAL YR	1986	TOTAL	343531	MEAN	941	MAX	8000	MIN	173	CFSM	2.16	IN. 29.3
WTR YR	1987	TOTAL	275629	MEAN	755	MAX	7360	MIN	147	CFSM	1.73	IN. 23.5

e Estimated

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), 1983–87 (b).
MINOR ELEMENTS DATA: 1972–74 (a), 1975 (b), 1976–77 (c), 1978–87 (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), 1983–87 (b).
BIOLOGICAL DATA:
Bacterial--1978–80 (d), 1981–82 (c), 1983–87 (b).
Phytoplankton--1978 (b), 1979–80 (c), 1981 (b).
SEDIMENT DATA: 1964 (b), 1978–82 (c), 1983–87 (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, 29.0°C Aug. 19, 1978; minimum daily, 0.0°C on many days during winter periods.

COOPERATION.--Water-quality analyses identified by an (*) were collected by personnel of the New York State Department of Environmental Conservation.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT											
30	1000	1110	286	8.24	10.5	140	753	10.6	96	150	K34
MAR											
11	1100	826	270	7.78	0.0	5.2	763	13.6	93	420	--
APR											
* 16	1030	792	--	8.20	9.5	--	--	14.8	--	--	--
* 30	1115	629	--	8.30	6.0	--	--	11.4	--	--	--
MAY											
* 19	1045	269	410	8.25	15.0	--	--	--	--	--	--
JUN											
* 23	1055	986	--	8.20	11.0	--	--	8.8	--	--	--
23	1100	986	315	8.04	20.5	100	741	8.8	101	50000	18000
JUL											
* 20	1830	272	--	8.40	32.0	--	--	10.3	--	--	--
AUG											
19	1000	204	394	8.38	21.5	17	744	8.9	103	K1600	150
SEP											
* 29	0915	234	--	8.10	22.0	--	--	--	--	--	--

DATE	SOLIDS, RESIDUE AT 105 DEG. ° C TOTAL (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/LAS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
OCT										
30	--	140	25	42	7.3	6.9	1.9	99	24	10
MAR										
11	--	230	140	68	14	39	2.6	84	59	78
APR										
16	212	130	--	42	6.7	--	--	--	--	--
30	187	120	--	37	6.1	--	--	--	--	--
MAY										
19	241	180	--	55	9.2	--	--	--	--	--
JUN										
23	606	--	--	--	--	--	--	--	--	--
23	--	130	3	42	7.2	9.3	2.1	132	27	13
JUL										
20	234	190	--	47	8.9	--	--	--	--	--
AUG										
19	--	180	88	56	9.3	15	2.6	90	29	20
SEP										
29	223	170	--	54	9.5	--	--	--	--	--

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 1986 TO SEPTEMBER 1987

DATE	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)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT										
30	< 0.1	4.6	180	190	0.66	0.03	0.03	< 0.01	0.5	0.04
MAR										
11	0.1	2.7	349	310	1.40	0.14	0.16	0.01	0.8	0.02
APR										
16	--	--	--	--	--	--	--	--	--	--
30	--	--	--	--	--	--	--	--	--	--
MAY										
19	--	--	--	--	--	--	--	--	--	--
JU N										
23	--	--	--	--	0.99	0.10	0.15	0.02	1.6	0.19
23	0.2	4.7	179	190	0.91	0.09	0.14	0.01	1.5	0.16
JUL										
20	--	--	--	--	--	--	--	--	--	--
AUG										
19	0.2	4.1	222	190	0.76	0.23	0.24	< 0.01	0.8	0.03
SEP										
29	--	--	--	--	--	--	--	--	--	--

DATE	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIIS-SOLVED (UG/L AS CD)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT DIS-SOLVED (UG/L AS CO)
OCT										
30	< 0.01	< 0.01	20	1	45	< 0.5	1	--	< 1	< 3
MAR										
11	0.01	< 0.01	50	< 1	39	< 0.5	< 1	--	< 1	< 3
APR										
16	--	--	--	--	--	--	--	< 10	--	--
30	--	--	--	--	--	--	--	< 10	--	--
MAY										
19	--	--	--	--	--	--	--	< 10	--	--
JUN										
23	0.04	0.02	--	--	--	--	--	< 10	--	--
23	0.02	< 0.01	30	< 1	49	< 0.5	< 1	< 10	< 1	< 3
JUL										
20	--	--	--	--	--	--	--	< 10	--	--
AUG										
19	< 0.01	< 0.01	20	< 1	73	< 0.5	6	--	< 5	< 3
SEP										
29	--	--	--	--	--	--	< 1	< 10	--	--

DATE	COPPER, DIS-SOLVED (UG/L AS CU)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LITHIUM, DIS-SOLVED (UG/L AS LI)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)
OCT										
30	2	--	--	27	< 5	--	7	--	6	0.3
MAR										
11	3	--	--	21	10	--	12	--	21	0.9
APR										
16	--	< 10	1400	--	--	< 100	--	20	--	--
30	--	< 10	640	--	--	< 5	--	-	--	--
MAY										
19	--	< 10	489	--	--	< 5	--	20	--	--
JUN										
23	--	20	7900	--	--	--	--	270	--	--
23	3	30	8500	20	5	< 5	6	270	2	0.4
JUL										
20	--	20	660	--	--	< 5	--	40	--	--
AUG										
19	2	--	--	6	< 5	--	< 4	--	4	< 0.1
SEP										
29	1	10	240	--	< 5	< 100	--	10	--	--

04213500 - CATTARAUGUS CREEK AT GOWANDA, NY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
OCT										
30.....	--	< 10	< 1	--	< 1	< 1	75	< 6	4	--
MAR										
11.....	--	< 10	2	--	< 1	< 1	580	< 6	5	--
APR										
16.....	< 0.10	--	--	< 100	--	--	--	--	--	< 10
30.....	0.10	--	--	< 1	--	--	--	--	--	< 10
MAY										
19.....	< 0.10	--	--	< 1	--	--	--	--	--	< 10
JUN										
23.....	< 0.10	--	--	--	--	--	--	--	--	40
23.....	--	< 10	< 1	11	< 1	1	76	< 6	4	40
JUL										
20.....	0.20	--	--	< 1	--	--	--	--	--	< 10
AUG										
19.....	--	< 10	< 10	--	< 1	< 1	97	< 6	7	--
SEP										
29.....	< 0.10	--	< 1	< 100	--	--	--	--	--	< 10

DATE	TIME	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK)	DEPTH AT SAMPLE LOC-ATION, TOTAL (FEET)	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
OCT								
30.....	1005	20	3.2	1.5	286	8.24	10.5	10.7
30.....	1010	40	2.8	1.5	286	8.26	10.5	10.4
30.....	1015	60	2.5	1.5	284	8.25	10.5	10.5
30.....	1020	80	3.6	1.5	285	8.28	10.5	10.6
30.....	1025	100	3.4	1.5	284	8.22	10.5	10.6
MAR								
11.....	1105	20	2.0	1.0	270	7.78	0.0	13.6
11.....	1110	40	1.9	1.0	266	7.81	0.0	13.8
11.....	1115	60	1.7	1.0	268	7.72	0.0	14.0
11.....	1120	80	1.8	1.0	270	7.75	0.0	13.9
11.....	1125	100	1.9	1.0	270	7.76	0.0	13.8
11.....	1130	120	1.7	1.0	272	7.78	0.0	13.8
JUN								
23.....	1105	20	1.5	1.0	313	8.00	20.5	8.7
23.....	1115	40	2.2	1.0	315	8.03	20.5	8.8
23.....	1120	60	2.6	1.0	317	8.00	20.5	8.8
23.....	1125	80	2.4	1.0	315	8.01	20.5	8.7
23.....	1130	100	2.0	1.0	313	8.06	20.5	8.6
AUG								
19.....	1005	20	1.0	1.0	394	8.38	21.5	8.9
19.....	1010	40	0.8	1.0	392	8.36	21.0	8.9
19.....	1015	60	1.2	1.0	394	8.32	21.5	8.7
19.....	1020	80	1.4	1.0	395	8.36	21.5	8.8
19.....	1025	100	1.0	1.0	394	8.37	21.5	8.8
19.....	1030	120	1.4	1.0	395	8.35	21.5	8.7

04213500 - CATTARAUGUS CREEK AT GOWANDA, NY--Continued

CHEMICAL QUALITY OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	SOLIDS, VOLATILE IN BOTTOM MATERIAL (MG/KG)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)
JUL										
20.....	40100	< 1	110	10	10	380	< 10	50	8400	< 0.10

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
30.....	1000	1110	45	135	99
MAR					
11.....	1100	826	72	161	96
JUN					
23.....	1100	986	385	1020	98
AUG					
19.....	1000	204	33	18	97

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 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 elevation, 582.46 ft Feb. 25, 1985; minimum, 570.17 ft Jan. 19, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 580.00 ft Mar. 2; minimum, 570.17 ft Jan. 19.

ELEVATION (FEET IGLD), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	573.16	573.14	571.79	572.81	572.78	572.73	572.66	572.76	572.68	572.55	572.23	572.48
2	573.02	573.04	572.58	572.84	572.91	575.57	573.28	572.69	572.60	572.52	572.44	572.17
3	573.28	573.24	574.37	573.19	572.96	573.51	572.64	572.52	572.71	572.85	572.60	571.96
4	573.81	572.97	574.58	572.88	573.02	572.89	571.91	572.48	572.80	572.77	572.56	571.91
5	573.78	572.69	573.37	572.86	572.89	572.41	572.90	572.65	572.71	572.58	572.17	572.01
6	573.81	572.96	573.39	572.93	572.91	572.49	573.18	572.76	572.52	572.65	572.23	572.03
7	573.44	572.83	573.37	573.41	572.78	572.70	573.11	572.74	572.76	572.71	572.37	572.02
8	573.49	572.87	572.47	573.29	573.22	573.09	572.92	572.71	572.98	572.77	572.30	572.01
9	572.99	574.08	573.17	573.01	572.67	572.59	572.88	572.80	572.74	572.78	572.34	572.24
10	572.62	572.98	574.27	572.91	572.98	571.99	572.84	572.76	572.62	572.77	572.38	571.90
11	572.97	572.93	573.36	573.59	572.62	572.11	572.77	572.70	572.46	572.74	572.00	571.94
12	573.07	573.34	573.64	573.78	572.69	572.52	572.75	572.66	572.79	572.73	572.05	572.00
13	573.12	573.37	573.17	573.06	572.64	572.46	572.83	572.47	572.68	572.73	572.21	572.12
14	574.05	573.14	573.56	573.04	572.21	572.33	572.64	572.59	572.67	572.92	572.27	572.04
15	573.65	573.20	573.16	573.14	572.33	572.05	572.70	572.69	572.59	572.66	572.29	572.00
16	573.25	573.01	572.95	572.93	571.85	572.18	572.65	572.61	572.58	572.53	572.29	571.96
17	572.93	572.99	572.86	572.58	571.76	572.45	572.71	572.67	572.32	572.61	572.42	571.91
18	572.98	572.12	573.48	572.92	572.28	572.27	572.79	572.47	572.40	572.68	572.36	571.95
19	573.05	572.57	573.39	572.15	572.43	572.25	572.76	572.20	572.43	572.66	572.36	572.03
20	573.19	572.39	573.03	573.16	572.42	572.40	572.77	572.46	572.38	572.94	572.24	572.03
21	573.20	572.92	572.96	573.45	572.38	572.30	572.79	572.52	572.36	572.77	572.24	572.14
22	573.11	572.71	573.29	572.80	572.37	572.36	572.39	572.62	572.62	572.62	572.49	572.08
23	573.15	572.75	573.18	573.26	572.48	572.24	572.68	572.70	572.58	572.60	572.38	572.49
24	572.75	573.22	572.39	572.33	572.39	572.15	572.52	572.56	572.57	572.64	572.24	572.18
25	572.76	572.74	573.41	572.50	572.34	572.21	572.51	572.46	572.55	572.65	572.23	572.06
26	572.93	572.66	573.13	572.58	572.25	572.69	572.60	572.49	572.80	572.88	571.89	572.26
27	573.25	573.17	573.02	572.69	572.07	572.36	572.76	572.55	572.85	572.56	572.01	571.94
28	573.23	573.13	573.17	572.93	572.10	572.37	572.97	572.59	572.93	572.49	571.81	571.90
29	573.33	573.01	572.97	572.60	---	572.25	572.97	572.60	572.78	572.40	572.18	572.03
30	573.00	572.23	572.91	573.19	---	572.42	573.04	572.61	572.83	572.53	572.17	572.26
31	572.84	---	572.91	573.05	---	572.95	---	572.64	---	572.24	572.49	---
MEAN	573.20	572.95	573.20	572.96	572.53	572.56	572.76	572.60	572.64	572.66	572.26	572.07
MAX	574.05	574.08	574.58	573.78	573.22	575.57	573.28	572.80	572.98	572.94	572.60	572.49
MIN	572.62	572.12	571.79	572.15	571.76	571.99	571.91	572.20	572.32	572.24	571.81	571.90

CAL YR	1986	MEAN	573.08	MAX	575.23	MIN	571.79
WTR YR	1987	MEAN	572.69	MAX	575.57	MIN	571.76

04214240 EIGHTEENMILE CREEK AT HIGHLAND-ON-THE-LAKE, NY

LOCATION.--Lat 42°42'44", long 78°58'00", Erie County, Hydrologic Unit 04120103, at bridge on Lake Shore Road 0.5 mi north of Highland-on-the-Lake and 0.5 mi upstream of mouth.

DRAINAGE AREA.--119 mi^2.

PERIOD OF RECORD.--April to September 1987.
CHEMICAL DATA: 1987 (c).
MINOR ELEMENT DATA: 1987 (c).
SEDIMENT DATA: 1987 (c).

COOPERATION.--Water-quality samples were collected by personnel of the New York State Department of Environmental Conservation, but were analyzed by the USGS Central Laboratory in Denver, Colorado.

WATER QUALITY DATA, APRIL TO SEPTEMBER 1987

DATE	TIME	SPECIFIC CONDUCTANCE LAB (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG °C)	OXYGEN, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. °C, TOTAL (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	CADMIUM DISSOLVED (UG/L AS CD)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
APR												
16	1330	--	8.6	10.5	15.4	199	120	0	37	6.6	--	< 10
27	1400	--	8.3	17.0	10.0	239	150	0	48	8.4	--	< 10
MAY												
19	1700	512	8.4	21.0	--	299	190	0	59	11	--	< 10
JUN												
24	0830	--	7.6	19.0	--	316	160	0	50	8.3	--	< 10
JUL												
21	1300	--	8.4	31.0	8.8	253	150	0	43	9.3	1	< 10
SEP												
28	1310	418	8.3	22.0	--	247	--	--	--	--	--	< 10

DATE	COPPER, DISSOLVED (UG/L AS CU)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, DISSOLVED (UG/L AS NI)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	ZINC, DISSOLVED (UG/L AS ZN)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	SEDIMENT, SUSPENDED (MG/L)
APR												
16	--	< 10	80	--	< 100	< 10	< 0.10	--	< 100	--	< 10	10
27	--	< 10	100	--	9	< 10	0.10	--	< 1	--	< 10	3
MAY												
19	--	10	90	--	< 5	10	< 0.10	--	< 1	--	< 10	--
JUN												
24	--	< 10	730	--	13	40	< 0.10	--	< 1	--	10	22
JUL												
21	4	20	200	< 5	< 5	10	0.20	4	< 1	10	< 10	--
SEP												
28	--	< 10	360	--	< 100	20	< 0.10	--	< 100	--	< 10	--

CHEMICAL QUALITY OF BOTTOM MATERIAL, APRIL TO SEPTEMBER 1987

DATE	TIME	SOLIDS, VOLATILE IN BOTTOM MATERIAL (MG/KG)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)
JUL											
21	1300	111000	1	170	30	40	720	20	110	20000	< 0.10

04214500 BUFFALO CREEK AT GARDENVILLE, NY

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

DRAINAGE AREA.--142 mi^2.

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

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

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

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

AVERAGE DISCHARGE.--49 years, 202 ft^3/s, 19.32 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,300 ft^3/s Mar. 1, 1955, Mar. 7, 1956, from rating curve extended above 3,200 ft^3/s on basis of slope-area measurement at gage height 7.07 ft; maximum gage height, 14.34 ft Mar. 21, 1978 (ice jam); minimum discharge, 0.2 ft^3/s Sept. 1, 1964; minimum gage height, 0.58 ft Aug. 22, 23, 1985.

EXTREMES 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)
Dec. 10	0330	4,910	6.32	Apr. 5	0500	4,050	5.75
Mar. 7	2400	4,310	5.92	June 22	1930	*6,510	*7.18

Minimum discharge, 20 ft^3/s June 20-21, 22, gage height, 0.73 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	577	128	e100	157	e94	e1000	628	117	22	423	61	36
2	193	166	e540	e130	e92	e2100	750	96	37	262	55	43
3	321	172	2410	e120	e90	704	619	87	70	540	372	54
4	1860	151	994	e110	e88	385	641	78	46	278	124	41
5	652	130	454	e120	e88	e290	2590	71	36	142	94	31
6	509	104	394	e140	e86	e300	1610	67	27	92	69	26
7	248	95	399	203	e86	1470	1040	64	26	662	53	24
8	135	86	717	272	e84	2230	487	58	36	186	45	59
9	100	141	1080	218	e82	1040	312	54	38	148	88	536
10	103	125	2840	183	e80	e240	230	51	31	97	255	156
11	77	89	e700	180	e80	e170	187	47	26	74	106	86
12	66	110	e390	e170	e78	e160	213	44	32	61	62	120
13	1040	e100	e270	e170	e76	e150	334	40	768	52	46	432
14	808	e90	e230	e200	e76	e130	215	39	185	92	39	122
15	1420	e100	253	e1100	e76	e120	165	78	76	237	34	70
16	420	163	243	768	e74	e110	152	73	46	91	30	58
17	378	383	276	e260	e74	e110	140	50	35	61	27	156
18	243	235	719	e200	e74	e110	131	44	29	49	31	378
19	163	143	656	e170	e72	e120	116	49	25	42	35	304
20	126	103	343	e150	e70	e130	105	46	22	558	36	349
21	110	116	269	e140	e70	e140	97	41	21	220	34	284
22	99	108	206	e130	e68	e150	88	37	1570	80	29	211
23	114	134	178	e120	e68	156	87	35	1130	54	34	638
24	165	421	193	e120	e66	182	109	40	181	44	33	188
25	111	230	1290	e110	e64	191	118	34	90	40	26	151
26	101	882	598	e110	e64	598	89	33	142	724	23	99
27	181	1300	317	e110	e62	369	81	32	268	293	52	79
28	718	383	246	e100	e62	333	267	30	152	98	102	67
29	291	239	209	e100	---	226	344	27	178	64	101	67
30	294	173	182	e98	---	198	167	25	666	53	79	469
31	184	---	173	e96	---	1100	---	23	---	81	46	---
TOTAL	11807	6800	17869	6255	2144	14712	12112	1610	6011	5898	2221	5334
MEAN	381	227	576	202	76.6	475	404	51.9	200	190	71.6	178
MAX	1860	1300	2840	1100	94	2230	2590	117	1570	724	372	638
MIN	66	86	100	96	62	110	81	23	21	40	23	24
CFSM	2.68	1.60	4.06	1.42	.54	3.34	2.84	.37	1.41	1.34	.50	1.25
IN.	3.09	1.78	4.68	1.64	.56	3.85	3.17	.42	1.57	1.55	.58	1.40

CAL YR	1986	TOTAL	94582	MEAN	259	MAX	3890	MIN	10	CFSM	1.82	IN. 24.8
WTR YR	1987	TOTAL	92773	MEAN	254	MAX	2840	MIN	21	CFSM	1.79	IN. 24.3

e Estimated

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 mi southeast of Lancaster, and 8.7 mi upstream from mouth.

DRAINAGE AREA.--96.4 mi^2.

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

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

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

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

AVERAGE DISCHARGE.--43 years (water years 1939–68, 1975–87) 132 ft^3/s, 18.60 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,440 ft^3/s Sept. 14, 1979, gage height, 10.48 ft; maximum gage height, 12.58 ft Mar. 30, 1960 (ice jam); practically no flow part of Aug. 8, 9, 1939, when stoplogs were installed in the dam.

EXTREMES 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)
Oct. 4	0200	3,280	7.08	Apr. 5	0445	4,360	7.70
Dec. 10	0130	3,450	7.18	June 22	2045	*7,340	*9.34

Minimum discharge, 5.9 ft^3/s Aug. 26, gage height, 2.73 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	245	88	90	e100	e60	e1000	452	93	10	210	16	11
2	100	142	706	e92	e60	1740	589	67	23	193	16	13
3	237	143	1430	e78	e58	e450	468	53	30	213	44	16
4	1370	137	524	e62	e58	e250	630	47	21	134	28	12
5	464	110	265	e60	e56	e200	2270	42	15	77	26	9.4
6	301	82	236	e70	e56	e260	1390	37	12	49	20	8.2
7	158	69	240	135	e54	e1100	894	34	11	130	15	7.4
8	91	64	426	177	e52	1310	332	29	12	60	12	14
9	70	88	772	137	e52	545	227	28	14	41	53	125
10	71	86	1890	e110	e50	173	180	25	13	33	157	51
11	52	64	449	e110	e49	e130	152	23	11	27	46	38
12	42	97	265	e120	e48	e110	181	21	14	22	24	65
13	708	88	192	e110	e47	e100	280	20	554	20	16	253
14	485	63	180	146	e46	e92	178	18	100	43	12	57
15	956	74	179	e960	e45	e84	140	44	36	90	10	24
16	255	124	173	471	e43	e78	128	37	20	35	8.7	17
17	251	238	191	e180	e42	e74	114	24	14	23	7.6	54
18	175	162	579	e140	e41	e70	99	20	11	18	8.4	142
19	127	111	464	e110	e41	e70	81	26	9.7	14	8.5	97
20	97	76	242	e100	e41	e86	69	24	8.5	430	7.8	118
21	80	91	193	e110	e40	102	59	20	8.4	132	7.6	140
22	70	89	151	e98	e40	107	51	17	1830	45	6.9	132
23	75	128	129	e82	e40	107	50	15	1220	26	9.1	289
24	140	259	136	e70	e40	122	89	14	167	19	9.4	86
25	85	154	965	e68	e38	128	93	13	78	16	7.0	61
26	76	625	403	e66	e37	340	55	14	196	23	6.1	33
27	147	821	226	e66	e36	246	46	14	228	34	9.6	27
28	401	243	182	e64	e36	204	261	12	156	17	21	18
29	176	174	157	e62	---	155	331	11	192	13	21	19
30	185	139	133	e62	---	137	147	10	520	17	21	302
31	125	---	123	e60	---	723	---	9.7	---	33	13	---
TOTAL	7815	4829	12291	4276	1306	10293	10036	861.7	5534.6	2237	667.7	2239.0
MEAN	252	161	396	138	46.6	332	335	27.8	184	72.2	21.5	74.6
MAX	1370	821	1890	960	60	1740	2270	93	1830	430	157	302
MIN	42	63	90	60	36	70	46	9.7	8.4	13	6.1	7.4
CFSM	2.62	1.67	4.11	1.43	.48	3.44	3.47	.29	1.91	.75	.22	.77
IN.	3.02	1.86	4.74	1.65	.50	3.97	3.87	.33	2.14	.86	.26	.86

CAL YR	1986	TOTAL	65754.0	MEAN	180	MAX	2600	MIN	4.9	CFSM	1.87	IN. 25.4
WTR YR	1987	TOTAL	62385.9	MEAN	171	MAX	2270	MIN	6.1	CFSM	1.77	IN. 24.1

e Estimated

04215500 CAZENOVIA CREEK AT EBENEZER, NY

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

DRAINAGE AREA.--135 mi^2.

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

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

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

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

AVERAGE DISCHARGE.--47 years (water years 1941–87), 232 ft^3/s, 23.34 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,500 ft^3/s Mar. 1, 1955, gage height, 15.82 ft present datum, from rating curve extended above 7,700 ft^3/s; minimum, 2.6 ft^3/s Nov. 7, 1953; minimum gage height, 1.87 ft June 28.

EXTREMES 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)
Oct. 4	0315	5,100	8.80	July 26	1330	*6,590	*9.95
Dec. 10	0115	4,800	8.55				

Minimum discharge, 17 ft^3/s June 22, gage height 2.18 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	679	e100	e120	e120	e94	e600	610	105	26	348	51	42
2	129	e150	e900	e110	e92	e2000	716	91	56	283	66	52
3	377	e150	e2000	e110	e90	861	546	80	63	370	161	66
4	2270	e140	955	e100	e90	419	600	73	46	184	72	49
5	587	e130	424	e100	e88	314	2030	66	38	111	70	37
6	561	e90	323	e130	e86	331	1870	61	30	82	53	32
7	207	e72	327	e220	e84	1370	1300	56	34	268	46	29
8	122	e74	604	210	e82	2280	589	52	37	134	41	90
9	101	e90	1090	156	e80	1170	331	48	35	136	92	520
10	98	e88	2590	141	e80	e250	237	46	28	85	161	149
11	77	e70	644	147	e78	e200	191	44	26	67	79	98
12	68	e100	374	132	e76	e170	224	42	33	58	58	172
13	950	e90	260	140	e74	e140	325	39	460	54	47	317
14	687	e68	209	181	e72	e130	202	37	104	163	40	117
15	1550	e80	213	1060	e70	e120	163	70	55	152	35	77
16	381	e150	203	629	e70	e110	153	57	39	78	32	65
17	323	e300	228	e210	e70	e110	143	43	30	59	29	455
18	190	e180	670	e170	e68	e120	132	42	25	51	36	495
19	139	e130	568	e150	e66	e130	117	44	23	45	31	272
20	114	e84	302	e140	e66	e150	108	39	21	133	37	340
21	101	e94	236	e120	e64	e180	102	35	20	70	33	241
22	92	e92	184	e120	e62	e190	94	33	695	48	32	204
23	101	e170	157	e120	e62	229	93	35	449	42	35	187
24	118	e300	170	e110	e60	309	112	37	117	38	31	124
25	94	e210	1290	e110	e60	358	112	33	74	46	26	102
26	92	e700	550	e110	e58	940	90	32	100	2190	23	82
27	160	e1000	285	e100	e56	523	87	33	174	380	72	70
28	e450	e350	215	e100	e56	430	292	32	109	134	95	63
29	e180	e200	e170	e100	---	261	229	30	109	87	98	83
30	e190	e150	e150	e98	---	274	136	29	539	69	76	608
31	e140	---	e140	e96	---	1150	---	27	---	58	53	---
TOTAL	11328	5602	16551	5540	2054	15819	11934	1491	3595	6023	1811	5238
MEAN	365	187	534	179	73.4	510	398	48.1	120	194	58.4	175
MAX	2270	1000	2590	1060	94	2280	2030	105	695	2190	161	608
MIN	68	68	120	96	56	110	87	27	20	38	23	29
CFSM	2.71	1.38	3.95	1.32	.54	3.78	2.95	.36	.89	1.44	.43	1.29
IN.	3.12	1.54	4.56	1.53	.57	4.36	3.29	.41	.99	1.66	.50	1.44

CAL YR	1986	TOTAL	103555	MEAN	284	MAX	5000	MIN	13	CFSM	2.10	IN. 28.5
WTR YR	1987	TOTAL	86986	MEAN	238	MAX	2590	MIN	20	CFSM	1.77	IN. 24.0

e Estimated

04215790 BUFFALO RIVER AT OHIO STREET AT BUFFALO, NY

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

DRAINAGE AREA.--427 mi^2

PERIOD OF RECORD.--April to September 1987.
CHEMICAL DATA: 1987 (c).
MINOR ELEMENT DATA: 1987 (c).
SEDIMENT DATA: 1987 (c).

COOPERATION.--Water-quality samples were collected by personnel of the New York State Department of Environmental Conservation, but were analyzed by the USGS Central Laboratory at Denver Colorado.

WATER QUALITY DATA, APRIL TO SEPTEMBER 1987

DATE	TIME	SPECIFIC CONDUCTANCE LAB (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	CADMIUM DISSOLVED (UG/L AS CD)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
APR											
16	1445	--	8.2	12.0	287	140	0	43	7.6	--	< 10
27	1245	--	7.7	14.0	272	150	0	44	9.0	--	< 10
MAY											
19	1200	443	7.5	16.0	258	170	0	50	9.8	--	< 10
JUN											
25	1130	--	7.7	23.0	212	--	--	--	--	--	< 10
JUL											
27	0830	--	7.7	23.5	347	100	0	32	5.4	1	< 10
SEP											
28	1200	338	8.0	22.0	232	--	--	--	--	--	< 10

DATE	COPPER, DISSOLVED (UG/L AS CU)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, DISSOLVED (UG/L AS NI)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	ZINC, DISSOLVED (UG/L AS ZN)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	SEDIMENT, SUSPENDED (MG/L)
APR												
16	--	< 10	2700	--	< 100	110	< 0.10	--	< 100	--	20	48
27	--	10	1400	--	28	110	0.10	--	2	--	< 10	54
MAY												
19	--	10	1600	--	9	110	< 0.10	--	--	--	40	65
JUN												
25	--	10	1500	--	--	70	< 0.10	--	--	--	30	52
JUL												
27	4	20	1100	< 5	< 5	100	0.10	< 1	3	< 10	< 10	202
SEP												
28	--	< 10	1100	--	< 100	50	< 0.10	--	< 100	--	10	--

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 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, 580.65 ft Dec. 2, 1985; minimum, 564.17 ft Mar. 10, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 576.41 ft Dec. 4; minimum elevation, 569.82 ft Jan. 19.

ELEVATION (FEET IGLD), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	572.87	573.32	571.79	572.89	572.87	572.62	572.66	572.94	572.78	572.60	572.31	572.60
2	573.05	573.16	572.54	572.93	573.01	573.68	573.56	572.79	572.75	572.57	572.69	572.25
3	573.41	573.54	574.43	573.30	573.07	572.81	572.62	572.55	572.79	572.89	572.68	572.00
4	573.09	572.97	574.91	573.01	573.08	572.63	571.53	572.53	572.92	572.86	572.66	571.96
5	573.93	572.83	573.50	573.00	573.03	572.42	572.55	572.79	572.85	572.66	572.19	572.13
6	573.71	573.11	573.67	573.11	573.04	572.57	572.74	572.92	572.62	572.78	572.36	572.10
7	573.65	572.95	573.60	573.56	572.88	572.79	572.91	572.85	572.97	572.87	572.52	572.07
8	573.75	573.02	572.36	573.43	573.25	572.59	572.91	572.85	573.19	572.89	572.35	572.06
9	572.97	574.43	573.27	573.10	572.89	571.79	572.96	572.99	572.80	572.90	572.48	572.27
10	572.70	573.14	574.28	573.05	573.08	571.81	572.94	572.87	572.74	572.90	572.46	571.95
11	573.12	573.09	573.56	573.95	572.65	572.19	572.86	572.83	572.62	572.86	572.00	572.05
12	573.22	573.56	573.82	573.96	572.76	572.68	572.83	572.75	572.98	572.84	572.15	572.05
13	573.26	573.43	573.27	573.24	572.64	572.58	572.88	572.57	572.74	572.87	572.35	572.23
14	574.51	573.50	573.91	573.25	572.22	572.35	572.69	572.76	572.83	572.96	572.39	572.17
15	573.69	573.49	573.31	573.26	572.43	572.08	572.79	572.75	572.66	572.73	572.39	572.09
16	573.38	573.16	573.06	572.91	571.95	572.32	572.71	572.75	572.70	572.63	572.44	572.08
17	572.96	573.21	572.98	572.64	571.76	572.50	572.76	572.79	572.39	572.74	572.59	571.96
18	573.10	572.12	573.74	573.05	572.36	572.31	572.90	572.43	572.52	572.83	572.46	571.98
19	573.22	572.59	573.49	572.10	572.53	572.39	572.84	572.28	572.54	572.80	572.52	572.13
20	573.38	572.56	573.13	573.39	572.52	572.48	572.85	572.58	572.41	573.14	572.31	572.08
21	573.40	572.95	573.08	573.71	572.48	572.45	572.85	572.67	572.50	572.91	572.38	572.24
22	573.27	572.85	573.62	572.96	572.46	572.41	572.34	572.75	572.73	572.73	572.72	572.18
23	573.28	572.96	573.42	574.30	572.58	572.29	572.83	572.85	572.67	572.75	572.42	572.75
24	572.79	573.36	572.40	574.08	572.51	572.23	572.50	572.66	572.70	572.78	572.34	572.22
25	572.89	572.87	573.51	572.93	572.45	572.32	572.54	572.53	572.66	572.79	572.39	572.17
26	573.04	572.71	573.21	572.71	572.33	572.65	572.66	572.61	573.01	572.82	571.94	572.47
27	573.42	573.15	573.14	572.92	572.13	572.36	572.85	572.65	573.03	572.63	572.00	572.06
28	573.38	573.33	573.37	573.04	572.16	572.44	573.15	572.70	573.08	572.56	571.81	572.03
29	573.52	573.15	573.12	572.59	---	572.31	573.13	572.70	573.02	572.52	572.27	572.19
30	573.08	572.15	573.01	573.33	---	572.52	573.15	572.77	572.98	572.64	572.33	572.33
31	573.02	---	573.04	573.10	---	572.90	---	572.72	---	572.23	572.64	---
MEAN	573.29	573.09	573.34	573.19	572.61	572.47	572.78	572.72	572.77	572.76	572.37	572.16
MAX	574.51	574.43	574.91	574.30	573.25	573.68	573.56	572.99	573.19	573.14	572.72	572.75
MIN	572.70	572.12	571.79	572.10	571.76	571.79	571.53	572.28	572.39	572.23	571.81	571.95

CAL YR	1986	MEAN	573.15	MAX	574.91	MIN	571.24
WTR YR	1987	MEAN	572.80	MAX	574.91	MIN	571.53

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.--127 years, 205,500 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 347,000 ft^3/s Dec. 2, 1985, result of high, storm-generated Lake Erie level; minimum daily, 90,000 ft^3/s Jan. 13, 1964, Aug. 29, 1984. Maximum monthly mean discharge, 268,400 ft^3/s June 1986; minimum monthly mean, 116,200 ft^3/s February 1936.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 294,000 ft^3/s Dec. 4; minimum daily, 217,000 ft^3/s Feb. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	247000	254000	218000	251000	250000	238000	251000	253000	247000	239000	234000	240000
2	248000	250000	232000	250000	254000	272000	265000	253000	240000	236000	242000	233000
3	255000	254000	274000	261000	252000	250000	256000	245000	245000	245000	245000	228000
4	253000	249000	294000	253000	253000	246000	226000	240000	244000	247000	242000	225000
5	268000	239000	262000	253000	247000	243000	246000	248000	244000	242000	230000	230000
6	270000	248000	263000	253000	256000	244000	254000	252000	240000	242000	234000	231000
7	263000	244000	258000	263000	253000	250000	258000	250000	244000	243000	238000	230000
8	266000	246000	238000	265000	256000	245000	255000	250000	250000	246000	236000	229000
9	248000	272000	246000	258000	239000	233000	257000	255000	242000	245000	240000	234000
10	239000	254000	275000	254000	255000	225000	253000	251000	237000	246000	236000	226000
11	246000	247000	259000	263000	243000	232000	249000	250000	238000	246000	230000	227000
12	252000	252000	268000	283000	243000	241000	250000	248000	244000	245000	228000	231000
13	255000	258000	254000	262000	238000	241000	252000	241000	242000	244000	234000	234000
14	272000	251000	265000	260000	227000	238000	246000	246000	242000	249000	235000	232000
15	272000	258000	257000	262000	236000	231000	248000	248000	239000	241000	237000	230000
16	258000	252000	246000	255000	228000	233000	247000	247000	239000	240000	238000	228000
17	248000	251000	245000	246000	217000	238000	246000	249000	231000	241000	238000	226000
18	250000	230000	256000	257000	231000	235000	250000	241000	233000	245000	238000	228000
19	252000	233000	269000	232000	241000	235000	249000	234000	233000	244000	239000	230000
20	256000	234000	257000	253000	240000	238000	249000	241000	231000	250000	234000	232000
21	256000	244000	256000	274000	240000	237000	250000	242000	232000	248000	234000	234000
22	253000	242000	262000	252000	240000	238000	238000	247000	241000	243000	243000	231000
23	254000	243000	268000	273000	243000	235000	248000	248000	236000	242000	236000	240000
24	243000	253000	241000	244000	240000	233000	239000	245000	238000	245000	234000	235000
25	242000	245000	265000	220000	238000	234000	243000	242000	236000	245000	235000	231000
26	247000	239000	266000	228000	238000	241000	245000	240000	243000	243000	229000	240000
27	253000	254000	260000	241000	232000	238000	248000	243000	246000	243000	226000	230000
28	255000	256000	264000	248000	236000	238000	256000	242000	248000	240000	223000	227000
29	257000	254000	258000	246000	---	237000	256000	243000	246000	238000	231000	231000
30	249000	235000	256000	257000	---	239000	253000	243000	245000	243000	235000	234000
31	248000	---	254000	257000	---	249000	---	247000	---	234000	242000	---
TOTAL	7875000	7441000	7986000	7874000	6766000	7427000	7483000	7624000	7216000	7540000	7296000	6937000
MEAN	254000	248000	257600	254000	241600	239600	249400	245900	240500	243200	235400	231200
MAX	272000	272000	294000	283000	256000	272000	265000	255000	250000	250000	245000	240000
MIN	239000	230000	218000	220000	217000	225000	226000	234000	231000	234000	223000	225000

CAL YR	1986	TOTAL	91994700	MEAN	252000	MAX	294000	MIN 196000
WTR YR	1987	TOTAL	89464700	MEAN	245100	MAX	294000	MIN 217000

ST. LAWRENCE RIVER MAIN STEM

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 1955.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 578.90 ft Dec. 2, 1985; minimum recorded 568.93 ft Dec. 14, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 576.06 ft Dec. 4; minimum, 569.56 ft Jan. 19.

ELEVATION, (FEET IGLD), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	572.94	573.43	571.88	572.99	572.91	572.70	572.71	572.89	573.08	572.77	572.58	572.66
2	573.16	573.22	572.60	572.98	573.07	573.75	573.58	572.79	572.97	572.72	572.89	572.31
3	573.43	573.57	574.34	573.36	573.13	572.89	572.65	572.55	573.13	573.06	573.03	572.08
4	573.11	573.07	574.86	573.09	573.12	572.73	571.58	572.50	573.24	573.05	572.89	572.04
5	573.87	572.89	573.56	573.09	573.08	572.53	572.58	572.77	573.15	572.87	572.33	572.19
6	573.80	573.20	573.72	573.17	573.09	572.68	572.79	572.91	572.90	572.99	572.48	572.19
7	573.66	573.06	573.65	573.63	572.95	572.87	572.99	572.84	573.24	573.03	572.63	572.16
8	573.80	573.12	572.45	573.48	573.31	572.71	573.00	572.83	573.51	573.12	572.51	572.14
9	573.11	574.44	573.33	573.20	572.93	571.95	573.07	572.97	573.10	573.11	572.57	572.36
10	572.74	573.20	574.30	573.11	573.15	571.95	573.05	572.88	573.03	573.14	572.55	572.03
11	573.20	573.15	573.62	573.90	572.72	572.30	572.96	572.85	572.90	573.14	572.14	572.14
12	573.30	573.61	573.87	574.00	572.81	572.82	572.94	572.76	573.28	573.13	572.26	572.17
13	573.32	573.48	573.33	573.21	572.71	572.71	572.97	572.57	573.05	573.14	572.45	572.32
14	574.36	573.52	573.98	573.22	572.28	572.51	572.79	572.75	573.08	573.24	572.51	---
15	573.83	573.60	573.40	573.25	572.49	572.23	572.89	572.75	572.96	572.98	572.52	---
16	573.44	573.26	573.16	572.92	---	572.44	572.79	572.69	573.00	572.89	572.57	---
17	573.08	573.31	573.06	572.65	---	572.66	572.85	572.76	572.69	573.02	572.71	---
18	573.17	572.24	573.79	573.09	---	572.47	572.99	572.45	572.83	573.13	572.58	572.03
19	573.29	572.70	573.56	572.15	---	572.54	572.97	572.18	572.87	573.08	572.61	572.16
20	573.46	572.64	573.21	573.40	---	572.64	572.98	572.59	572.74	573.39	572.43	572.17
21	573.49	573.05	573.17	573.76	---	572.58	572.98	572.78	572.77	573.19	572.47	572.28
22	573.33	572.95	573.68	573.01	---	572.57	572.46	572.88	573.04	573.03	572.79	572.23
23	573.40	573.05	573.52	574.31	572.58	572.45	572.92	572.96	572.94	573.04	572.58	572.77
24	572.91	573.44	572.50	574.14	572.61	572.38	572.58	572.80	573.00	573.10	572.46	572.30
25	572.97	572.96	573.57	572.97	572.54	572.48	572.61	572.72	572.97	573.08	572.51	572.21
26	573.14	572.80	573.29	572.74	572.46	572.83	572.71	572.82	573.24	573.09	572.09	572.54
27	573.50	573.22	573.22	572.94	572.27	572.52	572.91	572.93	573.28	572.90	572.09	572.11
28	573.46	573.42	573.44	573.07	572.30	572.56	573.07	572.97	573.37	572.84	571.89	572.08
29	573.63	573.24	573.21	572.65	---	572.46	573.06	572.97	573.23	572.77	572.31	572.26
30	573.18	572.27	573.10	573.35	---	572.60	573.11	572.97	573.19	572.90	572.36	572.34
31	573.11	---	573.13	573.13	---	572.92	---	573.05	---	572.53	572.74	---
MEAN	573.36	573.17	573.40	573.22	---	572.59	572.85	572.78	573.06	573.01	572.50	---
MAX	574.36	574.44	574.86	574.31	---	573.75	573.58	573.05	573.51	573.39	573.03	---
MIN	572.74	572.24	571.88	572.15	---	571.95	571.58	572.18	572.69	572.53	571.89	---

04216060 NIAGARA RIVER AT BIRD ISLAND, BUFFALO, NY

LOCATION.--Lat 42°54'53", long 78°54'12", Erie County, Hydrologic Unit 04120104, at Anderson Park dock at foot of Ferry Street on Bird Island, Buffalo, 0.6 mi downstream from head of river.

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 1955.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 572.05 ft Dec. 2, 1985; minimum, 564.71 ft Dec. 14, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 569.67 ft Jan. 12; minimum recorded elevation 564.95 ft, Jan. 19, but may have been lower during period of no gage-height record Nov. 10 to Dec. 2, 1986.

ELEVATION (FEET IGLD), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	567.23	567.20	e566.20	567.20	567.21	566.94	567.12	567.25	567.02	566.89	566.75	566.99
2	567.11	567.13	e567.00	567.27	567.23	568.05	567.64	567.06	567.12	566.81	566.92	566.77
3	567.30	567.40	568.10	567.47	567.32	567.49	567.21	566.87	567.19	567.07	567.45	566.55
4	567.66	567.45	568.73	567.28	567.43	567.18	566.25	566.83	567.16	567.11	567.16	566.48
5	567.69	566.87	567.70	567.24	567.60	566.88	566.78	567.03	567.15	566.93	566.70	566.56
6	568.17	567.06	567.84	567.28	567.37	566.93	567.10	567.12	566.83	566.97	566.82	566.61
7	567.90	566.95	567.52	567.80	567.17	567.09	567.29	567.13	567.05	567.09	566.94	566.56
8	567.55	566.98	567.25	567.60	567.54	567.04	567.29	567.09	567.37	567.19	566.88	566.56
9	567.30	568.14	567.25	567.41	567.32	566.36	567.27	567.17	567.17	567.11	e566.90	566.78
10	566.88	e567.70	568.25	567.29	567.78	566.25	567.23	567.12	567.00	567.13	e566.90	566.57
11	567.08	e567.40	567.67	567.86	567.23	566.60	567.20	567.06	566.79	567.09	e566.70	566.58
12	567.15	e567.50	567.93	568.56	567.13	566.92	567.15	567.07	567.21	567.06	e566.60	566.62
13	567.34	e567.70	567.34	567.66	567.20	567.01	567.28	566.86	566.99	567.13	e566.80	566.71
14	568.17	e567.60	567.79	567.37	567.03	566.88	567.06	566.97	566.96	e567.20	567.03	566.67
15	568.13	e567.80	567.29	567.45	567.01	566.57	567.07	567.14	566.90	e567.00	566.81	566.62
16	567.42	e567.40	567.15	567.23	566.60	566.59	566.94	566.99	566.87	e566.90	566.84	566.58
17	567.03	e567.40	567.06	567.01	566.47	566.93	567.03	567.03	566.62	e567.10	566.98	566.56
18	567.10	e566.80	567.63	567.28	566.86	566.86	567.13	e566.90	566.71	e567.10	566.94	566.59
19	567.17	e566.80	567.51	566.46	567.02	566.76	567.12	e566.70	566.75	e567.20	566.99	566.65
20	567.26	e566.80	567.37	567.63	566.90	566.97	567.12	e566.90	566.97	e567.30	566.80	566.65
21	567.25	e567.30	567.32	568.14	566.87	566.85	567.16	566.91	566.84	e567.30	566.77	566.72
22	567.14	e567.20	567.70	567.26	566.85	566.90	566.68	566.99	567.08	e567.20	567.20	566.66
23	567.25	e567.20	567.76	568.20	566.94	566.72	e567.10	567.08	566.97	567.05	566.93	567.09
24	566.84	e567.60	566.84	568.52	566.86	566.62	e566.90	566.94	566.92	567.09	566.77	566.84
25	566.81	e567.30	567.81	567.69	566.82	566.65	e567.00	566.84	566.94	567.08	566.80	566.67
26	567.02	e567.00	567.44	567.31	566.72	567.09	e567.00	566.85	567.19	567.25	566.53	566.90
27	567.27	e567.30	567.36	567.71	566.50	566.88	e567.20	566.94	567.40	567.00	566.62	566.48
28	567.52	e567.60	567.51	567.68	566.53	566.85	567.45	566.91	567.40	566.93	566.50	566.48
29	567.50	e567.50	567.33	567.11	---	566.75	567.55	566.95	567.14	566.88	566.70	566.62
30	567.14	e567.00	567.31	567.36	---	566.95	567.53	566.94	567.29	567.03	566.75	566.90
31	567.00	---	567.29	567.43	---	567.33	---	567.10	---	566.67	567.10	---
MEAN	567.33	567.30	567.49	567.51	567.05	567.40	567.13	566.99	567.03	567.06	566.86	566.67
MAX	568.17	568.14	568.73	568.56	567.78	568.05	567.64	567.25	567.40	567.30	567.45	567.09
MIN	566.81	566.80	566.20	566.46	566.47	566.25	566.25	566.70	566.62	566.67	566.50	566.48

CAL YR	1986	MEAN	567.42	MAX	568.73	MIN	566.01
WTR YR	1987	MEAN	567.10	MAX	568.73	MIN	566.20

e Estimated

04216200 SCAJAQUADA CREEK AT BUFFALO, NY

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

DRAINAGE AREA.--15.4 mi^2.

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

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

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

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

AVERAGE DISCHARGE.--30 years, 33.3 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,820 ft^3/s June 22, 1987, gage height, 15.17 ft; minimum, 0.94 ft^3/s Aug. 24, 1987, gage height, 1.34 ft.

EXTREMES 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)
Oct. 1	0015	1,130	7.77	Dec. 9	2030	759	5.94
Oct. 3	2300	1,680	10.33	June 13	0230	813	6.22
Dec. 2	1600	734	5.81	June 22	1630	*2,820	*15.17

Minimum discharge, 0.94 ft^3/s Aug. 24, gage height, 1.34 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	187	3.9	5.8	3.9	5.8	356	72	6.4	2.2	6.0	1.9	2.1
2	12	48	326	4.1	9.0	191	180	2.9	3.5	33	57	9.8
3	184	14	203	e5.6	14	32	49	2.6	9.2	12	14	2.7
4	298	37	32	e4.0	12	16	74	2.3	2.8	4.5	3.4	1.7
5	55	13	8.6	3.5	e8.0	17	156	3.3	2.0	2.9	3.0	1.5
6	53	7.4	5.6	e4.0	e7.0	27	61	2.5	1.6	2.5	2.0	1.6
7	12	6.4	87	22	e9.0	37	46	2.3	2.5	2.5	1.9	1.6
8	7.2	4.5	41	e11	13	25	14	2.1	11	2.4	1.6	114
9	9.9	7.3	210	e8.0	e12	14	11	1.8	3.4	2.1	100	64
10	5.3	8.1	109	e8.0	e8.0	8.9	6.5	1.8	1.8	2.1	13	6.0
11	3.9	15	15	11	e7.6	4.5	4.7	2.1	1.6	1.9	3.9	3.8
12	3.4	8.5	9.1	9.9	e7.0	4.1	60	2.3	19	1.7	2.5	37
13	174	8.2	e5.4	10	e5.4	3.8	24	3.2	141	2.7	2.2	16
14	63	5.6	e4.2	52	e3.5	3.4	9.5	3.1	5.5	33	1.9	5.1
15	36	6.2	5.0	141	e2.5	3.2	6.6	49	2.8	5.5	2.2	3.1
16	13	35	5.5	24	e2.4	3.0	12	3.7	2.2	2.4	2.0	2.9
17	12	29	6.0	e8.0	e2.2	3.0	6.1	2.6	2.0	1.8	1.5	5.7
18	8.0	12	39	e7.0	e2.2	3.0	4.2	11	1.8	1.5	2.9	79
19	6.0	8.9	25	e5.0	e2.3	3.0	3.4	5.0	1.7	1.5	1.8	19
20	5.0	6.4	11	e8.0	e2.5	2.9	3.0	2.9	1.7	34	1.7	28
21	4.2	9.8	7.6	e6.0	e3.0	2.8	2.8	2.5	1.8	3.2	1.4	7.4
22	3.7	9.8	6.6	e4.5	e3.4	2.8	2.5	3.0	890	2.3	1.6	21
23	3.9	14	5.6	e4.0	e3.8	2.7	5.0	2.0	130	2.1	1.5	14
24	3.8	16	48	e3.0	e4.2	2.8	8.6	1.8	13	2.0	1.1	6.6
25	3.1	9.0	162	e3.0	e4.6	8.3	3.3	1.7	5.9	2.0	1.2	3.8
26	6.7	225	23	e2.9	e5.2	42	2.4	2.2	50	16	1.6	2.6
27	6.2	104	13	2.9	e6.0	11	13	2.2	17	3.7	24	2.2
28	15	18	8.1	3.0	e10	9.2	28	1.9	17	1.9	12	2.1
29	9.0	11	8.1	3.4	---	6.1	13	2.1	23	1.7	15	30
30	8.8	7.9	5.3	5.7	---	28	5.9	2.0	14	16	3.2	24
31	5.3	---	4.5	7.1	---	108	---	2.1	---	6.3	3.7	---
TOTAL	1217.4	708.9	1445.0	395.5	175.6	981.5	887.5	136.4	1381.0	213.2	286.7	518.3
MEAN	39.3	23.6	46.6	12.8	6.27	31.7	29.6	4.40	46.0	6.88	9.25	17.3
MAX	298	225	326	141	14	356	180	49	890	34	100	114
MIN	3.1	3.9	4.2	2.9	2.2	2.7	2.4	1.7	1.6	1.5	1.1	1.5

CAL YR	1986	TOTAL	9205.0	MEAN	25.2	MAX	335	MIN 1.9
WTR YR	1987	TOTAL	8346.9	MEAN	22.9	MAX	890	MIN 1.1

e Estimated

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 1955.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 579.26 ft Dec. 2, 1985; minimum recorded, 569.65 ft Jan. 19 1987, but may have been lower during period of no gage-height record Nov. 10 to Dec. 2, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 576.54 ft Dec. 4; minimum recorded, 569.65 ft Jan. 19, but may have been lower during period of no gage-height record Nov. 10 to Dec. 2, 1986.

ELEVATION (FEET IGLD), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	572.85	573.60	---	573.07	572.99	572.73	572.83	---	571.92	---	---	---
2	573.23	573.33	---	573.05	573.15	573.22	573.27	---	571.90	---	---	---
3	573.44	573.66	574.72	573.46	573.12	572.91	572.79	---	571.90	---	---	---
4	573.58	573.28	---	573.17	573.10	572.76	571.69	---	571.97	---	---	---
5	573.91	573.00	---	573.17	573.15	572.58	572.70	---	572.19	---	572.59	---
6	---	573.32	---	573.23	573.16	572.64	572.88	---	572.20	---	572.43	---
7	---	573.20	---	573.69	573.03	572.78	572.86	---	572.15	---	572.66	---
8	---	573.22	---	573.56	573.09	572.61	572.91	---	572.11	---	572.44	---
9	---	---	---	573.27	572.99	571.94	572.85	---	572.31	---	572.43	---
10	---	---	---	573.19	573.23	571.99	572.82	---	572.28	---	572.42	---
11	---	---	---	573.76	572.81	572.36	572.51	---	---	---	572.01	---
12	---	---	---	573.84	572.89	572.84	572.80	---	---	---	572.11	---
13	---	---	---	573.40	572.80	572.76	572.57	---	---	---	572.29	---
14	---	---	---	573.35	572.36	572.53	572.31	---	---	---	572.30	---
15	---	---	573.50	573.36	572.58	572.26	572.23	---	---	---	572.23	---
16	---	---	573.23	573.09	572.10	572.49	572.47	---	---	---	572.12	---
17	---	---	573.13	572.80	571.93	572.67	572.37	---	---	---	572.10	571.90
18	---	---	573.76	573.22	572.50	572.49	572.23	---	---	---	---	571.91
19	---	---	573.64	572.22	572.68	572.56	572.03	---	---	---	---	572.06
20	---	---	573.29	573.41	572.67	572.65	571.83	---	---	---	---	572.07
21	---	---	573.24	573.59	572.63	572.63	571.78	572.30	---	---	---	572.19
22	---	---	573.76	573.11	572.61	572.58	572.28	572.29	---	---	---	572.12
23	573.50	---	573.61	573.88	572.73	572.38	572.26	572.44	---	---	---	572.65
24	572.99	---	572.57	574.10	572.65	572.13	---	572.61	---	---	---	572.19
25	573.05	---	573.64	573.06	572.60	572.26	---	572.52	---	---	---	572.08
26	573.22	---	573.37	572.82	572.49	572.65	---	572.33	---	---	---	572.41
27	573.59	---	573.29	573.02	572.31	572.45	---	572.10	---	---	---	571.98
28	573.56	---	573.53	573.14	572.32	572.37	---	571.97	---	---	---	571.97
29	573.75	---	573.30	572.73	---	572.03	---	571.91	---	---	---	572.16
30	573.27	---	573.17	573.35	---	572.19	---	571.85	---	---	---	572.26
31	573.21	---	573.21	573.22	---	572.81	---	572.02	---	---	---	---
MEAN	---	---	---	573.27	572.74	572.52	---	---	---	---	---	---
MAX	---	---	---	574.10	573.23	573.22	---	---	---	---	---	---
MIN	---	---	---	572.22	571.93	571.94	---	---	---	---	---	---

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 1955.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 570.48 ft Dec. 2, 1985; minimum, 563.25 ft Dec. 14, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 568.36 ft Jan. 12; minimum, 564.34 ft Dec. 1.

ELEVATION (FEET IGLD), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	565.77	566.08	564.69	565.99	566.06	565.78	565.85	566.01	565.84	565.80	565.49	565.85
2	565.91	565.96	565.27	565.98	566.06	566.90	566.61	565.95	565.55	565.76	565.69	565.76
3	566.12	566.16	566.79	566.23	566.15	566.42	565.84	565.87	565.87	565.99	565.93	565.56
4	565.96	565.99	567.44	566.06	566.26	566.06	565.01	565.67	565.94	566.00	565.90	565.39
5	566.43	565.69	566.53	566.04	566.55	565.74	565.74	565.76	565.93	565.85	565.63	565.44
6	566.69	565.88	566.59	566.07	566.22	565.78	566.01	565.90	565.72	565.90	565.79	565.49
7	566.31	565.79	566.30	566.59	565.99	565.93	566.10	566.01	565.94	565.99	565.86	565.51
8	566.40	565.79	565.43	566.34	566.35	565.91	566.06	565.93	566.24	566.05	565.82	565.45
9	565.87	566.68	565.93	566.18	566.23	565.12	566.10	566.01	565.93	566.01	565.79	565.59
10	565.52	566.07	567.01	566.06	566.70	565.05	565.94	566.08	565.84	566.03	565.77	565.57
11	565.78	565.84	566.52	566.61	566.13	565.43	565.98	565.93	565.72	565.99	565.60	565.42
12	e565.90	566.01	566.80	567.19	566.01	565.83	565.94	565.90	565.97	565.94	565.54	565.50
13	e566.10	566.31	566.15	566.27	566.08	565.83	566.04	565.74	565.90	566.00	565.70	565.52
14	e566.80	566.11	566.53	566.21	566.01	565.59	565.83	565.82	565.86	566.10	565.75	565.58
15	e566.70	566.40	566.12	566.29	565.91	565.27	565.87	565.95	565.81	565.82	565.74	565.49
16	e566.10	565.95	565.97	566.07	565.50	565.54	565.73	565.85	565.79	565.79	565.78	565.47
17	e565.70	565.97	565.89	565.87	565.39	565.74	565.82	565.90	565.54	565.89	565.89	565.48
18	e565.80	565.37	566.34	566.11	565.74	565.57	565.89	565.75	565.62	565.91	565.86	565.50
19	e565.90	565.37	566.30	565.34	565.92	565.68	565.90	565.47	565.67	565.95	565.79	565.62
20	e566.00	565.38	566.12	566.47	565.76	565.73	565.91	565.77	565.64	566.16	565.69	565.57
21	e566.00	565.84	566.07	566.98	565.72	565.76	565.96	565.80	565.65	566.16	565.71	565.63
22	e565.90	565.73	566.40	566.12	565.70	565.67	565.50	565.86	565.87	565.98	565.90	565.61
23	566.08	565.73	566.67	567.05	565.77	565.50	565.85	565.92	565.78	565.95	565.80	566.07
24	565.71	566.18	565.64	567.57	565.71	565.43	565.67	565.81	565.82	565.99	565.70	565.67
25	565.67	565.92	566.51	566.79	565.67	565.65	565.78	565.72	565.87	565.90	565.72	565.65
26	565.87	565.60	566.25	566.33	565.55	565.85	565.81	565.71	565.98	566.02	565.35	565.74
27	566.13	565.93	566.13	566.70	565.30	565.68	565.95	565.80	566.01	565.95	565.37	565.44
28	566.29	566.20	566.28	566.65	565.32	565.71	566.16	565.79	566.17	565.78	565.28	565.50
29	566.40	566.03	566.10	565.95	---	565.56	566.15	565.81	566.02	565.74	565.62	565.55
30	566.05	565.55	566.05	566.20	---	565.80	566.09	565.81	566.02	565.87	565.74	565.74
31	565.86	---	566.08	566.23	---	566.11	---	565.91	---	565.55	565.90	---
MEAN	566.05	565.92	566.22	566.34	565.92	565.73	565.90	565.84	565.85	565.93	565.71	565.58
MAX	566.80	566.68	567.44	567.57	566.70	566.90	566.61	566.08	566.24	566.16	565.93	566.07
MIN	565.52	565.37	564.69	565.34	565.30	565.05	565.01	565.47	565.54	565.55	565.28	565.39

WTR YR 1987 MEAN 565.91 MAX 567.57 MIN 564.69

e Estimated

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 gages, and concrete weir. Datum of gage is 954.63 ft above National Geodetic Datum of 1929.

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

AVERAGE DISCHARGE.--10 years, 119 ft^3/s, 21.01 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,700 ft^3/s Dec. 29, 1984, gage height, 9.25 ft; maximum gage height, 12.40 ft Feb. 18, 1979 (backwater from ice); minimum discharge, 5.4 ft^3/s July 27, 28, 29, 1983; minimum gage height, 3.34 ft July 27, 28, 29, 1983 and Aug. 14, 15, 16, 1985.

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

EXTREMES 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)
Oct. 3	2345	1,980	6.65	Apr. 5	0215	*2,610	*7.32
Dec. 9	2400	2,100	6.78	June 22	1630	1,270	5.78
Mar. 2	0100	1,320	5.85	July 20	1100	2,200	6.89
Mar. 7	2000	2,080	6.76				

Minimum discharge, 14 ft^3/s June 20-21, Aug. 25, gage height, 3.40 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	292	79	71	77	e86	e470	290	77	19	156	28	25
2	92	92	294	e68	e86	872	310	64	61	100	33	29
3	336	87	959	e66	e78	321	263	55	39	207	122	32
4	718	78	397	e64	e74	e180	443	52	35	117	47	24
5	305	69	226	e60	e70	e140	1360	47	25	67	37	19
6	257	67	180	e76	e70	e160	1200	44	24	54	32	17
7	123	62	173	e80	e74	840	783	43	21	191	27	16
8	87	67	216	87	e66	1100	356	41	27	87	25	36
9	79	94	537	78	e60	519	230	39	27	73	50	87
10	77	71	926	75	e56	e170	177	37	23	56	95	43
11	61	60	294	e78	e50	e130	144	36	20	40	44	30
12	54	69	193	e76	e46	e120	189	34	26	33	32	61
13	459	65	e130	73	e44	e110	229	33	152	29	28	56
14	316	56	e120	e80	e40	e90	156	32	50	133	23	35
15	578	68	131	e460	e36	e84	122	61	31	99	20	28
16	195	69	122	e260	e35	e80	105	44	25	49	18	28
17	186	121	129	e120	e35	e76	94	35	20	34	16	32
18	127	88	236	e110	e40	e78	86	32	16	32	23	63
19	97	69	199	e100	e46	92	77	39	16	27	20	58
20	84	59	139	e90	e48	103	69	35	16	589	27	76
21	76	66	e110	e75	e50	107	64	31	20	116	17	63
22	69	62	e88	e68	e52	111	57	30	364	64	19	146
23	78	76	e80	e66	e48	124	57	29	226	42	27	168
24	99	173	86	e66	e44	168	78	27	66	33	17	82
25	72	103	458	e64	e44	222	74	27	42	30	16	64
26	68	367	226	e62	e40	421	55	27	142	73	16	45
27	93	416	148	e60	e40	286	49	25	105	52	55	41
28	200	170	120	e64	43	265	157	24	71	32	47	41
29	105	121	103	e74	---	173	189	21	77	26	56	34
30	155	97	89	e80	---	185	99	20	283	49	39	131
31	94	---	85	e84	---	452	---	18	---	35	28	---
TOTAL	5632	3141	7265	2941	1501	8249	7562	1159	2069	2725	1084	1610
MEAN	182	105	234	94.9	53.6	266	252	37.4	69.0	87.9	35.0	53.7
MAX	718	416	959	460	86	1100	1360	77	364	589	122	168
MIN	54	56	71	60	35	76	49	18	16	26	16	16
CFSM	2.36	1.36	3.05	1.23	.70	3.46	3.28	.49	.90	1.14	.45	.70
IN.	2.72	1.52	3.51	1.42	.73	3.99	3.66	.56	1.00	1.32	.52	.78

CAL YR	1986	TOTAL	46131	MEAN	126	MAX	1400	MIN	12	CFSM	1.64	IN. 22.3
WTR YR	1987	TOTAL	44938	MEAN	123	MAX	1360	MIN	16	CFSM	1.60	IN. 21.7

e Estimated

04216500 LITTLE TONAWANDA CREEK AT LINDEN, NY

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

DRAINAGE AREA.--22.1 mi^2.

PERIOD OF RECORD.--July 1912 to November 1919, April 1920 to September 1968, October 1977 to current year.

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

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

AVERAGE DISCHARGE.--65 years (water years 1913–19, 1921–68, 1978–87), 27.5 ft^3/s, 16.90 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,700 ft^3/s Mar. 7, 1956, gage height, 16.04 ft, from high-water mark; minimum, 0.08 ft^3/s Aug. 3, 4, 1955; minimum gage height, -0.14 ft Jan. 17, 1966 (siphonic action).

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

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Dec. 10	0430	583	5.65	Apr. 5	0500	*921	*7.38
Mar. 7	2245	645	5.98				

Minimum discharge, 1.2 ft^3/s June 11-12, gage height, 0.35 ft; minimum gage height, -0.02 ft Feb. 19 (siphonic action).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	16	20	24	22	e130	79	22	1.5	14	4.0	2.5
2	13	18	55	23	19	e260	85	18	3.9	9.6	4.3	2.4
3	15	18	262	e20	19	e96	75	16	3.2	15	11	2.8
4	132	16	e160	e18	19	e54	129	14	2.6	11	4.0	1.9
5	78	14	73	e16	e17	e50	530	13	2.1	7.3	4.3	1.7
6	52	14	58	e18	e17	e56	476	11	2.0	5.2	3.3	2.0
7	27	13	57	e19	19	245	266	10	1.7	8.2	2.7	1.9
8	18	12	75	e24	e17	375	114	9.8	1.6	6.7	2.2	3.5
9	13	16	117	23	e15	e180	72	9.2	1.8	4.5	11	15
10	13	14	340	22	e15	e60	52	8.3	1.7	3.6	18	7.5
11	10	12	104	23	e14	e40	40	7.4	1.4	3.5	7.5	4.2
12	9.3	14	65	22	e13	38	58	7.0	1.4	2.1	4.4	6.7
13	86	13	e40	21	e12	35	87	6.7	5.0	2.0	3.4	9.2
14	67	11	e36	24	e11	30	52	6.5	3.9	7.8	2.7	5.7
15	127	11	40	146	e10	28	41	12	2.2	12	1.8	3.8
16	53	13	39	e90	e10	24	35	9.2	1.8	6.0	2.1	3.0
17	41	20	41	e40	e9.8	23	32	6.8	1.7	4.0	2.0	2.7
18	29	19	71	e34	e9.4	23	29	5.8	1.6	3.0	2.9	3.3
19	22	16	65	e30	e8.8	25	25	7.3	1.6	2.6	1.8	3.8
20	19	13	45	e26	e8.6	27	22	6.3	1.5	32	2.9	4.8
21	17	15	36	e26	e9.6	28	20	5.7	1.6	20	2.5	17
22	15	14	29	e25	e10	28	18	6.1	28	9.5	2.3	11
23	14	15	25	e22	e12	27	19	6.3	50	5.9	3.1	17
24	19	45	28	e19	e14	32	31	4.5	9.3	4.1	2.0	15
25	15	29	150	e17	e12	38	26	4.5	5.5	3.3	1.5	13
26	14	79	80	e13	e10	86	19	4.3	16	3.6	1.7	7.7
27	15	160	50	e14	e10	61	16	3.8	18	2.6	3.6	5.8
28	29	54	40	e14	e11	61	48	2.9	9.4	1.9	4.0	4.8
29	21	33	34	e16	---	41	52	2.3	8.6	1.7	7.4	3.8
30	24	28	29	e18	---	39	29	1.9	16	4.0	5.7	12
31	18	---	27	e19	---	113	---	1.6	---	8.2	3.1	---
TOTAL	1047.3	765	2291	866	374.2	2353	2577	250.2	206.6	224.9	133.2	195.5
MEAN	33.8	25.5	73.9	27.9	13.4	75.9	85.9	8.07	6.89	7.25	4.30	6.52
MAX	132	160	340	146	22	375	530	22	50	32	18	17
MIN	9.3	11	20	13	8.6	23	16	1.6	1.4	1.7	1.5	1.7
CFSM	1.53	1.15	3.34	1.26	.60	3.43	3.89	.37	.31	.33	.19	.29
IN.	1.76	1.29	3.86	1.46	.63	3.96	4.34	.42	.35	.38	.22	.33

CAL YR	1986	TOTAL	13366.5	MEAN	36.6	MAX	533	MIN	1.3	CFSM	1.66	IN. 22.5
WTR YR	1987	TOTAL	11283.8	MEAN	30.9	MAX	530	MIN	1.4	CFSM	1.40	IN. 19.0

e Estimated

04217000 TONAWANDA CREEK AT BATAVIA, NY

LOCATION.--Lat 42°59'51", long 78°11'20", Genesee County, Hydrologic Unit 04120104, on right bank 150 ft downstream from municipal dam, 500 ft upstream from bridge on Walnut Street in Batavia, and 5.0 mi downstream from Little Tonawanda Creek.

DRAINAGE AREA.--171 mi^2.

PERIOD OF RECORD.--July 1944 to current year.

REVISED RECORDS.--WSP 1627: 1956–57. WSP 1912: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 876.33 ft above National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--43 years, 212 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,200 ft^3/s Mar. 31, 1960, gage height, 12.70 ft; maximum gage height, 13.85 ft Apr. 6, 1947; minimum discharge, 0.4 ft^3/s Aug. 5–7, 1955; minimum gage height, 0.59 ft July 26, 27, 1948.

EXTREMES OUTSIDE PERIOD OF RECORD.--From records of city of Batavia, maximum stage, 14.5 ft in March 1942.

EXTREMES 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)
Dec. 4	1530	1,810	5.84	Mar. 8	1800	2,380	6.84
Dec. 10	1930	2,530	7.09	Apr. 5	2030	*3,290	*8.34
Mar. 2	1800	2110	6.38				

Minimum discharge, 19 ft^3/s June 20-21, gage height, 1.47 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	358	157	190	179	134	231	767	184	27	379	58	40
2	225	150	185	169	139	1390	617	152	45	174	53	38
3	143	182	888	e130	142	1450	667	130	74	244	163	48
4	656	151	1610	e110	141	782	538	117	51	235	119	42
5	966	141	945	e100	130	472	2040	109	41	152	86	34
6	663	136	542	e130	141	387	2780	103	34	105	69	30
7	377	123	409	e170	141	686	2600	96	31	224	56	30
8	228	111	509	209	e130	1780	1410	88	34	173	47	38
9	168	132	492	182	e110	1790	688	83	36	126	60	104
10	166	145	1540	170	e110	e730	430	75	33	95	267	100
11	138	112	1800	173	e100	e350	330	71	30	80	147	58
12	113	120	786	167	e90	e300	306	68	32	62	86	52
13	293	120	e370	165	e80	273	449	61	103	52	63	125
14	754	109	e290	162	e74	217	396	58	136	56	50	78
15	742	102	313	460	e70	203	293	72	57	231	42	58
16	729	118	281	852	e64	181	257	97	39	107	35	47
17	386	176	283	428	e60	171	226	68	30	68	31	47
18	298	199	370	322	e62	164	205	53	24	54	32	85
19	224	148	560	241	e64	168	182	57	21	49	35	126
20	183	119	367	e180	e66	182	165	57	20	209	37	107
21	165	123	293	e170	e68	191	147	50	19	472	34	156
22	147	122	228	e150	e74	196	132	46	78	163	29	131
23	130	127	198	e140	e80	194	123	49	664	91	33	294
24	168	259	192	e120	e80	239	148	46	266	66	34	158
25	150	269	533	e110	e74	266	190	42	114	53	27	143
26	130	254	742	e110	e70	516	145	39	88	53	25	94
27	130	779	406	e110	e70	480	122	39	306	105	30	72
28	278	644	303	e120	79	402	202	36	146	58	78	63
29	244	330	260	e120	---	330	378	32	125	44	70	56
30	231	250	218	e130	---	258	255	28	220	46	79	126
31	209	---	196	136	---	601	---	25	---	97	51	---
TOTAL	9792	5908	16299	6115	2643	15580	17188	2231	2924	4123	2026	2580
MEAN	316	197	526	197	94.4	503	573	72.0	97.5	133	65.4	86.0
MAX	966	779	1800	852	142	1790	2780	184	664	472	267	294
MIN	113	102	185	100	60	164	122	25	19	44	25	30

CAL YR	1986	TOTAL	98431	MEAN	270	MAX	2960	MIN 19
WTR YR	1987	TOTAL	87409	MEAN	239	MAX	2780	MIN 19

e Estimated

04217500 TONAWANDA CREEK NEAR ALABAMA, NY

LOCATION.--Lat 43°05'28", long 78°27'15", Genesee County, Hydrologic Unit 04120104, on right bank 15 ft downstream from bridge on Meadville Road, 0.4 mi downstream from inoperable canal feeder connecting Tonawanda and Oak Orchard Creeks, 1.1 mi upstream from small tributary, and 3.2 mi west of Alabama.

DRAINAGE AREA.--231 mi^2.

PERIOD OF RECORD.--October 1955 to current year.

REVISED RECORDS.--WSP 1912: Drainage area. WRD NY 1974: 1973. WDR NY-75-1: 1959 (P).

GAGE.--Water-stage recorder. Datum of gage is 605.93 ft above National Geodetic Vertical Datum of 1929. Prior to October 1965, nonrecording gage at same site and datum.

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

AVERAGE DISCHARGE.--32 years, 287 ft^3/s, 16.87 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,980 ft^3/s Mar. 31, 1960, gage height, 14.28 ft; maximum gage height, 15.95 ft Jan. 23, 1959 (ice jam); minimum daily, 7.7 ft^3/s Sept. 14, 15, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,100 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Dec. 11	0400	2,370	10.91	Mar. 9	0300	2,450	10.61
Mar. 3	0830	ice jam	*a12.36	Apr. 6	1000	*3,920	12.02
Mar. 3	2400	3,280	11.61				

a Ice jam.

Minimum discharge, 35 ft^3/s June 22, Aug. 26-27, gage height, 5.18 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	505	209	267	236	e210	e260	1100	260	44	394	126	64
2	483	193	275	222	225	e1300	1000	206	57	266	84	54
3	239	208	1030	e190	223	e2400	1040	172	84	182	133	50
4	685	213	1710	e180	e220	2630	910	150	101	287	214	52
5	1250	184	1420	e170	e210	1760	1740	140	73	198	132	52
6	1080	173	861	e180	e200	979	3480	130	63	133	107	46
7	698	160	624	e200	e190	862	3110	122	56	218	86	42
8	376	147	710	243	e190	1660	2100	113	55	291	71	47
9	257	142	765	241	e180	2240	1110	104	55	161	79	74
10	211	171	1440	219	e180	1260	679	99	56	133	258	126
11	198	157	2160	213	e170	e600	514	91	53	104	290	98
12	162	144	1280	215	e160	e410	437	89	56	88	156	76
13	218	157	655	204	e140	379	597	84	67	73	105	122
14	847	146	444	206	e120	303	640	77	153	70	81	138
15	910	132	409	476	e110	260	474	95	108	158	66	95
16	983	139	379	1080	e100	240	381	105	72	173	57	76
17	613	176	364	829	e90	220	326	103	58	103	48	73
18	446	251	423	426	e84	206	286	85	49	77	43	158
19	319	206	748	358	e84	200	253	77	44	65	43	185
20	246	166	602	255	e86	209	225	79	39	74	45	181
21	218	146	427	e240	e90	221	201	78	38	534	44	215
22	193	154	326	e230	e100	227	180	72	44	278	46	252
23	174	153	265	e210	e100	229	165	74	442	133	39	259
24	162	215	241	e200	e98	242	177	70	532	91	39	298
25	202	369	538	e180	e96	295	223	66	186	74	43	174
26	165	297	1040	e180	e96	467	205	62	121	65	37	150
27	159	908	713	e170	e98	668	167	60	246	70	39	110
28	207	1070	456	e170	e100	522	199	61	227	99	46	91
29	373	548	363	e180	---	473	453	56	148	64	93	83
30	250	357	302	e190	---	335	416	52	161	79	82	103
31	285	---	259	e200	---	592	---	47	---	181	82	---
TOTAL	13114	7691	21496	8493	3950	22649	22788	3079	3488	4916	2814	3544
MEAN	423	256	693	274	141	731	760	99.3	116	159	90.8	118
MAX	1250	1070	2160	1080	225	2630	3480	260	532	534	290	298
MIN	159	132	241	170	84	200	165	47	38	64	37	42
CFSM	1.83	1.11	3.00	1.19	.61	3.16	3.29	.43	.50	.69	.39	.51
IN.	2.11	1.24	3.46	1.37	.64	3.65	3.67	.50	.56	.79	.45	.57

CAL YR	1986	TOTAL	127050	MEAN	348	MAX	3800	MIN	29	CFSM	1.51	IN. 20.5
WTR YR	1987	TOTAL	118022	MEAN	323	MAX	3480	MIN	37	CFSM	1.40	IN. 19.0

e Estimated

04217750 MURDER CREEK NEAR AKRON, NY

LOCATION.--Lat 43°02'49", long 78°30'47", Erie County, Hydrologic Unit 04120104, on left bank at downstream side of bridge on State Highway 93, 2.0 mi northwest of Akron and 5.7 mi upstream from mouth.

DRAINAGE AREA.--58.8 mi^2.

PERIOD OF RECORD.--Occasional low flow discharge measurements, water years 1964–65. November 1982 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 623.78 ft above National Geodetic Vertical Datum of 1929.

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

EXTREMES FOR PERIOD OF RECORD--Maximum discharge, 3,000 ft^3/s Feb. 25, 1985, gage height, 7.16 ft; minimum discharge, 1.2 ft^3/s Oct. 12, 1985; minimum gage height, 1.48 ft, Sept. 21, 1985.

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

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Dec. 12	0100	534	4.10	Apr. 6	1300	*759	*4.56

Minimum discharge, 3.2 ft^3/s Aug. 23, gage height, 1.56 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e40	59	96	65	e50	e50	180	76	11	30	12	6.8
2	e60	59	114	59	e50	233	319	50	11	41	21	6.1
3	e100	66	293	51	e48	353	302	41	12	31	26	4.8
4	e180	72	394	46	e46	377	305	38	12	27	38	4.1
5	e250	71	359	e35	e44	272	415	34	14	25	35	3.6
6	e150	62	239	e35	e40	207	666	31	13	19	28	3.7
7	e110	55	177	e40	e38	247	571	29	12	16	23	3.6
8	e90	54	197	e50	e36	384	416	26	12	50	18	10
9	e70	49	202	63	e34	421	260	24	10	69	26	9.0
10	e54	47	405	58	e32	e210	160	22	9.3	40	32	9.6
11	e45	47	407	57	e28	e130	109	21	8.9	28	63	15
12	e35	51	433	57	e26	e90	88	19	12	21	64	15
13	e60	51	196	57	e25	74	113	18	17	17	36	20
14	e100	49	e130	60	e24	61	126	17	24	18	24	39
15	e150	43	125	138	e22	54	111	23	28	16	17	39
16	e160	47	94	204	e21	50	82	23	21	20	12	27
17	e130	60	86	251	e20	46	68	22	16	18	9.2	23
18	e110	71	101	151	e19	43	60	20	12	14	7.4	37
19	e86	71	137	e90	e19	41	54	19	10	9.8	6.0	45
20	e70	58	173	e60	e20	40	49	18	8.6	15	5.2	52
21	e66	52	139	e56	e21	40	46	18	7.5	15	4.7	70
22	e56	48	e90	e52	e22	42	42	18	13	31	4.2	73
23	e52	53	e72	e48	e23	42	39	15	21	20	3.7	75
24	e50	64	73	e46	e22	42	39	15	61	13	3.7	61
25	e48	72	154	e44	e21	40	41	14	76	10	3.7	46
26	e46	96	177	e40	e20	50	43	15	39	8.7	3.8	40
27	e50	191	200	e40	e19	76	39	14	28	6.8	5.4	35
28	e60	233	142	e43	e23	79	48	13	42	6.3	4.8	28
29	77	213	105	e45	---	64	76	13	43	5.1	5.9	24
30	83	138	85	e45	---	61	98	12	32	12	5.5	24
31	67	---	72	e48	---	98	---	11	---	9.1	6.9	---
TOTAL	2705	2302	5667	2134	813	4017	4965	729	636.3	661.8	555.1	849.3
MEAN	87.3	76.7	183	68.8	29.0	130	165	23.5	21.2	21.3	17.9	28.3
MAX	250	233	433	251	50	421	666	76	76	69	64	75
MIN	35	43	72	35	19	40	39	11	7.5	5.1	3.7	3.6
CFSM	1.48	1.30	3.11	1.17	.49	2.20	2.81	.40	.36	.36	.30	.48
IN.	1.71	1.46	3.59	1.35	.51	2.54	3.14	.46	.40	.42	.35	.54

CAL YR	1986	TOTAL	29233.5	MEAN	80.1	MAX	900	MIN	4.5	CFSM	1.36	IN. 18.5
WTR YR	1987	TOTAL	26034.4	MEAN	71.3	MAX	666	MIN	3.6	CFSM	1.21	IN. 16.5

e Estimated

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 and crest-stage gages. Datum of gage is 571.19 ft above National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--18 years (water years 1956–65, 1980–87), 392 ft^3/s, 15.25 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,280 ft^3/s Apr. 1, 1960, gage height, 16.96 ft; minimum 4.5 ft^3/s July 28, 1983, gage height, 0.91 ft.

EXTREMES 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)
Dec. 12	2100	2,660	9.26	Mar. 10	0930	2,560	9.03
Mar. 5	0230	2,850	9.68	Apr. 8	0600	*4,180	*12.36

Minimum discharge, 43 ft^3/s June 21-22, gage height, 1.33 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	480	375	586	407	271	337	1140	516	56	240	191	97
2	697	335	511	377	275	1210	1640	375	52	423	143	77
3	653	350	1320	e360	282	1790	1780	302	65	323	131	65
4	705	364	1810	e320	e300	2520	1620	256	104	271	199	59
5	1180	353	2150	e300	e290	2670	1820	241	108	319	245	62
6	1540	316	2110	e310	e280	2010	2520	228	85	245	175	57
7	1550	288	1490	318	e270	1550	3770	220	72	203	138	50
8	1190	264	1180	356	e270	1600	4130	212	64	291	112	52
9	736	244	1150	385	e260	2100	3380	200	62	343	101	76
10	482	234	1600	366	e260	2510	1970	190	60	266	156	95
11	388	252	2000	348	e250	1780	1110	182	59	202	335	143
12	331	244	2450	347	e240	888	779	174	59	161	344	114
13	359	241	e2200	342	e220	584	869	162	71	137	239	99
14	632	242	e1400	342	e200	499	948	144	88	122	163	158
15	1090	226	e830	616	e180	418	889	157	191	124	126	165
16	1180	223	660	1020	e170	374	696	170	137	229	102	123
17	1180	282	576	1320	e160	343	576	170	90	219	85	93
18	919	338	572	1140	e150	316	494	153	70	151	74	106
19	634	378	741	762	e140	296	435	132	58	120	67	233
20	460	321	981	552	e140	291	388	117	51	110	64	248
21	375	270	861	e420	e150	297	348	115	45	162	63	282
22	330	247	630	e400	e150	304	312	110	48	486	61	327
23	295	256	480	e380	e150	308	280	105	83	296	61	323
24	269	292	411	e340	e150	308	271	100	487	153	53	354
25	263	380	729	e320	e160	330	288	92	510	107	51	323
26	277	503	1100	e270	157	400	326	85	291	90	55	231
27	251	879	1310	e280	151	631	293	81	189	78	51	189
28	257	1260	1050	e270	146	729	286	78	308	88	53	144
29	352	1350	709	e280	---	606	380	77	281	102	68	118
30	447	953	545	e280	---	524	577	69	220	82	106	110
31	389	---	460	e280	---	631	---	63	---	128	102	---
TOTAL	19891	12260	34602	13808	5822	29154	34315	5276	4064	6271	3914	4573
MEAN	642	409	1116	445	208	940	1144	170	135	202	126	152
MAX	1550	1350	2450	1320	300	2670	4130	516	510	486	344	354
MIN	251	223	411	270	140	291	271	63	45	78	51	50
CFSM	1.84	1.17	3.20	1.28	.60	2.69	3.28	.49	.39	.58	.36	.44
IN.	2.12	1.31	3.69	1.47	.62	3.11	3.66	.56	.43	.67	.42	.49

CAL YR	1986	TOTAL	208128	MEAN	570	MAX	4700	MIN	33	CFSM	1.63	IN. 22.2
WTR YR	1987	TOTAL	173950	MEAN	477	MAX	4130	MIN	45	CFSM	1.37	IN. 18.5

e Estimated

04218518 ELLICOTT CREEK BELOW WILLIAMSVILLE, NY

LOCATION.--Lat 42°58'40", long 78°45'50", Erie County, Hydrologic Unit 04120104, on right bank 15 ft upstream from bridge on State Highway 324 (Sheridan Drive), 0.8 mi upstream from sewage treatment plant, 1.4 mi northwest of Williamsville, and 10.8 mi upstream from mouth.

DRAINAGE AREA.--81.6 mi^2.

PERIOD OF RECORD.--October 1972 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 586.41 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. Regulation by seasonal manipulation of dam at Island Park 2.4 mi upstream by Village of Williamsville and by intermittent pumping from stone quarry 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. Gage-height telemeter at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--15 years, 133 ft^3/s, 22.13 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,640 ft^3/s Feb. 25, 1985, gage height, 11.19 ft; no flow for part of July 27, 1976, gage height, 0.73 ft result of pipeline construction.

EXTREMES 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. 3	2200	1,140	5.76	Apr. 6	0345	*1,410	*6.50
Dec. 10	2315	1,210	5.97	June 22	1630	1,280	6.15
Mar. 2	--	1,230	6.01				

Minimum discharge, 4.6 ft^3/s June 22, gage height, 1.00 ft, result of regulation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	208	87	110	98	e80	e600	489	117	18	164	30	37
2	185	107	235	89	e81	e1000	520	98	29	100	63	30
3	241	133	829	e82	e82	e800	621	83	22	115	52	37
4	481	138	869	e74	e76	372	419	75	27	104	62	25
5	636	132	392	e70	e70	249	865	71	20	67	54	23
6	365	100	253	e74	e70	217	1020	69	18	50	38	13
7	208	85	226	94	e70	367	708	65	15	51	23	11
8	119	75	327	117	e76	620	424	64	22	112	14	97
9	103	73	462	122	e70	425	225	61	32	75	79	114
10	86	72	881	101	e68	203	161	61	20	45	132	42
11	73	68	811	100	e65	117	131	60	14	45	158	42
12	64	69	294	107	e62	102	160	55	29	49	77	67
13	169	82	160	107	e58	96	226	52	104	44	46	108
14	336	75	e110	114	e56	90	217	55	92	66	34	135
15	342	64	e110	319	e52	80	149	80	54	54	30	95
16	321	82	113	603	e48	73	130	65	26	64	25	61
17	169	138	120	254	e45	77	117	58	25	51	23	41
18	140	151	156	e140	e50	67	109	53	33	44	21	126
19	114	112	329	e110	e54	61	101	48	18	37	24	121
20	93	91	258	e88	e56	67	87	47	9.7	60	23	107
21	80	81	158	e86	e60	61	81	45	5.4	93	21	122
22	73	87	122	e84	e64	66	75	41	386	60	20	157
23	65	95	105	e84	e64	63	71	39	597	46	20	164
24	65	126	117	e82	e62	63	75	37	339	36	20	127
25	62	137	331	e82	e60	70	88	36	101	23	20	81
26	63	210	485	e82	e58	111	87	35	78	30	41	82
27	65	530	246	e82	e58	157	81	34	93	28	59	64
28	107	453	162	e74	e62	122	93	33	143	38	56	62
29	161	204	132	e76	---	105	259	31	98	29	63	75
30	115	138	119	e77	---	105	209	18	79	43	38	85
31	110	---	107	e78	---	234	---	14	---	26	32	---
TOTAL	5419	3995	9129	3750	1777	6840	7998	1700	2547.1	1849	1398	2351
MEAN	175	133	294	121	63.5	221	267	54.8	84.9	59.6	45.1	78.4
MAX	636	530	881	603	82	1000	1020	117	597	164	158	164
MIN	62	64	105	70	45	61	71	14	5.4	23	14	11
CFSM	2.14	1.63	3.61	1.48	.78	2.70	3.27	.67	1.04	.73	.55	.96
IN.	2.47	1.82	4.16	1.71	.81	3.12	3.65	.77	1.16	.84	.64	1.07

CAL YR	1986	TOTAL	55663.0	MEAN	153	MAX	1650	MIN	14	CFSM	1.87	IN. 25.4
WTR YR	1987	TOTAL	48753.1	MEAN	134	MAX	1020	MIN	5.4	CFSM	1.64	IN. 22.2

e Estimated

04219000 ERIE (BARGE) CANAL AT LOCK 30, MACEDON, NY

LOCATION.--Lat 43°04'20", long 77°17'45", Wayne County, Hydrologic Unit 04140201, on left bank in Macedon, 500 ft downstream from headgate in old Erie Canal, 700 ft downstream from bridge on State Highway 350, 0.2 mi downstream from Lock 30, and 2.6 mi upstream from Ganargua Creek.

PERIOD OF RECORD.--November 1919 to December 1920, October 1950 to September 1977, October 1977 to current year (navigation seasons only). Prior to October 1956, published as "Barge Canal at Lock 30, Macedon."

REVISED RECORDS.--WSP 1237: 1951

GAGE.--Water-stage recorder. Datum of gage is 447.58 ft above National Geodetic Vertical Datum of 1929. Nov. 1, 1919 to Dec. 28, 1920, nonrecording gage at same site at different datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. This record represents net diversion from Niagara River basin into Oswego River basin through Erie (Barge) Canal. During the non-navigation period, when the pool upstream from Lock 30 is drained, discharge consists of leakage through guard gates, runoff from small areas tributary to canal upstream from station, or diversion for use downstream in the Canal system. Record is not published during the non-navigation period, which this year extended from Dec. 1 to May 9. Several measurements of water temperature were made during the year.

COOPERATION.--Records of gate openings, lockages, lock-valve openings, and elevations of water surface in Erie (Barge) Canal upstream and downstream from Lock 30 furnished by New York State Department of Transportation.

AVERAGE DISCHARGE.--27 years (water years 1951–77), 200 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 874 ft^3/s Dec. 3, 1969; no significant flow at times in many years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	262	246	---	---	---	---	---	e3.0	293	305	295	277
2	249	254	---	---	---	---	---	e3.0	301	305	297	268
3	e249	262	---	---	---	---	---	e3.0	302	312	300	276
4	e249	259	---	---	---	---	---	e3.0	304	321	277	282
5	e255	252	---	---	---	---	---	e3.0	304	314	290	289
6	e252	251	---	---	---	---	---	e3.0	319	318	300	281
7	e246	244	---	---	---	---	---	e3.0	306	312	298	278
8	e243	240	---	---	---	---	---	e3.0	309	306	307	260
9	e249	236	---	---	---	---	---	e3.0	299	312	296	259
10	e252	229	---	---	---	---	---	26	292	314	304	255
11	e261	236	---	---	---	---	---	109	300	324	300	260
12	e255	244	---	---	---	---	---	199	293	304	280	263
13	e249	256	---	---	---	---	---	212	292	285	284	271
14	e249	258	---	---	---	---	---	212	331	287	302	271
15	e249	254	---	---	---	---	---	231	300	292	297	258
16	e249	258	---	---	---	---	---	265	298	289	308	261
17	244	260	---	---	---	---	---	270	308	285	286	261
18	245	261	---	---	---	---	---	266	303	299	272	254
19	250	255	---	---	---	---	---	270	304	296	277	252
20	244	241	---	---	---	---	---	279	318	290	278	270
21	244	232	---	---	---	---	---	273	336	295	277	252
22	246	216	---	---	---	---	---	275	313	294	279	257
23	245	202	---	---	---	---	---	289	310	295	288	249
24	240	204	---	---	---	---	---	279	317	282	270	250
25	250	212	---	---	---	---	---	292	306	303	275	249
26	244	187	---	---	---	---	---	282	306	297	268	243
27	244	175	---	---	---	---	---	304	318	298	259	262
28	242	159	---	---	---	---	---	303	335	286	268	249
29	245	140	---	---	---	---	---	303	318	285	276	239
30	236	118	---	---	---	---	---	324	316	296	287	237
31	232	---	---	---	---	---	---	302	---	292	271	---
TOTAL	7669	6841	---	---	---	---	---	5592.0	9251	9293	8866	7833
MEAN	247	228	---	---	---	---	---	180	308	300	286	261
MAX	262	262	---	---	---	---	---	324	336	324	308	289
MIN	232	118	---	---	---	---	---	3.0	292	282	259	237

e Estimated

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

(National stream-quality accounting network station)

WATER QUALITY RECORDS

LOCATION.--Lat 43°16'10", long 79°03'52", Niagara County, Hydrologic Unit 04120104, water samples collected about 2 mi upstream from Coast Guard wharf, at Fort Niagara and 1.5 mi south of Youngstown.

DRAINAGE AREA.--265,000 mi^2.

PERIOD OF RECORD.--Water years 1971 to current year.
CHEMICAL DATA: 1971 (a), 1973-74 (b), 1975-82 (c), 1983-87 (b).
MINOR ELEMENT DATA: 1971 (a), 1972-87 (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).
BIOLOGICAL DATA:
Bacteria--1973 (b), 1974 (d), 1975-82 (c), 1983-87 (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), 1983-87 (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 for Niagara River at Buffalo (station 04216000). Water-quality samples collected by New York State Department of Environmental Conservation were grab samples collected from the Coast Guard wharf at Fort Niagara.

COOPERATION.--Water-quality analysis identified by an (*) were collected by personnel of the New York State Department of Environmental Conservation.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DISCHARGE, IN CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH (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)
OCT											
29	1030	257000	284	8.40	14.0	2.4	760	10.8	105	76	K6
APR											
* 14	0845	246000	--	8.00	7.5	--	--	16.4	--	--	--
* 27	0910	248000	--	8.20	6.5	--	--	12.2	--	--	--
MAY											
12	0900	248000	--	8.30	10.5	0.80	760	12.7	114	48	--
* 19	0915	234000	--	7.80	12.0	--	--	--	--	--	--
JUN											
25	0900	236000	286	8.10	19.0	0.60	756	9.3	101	110	K16
* 25	0930	236000	--	8.10	19.0	--	--	--	--	--	--
JUL											
* 28	1100	240000	--	8.40	23.0	--	--	--	--	--	--
AUG											
18	0900	238000	277	8.26	24.0	0.60	760	8.9	106	310	K14
SEP											
* 28	0940	227000	--	8.10	22.0	--	--	--	--	--	--

DATE	SOLIDS, RESIDUE AT 105 DEG. °C TOTAL (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/LAS 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 WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
OCT										
29	--	130	32	38	8.4	8.9	1.5	98	24	14
APR										
14	184	120	--	35	7.8	--	--	--	--	--
27	166	130	--	39	8.4	--	--	--	--	--
MAY										
12	--	130	43	37	8.4	8.4	1.3	88	25	17
19	168	120	--	36	7.5	--	--	--	--	--
JUN										
25	170	130	47	37	8.3	8.7	1.3	80	25	14
25	170	120	--	35	8.3	--	--	--	--	--
JUL										
28	172	120	--	35	7.9	--	--	--	--	--
AUG										
18	--	120	--	34	8.2	9.0	1.7	68	23	13
SEP										
28	169	--	--	--	--	--	--	--	--	--

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

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT										
29	0.1	0.2	160	150	0.15	0.02	< 0.01	< 0.01	0.30	0.03
APR										
14	--	--	--	--	--	--	--	--	--	--
27	--	--	--	--	--	--	--	--	--	--
MAY										
12	0.1	0.1	155	150	0.14	0.01	0.04	< 0.01	0.80	0.01
19	--	--	--	--	--	--	--	--	--	--
JUN										
25	0.1	0.2	156	140	0.16	0.01	0.04	< 0.01	0.80	0.02
25	--	--	--	--	0.16	0.02	0.04	< 0.01	0.30	0.02
JUL										
28	--	--	--	--	--	--	--	--	--	--
AUG										
18	0.2	0.2	156	150	< 0.10	< 0.01	0.02	< 0.01	0.40	0.01
SEP										
28	--	--	--	--	--	--	--	--	--	--

DATE	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DIISSOLVED (UG/L AS CD)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT DISSOLVED (UG/L AS CO)
OCT										
29	0.01	0.02	< 10	2	21	< 0.5	< 1	--	< 1	< 3
APR										
14	--	--	--	--	--	--	--	< 10	--	--
27	--	--	--	--	--	--	--	< 10	--	--
MAY										
12	0.01	< 0.01	< 10	< 1	25	0.7	< 1	--	< 1	< 3
19	--	--	--	--	--	--	--	10	--	--
JUN										
25	0.02	< 0.01	< 10	< 1	21	< 0.5	< 1	< 20	< 1	< 3
25	0.02	< 0.01	--	--	--	--	--	< 10	--	--
JUL										
28	--	--	--	--	--	--	1	< 10	--	--
AUG										
18	< 0.01	< 0.01	< 10	< 1	21	0.8	110	--	< 1	< 3
SEP										
28	--	--	--	--	--	--	--	< 10	--	--

DATE	COPPER, DISSOLVED (UG/L AS CU)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LITHIUM, DISSOLVED (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)
OCT										
29	3	--	--	< 3	< 5	--	5	--	2	1.2
APR										
14	--	< 10	3100	--	--	< 100	--	20	--	--
27	--	< 10	--	--	< 5	--	--	40	--	--
MAY										
12	2	--	--	< 3	< 5	--	7	--	< 1	0.3
19	--	< 10	750	--	--	< 100	--	10	--	--
JUN										
25	4	< 20	130	< 3	< 5	< 5	7	< 10	< 1	0.2
25	--	< 10	110	--	--	< 100	--	< 10	--	--
JUL										
28	6	< 10	130	--	< 5	5	--	20	--	--
AUG										
18	6	--	--	7	< 5	--	< 4	--	< 1	< 0.1
SEP										
28	--	10	2100	--	--	< 100	--	20	--	--

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
OCT										
29	--	< 10	< 1	--	< 1	< 1	150	< 6	< 3	--
APR										
14	< 0.10	--	--	< 100	--	--	--	--	--	< 10
27	0.10	--	--	1	--	--	--	--	--	< 10
MAY										
12	--	< 10	< 1	--	< 1	< 1	150	< 6	4	--
19	< 0.10	--	--	< 100	--	--	--	--	--	10
JUN										
25	< 0.10	< 10	< 1	< 1	< 1	< 1	150	< 6	5	10
25	< 0.10	--	--	< 100	--	--	--	--	--	60
JUL										
28	< 0.10	--	2	2	--	--	--	--	< 10	< 10
AUG										
18	--	< 10	< 1	--	< 1	< 1	150	< 6	12	--
SEP										
28	< 0.10	--	--	< 100	--	--	--	--	--	10

DATE	TIME	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK)	DEPTH AT SAMPLE LOC-ATION, TOTAL (FEET)	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
OCT								
29	1035	1000	52.0	3.0	286	8.26	13.5	10.8
29	1040	1000	52.0	10.0	285	8.34	13.5	10.7
29	1045	1000	52.0	30.0	284	8.41	13.5	10.4
29	1050	1000	52.0	50.0	284	8.40	13.5	10.3
29	1055	1700	44.0	3.0	252	8.33	13.5	11.0
29	1100	1700	44.0	10.0	251	8.40	14.0	10.8
29	1105	1700	44.0	25.0	242	8.42	14.0	10.6
29	1110	1700	44.0	40.0	239	8.45	13.5	10.4
JUN								
25	0905	1000	44.0	3.0	287	8.09	20.0	9.4
25	0910	1700	60.0	3.0	286	8.11	20.0	9.2
AUG								
18	0905	1000	48.0	3.0	276	8.20	23.5	9.0
18	0910	1000	48.0	10.0	276	8.22	24.0	8.9
18	0915	1000	48.0	25.0	276	8.22	24.0	9.0
18	0920	1000	48.0	40.0	275	8.22	23.5	8.9
18	0925	1700	44.0	3.0	277	8.22	24.0	8.9
18	0930	1700	44.0	10.0	277	8.27	24.0	8.8
18	0935	1700	44.0	20.0	277	8.26	24.0	8.8
18	0940	1700	44.0	30.0	276	8.26	24.0	8.8

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
29	1030	286000	3	2320	86
APR					
14	0845	263000	8	5680	71
MAY					
12	0900	270000	5	3650	85
19	0915	250000	14	9450	--
JUN					
25	0900	267000	3	2160	91
25	0930	251000	5	3390	--
JUL					
28	1100	257000	4	2780	--

04221000 GENESEE RIVER AT WELLSVILLE, NY

LOCATION.--Lat 42°07'20", long 77°57'27", Allegany County, Hydrologic Unit 04130002, on left bank 35 ft upstream from concrete weir at Wellsville, 0.5 mi upstream from bridge on State Highway 17, 0.6 mi upstream from Crowner Brook and sewage treatment plant, 0.6 mi downstream from Dyke Creek, and 140.9 mi upstream from mouth.

DRAINAGE AREA.--288 mi^2.

PERIOD OF RECORD.--August 1955 to September 1958, October 1972 to current year.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,470.00 ft above National Geodetic Vertical Datum of 1929. October 1957 to September 1958, nonrecording gage at site 0.4 mi upstream at datum 3.00 ft higher. August 1955 to September 1957, at same site at datum 8.00 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Record for station 04221500 Genesee River at Scio, 5.2 mi downstream, published for June 1916 to September 1972. Satellite and gage-height telemeter at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--18 years (water years 1956-58, 1973-87), 398 ft^3/s, 18.77 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,800 ft^3/s Mar. 8, 1956 (site and datum then in use, from graph based on gage readings) and Oct. 28, 1981 (present site and datum); maximum gage height, 13.60 ft October 28, 1981; minimum daily, 18 ft^3/s Sept. 9, 1957.

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.

EXTREMES 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)
Apr. 5	0030	4,760	8.70	Sept. 13	0600	*9,520	*11.28

Minimum discharge, 29 ft^3/s Aug. 17, gage height, 4.28 ft (momentary regulation). Unregulated minimum, 31 ft^3/s Aug. 25-27, gage height, 4.29 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	310	167	415	e200	143	e280	934	500	117	344	72	56
2	204	170	412	e170	145	e960	998	444	512	1230	65	52
3	416	172	1180	e170	151	e560	905	441	339	982	72	50
4	1650	163	949	e160	139	e400	1410	473	489	570	67	46
5	834	157	624	e160	e120	e360	3380	365	273	428	67	43
6	544	261	549	e150	e120	e400	2900	332	201	348	62	41
7	414	228	505	e150	e120	e1300	2670	305	191	394	58	47
8	331	219	510	e160	e110	e2400	1720	278	173	539	53	83
9	278	310	550	e160	e100	e1900	1250	252	167	548	57	93
10	242	277	986	e160	e100	e960	979	229	137	380	66	62
11	207	252	579	e160	e100	e740	783	210	115	307	55	54
12	187	266	486	e150	e100	616	757	233	149	259	49	2110
13	192	279	e400	e150	e94	519	876	195	375	222	44	4890
14	243	237	e340	e250	e90	437	669	170	297	217	41	1020
15	224	222	e390	e350	e84	386	573	218	187	199	39	594
16	190	233	356	e460	e76	331	524	178	148	163	36	453
17	177	235	333	e300	e70	297	478	153	124	142	35	665
18	172	226	333	e260	e70	277	444	139	107	123	36	1840
19	157	239	319	e240	e70	272	394	150	95	111	35	1240
20	145	207	281	e230	e72	271	355	146	89	105	44	1430
21	135	311	250	e210	e72	272	316	133	96	95	39	924
22	130	282	e190	e180	e72	267	284	120	259	84	37	774
23	122	285	e180	e160	e74	273	275	111	496	78	39	611
24	116	562	e190	e140	e74	307	508	102	220	73	35	505
25	112	522	e420	e130	e74	349	534	96	170	69	32	436
26	137	703	358	e140	e76	731	369	92	210	145	31	352
27	157	957	287	e140	e72	534	339	96	255	127	145	299
28	194	667	262	e140	e74	484	1020	88	172	80	204	259
29	180	587	248	e140	---	446	722	80	155	70	150	226
30	222	509	e230	149	---	466	568	79	464	71	87	311
31	186	---	e220	150	---	1160	---	188	---	113	65	---
TOTAL	8808	9905	13332	5869	2662	18955	27934	6596	6782	8616	1917	19566
MEAN	284	330	430	189	95.1	611	931	213	226	278	61.8	652
MAX	1650	957	1180	460	151	2400	3380	500	512	1230	204	4890
MIN	112	157	180	130	70	267	275	79	89	69	31	41
CFSM	.99	1.15	1.49	.66	.33	2.12	3.23	.74	.78	.97	.21	2.26
IN.	1.14	1.28	1.72	.76	.34	2.45	3.61	.85	.88	1.11	.25	2.53

CAL YR	1986	TOTAL	137064	MEAN	376	MAX	5800	MIN	33	CFSM	1.30	IN. 17.7
WTR YR	1987	TOTAL	130942	MEAN	359	MAX	4890	MIN	31	CFSM	1.25	IN. 16.9

e Estimated

04223000 GENESEE RIVER AT PORTAGEVILLE, NY

LOCATION.--Lat 42°34'13", long 78°02'33", Wyoming County, Hydrologic Unit 04130002, on left bank at Portageville, 500 ft downstream from bridge on State Highway 436, 800 ft upstream from abandoned railroad bridge piers, 0.9 mi upstream from Upper Falls, and 89.8 mi upstream from mouth.

DRAINAGE AREA.--984 mi^2.

PERIOD OF RECORD.--August 1908 to current year. Prior to December 1945, published as "at St. Helena". Records published for both sites December 1945 to September 1950.

REVISED RECORDS.--WSP 264: 1908. WSP 564: 1916(M). WSP 2112; WDR NY-82-3: Drainage area. WRD NY 1972: 1950(M), 1951(M), 1956(M), 1959(M), 1964(M), 1967(M).

GAGE.--Water-stage recorder. Datum of gage is 1,080.00 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Aug. 24, 1911, nonrecording gage and Aug. 24, 1911 to Sept. 30, 1946, water-stage recorder at site 8 mi downstream at different datum. Oct. 1, 1946 to June 21, 1972, water-stage recorder at site 1,200 ft downstream at datum 2.60 ft higher (destroyed by flood of June 1972). July 12, 1972 to May 18, 1973, nonrecording gage at site 500 ft upstream at datum 11.48 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Since July 1928, some seasonal regulation by Rushford Lake. Diurnal fluctuation at low flow caused by powerplant. Monthly figures of discharge and runoff 1952 to 1966 water years adjusted for change in contents in Rushford Lake. Gage-height telemeter at station. Satellite gage-height and rain-gage telemeter at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--79 years (water years 1909-87), 1,255 ft^3/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 90,000 ft^3/s June 23, 1972, gage height, 35.25 ft site and datum then in use, from high-water mark, 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; minimum, 18 ft^3/s Oct. 5, 17, 1913, gage height, 1.70 ft site and datum then in use.

EXTREMES 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)
Apr. 5	0800	*14,500	*15.39	No peak greater than base discharge.			

Minimum discharge, 88 ft^3/s Aug. 25, 26, gage height, 8.28 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1840	766	1280	691	e480	e1100	3480	1330	398	1700	330	280
2	989	677	1400	e640	e520	e5400	3340	1110	900	3860	272	251
3	1140	1110	4510	e560	e530	e2900	3310	973	935	5520	537	258
4	7190	666	4880	e520	e490	1730	2970	967	831	2100	360	226
5	3870	612	2590	e500	e460	1400	11800	908	711	1310	265	192
6	2270	666	2120	e500	e440	1280	10900	917	512	954	248	174
7	1770	1300	1900	e560	e440	4000	9300	747	427	942	220	170
8	1430	722	1810	e580	e420	9670	5400	650	431	1030	198	244
9	901	768	1650	e620	e380	7900	3400	595	395	1220	225	540
10	794	841	4850	e600	e380	2940	2430	545	352	1040	536	426
11	731	749	2900	e600	e380	1990	1890	500	301	839	365	350
12	794	718	1930	e580	e380	1740	1950	481	294	828	271	951
13	933	785	e1400	e560	e360	1450	2790	502	1910	670	234	7940
14	1130	756	e1300	e520	e330	1140	2260	437	1390	598	210	2930
15	1020	675	e1300	e1400	e300	1030	1630	527	756	885	193	1480
16	778	682	1180	e2300	e280	905	1490	658	533	669	165	1080
17	732	793	1350	e1200	e280	831	1310	536	401	528	145	866
18	1120	784	1100	e940	e280	787	1200	458	339	399	174	2900
19	1130	766	1380	e860	e290	784	1060	400	305	347	155	3530
20	930	709	1040	e700	e290	817	962	400	275	361	133	3320
21	1450	766	1060	e680	e300	854	864	378	273	422	118	2880
22	1460	905	e840	e560	e300	861	781	358	373	293	120	1920
23	1750	1100	e640	e520	e300	891	827	367	1070	254	121	1550
24	1310	1690	685	e480	e310	1080	1200	325	816	234	111	1220
25	464	2140	1850	e460	e320	1250	2040	294	606	281	104	1060
26	503	2320	1760	e500	e330	3370	1240	280	492	1500	99	887
27	652	3860	1210	e500	e330	2330	955	285	716	945	542	798
28	797	2160	1000	e500	e340	1710	2430	305	589	466	1000	776
29	834	1630	891	e500	---	1420	2840	283	489	340	1180	713
30	969	1410	1070	e520	---	1330	1770	226	750	272	538	1450
31	1830	---	1050	e520	---	3700	---	311	---	355	360	---
TOTAL	43511	33526	53926	21171	10240	68590	87819	17053	18570	31162	9529	41362
MEAN	1404	1118	1740	683	366	2213	2927	550	619	1005	307	1379
MAX	7190	3860	4880	2300	530	9670	11800	1330	1910	5520	1180	7940
MIN	464	612	640	460	280	784	781	226	273	234	99	170

CAL YR	1986	TOTAL	484126	MEAN	1326	MAX	13900	MIN 164
WTR YR	1987	TOTAL	436459	MEAN	1196	MAX	11800	MIN 99

e Estimated

04224000 MOUNT MORRIS LAKE NEAR MOUNT MORRIS, NY

LOCATION.--Lat 42°44'00", long 77°54'40", Livingston County, Hydrologic Unit 04130002, at Mount Morris Dam on Genesee River, 2.0 mi northwest of Mount Morris, 5 mi upstream from Canaseraga Creek, and 69.3 mi upstream from mouth.

DRAINAGE AREA.--1,080 mi^2.

PERIOD OF RECORD.--January 1952 to current year. Prior to October 1970, published as "Mount Morris Reservoir near Mount Morris."

REVISED RECORDS.--WSP 1437: 1955. WSP 2112; WDR NY-82-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U. S. Army Corps of Engineers). Prior to Apr. 8, 1952, reference point at same site and datum.

REMARKS.--Lake is formed by a concrete gravity-type dam with overflow spillway, completed by U. S. Army Corps of Engineers in 1951 for flood control; first used for flood regulation on Nov. 24, 1951. Usable capacity, 336,800 acre-ft between elevation 585.0 ft, sill of conduits, and 760.0 ft, crest of spillway. Dead storage, 609 acre-ft. Discharge is controlled by the operation of nine gates. Water is stored during high flows and released when downstream conditions warrant.

COOPERATION.--Capacity table provided by U. S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 755.46 ft June 25, 1972, contents, 322,600 acre-ft; minimum, 584.23 ft Sept. 2, 1976, contents, 475.8 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 667.33 ft Apr. 8, 9, contents, 92,760 acre-ft; minimum, 588.17 ft Sept. 8, contents 1,254 acre-ft.

Capacity table (elevation, in feet, and usable contents, in acre-feet)
(Furnished by U. S. Army Corps of Engineers in 1953)

584.00	436	605.00	8,250	660.00	78,200
586.00	782	610.00	11,600	680.00	119,800
588.00	1,210	620.00	19,800	700.00	166,300
590.00	1,730	630.00	30,500	730.00	245,200
595.00	3,410	640.00	43,700	750.00	305,100
600.00	5,610				

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	597.20	594.55	602.34	593.03	594.51	595.35	615.53	608.25	589.34	599.56	589.77	589.57
2	594.20	590.83	594.27	593.71	594.50	615.48	616.81	602.00	590.54	598.11	589.73	589.53
3	591.39	592.94	606.39	594.92	594.50	627.22	618.38	594.31	594.17	621.33	590.06	589.37
4	611.84	590.72	621.32	594.07	594.52	629.61	617.86	593.90	592.28	625.12	589.84	589.07
5	623.01	590.06	624.03	594.24	594.52	628.96	630.76	594.09	592.39	623.16	589.64	588.68
6	623.52	589.98	623.16	594.00	594.51	624.82	647.60	593.88	590.50	618.98	589.63	588.43
7	621.70	593.60	621.80	595.94	594.56	621.20	659.77	592.87	589.52	611.70	589.59	588.24
8	618.03	591.66	619.51	598.00	594.53	630.48	666.43	591.42	589.45	600.35	589.56	588.31
9	612.72	590.85	616.54	598.01	594.51	640.23	666.93	591.10	589.47	593.99	589.59	588.42
10	601.30	591.53	617.17	597.02	593.75	640.79	664.43	591.04	589.36	593.74	589.84	588.44
11	590.83	591.21	622.73	596.31	593.93	636.25	660.26	591.03	589.31	591.85	589.91	588.42
12	591.17	590.76	622.07	595.12	594.52	630.85	653.98	591.01	589.30	591.33	589.61	588.82
13	591.78	591.09	616.46	594.30	594.16	624.73	650.30	591.09	594.19	590.90	589.54	601.45
14	594.03	591.29	606.15	594.19	593.08	617.74	646.82	591.03	603.88	590.06	589.45	621.31
15	593.73	590.59	594.91	599.25	592.69	609.87	641.49	591.01	595.27	591.40	589.39	614.54
16	591.87	590.47	604.01	610.90	592.26	600.45	635.17	592.11	590.72	590.81	589.34	601.86
17	590.92	591.20	607.51	615.47	592.10	592.90	628.89	591.43	589.79	589.94	589.31	591.89
18	592.44	591.60	609.94	615.79	592.78	592.36	621.91	590.98	589.60	589.82	589.30	597.33
19	593.59	591.85	611.54	615.77	592.95	592.06	614.72	590.30	589.57	589.79	589.32	610.85
20	593.11	591.30	613.38	614.85	592.64	591.97	607.34	589.98	589.57	589.75	589.29	613.16
21	595.49	590.88	613.91	613.83	592.50	592.32	595.57	589.60	589.56	589.75	589.24	615.54
22	595.87	591.81	614.32	612.44	592.57	592.50	592.18	589.28	589.97	589.73	589.30	613.62
23	595.86	593.07	613.59	610.13	592.95	592.67	591.95	589.34	593.61	589.71	589.28	609.48
24	597.24	595.45	612.12	607.48	592.83	593.59	593.65	589.33	594.05	589.68	589.25	604.12
25	589.68	603.33	612.26	603.56	592.59	594.35	601.74	589.33	591.88	589.62	589.16	594.26
26	589.34	603.96	616.67	598.09	592.39	602.16	600.13	589.32	590.51	591.67	588.92	592.73
27	589.91	611.90	615.56	594.25	592.48	610.37	593.55	589.32	591.78	601.30	588.87	591.56
28	590.76	615.18	611.88	594.52	592.80	607.29	597.06	589.32	591.68	591.85	593.43	591.32
29	591.39	612.82	607.05	594.56	---	603.18	610.07	589.32	590.66	590.14	594.17	590.75
30	591.58	608.57	601.48	594.55	---	596.00	611.49	589.31	590.86	589.96	591.43	591.43
31	597.10	---	594.79	594.53	---	602.89	---	589.31	---	589.83	589.62	---
MEAN	598.15	595.17	611.90	600.74	593.45	610.67	625.09	591.79	591.43	596.61	589.82	597.08
MAX	623.52	615.18	624.03	615.79	594.56	640.79	666.93	608.25	603.88	625.12	594.17	621.31
MIN	589.34	589.98	594.27	593.03	592.10	591.97	591.95	589.28	589.30	589.62	588.87	588.24
†	5,926	8,880	2,869	3,342	2,768	12,980	11,840	1,551	2,449	1,678	1,621	2,754
††	+65.5	+49.6	-97.8	+7.69	-10.3	+166	-19.2	-167	+15.1	-12.5	-0.93	+19.0

CAL YR 1986 MEAN 605.15 MAX 661.46 MIN 585.38 †† +12.9
WTR YR 1987 MEAN 600.18 MAX 666.93 MIN 588.24 †† +1.18

† Contents, in acre-ft, at end of month.

†† Change in contents, equivalent in cubic feet per second.

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.

GAGE.--Water-stage recorder. Datum of gage is 715.60 ft above National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--13 years, 96.1 ft^3/s, 14.68 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,870 ft^3/s Sept. 20, 1977, gage height, 5.51 ft; minimum discharge, 6.7 ft^3/s Aug. 27, Sept 7, 8, 1985; minimum gage height, 0.70 ft several days in August, September, and October 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 7	1830	*1,460	*3.02	July 2	1630	1,170	2.72
Apr. 5	0045	1,320	2.88	Sept. 13	0400	1,180	2.73

Minimum discharge, 15 ft^3/s part of each day Aug. 23-26, gage height, 0.85 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	45	75	57	e54	206	186	144	23	63	21	21
2	30	46	82	e50	e60	487	228	130	28	323	22	22
3	30	51	342	e38	e56	237	211	113	27	246	41	22
4	219	44	289	e30	e32	168	416	94	27	106	25	20
5	102	40	183	e34	e40	151	940	79	24	57	21	19
6	61	51	149	e38	e46	164	966	72	21	41	20	19
7	46	50	130	e40	e48	620	915	64	23	35	19	19
8	37	45	152	e46	e50	991	419	58	26	35	18	21
9	33	44	156	e44	e40	614	257	52	24	94	23	26
10	32	41	404	e42	e36	229	209	47	22	77	61	21
11	28	38	217	e42	e34	e160	179	42	21	38	32	19
12	26	39	170	e44	e32	e135	185	46	21	36	24	40
13	32	42	126	e46	e26	e125	313	41	38	30	21	344
14	41	44	101	e50	e22	e100	191	37	29	30	19	93
15	35	44	113	210	e16	e80	153	54	23	35	18	49
16	30	38	94	e180	e16	e76	141	44	21	27	17	41
17	31	45	90	e64	e16	e68	131	37	19	23	18	59
18	55	44	99	e62	e18	e62	125	34	18	21	18	308
19	48	45	107	e60	e21	e66	118	38	17	20	21	197
20	39	49	83	e42	e23	69	106	35	17	20	22	150
21	34	57	e56	e40	e26	71	90	32	18	20	18	132
22	31	54	e46	e36	e32	72	80	30	42	19	18	111
23	30	53	e50	e24	e32	81	75	41	105	18	17	107
24	34	170	59	e22	e26	102	134	30	33	17	16	79
25	32	137	157	e20	e24	116	140	29	26	17	15	77
26	38	161	131	e26	e20	211	96	28	26	31	15	57
27	50	221	90	e34	e22	147	80	27	31	28	63	49
28	51	147	79	e40	e30	135	357	26	33	19	47	44
29	48	116	71	e44	---	118	237	24	30	18	44	42
30	67	94	65	e48	---	111	172	23	37	25	32	171
31	54	---	62	e50	---	217	---	23	---	33	24	---
TOTAL	1480	2095	4028	1603	898	6189	7850	1574	850	1602	790	2379
MEAN	47.7	69.8	130	51.7	32.1	200	262	50.8	28.3	51.7	25.5	79.3
MAX	219	221	404	210	60	991	966	144	105	323	63	344
MIN	26	38	46	20	16	62	75	23	17	17	15	19
CFSM.	54	.79	1.46	.58	.36	2.25	2.94	.57	.32	.58	.29	.89
IN.	.62	.88	1.69	.67	.38	2.59	3.28	.66	.36	.67	.33	.99

CAL YR	1986	TOTAL	30587	MEAN	83.8	MAX	518	MIN	11	CFSM	.94	IN. 12.8
WTR YR	1987	TOTAL	31338	MEAN	85.9	MAX	991	MIN	15	CFSM	.97	IN. 13.1

e Estimated

04227000 CANASERAGA CREEK AT SHAKERS CROSSING, NY

LOCATION.--Lat 42°44'13", long 77°50'27", Livingston County, Hydrologic Unit 04130002, on right bank 100 ft upstream from bridge on State Highway 408 at Shakers Crossing, 1.4 mi upstream from mouth, and 1.5 mi northeast of Mount Morris.

DRAINAGE AREA.--335 mi^2.

PERIOD OF RECORD.--July 1915 to September 1922 (gage height only), November 1958 to September 1970, October 1974 to current year.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 545.52 ft above National Geodetic Vertical Datum of 1929. Prior to July 1981 at site 250 ft east on left bank of old filled-in channel at same datum and prior to November 1958 at site 250 ft east and 40 ft north at datum 5.52 ft lower. April 1968 to September 1970, and since October 1974, auxiliary water-stage recorder 0.6 mi downstream from base gage.

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

AVERAGE DISCHARGE.--24 years (water years 1960–70, 1975–87), 289 ft^3/s, 11.72 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,270 ft^3/s Mar. 4, 1976, gage height, 13.33 ft; maximum gage height, 23.62 ft present datum, May 17, 1916 (backwater from Genesee River); minimum discharge, 4.3 ft^3/s Aug. 19, 1970, gage height, 2.26 ft, result of temporary regulation.

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).

EXTREMES 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)
Apr. 5	0430	*4,400	*11.70	No other peak greater than base discharge.			

Minimum discharge, 44 ft^3/s Aug. 25, 27, gage height, 3.57 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	268	142	202	190	174	e900	838	358	79	259	79	78
2	135	152	483	177	181	1770	958	314	148	482	69	70
3	113	171	1540	e170	202	929	834	276	117	977	189	77
4	576	147	1180	e150	206	566	1220	256	116	373	103	68
5	314	129	526	e160	e170	453	3390	234	99	179	77	64
6	170	157	339	e170	e170	436	2790	220	82	112	72	55
7	111	167	285	212	e190	1090	2670	202	79	93	67	61
8	81	145	359	225	e200	1950	1730	186	100	175	62	72
9	75	144	392	208	e190	1590	1040	178	91	280	81	87
10	110	132	960	203	e170	1220	629	165	81	465	196	67
11	106	123	481	224	e160	984	433	158	74	188	113	59
12	96	125	310	212	e150	654	389	159	83	205	80	82
13	182	130	e290	198	e130	304	1070	153	97	149	69	516
14	176	117	e480	207	e110	294	689	139	97	164	60	194
15	142	113	505	809	e110	296	345	169	75	184	56	88
16	123	124	315	739	e100	278	359	161	63	117	58	78
17	138	102	271	e320	e100	264	309	138	55	98	50	125
18	217	132	291	e300	e100	220	308	129	59	90	77	380
19	168	133	301	e260	e100	214	298	144	51	77	58	655
20	137	111	259	e230	e100	215	284	133	48	124	88	305
21	122	167	235	e190	e100	212	278	123	53	97	57	254
22	112	170	184	e170	e110	213	254	136	213	74	56	201
23	112	184	184	e160	e110	218	243	302	456	66	55	233
24	123	348	197	e150	e110	236	369	142	158	62	48	186
25	118	306	406	e150	e100	254	456	117	102	64	45	209
26	127	458	354	e150	e100	497	312	108	86	91	48	152
27	157	699	274	e150	e100	402	273	105	110	102	142	129
28	164	348	247	e170	e110	319	818	96	117	74	170	115
29	156	268	231	e200	---	280	708	88	103	62	154	104
30	189	233	219	e200	---	259	467	82	233	78	114	363
31	175	---	208	207	---	689	---	78	---	151	81	---
TOTAL	4993	5877	12508	7261	3853	18206	24761	5249	3325	5712	2674	5127
MEAN	161	196	403	234	138	587	825	169	111	184	86.3	171
MAX	576	699	1540	809	206	1950	3390	358	456	977	196	655
MIN	75	102	184	150	100	212	243	78	48	62	45	55
CFSM	.48	.58	1.20	.70	.41	1.75	2.46	.51	.33	.55	.26	.51
IN.	.55	.65	1.39	.81	.43	2.02	2.75	.58	.37	.63	.30	.57

CAL YR	1986	TOTAL	109525	MEAN	300	MAX	3270	MIN	41	CFSM	.90	IN. 12.2
WTR YR	1987	TOTAL	99546	MEAN	273	MAX	3390	MIN	45	CFSM	.81	IN. 11.1

e Estimated

04227500 GENESEE RIVER NEAR MOUNT MORRIS, NY

LOCATION.--Lat 42°46'00", long 77°50'21", Livingston County, Hydrologic Unit 04130002, on right bank 100 ft north of Jones Bridge Road, 0.8 mi downstream from Canaseraga Creek, 2.8 mi northeast of Mount Morris and 63.0 mi upstream from mouth.

DRAINAGE AREA.--1,424 mi^2.

PERIOD OF RECORD.--May 1903 to April 1906, August 1908 to April 1914, July 1915 to current year. Prior to 1968, published as "at Jones Bridge."

REVISED RECORDS.--WSP 1277: 1952. WSP 1387: 1913. WSP 1437: 1955. WSP 2112; WDR NY–82–3: Drainage area. WDR NY–78–1: 1974–77 (M, m).

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 540.12 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 11, 1915, nonrecording gage on bridge at datum 2.85 ft lower.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Diurnal fluctuation at low flow caused by powerplant. Flow regulated to some extent by Rushford Lake since July 1928, and at high flows since November 1951 by Mount Morris Lake (see station 04224000). Monthly figures of discharge and runoff 1952 to 1966 water years adjusted for change in contents in Rushford Lake and Mount Morris Lake. U.S. Army Corps of Engineers gage-height telemeter at station. Satellite gage-height telemeter at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--77 years (water years 1909–13, 1916–87), 1,673 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 55,100 ft^3/s May 17, 1916, gage height, 25.44 ft; maximum gage height, 25.80 ft, present datum, Mar. 13, 1920 (ice jam); minimum discharge, 12 ft^3/s July 23, 1955, gage height, 0.22 ft, partially obstructed intake; minimum daily, 30 ft^3/s Aug. 8, 1909.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,030 ft^3/s Apr. 12 at 0515 hours, gage height, 13.68 ft; minimum, 178 ft^3/s Aug. 26, gage height, 1.81 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1800	1590	2540	1160	e940	e1600	4210	2910	476	1920	437	422
2	1810	948	2110	973	e980	e4000	4870	2570	716	2040	378	365
3	1010	1360	4190	913	e1000	e2600	4860	1690	1510	3810	674	362
4	2960	950	4680	e880	e960	2350	4970	1480	991	3380	624	344
5	3810	770	4040	e860	e900	3250	6410	1450	1020	3120	395	311
6	3640	777	3740	e840	e840	4490	3830	1390	698	3340	352	278
7	3510	1530	3590	e900	e800	4980	3700	1240	544	3250	327	270
8	3340	1010	3610	e1000	e780	6450	4940	996	540	2240	303	298
9	3050	898	3510	e1000	e740	7140	6660	897	526	1670	312	513
10	2510	982	4290	1020	e720	7380	7820	835	467	1880	614	593
11	958	943	3950	1020	e720	6720	8590	778	417	1200	641	461
12	936	863	4150	974	e680	6340	8930	720	393	1070	410	437
13	1090	901	4620	927	e650	5570	7950	745	889	969	347	4150
14	1600	927	3630	856	e600	4470	7770	684	2300	781	315	e4200
15	1530	817	1790	1860	e550	3400	8080	708	1330	1060	292	e4500
16	1150	798	1320	2060	e480	2520	6950	892	650	929	281	3030
17	941	900	1390	e1600	e440	1480	6170	786	476	696	244	1370
18	1260	974	1470	e1500	e440	1320	5060	675	399	530	277	2130
19	1510	1020	1510	e1400	e460	1260	3840	610	355	441	269	e3600
20	1360	946	1490	e1300	e460	1230	3010	571	324	505	275	e3500
21	1680	966	1470	e1300	e460	1270	2010	541	311	525	227	e3400
22	1800	1120	1420	e1200	e460	1300	1340	522	542	424	221	e3400
23	1800	1360	1400	e1150	e460	1320	1280	747	1430	350	221	3200
24	2140	1870	1390	e900	e480	1500	1640	521	1310	321	207	2620
25	728	2640	1690	e840	e480	1730	2630	453	778	325	195	1720
26	624	2860	2250	e880	e500	2610	2510	424	568	564	186	1260
27	772	3580	2710	e880	e480	3370	1610	419	717	2190	322	1010
28	939	3380	2550	e900	e500	3330	2460	416	775	707	1370	960
29	1070	3160	2350	e900	---	2690	3370	411	614	452	1670	898
30	1130	2900	2100	e920	---	2150	3180	374	730	405	931	1700
31	1940	---	1710	e940	---	2910	---	353	---	474	547	---
TOTAL	54398	43740	82660	33853	17960	102730	140650	27808	22796	41568	13864	51302
MEAN	1755	1458	2666	1092	641	3314	4688	897	760	1341	447	1710
MAX	3810	3580	4680	2060	1000	7380	8930	2910	2300	3810	1670	4500
MIN	624	770	1320	840	440	1230	1280	353	311	321	186	270

CAL YR	1986	TOTAL	719886	MEAN	1972	MAX	7490	MIN 196
WTR YR	1987	TOTAL	633329	MEAN	1735	MAX	8930	MIN 186

e Estimated

04227980 CONESUS LAKE NEAR LAKEVILLE, NY

LOCATION.--Lat 42°47'39", long 77°43'15", Livingston County, Hydrologic Unit 04130003, on west shore of Conesus Lake at Geneseo Water Works pumping station, 300 ft east of State Highway 256, and 3.0 mi south of Lakeville.

DRAINAGE AREA.--69.8 mi^2.

PERIOD OF RECORD.--July 1963 to current year. Since 1930 in files of village of Geneseo.

REVISED RECORDS.--WSP 2112; WDR NY-82-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Oct. 1, 1970 to Sept. 30, 1975, at datum 800.00 ft higher. Prior to Oct. 1, 1970, nonrecording gage at site 200 ft downstream at datum 796.59 ft higher.

REMARKS.--Lake level maintained by plank and pile dam 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 observed, 816.33 ft present datum, Nov. 3–8, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 819.86 ft Apr. 7; minimum, 816.98 ft Sept. 29.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	817.84	817.63	817.71	817.92	818.66	818.82	818.69	e818.67	e818.00	817.93	817.78	817.21
2	817.85	817.64	817.76	817.93	818.67	819.14	818.72	e818.63	e818.02	817.95	817.76	817.20
3	817.88	817.63	817.97	817.97	818.67	819.25	818.74	e818.59	818.03	818.01	817.77	817.18
4	817.97	817.62	818.15	817.96	818.68	819.25	818.81	e818.56	818.05	818.05	817.75	817.16
5	818.05	817.60	818.23	817.96	818.69	819.20	819.33	e818.53	818.03	818.07	817.72	817.13
6	818.08	817.60	818.25	817.97	818.69	819.15	819.61	e818.48	817.99	818.08	817.70	817.11
7	818.05	817.59	818.26	817.97	818.70	819.16	e819.80	e818.48	817.97	818.08	817.67	817.10
8	818.01	817.57	818.27	817.99	818.71	819.24	e819.85	e818.40	817.97	818.11	817.64	817.10
9	817.98	817.57	818.31	818.00	818.72	819.30	e819.83	e818.37	817.95	818.11	817.65	817.10
10	817.94	817.54	818.36	818.03	818.73	819.28	e819.72	e818.32	817.91	818.10	817.68	817.08
11	817.89	817.52	818.36	818.05	818.74	819.22	e819.61	e818.30	817.88	818.08	817.66	817.06
12	817.83	817.51	818.36	818.08	818.74	819.15	e819.50	e818.25	817.88	818.06	817.63	817.06
13	817.84	817.49	818.33	818.09	818.75	819.07	e819.47	e818.21	817.88	818.04	817.60	817.06
14	817.85	817.46	818.28	818.11	818.74	818.99	e819.43	e818.17	817.86	818.06	817.57	817.07
15	817.83	817.43	818.25	818.19	818.74	818.92	e819.36	e818.16	817.84	818.06	817.55	817.06
16	817.80	817.41	818.22	818.31	818.74	818.85	e819.26	e818.13	817.81	818.04	817.52	817.05
17	817.79	817.40	818.19	818.38	818.74	818.77	e819.16	e818.11	817.78	818.01	817.51	817.05
18	817.78	817.39	818.18	818.42	818.73	818.70	e819.07	e818.10	817.75	817.98	817.50	817.06
19	817.76	817.39	818.17	818.47	818.73	818.64	e818.98	e818.11	817.73	817.95	817.47	817.07
20	817.74	817.38	818.15	818.51	818.73	818.57	e818.89	e818.08	817.70	817.98	817.45	817.06
21	817.72	817.38	818.13	818.53	818.72	818.52	e818.79	e818.07	817.68	817.97	817.41	817.05
22	817.69	817.37	818.09	818.55	818.72	818.46	e818.70	e818.06	817.79	817.95	817.40	817.06
23	817.68	817.37	818.06	818.59	818.72	818.42	e818.63	e818.13	817.97	817.92	817.38	817.05
24	817.68	817.38	818.03	818.61	818.72	818.42	e818.58	e818.12	817.96	817.89	817.34	817.05
25	817.67	817.39	818.05	818.62	818.72	818.43	e818.57	e818.10	817.95	817.86	817.30	817.04
26	817.65	817.46	818.05	818.63	818.71	818.47	e818.52	e818.09	817.95	817.85	817.26	817.02
27	817.65	817.60	818.04	818.63	818.70	818.50	e818.47	e818.08	817.95	817.82	817.29	817.01
28	817.65	817.66	818.02	818.64	818.70	818.52	e818.53	e818.07	817.94	817.79	817.29	817.00
29	817.64	817.70	818.00	818.64	---	818.53	e818.63	e818.06	817.92	817.75	817.29	817.00
30	817.66	817.72	817.97	818.65	---	818.54	e818.68	e818.03	817.93	817.77	817.27	817.05
31	817.66	---	817.95	818.66	---	818.62	---	e818.01	---	817.81	817.24	---
MEAN	818.81	817.51	818.13	818.29	818.71	818.84	819.06	818.24	817.90	817.97	817.52	817.08
MAX	818.08	817.72	818.36	818.66	818.75	819.30	819.85	818.67	818.05	818.11	817.78	817.21
MIN	817.64	817.37	817.71	817.92	818.66	818.42	818.47	818.01	817.68	817.75	817.24	817.00

CAL YR 1986 MEAN 818.22 MAX 819.27 MIN 817.37
WTR YR 1987 MEAN 818.07 MAX 819.85 MIN 817.00

e Estimated

04228500 GENESEE RIVER AT AVON, NY

LOCATION.--Lat 42°55'04", long 77°45'27", Livingston County, Hydrologic Unit 04130003, on right bank 250 ft downstream from bridge on U.S. Highway 20 (State Highway 5), 0.3 mi west of Avon, 0.8 mi downstream from Conesus Creek, and 35.6 mi upstream from mouth.

DRAINAGE AREA.--1,673 mi^2.

PERIOD OF RECORD.--August 1955 to current year.

REVISED RECORDS.--WSP 2112; WDR NY-82-3: Drainage area.

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 500.11 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Diurnal fluctuation at low flow caused by powerplant. Flow regulated to some extent by Rushford Lake, 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. Satellite gage-height and rain-gage telemeter at station. National Weather Service gage-height telemeter at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--32 years (water years 1956-87), 1,947 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,500 ft^3/s, June 25, 1972, gage height, 40.67 ft; minimum, 47 ft^3/s, Oct. 10-11, 1980, gage height, 13.70 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,020 ft^3/s, Apr. 13 at 0030 hours, gage height, 31.05 ft; minimum, 222 ft^3/s, Aug. 26-27, gage height, 14.36 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1240	2150	2830	1700	e1150	e1300	4350	3260	448	1220	559	564
2	2110	1280	2380	1310	e1200	e4100	5370	2950	638	1940	492	462
3	1300	1150	4360	1070	e1300	4000	5450	2350	1160	2810	528	409
4	2010	1400	5700	e1020	e1300	3070	5320	1740	1210	3400	785	407
5	3810	976	4900	e980	e1200	3160	8320	1640	1080	3170	585	376
6	3790	895	4300	e940	e1100	4760	7500	1540	955	3000	428	332
7	3600	1100	4010	e1050	e1000	5170	6250	1490	721	3540	387	301
8	3390	1500	4170	e1200	e1000	6510	5880	1280	637	2920	355	305
9	3120	1060	4140	e1200	e960	7060	6690	1120	638	1910	354	358
10	2710	1050	5230	e1200	e920	7380	7520	1040	596	1860	476	644
11	1480	1090	4800	e1200	e880	6890	8170	978	539	1500	771	587
12	1050	1030	4240	e1150	e860	6390	8810	911	494	1150	598	491
13	1310	988	4680	e1100	e820	5930	8810	876	476	1110	440	1560
14	1780	1040	4250	e1050	e780	5020	8200	874	1620	924	375	4250
15	1760	998	2980	1930	e720	4110	8120	844	1930	950	334	4790
16	1480	918	1780	2330	e600	3200	7480	913	973	1120	312	4120
17	1200	944	1600	e1900	e540	2240	6620	967	670	870	294	2040
18	1260	1060	1730	e1800	e540	1680	5680	829	525	726	278	1380
19	1610	1100	1870	e1600	e560	1530	4680	761	444	586	301	3200
20	1500	1080	1800	e1500	e560	1480	3650	693	398	547	295	3730
21	1510	1030	1720	e1500	e560	1470	3000	669	360	614	282	3690
22	1850	1100	1630	e1450	e560	1500	1890	635	417	599	251	3700
23	1840	1220	1560	e1400	e560	1480	1560	744	1020	452	249	3490
24	2170	1610	1560	e1100	e580	1460	1710	731	1480	390	242	2900
25	1440	2420	2020	e1000	e580	1700	2420	596	1060	360	232	2320
26	776	2840	2340	e1050	e600	2170	2860	536	796	385	224	1530
27	834	3940	2970	e1150	e580	3170	2300	509	709	1350	235	1230
28	1010	3850	2910	e1150	e600	3570	2120	499	878	1430	703	1090
29	1170	3460	2700	e1150	---	3110	3510	506	785	666	1340	1030
30	1190	3140	2440	e1200	---	2610	3570	474	680	524	1390	1050
31	1480	---	2080	e1200	---	2640	---	423	---	547	780	---
TOTAL	56780	47419	95680	40580	22610	109860	157810	33378	24337	42570	14875	52336
MEAN	1832	1581	3086	1309	807	3544	5260	1077	811	1373	480	1745
MAX	3810	3940	5700	2330	1300	7380	8810	3260	1930	3540	1390	4790
MIN	776	895	1560	940	540	1300	1560	423	360	360	224	301

CAL YR	1986	TOTAL	807646	MEAN	2213	MAX	8130	MIN	226
WTR YR	1987	TOTAL	698235	MEAN	1913	MAX	8810	MIN	224

e Estimated

04228845 HONEOYE LAKE NEAR HONEOYE, NY

LOCATION.--Lat 42°45'44", long 77°30'26", Ontario County, Hydrologic Unit 04130003, on east shore of Honeoye Lake, at Trident Marina on East Lake Road, 1.9 mi south of U.S. Highway 20A, and 2.0 mi southeast of Honeoye.

DRAINAGE AREA.--41.0 mi^2.

PERIOD OF RECORD.--July to December 1963. Occasional readings January to August 1964. October 1964 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. July 10, 1963 to Sept. 28, 1967, nonrecording gage and Sept. 29, 1967 to Sept. 30, 1969, recording gage at datum 800.35 ft higher. Oct. 1, 1969 to Sept. 30, 1975, at datum 800.00 ft higher.

REMARKS.--Area of water surface, 2.71 mi^2.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 806.91 ft June 23, 1972; minimum observed, 802.15 ft present datum, Oct. 5, 1965, Oct. 1, 2, 1970.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 805.04 ft Apr. 7; minimum, 802.89 ft Aug. 26-27.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	803.14	803.80	804.07	803.64	803.61	803.55	803.84	803.81	803.38	803.79	803.10	803.10
2	803.16	803.82	804.15	803.66	803.60	803.79	803.87	803.81	803.39	803.81	803.10	803.10
3	803.19	803.83	804.42	803.66	803.60	803.89	803.89	803.83	803.39	803.87	803.16	803.09
4	803.33	803.81	804.38	803.66	803.59	803.91	803.99	803.82	803.40	804.10	803.14	803.09
5	803.44	803.81	804.32	803.64	803.59	803.90	804.74	803.80	803.39	804.00	803.15	803.08
6	803.50	803.82	804.27	803.63	803.58	803.88	804.91	803.76	803.35	803.98	803.13	803.08
7	803.53	803.81	804.22	803.63	803.58	803.94	805.02	803.71	803.33	803.95	803.08	803.08
8	803.54	803.81	804.18	803.63	803.57	804.13	804.97	803.75	803.34	803.90	803.02	803.08
9	803.55	803.80	804.15	803.67	803.58	804.24	804.84	803.70	803.31	803.87	803.12	803.09
10	803.56	803.79	804.13	803.70	803.57	804.22	804.68	803.61	803.28	803.84	803.34	803.09
11	803.57	803.82	804.11	803.71	803.56	804.15	804.50	803.64	803.26	803.78	803.32	803.08
12	803.56	803.85	804.10	803.67	803.56	804.09	804.36	803.64	803.25	803.70	803.23	803.09
13	803.59	803.76	804.02	803.66	803.56	804.04	804.34	803.71	803.24	803.63	803.10	803.14
14	803.63	803.81	803.98	803.69	803.55	803.99	804.30	803.73	803.24	803.59	803.09	803.16
15	803.64	803.83	803.95	803.85	803.53	803.94	804.21	803.67	803.25	803.55	803.03	803.16
16	803.63	803.86	803.96	803.82	803.52	803.89	804.12	803.75	803.23	803.47	802.97	803.16
17	803.64	803.87	803.96	803.80	803.51	803.85	804.05	803.73	803.21	803.37	802.96	803.18
18	803.69	803.87	803.94	803.80	803.50	803.82	803.99	803.71	803.17	803.31	803.16	803.21
19	803.69	803.86	803.91	803.79	803.49	803.79	803.95	803.78	803.16	803.26	803.16	803.24
20	803.69	803.86	803.93	803.78	803.48	803.76	803.90	803.79	803.15	803.30	803.11	803.24
21	803.69	803.81	804.01	803.76	803.47	803.74	803.87	803.77	803.14	803.32	803.04	803.24
22	803.67	803.80	803.99	803.74	803.46	803.72	803.81	803.70	803.40	803.22	803.02	803.25
23	803.67	803.84	803.96	803.74	803.48	803.71	803.81	803.59	803.82	803.18	803.06	803.26
24	803.69	803.82	803.95	803.73	803.47	803.69	803.81	803.63	803.78	803.11	803.01	803.27
25	803.70	803.88	804.02	803.71	803.47	803.70	803.82	803.64	803.75	803.09	802.96	803.27
26	803.72	803.96	803.95	803.69	803.46	803.72	803.84	803.66	803.72	803.07	802.91	803.27
27	803.73	804.02	803.92	803.67	803.45	803.74	803.84	803.65	803.66	803.06	803.00	803.26
28	803.75	804.07	803.91	803.65	803.44	803.75	804.10	803.55	803.76	803.04	803.13	803.26
29	803.76	804.07	803.88	803.63	---	803.74	804.02	803.42	803.73	803.01	803.18	803.26
30	803.81	804.06	803.72	803.62	---	803.75	803.82	803.41	803.78	803.02	803.17	803.35
31	803.81	---	803.64	803.62	---	803.78	---	803.39	---	803.10	803.13	---
MEAN	803.59	803.86	804.03	803.70	803.53	803.86	804.17	803.68	803.41	803.49	803.10	803.17
MAX	803.81	804.07	804.42	803.85	803.61	804.24	805.02	803.83	803.82	804.10	803.34	803.35
MIN	803.14	803.76	803.64	803.62	803.44	803.55	803.81	803.39	803.14	803.01	802.91	803.08

CAL YR	1986	MEAN	803.45	MAX	804.42	MIN	802.62
WTR YR	1987	MEAN	803.62	MAX	805.02	MIN	802.91

04229500 HONEOYE CREEK AT HONEOYE FALLS, NY

LOCATION.--Lat 42°57'26", long 77°35'21", Monroe County, Hydrologic Unit 04130003, on right bank 25 ft downstream from bridge on State Highway 65 at Honeoye Falls, and 15.3 mi upstream from mouth.

DRAINAGE AREA.--196 mi^2.

PERIOD OF RECORD.--October 1945 to September 1970, October 1972 to current year.

REVISED RECORDS.--WSP 2112; WDR NY–82–3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 610.00 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 30, 1970, water-stage recorder at same site at datum 609.76 ft NGVD.

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

AVERAGE DISCHARGE.--40 years (water years 1946–70, 1973–87), 123 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,630 ft^3/s Mar. 28, 1950, gage height, 6.42 ft datum then in use, from rating curve extended above 2,700 ft^3/s by logarithmic plotting; minimum, 0.06 ft^3/s Aug. 28, 1949.

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.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,330 ft^3/s Apr. 5 at 1900 hours, gage height, 4.23 ft; minimum discharge, 3.5 ft^3/s June 20-21; minimum gage height, 0.30 ft June 20-21 and Aug. 26-27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	90	123	86	e88	e150	306	285	31	46	45	12
2	46	87	137	74	e90	e850	398	241	102	47	26	12
3	38	99	576	58	e88	e640	389	212	57	106	24	11
4	139	96	584	e100	e86	e310	388	183	89	135	26	11
5	253	83	397	e150	e84	e240	1600	163	52	124	21	9.6
6	183	80	303	e110	e82	e220	1840	145	34	107	18	8.3
7	95	87	283	e100	e80	e390	1680	133	28	99	15	7.2
8	64	84	327	e100	e76	625	1390	121	28	103	13	7.2
9	50	82	313	e96	e76	490	1040	110	31	93	16	7.3
10	45	78	440	e90	e74	305	819	104	27	71	64	7.9
11	42	71	321	e90	e72	246	679	95	21	61	65	8.5
12	38	69	209	e86	e70	237	594	88	22	51	35	9.6
13	61	69	148	e84	e70	217	661	80	30	49	22	8.8
14	105	63	145	e82	e68	183	736	69	31	51	16	11
15	88	58	150	e180	e66	166	603	82	20	67	13	19
16	70	60	142	430	e66	144	534	86	13	58	10	17
17	62	62	140	244	e64	130	455	76	8.6	44	8.9	15
18	84	61	147	178	e64	119	394	67	6.5	35	7.3	20
19	102	59	185	141	e62	111	354	65	5.0	30	7.5	30
20	80	53	181	117	e60	104	313	65	4.0	38	7.5	35
21	67	67	164	125	e58	99	259	67	3.5	57	7.5	30
22	61	83	136	e110	e56	97	212	61	13	41	6.7	24
23	57	85	121	e100	e56	95	187	83	221	30	6.1	21
24	55	138	131	e98	e56	91	205	76	221	23	5.8	19
25	57	147	158	e94	e54	91	271	58	71	20	5.7	20
26	56	182	192	e90	e52	111	243	51	42	18	5.4	19
27	59	424	145	e88	e50	137	203	48	74	19	6.6	17
28	67	299	121	e86	e52	130	427	46	65	17	8.9	16
29	71	190	110	e84	---	121	533	44	50	14	16	15
30	96	149	98	e80	---	109	369	39	42	20	18	23
31	113	---	94	e84	---	150	---	33	---	64	15	---
TOTAL	2442	3255	6721	3635	1920	7108	18082	3076	1442.6	1738	561.9	471.4
MEAN	78.8	108	217	117	68.6	229	603	99.2	48.1	56.1	18.1	15.7
MAX	253	424	584	430	90	850	1840	285	221	135	65	35
MIN	38	53	94	58	50	91	187	33	3.5	14	5.4	7.2

CAL YR	1986	TOTAL	50943.5	MEAN	140	MAX	1600	MIN	1.5
WTR YR	1987	TOTAL	50452.8	MEAN	138	MAX	1840	MIN	3.5

e Estimated

04230380 OATKA CREEK AT WARSAW, NY

LOCATION.--Lat 42°44'39", long 78°08'16", Wyoming County, Hydrologic Unit 04130003, on right bank 400 ft downstream from bridge on Court Street, Warsaw.

DRAINAGE AREA.--39.1 mi^2.

PERIOD OF RECORD.--December 1963 to current year.

REVISED RECORDS.--WSP 2112; WDR NY–82–3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 987.15 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records good except those for estimated daily discharge, which are fair. Gage-height telemeter at station. Satellite gage-height and rain-gage telemeter at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--23 years (water years 1965–87), 53.7 ft^3/s, 18.65 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,010 ft^3/s June 23, 1972, gage height, 9.75 ft, from rating curve extended above 1,770 ft^3/s on basis of slope-area measurement of peak discharge; minimum, 0.90 ft^3/s Aug. 1, 1965; minimum gage height, 0.96 ft Aug. 30–31, 1982.

EXTREMES 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. 10	0015	735	3.79	Apr. 5	0130	*1,140	*4.74
Mar. 7	2015	1,070	4.58				

Minimum discharge, 8.2 ft^3/s June 19, 22, gage height, 1.00 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	115	34	37	46	e50	e140	129	38	11	53	13	11
2	47	38	175	43	e52	e310	140	31	48	42	29	14
3	155	35	492	e40	e51	132	130	28	21	102	54	14
4	281	33	184	e38	e50	119	218	27	17	39	19	11
5	126	30	115	e38	e48	117	615	25	12	23	15	10
6	105	34	105	e41	e47	e110	557	23	11	19	14	9.8
7	54	30	106	e42	e46	455	362	21	11	25	12	9.8
8	40	32	121	41	e45	529	163	20	12	48	11	28
9	37	34	229	40	e44	231	133	19	12	28	32	31
10	35	29	366	40	e43	120	124	17	11	18	41	17
11	31	29	122	39	e42	e100	117	17	10	15	19	13
12	29	30	105	38	e40	e90	126	16	13	13	14	22
13	121	29	84	38	e39	e84	145	15	37	12	12	23
14	95	29	86	42	e38	e80	121	15	15	33	11	16
15	139	30	74	223	e37	e70	e100	33	11	26	10	13
16	64	34	71	116	e36	e66	e86	20	9.6	15	9.9	13
17	57	43	70	93	e35	e64	e76	16	9.2	12	11	13
18	46	34	96	85	e34	63	e66	17	9.1	11	11	21
19	38	31	92	74	e33	63	e60	21	8.6	10	12	23
20	35	29	70	62	e31	65	e50	18	8.5	209	11	27
21	34	31	64	e56	e30	64	48	16	8.5	35	9.6	31
22	33	30	59	e54	e28	63	33	17	65	18	12	47
23	39	40	56	e52	e27	62	34	19	54	14	12	47
24	41	87	60	e50	e26	68	66	15	18	12	9.7	30
25	33	49	192	e48	e25	97	48	15	12	12	9.1	25
26	32	201	102	e47	e25	153	36	15	45	18	8.8	19
27	36	161	77	e46	e25	114	32	14	33	13	31	16
28	54	76	66	e45	e24	112	88	13	23	12	22	14
29	40	56	60	e45	---	94	88	12	23	11	24	15
30	65	46	54	e45	---	92	52	11	130	29	15	48
31	39	---	50	e48	---	152	---	11	---	18	12	---
TOTAL	2096	1424	3640	1755	1051	4079	4043	595	708.5	945	526.1	631.6
MEAN	67.6	47.5	117	56.6	37.5	132	135	19.2	23.6	30.5	17.0	21.1
MAX	281	201	492	223	52	529	615	38	130	209	54	48
MIN	29	29	37	38	24	62	32	11	8.5	10	8.8	9.8
CFSM	1.73	1.21	3.00	1.45	.96	3.37	3.45	.49	.60	.78	.43	.54
IN.	1.99	1.35	3.46	1.67	1.00	3.88	3.85	.57	.67	.90	.50	.60

CAL YR	1986	TOTAL	21112.2	MEAN	57.8	MAX	540	MIN	1.7	CFSM	1.48	IN. 20.1
WTR YR	1987	TOTAL	21494.2	MEAN	58.9	MAX	615	MIN	8.5	CFSM	1.51	IN. 20.4

e Estimated

04230500 OATKA CREEK AT GARBUTT, NY

LOCATION.--Lat 43°00'36", long 77°47'30", Monroe County, Hydrologic Unit 04130003, on right bank 40 ft downstream from bridge on Union Street in Garbutt, 1.5 mi west of Scottsville, and 4.2 mi upstream from mouth.

DRAINAGE AREA.--200 mi^2.

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

REVISED RECORDS.--WSP 2112; WDR NY-82-3: Drainage area. WRD NY 1971: 1960(M).

GAGE.--Water-stage recorder. Datum of gage is 560.86 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. National Weather Service gage-height telemeter at station. Satellite gage-height and rain-gage telemeter at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--42 years, 215 ft^3/s, 14.60 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,050 ft^3/s Mar. 31, 1960, gage height, 8.64 ft; minimum, 3.3 ft^3/s Sept. 11, 12, 1958; minimum gage height, 1.88 ft June 19, 1959, result of regulation; minimum daily discharge, 13 ft^3/s Oct. 30 to Nov. 1, 1966.

EXTREMES 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. 9	1100	1,820	5.63	Apr. 6	2145	*2,450	*6.42

Minimum discharge, 48 ft^3/s Sept. 6, 7, 8, gage height, 2.41 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	194	157	213	238	171	206	633	266	70	103	94	58
2	222	140	203	229	171	e900	712	231	86	161	76	55
3	145	140	646	e200	176	e1400	707	205	92	113	82	52
4	289	140	1060	e170	177	e880	656	189	96	174	111	50
5	475	128	1120	e170	e160	666	1460	180	79	131	98	50
6	585	122	875	200	168	491	2190	172	73	132	78	50
7	439	120	513	208	175	635	2210	166	69	330	68	48
8	243	119	501	227	180	1180	1630	157	68	181	64	53
9	176	117	536	225	e160	1690	997	152	66	141	72	51
10	153	130	1090	211	e150	1140	608	146	63	131	119	74
11	142	123	1130	212	e144	541	447	142	62	104	138	71
12	127	117	1000	208	e138	372	405	138	62	87	103	62
13	195	119	550	199	e132	336	537	134	67	79	81	60
14	405	113	360	198	e126	294	592	132	62	85	69	66
15	426	103	395	352	e120	263	469	141	76	103	62	66
16	412	108	366	658	e114	242	389	157	61	111	59	58
17	335	118	346	602	e110	224	353	146	56	93	57	57
18	265	134	379	e390	e110	213	334	132	54	78	56	87
19	218	129	491	e320	e110	206	317	127	53	71	56	95
20	186	117	440	e250	e110	205	289	129	52	81	55	97
21	170	109	349	e230	e100	206	267	125	51	124	54	96
22	156	111	297	e220	e100	205	243	118	62	186	54	112
23	147	113	255	e200	e100	203	232	118	84	109	53	98
24	145	147	240	e190	e100	198	255	110	149	84	52	129
25	157	240	423	e170	e100	212	292	101	88	74	52	103
26	142	214	605	e170	e100	310	270	94	81	76	51	93
27	135	463	560	e170	e100	410	230	90	93	71	54	78
28	144	507	396	e170	108	348	248	87	126	67	53	70
29	174	442	322	e170	---	336	344	81	93	67	69	65
30	159	271	284	174	---	266	349	77	91	68	66	72
31	185	---	257	175	---	418	---	72	---	82	66	---
TOTAL	7346	5111	16202	7506	3710	15196	18665	4315	2285	3497	2222	2176
MEAN	237	170	523	242	132	490	622	139	76.2	113	71.7	72.5
MAX	585	507	1130	658	180	1690	2210	266	149	330	138	129
MIN	127	103	203	170	100	198	230	72	51	67	51	48
CFSM	1.18	.85	2.61	1.21	.66	2.45	3.11	.70	.38	.56	.36	.36
IN.	1.37	.95	3.01	1.40	.69	2.83	3.47	.80	.43	.65	.41	.40

CAL YR	1986	TOTAL	100809	MEAN	276	MAX	1860	MIN	48	CFSM	1.38	IN. 18.8
WTR YR	1987	TOTAL	88231	MEAN	242	MAX	2210	MIN	48	CFSM	1.21	IN. 16.4

e Estimated

04230650 GENESEE RIVER AT BALLANTYNE BRIDGE, NEAR MORTIMER, NY

LOCATION.--Lat 43°05'32", long 77°40'50", Monroe County, Hydrologic Unit 04130003, on right bank 400 ft upstream from Ballantyne Bridge on State Highway 252, 1.6 mi west of Mortimer, and 2.8 mi upstream from Erie (Barge) Canal.

DRAINAGE AREA.--2,210 mi^2.

PERIOD OF RECORD.--October 1973 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 500.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--River regulated for operation of Erie (Barge) Canal, downstream powerplants, and at high stages by Mount Morris Lake (see station 04224000). Satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 19.33 ft Mar. 5, 1976; minimum recordable, 8.20 ft Nov. 9, 1979, result of regulation.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 16.16 ft Apr. 6–7; minimum recordable, 8.21 ft Feb. 9, result of regulation.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.08	12.37	12.32	11.65	11.85	12.03	13.06	12.87	12.08	12.09	12.09	12.05
2	12.43	12.07	11.72	11.46	11.91	13.28	13.39	12.67	12.02	12.32	11.96	11.94
3	12.06	12.11	12.68	11.39	11.75	13.34	13.78	12.47	12.20	12.36	12.05	11.94
4	12.33	12.31	14.29	11.45	11.44	12.62	13.64	12.16	12.09	12.43	12.17	11.96
5	12.93	11.80	13.85	11.90	11.83	12.51	15.31	12.04	12.10	12.57	12.07	11.79
6	12.99	12.13	13.17	11.77	11.68	13.05	16.09	12.28	12.10	12.57	12.07	11.88
7	12.87	12.16	12.71	11.48	11.42	13.25	15.82	12.18	11.90	12.65	12.04	11.90
8	12.70	12.35	12.95	9.55	8.67	14.19	15.11	12.11	12.05	12.46	11.95	11.79
9	12.47	12.05	12.82	9.76	8.21	14.52	14.79	12.10	12.05	12.29	11.90	11.84
10	12.45	12.09	13.74	9.71	10.23	14.20	14.59	12.07	12.10	12.16	11.88	12.10
11	12.17	12.02	13.66	11.99	12.05	13.54	14.53	12.07	12.06	12.18	12.15	12.11
12	11.99	12.11	13.18	10.26	11.98	13.17	14.75	12.11	12.05	12.02	12.03	12.05
13	12.25	12.01	12.86	11.05	11.88	13.44	14.93	12.04	12.02	12.09	11.95	12.07
14	12.40	12.09	12.64	11.48	12.02	13.06	14.97	11.95	12.28	12.17	11.91	12.74
15	12.32	12.13	12.48	12.24	12.02	12.90	14.64	12.07	12.26	12.17	11.82	12.83
16	12.19	12.15	11.61	12.86	12.03	12.63	14.26	12.05	11.91	12.21	11.82	12.62
17	12.17	12.15	11.83	12.01	11.16	12.39	13.53	12.11	11.99	12.03	11.85	12.06
18	12.07	12.14	12.23	10.64	11.52	12.05	13.07	12.07	11.95	11.93	11.84	11.92
19	12.33	12.15	12.19	10.25	11.92	11.85	13.22	11.96	12.04	12.02	11.82	12.54
20	12.28	11.91	12.28	9.81	11.87	11.98	13.01	11.82	12.09	12.12	11.95	12.75
21	11.95	11.21	12.02	11.83	11.24	12.02	12.78	12.11	12.12	12.06	11.90	12.79
22	12.30	9.80	11.98	12.03	11.87	12.15	12.27	12.01	12.02	12.05	11.78	12.69
23	12.25	9.25	11.42	11.83	11.97	12.24	12.07	12.07	11.79	11.89	11.66	12.46
24	12.41	9.54	11.95	11.52	12.09	11.95	12.04	12.05	11.68	11.81	11.64	12.51
25	12.35	11.84	12.30	12.11	11.90	12.07	12.22	12.02	12.10	11.80	11.81	12.30
26	12.03	11.97	12.60	11.73	12.09	12.01	12.23	12.05	12.12	11.90	11.84	12.15
27	12.11	12.71	12.74	11.97	12.00	12.58	11.81	11.96	12.06	12.09	11.83	12.19
28	11.97	12.88	12.40	11.55	11.89	12.85	12.35	11.90	12.14	12.11	11.93	11.89
29	12.19	12.53	11.94	11.30	---	12.53	12.98	12.02	12.10	12.02	12.20	12.12
30	12.06	12.31	12.27	11.98	---	12.43	13.02	11.99	12.04	12.02	12.04	11.98
31	12.25	---	11.65	11.90	---	12.29	---	12.10	---	12.11	12.05	---
MEAN	12.30	11.88	12.53	11.37	11.52	12.74	13.68	12.11	12.05	12.15	11.94	12.20
MAX	12.99	12.88	14.29	12.86	12.09	14.52	16.09	12.87	12.28	12.65	12.20	12.83
MIN	11.95	9.25	11.42	9.55	8.21	11.85	11.81	11.82	11.68	11.80	11.64	11.79

CAL YR	1986	MEAN	12.28	MAX	15.84	MIN	9.03
WTR YR	1987	MEAN	12.21	MAX	16.09	MIN	8.21

04231000 BLACK CREEK AT CHURCHVILLE, NY

LOCATION.--Lat 43°06'02", long 77°52'57", Monroe County, Hydrologic Unit 04130003, on right bank at east end of Carrol Street in Churchville, 100 ft downstream from mainline tracks of Penn Central Transportation Co., and 0.3 mi downstream from Black Creek Dam.

DRAINAGE AREA.--130 mi^2.

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

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

GAGE.--Water-stage recorder. Datum of gage is 551.88 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Prior to May 1952, small diversion by Penn Central Transportation Co. and slight regulation by pumping operations upstream from station. National Weather Service gage-height telemeter at station. Satellite rain-gage and gage-height telemeter at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--42 years, 115 ft^3/s, 12.01 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,880 ft^3/s Mar. 31, 1960, gage height, 9.44 ft; minimum, 0.22 ft^3/s Aug. 19, 1970; minimum gage height, 0.93 ft Aug. 5-7, Sept. 15, 1959.

EXTREMES 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. 4	2130	944	4.97	Apr. 7	0030	*1,310	*5.80

Minimum discharge, 7.7 ft^3/s Aug. 26, gage height, 1.29 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	204	52	128	124	85	152	443	135	28	36	18	16
2	212	54	176	e110	89	458	545	107	48	34	20	15
3	173	64	525	e100	95	621	521	87	62	34	22	13
4	206	65	868	e70	104	565	511	80	67	32	26	11
5	315	59	820	e90	e96	389	665	78	52	26	23	10
6	377	54	498	e90	e96	271	1170	77	37	78	19	9.7
7	307	49	306	103	e94	324	1270	72	33	179	17	9.1
8	203	46	272	125	e94	481	977	69	35	145	14	15
9	137	47	315	131	e90	549	550	64	34	76	28	26
10	106	43	465	118	e88	349	360	57	30	45	64	30
11	91	44	607	115	e78	179	261	56	26	33	75	23
12	79	52	598	117	e70	145	226	52	26	25	46	20
13	154	58	319	112	e60	135	282	49	28	20	27	35
14	266	52	204	116	e56	117	307	47	30	29	19	40
15	321	46	182	220	e52	109	259	59	24	46	15	26
16	252	50	170	384	e48	101	198	66	20	41	12	21
17	179	61	161	e340	e44	94	169	54	18	30	10	24
18	131	66	181	e190	e44	90	152	45	16	23	9.2	77
19	106	61	225	e130	e45	89	138	45	15	17	12	167
20	89	51	256	e100	e46	87	124	48	14	27	19	291
21	84	47	205	e110	e48	87	116	48	13	39	15	184
22	77	47	153	e100	e50	87	108	47	21	31	12	140
23	73	52	124	e92	53	86	103	63	41	22	9.5	135
24	69	81	117	e84	56	84	125	59	52	16	8.8	88
25	56	104	223	e78	55	87	133	48	37	14	9.2	57
26	51	138	359	e78	52	124	118	44	29	18	8.1	41
27	53	243	387	e78	51	153	98	42	35	23	11	34
28	61	356	258	e80	52	138	133	45	47	19	14	32
29	66	324	190	e80	---	115	178	39	35	15	22	30
30	66	189	156	83	---	110	174	44	35	15	23	36
31	58	---	136	84	---	260	---	37	---	14	19	---
TOTAL	4622	2655	9584	3832	1891	6636	10414	1863	988	1202	646.8	1655.8
MEAN	149	88.5	309	124	67.5	214	347	60.1	32.9	38.8	20.9	55.2
MAX	377	356	868	384	104	621	1270	135	67	179	75	291
MIN	51	43	117	70	44	84	98	37	13	14	8.1	9.1
CFSM	1.15	.68	2.38	.95	.52	1.65	2.67	.46	.25	.30	.16	.42
IN.	1.32	.76	2.74	1.10	.54	1.90	2.98	.53	.28	.34	.19	.47

CAL YR	1986	TOTAL	55201.3	MEAN	151	MAX	1230	MIN	6.8	CFSM	1.16	IN. 15.8
WTR YR	1987	TOTAL	45989.6	MEAN	126	MAX	1270	MIN	8.1	CFSM	.97	IN. 13.2

e Estimated

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 246.24 ft above National Geodetic Vertical Datum of 1929 (247.00 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 3.00 ft higher.

REMARKS.--Records fair except those for periods of estimated daily discharges, which are 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).

AVERAGE DISCHARGE.--80 years (water years 1905–18, 1921–87), 2,807 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48,300 ft^3/s Mar. 30, 1916, gage height, 15.3 ft site and datum then in use; maximum at present site, 34,400 ft^3/s Mar. 19, 1942; maximum gage height, 17.08 ft Apr. 2, 1940, present datum; minimum discharge, less than 10 ft^3/s, occurred during low-water periods in some years when power plant was shut down; minimum daily, 91 ft^3/s Jan. 9, 29, Feb. 1, 8, 1961.

EXTREMES OUTSIDE PERIOD OF RECORD.--Discharge on Mar. 18, 1865, was about 54,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 16,300 ft^3/s Apr. 5 at 0900 hours, gage height, 13.98 ft, result of regulation; minimum daily 488 ft^3/s Aug. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2220	2520	3590	2270	e1690	1530	6110	4100	872	1210	820	e850
2	3140	2310	3510	2240	e1750	5480	7390	4380	1130	2410	e814	e744
3	2480	1410	5530	e1630	e1860	6550	7630	3710	1350	2860	e856	e685
4	2850	2110	8630	e1560	e1870	5240	7410	3040	1850	4190	e1150	e679
5	5080	1700	8080	e1590	e1740	4690	11800	2560	1420	3510	870	e646
6	5350	1390	6760	1540	e1650	5810	13100	2700	1430	4030	e743	e600
7	4880	1370	5610	e1660	e1550	6450	12400	2360	1190	5090	e687	e565
8	4430	2000	5570	1890	e1550	8400	11100	2000	1070	4420	e646	e580
9	4030	1850	5700	e1850	e1490	9690	10400	e1650	954	3000	e670	e642
10	3250	1480	7180	e1820	e1430	9300	9990	e1550	e916	2370	e923	e956
11	2720	1640	7310	e1820	e1370	8070	9920	e1470	829	2320	e1250	e890
12	1530	1460	6250	e1760	e1340	7190	10300	e1390	e804	1600	976	e783
13	2070	1500	5940	e1700	e1280	6670	10700	e1340	e801	1660	e770	e1860
14	2920	1510	5320	e1650	e1230	5770	10500	1310	1530	e1290	e679	e4570
15	3230	1420	4180	2690	e1160	4900	9860	e1330	2600	e1370	e624	e5100
16	2810	1170	3240	4560	e1030	3960	9250	e1420	e1270	e1530	e593	e4420
17	2470	1370	2330	4260	e958	3140	8000	e1440	e953	1350	e570	2920
18	2200	1520	2650	3320	e958	2490	6730	1250	e801	1080	e550	2100
19	2090	e1550	3040	2770	e977	e2140	5810	e1200	e717	e904	e576	e3690
20	2500	e1500	3060	2120	e976	e2080	4700	e1130	e668	1010	e576	4180
21	2220	e1450	2760	e2160	e966	e2060	4140	e1110	e628	e1030	e558	4160
22	2110	e1540	2580	1960	e966	e2090	3050	e1060	e713	e1060	e524	4280
23	2560	e1670	2370	e1990	e969	2080	1920	e1210	e1150	e813	e518	4130
24	e2640	1780	2110	e1670	e992	2060	2370	e1180	2180	e713	e509	3100
25	2380	2390	2860	e1540	e989	2210	3210	1030	1550	e668	e499	3010
26	1460	3450	3700	e1590	e1000	2820	3990	e925	1370	e697	e488	1740
27	1490	4930	4150	e1690	e981	3740	3170	e889	1060	e1660	e507	1390
28	1670	5080	4080	e1690	e1010	4320	2690	e877	1320	1880	e979	1340
29	1680	4610	3840	e1680	---	3960	4180	e870	1220	e962	1630	1380
30	1910	4070	3160	e1740	---	3610	4010	e834	1220	e827	1700	1390
31	1740	---	3000	e1740	---	3410	---	867	---	e907	e1080	---
TOTAL	84110	63750	138090	64150	35732	141910	215830	52182	35566	58421	24335	63380
MEAN	2713	2125	4455	2069	1276	4578	7194	1683	1186	1885	785	2113
MAX	5350	5080	8630	4560	1870	9690	13100	4380	2600	5090	1700	5100
MIN	1460	1170	2110	1540	958	1530	1920	834	628	668	488	565

CAL YR	1986	TOTAL	1035730	MEAN	2838	MAX	11400	MIN	297
WTR YR	1987	TOTAL	977456	MEAN	2678	MAX	13100	MIN	488

e Estimated

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.--2,457 mi 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).
MINOR ELEMENTS DATA: 1971-73 (a), 1974-87 (b).
ORGANIC DATA: OC--1974 (a), 1975 (b), 1977 (b), 1978-80 (c), 1981 (b).
NUTRIENT DATA: 1971 (a), 1974 (b), 1975-82 (c), 1983-87 (b).
BIOLOGICAL DATA:
Bacteria--1974 (b), 1975-82 (c), 1983-87 (b).
Phytoplankton--1974 (b), 1975-77 (c), 1978-81 (b).
Periphyton--1975-80 (b).
SEDIMENT DATA: 1974 (b), 1975-82 (c), 1983-87 (b).

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT											
28	1200	1380	591	7.80	13.0	23	756	9.4	90	3400	530
MAY											
11	1200	1370	--	8.02	17.0	7.0	752	10.6	111	K22	K6
JUN											
24	1130	2070	852	7.76	24.0	16	752	7.5	91	16000	100
AUG											
17	1245	580	690	7.92	22.5	3.2	756	6.9	80	K60000	74

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT											
28	210	100	64	13	34	3.3	98	77	52	0.1	4.6
MAY											
11	230	100	66	15	44	2.6	124	88	74	0.2	1.3
JUN											
24	260	150	78	15	65	2.8	111	120	120	0.2	2.3
AUG											
17	210	120	64	13	55	3.3	91	73	92	0.4	1.8

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

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2 + NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)
OCT										
28.....	349	320	0.67	0.21	0.24	0.04	0.9	0.04	0.02	0.02
MAY										
11.....	380	390	1.10	0.22	0.29	0.03	2.5	0.05	0.02	< 0.01
JUN										
24.....	517	470	0.42	0.28	0.29	0.02	1.0	0.09	0.03	< 0.01
AUG										
17.....	402	360	0.41	0.40	0.42	0.01	1.2	0.07	0.01	< 0.01

DATE	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)
OCT										
28.....	20	1	41	< 0.5	2	< 1	< 3	5	19	< 5
MAY										
11.....	< 10	< 1	49	< 0.5	< 1	< 1	< 3	5	13	< 5
JUN										
24.....	< 10	1	52	< 0.5	< 1	< 1	< 3	14	6	< 5
AUG										
17.....	20	1	46	< 0.5	< 1	< 1	< 3	17	24	< 5

DATE	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT										
28.....	12	55	0.3	< 10	< 1	< 1	< 1	650	< 6	18
MAY										
11.....	53	61	0.3	< 10	2	< 1	< 1	740	< 6	15
JUN										
24.....	27	33	0.5	< 10	< 1	< 1	1	1100	< 6	40
AUG										
17.....	11	21	< 0.1	< 10	< 1	< 1	< 1	640	< 6	82

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK)	DEPTH AT SAMPLE LOC-ATION, TOTAL (FEET)	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
OCT								
28.....	1205	40	18.0	3.0	586	7.94	13.0	9.1
28.....	1210	40	18.0	8.0	587	7.91	13.0	9.1
28.....	1215	40	18.0	12.0	588	7.91	13.0	9.1
28.....	1220	40	18.0	16.0	588	7.90	13.0	9.1
28.....	1225	100	14.0	3.0	591	7.80	13.0	9.7
28.....	1230	100	14.0	7.0	591	7.80	13.0	9.4
28.....	1235	100	14.0	10.0	591	7.80	12.5	9.4
28.....	1240	100	14.0	13.0	591	7.81	12.5	9.3
28.....	1245	180	12.0	3.0	595	7.80	13.0	9.7
28.....	1250	180	12.0	7.0	595	7.83	13.0	9.4
28.....	1255	180	12.0	11.0	595	7.83	13.0	9.3
MAY								
11.....	1205	40	23.0	3.0	--	7.98	17.0	11.3
11.....	1210	40	23.0	10.0	--	8.01	16.5	10.6
11.....	1215	40	23.0	15.0	--	8.03	16.5	9.7
11.....	1220	40	23.0	20.0	--	8.03	16.5	8.3
11.....	1225	100	16.0	3.0	--	7.98	17.0	10.5
11.....	1230	100	16.0	9.0	--	8.03	16.5	9.8
11.....	1235	100	16.0	15.0	--	8.04	16.5	9.2
11.....	1240	180	14.0	3.0	--	8.07	17.0	10.4
11.....	1245	180	14.0	8.0	--	8.08	16.5	9.8
11.....	1250	180	14.0	13.0	--	8.13	16.5	9.6
JUN								
24.....	1135	40	22.0	3.0	848	7.80	24.0	7.6
24.....	1140	100	16.0	3.0	861	7.74	24.0	7.3
24.....	1145	180	12.0	3.0	864	7.71	24.0	7.5
AUG								
17.....	1250	40	20.0	3.0	792	8.02	25.5	7.3
17.....	1255	40	20.0	8.0	690	7.92	22.5	6.9
17.....	1300	40	20.0	13.0	433	8.08	18.5	7.7
17.....	1305	40	20.0	18.0	450	7.68	16.5	6.1
17.....	1310	100	14.0	3.0	802	8.00	25.5	7.2
17.....	1315	100	14.0	5.0	758	7.93	23.5	6.8
17.....	1320	100	14.0	9.0	465	8.00	19.0	8.0
17.....	1325	100	14.0	13.0	455	7.83	17.5	6.9
17.....	1330	180	11.0	3.0	797	7.91	25.0	6.6
17.....	1335	180	11.0	7.0	710	7.88	23.0	6.4
17.....	1340	180	11.0	10.0	498	7.92	20.0	7.1

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
28.....	1200	1380	25	93	99
MAY					
11.....	1200	1370	27	100	95
JUN					
24.....	1130	2070	40	224	99
AUG					
17.....	1245	580	17	27	89

04232040 IRONDEQUOIT CREEK NEAR PITTSFORD, NY

LOCATION.--Lat 43°03'15", long 77°29'28", Monroe County, Hydrologic Unit 04140101, on right bank 140 ft upstream from bridge on Thornell Road, 0.9 mi south of creek passage under Erie (Barge) Canal, and 2.7 mi southeast of Pittsford.

DRAINAGE AREA.--44.4 mi^2.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1955, 1961–62, 1964–66, 1968, and annual maximum, water years 1962–63, 1965–66, 1968–70, 1972. March 1980 to current year.

REVISED RECORDS.--WDR NY–81–3: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Prior to March 1980, nonrecording gage and crest-stage gage at site 150 ft downstream at same datum. Elevation of gage is 405 ft above National Geodetic Vertical Datum of 1929, from Corps of Engineers river-profile map.

REMARKS.--Records 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.

AVERAGE DISCHARGE.--7 years (water years 1981–87), 41.9 ft^3/s, 12.82 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,140 ft^3/s Mar. 12, 1962, gage height, 8.6 ft at site then in use; minimum discharge measured, 8.10 ft^3/s Sept. 17, 1964; minimum gage height at present site, 2.98 ft Sept. 12, 1983.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 360 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Dec. 3	1500	370	6.46	Apr. 6	2400	*400	*6.71
Mar. 2	0900	384	6.58				

Minimum discharge, 14 ft^3/s July 28–29, 30, Aug. 25-27; minimum gage height, 3.07 ft, July 28-29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	e43	40	43	e29	143	108	54	23	22	16	16
2	52	e49	88	44	e30	324	132	44	25	25	16	17
3	52	e44	324	e41	47	130	93	43	24	30	23	18
4	160	e41	216	e34	e48	69	159	43	24	26	21	17
5	151	e38	94	e40	e38	61	342	40	23	23	21	16
6	80	e39	72	e41	45	63	321	38	21	25	18	16
7	56	37	70	48	45	121	274	35	24	50	17	17
8	45	36	112	55	e45	147	121	33	28	60	17	19
9	41	38	110	53	e40	e80	80	32	26	37	32	21
10	40	34	189	49	e60	e47	66	29	24	29	37	19
11	36	35	81	50	e43	e38	58	30	24	25	23	19
12	35	37	59	50	e41	e41	57	29	26	22	20	24
13	95	35	e48	47	e35	42	138	28	28	21	18	24
14	109	36	e46	49	e34	39	90	30	25	27	17	20
15	62	32	50	121	e30	39	61	47	22	31	16	17
16	44	36	52	162	e31	37	53	40	21	23	15	17
17	43	37	54	e54	e31	36	50	34	20	20	16	19
18	60	27	61	e52	e31	35	50	33	19	19	16	46
19	49	30	61	e49	e28	35	55	34	19	18	19	37
20	45	31	53	e44	e29	35	58	33	18	30	22	31
21	43	40	48	e46	e30	35	51	33	18	23	17	26
22	e40	41	43	e39	e31	35	45	49	52	19	16	23
23	e39	42	42	e38	e32	36	44	49	56	17	16	23
24	e39	67	44	e38	e33	36	58	38	31	16	15	22
25	e38	54	101	e33	e31	40	56	34	25	16	15	20
26	e38	101	78	e32	e31	55	46	30	29	17	14	19
27	e43	224	59	e32	e31	47	43	28	31	16	17	19
28	e52	90	52	e31	32	44	140	27	26	15	18	22
29	e48	56	48	e31	---	42	113	27	26	14	23	23
30	e46	47	45	e30	---	40	66	23	25	18	19	50
31	e44	---	44	e30	---	75	---	23	---	20	17	---
TOTAL	1797	1497	2484	1506	1011	2047	3028	1090	783	754	587	677
MEAN	58.0	49.9	80.1	48.6	36.1	66.0	101	35.2	26.1	24.3	18.9	22.6
MAX	160	224	324	162	60	324	342	54	56	60	37	50
MIN	35	27	40	30	28	35	43	23	18	14	14	16
CFSM	1.31	1.12	1.80	1.09	.81	1.49	2.27	.79	.59	.55	.43	.51
IN.	1.51	1.25	2.08	1.26	.85	1.72	2.54	.91	.66	.63	.49	.57

CAL YR	1986	TOTAL	19750	MEAN	54.1	MAX	450	MIN	15	CFSM	1.22	IN. 16.5
WTR YR	1987	TOTAL	17261	MEAN	47.3	MAX	342	MIN	14	CFSM	1.07	IN. 14.5

e Estimated

04232046 THOMAS CREEK AT FAIRPORT, NY

LOCATION.--Lat 43°06'22", long 77°27'44", Monroe County, Hydrologic Unit 04140101, on right bank 48 ft upstream from culvert on Foreman Center Road, 0.5 mi northwest of Fairport, and 0.8 mi upstream from mouth. Water-quality sampling site at discharge station.

DRAINAGE AREA.--28.5 mi^2, flow from 0.86 mi^2 noncontributing.

PERIOD OF RECORD.--March 1980 to current year.

REVISED RECORDS.--WDR NY–81–3: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 403 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair. Unpublished water-quality records are available in files of Monroe County Health Department. Discharge subsequent to July 20, 1983 includes undetermined diversion (maximum 25 ft^3/s) from Erie (Barge) Canal upstream from station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--7 years (water years 1981–87), 17.1 ft^3/s, 8.41 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 232 ft^3/s Feb. 15, 1984, gage height, 2.71 ft; maximum gage height, 3.62 ft Jan. 12, 1982 (ice jam); minimum discharge, 2.0 ft^3/s Aug. 19, 20, Sept. 10, 1982; minimum gage height, 1.22 ft June 7, 8, 13, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 140 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Feb. 16	0715	ice jam	*2.43
Apr. 5	1030	*120	2.20

No peak greater than base discharge.

Minimum discharge, 2.4 ft^3/s June 20, gage height, 1.34 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	12	21	14	e4.0	e42	68	29	5.3	5.0	8.5	6.2
2	36	16	34	13	e6.0	91	64	e24	6.6	6.1	8.7	6.1
3	45	14	e82	e10	e11	76	58	e19	5.3	6.3	11	6.1
4	68	14	e90	e10	e9.4	e56	71	e14	5.3	5.7	8.9	5.8
5	64	12	66	e10	e8.0	e36	102	e11	4.9	4.3	9.3	5.8
6	53	12	46	e10	e9.4	e24	82	e8.1	4.8	11	8.6	5.3
7	36	12	37	e12	e11	48	79	e6.3	6.8	14	7.9	4.8
8	23	11	41	e12	e12	61	52	e6.8	7.3	14	7.4	5.9
9	17	12	52	e12	e11	55	49	e6.3	6.6	9.5	22	7.4
10	15	10	66	e11	e10	e27	38	e6.3	5.6	5.4	17	5.9
11	13	9.8	63	e11	e9.4	e19	31	e5.8	4.8	4.8	13	5.8
12	12	11	39	e11	e8.8	e13	30	e5.8	5.5	3.8	11	7.4
13	33	10	e22	e10	e8.4	16	45	e6.3	12	4.5	7.9	7.2
14	42	9.6	e19	e12	e8.0	15	45	e12	9.4	6.5	6.7	5.9
15	42	8.7	18	31	e7.6	14	36	e9.4	7.3	7.0	6.3	5.8
16	28	7.8	18	52	e7.4	13	28	e9.4	5.4	5.7	6.3	5.8
17	22	7.4	17	e40	e7.2	11	24	e8.7	4.1	4.5	6.3	10
18	20	7.4	23	e24	e7.0	9.9	22	e8.1	3.2	3.6	6.3	14
19	19	8.1	26	e14	e6.8	9.5	20	e7.4	2.8	2.9	6.5	11
20	17	8.7	25	e15	e6.6	9.0	16	e6.3	2.7	5.3	7.1	11
21	15	8.4	21	e13	e6.8	7.5	15	e6.3	2.7	4.5	6.8	9.0
22	13	8.1	17	e10	e7.0	6.1	13	e10	4.9	3.4	6.4	8.5
23	12	8.1	15	e10	e7.0	5.8	16	13	6.1	4.7	6.0	7.4
24	12	14	16	e8.0	e6.6	5.8	24	11	5.4	8.3	5.8	6.3
25	12	18	36	e6.2	e6.2	10	24	9.7	4.9	8.8	5.8	6.0
26	12	32	42	e5.4	e5.8	23	20	9.9	6.0	8.1	5.8	5.8
27	12	49	30	e4.8	e5.6	20	17	11	6.5	8.1	6.7	5.8
28	14	50	24	e4.5	e6.0	20	58	8.1	5.3	8.1	7.0	5.8
29	13	36	21	e4.3	---	16	65	6.4	5.1	8.1	8.6	6.1
30	13	25	18	e4.2	---	16	43	5.9	5.3	10	6.6	12
31	12	---	17	e4.1	---	40	---	5.8	---	9.2	6.3	---
TOTAL	784	462.1	1062	408.5	220.0	815.6	1255	307.1	167.9	211.2	258.5	215.9
MEAN	25.3	15.4	34.3	13.2	7.86	26.3	41.8	9.91	5.60	6.81	8.34	7.20
MAX	68	50	90	52	12	91	102	29	12	14	22	14
MIN	12	7.4	15	4.1	4.0	5.8	13	5.8	2.7	2.9	5.8	4.8
CFSM	.89	.54	1.20	.46	.28	.92	1.47	.35	.20	.24	.29	.25
IN.	1.02	.60	1.39	.53	.29	1.06	1.64	.40	.22	.28	.34	.28

CAL YR	1986	TOTAL	7526.3	MEAN	20.6	MAX	159	MIN	2.4	CFSM	.72	IN. 9.82
WTR YR	1987	TOTAL	6167.7	MEAN	16.9	MAX	102	MIN	2.7	CFSM	.59	IN. 8.05

e Estimated

04232047 IRONDEQUOIT CREEK AT LINDEN AVENUE, EAST ROCHESTER, NY

LOCATION.--Lat 43°07'16", long 77°28'36", Monroe County, Hydrologic Unit 04140101, on left bank 200 ft upstream from bridge on Linden Avenue, 2.2 mi upstream from Allen Creek, and 7.8 mi upstream from mouth.

DRAINAGE AREA.--101 mi^2, flow from 4.95 mi^2 noncontributing.

PERIOD OF RECORD.--August 1973 to current year.

REVISED RECORDS.--WDR NY-78-1: 1977. WDR NY-81-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 341.46 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Prior to 1980, flow of undetermined magnitude diverted from Erie (Barge) Canal into Thomas Creek, a tributary upstream from station; diversion resumed July 20, 1983.

AVERAGE DISCHARGE.--14 years, 93.5 ft^3/s, 12.57 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,480 ft^3/s Oct. 29, 1974, gage height, 15.64 ft (result of dewatering of Erie (Barge) Canal through accidental break in canal wall at Bushnell Basin); minimum discharge, 13 ft^3/s Aug. 19, 1985; minimum gage height, 11.15 ft July 19, 1981, Aug. 6, 1985.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 570 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Dec. 3	2215	586	13.80	Apr. 6	1700	*684	*14.05

Minimum discharge, 36 ft^3/s Aug. 26, gage height, 11.37 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	212	62	84	74	e62	e290	268	117	52	45	47	42
2	133	83	191	74	e62	533	297	100	62	53	53	45
3	137	79	542	74	e76	312	238	93	54	58	67	45
4	336	78	462	e62	e84	177	355	91	53	51	54	43
5	290	68	234	e66	e80	142	616	81	52	45	60	41
6	192	70	154	e68	e78	e130	648	74	52	92	50	40
7	125	66	139	90	e76	213	572	67	71	113	46	40
8	96	63	200	100	e82	265	315	63	78	143	44	48
9	84	69	239	90	e88	193	213	81	62	74	123	49
10	76	63	334	86	e94	e110	161	94	58	56	98	43
11	68	63	211	89	e88	e100	132	87	56	49	60	42
12	65	65	134	88	e80	e90	142	65	65	45	51	56
13	209	62	e98	86	e76	e86	283	56	91	47	45	55
14	227	58	e94	96	e72	83	237	54	66	63	42	47
15	152	56	92	243	e68	81	155	89	57	65	41	43
16	106	57	94	321	e66	77	127	68	52	50	39	42
17	101	59	94	e160	e64	73	115	61	49	45	40	63
18	120	59	120	e110	e62	72	109	60	47	42	40	111
19	100	57	120	e100	e60	72	104	62	47	41	47	81
20	85	56	101	e94	e58	71	106	59	45	65	60	70
21	77	74	87	e90	e54	69	96	57	44	52	42	61
22	72	75	78	e84	e60	70	87	89	102	44	40	52
23	69	75	73	e80	e64	71	91	95	112	42	39	49
24	67	107	80	e76	e60	70	127	67	61	44	39	46
25	63	104	207	e74	e56	83	115	61	52	45	38	44
26	62	178	170	e72	e49	118	91	60	66	47	37	43
27	65	344	121	e70	e49	103	86	59	61	46	46	42
28	82	215	99	e68	e48	98	291	55	49	44	48	52
29	74	127	90	e66	---	90	277	51	49	43	59	47
30	73	99	83	e64	---	90	164	48	48	57	46	113
31	67	---	77	e62	---	192	---	47	---	52	43	---
TOTAL	3685	2691	4902	2977	1916	4224	6618	2211	1813	1758	1584	1595
MEAN	119	89.7	158	96.0	68.4	136	221	71.3	60.4	56.7	51.1	53.2
MAX	336	344	542	321	94	533	648	117	112	143	123	113
MIN	62	56	73	62	48	69	86	47	44	41	37	40
CFSM	1.18	.89	1.57	.95	.68	1.35	2.18	.71	.60	.56	.51	.53
IN.	1.36	.99	1.81	1.10	.71	1.56	2.44	.81	.67	.65	.58	.59

CAL YR	1986	TOTAL	38889	MEAN	107	MAX	749	MIN	30	CFSM	1.05	IN. 14.3
WTR YR	1987	TOTAL	35974	MEAN	98.6	MAX	648	MIN	37	CFSM	.98	IN. 13.2

e Estimated

04232050 ALLEN CREEK NEAR ROCHESTER, NY

LOCATION.--Lat 43°07'49", long 77°31'08", Monroe County, Hydrologic Unit 04140101, on right bank 525 ft downstream from Penn Central Transportation Co. bridge, near Rochester, and about 1.3 mi upstream from Irondequoit Creek.

DRAINAGE AREA.--30.1 mi^2, flow from 3.5 mi^2 noncontributing.

PERIOD OF RECORD.--November 1959 to current year.

REVISED RECORDS.--WRD NY 1974: 1972(M), 1973(M, P). WDR NY–76–1: 1960–75 (M, P), 1960–63, 1972–74.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 323.54 ft above National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--27 years (water years 1961–87), 32.8 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,280 ft^3/s May 17, 1974, gage height, 7.42 ft, from rating curve extended above 1,000 ft^3/s on basis of contracted-opening measurement of peak discharge and step-backwater analysis; minimum daily, 1.7 ft^3/s Jan. 24, 1963; minimum gage height, 1.16 ft Feb. 19, 1962.

EXTREMES 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)
Dec. 2	2315	491	4.21	July 6	2115	*816	*4.73

Minimum discharge, 7.4 ft^3/s May 30, 31, June 1; minimum gage height, 1.99 ft, July 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	101	20	17	17	e9.0	191	95	21	8.0	13	13	13
2	41	31	167	e14	e16	133	95	18	12	17	18	13
3	50	24	295	e12	e26	54	53	15	18	16	24	11
4	e120	22	101	e10	e23	37	232	13	e12	13	19	10
5	e80	20	47	e13	e18	31	168	12	e10	12	21	9.4
6	e52	21	30	e12	e20	38	303	14	9.4	127	13	9.2
7	35	20	43	29	e25	56	134	11	20	122	11	9.2
8	27	20	62	27	e30	51	63	9.4	23	39	11	20
9	25	21	106	21	e25	e30	41	20	12	22	106	15
10	23	19	97	22	e22	e17	33	26	11	19	38	11
11	21	22	36	25	e20	e16	27	25	9.8	15	18	10
12	20	22	26	23	e18	e16	56	24	17	12	15	19
13	122	20	e17	23	e16	17	124	17	22	12	12	16
14	61	18	e14	34	e14	16	48	17	10	50	11	12
15	37	18	e16	127	e13	15	34	49	9.6	23	10	11
16	29	18	20	65	e12	14	27	21	8.4	17	9.6	10
17	38	19	20	e30	e11	14	24	18	8.4	13	10	33
18	38	18	39	e22	e10	13	21	20	8.6	12	11	83
19	29	18	29	e20	e9.8	13	19	20	8.8	11	18	29
20	26	18	21	e18	e9.6	13	17	18	9.5	34	28	30
21	24	23	17	e18	e9.4	13	17	18	9.8	15	13	51
22	22	20	15	e14	e9.8	12	15	36	37	12	11	33
23	22	23	13	e13	e12	12	18	28	20	12	9.6	17
24	20	33	24	e12	e12	13	33	19	13	10	9.0	15
25	19	21	98	e11	e11	25	20	18	11	9.9	9.0	15
26	19	100	39	e10	e10	33	16	17	35	11	8.9	12
27	31	106	30	e10	e10	21	15	11	24	10	19	11
28	44	40	25	e9.6	e11	20	117	9.7	15	9.3	16	18
29	28	28	22	e9.4	---	16	50	9.3	15	9.3	31	20
30	26	21	20	e9.2	---	25	30	8.8	21	20	14	49
31	22	---	18	e9.0	---	105	---	8.9	---	14	12	---
TOTAL	1252	824	1524	689.2	432.6	1080	1945	572.1	448.3	731.5	569.1	614.8
MEAN	40.4	27.5	49.2	22.2	15.4	34.8	64.8	18.5	14.9	23.6	18.4	20.5
MAX	122	106	295	127	30	191	303	49	37	127	106	83
MIN	19	18	13	9.0	9.0	12	15	8.8	8.0	9.3	8.9	9.2

CAL YR	1986	TOTAL	13540.3	MEAN	37.1	MAX	588	MIN 7.4
WTR YR	1987	TOTAL	10682.6	MEAN	29.3	MAX	303	MIN 8.0

e Estimated

0423205010 IRONDEQUOIT CREEK AT BLOSSOM ROAD, ROCHESTER, NY

LOCATION.--Lat 43°08'50", long 77°30'48", Monroe County, Hydrologic Unit 04140101, on right bank 120 ft downstream from bridge on Blossom Road, 1.6 mi east of Rochester, 2.5 mi downstream from Allen Creek, and 3.6 mi upstream from mouth.

DRAINAGE AREA.--143 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 and crest-stage gage. Datum of gage is 246.31 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records good except those for estimated daily discharges, which are fair. Discharge includes undetermined diversion from Erie (Barge) Canal. Water-quality sampling site operated by Monroe County Department of Health; data in files of that organization. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--6 years (water years 1982–87), 130 ft^3/s, 13.08 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,370 ft^3/s Feb. 14, 1984, gage height, 7.91 ft; maximum gage height, 8.01 ft, Jan. 20, 1987 (backwater from ice); minimum discharge, 28 ft^3/s Sept. 11, 14, 1982, gage height, 1.69 ft.

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. 6	1900	*1,030	*7.77	No other peak greater than base discharge.			

Minimum discharge, 48 ft^3/s Aug. 26, gage height, 2.18 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	399	99	100	115	e80	413	375	163	64	64	63	57
2	218	129	251	116	e80	647	412	139	81	73	66	60
3	206	117	845	116	e100	438	340	126	78	80	100	59
4	537	114	680	e100	e120	255	496	121	71	71	71	55
5	444	102	374	e100	e120	200	828	109	66	63	88	51
6	314	102	269	106	e110	190	947	102	65	163	67	50
7	198	99	232	134	e110	282	874	91	91	340	e60	49
8	153	96	326	144	e130	336	507	84	115	212	e56	68
9	136	102	364	129	e140	263	330	104	80	116	e220	69
10	123	96	488	125	e150	e160	248	124	73	91	e160	58
11	112	99	318	132	140	e130	203	118	70	76	e82	57
12	107	104	208	129	e120	e120	225	96	85	67	e68	75
13	331	96	164	126	e110	e120	439	79	132	65	e60	76
14	313	91	141	138	e110	115	345	79	85	128	e56	63
15	219	87	146	359	e100	111	230	149	73	103	e52	59
16	158	88	148	399	e90	106	187	97	64	78	e50	56
17	158	92	145	235	e80	103	163	86	59	67	e52	103
18	180	91	189	e160	e80	101	152	86	58	62	e52	198
19	149	90	181	e150	e76	100	143	88	58	58	e54	127
20	132	87	153	e140	e72	98	117	82	57	107	98	112
21	120	111	135	e130	e66	95	95	78	56	77	59	121
22	114	111	123	e120	e74	94	86	142	133	64	55	103
23	111	112	116	e110	e82	94	89	123	154	59	53	76
24	106	155	123	e100	80	93	191	92	87	60	52	69
25	102	142	341	e96	e70	107	193	86	70	58	51	66
26	98	267	241	e94	e62	162	140	83	106	63	49	63
27	111	491	176	e90	e64	132	124	75	103	62	67	61
28	142	287	151	e88	e62	124	400	70	73	57	66	76
29	118	175	138	e84	---	114	365	66	70	55	92	69
30	114	139	127	e82	---	116	228	61	76	78	65	e170
31	104	---	120	e80	---	303	---	60	---	70	58	---
TOTAL	5827	3971	7513	4227	2678	5722	9472	3059	2453	2787	2242	2376
MEAN	188	132	242	136	95.6	185	316	98.7	81.8	89.9	72.3	79.2
MAX	537	491	845	399	150	647	947	163	154	340	220	198
MIN	98	87	100	80	62	93	86	60	56	55	49	49

CAL YR	1986	TOTAL	60820	MEAN	167	MAX	1130	MIN	47
WTR YR	1987	TOTAL	52327	MEAN	143	MAX	947	MIN	49

e Estimated

04232100 STERLING CREEK AT STERLING, NY

LOCATION.--Lat 43°19'31", long 76°38'51", Cayuga County, Hydrologic Unit 04140101, on right bank at Sterling, 25 ft downstream from bridge on State Highway 104A, 1.8 mi southwest of Sterling Valley, and 1.9 mi upstream from Sterling Valley Creek.

DRAINAGE AREA.--44.4 mi^2.

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

REVISED RECORDS.--WDR NY–85–3: 1960(M), 1979–80(M).

GAGE.--Water-stage recorder. Datum of gage is 264.69 ft above National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--30 years (water years 1958–87), 66.4 ft^3/s, 20.31 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,760 ft^3/s, revised, Mar. 22, 1980, gage height, 5.99 ft; minimum, 0.32 ft^3/s Sept. 14, 1966, gage height, 1.50 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 816 ft^3/s, Oct. 1, stage falling, peak occurred Sept. 30, 1986; maximum peak discharge, 551 ft^3/s, Mar. 10, gage height, 3.61 ft; minimum discharge 1.3 ft^3/s Aug. 19-21, Sept. 7, 8, gage height 1.61 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	706	33	88	67	e43	66	140	38	8.8	4.0	1.7	1.9
2	455	42	89	56	e44	170	152	34	8.7	4.9	1.8	2.2
3	283	43	334	e40	e46	146	182	31	9.9	6.9	3.3	4.8
4	221	39	405	e56	e46	133	289	29	12	12	2.9	1.9
5	204	37	333	e64	e45	125	303	30	9.5	7.0	4.5	1.7
6	179	44	215	51	e44	129	229	29	8.5	5.0	3.1	2.0
7	145	46	153	55	e43	197	184	27	8.2	4.9	2.9	1.5
8	119	45	152	60	e42	359	138	24	9.5	6.1	2.5	1.3
9	107	45	125	58	e40	462	110	23	9.4	4.6	2.5	1.9
10	92	43	175	58	e38	445	91	25	8.6	4.1	3.8	2.2
11	76	42	138	58	e37	299	79	25	7.2	4.0	3.6	1.9
12	66	56	133	57	e36	127	71	21	12	3.4	3.2	1.7
13	106	53	e86	57	e35	105	127	18	13	3.1	2.5	4.4
14	127	49	e61	57	e34	88	124	17	11	4.1	2.2	8.6
15	109	46	80	80	e33	89	107	19	9.0	7.3	2.0	7.5
16	94	45	72	113	e33	83	90	20	7.1	7.9	1.6	4.3
17	89	47	71	126	e32	77	78	18	5.0	5.8	1.5	3.9
18	78	47	100	118	e31	72	71	16	4.1	4.7	1.5	4.2
19	69	45	120	84	e30	70	66	16	3.9	3.6	1.5	7.6
20	62	40	104	e70	e29	71	63	16	3.3	3.2	1.3	7.4
21	57	48	89	e64	e28	68	62	16	2.9	3.0	1.5	7.1
22	51	51	76	e58	e28	68	53	20	7.8	2.6	2.2	8.7
23	47	56	66	e54	e27	70	48	25	24	2.5	1.8	7.4
24	44	86	67	e52	e26	68	49	23	18	9.2	1.6	5.6
25	40	93	137	e48	e26	68	48	21	11	8.1	1.5	4.5
26	38	132	143	e46	e25	103	44	19	8.1	5.0	1.5	3.5
27	38	230	133	e44	e25	104	43	17	7.1	3.4	1.5	3.6
28	44	193	114	e42	e24	103	40	16	5.5	2.7	1.7	3.4
29	40	148	99	e41	---	90	38	14	4.7	2.5	2.4	3.3
30	39	116	85	e40	---	76	38	11	4.3	2.3	2.2	19
31	36	---	75	e41	---	102	---	9.5	---	1.9	2.0	---
TOTAL	3861	2040	4118	1915	970	4233	3157	667.5	262.1	149.8	69.8	139.0
MEAN	125	68.0	133	61.8	34.6	137	105	21.5	8.74	4.83	2.25	4.63
MAX	706	230	405	126	46	462	303	38	24	12	4.5	19
MIN	36	33	61	40	24	66	38	9.5	2.9	1.9	1.3	1.3
CFSM	2.81	1.53	2.99	1.39	.78	3.08	2.37	.48	.20	.11	.05	.10
IN.	3.23	1.71	3.45	1.60	.81	3.55	2.65	.56	.22	.13	.06	.12

CAL YR	1986	TOTAL	30436.1	MEAN	83.4	MAX	711	MIN	3.6	CFSM	1.88	IN. 25.5
WTR YR	1987	TOTAL	21582.0	MEAN	59.1	MAX	706	MIN	1.3	CFSM	1.33	IN. 18.1

e Estimated

04232400 SENECA LAKE AT WATKINS GLEN, NY

LOCATION.--Lat 42°23'00", long 76°52'05", Schuyler County, Hydrologic Unit 04140201, on east bank about 300 ft from lake on shorter of two boat slips at Watkins Glen.

DRAINAGE AREA.--704 mi^2.

PERIOD OF RECORD.--October 1956 to current year.

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datm of 1929 (1.59 ft Barge Canal datum). Prior to Oct. 1, 1975, at datum 438.41 ft higher.

REMARKS.--Area of water surface, 67.6 mi^2. Diversion from Susquehanna River basin enters lake through Keuka Lake Outlet at Dresden. For table of diversion, see station 01528700. Lake regulated by taintor gates on Seneca River at Lock 4, Waterloo, for operation of Erie (Barge) Canal and power generation by New York State Electric and Gas Corp.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 448.88 ft June 25, 1972; minimum, 442.64 ft Mar. 14, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 445.64 ft Apr. 14; minimum, 443.75 ft Jan. 20.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	444.94	444.22	444.30	444.25	444.07	444.26	444.76	445.25	445.07	445.07	444.95	444.66
2	444.90	444.33	444.34	444.18	444.09	444.39	444.78	445.27	445.11	445.09	444.87	444.60
3	444.82	444.31	444.49	444.17	444.11	444.42	444.83	445.29	445.08	445.15	444.90	444.60
4	444.92	444.24	444.60	444.16	444.14	444.40	445.07	445.30	445.12	445.20	444.93	444.59
5	445.01	444.18	444.66	444.21	444.14	444.37	445.24	445.25	445.13	445.21	444.94	444.52
6	444.97	444.15	444.69	444.31	444.14	444.43	445.34	445.22	445.15	445.14	444.91	444.53
7	444.92	444.05	444.71	444.30	444.17	444.60	445.44	445.20	445.12	445.13	444.84	444.54
8	444.75	444.04	444.77	444.30	444.17	444.76	445.48	445.15	445.11	445.20	444.87	444.58
9	444.80	444.11	444.75	444.21	444.27	444.82	445.48	445.12	445.12	445.20	444.86	444.58
10	444.75	444.11	444.85	444.20	444.21	444.78	445.47	445.13	445.08	445.24	444.92	444.59
11	444.63	444.09	444.88	444.14	444.24	444.73	445.43	445.10	444.98	445.26	444.92	444.54
12	444.62	444.06	444.87	444.08	444.26	444.71	445.43	445.09	444.91	445.27	444.84	444.58
13	444.70	444.07	444.90	444.04	444.30	444.74	445.54	445.03	444.90	445.29	444.82	444.97
14	444.74	443.96	444.82	444.03	444.29	444.75	445.58	444.98	444.88	445.31	444.77	445.08
15	444.71	443.91	444.76	443.96	444.28	444.69	445.56	444.99	444.86	445.37	444.77	445.06
16	444.70	443.91	444.75	443.87	444.29	444.63	445.55	444.98	444.86	445.30	444.76	445.04
17	444.73	443.94	444.72	443.90	444.29	444.59	445.56	444.98	444.89	445.23	444.78	445.07
18	444.74	443.97	444.70	443.92	444.29	444.55	445.55	445.01	444.86	445.19	444.80	445.09
19	444.71	443.99	444.63	443.89	444.28	444.56	445.53	445.01	444.82	445.18	444.77	445.10
20	444.69	443.95	444.58	443.84	444.27	444.57	445.53	444.97	444.85	445.15	444.78	445.13
21	444.65	444.00	444.61	443.90	444.26	444.56	445.50	444.96	444.88	445.14	444.73	445.19
22	444.59	443.99	444.59	443.90	444.27	444.56	445.48	444.97	444.91	445.11	444.67	445.17
23	444.57	443.97	444.55	443.93	444.30	444.55	445.40	445.03	445.05	445.01	444.78	445.14
24	444.55	444.02	444.51	443.99	444.30	444.56	445.45	445.07	445.06	444.95	444.68	445.11
25	444.51	444.04	444.43	443.99	444.23	444.60	445.42	445.07	444.99	444.95	444.63	445.10
26	444.52	444.08	444.38	444.03	444.18	444.61	445.37	445.05	444.97	444.97	444.63	445.04
27	444.54	444.21	444.33	444.01	444.13	444.62	445.31	445.02	445.00	444.99	444.68	445.05
28	444.53	444.22	444.32	444.02	444.14	444.62	445.29	445.04	445.02	444.98	444.71	445.04
29	444.43	444.27	444.34	444.05	---	444.63	445.28	445.06	444.97	444.93	444.72	444.97
30	444.43	444.30	444.33	444.04	---	444.72	445.26	445.07	444.98	444.89	444.67	445.04
31	444.33	---	444.30	444.09	---	444.77	---	445.08	---	444.99	444.57	---
MEAN	444.69	444.09	444.59	444.06	444.22	444.60	445.36	445.09	444.99	445.13	444.79	444.88
MAX	445.01	444.33	444.90	444.31	444.30	444.82	445.58	445.30	445.15	445.37	444.95	445.19
MIN	444.33	443.91	444.30	443.84	444.07	444.26	444.76	444.96	444.82	444.89	444.57	444.52

CAL YR	1986	MEAN	444.72	MAX	445.70	MIN	443.66
WTR YR	1987	MEAN	444.70	MAX	445.58	MIN	443.84

04232450 KEUKA INLET (KEUKA LAKE) AT HAMMONDSPORT, NY

(Formerly published as Keuka Lake at Hammondsport)

LOCATION.--Lat 42°24'22", long 77°13'08", Steuben County, Hydrologic Unit 04140201, on left bank of Keuka Inlet at end of Liberty Street extension at Hammondsport, and 300 ft upstream from mouth.

DRAINAGE AREA.--Keuka Inlet 25.0 mi^2; Keuka Lake at mouth 182 mi^2.

PERIOD OF RECORD.--August 1960 to current year.

REVISED RECORDS.--WSP 2112: Drainage area. WRD NY 1974: 1973.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to October 1, 1975, at datum 710.00 ft higher.

REMARKS.--Lake regulated by village of Penn Yan; prior to July 1962, by New York State Electric and Gas Corp. Area of water surface, 18.3 mi^2. During each year, a large part of flow from 45.5 mi^2 of drainage area of Mud Creek (Susquehanna River basin) is diverted into Keuka Lake for power development. For table of diversion, see station 01528700.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 719.35 ft June 24, 1972; minimum daily, 711.40 ft Feb. 2, 3, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 714.92 Apr. 14; minimum, 712.35 ft Feb.28.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	713.73	712.88	713.27	713.36	712.93	712.44	713.55	714.36	714.26	714.11	713.71	713.51
2	713.69	712.93	713.31	713.39	712.92	712.54	713.62	714.31	714.32	714.17	713.67	713.50
3	713.63	712.91	713.44	713.40	712.91	712.59	713.69	714.26	714.34	714.24	713.69	713.50
4	713.58	712.92	713.51	713.38	712.89	712.62	713.90	714.22	714.37	714.24	713.69	713.48
5	713.53	712.94	713.52	713.37	712.88	712.63	714.40	714.17	714.39	714.25	713.71	713.46
6	713.48	712.96	713.50	713.34	712.86	712.64	714.57	714.12	714.40	714.23	713.68	713.45
7	713.43	712.97	713.48	713.32	712.84	712.73	714.74	714.08	714.38	714.23	713.66	713.46
8	713.42	712.97	713.48	713.31	712.81	712.95	714.83	714.04	714.37	714.24	713.65	713.48
9	713.41	712.99	713.48	713.30	712.81	713.11	714.84	714.03	714.34	714.19	713.67	713.48
10	713.37	712.99	713.53	713.27	712.77	713.12	714.83	714.03	714.30	714.16	713.72	713.48
11	713.27	712.99	713.53	713.27	712.76	713.10	714.81	714.04	714.22	714.11	713.71	713.46
12	713.21	712.99	713.52	713.24	712.76	713.11	714.80	714.07	714.15	714.10	713.68	713.56
13	713.19	713.00	713.51	713.23	712.73	713.11	714.86	714.08	714.12	714.05	713.65	714.36
14	713.18	712.99	713.47	713.20	712.71	713.11	714.88	714.07	714.09	714.04	713.63	714.62
15	713.12	712.97	713.47	713.21	712.67	713.11	714.86	714.10	714.06	714.02	713.62	714.57
16	713.09	712.98	713.46	713.28	712.64	713.10	714.85	714.11	713.99	713.96	713.61	714.53
17	713.07	712.97	713.45	713.26	712.62	713.09	714.83	714.10	714.01	713.88	713.60	714.51
18	713.03	713.00	713.44	713.22	712.62	713.08	714.81	714.12	713.98	713.83	713.61	714.49
19	712.98	713.01	713.44	713.24	712.62	713.08	714.78	714.14	713.97	713.79	713.60	714.47
20	712.93	713.00	713.42	713.23	712.62	713.07	714.76	714.11	713.98	713.75	713.61	714.44
21	712.89	713.02	713.40	713.20	712.62	713.09	714.73	714.10	713.97	713.74	713.58	714.40
22	712.87	713.03	713.37	713.19	712.62	713.11	714.71	714.13	714.02	713.74	713.55	714.38
23	712.87	713.01	713.35	713.18	712.51	713.14	714.64	714.19	714.09	713.72	713.56	714.33
24	712.91	713.06	713.36	713.13	712.48	713.16	714.66	714.22	714.07	713.70	713.52	714.29
25	712.87	713.10	713.40	713.11	712.47	713.19	714.64	714.22	714.07	713.70	713.49	714.24
26	712.87	713.14	713.42	713.09	712.45	713.24	714.60	714.20	714.05	713.71	713.48	714.16
27	712.87	713.22	713.42	713.02	712.42	713.28	714.54	714.20	714.06	713.72	713.56	714.12
28	712.88	713.23	713.41	713.02	712.40	713.30	714.50	714.24	714.04	713.71	713.58	714.06
29	712.88	713.25	713.40	713.02	---	713.31	714.47	714.25	714.03	713.67	713.57	714.00
30	712.93	713.28	713.40	712.98	---	713.32	714.41	714.25	714.07	713.67	713.54	714.00
31	712.92	---	713.38	712.94	---	713.43	---	714.26	---	713.73	713.52	---
MEAN	713.16	713.02	713.44	713.22	712.69	713.03	714.57	714.15	714.15	713.95	713.62	713.99
MAX	713.73	713.28	713.53	713.40	712.93	713.43	714.88	714.36	714.40	714.25	713.72	714.62
MIN	712.87	712.88	713.27	712.94	712.40	712.44	713.55	714.03	713.97	713.67	713.48	713.45

CAL YR	1986	MEAN	713.75	MAX	714.96	MIN	712.54
WTR YR	1987	MEAN	713.58	MAX	714.88	MIN	712.40

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 444.67 ft (revised) above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1982, at datum 2.00 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 basin) for power development. For table of diversion, see station 01528700. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--22 years, 200 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,000 ft^3/s June 22, 1972, gage height, 10.37 ft, present datum, from rating curve extended above 2,100 ft^3/s on basis of contracted-opening measurement at Mays Mill, adjusted for intervening area; minimum, 3.2 ft^3/s Sept. 6, 7, 8, 9, 10, 1982, gage height, 1.47 ft, present datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,810 ft^3/s Sept. 13 at 0415 hours, gage height, 7.72 ft; minimum daily, 13 ft^3/s Sept. 1-4, 8-11; minimum gage height, 1.54 ft, June 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	253	38	37	205	205	326	85	300	19	17	30	13
2	272	38	51	205	205	308	84	288	20	30	28	13
3	279	38	295	209	206	218	75	280	18	29	27	13
4	313	37	305	207	207	209	255	274	20	21	25	13
5	306	36	269	215	205	208	535	286	17	18	24	14
6	290	42	265	237	207	227	518	305	14	18	22	14
7	272	40	256	259	208	314	593	298	14	18	21	14
8	258	39	247	253	213	318	517	149	125	112	20	13
9	246	39	285	251	206	270	472	34	256	251	24	13
10	240	37	305	253	206	248	459	32	267	272	23	13
11	240	38	261	253	203	238	448	31	271	274	19	13
12	233	38	250	252	201	239	433	32	271	283	18	23
13	242	37	233	248	197	237	536	29	249	290	18	1080
14	240	35	233	248	e190	234	466	27	247	343	18	371
15	234	35	224	375	e180	231	442	26	240	292	17	346
16	210	35	218	362	e180	229	421	26	174	273	17	331
17	202	35	216	298	e180	228	414	25	18	268	17	330
18	195	35	223	e270	e180	226	403	25	16	259	17	431
19	189	35	224	e250	184	226	386	25	16	252	17	459
20	188	35	218	e240	180	176	375	24	17	169	17	424
21	189	43	214	e230	179	59	362	21	18	32	16	402
22	141	42	212	e220	180	58	353	22	20	29	17	412
23	92	48	209	e210	179	58	349	23	20	29	16	396
24	89	73	210	e200	180	57	343	20	18	28	16	383
25	90	54	264	e190	184	58	336	19	17	29	15	377
26	102	64	232	e180	185	63	329	18	19	31	15	374
27	108	70	219	e170	183	59	329	19	18	28	18	357
28	80	50	215	155	185	57	329	18	17	28	16	339
29	40	44	212	168	---	56	320	17	17	27	15	324
30	46	39	207	213	---	57	312	17	18	47	14	376
31	40	---	204	208	---	79	---	17	---	40	14	---
TOTAL	5919	1269	7013	7234	5398	5571	11279	2727	2471	3837	591	7681
MEAN	191	42.3	226	233	193	180	376	88.0	82.4	124	19.1	256
MAX	313	73	305	375	213	326	593	305	271	343	30	1080
MIN	40	35	37	155	179	56	75	17	14	17	14	13

CAL YR	1986	TOTAL	74706	MEAN	205	MAX	878	MIN	17
WTR YR	1987	TOTAL	60990	MEAN	167	MAX	1080	MIN	13

e Estimated

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 mi south of Ithaca.

DRAINAGE AREA.--35.2 mi^2.

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

REVISED RECORDS.--WSP 2112: Drainage area. WRD NY 1974: 1973.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 437.16 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

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

AVERAGE DISCHARGE.--50 years (water years 1938–87), 38.5 ft^3/s, 14.85 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,800 ft^3/s June 23, 1972, gage height, 8.10 ft, 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; minimum discharge, 1.7 ft^3/s July 22, 1955; minimum gage height, 0.42 ft Aug. 30, 31, Sept. 1, 2, 1939, July 22, 1955. Several measurements of water temperature were made during the year.

EXTREMES 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)
Apr. 4	1715	*822	*3.21	No other peak greater than base discharge.			

Minimum discharge, 3.2 ft^3/s Aug. 18, 24, 25, gage height, 0.54 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	13	41	42	e23	e60	92	34	13	18	6.4	6.9
2	15	14	46	38	e24	e110	80	32	29	53	6.5	7.1
3	20	14	176	e38	e23	e78	71	31	19	38	9.4	7.1
4	51	13	93	e36	e22	e60	338	31	20	17	6.8	6.1
5	24	13	66	e36	e21	e56	233	30	17	11	6.2	5.6
6	17	25	55	e35	e21	e62	191	29	14	8.8	5.8	6.7
7	14	21	50	e33	e20	198	230	27	14	9.5	5.3	7.0
8	13	21	46	e31	e19	306	146	25	16	e50	5.0	10
9	12	45	53	e30	e19	216	112	24	15	e43	10	15
10	11	32	67	e30	e19	e100	90	22	13	e32	13	9.3
11	11	29	49	e29	e18	e80	76	21	11	e25	8.1	7.7
12	10	29	43	e28	e18	e70	86	21	12	e15	6.7	12
13	13	31	35	e28	e18	e60	215	21	12	e13	5.8	25
14	15	22	46	e29	e18	e50	125	20	11	e18	5.2	17
15	13	22	38	59	e18	e45	103	19	10	e25	4.9	11
16	12	22	36	80	e18	e40	88	19	8.9	15	4.5	9.2
17	11	22	35	e47	e17	e35	79	19	8.2	13	4.1	9.6
18	11	21	80	e45	e17	e35	70	18	7.8	11	3.9	13
19	10	23	69	e43	e17	e35	61	21	7.6	14	4.7	20
20	10	22	51	e40	e17	e35	55	21	7.7	8.7	5.3	18
21	10	44	45	e38	e16	37	50	20	9.1	7.7	4.2	14
22	9.9	33	38	e35	e16	38	46	21	10	7.0	4.1	12
23	10	35	36	e33	e16	42	43	24	14	6.5	4.2	11
24	12	66	38	e32	e16	44	68	27	11	6.8	3.7	12
25	11	56	194	e31	e15	52	66	20	9.0	6.4	3.6	11
26	13	144	100	e27	e15	84	48	17	8.8	e25	3.6	9.4
27	16	147	79	e26	e15	59	42	16	9.2	13	20	8.5
28	19	86	66	e24	e16	50	40	15	8.4	9.1	20	8.0
29	16	66	58	e23	---	44	39	13	7.8	7.2	16	7.5
30	16	52	52	e23	---	43	36	12	16	7.4	11	10
31	14	---	47	e22	---	115	---	13	---	8.4	8.0	---
TOTAL	459.9	1183	1928	1091	512	2339	3019	683	369.5	542.5	226.0	326.7
MEAN	14.8	39.4	62.2	35.2	18.3	75.5	101	22.0	12.3	17.5	7.29	10.9
MAX	51	147	194	80	24	306	338	34	29	53	20	25
MIN	9.9	13	35	22	15	35	36	12	7.6	6.4	3.6	5.6
CFSM	.42	1.12	1.77	1.00	.52	2.14	2.86	.63	.35	.50	.21	.31
IN.	.49	1.25	2.04	1.15	.54	2.47	3.19	.72	.39	.57	.24	.35

CAL YR	1986	TOTAL	14427.1	MEAN	39.5	MAX	611	MIN	6.3	CFSM	1.12	IN. 15.2
WTR YR	1987	TOTAL	12679.6	MEAN	34.7	MAX	338	MIN	3.6	CFSM	.99	IN. 13.4

e Estimated

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 mi upstream from mouth of Inlet, at Ithaca.

DRAINAGE AREA.--Cayuga Inlet 143 mi^2; Cayuga Lake at mouth 1,564 mi^2; Cayuga Lake portion 785 mi^2.

PERIOD OF RECORD.--August 1905 to December 1909, August 1956 to current year in reports of Geological Survey. January 1910 to September 1925 in reports of State Engineer and Surveyor.

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (1.43 ft Barge Canal datum). Prior to September 1925, nonrecording gage at several sites within 1 mi of present site. Prior to October 1968, at datum 378.57 ft higher. October 1968 to September 1975, at datum 376.57 ft higher.

REMARKS.--Lake regulated at Mud Lock by New York State Department of Transportation. Area of water surface, 66.9 mi^2. Seneca River (Cayuga and Seneca Canal) enters lake 0.5 mi upstream from Mud Lock and is included in second drainage area given above.

EXTREMES FOR PERIOD OF RECORD.--(1905–25 and since 1956): Maximum elevation, 386.33 ft June 26, 1972; minimum daily, 377.64 ft present datum, Mar. 28, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 382.87 ft June 23-24; minimum, 379.06 ft Jan. 22.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	382.06	381.65	381.34	380.55	379.23	379.59	380.96	382.24	382.45	382.48	382.41	382.11
2	382.10	381.75	381.27	380.50	379.22	379.79	381.03	382.18	382.51	382.49	382.33	382.04
3	382.13	381.68	381.45	380.41	379.25	380.05	381.12	382.13	382.52	382.56	382.36	382.06
4	382.25	381.73	381.61	380.19	379.29	380.23	381.27	382.08	382.60	382.62	382.36	382.03
5	382.33	381.73	381.66	380.04	379.32	380.33	381.53	382.10	382.62	382.63	382.40	381.97
6	382.34	381.78	381.62	379.91	379.29	380.39	381.78	382.13	382.63	382.54	382.35	381.98
7	382.29	381.75	381.59	379.87	379.31	380.45	381.96	382.16	382.57	382.50	382.30	382.00
8	382.17	381.73	381.60	379.82	379.30	380.65	382.12	382.18	382.57	382.53	382.32	382.03
9	382.28	381.78	381.45	379.72	379.48	380.94	382.23	382.18	382.69	382.52	382.29	382.07
10	382.22	381.77	381.56	379.61	379.38	381.12	382.30	382.18	382.78	382.54	382.38	382.08
11	382.00	381.71	381.49	379.64	379.41	381.10	382.33	382.17	382.75	382.54	382.37	382.02
12	381.93	381.66	381.47	379.56	379.40	381.06	382.34	382.26	382.74	382.52	382.29	382.04
13	381.93	381.74	381.46	379.52	379.47	381.04	382.42	382.26	382.79	382.50	382.25	382.33
14	381.92	381.61	381.29	379.39	379.44	381.00	382.54	382.20	382.79	382.52	382.21	382.43
15	381.94	381.49	381.29	379.38	379.43	380.91	382.59	382.33	382.78	382.62	382.21	382.38
16	381.89	381.41	381.25	379.48	379.42	380.81	382.57	382.32	382.72	382.55	382.22	382.42
17	381.85	381.31	381.19	379.43	379.41	380.75	382.54	382.31	382.73	382.53	382.22	382.48
18	381.80	381.26	381.12	379.36	379.41	380.67	382.49	382.33	382.66	382.54	382.27	382.48
19	381.68	381.23	381.19	379.40	379.40	380.64	382.42	382.31	382.62	382.59	382.21	382.40
20	381.61	381.03	381.13	379.33	379.39	380.64	382.32	382.24	382.65	382.61	382.24	382.38
21	381.60	381.16	381.09	379.21	379.38	380.64	382.25	382.24	382.68	382.67	382.18	382.37
22	381.60	381.14	380.99	379.10	379.37	380.63	382.26	382.27	382.68	382.66	382.15	382.36
23	381.64	381.04	380.95	379.16	379.40	380.57	382.18	382.35	382.83	382.63	382.26	382.35
24	381.68	381.13	380.88	379.13	379.43	380.57	382.22	382.41	382.82	382.61	382.15	382.34
25	381.60	381.17	380.94	379.12	379.45	380.56	382.29	382.42	382.70	382.60	382.10	382.34
26	381.56	381.13	381.01	379.17	379.49	380.61	382.30	382.38	382.56	382.60	382.07	382.20
27	381.57	381.37	381.00	379.15	379.54	380.72	382.26	382.38	382.55	382.58	382.12	382.13
28	381.65	381.37	380.96	379.15	379.56	380.79	382.20	382.40	382.54	382.54	382.12	382.06
29	381.66	381.40	380.91	379.18	---	380.81	382.25	382.42	382.46	382.45	382.18	382.04
30	381.81	381.42	380.89	379.14	---	380.77	382.31	382.43	382.43	382.40	382.10	382.13
31	381.76	---	380.76	379.23	---	380.84	---	382.44	---	382.48	382.03	---
MEAN	381.90	381.47	381.24	379.54	379.39	380.63	382.11	382.27	382.65	382.55	382.24	382.20
MAX	382.34	381.78	381.66	380.55	379.56	381.12	382.59	382.44	382.83	382.67	382.41	382.48
MIN	381.56	381.03	380.76	379.10	379.22	379.59	380.96	382.08	382.43	382.40	382.03	381.97

CAL YR	1986	MEAN	381.55	MAX	382.80	MIN	379.09
WTR YR	1987	MEAN	381.52	MAX	382.83	MIN	379.10

04234000 FALL CREEK NEAR ITHACA, NY

LOCATION.--Lat 42°27'12", long 76°28'23", Tompkins County, Hydrologic Unit 04140201, on left bank in Forest Home, 0.2 mi east of Ithaca, 0.5 mi upstream from Cornell University dam, and 2.2 mi upstream from mouth.

DRAINAGE AREA.--126 mi^2.

PERIOD OF RECORD.--July 1908 to June 1909 (gage heights only), February 1925 to current year.

REVISED RECORDS.--WSP 874: 1935–38. WSP 1912: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 795.13 ft above National Geodetic Vertical Datum of 1929. July 1908 to June 1909, nonrecording gage at bridge 1.2 mi downstream at different datum.

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

AVERAGE DISCHARGE.--62 years (water years 1926–87), 186 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,500 ft^3/s July 8, 1935, gage height, 9.52 ft, from average of computed flow over each of four dams; maximum gage height, 11.16 ft Feb. 21, 1971 (ice jam); minimum discharge, about 3 ft^3/s Aug. 25, 1927, result of regulation; minimum daily, 3.6 ft^3/s Aug. 17, 1965.

EXTREMES 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. 2	1030	ice jam	*4.77	No peak greater than base discharge.			
Apr. 5	0330	*1,900	3.67				

Minimum discharge, 14 ft^3/s Sept. 11, gage height, 0.34 ft, result of momentary regulation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	206	98	e190	155	e82	e180	489	135	36	68	59	27
2	112	95	210	e140	e86	e620	391	118	67	169	40	28
3	84	112	811	e140	e86	e520	402	108	60	385	43	34
4	282	97	606	e130	e86	e360	1000	103	54	139	41	29
5	206	87	336	e130	e84	e280	1410	97	55	89	33	24
6	140	222	264	e130	e84	e230	681	97	42	64	31	23
7	106	206	239	e120	e80	e420	801	91	40	78	29	24
8	86	152	232	e120	e80	e1100	528	83	83	109	30	32
9	74	346	230	e120	e78	1160	395	80	78	71	35	61
10	67	307	343	e120	e80	415	328	76	53	51	156	45
11	60	201	271	e120	e78	e330	282	72	41	44	76	32
12	56	197	208	e120	e74	e300	261	70	44	39	45	36
13	66	219	e170	e120	e72	e270	1210	73	57	33	35	176
14	129	e150	e130	e130	e70	e240	628	63	46	43	28	133
15	129	e130	192	207	e70	e230	400	63	38	70	25	73
16	97	139	180	334	e70	e230	324	67	29	44	26	56
17	83	147	179	e200	e70	e220	285	60	25	34	22	79
18	86	153	248	e180	e68	223	271	55	23	30	19	150
19	76	147	298	e160	e66	259	238	66	22	27	21	127
20	64	e110	217	e140	e66	294	210	68	23	31	42	115
21	60	320	186	e120	e64	240	185	60	24	33	29	101
22	59	265	e150	e110	e60	284	170	61	37	27	24	104
23	63	206	e130	e110	e60	435	164	124	136	23	31	82
24	84	381	e130	e110	e60	456	173	143	91	22	24	70
25	76	348	615	e100	e58	481	205	85	51	21	19	68
26	72	482	451	e98	e58	884	159	67	38	150	19	55
27	127	930	285	e90	e58	593	139	63	37	77	33	49
28	127	440	237	e86	e90	456	128	57	35	41	61	45
29	111	324	210	e84	---	376	145	52	31	30	61	43
30	143	266	194	e82	---	322	143	46	37	28	53	51
31	131	---	181	e80	---	390	---	40	---	109	35	---
TOTAL	3262	7277	8323	4086	2038	12798	12145	2443	1433	2179	1225	1972
MEAN	105	243	268	132	72.8	413	405	78.8	47.8	70.3	39.5	65.7
MAX	282	930	811	334	90	1160	1410	143	136	385	156	176
MIN	56	87	130	80	58	180	128	40	22	21	19	23
CFSM	.84	1.93	2.13	1.05	.58	3.28	3.21	.63	.38	.56	.31	.52
IN.	.96	2.15	2.46	1.21	.60	3.78	3.59	.72	.42	.64	.36	.58

CAL YR	1986	TOTAL	69242	MEAN	190	MAX	2810	MIN	28	CFSM	1.51	IN. 20.4
WTR YR	1987	TOTAL	59181	MEAN	162	MAX	1410	MIN	19	CFSM	1.29	IN. 17.5

e Estimated

04234500 CANANDAIGUA LAKE AT CANANDAIGUA, NY

LOCATION.--Lat 42°52'19", long 77°16'22", Ontario County, Hydrologic Unit 04140201, at south end of city pier at northern end of Canandaigua Lake, 1 mi southeast of Canandaigua.

DRAINAGE AREA.--184 mi^2.

PERIOD OF RECORD.--November 1939 to current year. December 1927 to November 1939, records for site on west side of E. T. Waldorf's boathouse collected by, and in files of, city of Canandaigua.

REVISED RECORDS.--WSP 2112: Drainage area. WRD NY 1971: 1970. WDR NY-86-3: 1985.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. June 26, 1946 to Sept. 30, 1975, at datum 681.17 ft higher, and prior to June 26, 1946, nonrecording gage at E. T. Waldorf's boathouse at same datum.

REMARKS.--Lake elevation regulated by one gate on West outlet, which is a 1.5 mi long canal, and by two gates on East outlet, which is the natural outlet. Sill elevations of West and East outflow structures are 684.37 ft and 684.94 ft, respectively. Water diverted for municipal supply for villages of Newark, Palmyra, and Gorham. Records of diversion in files of city of Canandaigua. Area of water surface, 16.6 mi^2.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 692.11 ft June 24, 1972; minimum daily, 685.62 ft Jan. 30, 1942.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 689.61 ft Apr. 8; minimum recorded, 686.95 ft Feb. 27.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	687.81	687.69	687.55	687.65	e687.35	687.10	688.47	688.47	688.54	688.53	688.23	687.93
2	687.81	687.61	687.60	687.62	e687.32	687.31	688.48	688.44	688.60	688.51	688.24	687.91
3	687.86	687.61	687.76	687.64	e687.27	687.42	688.46	688.43	688.62	688.47	688.22	687.89
4	687.91	687.55	687.91	687.61	e687.27	687.47	688.51	688.42	688.64	688.44	688.21	687.88
5	687.99	687.54	687.96	687.58	e687.23	687.51	688.98	688.42	688.64	688.38	688.18	687.88
6	687.99	687.53	687.97	687.58	e687.25	687.55	689.24	688.43	688.67	688.39	688.17	687.87
7	687.97	687.52	687.96	687.53	e687.24	687.65	689.47	688.43	688.58	688.40	688.16	687.85
8	687.95	687.50	687.94	687.51	e687.23	687.85	689.57	688.43	688.51	688.41	688.14	687.86
9	687.87	687.47	688.00	687.49	e687.20	688.00	689.56	688.45	688.51	688.41	688.18	687.86
10	687.84	687.43	688.01	687.50	e687.17	688.08	689.52	688.43	688.53	688.41	688.19	687.84
11	687.84	687.41	688.05	687.45	e687.17	688.12	689.46	688.44	688.53	688.40	688.17	687.85
12	687.77	687.38	688.03	687.44	e687.16	688.15	689.40	688.43	688.55	688.40	688.17	687.89
13	687.75	687.34	688.00	687.42	e687.15	688.18	689.42	688.43	688.53	688.40	688.17	688.01
14	687.75	687.34	687.99	687.40	e687.14	688.19	689.42	688.46	688.52	688.40	688.15	688.03
15	687.73	687.32	687.94	687.44	e687.12	688.20	689.39	688.44	688.48	688.36	688.13	688.03
16	687.69	687.30	687.91	687.51	e687.10	688.21	689.32	688.44	688.48	688.35	688.11	688.02
17	687.66	687.30	687.90	687.54	e687.08	688.22	689.25	688.44	688.47	688.34	688.12	688.03
18	687.67	687.28	687.92	687.56	e687.02	688.23	689.20	688.44	688.44	688.32	688.12	688.04
19	687.66	687.30	687.86	687.53	e687.00	688.24	689.13	688.45	688.45	688.28	688.10	688.07
20	687.64	687.34	687.84	687.54	e687.01	688.24	689.06	688.50	688.53	688.35	688.08	688.03
21	687.61	687.33	687.81	687.53	e687.00	688.25	688.99	688.47	688.61	688.34	688.06	687.99
22	687.59	687.35	687.78	687.53	e686.99	688.25	688.91	688.49	688.59	688.31	688.06	688.00
23	687.57	687.39	687.74	687.54	e686.98	688.28	688.87	688.50	688.55	688.31	688.02	688.01
24	687.54	687.39	687.73	687.53	e687.02	688.30	688.79	688.50	688.54	688.30	687.99	687.99
25	687.55	687.41	687.77	687.49	e687.00	688.33	688.76	688.50	688.52	688.28	687.96	687.99
26	687.56	687.49	687.76	687.46	e687.01	688.37	688.70	688.51	688.53	688.28	687.92	687.99
27	687.58	687.55	687.75	687.44	687.01	688.38	688.66	688.53	688.53	688.27	687.95	687.96
28	687.60	687.58	687.74	687.41	687.01	688.40	688.63	688.52	688.48	688.22	687.97	687.97
29	687.63	687.58	687.72	e687.41	---	688.43	688.58	688.52	688.44	688.20	687.96	687.99
30	687.64	687.56	687.68	e687.39	---	688.50	688.51	688.53	688.46	688.23	687.97	688.04
31	687.70	---	687.67	e687.37	---	688.45	---	688.53	---	688.24	687.97	---
MEAN	687.73	687.44	687.85	687.50	687.12	688.06	689.02	688.46	688.53	688.35	688.10	687.96
MAX	687.99	687.69	688.05	687.65	687.35	688.50	689.57	688.53	688.67	688.53	688.24	688.07
MIN	687.54	687.28	687.55	687.37	686.98	687.10	688.46	688.42	688.44	688.20	687.92	687.84

CAL YR 1986 MEAN 688.03 MAX 689.26 MIN 686.96
WTR YR 1987 MEAN 688.01 MAX 689.57 MIN 686.98

e From once-daily (0800) readings made by city of Canandaigua personnel.

04235000 CANANDAIGUA OUTLET AT CHAPIN, NY

LOCATION.--Lat 42°55'05", long 77°13'59", Ontario County, Hydrologic Unit 04140201, on right bank at Chapin, 25 ft upstream from bridge on State Highway 488, and 4.1 mi downstream from Canandaigua Lake.

DRAINAGE AREA.--195 mi^2.

PERIOD OF RECORD.--November 1939 to current year. Prior to October 1964, published as "Canandaigua Lake Outlet."

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 671.44 ft above National Geodetic Vertical Datum of 1929. Prior to June 25, 1974, at site 0.1 mi upstream at datum 676.90 ft National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--47 years (water years 1941–87), 154 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,710 ft^3/s June 24, 1972, gage height, 11.08 ft present datum, at site then in use; minimum, 4.6 ft^3/s Sept. 17, 1948.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 887 ft^3/s Apr. 6 at 1700 hours, gage height, 5.70 ft; minimum, 21 ft^3/s Aug. 26, gage height, 3.08 ft

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	190	192	230	208	174	488	504	39	267	27	33
2	42	185	226	228	206	144	491	166	43	98	28	34
3	48	181	425	231	205	62	486	127	39	350	28	36
4	72	180	345	229	205	52	659	102	37	363	28	33
5	68	180	306	227	e200	50	757	50	33	350	28	29
6	97	188	300	225	198	56	841	50	27	343	28	28
7	230	186	298	226	198	79	828	49	27	294	31	29
8	233	189	304	220	196	81	773	49	159	40	32	29
9	223	184	337	215	193	63	823	49	383	26	37	28
10	218	180	350	215	e180	53	848	48	249	27	39	27
11	217	177	309	214	184	52	821	49	35	25	40	27
12	211	174	303	213	179	53	795	48	33	25	38	29
13	232	170	296	208	176	54	828	49	34	25	37	39
14	228	129	291	205	e160	54	791	49	31	27	37	32
15	217	36	279	286	e160	54	771	50	30	26	37	31
16	207	34	275	278	e150	53	757	49	34	26	37	32
17	202	35	271	233	e140	54	701	47	33	26	36	34
18	216	34	280	230	139	53	700	45	29	24	30	106
19	205	35	271	223	111	53	707	45	29	24	30	273
20	200	35	264	223	35	52	700	43	28	30	30	278
21	196	40	257	224	34	39	694	41	28	27	30	230
22	193	40	252	e140	34	39	672	40	50	32	30	42
23	192	43	249	e120	35	40	663	39	115	32	29	36
24	176	53	249	e120	36	40	647	38	312	32	29	35
25	44	42	303	e150	35	41	635	42	314	30	28	36
26	37	129	270	e170	35	46	616	40	278	29	26	35
27	38	247	256	e180	35	44	598	34	46	29	30	35
28	37	206	248	e180	35	44	597	31	30	28	29	36
29	36	201	244	e200	---	43	581	30	69	28	31	36
30	39	196	238	217	---	165	558	34	282	29	33	49
31	70	---	234	214	---	458	---	38	---	29	33	---
TOTAL	4470	3899	8722	6474	3702	2345	20826	2075	2876	2741	986	1757
MEAN	144	130	281	209	132	75.6	694	66.9	95.9	88.4	31.8	58.6
MAX	233	247	425	286	208	458	848	504	383	363	40	278
MIN	36	34	192	120	34	39	486	30	27	24	26	27

CAL YR	1986	TOTAL	72599.0	MEAN	199	MAX	775	MIN	25
WTR YR	1987	TOTAL	60873.0	MEAN	167	MAX	848	MIN	24

e Estimated

04235250 FLINT CREEK AT PHELPS, NY

LOCATION.--Lat 42°57'28", long 77°04'06", Ontario County, Hydrologic Unit 04140201, on right bank 25 ft downstream from bridge on Eagle Street at Phelps, and 1.1 mi upstream from Canandaigua Outlet.

DRAINAGE AREA.--102 mi^2.

PERIOD OF RECORD.--October 1959 to current year.

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 523.14 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Small diversion (during periods of low ground-water level) by Phelps Cement Products, Inc., located about 0.2 mile upstream. Since 1967, flow from Canandaigua Lake diverted into Flint Creek for municipal supply of village of Gorham; presently not exceeding 0.3 ft^3/s. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--28 years, 89.3 ft^3/s, 11.89 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,940 ft^3/s Mar. 30, 1960, gage height, 5.83 ft; maximum gage height, 6.20 ft Mar. 17, 1963 (ice jam); no flow for many days 1962–65, 1969.

EXTREMES 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. 3	2400	913	4.19	Apr. 5	1130	*1,160	4.53
Mar. 2	1000	ice jam	*4.55				

Minimum discharge, 4.1 ft^3/s Aug. 26-27, gage height, 1.08 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	76	94	82	e56	e150	180	59	16	16	15	8.9
2	77	73	106	e70	e60	e420	198	54	30	40	11	9.0
3	57	73	586	48	e58	e310	182	49	40	116	11	8.6
4	131	67	679	e52	e56	e240	366	46	57	108	9.7	7.3
5	191	59	376	e64	e54	e190	998	44	39	67	10	6.7
6	124	66	223	e60	e52	e180	919	42	28	42	8.4	6.2
7	82	75	164	e62	e50	e400	789	41	27	36	8.2	6.2
8	61	70	159	e62	e48	658	660	38	34	43	7.4	6.6
9	49	67	200	e62	e46	e560	405	35	30	36	8.3	6.7
10	42	60	358	e60	e45	e290	258	33	25	47	23	6.4
11	38	55	255	e62	e44	e150	186	31	20	28	21	6.3
12	34	54	171	e62	e43	e120	155	29	21	20	13	8.2
13	63	e52	e110	e62	e42	121	333	29	24	15	9.5	152
14	96	e40	e80	e66	e40	103	328	27	20	47	7.5	150
15	85	e44	e100	e170	e40	92	233	28	17	80	6.3	106
16	65	46	103	347	e39	82	167	27	14	47	5.7	48
17	60	45	100	e170	e39	75	142	26	12	28	5.6	42
18	65	45	114	e140	e38	71	138	24	11	19	9.6	54
19	63	44	133	e130	e38	68	127	24	9.8	15	7.4	59
20	57	40	113	90	e37	68	109	26	8.9	33	6.5	63
21	50	60	97	e90	e36	67	95	23	8.8	36	5.6	66
22	45	69	82	e70	e35	68	83	21	42	20	5.7	76
23	42	73	72	e66	e34	69	77	28	97	14	6.8	72
24	40	140	73	e64	e33	72	80	34	44	11	5.7	56
25	43	145	206	e60	e32	77	92	25	27	9.5	4.6	47
26	44	202	216	e58	e32	92	81	22	21	10	4.3	44
27	57	322	163	e56	e31	97	71	22	29	12	5.8	34
28	71	216	130	e54	e30	87	65	23	22	11	11	31
29	75	153	112	e52	---	77	74	20	18	8.4	16	27
30	96	120	100	e50	---	71	68	18	15	8.4	14	63
31	89	---	91	e54	---	97	---	16	---	20	11	---
TOTAL	2176	2651	5566	2595	1188	5222	7659	964	807.5	1043.3	294.6	1277.1
MEAN	70.2	88.4	180	83.7	42.4	168	255	31.1	26.9	33.7	9.50	42.6
MAX	191	322	679	347	60	658	998	59	97	116	23	152
MIN	34	40	72	48	30	67	65	16	8.8	8.4	4.3	6.2
CFSM	.69	.87	1.76	.82	.42	1.65	2.50	.30	.26	.33	.09	.42
IN.	.79	.97	2.03	.95	.43	1.90	2.79	.35	.29	.38	.11	.47

CAL YR	1986	TOTAL	39287.3	MEAN	108	MAX	1410	MIN	6.9	CFSM	1.06	IN. 14.3
WTR YR	1987	TOTAL	31443.4	MEAN	86.1	MAX	998	MIN	4.3	CFSM	.84	IN. 11.5

e Estimated

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 September 1986.

GAGE.--Water-stage recorder. Elevation of gage is 390 ft above National Geodetic Vertical Datum of 1929, from topographic map. December 9, 1964 to November 21, 1985, crest-stage gage at same site and datum.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 786 ft^3/s, Dec. 14, 1977, gage height, 5.02 ft; maximum gage height, 6.68 ft, Nov. 5, 1970, discharge not determined; minimum observed discharge, 0.42 ft^3/s, Sept. 25, 1964.

EXTREMES 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.27	0430	210	2.38	Mar. 7	2330	233	2.52
Dec. 3	2100	*267	*2.72	Apr. 4	2100	184	2.17

Minimum discharge , 0.51 ft^3/s Aug. 15-17, gage height, 0.19 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	13	21	14	e10	e34	47	4.8	1.4	1.0	1.1	.71
2	20	13	24	e12	e10	e120	47	4.5	1.8	4.0	1.3	.79
3	16	15	180	e11	e10	81	47	4.0	2.4	8.5	1.8	.84
4	55	12	194	e11	e10	73	101	3.7	3.8	18	.97	.74
5	64	10	81	e10	e10	54	148	3.5	3.5	10	.87	.71
6	39	18	43	e10	e9.8	52	116	3.3	4.0	4.9	.79	.65
7	25	20	31	e10	e10	108	89	3.0	4.6	4.2	.72	.71
8	16	16	29	e10	e9.8	204	57	2.9	5.3	3.6	.66	.80
9	12	15	42	e10	e9.6	129	38	2.8	5.4	2.6	1.3	.91
10	9.9	12	95	e10	e9.4	e50	26	2.7	4.6	1.9	1.3	.80
11	7.5	10	49	e9.8	e9.2	e40	19	2.5	3.8	1.9	1.3	.73
12	6.7	11	28	e9.6	e9.0	e20	16	2.4	3.3	1.4	.86	1.2
13	23	12	e24	e9.6	e8.8	19	95	2.3	2.9	1.4	.71	59
14	48	10	e20	e15	e8.6	18	58	2.1	2.6	2.4	.63	20
15	38	8.3	15	e52	e8.4	17	32	2.3	2.2	6.4	.57	7.3
16	24	7.0	16	e110	e8.2	14	23	2.1	1.7	5.6	.55	4.1
17	19	7.0	18	e70	e8.0	13	18	2.1	1.3	4.2	.80	4.5
18	17	7.3	27	e40	e7.8	12	16	2.1	1.1	3.0	2.9	6.4
19	13	7.3	34	e22	e7.6	12	14	2.2	.98	2.4	2.4	7.7
20	12	6.8	26	e20	e7.0	11	12	2.1	.88	7.7	1.2	7.8
21	8.1	13	21	e18	e7.0	13	10	2.6	.89	9.3	1.1	6.5
22	6.7	21	17	e17	e6.0	13	8.2	4.5	3.5	6.1	1.2	5.8
23	5.6	27	14	e16	e5.4	13	7.1	4.7	6.9	4.3	1.1	4.9
24	8.2	49	14	e14	e5.2	13	7.0	4.0	3.9	3.0	.80	4.2
25	8.5	38	66	e12	e5.2	12	7.3	3.6	2.2	2.2	.71	3.7
26	8.6	74	54	e10	e4.8	18	6.8	2.4	1.6	2.2	.63	2.5
27	12	178	35	e9.8	e4.6	21	6.0	1.8	1.5	1.4	.80	1.5
28	22	79	26	e9.6	e4.0	20	5.3	1.6	1.1	.97	1.0	1.4
29	17	45	21	e9.8	---	17	5.2	1.5	1.2	.79	1.1	1.6
30	24	31	18	e9.8	---	13	5.1	1.3	1.0	1.4	.82	17
31	18	---	16	e10	---	22	---	1.2	---	1.6	.74	---
TOTAL	636.8	785.7	1299	602.0	223.4	1256	1087.0	86.6	81.35	128.36	32.73	175.49
MEAN	20.5	26.2	41.9	19.4	7.98	40.5	36.2	2.79	2.71	4.14	1.06	5.85
MAX	64	178	194	110	10	204	148	4.8	6.9	18	2.9	59
MIN	5.6	6.8	14	9.6	4.0	11	5.1	1.2	.88	.79	.55	.65
CFSM	1.08	1.38	2.21	1.02	.42	2.13	1.91	.15	.14	.22	.06	.31
IN.	1.25	1.54	2.54	1.18	.44	2.46	2.13	.17	.16	.25	.06	.34

CAL YR	1986	TOTAL	8990.35	MEAN	24.6	MAX	359	MIN	1.2	CFSM	1.30	IN. 17.6
WTR YR	1987	TOTAL	6394.36	MEAN	17.5	MAX	204	MIN	.55	CFSM	.92	IN. 12.5

e Estimated

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 mi south of city limits of Auburn, and 1.8 mi upstream from State dam.

DRAINAGE AREA.--205 mi^2.

PERIOD OF RECORD.--October 1967 to current year. Records since 1912 collected by, and in files of, city of Auburn.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to May 1, 1982, nonrecording gage read once daily by employees of city of Auburn Water Division at same site and datum from reference mark at elevation 718.59 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Lake elevation regulated by gates on outlet at State dam. Area of water surface, 10.6 mi^2.

COOPERATION.--Records furnished by city of Auburn until April 30, 1982.

EXTREMES FOR PERIOD OF RECORD.--Maximum observed elevation, 716.88 ft June 25, 1972; minimum observed, 708.58 ft Feb. 17, 18, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum observed elevation since 1912, 716.91 ft Mar. 23, 1936, Apr. 9, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 713.68 ft Dec. 4; minimum, 709.78 ft Mar. 1.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e712.09	712.25	713.09	712.73	711.62	709.82	712.50	712.57	711.93	712.01	712.39	712.04
2	e712.13	712.43	713.17	712.68	711.58	710.06	712.35	712.61	711.95	712.06	712.41	712.02
3	e712.15	712.56	713.46	712.68	711.55	710.25	712.49	712.60	711.96	712.24	712.39	712.01
4	e712.20	712.56	713.62	712.62	711.51	710.34	712.56	712.61	712.00	712.30	712.39	711.98
5	e712.27	712.62	713.53	712.56	711.44	710.40	712.82	712.62	712.02	712.35	712.36	711.97
6	e712.31	712.62	713.42	712.49	711.38	710.43	712.87	712.64	712.01	712.41	712.35	e712.02
7	e712.34	712.68	713.28	712.44	711.32	710.52	712.88	712.64	711.97	712.42	712.34	e712.00
8	e712.35	712.62	713.13	712.41	711.27	710.88	712.87	712.64	712.05	712.44	712.31	e711.99
9	e712.27	712.64	712.77	712.36	711.20	711.33	712.82	712.60	712.06	712.43	712.32	e712.07
10	e712.26	712.66	712.97	712.28	711.15	711.47	712.82	712.50	712.05	712.44	712.33	e712.06
11	e712.30	712.70	712.89	712.29	711.11	711.55	712.81	712.47	712.08	712.46	712.30	e712.05
12	e712.26	712.69	712.84	712.26	711.06	711.61	712.79	712.37	712.09	712.48	712.30	e712.11
13	e712.38	712.64	712.78	712.22	710.98	711.66	712.99	712.29	712.09	712.46	712.37	e712.38
14	e712.39	712.72	712.71	712.18	710.90	711.74	713.04	712.26	712.12	712.46	712.32	e712.43
15	e712.43	712.81	712.68	712.16	710.82	711.75	712.79	712.17	712.10	712.42	712.32	e712.38
16	e712.41	712.80	712.66	712.19	710.74	711.75	712.72	712.08	712.10	712.41	712.31	e712.29
17	e712.37	712.77	712.66	712.19	710.68	711.74	712.68	712.02	712.08	712.42	712.27	e712.21
18	e712.30	712.68	712.54	712.08	710.61	711.75	712.68	711.94	712.08	712.42	712.22	e712.18
19	e712.33	712.64	712.73	712.14	710.54	711.82	712.67	711.87	712.08	712.39	712.24	e712.19
20	e712.35	712.55	712.74	712.14	710.46	711.92	712.65	711.69	712.05	712.45	712.19	e712.15
21	e712.39	712.61	712.72	712.11	710.39	711.93	712.62	711.76	712.07	712.45	712.20	e712.06
22	e712.40	712.62	712.74	712.05	710.31	711.93	712.61	711.83	712.22	712.44	712.20	e711.99
23	e712.43	712.48	712.66	712.04	710.23	711.98	712.26	711.82	712.36	712.45	712.11	e711.92
24	e712.40	712.62	712.60	711.98	710.16	712.06	712.55	711.82	712.40	712.44	712.10	e711.82
25	e712.34	712.68	712.71	711.92	710.08	712.13	712.53	711.84	712.40	712.42	712.08	e711.73
26	e712.31	712.69	712.79	711.86	710.00	712.33	712.50	711.89	712.18	712.45	712.05	e711.65
27	e712.30	713.03	712.82	711.82	709.92	712.45	712.18	711.95	712.23	712.43	712.07	e711.53
28	712.33	713.16	712.82	711.77	709.84	712.49	712.32	711.91	712.15	712.41	712.08	e711.45
29	712.36	713.14	712.84	711.72	---	712.47	712.54	711.90	712.04	712.39	712.07	711.40
30	712.33	713.12	712.80	711.68	---	711.97	712.53	711.91	712.00	712.41	712.08	e711.48
31	712.29	---	712.74	711.65	---	712.41	---	711.91	---	712.40	712.07	---
MEAN	712.31	712.69	712.90	712.18	710.82	711.51	712.65	712.18	712.10	712.39	712.24	711.98
MAX	712.43	713.16	713.62	712.73	711.62	712.49	713.04	712.64	712.40	712.48	712.41	712.43
MIN	712.09	712.25	712.54	711.65	709.84	709.82	712.18	711.69	711.93	712.01	712.05	711.40

CAL YR	1986	MEAN	712.26	MAX	713.62	MIN	710.20
WTR YR	1987	MEAN	712.16	MAX	713.62	MIN	709.82

e Estimated

04235500 OWASCO OUTLET NEAR AUBURN, NY

LOCATION.--Lat 42°56'48", long 76°35'56", Cayuga County, Hydrologic Unit 04140201, on left bank 2.5 mi downstream from center of Auburn, and 4 mi downstream from State dam at outlet of Owasco Lake.

DRAINAGE AREA.--206 mi^2.

PERIOD OF RECORD.--November 1912 to current year. Prior to October 1966, published as "Owasco Lake Outlet".

REVISED RECORDS.--WSP 824: 1913–14, 1916, 1920(M), 1922(M), 1928(M), 1929, 1932(M). WSP 2112: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 533.92 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. 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.

AVERAGE DISCHARGE.--74 years (water years 1914–87), 288 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,250 ft^3/s June 23, 1972, gage height, 6.28 ft; minimum, about 2 ft 3/s Dec. 5, 1936; minimum gage height, 1.02 ft Oct. 22, 23, 1986; minimum daily discharge, 5 ft^3/s Nov. 11, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,140 ft^3/s Apr. 13 at 1100 hours, gage height, 3.16 ft; minimum, 15 ft^3/s Oct. 22, 23, gage height, 1.02 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	97	106	374	389	383	398	596	95	48	41	38	35
2	68	47	391	406	354	397	599	89	35	75	44	40
3	115	21	704	424	346	393	593	89	43	47	41	35
4	212	20	1050	416	366	392	623	89	38	51	38	35
5	219	132	1030	405	368	391	720	51	32	41	37	34
6	161	318	995	412	376	392	842	57	31	43	37	33
7	186	334	943	412	370	404	884	87	35	41	38	34
8	242	324	894	402	365	428	880	256	34	40	37	46
9	149	324	888	395	332	526	619	351	31	39	46	42
10	80	331	825	398	327	396	462	349	30	39	38	36
11	69	332	804	392	298	366	462	348	29	38	37	36
12	67	320	595	390	346	310	463	346	32	37	37	54
13	87	243	455	392	382	212	896	344	28	39	37	154
14	197	34	451	394	386	276	1130	345	28	47	37	217
15	164	19	412	407	385	397	1090	343	29	39	36	346
16	150	196	397	407	385	397	909	339	30	38	36	354
17	269	346	397	403	385	397	585	337	34	38	49	373
18	259	333	204	401	385	184	426	333	35	37	38	410
19	192	327	259	390	385	62	421	331	35	37	40	390
20	38	335	418	390	385	153	384	330	36	64	36	374
21	18	332	412	385	385	380	360	160	39	40	36	365
22	18	334	408	385	385	407	366	46	84	39	37	365
23	107	341	396	391	385	275	370	44	44	39	35	359
24	278	345	398	408	380	384	371	42	39	38	37	364
25	282	328	422	399	379	392	367	42	215	38	36	366
26	282	214	418	399	379	395	365	41	343	38	35	363
27	292	373	416	399	379	434	304	36	335	38	38	362
28	297	383	413	399	374	454	113	35	322	38	40	194
29	302	383	411	399	---	438	106	35	323	38	38	53
30	299	378	403	398	---	525	104	32	165	43	35	78
31	191	---	395	387	---	601	---	32	---	38	35	---
TOTAL	5387	7853	16978	12374	10355	11556	16410	5454	2582	1298	1179	5947
MEAN	174	262	548	399	370	373	547	176	86.1	41.9	38.0	198
MAX	302	383	1050	424	386	601	1130	351	343	75	49	410
MIN	18	19	204	385	298	62	104	32	28	37	35	33

CAL YR	1986	TOTAL	117635	MEAN	322	MAX	1500	MIN	18
WTR YR	1987	TOTAL	97373	MEAN	267	MAX	1130	MIN	18

04236000 SKANEATELES LAKE AT SKANEATELES, NY

LOCATION.--Lat 42°56'42", long 76°25'46", Onondaga County, Hydrologic Unit 04140201, on east side of breakwater, enclosed in city of Syracuse boathouse, at Skaneateles.

DRAINAGE AREA.--72.7 mi^2.

PERIOD OF RECORD.--October 1967 to current year. Records since September 1890 collected by, and in files of, city of Syracuse.

GAGE.--Nonrecording gages read once daily by employees of Syracuse Water Division. Datum of gage is National Geodetic Vertical Datum of 1929. October 1967 to September 1975, at same site at datum 801.75 ft higher.

REMARKS.--Lake elevation regulated by gates at outlet by Syracuse Water Division. Area of water surface, 13.6 mi^2.

COOPERATION.--Records furnished by city of Syracuse.

EXTREMES FOR PERIOD OF RECORD.--(since 1890): Maximum observed elevation, 866.95 ft June 25, 26, 1972; minimum observed, 858.90 ft Nov. 15, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum observed elevation, 863.62 ft Apr. 26; minimum observed, 861.51 ft Sept. 29.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	863.52	863.20	863.20	863.05	862.39	861.82	862.76	863.60	863.29	863.11	862.61	861.83
2	863.55	863.17	863.16	863.04	862.38	861.91	862.80	863.59	863.27	863.09	862.57	861.78
3	863.50	863.15	863.38	863.10	862.35	862.00	862.80	863.58	863.27	863.17	862.59	861.77
4	863.55	863.13	863.47	863.10	862.34	862.01	862.90	863.57	863.30	863.18	862.58	861.75
5	863.56	863.13	863.55	863.06	862.33	861.99	862.96	863.53	863.28	863.17	862.54	861.73
6	863.54	863.18	863.50	863.02	862.29	861.99	863.06	863.51	863.25	863.16	862.50	861.69
7	863.53	863.15	863.49	862.97	862.28	862.01	863.15	863.50	863.25	863.15	862.48	861.65
8	863.50	863.14	863.47	862.99	862.26	862.12	863.18	863.50	863.24	863.13	862.45	861.63
9	863.48	863.14	863.45	862.93	862.23	862.24	863.22	863.48	863.23	863.13	862.42	861.65
10	863.44	863.10	863.51	862.90	862.23	862.29	863.21	863.46	863.21	863.11	862.43	861.65
11	863.40	863.10	863.48	862.87	862.20	862.27	863.25	863.46	863.20	863.10	862.39	861.63
12	863.39	863.14	863.43	862.93	862.18	862.33	863.23	863.49	863.20	863.05	862.37	861.67
13	863.35	863.12	863.45	862.87	862.15	862.34	863.40	863.45	863.20	863.03	862.35	861.76
14	863.41	863.09	863.45	862.83	862.12	862.34	863.50	863.45	863.18	863.03	862.32	861.76
15	863.37	863.10	863.40	862.78	862.09	862.35	863.50	863.49	863.12	863.01	862.31	861.73
16	863.34	863.10	863.35	862.81	862.06	862.35	863.53	863.42	863.11	863.00	862.28	861.73
17	863.34	863.10	863.32	862.75	862.05	862.34	863.53	863.40	863.05	862.98	862.25	861.72
18	863.34	863.07	863.33	862.73	862.04	862.35	863.58	863.37	863.03	862.95	862.20	861.74
19	863.33	863.04	863.34	862.69	862.02	862.36	863.60	863.37	863.03	862.93	862.17	861.76
20	863.29	863.00	863.33	862.70	861.99	862.34	863.58	863.36	863.00	862.91	862.14	861.76
21	863.28	863.04	863.32	862.70	861.98	862.35	863.60	863.33	863.00	862.93	862.13	861.73
22	863.25	863.03	863.25	862.65	861.96	862.39	863.59	863.33	863.05	862.92	862.10	861.70
23	863.22	863.03	863.20	862.63	861.95	862.35	863.59	863.30	863.17	862.91	862.07	861.68
24	863.20	863.01	863.17	862.61	861.93	862.38	863.60	863.35	863.20	862.89	862.01	861.67
25	863.17	863.04	863.18	862.60	861.90	862.41	863.61	863.34	863.19	862.87	861.96	861.65
26	863.15	863.07	863.25	862.53	861.87	862.49	863.62	863.33	863.18	862.86	861.93	861.65
27	863.15	863.15	863.23	862.53	861.86	862.59	863.61	863.32	863.15	862.82	861.91	861.59
28	863.20	863.20	863.19	862.49	861.83	862.57	863.61	863.30	863.13	862.78	861.91	861.55
29	863.20	863.18	863.16	862.45	---	862.63	863.58	863.29	863.14	862.75	861.96	861.51
30	863.22	863.18	863.10	862.42	---	862.65	863.60	863.28	863.12	862.71	861.90	861.57
31	863.20	---	863.07	862.40	---	862.74	---	863.30	---	862.66	861.87	---
MEAN	863.35	863.11	863.33	862.78	862.12	862.30	863.36	863.42	863.17	862.98	862.25	861.69
MAX	863.56	863.20	863.55	863.10	862.39	862.74	863.62	863.60	863.30	863.18	862.61	861.83
MIN	863.15	863.00	863.07	862.40	861.83	861.82	862.76	863.28	863.00	862.66	861.87	861.51

CAL YR	1986	MEAN	863.16	MAX	864.35	MIN	861.03
WTR YR	1987	MEAN	862.81	MAX	863.62	MIN	861.51

04237500 SENECA RIVER AT BALDWINSVILLE, NY

LOCATION.--Lat 43°09'25", long 76°19'55", Onondaga County, Hydrologic Unit 04140201, on left bank 200 ft downstream from bridge on State Highways 31 and 48 in Baldwinsville, and 400 ft downstream from navigation dam at Lock 24 of New York State Erie (Barge) Canal.

DRAINAGE AREA.--3,138 mi^2.

PERIOD OF RECORD.--November 1949 to current year in reports of Geological Survey. November 1898 to December 1908, prior to construction of Erie (Barge) Canal, not equivalent to later records at same site because of extensive development of Erie (Barge) Canal system. January 1909 to September 1925 (gage heights only) in reports of State Engineer and Surveyor.

REVISED RECORDS.--WDR NY-78-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 361.38 ft above National Geodetic Vertical Datum of 1929 (362.60 ft Erie (Barge) Canal Datum). Prior to Dec. 31, 1908, nonrecording gage at same site at different datum. Auxiliary water-stage recorder 1,500 ft downstream from base gage at same datum.

REMARKS.--No estimated daily discharges. Records good except those below 2,000 ft^3/s, which are fair. Discharge from 1898 to 1908 determined on basis of head on dam, flow through 10 mills nearby, lockages at Oswego Canal lock, estimated leakage of dam, wheel gates, flumes, and penstocks; not adjusted for inflow from Lake Erie through Erie (Barge) Canal. Discharge, since November 1949, computed by using fall as determined by auxiliary water-stage recorder. Published discharge represents the total flow at Baldwinsville and includes flow in Erie (Barge) Canal.

A large amount of natural storage and some artificial regulation is afforded by many large lakes and the Erie (Barge) Canal system in the river basin. Large diurnal fluctuations at low and medium flows caused by powerplants upstream from station. Seneca River basin receives water from Erie (Barge) Canal through Lock 32 near Pittsford. During part of year, entire flow from 45.5 mi^2 of Mud Creek drainage area may be diverted from Chemung River basin into Keuka Lake in Oswego River basin. Several measurements of water temperature were made during the year. Gage-height telemeter at station.

COOPERATION.--Records of lockages at Lock 24 furnished by New York State Department of Transportation (since November 1949).

AVERAGE DISCHARGE.--37 years (water years 1951-87), 3,432 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 17,200 ft^3/s Apr. 4, 1960, June 28, 1972; maximum gage height, 9.21 ft Apr. 4, 1960, June 30, 1972; minimum daily discharge, 34 ft^3/s Sept. 17, 1985, result of extreme regulation; minimum gage height, 0.70 ft Feb. 20, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 8,260 ft^3/s Apr. 9; maximum gage height, 4.76 ft Apr. 9; minimum daily discharge, 481 ft^3/s Feb. 27; minimum gage height, 1.10 ft Feb. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4660	2650	5110	6350	1720	1330	2910	2980	745	837	705	557
2	3550	2900	4970	6330	2010	3040	3620	2970	743	1340	1170	545
3	3400	2440	5980	6260	1890	5210	4170	2950	793	2240	1610	547
4	3240	2370	7570	6120	1920	6200	4700	2960	1250	2460	1300	620
5	3650	2380	8100	6030	1910	5860	5370	2330	1490	2430	661	612
6	4740	2770	8200	5980	1890	5330	6800	1190	1430	2120	619	588
7	4830	3470	7860	6020	1850	4980	7490	1030	1070	1380	620	586
8	4550	4030	7390	6000	1820	5790	7950	1680	1150	1840	624	562
9	4250	3740	6860	6130	1780	7160	8260	1630	1350	2510	633	934
10	3610	3320	6940	6080	1770	7390	8160	1050	1640	2760	1180	1250
11	3400	3620	7010	6090	1770	7040	7750	1090	1690	1950	1260	638
12	3730	3640	6960	5920	1750	6540	7290	1280	1900	1500	709	622
13	4050	3670	6700	5960	1790	6060	7340	1290	2620	1430	655	1800
14	4530	3780	6340	5940	1810	5560	7460	1410	2610	1730	623	2960
15	5050	4030	6070	5960	1690	5280	7790	1830	2430	2210	636	2320
16	4960	3900	6040	6300	1000	5290	7910	1620	1510	1600	607	1740
17	4770	4140	6030	6790	873	5140	7760	1190	1080	1570	957	1700
18	4310	4250	6140	6850	1470	4820	7580	1260	1450	1650	1200	3180
19	4020	4080	6260	6680	1360	4300	7180	1630	1140	1170	635	3560
20	3980	3880	6320	6430	1180	3620	7010	1200	715	1300	586	3520
21	3200	3280	6300	6260	1150	3300	6580	1360	829	1690	736	3480
22	2890	2560	6210	5670	1140	3330	5480	1220	1140	1870	614	3500
23	2260	2490	6090	3470	1140	3160	4740	642	1590	2240	585	3430
24	2060	2820	5920	1770	1120	2560	4170	596	2130	2020	554	3380
25	2280	3430	6190	2120	1080	2300	3830	569	3050	1620	537	2830
26	2710	4380	6550	2100	906	2600	3890	685	3780	1720	536	2480
27	3150	5670	6720	2020	481	2840	3870	952	3420	1800	555	2490
28	2860	6180	6820	1670	858	2770	3490	730	2910	1580	584	3030
29	2980	6060	6800	1540	---	2650	3150	761	2160	1560	1020	2590
30	3100	5690	6530	1580	---	2530	3040	772	1830	1470	971	1700
31	2840	---	6390	1490	---	2110	---	762	---	1080	606	---
TOTAL	113610	111620	203370	153910	41128	136090	176740	43619	51645	54677	24288	57751
MEAN	3665	3721	6560	4965	1469	4390	5891	1407	1721	1764	783	1925
MAX	5050	6180	8200	6850	2010	7390	8260	2980	3780	2760	1610	3560
MIN	2060	2370	4970	1490	481	1330	2910	569	715	837	536	545

CAL YR	1986	TOTAL	428600	MEAN	4659	MAX	8200	MIN	2060
WTR YR	1987	TOTAL	1168450	MEAN	3201	MAX	8260	MIN	481

04238500 ONONDAGA RESERVOIR NEAR NEDROW, NY

LOCATION.--Lat 42°55'51", long 76°10'24", Onondaga County, Hydrologic Unit 04140201, at Onondaga Dam on Onondaga Creek, 3.5 mi southwest of Nedrow, 4 mi south of Syracuse, and 10.5 mi upstream from Onondaga Lake.

DRAINAGE AREA.--67.7 mi^2.

PERIOD OF RECORD.--June 1949 to September 1952 (monthly elevations and contents), October 1952 to current year.

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

REMARKS.--Reservoir is formed by a rolled earthfill dam, completed by Corps of Engineers in August 1949 for flood control; first used for flood regulation about a year prior to completion. Usable capacity, 18,200 acre-ft between elevations 457.0 ft, conduit invert at intake, and 504.5 ft crest of spillway. No dead storage. The flood-control works consist of a pressure conduit and a side-channel spillway and are not provided with gates. Water is stored during high flows and released gradually. Storage includes minor diversion from Gate House Pond in headwaters of West Branch Tioughnioga River basin.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 485.9 ft Apr. 1, 1960, contents, 5,960 acre-ft; no contents at times.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 469.30 ft Mar. 9, contents, 567 acre-ft; minimum elevation, 459.03 ft Aug. 22–26, no contents many days.

Capacity table (elevation, in feet, and contents, in acre-feet)

460.00	0	470.00	700
461.00	5	473.00	1,420
462.00	15	478.00	2,880
464.00	50	482.00	4,230
467.00	225	486.00	6,010

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	460.86	460.63	461.00	460.79	460.13	460.97	462.30	460.50	459.50	459.41	459.10	459.11
2	460.12	460.69	461.51	460.67	460.16	465.50	462.27	460.29	459.48	459.58	459.10	459.11
3	459.92	460.89	466.91	460.65	460.27	464.11	462.96	460.17	459.46	460.30	459.10	459.12
4	461.24	460.57	468.37	461.34	460.33	462.38	464.25	460.12	459.47	459.76	459.11	459.12
5	462.32	460.37	464.53	461.41	460.19	461.81	465.71	460.03	459.50	459.70	459.11	459.12
6	461.06	461.71	462.58	460.84	460.18	461.52	463.60	460.01	459.51	459.64	459.11	459.11
7	460.46	461.56	462.33	460.64	460.20	462.85	464.48	459.95	459.51	459.59	459.10	459.11
8	460.15	460.89	463.08	460.69	460.20	467.54	463.93	459.87	459.54	459.53	459.09	459.12
9	459.95	461.72	462.55	460.54	460.11	468.94	462.88	459.82	459.56	459.48	459.09	459.14
10	459.90	461.64	464.25	460.51	460.19	464.73	462.33	459.84	459.57	459.44	459.12	459.15
11	459.82	461.03	462.85	460.68	460.11	462.10	461.95	459.77	459.57	459.40	459.14	459.15
12	459.78	461.09	462.12	460.56	460.06	461.98	461.71	459.76	459.56	459.37	459.14	459.16
13	460.31	461.01	461.69	460.49	459.99	461.81	465.91	459.75	459.57	459.34	459.13	459.75
14	461.25	460.67	461.79	460.42	459.93	461.48	466.26	459.71	459.57	459.32	459.12	459.88
15	460.86	460.55	461.53	461.07	459.97	461.35	463.13	459.68	459.56	459.33	459.11	459.65
16	460.36	460.54	461.45	462.14	459.85	461.18	462.27	459.67	459.54	459.32	459.10	459.57
17	460.13	460.55	461.34	461.07	459.77	461.03	462.02	459.65	459.52	459.30	459.08	459.64
18	459.99	460.47	461.83	460.96	459.74	460.95	461.83	459.63	459.50	459.28	459.07	460.31
19	459.88	460.38	462.45	460.81	459.72	461.00	461.54	459.62	459.48	459.26	459.05	459.77
20	459.83	460.16	461.68	460.66	459.70	461.08	461.34	459.61	459.46	459.24	459.05	459.69
21	459.81	461.06	461.34	460.55	459.69	460.92	461.08	459.60	459.46	459.24	459.04	459.64
22	459.81	461.17	461.08	460.37	459.68	461.14	460.90	459.60	459.73	459.23	459.03	459.60
23	459.83	460.95	460.89	460.47	459.70	461.68	460.81	460.54	460.66	459.21	459.04	459.56
24	460.40	462.19	460.85	460.51	459.71	461.84	460.92	459.91	459.91	459.19	459.03	459.53
25	460.04	462.63	462.78	460.89	459.72	461.90	461.05	459.77	459.73	459.17	459.03	459.49
26	460.54	462.20	462.61	460.51	459.76	463.96	460.74	459.71	459.65	459.16	459.04	459.44
27	461.32	464.89	461.81	460.19	459.77	462.71	460.50	459.67	459.59	459.15	459.04	459.40
28	461.21	463.23	461.46	460.13	459.74	462.08	460.42	459.64	459.54	459.14	459.06	459.37
29	460.61	462.17	461.26	460.12	---	461.65	460.84	459.60	459.49	459.12	459.08	459.35
30	461.69	461.62	461.11	460.13	---	461.39	460.75	459.56	459.44	459.10	459.10	459.34
31	461.30	---	460.99	460.16	---	461.84	---	459.53	---	459.11	459.10	---
MEAN	460.48	461.31	462.32	460.68	459.95	462.43	462.36	459.82	459.59	459.37	459.08	459.42
MAX	462.32	464.89	468.37	462.14	460.33	468.94	466.26	460.54	460.66	460.30	459.14	460.31
MIN	459.78	460.16	460.85	460.12	459.68	460.92	460.42	459.53	459.44	459.10	459.03	459.11
†	4.30	6.85	4.65	0.70	0	34.2	3.25	0	0	0	0	0
††	-0.02	+0.04	-0.04	-0.06	-0.01	+0.56	-0.52	-0.05	0	0	0	0

CAL YR	1986	MEAN	461.02	MAX	471.57	MIN	459.32
WTR YR	1987	MEAN	460.56	MAX	468.94	MIN	459.03

† 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 mi downstream from Onondaga Reservoir.

DRAINAGE AREA.--88.5 mi^2.

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

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 414.19 ft above National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--36 years, 125 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,260 ft^3/s July 3, 1974, gage height, 6.48 ft; minimum daily, 5.5 ft^3/s Aug. 17, 1965; minimum gage height, 1.15 ft Sept. 16, 1959.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,000 ft^3/s Mar. 8 at 1900 hours, gage height, 4.19 ft; minimum, 16 ft^3/s Aug. 17–22, gage height, 1.46 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	122	111	137	120	92	169	214	114	43	34	21	19
2	84	127	197	e110	95	512	204	101	43	55	21	19
3	75	127	796	e100	102	418	257	101	41	106	26	22
4	164	110	805	e98	e98	250	382	90	48	58	23	21
5	237	101	463	e98	e90	202	507	84	48	42	22	20
6	139	231	252	e100	e88	180	324	90	41	36	22	18
7	116	169	227	121	e96	374	396	83	42	33	24	18
8	93	130	291	124	e96	837	348	77	49	34	19	18
9	80	225	245	115	e86	836	255	74	48	33	23	27
10	77	179	385	115	e84	509	213	77	43	31	38	25
11	71	141	269	125	e82	263	201	70	38	30	25	21
12	67	144	207	117	e80	214	176	76	39	33	22	22
13	128	138	178	112	e72	202	645	72	42	30	19	56
14	154	117	172	109	e70	176	576	67	39	35	18	58
15	127	112	170	158	e66	167	295	70	35	46	17	34
16	100	112	164	233	e66	155	232	69	32	33	17	28
17	89	112	158	e130	e66	146	214	64	30	30	17	37
18	82	106	186	e120	e66	140	201	62	30	27	16	117
19	75	103	233	e110	e66	143	179	64	35	27	16	62
20	73	92	176	e110	e66	146	166	62	34	30	16	53
21	72	162	155	e110	e68	136	148	59	44	29	16	48
22	72	143	139	e100	e68	149	136	60	85	26	17	39
23	75	138	128	e100	e70	179	130	128	131	25	18	37
24	101	280	127	e98	e68	183	141	78	66	24	18	33
25	80	252	257	e96	e66	184	146	64	46	23	18	32
26	133	257	236	e96	e66	348	126	59	37	23	18	29
27	150	512	179	e94	e66	240	111	56	38	22	19	27
28	148	332	158	e94	e80	192	109	52	34	21	25	29
29	111	217	146	e94	---	166	140	49	33	20	26	30
30	208	178	138	e94	---	149	130	52	33	20	25	34
31	150	---	131	e92	---	181	---	44	---	25	21	---
TOTAL	3453	5158	7505	3493	2179	8146	7302	2268	1347	1041	643	1033
MEAN	111	172	242	113	77.8	263	243	73.2	44.9	33.6	20.7	34.4
MAX	237	512	805	233	102	837	645	128	131	106	38	117
MIN	67	92	127	92	66	136	109	44	30	20	16	18

CAL YR	1986	TOTAL	53972	MEAN	148	MAX	1090	MIN	30
WTR YR	1987	TOTAL	43568	MEAN	119	MAX	837	MIN	16

e Estimated

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.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 362.29 ft above National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--17 years, 190 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,740 ft^3/s July 3, 1974, gage height, 8.73 ft; minimum, 20 ft^3/s Sept. 26, 1985, gage height, 2.16 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,340 ft^3/s June 22 at 1400 hours, gage height, 6.14 ft; minimum, 28 ft^3/s July 29-30, gage height, 2.25 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e180	e140	176	159	109	199	386	139	63	47	33	34
2	e130	e160	223	153	111	518	375	123	65	91	38	37
3	e140	e150	797	e140	118	454	457	115	69	122	40	39
4	e270	e140	735	e130	120	294	617	104	81	77	36	36
5	e330	e130	493	e130	e100	246	751	97	67	60	34	34
6	e170	e270	298	e140	e100	219	560	98	60	53	34	33
7	141	e200	278	155	111	409	588	97	58	46	35	33
8	119	e160	330	160	108	808	519	92	69	56	34	39
9	107	e260	316	150	101	776	356	91	67	48	64	49
10	104	e200	418	149	e96	486	e300	92	61	45	56	41
11	99	e180	316	161	e96	271	e260	89	56	55	41	37
12	98	e160	254	153	e88	266	e220	91	57	46	37	73
13	e150	e160	224	148	e80	254	e720	87	63	42	34	217
14	e170	e150	190	142	e72	228	e620	83	60	70	33	79
15	e140	e140	216	191	e70	219	e450	83	55	59	33	52
16	e120	e130	210	267	e70	207	e300	82	52	46	32	43
17	e100	e130	203	e170	e70	199	e250	79	49	44	31	59
18	e92	e130	222	170	e70	194	217	76	50	42	31	142
19	e86	e120	274	167	71	197	201	77	55	40	33	79
20	e82	122	221	155	71	202	196	78	58	48	32	75
21	e80	187	199	147	e72	196	194	78	73	43	33	79
22	e80	177	183	e130	73	209	192	93	231	39	35	55
23	e100	171	171	e120	76	246	198	124	178	38	35	51
24	e120	305	170	e110	74	254	207	95	108	36	33	47
25	e110	291	286	e110	71	260	203	80	83	39	33	44
26	e160	356	276	e100	70	423	182	73	73	37	34	41
27	e180	531	221	e100	e70	344	162	71	59	34	37	40
28	e160	370	200	e110	e72	305	147	72	51	33	46	50
29	e140	258	188	113	---	290	171	69	48	31	45	45
30	e250	216	179	112	---	272	159	70	52	29	39	58
31	e180	---	171	112	---	309	---	65	---	35	35	---
TOTAL	4388	6094	8638	4454	2410	9754	10158	2763	2171	1531	1146	1741
MEAN	142	203	279	144	86.1	315	339	89.1	72.4	49.4	37.0	58.0
MAX	330	531	797	267	120	808	751	139	231	122	64	217
MIN	80	120	170	100	70	194	147	65	48	29	31	33

CAL YR	1986	TOTAL	69380	MEAN	190	MAX	1050	MIN	65
WTR YR	1987	TOTAL	55248	MEAN	151	MAX	808	MIN	29

e Estimated

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).

GAGE.--Water-stage recorder. Datum of gage is 391.16 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 30, 1978, at site 1,660 ft upstream and Oct. 1, 1978 to May 31, 1980, at site 1,800 ft upstream at datum 3.63 ft higher.

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

AVERAGE DISCHARGE.--28 years, 8.90 ft^3/s, 12.09 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 726 ft^3/s July 3, 1974, gage height, 8.34 ft datum then in use, from rating curve extended above 180 ft^3/s on basis of slope-area measurements of peak flow; minimum, 0.11 ft^3/s, gage height, 0.77 ft Aug. 8, 1980, result of regulation.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 125 ft^3/s June 22 at 1315 hours, gage height, 3.30 ft, from rating curve extended above 60 ft^3/s on basis of indirect measurement of peak flow; minimum daily, 2.8 ft^3/s Aug. 24-25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e6.0	e5.2	9.4	7.3	5.4	13	9.1	6.9	5.0	3.7	e3.4	e3.6
2	e5.2	e10	12	7.1	5.4	17	12	6.8	e4.5	7.9	e5.0	e4.0
3	e7.8	e7.6	80	7.0	5.5	10	10	6.8	e5.4	3.7	e4.0	e3.9
4	e9.0	e4.5	26	6.8	5.4	7.1	23	6.7	e6.0	4.0	e3.2	e3.7
5	e6.2	e4.9	18	6.7	5.2	6.5	16	6.8	e5.0	3.5	e3.1	e3.8
6	e5.4	e9.0	15	6.4	5.3	7.4	14	6.6	e4.8	3.7	e3.1	e4.0
7	5.2	e5.8	17	6.7	5.0	38	23	6.6	e5.0	3.7	e3.1	e4.2
8	5.2	e5.2	19	6.8	5.0	64	16	6.3	e4.7	4.4	e3.2	e5.8
9	5.1	e7.8	26	6.7	4.8	27	13	6.3	e4.6	4.0	e6.6	e4.2
10	5.0	e5.8	29	6.6	4.8	13	12	6.3	e4.5	4.0	e3.7	e3.3
11	5.0	e6.0	16	6.4	4.7	12	12	6.5	e4.4	5.2	3.5	e3.4
12	4.8	e5.8	14	6.6	4.5	11	13	6.6	e5.0	3.8	3.5	e8.0
13	17	e5.6	12	6.7	4.4	11	55	6.6	e4.6	3.9	3.5	e25
14	e13	e5.4	11	7.0	4.2	11	22	6.6	e4.3	8.1	3.5	e5.0
15	e6.0	e5.2	10	10	4.0	10	17	6.7	e3.9	4.3	3.6	e4.2
16	e5.0	e5.2	10	10	3.9	9.9	14	6.2	e3.8	4.1	3.7	e4.1
17	e4.8	e5.0	10	7.8	3.8	9.5	12	6.3	e3.7	e3.8	e3.9	e5.6
18	e4.8	e5.2	11	7.3	3.8	9.3	11	6.3	e3.5	e3.9	4.0	e6.6
19	e4.7	5.6	11	6.9	3.9	9.3	10	6.1	e3.5	e3.6	4.3	e4.7
20	e4.7	5.5	9.8	6.7	4.0	9.3	9.6	5.8	e3.5	5.5	e3.5	e5.6
21	e4.6	6.4	8.8	6.5	4.0	8.8	8.8	5.7	e4.2	e3.9	e3.2	e6.6
22	e4.6	5.6	8.2	6.5	4.0	9.8	8.2	7.4	25	e3.6	e4.0	e4.3
23	e6.6	6.5	7.6	6.4	4.0	10	7.7	5.9	5.0	e3.5	e3.0	e3.9
24	e4.8	20	8.1	6.1	3.9	9.8	e8.2	5.4	4.6	e3.5	e2.8	e4.3
25	e4.6	11	16	6.1	3.7	10	e8.0	5.2	4.2	5.8	e2.8	e4.0
26	e7.6	39	10	6.0	3.4	13	e7.8	5.2	4.2	e4.0	e2.9	e3.9
27	e5.8	37	9.1	5.9	3.3	9.9	e7.6	5.4	4.0	e3.7	e3.8	e3.8
28	e5.0	16	8.8	5.7	4.4	9.0	7.3	5.3	3.8	e3.6	e4.4	e5.0
29	e6.2	13	8.2	5.6	---	8.6	7.8	5.2	3.7	e3.5	e3.9	e3.9
30	e8.6	11	7.9	5.6	---	8.2	7.6	5.0	4.0	e3.4	e3.5	e5.8
31	e5.2	---	7.4	5.4	---	10	---	5.0	---	e3.6	e3.5	---
TOTAL	193.5	285.8	466.3	209.3	123.7	412.4	402.7	190.5	152.4	130.9	113.2	158.2
MEAN	6.24	9.53	15.0	6.75	4.42	13.3	13.4	6.15	5.08	4.22	3.65	5.27
MAX	17	39	80	10	5.5	64	55	7.4	25	8.1	6.6	25
MIN	4.6	4.5	7.4	5.4	3.3	6.5	7.3	5.0	3.5	3.4	2.8	3.3
CFSM	.62	.95	1.50	.68	.44	1.33	1.34	.61	.51	.42	.37	.53
IN.	.72	1.06	1.73	.78	.46	1.53	1.50	.71	.57	.49	.42	.59

CAL YR	1986	TOTAL	3353.6	MEAN	9.19	MAX	87	MIN	2.5	CFSM	.92	IN. 12.5
WTR YR	1987	TOTAL	2838.9	MEAN	7.78	MAX	80	MIN	2.8	CFSM	.78	IN. 10.6

e Estimated

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 and concrete control. Datum of gage is 365.86 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for April 15 to June 3, 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.

AVERAGE DISCHARGE.--17 years, 13.7 ft^3/s, 16.46 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 824 ft^3/s July 3, 1974, gage height, 7.91 ft from rating curve extended above 160 ft^3/s on basis of step-backwater computations; maximum gage height, 8.15 ft Sept. 26, 1975 (backwater from debris jam); minimum discharge, 0.42 ft^3/s Sept. 26, 1985, caused by construction work upstream of gage.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 446 ft^3/s June 22 at 1345 hours, gage height, 6.00 ft; minimum, 2.8 ft^3/s Aug. 23, gage height, 1.77 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.9	6.6	11	9.0	6.9	21	13	e8.8	e5.4	4.4	3.9	4.2
2	6.3	18	14	9.0	7.4	19	18	e8.6	e5.0	13	5.5	4.7
3	13	13	83	9.2	7.7	12	14	e8.6	e7.0	5.2	4.8	4.6
4	15	5.8	29	8.8	7.5	8.9	32	e8.4	8.1	5.4	3.7	4.3
5	9.7	6.2	20	8.4	7.0	8.1	21	e8.4	5.5	4.4	3.6	4.5
6	6.9	14	16	8.1	7.3	8.9	20	e8.2	5.3	4.4	3.6	4.7
7	6.0	7.5	18	9.0	7.5	34	31	e8.0	5.5	4.3	3.6	4.9
8	5.8	6.7	19	8.7	7.5	63	21	e7.8	5.2	5.9	3.6	7.1
9	5.6	10	29	8.6	7.6	32	19	e7.8	4.9	4.8	11	4.9
10	5.3	7.4	30	8.8	7.4	15	18	e7.8	4.9	4.7	4.2	3.8
11	5.3	7.5	17	9.2	7.2	13	17	e8.0	4.8	12	4.0	3.9
12	5.1	6.9	15	8.8	6.8	13	20	e8.2	6.0	4.7	4.1	13
13	20	6.5	13	8.3	6.7	13	68	e8.2	5.5	4.5	4.0	44
14	15	6.1	12	8.4	6.3	13	27	e8.2	5.2	14	3.9	5.7
15	7.9	6.1	12	13	6.0	13	e21	e8.4	4.7	5.0	4.0	4.8
16	5.9	6.0	11	12	5.9	12	e17	e8.0	4.5	4.7	4.1	4.7
17	5.6	5.8	11	9.8	6.0	12	e15	e7.8	4.4	4.4	4.4	6.9
18	5.3	5.9	13	9.6	6.1	12	e13	e7.8	4.1	4.4	5.2	11
19	5.3	6.2	13	9.6	5.9	12	e12	e7.6	4.1	4.2	5.7	5.5
20	5.3	6.1	12	9.4	5.7	12	e11	e7.2	4.1	6.6	3.7	6.6
21	5.3	7.8	11	9.2	5.7	12	e10	e7.0	5.2	4.4	3.7	8.9
22	5.3	6.8	9.9	9.1	5.8	14	e10	e9.6	43	4.2	4.8	5.0
23	9.0	8.0	9.7	8.9	5.8	15	9.6	e7.8	6.5	4.2	3.4	4.6
24	5.6	20	10	8.4	5.7	13	10	e7.0	5.4	4.2	3.0	5.0
25	5.3	12	19	8.1	5.6	14	e9.6	e6.4	5.1	8.0	3.0	4.7
26	11	43	12	8.1	5.6	17	e9.2	e6.4	5.3	4.6	3.1	4.5
27	6.7	40	11	7.5	5.6	14	e9.0	e6.6	4.7	4.2	4.4	4.4
28	5.9	18	11	7.1	5.6	13	e8.8	e6.4	4.4	4.1	5.1	6.8
29	7.4	14	10	7.2	---	12	9.6	e6.2	4.3	4.0	4.5	4.5
30	13	12	9.7	7.3	---	12	e9.2	e6.0	6.0	3.9	4.1	8.0
31	6.5	---	9.4	7.1	---	15	---	e5.6	---	4.1	4.1	---
TOTAL	242.2	339.9	520.7	273.7	181.8	497.9	523.0	236.8	194.1	170.9	133.8	210.2
MEAN	7.81	11.3	16.8	8.83	6.49	16.1	17.4	7.64	6.47	5.51	4.32	7.01
MAX	20	43	83	13	7.7	63	68	9.6	43	14	11	44
MIN	5.1	5.8	9.4	7.1	5.6	8.1	8.8	5.6	4.1	3.9	3.0	3.8
CFSM	.69	1.00	1.49	.78	.57	1.42	1.54	.68	.57	.49	.38	.62
IN.	.80	1.12	1.71	.90	.60	1.64	1.72	.78	.64	.56	.44	.69

CAL YR	1986	TOTAL	4109.6	MEAN	11.3	MAX	95	MIN	2.7	CFSM	.99	IN. 13.5
WTR YR	1987	TOTAL	3525.0	MEAN	9.66	MAX	83	MIN	3.0	CFSM	.85	IN. 11.6

e Estimated

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 "H" beam control. Datum of gage is 362.76 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1978, at same site at datum 0.08 ft higher.

REMARKS.--Records fair. Flow may be affected by backwater from Onondaga Lake at times when the lake elevation exceeds 364.4 ft. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--14 years (water years 1974–87), 44.2 ft^3/s, 20.07 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,310 ft^3/s Sept. 26, 1975, gage height, 6.17 ft, from rating curve extended above 530 ft^3/s; minimum discharge, 1.9 ft^3/s Aug. 19, 1987; minimum gage height, 0.28 ft Feb. 6–8, 1977.

EXTREMES 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)
June 22	1930	*672	*4.25	Sept. 13	0730	508	3.72

Minimum discharge, 1.9 ft^3/s Aug. 19, gage height, 0.65 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	102	22	35	21	17	183	39	17	11	17	4.8	7.3
2	61	46	46	20	21	179	41	15	19	43	5.6	6.9
3	74	34	366	e19	27	110	47	14	17	43	22	7.3
4	211	28	211	e19	31	79	128	14	34	26	10	5.2
5	126	24	119	e19	e25	65	85	16	20	14	6.7	4.3
6	81	78	71	21	e27	57	61	16	12	13	6.5	3.3
7	52	45	61	32	31	125	79	12	12	12	6.1	3.1
8	34	36	72	35	35	180	57	10	22	32	5.3	15
9	25	57	89	34	e27	162	45	7.3	19	16	30	27
10	21	41	135	35	e24	187	36	4.9	12	12	30	6.7
11	17	38	73	37	e22	42	28	7.4	10	9.1	12	4.9
12	15	39	51	37	e20	35	26	11	27	8.2	6.3	28
13	129	34	36	38	e15	53	260	7.2	16	8.9	5.5	269
14	148	31	28	38	e12	51	118	5.7	12	56	5.4	50
15	116	28	26	87	e11	53	63	12	13	34	3.7	19
16	67	28	28	96	e11	54	43	7.8	12	15	2.9	7.0
17	41	29	29	e48	e11	53	38	5.8	7.9	11	4.0	13
18	29	26	34	e32	e11	29	33	11	12	9.2	4.9	39
19	23	27	43	e25	e11	26	26	15	10	8.6	3.6	54
20	21	23	36	e21	e11	27	24	11	8.5	16	3.6	69
21	20	43	31	e20	e11	25	23	11	12	12	2.4	80
22	16	48	26	e16	e11	27	18	17	238	6.3	3.8	67
23	17	50	24	e14	e11	31	16	32	144	6.6	2.7	16
24	15	110	25	e14	e11	29	24	7.3	44	6.7	2.7	9.5
25	13	89	80	e14	e11	28	18	6.0	29	4.9	3.7	6.3
26	43	225	56	e14	e10	42	15	8.1	22	5.2	2.7	3.8
27	33	271	43	e14	e11	30	17	10	25	5.8	10	2.7
28	31	134	35	e14	e12	24	16	41	11	6.4	17	15
29	24	73	31	e15	---	19	29	20	9.0	3.8	18	7.2
30	35	47	27	e16	---	17	31	12	23	4.2	6.4	26
31	27	---	23	e17	---	36	---	9.0	---	4.7	6.5	---
TOTAL	1667	1804	1990	882	488	2058	1484	393.5	863.4	470.6	254.8	872.5
MEAN	53.8	60.1	64.2	28.5	17.4	66.4	49.5	12.7	28.8	15.2	8.22	29.1
MAX	211	271	366	96	35	187	260	41	238	56	30	269
MIN	13	22	23	14	10	17	15	4.9	7.9	3.8	2.4	2.7
CFSM	1.80	2.01	2.15	.95	.58	2.22	1.65	.42	.96	.51	.27	.97
IN.	2.07	2.24	2.48	1.10	.61	2.56	1.85	.49	1.07	.59	.32	1.09

CAL YR	1986	TOTAL	18456.9	MEAN	50.6	MAX	423	MIN	6.5	CFSM	1.69	IN. 23.0
WTR YR	1987	TOTAL	13227.7	MEAN	36.2	MAX	366	MIN	2.4	CFSM	1.21	IN. 16.5

e Estimated

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. Water-quality sampling site at discharge station.

DRAINAGE AREA.--45.1 mi^2.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1955, 1963. June 1964 to current year.

REVISED RECORDS.--WRD NY 1971: 1966(M), 1968, 1969. WDR NY–82–3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 748.25 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for period of shifting control Apr. 28 to Sept. 30, which are fair. Flow regulated by Otisco Lake from which water is diverted for city of Syracuse water supply. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--23 years (water years 1965–87), 39.8 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,030 ft^3/s June 23, 1972, gage height, 8.65 ft; minimum, 0.80 ft^3/s Sept. 13, 18, 19, 1966, gage height, 0.61 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 185 ft^3/s Apr. 13 at 1400 hours, gage height, 4.08 ft; minimum daily, 2.3 ft^3/s June 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	38	23	72	91	87	14	24	5.8	4.3	8.8	8.8
2	42	40	46	71	91	82	14	21	6.8	8.6	11	9.6
3	43	38	80	74	84	61	12	19	7.5	6.5	11	9.3
4	52	37	68	71	84	58	23	18	7.6	5.1	9.4	8.4
5	46	37	74	69	83	58	21	17	6.9	5.3	6.9	7.7
6	43	43	77	69	83	59	34	16	6.6	4.5	7.4	8.3
7	42	25	81	69	83	75	59	14	7.2	4.7	9.0	9.9
8	42	23	87	69	83	98	81	13	7.1	5.6	9.5	10
9	41	26	107	68	82	78	94	12	6.7	6.5	12	10
10	41	22	129	68	82	63	93	10	6.0	6.3	12	10
11	41	22	126	69	81	62	90	9.8	5.7	9.2	11	9.8
12	41	22	120	68	81	62	87	9.4	6.6	9.9	11	12
13	50	22	111	68	81	62	159	9.4	3.7	16	9.8	18
14	45	21	106	68	81	62	175	9.7	3.5	13	9.1	7.7
15	43	21	98	74	80	61	167	7.8	3.8	8.3	8.6	7.0
16	41	21	93	73	80	51	152	6.2	3.7	7.0	8.4	4.0
17	41	20	89	69	79	30	139	6.0	3.3	7.0	9.2	11
18	40	20	93	69	79	17	128	5.9	3.1	7.0	9.8	7.9
19	40	20	94	68	78	17	117	6.1	2.9	7.5	10	4.7
20	40	20	91	68	78	16	108	7.6	3.0	8.1	10	4.6
21	40	23	87	67	78	16	90	6.0	3.6	5.9	10	3.1
22	40	21	83	67	77	18	68	7.4	6.3	4.9	10	2.7
23	42	22	79	67	77	18	66	6.5	4.2	4.2	9.3	2.5
24	40	28	77	67	76	18	60	4.8	2.9	3.7	9.2	3.7
25	39	21	91	67	75	18	57	4.8	2.4	3.9	9.0	4.2
26	46	30	88	72	75	21	53	5.4	2.3	3.8	9.0	3.9
27	41	31	86	92	75	17	53	5.2	2.5	3.3	9.2	4.6
28	41	21	84	91	75	17	43	4.4	2.4	3.0	8.9	4.8
29	40	20	81	92	---	16	28	4.2	2.9	2.7	8.8	4.5
30	47	19	78	92	---	14	25	4.5	3.6	3.0	8.1	6.9
31	39	---	74	91	---	16	---	5.5	---	2.9	7.4	---
TOTAL	1313	774	2701	2259	2252	1348	2310	300.6	140.6	191.7	292.8	219.6
MEAN	42.4	25.8	87.1	72.9	80.4	43.5	77.0	9.70	4.69	6.18	9.45	7.32
MAX	52	43	129	92	91	98	175	24	7.6	16	12	18
MIN	39	19	23	67	75	14	12	4.2	2.3	2.7	6.9	2.5

CAL YR	1986	TOTAL	15929.0	MEAN	43.6	MAX	215	MIN 7.8
WTR YR	1987	TOTAL	14102.2	MEAN	38.6	MAX	175	MIN 2.3

04240300 NINEMILE CREEK AT LAKELAND, NY

LOCATION.--Lat 43°04'51", long 76°13'36", Onondaga County, Hydrologic Unit 04140201, on left bank 30 ft downstream from bridge on State Highway 48, 0.6 mi downstream from Geddes Brook, and 0.7 mi upstream from mouth.

DRAINAGE AREA.--115 mi^2.

PERIOD OF RECORD.--Occasional measurements, water years 1959–70. November 1970 to September 1973, July 1975 to current year.

REVISED RECORDS.--WDR NY–83–3: 1972 (M), 1976 (M), 1979 (M), 1982 (M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 360.67 ft above National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--14 years (1972–73, 1976–87), 205 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,110 ft^3/s June 23, 1972; maximum gage height, 8.75 ft Sept. 26, 1975 (backwater from Onondaga Lake); minimum daily discharge, 13 ft^3/s Aug. 18, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 766 ft^3/s Dec. 3; maximum gage height, 5.43 ft Dec. 3; minimum daily discharge, 28 ft^3/s July 29-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	230	148	181	203	140	172	e330	115	64	e70	e30	45
2	164	160	222	203	143	333	e310	104	62	e110	39	47
3	143	159	766	201	148	320	e380	95	61	e140	e45	e50
4	262	144	700	185	148	235	e520	98	76	e120	35	46
5	273	134	439	187	144	197	e640	90	e68	e80	38	e38
6	207	226	370	179	143	187	e460	90	e60	e60	43	e36
7	170	187	347	185	143	266	e520	e89	e52	e56	e50	e40
8	137	150	386	195	141	655	e400	e89	e59	e70	e60	e50
9	131	151	370	195	136	e630	e300	e87	e57	e50	e74	e53
10	122	153	479	193	129	e480	e260	e88	e53	e49	e60	e48
11	107	136	396	197	127	e260	e220	e86	e47	e59	e48	e45
12	101	144	345	191	122	e260	e180	83	e52	e52	e43	84
13	195	136	292	185	118	e250	e600	77	e54	e48	e40	e240
14	273	104	246	185	112	e220	e540	77	e48	e70	e38	e145
15	239	104	230	237	e114	e210	e300	e76	e46	e48	e37	e80
16	179	99	241	311	e102	e200	e250	e74	e44	e46	e36	e65
17	155	90	246	255	e100	e200	e220	e73	e42	e42	e34	75
18	141	92	259	211	e102	e190	e210	e72	e41	e36	e33	131
19	122	124	285	209	e102	e190	e200	e72	e46	e33	39	e100
20	126	89	262	191	e102	e200	e190	e71	e50	e43	e36	e86
21	144	134	244	183	95	e190	e180	72	120	e40	e40	e90
22	122	141	226	174	92	e200	e180	101	e300	e37	e42	e70
23	126	144	211	159	93	e240	177	170	e200	e35	44	e50
24	143	237	205	127	89	e250	175	136	e150	32	e40	e37
25	122	241	337	e130	86	e250	179	e105	e90	36	e40	e35
26	151	323	342	e120	83	e410	164	e92	e45	e34	e41	e33
27	185	582	297	e127	76	e330	141	e82	e48	e32	e43	e31
28	179	370	273	e137	e84	e280	136	75	e41	e30	e45	e44
29	155	259	250	148	---	e260	e140	71	e38	e28	e40	e40
30	232	220	226	148	---	e240	127	70	37	e28	e34	e50
31	187	---	215	144	---	e270	---	66	---	e32	e32	---
TOTAL	5223	5381	9888	5695	3214	8575	8629	2746	2151	1646	1299	1984
MEAN	168	179	319	184	115	277	288	88.6	71.7	53.1	41.9	66.1
MAX	273	582	766	311	148	655	640	170	300	140	74	240
MIN	101	89	181	120	76	172	127	66	37	28	30	31

CAL YR	1986	TOTAL	63288	MEAN	173	MAX	1010	MIN	17
WTR YR	1987	TOTAL	56431	MEAN	155	MAX	766	MIN	28

e Estimated

04240495 ONONDAGA LAKE AT LIVERPOOL, NY

LOCATION.--Lat 43°06'01", long 76°12'34", Onondaga County, Hydrologic Unit 04140201, on north shore of Onondaga Lake at Onondaga Park Marina basin, 200 ft southwest of Onondaga Lake Parkway, and 1.9 mi upstream from outlet of lake.

DRAINAGE AREA.--285 mi^2.

PERIOD OF RECORD.--October 1970 to current year. Elevation records, at Barge Canal datum, since February 1927 collected by, and in files of, New York State Department of Transportation at Syracuse.

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

REMARKS.--Lake elevation regulated by operation of Erie (Barge) Canal. Area of water surface, 4.60 mi^2.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 369.21 ft June 30, 1972; minimum, 361.54 ft Mar. 13, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 364.58 ft Dec. 4, 6; minimum, 362.04 ft Feb. 28.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	363.52	363.00	363.42	363.59	362.72	362.38	362.79	362.91	362.87	362.94	362.78	362.69
2	363.27	363.06	363.55	363.58	362.80	363.15	363.11	362.95	362.88	363.00	362.78	362.67
3	363.20	362.98	364.11	363.55	362.83	363.73	363.30	362.96	362.89	363.13	362.95	362.67
4	363.44	362.87	364.54	363.45	362.84	363.47	363.64	362.96	362.99	363.12	362.90	362.68
5	363.38	362.83	364.56	363.35	362.85	363.30	364.00	362.91	363.05	363.04	362.81	362.68
6	363.55	363.10	364.57	363.30	362.84	363.25	364.18	362.62	362.96	363.04	362.74	362.68
7	363.61	363.16	364.47	363.38	362.81	363.18	364.07	362.60	362.84	362.91	362.71	362.67
8	363.50	363.35	364.29	363.44	362.78	363.65	364.18	363.02	362.89	362.90	362.71	362.69
9	363.35	363.36	364.03	363.46	362.77	364.29	364.33	362.91	363.08	363.16	362.73	362.78
10	363.11	363.14	364.02	363.48	362.74	364.29	364.40	362.70	363.05	363.18	362.82	362.89
11	362.99	363.12	364.06	363.48	362.73	363.99	364.27	362.64	363.07	363.09	362.93	362.79
12	363.04	363.13	364.02	363.47	362.71	363.70	363.99	362.93	362.95	362.89	362.82	362.76
13	363.24	363.21	363.73	363.40	362.68	363.71	364.09	362.91	363.12	362.83	362.74	363.20
14	363.49	363.32	363.38	363.38	362.67	363.61	364.24	362.82	363.17	362.98	362.72	363.28
15	363.57	363.32	363.20	363.40	362.66	363.41	364.27	362.93	363.07	363.06	362.71	362.95
16	363.54	363.37	363.51	363.57	362.52	363.28	364.33	363.06	362.88	362.92	362.69	362.82
17	363.59	363.37	363.65	363.70	362.39	363.31	364.27	362.76	362.66	362.86	362.73	362.85
18	363.52	363.40	363.71	363.80	363.05	363.46	364.14	362.69	362.98	362.97	362.88	363.27
19	363.30	363.08	363.76	363.78	362.96	363.14	363.91	362.98	363.03	362.96	362.78	363.20
20	363.23	363.22	363.74	363.70	362.67	363.06	363.71	362.86	362.73	362.90	362.71	363.12
21	362.99	363.26	363.71	363.57	362.59	363.32	363.87	362.83	362.85	362.94	362.70	363.06
22	363.04	362.97	363.63	363.45	362.57	363.43	363.63	362.83	363.10	362.86	362.72	363.13
23	363.03	362.79	363.52	363.06	362.56	363.36	363.27	362.79	363.09	363.03	362.71	363.06
24	362.82	362.83	363.43	362.80	362.52	362.99	363.02	362.68	363.08	363.07	362.67	363.05
25	362.79	363.06	363.64	362.81	362.49	363.13	363.23	362.63	363.20	362.87	362.65	363.14
26	362.86	363.38	363.82	362.93	362.44	363.16	363.33	362.65	363.34	362.80	362.65	362.97
27	363.11	363.97	363.87	362.94	362.24	363.01	363.34	362.87	363.09	362.85	362.66	362.86
28	363.18	364.07	363.89	362.93	362.06	362.87	363.22	362.91	362.97	362.95	362.68	362.94
29	363.17	363.90	363.89	362.82	---	362.80	363.18	362.91	362.98	362.85	362.75	363.03
30	363.23	363.66	363.78	362.81	---	362.74	363.00	362.91	363.10	362.78	362.83	362.84
31	363.18	---	363.61	362.72	---	362.68	---	362.89	---	362.86	362.75	---
MEAN	363.25	363.24	363.84	363.33	362.66	363.32	363.74	362.84	363.00	362.96	362.75	362.91
MAX	363.61	364.07	364.57	363.80	363.05	364.29	364.40	363.06	363.34	363.18	362.95	363.28
MIN	362.79	362.79	363.20	362.72	362.06	362.38	362.79	362.60	362.66	362.78	362.65	362.67

CAL YR	1986	MEAN	363.34	MAX	365.66	MIN	362.03
WTR YR	1987	MEAN	363.15	MAX	364.57	MIN	362.06

04242500 EAST BRANCH FISH CREEK AT TABERG, NY

LOCATION.--Lat 43°18'06", long 75°37'09", Oneida County, Hydrologic Unit 04140202, on left bank at downstream side of bridge on Main Street at Taberg, just downstream from Furnace Creek, 300 ft upstream from bridge on State Highway 69, and 2.8 mi upstream from confluence of East and West Branches near Blossvale.

DRAINAGE AREA.--188 mi^2.

PERIOD OF RECORD.--April 1923 to current year.

REVISED RECORDS.--WSP 604: 1924. WSP 759: Drainage area. WSP 1034: 1944. WSP 1054: 1923–45. WDR NY–83–3: 1980 (M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 490.12 ft above National Geodetic Vertical Datum of 1929. Prior to May 20, 1969, at datum 1.00 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Diversion upstream from station for municipal water supply by cities of Rome and Oneida (1987 average, 23 ft^3/s). Diurnal fluctuation at low flow caused by power-generating operations upstream. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--64 years (water years 1924–87), 541 ft^3/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,600 ft^3/s Dec. 29, 1984, gage height, 13.81 ft, from slope-area indirect measurement of peak flow and result of release of upstream debris jam (constructed maximum discharge, about 16,000 ft^3/s on same date at earlier time when adjusted for storage effects); minimum discharge, 4.9 ft^3/s Aug. 15, 16, 1949.

EXTREMES 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)
Mar. 31	2330	*3,640	*5.60	No peak greater than base discharge.			

Minimum discharge, 43 ft^3/s July 29, 30, gage height, 0.78 ft (result of regulation).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1260	445	465	400	e300	341	2470	623	119	140	117	82
2	1020	487	471	e360	303	682	1380	448	114	135	121	84
3	857	524	1420	e330	294	643	1040	335	111	159	202	89
4	1440	473	1730	e310	e250	e850	1240	270	172	625	168	83
5	1300	457	1050	e300	e240	e750	1810	238	229	664	145	78
6	1080	579	832	e290	e240	678	1910	221	181	335	134	75
7	950	626	714	e280	e260	634	1910	203	134	220	132	74
8	712	548	638	e280	264	770	1520	188	210	552	130	81
9	618	702	646	e280	e230	888	1130	181	420	362	132	110
10	588	737	1110	272	e220	684	1050	176	333	241	149	154
11	495	619	1060	280	e210	634	995	171	228	182	145	136
12	456	568	819	276	e200	574	916	174	245	149	123	148
13	649	553	637	280	e190	495	1060	166	382	128	85	1820
14	1140	464	594	276	e180	428	822	160	356	159	85	1270
15	1510	422	e540	307	e170	413	668	161	248	248	84	567
16	1080	424	e500	473	e160	378	563	99	170	191	82	343
17	846	422	e470	526	e160	361	507	93	131	145	81	234
18	680	467	e440	499	e170	347	475	119	109	121	77	528
19	565	419	e430	e400	e170	396	433	122	98	110	65	1190
20	508	302	e420	e360	e180	445	374	116	91	106	66	983
21	465	443	e420	e330	e190	418	328	113	84	114	65	745
22	434	450	e410	e310	e210	557	309	114	268	103	70	555
23	415	397	410	e290	e230	765	291	120	928	87	75	431
24	454	486	415	e260	e220	1080	275	136	550	82	69	392
25	425	600	591	e250	e210	1300	200	129	281	81	67	303
26	432	841	886	e240	e190	2180	195	120	180	77	67	234
27	503	1670	730	e240	e200	1840	198	137	158	69	67	197
28	727	1100	597	e240	e210	1720	279	173	144	63	75	228
29	745	802	531	e240	---	1730	500	216	159	74	94	304
30	631	653	473	e250	---	2060	672	184	147	77	84	370
31	519	---	443	e270	---	2980	---	141	---	88	77	---
TOTAL	23504	17680	20892	9699	6051	28021	25520	5847	6980	5887	3133	11888
MEAN	758	589	674	313	216	904	851	189	233	190	101	396
MAX	1510	1670	1730	526	303	2980	2470	623	928	664	202	1820
MIN	415	302	410	240	160	341	195	93	84	63	65	74

CAL YR	1986	TOTAL	237291	MEAN	650	MAX	4160	MIN	85
WTR YR	1987	TOTAL	165102	MEAN	452	MAX	2980	MIN	63

e Estimated

04243500 ONEIDA CREEK AT ONEIDA, NY

LOCATION.--Lat 43°05'51", long 75°38'22", Oneida County, Hydrologic Unit 04140202, on right bank 70 ft upstream from bridge on Sconondoa Street at Oneida, and 500 ft downstream from Sconondoa Creek.

DRAINAGE AREA.--113 mi^2.

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

REVISED RECORDS.--WSP 2112: Drainage area. WDR NY-78-1: 1951, 1956, 1958, 1961, 1963, 1964, 1972, 1976 (P). WDR NY-83-3: 1950 (M), 1977 (M), 1979 (M).

GAGE.--Water-stage recorder. Datum of gage is 409.33 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Occasional regulation by small mills upstream from station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--38 years, 166 ft^3/s, 19.95 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,110 ft^3/s Oct. 9, 1976, gage height, 15.01 ft; minimum, 12 ft^3/s Aug. 5, 6, 1962, Oct. 28, 1964; minimum gage height, 1.30 ft Aug. 3, 6, 1955, Aug. 17, 1964.

EXTREMES 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. 13	1200	*2,560	*9.53	No other peak greater than base discharge.			

Minimum discharge, 16 ft^3/s Aug. 19, gage height, 1.50 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	190	177	188	e120	e160	e380	355	141	46	43	22	20
2	146	229	197	e120	e170	e1200	308	115	60	58	23	22
3	142	196	940	e120	e170	e920	341	104	55	134	29	26
4	501	167	792	e110	e170	e680	541	98	82	68	26	22
5	443	148	434	e110	e150	e400	568	93	97	54	24	20
6	295	475	311	e130	e160	e310	394	93	58	45	24	19
7	219	269	268	e140	e160	e460	493	89	51	42	23	21
8	163	211	307	e140	e150	1100	376	82	57	60	23	31
9	141	370	273	e130	e130	968	283	78	56	88	26	35
10	127	265	678	e120	e130	e470	229	74	53	46	42	27
11	111	211	355	130	e120	e360	199	70	47	48	28	23
12	103	211	264	e120	e120	e290	194	77	57	48	24	33
13	258	201	208	e120	e110	e240	1450	71	56	38	21	215
14	265	170	e200	e120	e100	e210	714	65	48	42	20	86
15	211	153	190	e160	e96	e210	418	65	43	62	19	49
16	144	152	180	e250	e96	e200	316	63	39	40	19	40
17	127	155	176	e180	e98	e180	274	60	37	36	18	37
18	119	141	214	e170	e100	e200	244	58	36	33	18	104
19	106	139	279	e150	e110	248	211	63	36	32	18	85
20	99	121	222	e140	e120	252	186	60	35	35	20	90
21	89	216	182	e130	e130	204	169	58	37	33	19	69
22	83	197	158	e120	e140	304	155	58	123	30	18	72
23	106	180	142	e120	e150	435	144	96	173	29	19	55
24	133	589	140	e120	e140	493	165	135	78	28	18	46
25	102	401	413	e120	e140	516	169	78	56	27	17	41
26	300	603	332	e110	e140	726	139	60	48	27	17	37
27	281	851	237	e110	e140	497	126	70	45	26	20	35
28	260	436	199	e110	e140	370	128	65	41	24	27	44
29	181	315	179	e120	---	297	147	59	39	24	29	46
30	382	247	164	e130	---	250	186	53	40	23	24	43
31	230	---	152	e150	---	327	---	48	---	20	21	---
TOTAL	6057	8196	8974	4120	3740	13697	9622	2399	1729	1343	696	1493
MEAN	195	273	289	133	134	442	321	77.4	57.6	43.3	22.5	49.8
MAX	501	851	940	250	170	1200	1450	141	173	134	42	215
MIN	83	121	140	110	96	180	126	48	35	20	17	19
CFSM	1.73	2.42	2.56	1.18	1.18	3.91	2.84	.68	.51	.38	.20	.44
IN.	1.99	2.70	2.95	1.36	1.23	4.51	3.17	.79	.57	.44	.23	.49

CAL YR	1986	TOTAL	77746	MEAN	213	MAX	4680	MIN	28	CFSM	1.88	IN. 25.6
WTR YR	1987	TOTAL	62066	MEAN	170	MAX	1450	MIN	17	CFSM	1.50	IN. 20.4

e Estimated

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 mi south of Jamesville.

DRAINAGE AREA.--32.2 mi^2.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1955–58. July 1958 to current year.

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 717.93 ft above National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--29 years, 49.5 ft^3/s, 20.88 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,820 ft^3/s July 3, 1974, gage height, 7.84 ft; maximum gage height 8.46 ft Oct. 28, 1981; minimum discharge, 2.0 ft^3/s Sept. 27, 1959.

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

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 8	1830	*549	*7.37	No peak greater than base discharge.			

Minimum discharge, 3.8 ft^3/s Aug. 18-19, gage height, 5.04 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	41	67	43	e33	e110	92	40	12	9.0	5.0	5.4
2	29	54	112	42	e33	e190	99	34	17	24	5.3	6.4
3	31	48	378	e40	e35	e120	103	33	14	29	7.3	7.4
4	81	44	184	e38	e31	e90	194	32	17	17	6.0	6.0
5	75	41	121	e38	e30	78	173	30	16	11	5.7	5.2
6	49	91	100	e40	e29	75	128	30	12	9.6	5.6	5.1
7	39	62	92	e44	e28	167	155	27	14	9.0	5.3	6.4
8	34	54	94	42	e27	370	120	26	16	9.5	4.9	9.2
9	32	104	90	38	e26	e250	96	25	17	8.9	8.9	11
10	32	81	134	38	e26	e100	82	23	14	7.8	11	8.1
11	33	66	92	39	e25	e74	73	22	12	7.8	6.9	6.8
12	28	66	e72	37	e24	e72	70	25	13	8.0	5.7	13
13	46	63	e60	36	e23	e70	259	22	13	7.1	5.3	29
14	45	55	e64	36	e21	e66	134	21	11	13	4.7	13
15	39	52	64	51	e21	e62	101	22	9.4	12	4.7	8.4
16	33	52	60	57	e20	e60	86	20	8.5	8.4	4.3	7.3
17	32	51	58	e48	e20	e58	80	19	7.8	7.5	4.2	33
18	30	48	76	e45	e20	58	73	18	7.6	6.8	4.1	36
19	28	47	83	e40	e20	60	65	19	7.5	6.7	4.2	19
20	28	44	63	e40	e21	59	58	19	7.4	8.5	5.1	17
21	27	91	55	e37	e22	54	53	17	15	7.2	4.4	13
22	26	69	50	e37	e23	66	50	22	39	6.3	5.4	10
23	33	65	46	e36	e23	81	47	35	34	6.1	6.2	9.1
24	35	119	46	e35	e22	88	54	23	18	5.8	5.4	8.2
25	30	100	100	e34	e21	102	52	20	12	6.1	5.1	7.8
26	55	129	83	e34	e21	182	42	18	10	5.8	4.8	7.6
27	47	183	64	e34	e22	118	39	17	10	5.5	7.0	7.3
28	50	115	57	e33	e26	93	44	16	8.9	5.3	8.8	8.9
29	43	95	54	e33	---	78	52	15	8.7	4.8	8.2	8.8
30	62	82	51	e34	---	69	47	13	8.6	5.1	6.7	11
31	46	---	48	e35	---	92	---	14	---	5.5	5.8	---
TOTAL	1236	2212	2718	1214	693	3212	2721	717	410.4	284.1	182.0	344.4
MEAN	39.9	73.7	87.7	39.2	24.7	104	90.7	23.1	13.7	9.16	5.87	11.5
MAX	81	183	378	57	35	370	259	40	39	29	11	36
MIN	26	41	46	33	20	54	39	13	7.4	4.8	4.1	5.1
CFSM	1.24	2.29	2.72	1.22	.77	3.22	2.82	.72	.42	.28	.18	.36
IN.	1.43	2.56	3.14	1.40	.80	3.71	3.14	.83	.47	.33	.21	.40

CAL YR	1986	TOTAL	20026.1	MEAN	54.9	MAX	759	MIN	9.3	CFSM	1.70	IN. 23.1
WTR YR	1987	TOTAL	15943.8	MEAN	43.7	MAX	378	MIN	4.1	CFSM	1.36	IN. 18.4

e Estimated

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).

GAGE.--Water-stage recorder, crest-stage gage, and artificial control. Datum of gage is 511.50 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. Flow includes storm sewer inflow, some originating outside the basin. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--10 years (water years 1972, 1979–87), 1.94 ft^3/s, 9.08 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 595 ft^3/s Oct. 21, 1976, gage height, 5.31 ft; maximum gage height, 6.51 ft July 3, 1974 (backwater from downstream channel conditions; Type IV flow); minimum discharge, 0.02 ft^3/s Sept. 11, 1972.

EXTREMES 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)
Feb. 14	0215	ice jam	*4.35	June 22	1600	*112	2.94

Minimum daily discharge, 0.25 ft^3/s Aug. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.2	1.8	1.7	1.8	15	2.8	2.0	1.1	.76	.60	.43
2	.83	4.0	3.6	1.8	1.8	7.8	5.0	2.0	1.9	5.3	1.6	.56
3	3.6	1.7	22	1.9	e1.8	4.2	3.3	2.0	2.2	1.5	1.6	.52
4	5.2	1.3	4.4	1.8	e1.8	3.0	10	2.0	2.7	1.6	.61	.45
5	1.9	1.6	2.6	1.7	e1.8	2.9	3.4	1.9	1.5	.75	.60	.45
6	1.3	4.4	2.3	1.6	e1.7	3.8	3.3	1.8	1.2	.70	.60	.45
7	.80	1.3	3.8	1.9	e1.7	11	5.7	1.8	1.6	.77	.55	.45
8	.69	1.3	3.3	2.1	e1.7	8.6	3.4	1.8	2.0	1.8	.48	2.5
9	.84	3.5	8.9	1.9	e1.6	5.5	2.8	1.8	1.2	.79	4.5	1.4
10	.64	1.6	4.1	1.9	e1.6	3.5	2.7	1.8	1.0	.65	1.8	.52
11	.60	1.8	2.5	2.4	e1.6	3.3	2.5	1.7	.89	1.6	.89	.56
12	.60	1.7	2.3	2.3	e1.5	3.3	3.5	1.8	1.9	1.4	.88	6.9
13	8.9	1.4	2.3	2.2	e1.5	3.3	19	1.8	1.2	.72	.66	16
14	4.9	1.4	1.9	2.3	e1.4	3.1	3.7	1.8	1.0	2.6	.52	1.4
15	1.7	1.4	1.8	6.5	e1.4	2.9	3.0	2.1	.89	.99	.52	1.2
16	1.2	1.4	1.8	4.1	e1.4	2.9	2.9	1.8	.89	.57	.52	1.2
17	1.1	1.4	1.8	2.7	e1.3	2.9	2.7	1.7	.89	.52	.71	4.4
18	1.1	1.3	2.6	2.4	e1.4	2.9	2.5	1.9	.89	.57	.52	2.6
19	1.0	1.5	2.4	2.3	e1.4	2.9	2.3	2.0	.89	.65	.94	2.3
20	.78	1.4	2.0	2.3	e1.4	2.9	2.2	1.7	.89	2.4	.70	3.8
21	.78	3.1	1.9	2.3	e1.5	2.7	2.0	1.7	2.9	.79	.57	1.9
22	.78	2.0	1.8	2.3	e1.5	2.7	2.0	3.7	16	.62	1.1	1.6
23	3.5	2.9	1.8	2.1	e1.5	2.7	1.8	3.2	2.9	.60	.52	1.4
24	1.4	4.7	2.5	e2.1	e1.5	2.7	3.1	2.4	1.3	.59	.36	1.6
25	1.0	2.3	5.3	e2.0	e1.4	3.5	2.2	2.3	.98	.99	.26	1.4
26	5.3	16	2.3	e2.0	e1.4	3.9	2.0	2.3	1.2	.89	.25	1.4
27	1.6	7.1	2.0	e1.9	e1.4	2.5	2.0	2.3	1.2	.89	1.1	1.4
28	1.4	2.7	2.0	1.9	e1.8	2.3	2.1	2.5	.98	.83	1.8	3.0
29	3.0	2.1	2.0	1.8	---	2.3	3.5	1.9	.89	.72	.74	1.2
30	4.5	1.9	2.0	1.8	---	2.3	2.8	1.8	1.8	.80	.38	17
31	1.5	---	1.9	1.8	---	4.5	---	1.3	---	.66	.49	---
TOTAL	63.54	81.4	103.7	69.8	43.6	127.8	110.2	62.6	56.88	35.02	27.37	79.99
MEAN	2.05	2.71	3.35	2.25	1.56	4.12	3.67	2.02	1.90	1.13	.88	2.67
MAX	8.9	16	22	6.5	1.8	15	19	3.7	16	5.3	4.5	17
MIN	.60	1.2	1.8	1.6	1.3	2.3	1.8	1.3	.89	.52	.25	.43
CFSM	.71	.94	1.15	.78	.54	1.42	1.27	.70	.65	.39	.30	.92
IN.	.82	1.04	1.33	.90	.56	1.64	1.41	.80	.73	.45	.35	1.03

CAL YR	1986	TOTAL	840.22	MEAN	2.30	MAX	22	MIN	.25	CFSM	.79	IN. 10.8
WTR YR	1987	TOTAL	861.89	MEAN	2.36	MAX	22	MIN	.25	CFSM	.81	IN. 11.1

e Estimated

04246000 ONEIDA LAKE AT BREWERTON, NY

LOCATION.--Lat 43°14'25", long 76°08'30", Onondaga County, Hydrologic Unit 04140202, at west end of Oneida Lake, 100 ft west of bridge on U.S. Highway 11, at Brewerton.

DRAINAGE AREA.--1,382 mi^2, at dam at Caughdenoy.

PERIOD OF RECORD.--November 1951 to current year. April 1904 to September 1925 in reports of State Engineer and Surveyor, published as "Oneida River at Brewerton."

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (1.01 ft Barge Canal datum). November 1951 to September 1975, at datum 360.99 ft higher.

REMARKS.--Elevation of lake surface regulated by taintor-gate dam on Oneida River at Caughdenoy and gates on Oneida Canal and Erie (Barge) Canal. Lake volume at elevation 369 ft NGVD, 49,600 mil ft^3. Area of water surface, 79.8 mi^2; axes, 20.9 mi by 5.5 mi; shoreline length, 54.7 mi.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 372.83 ft June 26, 1972; minimum daily, 366.12 ft Feb. 11, 1984.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 29, 1936, reached a water surface elevation of 373.5 ft, from Corps of Engineers report "Flood Plain Information, Oneida Creek, New York."

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 370.43 ft Sept. 18; minimum, 366.84 ft Feb. 27, 28, Mar. 1.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	369.87	369.51	369.51	368.61	367.50	366.92	369.19	369.46	369.85	369.75	369.49	369.33
2	369.88	369.39	369.79	368.45	367.46	367.00	369.37	369.57	369.86	369.90	369.55	369.37
3	369.90	369.40	369.45	368.42	367.44	367.14	369.35	369.60	369.91	369.75	369.46	369.38
4	369.84	369.30	369.48	368.39	367.42	367.26	369.49	369.58	369.91	369.69	369.51	369.41
5	369.88	369.45	369.64	368.32	367.41	367.37	369.57	369.57	369.87	369.77	369.50	369.43
6	369.72	369.34	369.73	368.27	367.39	367.46	369.59	369.56	369.86	369.81	369.51	369.42
7	369.86	369.37	369.74	368.20	367.36	367.53	369.64	369.55	369.89	369.84	369.50	369.41
8	369.79	369.40	369.77	368.17	367.35	367.66	369.68	369.56	369.83	369.78	369.47	369.45
9	369.66	369.24	369.96	368.13	367.32	367.87	369.67	369.56	369.74	369.78	369.63	369.42
10	369.64	369.35	369.55	368.13	367.32	368.02	369.63	369.60	369.78	369.79	369.50	369.45
11	369.75	369.54	369.65	368.07	367.29	368.12	369.59	369.65	369.83	369.78	369.49	369.52
12	369.71	369.57	369.59	368.04	367.27	368.16	369.53	369.58	369.86	369.77	369.55	369.63
13	369.73	369.41	369.53	368.00	367.24	368.16	369.59	369.69	369.88	369.75	369.55	369.82
14	369.77	369.58	369.47	367.98	367.22	368.16	369.72	369.71	369.92	369.69	369.54	369.86
15	369.77	369.62	369.36	367.94	367.18	368.14	369.77	369.62	369.88	369.73	369.53	369.93
16	369.85	369.58	369.29	367.92	367.15	368.12	369.75	369.70	369.86	369.73	369.51	369.90
17	369.81	369.57	369.24	367.94	367.12	368.09	369.68	369.69	369.85	369.71	369.48	369.87
18	369.71	369.52	369.22	367.92	367.09	368.07	369.50	369.70	369.85	369.65	369.47	370.20
19	369.63	369.39	369.08	367.89	367.07	368.05	369.40	369.82	369.83	369.63	369.51	370.07
20	369.59	369.58	369.05	367.89	367.04	368.05	369.37	369.76	369.79	369.57	369.44	370.02
21	369.59	369.22	368.99	367.85	367.02	368.03	369.41	369.74	369.82	369.57	369.48	369.91
22	369.57	369.21	368.92	367.83	366.99	368.03	369.43	369.72	369.86	369.58	369.41	369.90
23	369.51	369.25	368.84	367.80	366.95	368.06	369.51	369.73	370.00	369.61	369.31	369.85
24	369.51	369.04	368.87	367.76	366.93	368.13	369.42	369.72	370.05	369.59	369.34	369.80
25	369.53	369.09	368.81	367.71	366.91	368.22	369.45	369.77	370.01	369.59	369.31	369.70
26	369.63	369.20	368.74	367.66	366.89	368.38	369.44	369.84	369.99	369.53	369.36	369.60
27	369.59	369.32	368.76	367.64	366.87	368.58	369.54	369.83	369.88	369.52	369.50	369.64
28	369.53	369.49	368.75	367.60	366.86	368.74	369.55	369.81	369.75	369.53	369.45	369.60
29	369.60	369.48	368.72	367.56	---	368.85	369.46	369.82	369.76	369.55	369.36	369.56
30	369.54	369.46	368.65	367.56	---	368.97	369.23	369.84	369.72	369.51	369.39	369.48
31	369.63	---	368.58	367.52	---	368.96	---	369.83	---	369.50	369.37	---
MEAN	370	369	369	368	367	368	370	370	370	370	369	370
MAX	369.90	369.62	369.96	368.61	367.50	368.97	369.77	369.84	370.05	369.90	369.63	370.20
MIN	369.51	369.04	368.58	367.52	366.86	366.92	369.19	369.46	369.72	369.50	369.31	369.33

CAL YR	1986	MEAN	369	MAX	370.67	MIN	367.07
WTR YR	1987	MEAN	369	MAX	370.20	MIN	366.86

04246500 ONEIDA RIVER AT CAUGHDENOY, NY

LOCATION.--Lat 43°14'49", long 76°10'12", Oswego County, Hydrologic Unit 04140202, on left bank at point of diversion to New York State Erie (Barge) Canal, 1.6 mi downstream from Oneida Lake, and 2.6 mi upstream from navigation dam at Caughdenoy.

DRAINAGE AREA.--1,382 mi^2; 1902–9, 1,439 mi^2.

PERIOD OF RECORD.--September 1902 to December 1909 (published as "near Euclid"), January 1910 to December 1912, and October 1947 to current year in reports of Geological Survey. September 1902 to December 1909 and January 1910 to September 1925 in reports of State Engineer and Surveyor.

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Base gage: Water-stage recorder. Datum of gage is 360.98 ft above National Geodetic Vertical Datum of 1929 (362.00 ft Barge Canal datum). Prior to June 5, 1907, headwater readings, and June 5, 1907 to Dec. 31, 1909, nonrecording gage readings at former Oak Orchard State Dam 5.5 mi downstream at different datum. Jan. 1, 1910 to Dec. 31, 1912, nonrecording gage at site 2.5 mi downstream from present site at different datum. From Oct. 9, 1947 to Nov. 7, 1951, water-stage recorder at site 2.5 mi downstream at present datum.

Auxiliary gage: Water-stage recorder at site 2.5 mi downstream, 350 ft upstream from navigation dam at present datum (base gage site 1947–51).

Supplementary gage: Water-stage recorder at site 2.6 mi downstream, 180 ft downstream from navigation dam at present datum.

REMARKS.--No estimated daily discharges. 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.

AVERAGE DISCHARGE.--50 years (water years 1903–12, 1948–87), 2,549 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 13,800 ft^3/s Mar. 25–27, 1903; minimum daily, 52 ft^3/s Oct.24, 1910.

1947 to current year: Maximum daily discharge, 10,100 ft^3/s June 25, 1972; minimum daily, 62 ft^3/s July 29, 1950.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 6,000 ft^3/s Dec. 9; minimum daily, 160 ft^3/s Sept. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5230	3650	4970	3700	2220	1610	4600	1580	531	875	251	167
2	5190	3590	5410	3480	2180	1640	4820	1600	540	928	284	167
3	5210	3590	4850	3420	2160	1730	4730	1550	535	926	272	170
4	5200	3540	4950	3360	2120	1770	4990	1530	723	733	251	176
5	5200	3620	5220	3290	2100	1990	5110	1520	843	967	232	184
6	5030	3530	5400	3240	2080	2100	5140	1530	857	972	221	178
7	5180	2740	5410	3140	2060	2210	5220	1540	856	943	220	173
8	5190	1780	5550	3100	2050	2340	5300	963	859	957	226	160
9	4930	1770	6000	3060	1990	2520	5270	577	860	1010	234	174
10	3090	1760	5190	3060	2000	2750	5210	571	865	1290	218	201
11	1800	1770	5380	2980	1980	2950	5140	533	879	1420	246	178
12	1800	1770	5260	2930	1960	3070	5030	578	867	1380	226	163
13	1790	2240	5150	2890	1910	3130	5130	592	915	1350	252	293
14	2980	2560	5060	2860	1890	3140	5370	594	918	1370	206	592
15	3590	2560	4880	2800	1860	3130	5480	605	884	1400	206	2000
16	4220	2560	4770	2770	1830	3100	5430	641	873	1370	200	2650
17	4540	2560	4690	2800	1800	3080	5310	612	865	1370	209	2650
18	4490	3660	4680	2790	1770	3050	4980	600	913	1380	227	2740
19	4420	4590	4430	2740	1760	3020	4800	624	917	1380	201	2670
20	3170	4710	4380	2740	1740	3010	3040	610	891	1360	185	2650
21	2040	4360	4290	2700	1720	3000	1650	603	910	738	196	2640
22	2050	4360	4180	2680	1690	2990	1630	611	924	273	196	2660
23	2040	4400	4060	2610	1670	3010	1630	603	1510	329	191	2660
24	2020	4170	4110	2540	1660	3060	1590	594	2600	342	169	2630
25	2030	4220	4020	2490	1650	3140	1600	576	3100	282	170	2580
26	2040	4320	3890	2420	1630	3270	1590	549	2600	266	170	2550
27	2040	4430	3920	2390	1610	3480	1600	552	2170	270	164	2560
28	2060	4810	3900	2350	1590	3680	1590	553	2160	299	171	2540
29	2070	4890	3850	2330	---	3860	1580	551	1390	262	186	2530
30	2940	4880	3760	2300	---	4110	1550	562	890	241	213	2430
31	3700	---	3650	2240	---	4230	---	554	---	260	177	---
TOTAL	107280	103390	145260	88200	52680	89170	116110	25258	34645	26943	6570	44116
MEAN	3461	3446	4686	2845	1881	2876	3870	815	1155	869	212	1471
MAX	5230	4890	6000	3700	2220	4230	5480	1600	3100	1420	284	2740
MIN	1790	1760	3650	2240	1590	1610	1550	533	531	241	164	160

CAL YR	1986	TOTAL	1102650	MEAN	3021	MAX	7320	MIN	181
WTR YR	1987	TOTAL	839622	MEAN	2300	MAX	6000	MIN	160

04249000 OSWEGO RIVER AT LOCK 7, OSWEGO, NY

(National stream-quality accounting network station)

LOCATION.--Lat 43°27'06", long 76°30'20", Oswego County, Hydrologic Unit 04140203, on right bank at New York State Barge Canal (Oswego Canal) Lock 7 in Oswego, 0.8 mi upstream from mouth. Water-quality sampling site at discharge station.

DRAINAGE AREA.--5,100 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1900 to April 1906, October 1933 to current year. Monthly discharge only for some periods, published in WSP 1307. Prior to January 1904, published as "above Minetto" or "near Minetto." January 1904 to April 1906, published as "at Battle Island." Records for April 1897 to September 1900, published in WSP 65 and for October 1927 to September 1928, published in WSP 644, have been found to be unreliable and should not be used.

REVISED RECORDS.--WDR NY 78–1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 245.12 ft above National Geodetic Vertical Datum of 1929. Prior to 1933, nonrecording gage at site about 6 mi upstream at different datum.

REMARKS.--No estimated daily discharges. Records good. Prior to 1933 and subsequent to 1972, flow in Oswego (Barge) Canal not included. A large amount of natural storage and some artificial regulation is afforded by the many large lakes and the Erie (Barge) and Oswego (Barge) Canal systems in the river basin. Large diurnal fluctuations at low and medium flow caused by powerplants upstream from station. Oswego River basin receives water from Erie (Barge) Canal through Lock 32 near Pittsford. Water may be diverted into or received from Mohawk River basin through summit levels of 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 flow from 14 mi^2 of the Tioughnioga River basin may be diverted into De Ruyter Reservoir, in Oswego River basin. Gage-height telemeter at station.

COOPERATION.--Records of lockages at Lock 7 furnished by New York State Department of Transportation, record of elevations of Lake Ontario by Corps of Engineers, daily discharge records for Oswego River High Dam upstream by Niagara Mohawk Power Corp.

AVERAGE DISCHARGE.--54 years (1933–1987), 6,683 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,500 ft^3/s Mar. 28, 1936, includes daily mean discharge of canals; maximum gage height, 13.46 ft Apr. 10, 1940; minimum discharge (river only), 30 ft^3/s Nov. 6, 1944; minimum daily, 261 ft^3/s Sept. 18, 1985; minimum gage height, 0.97 ft Aug. 24, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 15,600 ft^3/s Dec. 4,5; maximum gage height, 9.00 ft Dec. 4; minimum daily discharge, 853 ft^3/s Aug. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12300	7460	10800	10700	4210	3170	7910	4880	1490	1720	1240	1110
2	11400	7260	10900	10400	4390	5240	9080	4420	1410	1670	1090	883
3	8960	7290	13700	10400	4720	8240	9800	4370	1340	3500	1440	1060
4	9970	7100	15600	10300	4640	10200	10600	4630	1510	3350	1680	959
5	10400	6520	15600	10100	4680	9680	11600	4090	3310	2890	1370	915
6	10300	6800	15500	9760	4620	9260	13400	3680	2160	3220	1060	935
7	10900	7210	15300	9470	4560	9350	14600	1740	2950	3020	1040	986
8	10600	5600	15200	9650	4630	10300	14500	2320	1300	1860	1090	903
9	10200	6210	14700	9720	4490	12800	14700	2780	2400	3170	1060	1100
10	8840	6080	14100	9770	4420	12900	14800	2100	2520	3500	1120	1250
11	5560	5870	13700	9700	4450	12400	14600	1420	2640	3330	1240	1270
12	5590	5810	14000	9650	4420	11000	14100	1380	2940	3010	1470	1310
13	5930	5860	14000	9500	4000	10300	14300	2290	3000	2360	1110	2350
14	8400	6420	13200	9480	4200	10100	14700	2140	3710	2320	1070	3950
15	9890	6760	11900	9490	4100	9670	14800	1750	3570	3290	898	5140
16	9830	6810	10900	9830	4180	9430	14800	2250	3370	2960	1060	4720
17	10100	6800	11300	10400	2190	8720	14700	2270	1740	2330	1020	3720
18	9970	7910	11800	10400	2020	8360	14300	1480	1240	2310	1480	5250
19	9380	9950	12200	10300	4050	9060	13900	2070	2970	2330	1010	6900
20	8490	8320	11900	10100	4060	7380	11500	2210	1860	2020	1070	6450
21	6120	8540	11700	9660	3160	6070	8470	1600	1240	1610	998	6340
22	5300	8390	11500	9570	3160	6500	8520	2480	2390	1380	853	6270
23	5290	7900	11300	7950	3260	7580	7850	1670	4010	1790	1030	6670
24	4840	7860	10800	5500	3320	7320	6250	1720	3940	2480	854	4770
25	4810	8230	11000	4970	3340	5860	5080	1520	5780	2530	895	5600
26	5000	9710	11700	4920	3180	7120	5440	1070	6270	1750	1010	5080
27	5010	12300	11700	5070	3140	8310	5600	1270	6220	1580	893	4750
28	5380	12800	11700	4710	2960	7930	6090	1410	4460	1420	923	4700
29	5500	13000	11800	4680	---	7840	5360	1610	3420	1960	1050	4980
30	6010	12300	11700	4560	---	7800	4250	1200	2620	1690	1140	5080
31	7630	---	11000	4460	---	7860	---	1540	---	1360	1190	---
TOTAL	247900	239070	392200	265170	108550	267750	325600	71360	87780	73710	34454	105401
MEAN	7997	7969	12650	8554	3877	8637	10850	2302	2926	2378	1111	3513
MAX	12300	13000	15600	10700	4720	12900	14800	4880	6270	3500	1680	6900
MIN	4810	5600	10800	4460	2020	3170	4250	1070	1240	1360	853	883

CAL YR	1986	TOTAL	2923210	MEAN	8009	MAX	20500	MIN 542
WTR YR	1987	TOTAL	2218940	MEAN	6079	MAX	15600	MIN 853

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), 1983-87 (b).
MINOR ELEMENTS DATA: 1971-73 (a), 1975 (b), 1976 (a), 1977-87 (b).
ORGANIC DATA: OC--1975 (b), 1978-81 (d).
NUTRIENT DATA: 1971 (a), 1974 (a), 1975 (c), 1976-81 (d), 1982 (c), 1983-87 (b).
BIOLOGICAL DATA:
Bacteria--1974 (a), 1975 (c), 1976-81 (d), 1982 (c), 1983-87 (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), 1983-87 (b).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: September 1975 to September 1981.
WATER TEMPERATURES: July 1975 to September 1981

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (Water years 1975-78, 1981): Maximum recorded, 2,290 microsiemens Oct. 25, 1980; minimum recorded, 430 microsiemens Apr. 19, 1976.
WATER TEMPERATURES (Water years 1975-78, 1981): Minimun, 0.0°C on many days during winter periods.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)
OCT										
27.....	0930	5130	789	7.93	11.5	5.1	753	9.8	91	--
MAR										
12.....	0900	12000	626	7.81	1.5	54	762	14.5	104	--
JUN										
22.....	1000	1830	812	7.96	23.5	3.6	751	7.6	90	2100
AUG										
20.....	0900	1460	986	7.93	25.0	3.7	760	7.1	86	K180

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/LAS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
OCT										
27.....	100	250	130	78	14	57	3.0	119	70	130
MAR										
12.....	--	120	--	37	6.2	7.5	1.6	119	21	11
JUN										
22.....	140	240	130	71	14	62	2.4	102	86	120
AUG										
20.....	K26	250	--	74	16	95	3.8	70	82	190

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 1986 TO SEPTEMBER 1987

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)
OCT										
27.....	0.1	1.6	467	430	0.49	0.18	0.3	0.05	0.04	0.02
MAR										
12.....	< 0.1	4.6	138	160	1.10	0.27	1.1	0.05	0.03	0.02
JUN										
22.....	0.2	0.1	479	420	0.45	0.06	0.8	0.07	0.03	< 0.01
AUG										
20.....	0.1	--	552	--	< 0.10	< 0.01	1.1	0.10	0.01	< 0.01

DATE	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
OCT										
27.....	< 10	2	44	< 0.5	2	< 1	< 3	1	10	5
MAR										
12.....	60	< 1	37	< 0.5	< 1	< 1	< 3	4	16	19
JUN										
22.....	< 10	< 1	43	< 0.5	< 1	< 1	< 3	4	< 3	< 5
AUG										
20.....	< 10	< 1	49	< 0.5	6	< 5	< 3	2	6	< 5

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)
OCT										
27	15	5	0.3	< 10	< 1	< 1	< 1	740	< 6	6
MAR										
12.....	5	10	0.2	< 10	2	< 1	< 1	59	< 6	3
JUN										
22.....	17	8	0.4	< 10	< 1	< 1	< 1	820	< 6	10
AUG										
20.....	17	2	< 0.1	< 10	< 10	< 1	< 1	850	< 6	9

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK)	DEPTH AT SAMPLE LOC-ATION, TOTAL (FEET)	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
OCT								
27.....	0905	30	11.5	3.0	789	7.93	11.5	9.8
27.....	0910	30	11.5	7.0	790	7.90	11.5	9.6
27.....	0915	100	12.6	3.0	792	7.92	11.5	9.9
27.....	0920	100	12.6	7.0	787	7.95	11.5	9.4
27.....	0925	200	11.6	3.0	782	7.89	11.5	9.8
27.....	0935	200	11.6	7.0	785	7.91	11.5	9.7
27.....	0940	300	4.7	3.0	780	7.91	12.0	9.1
MAR								
12.....	0905	30	13.5	3.0	626	7.81	1.5	14.5
12.....	0910	30	13.5	7.0	632	7.83	1.0	14.2
12.....	0915	100	14.5	3.0	630	7.77	1.0	14.6
12.....	0920	100	14.5	7.0	628	7.80	1.5	14.4
12.....	0925	200	13.2	3.0	627	7.82	1.5	14.5
12.....	0930	200	13.2	7.0	630	7.82	1.0	14.4
12.....	0935	300	6.7	3.0	628	7.79	1.0	14.5
12.....	0940	300	6.7	5.0	626	7.80	1.0	14.5
JUN								
22.....	1005	30	7.4	2.0	812	7.96	23.5	7.6
22.....	1010	30	7.4	6.0	810	7.92	23.0	7.4
22.....	1015	100	7.6	2.0	815	7.87	23.5	7.8
22.....	1020	100	7.6	6.0	812	7.91	23.5	7.7
22.....	1025	200	8.1	2.0	817	7.93	23.0	7.6
22.....	1030	200	8.1	6.0	820	7.94	23.5	7.6
AUG								
20.....	0905	30	8.1	3.0	986	7.93	25.0	7.1
20.....	0910	30	8.1	6.0	988	7.91	25.0	7.0
20.....	0915	100	9.2	3.0	990	7.94	24.5	7.4
20.....	0920	100	9.2	6.0	987	7.96	25.0	7.1
20.....	0925	200	8.4	3.0	984	7.93	25.0	7.2
20.....	0930	200	8.4	6.0	986	7.93	25.0	7.0

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
27.....	0930	5130	8	111	97
MAR					
12.....	0900	12000	11	356	97
JUN					
22.....	1000	1830	4	20	90
AUG					
20.....	0900	1460	11	43	90

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 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, 248.96 ft June 6, 1952; minimum observed, 240.94 ft Dec. 23, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 246.63 ft Oct. 6; minimum, 244.04 ft Sept. 28.

ELEVATION (FEET IGLD), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	246.03	245.92	245.37	245.59	245.66	245.45	245.66	246.26	245.69	245.49	244.87	244.45
2	246.06	246.04	245.33	245.70	245.72	245.71	245.70	246.23	245.70	245.42	244.80	244.37
3	246.01	245.95	245.62	245.71	245.77	245.64	245.79	246.22	245.69	245.46	244.95	244.35
4	246.10	245.99	245.76	245.62	245.88	245.59	245.83	246.21	245.74	245.49	244.94	244.28
5	246.15	245.81	245.68	245.59	245.78	245.58	245.91	246.17	245.75	245.43	244.85	244.24
6	246.35	245.83	245.60	245.48	245.79	245.54	246.06	246.14	245.72	245.36	244.80	244.21
7	246.12	245.79	245.61	245.67	245.74	245.54	246.12	246.15	245.62	245.35	244.78	244.19
8	246.08	245.77	245.57	245.58	245.69	245.55	246.13	246.11	245.73	245.32	244.82	244.22
9	246.18	245.95	245.53	245.54	245.84	245.64	246.20	246.07	245.79	245.36	244.76	244.29
10	246.09	245.90	245.82	245.44	245.82	245.54	246.20	246.04	245.73	245.32	244.86	244.27
11	245.98	245.76	245.63	245.64	245.77	245.48	246.22	246.01	245.66	245.34	244.78	244.23
12	245.98	245.80	245.74	245.67	245.72	245.48	246.26	246.04	245.66	245.33	244.72	244.19
13	246.03	245.93	245.67	245.54	245.79	245.52	246.33	245.98	245.70	245.33	244.67	244.24
14	246.14	245.73	245.61	245.43	245.65	245.48	246.29	245.94	245.66	245.48	244.67	244.30
15	246.20	245.62	245.64	245.51	245.69	245.49	246.29	246.01	245.70	245.46	244.66	244.26
16	246.12	245.65	245.59	245.49	245.65	245.49	246.30	245.95	245.66	245.38	244.66	244.28
17	246.15	245.63	245.52	245.38	245.63	245.52	246.32	245.94	245.63	245.33	244.70	244.24
18	246.13	245.61	245.53	245.42	245.64	245.47	246.34	245.94	245.58	245.30	244.76	244.18
19	246.12	245.54	245.70	245.44	245.68	245.45	246.36	245.83	245.56	245.25	244.74	244.13
20	246.08	245.39	245.66	245.48	245.64	245.45	246.34	245.79	245.50	245.30	244.76	244.18
21	246.09	245.65	245.64	245.56	245.62	245.47	246.34	245.80	245.44	245.31	244.66	244.25
22	246.06	245.48	245.65	245.45	245.58	245.45	246.36	245.80	245.46	245.31	244.72	244.24
23	246.09	245.37	245.63	245.78	245.65	245.40	246.28	245.84	245.49	245.25	244.77	244.29
24	246.04	245.56	245.50	245.79	245.68	245.38	246.34	245.82	245.43	245.25	244.68	244.35
25	245.99	245.44	245.69	245.63	245.61	245.33	246.32	245.79	245.41	245.26	244.64	244.37
26	245.96	245.43	245.72	245.58	245.54	245.42	246.27	245.71	245.41	245.31	244.51	244.32
27	245.98	245.50	245.69	245.60	245.45	245.43	246.20	245.73	245.46	245.26	244.37	244.22
28	246.06	245.51	245.71	245.61	245.39	245.46	246.25	245.75	245.54	245.13	244.32	244.22
29	246.01	245.56	245.66	245.63	---	245.43	246.30	245.74	245.47	245.09	244.34	244.20
30	246.07	245.48	245.71	245.54	---	245.45	246.38	245.72	245.52	245.08	244.32	244.30
31	245.91	---	245.67	245.81	---	245.70	---	245.70	---	244.97	244.32	---
MEAN	246.08	245.69	245.63	245.58	245.68	245.50	246.19	245.95	245.60	245.31	244.68	244.26
MAX	246.35	246.04	245.82	245.81	245.88	245.71	246.38	246.26	245.79	245.49	244.95	244.45
MIN	245.91	245.37	245.33	245.38	245.39	245.33	245.66	245.70	245.41	244.97	244.32	244.13

CAL YR	1986	MEAN	246.04	MAX	246.84	MIN	245.05
WTR YR	1987	MEAN	245.51	MAX	246.38	MIN	244.13

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in the following table of annual maximum stage and discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a second table.

Crest-stage partial-record stations

The following table contains annual maximum stage and discharge for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain, but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained, but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial-record stations during water year 1987

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft^3/s)
		Susquehanna River basin					
01497805	Little Elk Creek near Westford, NY	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.	3.73	1978-87	4-4-87	18.25	187
01502701	Susquehanna River at Afton, NY	Lat 42°13'38", long 75°31'27", Chenango County, Hydrologic Unit 02050101, on right bank at downstream side of bridge on State Highway 41, 0.1 mi southeast of Afton and intersection of State Highways 7 and 41, and 0.2 mi downstream from Kelsey Brook.	1,716	1972,77, 1979-87	1-25-87 4-6-87	18.34 12.29	a 21,800
01503980	Chenango River at Eaton, NY	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.	24.3	1964-65, 1967-87	4-4-87	6.50	412
01507000	Chenango River at Greene, NY	Lat 42°19'28", long 75°46'18", Chenango County, Hydrologic Unit 02050102, on left bank 1,700 ft downstream from bridge on State Highway 206 at Greene, and 0.6 mi downstream from Birdsall Creek.	593	1937-70‡, 1971-87	11-27-86	12.44	8,700
01508803	West Branch Tioughnioga River at Homer, NY	Lat 42°38'18", long 76°10'36", Cortland County, Hydrologic Unit 02050102, on left bank at downstream side of bridge on Wall Street at Homer and 3.4 mi upstream from confluence with East Branch.	71.5	1967-68‡, 1973-86‡, 1987	3-26-87	4.47	605

‡ Operated as a continuous-record gaging station.

a Ice jam

Annual maximum discharge at crest-stage partial-record stations during water year 1987--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft^3/s)
		Susquehanna River basin--Continued					
01510610	Merrill Creek tributary near Texas Valley, NY	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.	5.32	1976-81, 1983-87	11-27-86	2.99	678
01511500	Tioughnioga River at Itaska, NY	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 mi upstream from mouth.	730	1930-67‡, 1968-87	11-26-86 3-2-87	7.84 10.24	10,100 a
01513500	Susquehanna River at Vestal, NY	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	1936, 1937-67‡, 1968-72, 1974-87	11-27-86	18.46	44,800
01514000	Owego Creek near Owego, NY	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‡, 1979-87	11-27-86	9.28	8,380
01521596	Big Creek near Howard, NY	Lat 42°22'01", long 77°34'33", Steuben County, Hydrologic Unit 02050104, at culvert on town road, 0.1 mi south of State Highway 70, 1.3 mi north of Butch Corner, 3.4 mi west of Howard,and 6.2 mi upstream from mouth.	6.32	1977-87	4-5-87	14.44	135
01525500	Canisteo River at West Cameron, NY	Lat 42°13'20", long 77°25'05", Steuben County, Hydrologic Unit 02050104, on right bank 250 ft downstream from bridge on County Highway 119, 0.3 mi southeast of West Cameron, and 1.7 mi north of Cameron.	340	1930-31‡, 1937-70‡, 1971-72, 1974-87	9-13-87	13.34	8,660
01527000	Cohocton River at Cohocton, NY	Lat 42°30'00", long 77°30'02", Steuben County, Hydrologic Unit 02050105, on left bank 450 ft downstream from bridge on U.S. Highway 15 at Cohocton, 800 ft downstream from small tributary, and 1.4 mi upstream from Reynolds Creek.	52.2	1951-81‡, 1982-87	4-5-87	5.34	481
01530301	Cuthrie Run near Big Flats, NY	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.	5.39	1976, 1979-81, 1983-87	9-18-87	14.99	270

‡ Operated as a continuous-record gaging station.
a Ice jam.

Annual maximum discharge at crest-stage partial-record stations during water year 1987--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft^3/s)
		Allegheny River basin					
03010734	Ischua Creek tributary near Machias, NY	Lat 42°24'28", long 78°33'33", Cattaraugus County, Hydrologic Unit 05010001, at culvert on Very Road, 0.2 mi upstream from mouth, 0.7 mi north of State Highway 242, and 1.5 mi west of Machias.	5.12	1978-81, 1983-87	10-4-86	9.01	166
03010800	Olean Creek near Olean, NY	Lat 42°07'12", long 78°25'12", Cattaraugus County, Hydrologic Unit 05010001, on right bank at upstream side of highway bridge, 1,000 ft west of State Highway 16, 1.4 mi northeast of Olean, and 4.6 mi upstream from mouth.	198	1958-68‡, 1969-87	7-3-87	7.14	2,750
03011000	Great Valley Creek near Salamanca, NY	Lat 42°10'28", long 78°41'28", Cattaraugus County, Hydrologic Unit 05010001, at bridge on old State Highway 98, 275 ft upstream from bridge on U. S. Highway 219, 1.5 mi northeast of Salamanca, and 2.1 mi upstream from mouth.	137	1951-68‡, 1972, 1977-87	7-3-87	15.44	5,540
03013800	Ball Creek at Stow, NY	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.	9.06	1955-64§, 1965, 1967-68b, 1974‡, 1975-87	10-4-86	18.09	1,130
		Streams tributary to Lake Erie					
04213376	Canadaway Creek at Fredonia, NY	Lat 42°27'02", long 79°21'03", Chautauqua County, Hydrologic Unit 04120102, on right bank at bridge on Van Buren Road (Matteson Street), 1.2 mi upstream from Beaver Creek.	32.9	1962-63b, 1987	4-5-87	5.33	c
04213490	South Branch Cattaraugus Creek near Otto, NY	Lat 42°21'54", long 78°48'04", Cattaraugus County, Hydrologic Unit 04120102, at highway bridge, 0.2 mi upstream from Mansfield Creek, 1.7 mi northeast of Otto, and 5.5 mi upstream from mouth.	25.1	1963-87	10-4-86	6.68	1,890
0421402003	Cattaraugus Creek at Sunset Bay below Irving, NY	Lat 42°33'52", long 79°07'47", Cattaraugus County, Hydrologic Unit 04120102, on left bank at east end of Erie Street in Sunset Bay, at mouth of unnamed tributary, and 0.9 mi west of Irving.	557	1985-87	3-2-87	10.16	d
0421402004	Cattaraugus Creek at Sunset Bay near Silver Creek, NY	Lat 42°34'05", long 79°08'09", Cattaraugus County, Hydrologic Unit 04120102, on left bank at Sunset Bay, at north end of Allegany Road, and 1.9 mi northeast of Silver Creek.	558	1985-87	3-2-87	9.61	d

‡ Operated as a continuous-record gaging station.
§ Operated as a low-flow partial-record station.
b Miscellaneous measurements made.
c Discharge not determined.
d No stage-discharge relationship defined at this site.

Annual maximum discharge at crest-stage partial-record stations during water year 1987--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft^3/s)
		Streams tributary to Niagara River					
04216212	Delaware Park Lake at Buffalo, NY	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.	1.14	1985-87	6-22-87	12.48	d
04216214	Scajaquada Creek below Delaware Park Lake at Buffalo, NY	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.	25.7	1985-87	6-22-87	11.20	d
		Streams tributary to Lake Ontario					
04219900	Johnson Creek near Lyndonville, NY	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.	87.7	1962-70, 1972-73, 1976-87	4-5-87	6.73	1,740
04221769	Black Creek at Hyder Flats Road at Black Creek, NY	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.	10.7	1978-87	5-14-78R 7-2-87	6.92R 6.05	980R 540
04224807	Stony Brook tributary at South Dansville, NY	Lat 42°28'16", long 77°40'21", Steuben County, Hydrologic Unit 04130002, at culvert on Willey Road, 0.6 mi upsream from mouth, and 0.9 mi west of South Dansville.	3.15	1977-82, 1984-87	3-7-87	<8.79	<61
042320578	Bear Creek at Ontario, NY	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	1971-73, 1975-87	4-5-87	11.96	96
04232200	Catharine Creek at Montour Falls, NY	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§, 1976-77‡, 1987	4-4-87	5.12	515
04232460	Sugar Creek at Guyanoga, NY	Lat 42°37'23", long 77°09'30", Yates County, Hydrologic Unit 04140201, at bridge on Sid White Road, 0.4 mi east of Guyanoga, and 2.3 mi upstream from mouth.	28.9	1966-87	4-5-87	4.63	436

‡ Operated as a continuous-record gaging station.
§ Operated as a low-flow partial-record station.
d No stage-discharge relationship defined at this site.
R Revised.
< Less than.

Annual maximum discharge at crest-stage partial-record stations during water year 1987--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft^3/s)
		Streams tributary to Lake Ontario--Continued					
04232630	Kendig Creek near MacDougall, NY	Lat 42°50'57", long 76°53'33", Seneca County, Hydrologic Unit 04140201, at downstream side of bridge on County Highway 120, 3.0 mi north of MacDougall, 3.5 mi southwest of Waterloo, and 4.6 mi upstream from mouth.	13.8	1965-68‡, 1969-87	9-13-87	5.37	581
04233255	Cayuga Inlet at Ithaca, NY	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.	86.7	1971-72, 1975-87	4-4-87	8.05	2,000
04233258	Coy Glen Creek at Ithaca, NY	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.	3.56	1983-87	2-3-83 2-14-84 2-23-85 2-21-86 4-4-87	18.82 20.04 18.64 19.67 19.17	157 368 131 300 214
04234138	Schaeffer Creek near Canandaigua, NY	Lat 42°54'25", long 72°22'14", Ontario County, Hydrologic Unit 04140201, at culvert on McCann Road, 0.8 mi upstream from Mud Creek, 1.7 mi north of U.S. Highway 20, and 3.2 mi west of Canandaigua.	7.84	1980-87	4-5-87	11.37	208
04234200	Mud Creek at East Victor, NY	Lat 42°58'28", long 77°22'58", Ontario County, Hydrologic Unit 04140201, 25 ft downstream from bridge on State Highway 96 at East Victor, 0.3 mi upstream from Fish Creek, and 0.5 mi upstream from mouth.	64.2	1958-68‡, 1972, 1976-87	4-5-87	6.41	1,270
04235255	Canandaigua Outlet tributary near Alloway, NY	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.	2.94	1978-87	12-14-77 3-5-79 12-25-79 2-20-81 3-14-82 4-25-83 2-15-84 2-24-85 1-20-86 12-4-86	6.20 7.05 6.16 6.32 5.51 5.82 6.65 6.32 7.22 5.92	56R 90R 55R 61R 35R 44R 73R 61R 97R 47
04245000	Limestone Creek at Fayetteville, NY	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.	85.5	1940-86‡, 1987	3-8-87	4.38	1,300
04245840	Scriba Creek near Constantia, NY	Lat 43°15'35" long 76°00'11", Oswego County, Hydrologic Unit 04140202, on right bank, 8 ft upstream from road to Ingersol Road, and about 0.8 mi north of village of Constantia.	38.4	1966-68‡, 1969, 1971-87	12-3-86	5.01	505

‡ Operated as a continuous-record gaging station.
R Revised.

Annual maximum discharge at crest-stage partial-record stations during water year 1987--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum: Date	Annual maximum: Gage height (feet)	Annual maximum: Discharge (ft^3/s)
		Streams tributary to Lake Ontario--Continued					
04249050	Catfish Creek at New Haven, NY	Lat 43°29'00", long 76°19'34", Oswego County, Hydrologic Unit 04140102, at bridge on State Highway 104B, at New Haven, and 1.4 mi upstream from mouth.	31.7	1962-66, 1968-87	4-4-87	4.85	361

Discharge measurements made at miscellaneous sites during water year 1987

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements: Date	Measurements: Discharge (ft^3/s)
		Susquehanna River basin				
*01511500 Tioughnioga River	Chenango River	Lat 42°17'53", long 75°54'33", Broome County, Hydrologic Unit 02050102, at bridge at Itaska, 3.8 mi downstream from Otselic River and village of Whitney Point, and 6 mi upstream from mouth.	730	1930-67‡, 1968-79, 1982-84, 1986	4-5-87	4,830
*01525500 Canisteo River	Tioga River	Lat 42°13'20", long 77°25'05", Steuben County, Hydrologic Unit 02050104, at bridge on County Highway 119, 0.3 mi southeast of West Cameron, and 1.7 mi north of Cameron.	340	1930-31‡, 1937-70‡, 1972-76	3-9-87 4-6-87	3,310 4,100
		Allegheny River basin				
*03010800 Olean Creek	Allegheny River	Lat 42°07'12", long 78°25'12", Cattaraugus County, Hydrologic Unit 05010001, at 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	12-3-86 4-6-87	1,940 2,480
		Streams tributary to Lake Erie				
04213508 Thatcher Brook	Cattaraugus Creek	Lat 42°26'55", long 78°56'30", Erie County, Hydrologic Unit 04120102, at site along U.S. Highway 62, 0.3 mi south of Gowanda village line, and 1.8 mi upstream from mouth.	6.49	--	8-1-86	3,100
		Streams tributary to Lake Ontario				
#04230650 Genesee River	Lake Ontario	Lat 43°05'32", long 77°40'50", Monroe County, Hydrologic Unit 04130003, at Ballantyne Bridge on State Highway 252, 1.6 mi west of Mortimer, and 2.8 mi upstream from Erie (Barge) Canal.	2,210	1965, 1971-72, 1975-76	10-21-86	1,780

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

Discharge measurements made at miscellaneous sites during water year 1987--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Streams tributary to Lake Ontario--Continued				
04231150 Black Creek	Genesee River	Lat 43°05'30", long 77°43'51", Monroe County, Hydrologic Unit 04130003, at Ballantyne Road Bridge on State Highway 252, 2.3 mi southwest of Genesee Junction, and 4 mi upstream from mouth.	191	1965, 1971	10-21-86	125
04231500 Genesee River	Lake Ontario	Lat 43°07'25", long 77°37'58", Monroe County, Hydrologic Unit 04130003, 0.3 mi downstream of Elmwood Avenue (County Highway 47) at Rochester, 3.25 mi downstream from Black Creek, and 11.4 mi upstream from mouth.	2,457	1904-18‡, 1971-72	10-21-86	2,060
*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	4-6-87	60.9
*04233258 Coy Glen Creek	Cayuga Inlet	Lat 42°25'45", long 76°31'18", Tompkins County, Hydrologic Unit 04140201, at double drop structure 200 ft upstream from mouth at Ithaca.	3.56	--	3-8-87	36.1
04233700 Virgil Creek	Fall Creek	Lat 42°30'18", long 76°21'01", Tompkins County, Hydrologic Unit 04140201, at bridge on Johnson Street in Freeville, and 0.7 mi upstream from Fall Creek.	40.3	1958-63, 1966, 1973-76‡, 1979, 1986a	7-8-87 7-14-87	23.4 10.5
*04234200 Mud Creek	Ganargua Creek	Lat 42°58'28", long 77°22'58", Ontario County, Hydrologic Unit 04140201, at bridge on State Highway 96 at East Victor, 0.3 mi upstream from Fish Creek, and 0.5 mi upstream from mouth.	64.2	1957-69‡, 1980, 1982-83	3-3-87	267

* Also a crest-stage partial record station.

‡ Operated as a continuous-record gaging station.

a Discontinued as a crest-stage partial-record station Oct. 1987.

BROOME COUNTY

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.—Water-table 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.—Monthly measurements made with chalked tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 851.05 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of shelter base, 2.86 ft above land-surface datum.

REMARKS.—Lowest water level recorded on June 25, 1985 due to water-level decline for several hours, possibly from nearby pumping.

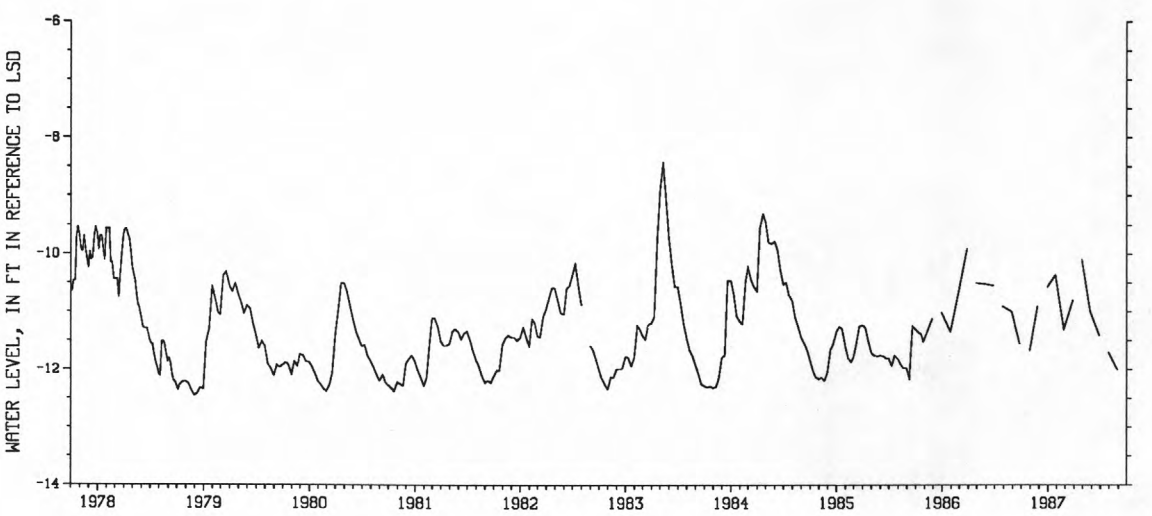
PERIOD OF RECORD.—October 1946 to July 1955, April 1966 to current year. Unpublished record for October 1946 to July 1955 (intermittent), April 1966 to April 1968 (intermittent) and May 1968 to September 1977 is available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 8.29 ft below land-surface datum, May 4, 1983; lowest measured 13.18 ft below land-surface datum, June 25, 1985.

EXTREMES FOR CURRENT YEAR.—Highest water level, 10.09 ft below land-surface datum, Apr. 28; lowest, 12.00 ft below land-surface datum, Aug. 28.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30	11.68	JAN 27	10.36	APR 28	10.09	JUL 29	11.71
NOV 26	10.90	FEB 25	11.31	MAY 27	11.00	AUG 28	12.00
DEC 30	10.57	MAR 27	10.81	JUN 26	11.41	SEP 28	11.64



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.—Water-table 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. Prior to May 1950 taped by observer.
DATUM.—Elevation of land-surface datum is 833.62 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of shelter base, 3.42 ft above land-surface datum.
REMARKS.—Well cleaned from 46 ft, to original depth on Oct. 19, 1970. Water level affected by floods of Susquehanna River, and by pumping from municipal well field 1,100 ft south.
PERIOD OF RECORD.—March 1947 to current year.
EXTREMES FOR PERIOD OF RECORD.—Highest water level, 9.73 ft below land-surface datum, Apr. 8, 1956; lowest, 33.47 ft below land-surface datum, Sept. 23, 1965.
EXTREMES FOR CURRENT YEAR.—Highest water level, 19.92 ft below land-surface datum, Apr. 8, 9; lowest 28.75 ft below land-surface datum, Aug. 27, 28.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

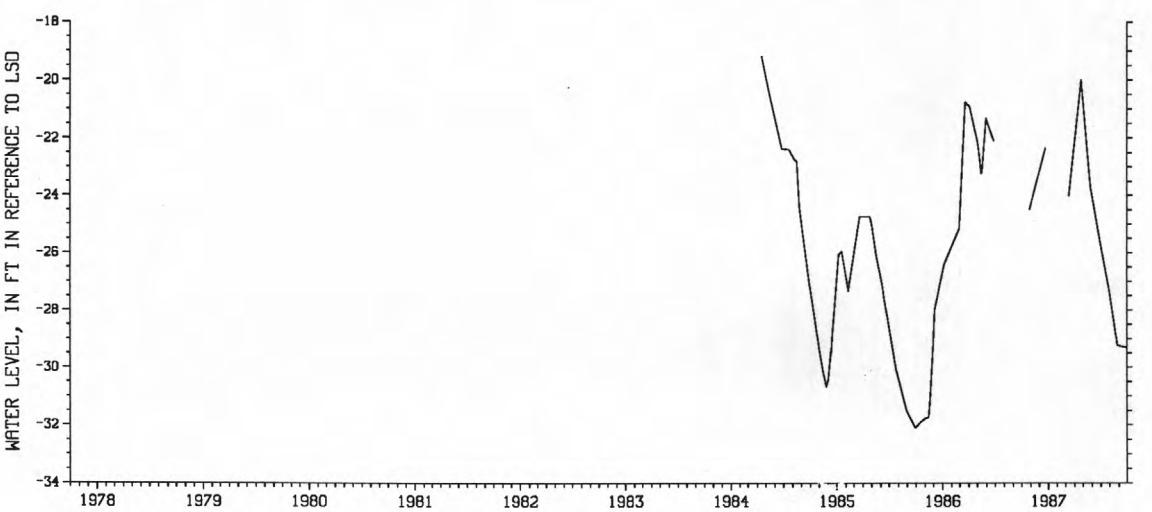
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27.73	26.71	20.84	23.96	25.50	26.46	22.25	23.73	25.98	26.62	27.35	28.58
2	27.72	26.71	21.06	24.04	25.53	26.38	22.24	23.86	26.02	26.66	27.41	28.55
3	27.66	26.71	21.28	24.11	25.54	26.05	22.32	23.99	26.02	26.65	27.46	28.55
4	27.52	26.72	21.46	24.21	25.55	25.61	22.34	24.12	26.02	26.54	27.51	28.55
5	27.25	26.75	21.46	24.31	25.57	25.28	21.65	24.22	25.99	26.49	27.57	28.55
6	26.99	26.77	21.45	24.42	25.60	25.06	20.80	24.33	25.92	26.48	27.62	28.57
7	26.84	26.73	21.59	24.53	25.61	24.91	20.27	24.45	25.87	26.51	27.67	28.60
8	26.74	26.63	21.77	24.59	25.63	24.69	19.97	24.58	25.83	26.55	27.71	28.62
9	26.72	26.48	21.99	24.66	25.64	24.17	19.93	24.67	25.83	26.55	27.76	28.63
10	26.72	26.21	22.19	24.72	25.65	23.57	20.10	24.77	25.88	26.54	27.80	28.63
11	26.73	25.80	22.34	24.78	25.68	23.29	20.39	24.85	25.93	26.52	27.83	28.57
12	26.77	25.59	22.42	24.83	25.71	23.22	20.70	24.95	25.99	26.49	27.84	28.49
13	26.84	25.45	22.52	24.89	25.75	23.22	20.79	25.05	26.06	26.49	27.84	28.44
14	26.88	25.39	22.71	24.97	25.79	23.28	20.50	25.15	26.11	26.49	27.87	28.30
15	26.90	25.36	22.87	25.03	25.84	23.37	20.34	25.25	26.15	26.50	27.92	28.03
16	26.88	25.35	23.07	25.09	25.88	23.48	20.46	25.33	26.20	26.42	27.97	27.80
17	26.86	25.38	23.23	25.13	25.93	23.57	20.72	25.40	26.26	26.38	28.03	27.69
18	26.84	25.42	23.35	25.13	25.98	23.69	21.00	25.48	26.31	26.39	28.10	27.62
19	26.83	25.46	23.45	25.11	26.04	23.79	21.27	25.57	26.37	26.46	28.23	27.47
20	26.81	25.48	23.53	25.10	26.10	23.86	21.54	25.64	26.44	26.56	28.41	27.28
21	26.80	25.46	23.60	25.13	26.17	23.91	21.81	25.71	26.51	26.65	28.52	27.11
22	26.80	25.16	23.68	25.16	26.20	23.96	22.08	25.77	26.58	26.74	28.59	27.03
23	26.80	24.69	23.77	25.18	26.25	24.01	22.33	25.82	26.63	26.83	28.64	26.95
24	26.82	24.46	23.87	25.20	26.28	23.98	22.58	25.83	26.57	26.91	28.66	26.89
25	26.86	24.30	23.98	25.28	26.34	23.80	22.78	25.80	26.51	27.01	28.69	26.87
26	26.87	24.04	24.03	25.32	26.40	23.49	22.93	25.80	26.49	27.08	28.72	26.87
27	26.87	23.58	23.93	25.37	26.42	23.06	23.08	25.82	26.49	27.08	28.75	26.91
28	26.87	22.26	23.79	25.41	26.44	22.65	23.26	25.86	26.49	27.10	28.75	26.98
29	26.86	21.21	23.74	25.44	---	22.40	23.41	25.89	26.50	27.15	28.71	27.05
30	26.75	20.78	23.77	25.47	---	22.27	23.57	25.92	26.55	27.21	28.66	27.11
31	26.71	---	23.84	25.49	---	22.25	---	25.95	---	27.30	28.60	---
MEAN	26.9	25.2	22.8	24.9	25.9	24.0	21.6	25.1	26.2	26.7	28.1	27.8
LOW	27.73	26.77	24.03	25.49	26.44	26.46	23.57	25.95	26.63	27.30	28.75	28.63
HIGH	26.71	20.78	20.84	23.96	25.50	22.25	19.93	23.73	25.83	26.38	27.35	26.87

CAL YR	1986	MEAN	25.1	HIGH	16.02	LOW	27.79
WTR YR	1987	MEAN	25.4	HIGH	19.93	LOW	28.75

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.—Water-table 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 observer and USGS personnel.
DATUM.—Elevation of land-surface datum is 908.58 ft above National Geodetic Vertical Datum of 1929. Measuring point: Double file mark on top of coupling, 3.20 ft above land-surface datum.
REMARKS.—Water level may be affected by pumping in nearby village and school wells.
PERIOD OF RECORD.— September 1980 to current year. Unpublished record for September 1980 to February 1982 is available in files of the U.S. Geological Survey.
EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 19.17 ft below land-surface datum, Apr. 16, 1984; lowest measured, 32.48 ft below land surface datum, Oct. 27, 1981.
EXTREMES FOR CURRENT YEAR.—Highest water level measured, 20.00 ft below land-surface datum, Apr. 24; lowest measured, 29.30 ft below land-surface datum, Sept. 28.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

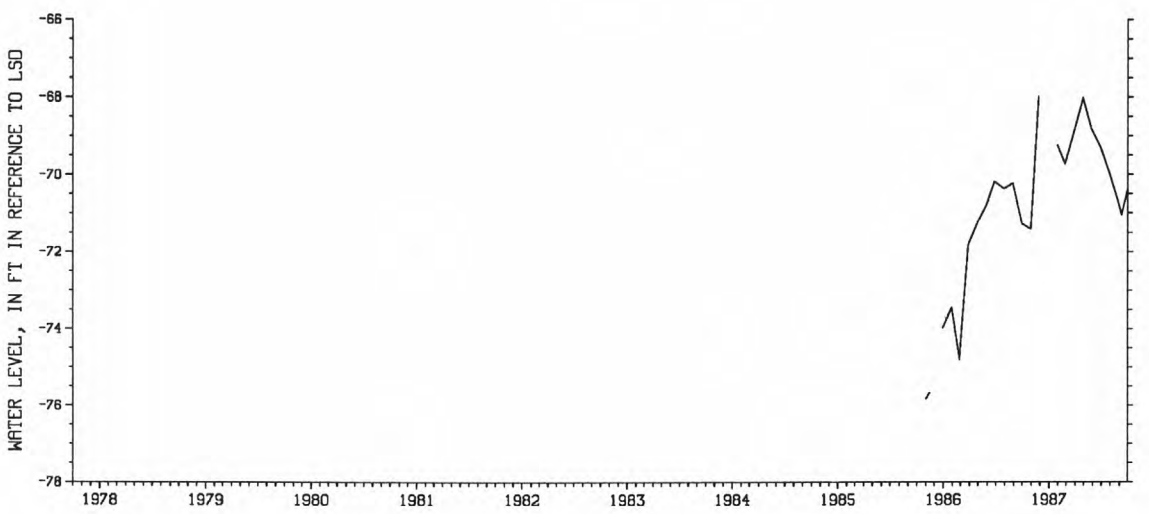
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28	24.49	APR 24	20.00	JUN 26	25.48	AUG 28	29.24
DEC 22	22.34	MAY 27	23.70	JUL 29	27.25	SEP 28	29.30
MAR 13	24.02						



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.—Aquifer in shales of Middle to Upper Devonian age.
WELL CHARACTERISTICS.—Drilled water supply well, diameter 6 in, depth approximately 252 ft.
INSTRUMENTATION.—Monthly measurement with chalked tape by USGS personnel.
DATUM.—Elevation of land-surface datum is 1105.75 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of coupling, 2.00 ft above land-surface datum.
REMARKS.—Well drilled by New York State Department of Transportation, originally intended as water-supply well for proposed rest area on Interstate Highway I-81.
PERIOD-OF-RECORD.—November 1985 to September 1987.
EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 67.97 ft below land-surface datum, Nov. 26, 1986; lowest measured, 75.83 ft below land-surface datum, Nov. 1, 1985.
EXTREMES FOR CURRENT YEAR.—Highest water level measured, 67.97 ft below land-surface datum, Nov. 26; lowest measured, 71.41 ft below land-surface datum, Oct. 30.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30	71.41	FEB 25	69.73	MAY 27	68.82	AUG 28	70.71
NOV 26	67.97	MAR 27	68.90	JUN 26	69.27	SEP 08	71.04
JAN 30	69.24	APR 28	68.03	JUL 29	69.98	28	70.41



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.—Float tape read weekly by observer.

DATUM.—Elevation of land-surface datum is 1,467.08 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.30 ft above land-surface datum.

REMARKS.—Well is located in a New York State operated campgrounds area. A new central water system for the campgrounds, utilizing a well about 1.5 mi from the observation well put in operation in 1980, is reflected by higher ground water levels in summer and fall comparable to those experienced prior to 1969 when the lowest level measured was 13.23 ft below land-surface datum on Feb. 1, 1961. Extreme low levels occurred during late summer and early fall months from 1969 to 1979 due to the effect of pumping the old supply system from a nearby well.

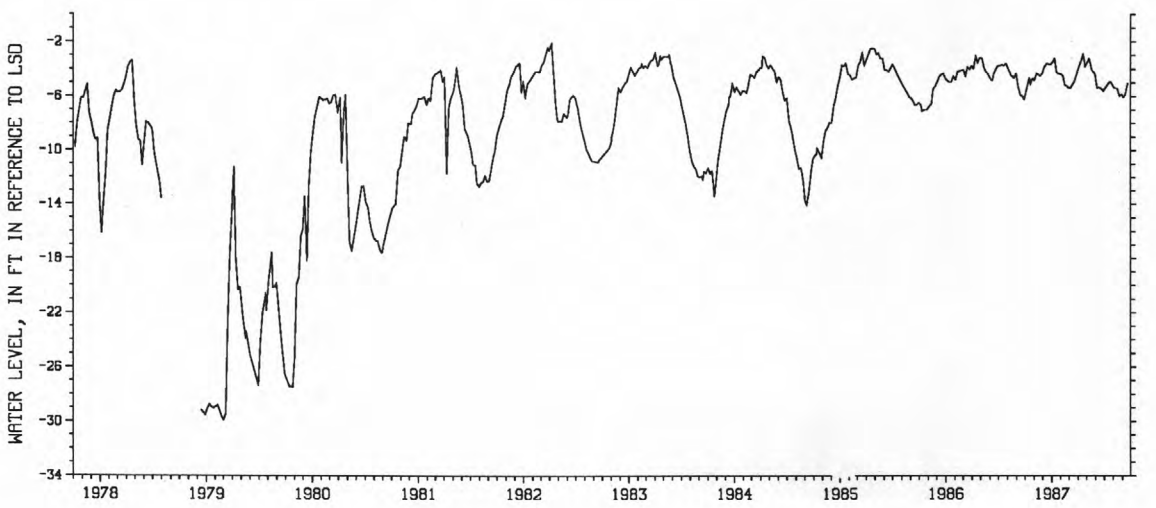
PERIOD OF RECORD.—September 1950 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured 2.12 ft below land-surface datum, Apr. 8, 1982; lowest measured 34.87 ft below land-surface datum, Nov. 21, 1972.

EXTREMES FOR CURRENT YEAR.—Highest water level measured, 2.90 ft below land-surface datum, Apr. 18; lowest measured, 6.09 ft below land-surface datum, Sept. 5.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11	4.86	JAN 03	3.51	APR 12	3.40	JUN 27	5.61
14	4.65	10	3.20	18	2.90	JUL 18	4.94
18	5.11	17	4.24	23	3.38	25	4.95
25	4.66	26	4.30	25	3.83	AUG 02	5.32
NOV 01	4.83	FEB 07	4.44	MAY 02	3.56	08	5.40
08	4.29	15	5.18	09	3.20	15	5.42
22	4.47	22	5.21	19	4.07	23	5.98
29	4.26	28	5.40	30	4.32	30	5.83
DEC 06	3.83	MAR 07	5.39	JUN 06	5.38	SEP 05	6.09
15	3.58	21	4.83	11	5.35	12	5.83
20	3.63	APR 04	3.83	20	5.40	20	5.03
27	3.67						



CAYUGA COUNTY

424158076251901. Local number, Cy 7.

LOCATION.—Lat 42°41'58", long 76°25'19", Hydrologic Unit 04140201, near Moravia. Owner: Earl Van Pelt.

AQUIFER.—Water-table aquifer in clayey gravel of Pleistocene age.

WELL CHARACTERISTICS.—Bored observation well, diameter 2.5 in, depth 28 ft, cased to 26 ft 1.25-in well point (60-gauze screen 26 ft to 28 ft).

INSTRUMENTATION.—Weekly measurement with chalked tape by observer.

DATUM.—Elevation of land-surface datum is 760.70 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of shelter base, 3.08 ft above land-surface datum.

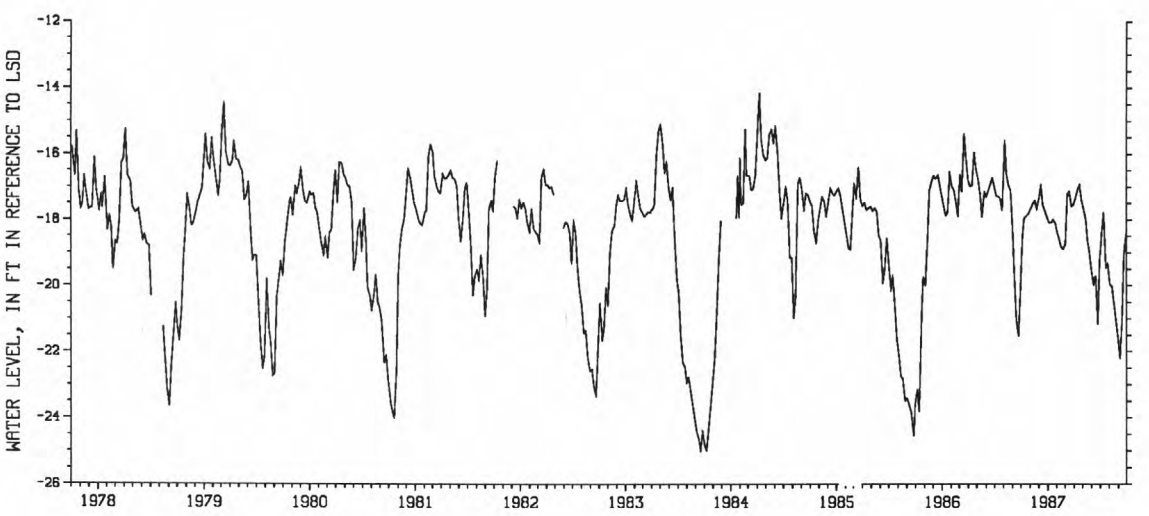
PERIOD OF RECORD.—December 1965 to current year. Unpublished record for December 1965 to September 1976 is available in files of the Geological Survey.

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 measured, 16.92 below land-surface datum, Apr. 20; lowest measured, 22.20 ft below land-surface datum, Sept. 7.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

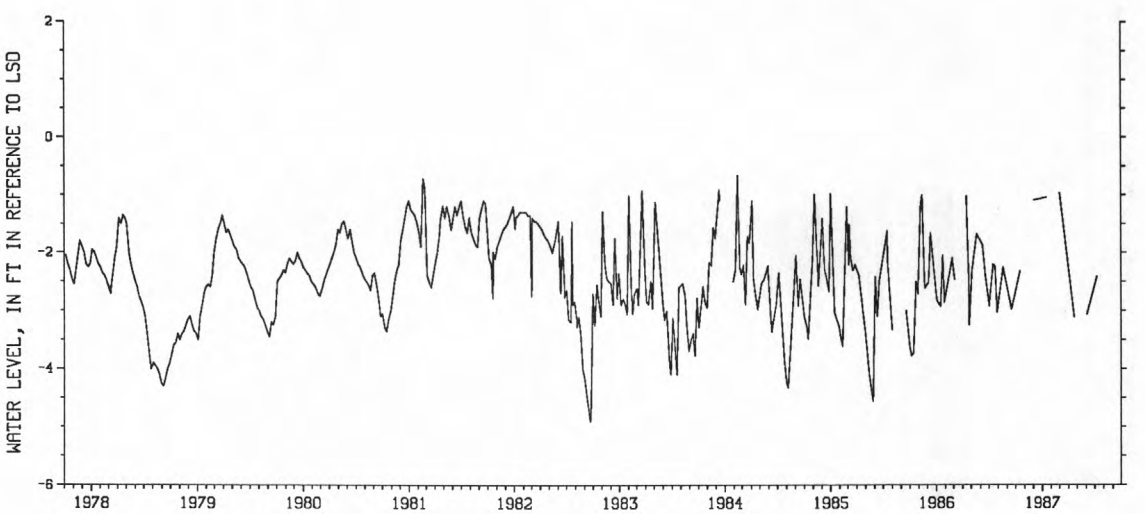
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06	18.49	JAN 19	17.98	APR 13	17.10	JUN 29	19.21
11	17.92	27	18.11	20	16.92	JUL 06	18.40
13	17.96	FEB 02	18.35	27	17.40	13	17.77
27	17.81	09	18.60	MAY 04	17.65	20	19.45
NOV 03	17.64	16	18.82	12	18.01	27	19.31
10	17.51	23	18.89	18	18.66	AUG 03	19.95
17	17.41	MAR 02	18.73	25	18.99	10	20.02
24	17.67	09	17.21	JUN 01	19.60	31	21.60
DEC 01	17.32	16	17.13	08	20.00	SEP 07	22.20
08	16.94	23	17.59	09	19.79	14	21.10
15	17.55	30	17.55	15	19.71	21	19.05
JAN 05	18.08	APR 06	17.34	22	21.16	28	18.42
12	18.09						



420326079295801. Local number, Cu 5.
LOCATION.—Lat 42°03'26", long 79°29'58", Hydrologic Unit 05010002, near Panama. Owner: State Department of Environmental Conservation.
AQUIFER.—Water-table aquifer in till of Pleistocene age.
WELL CHARACTERISTICS.—Dug unused well, diameter 36 in, depth 33 ft, stone-lined.
INSTRUMENTATION.—Float tape read on six week basis by USGS personnel.
DATUM.—Elevation of land surface datum is 1,752.51 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 0.25-in steel-plate well cover, inside shelter door, 0.44 ft below land-surface datum.
PERIOD OF RECORD.—May 1949 to current year.
EXTREMES FOR PERIOD OF RECORD.—Highest water level measured 0.65 ft below land-surface datum, Feb. 13, 1984; lowest measured 9.41 ft below land-surface datum, May 24, 1949.
EXTREMES FOR CURRENT YEAR.—Highest water level measured, 0.96 ft below land-surface datum, Mar. 2; lowest measured, 3.12 ft below land-surface datum, Apr. 21.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

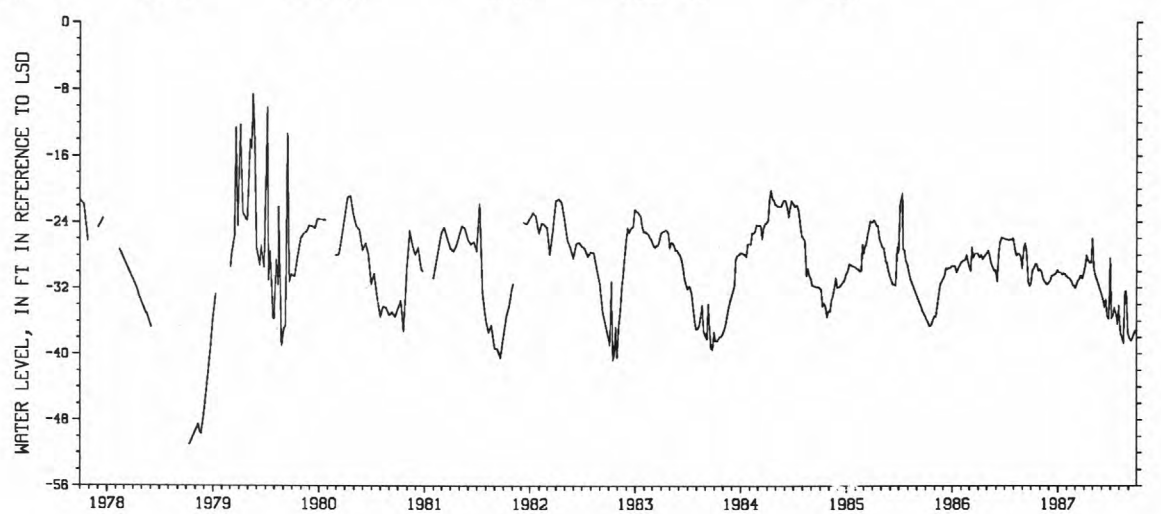
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 02	1.09	MAR 02	0.96	JUN 04	3.06	AUG 27	1.11
JAN 15	1.04	APR 21	3.12	JUL 09	2.42		



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, cased 12 in 0 ft to 130 ft, 10 in 130 ft to 240 ft, slotted 130 ft to 144 ft, open end.
INSTRUMENTATION.—Twice daily measurement with chalked tape by City of Jamestown employee, every fifth day published.
DATUM.—Elevation of land-surface datum is 1,252.52 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of plywood sheet, 5.52 ft above land-surface datum.
REMARKS.—Water level affected by pumping from municipal well field. Digital recorder installed Dec. 18, 1978, removed Sept. 16, 1982.
PERIOD OF RECORD.—November 1939 to September 1943, August 1946 to current year. Unpublished record for November 1939 to September 1943, August 1946 to September 1976 is available in files of the Geological Survey.
EXTREMES FOR PERIOD OF RECORD.—Highest water level, 5.2 ft above land-surface datum, Mar. 14, 1942; lowest, 66.6 ft below land-surface datum, Nov. 3, 1971.
EXTREMES FOR CURRENT YEAR.—Highest water level, 25.95 ft below land-surface datum, Apr. 30; lowest, 38.58 ft, Aug. 15.
REVISIONS.—Water levels reported for the 1983 to 1986 water years have been revised: subtract .08 ft.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05	29.66	JAN 05	30.10	APR 10	28.10	JUL 10	35.30
10	30.00	10	30.10	15	28.66	15	34.37
15	29.07	15	30.37	20	28.88	20	35.13
20	29.07	20	30.17	25	28.93	25	36.25
25	29.90	25	30.29	30	25.95	30	34.10
30	29.71	30	30.51	MAY 05	29.59	AUG 05	37.48
NOV 05	30.00	FEB 05	30.73	10	30.56	10	37.98
10	30.81	10	30.86	15	31.03	15	38.58
15	31.15	15	31.05	20	31.54	20	32.38
20	31.39	20	31.54	25	32.08	25	32.38
25	31.56	MAR 01	31.98	30	32.59	30	37.48
30	31.32	05	31.59	JUN 05	33.42	SEP 05	38.08
DEC 05	31.08	10	31.08	10	34.30	10	38.38
10	30.49	15	30.93	15	33.40	15	38.08
15	30.39	20	30.42	20	35.47	20	37.58
20	30.37	25	30.83	25	35.76	25	37.08
25	30.12	30	30.28	30	28.34	30	37.18
30	29.83	APR 05	29.22	JUL 05	35.67		



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.—Water-table aquifer in sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.—Drilled observation well, diameter 6 in, depth 79 ft, screened 69 ft to 79 ft.
INSTRUMENTATION.—Digital recorder--60-minute punch.
DATUM.—Elevation of land-surface datum is 1,247.62 ft above National Geodetic Vertical Datum of 1929. Measuring point: Chisled marks at top of metal shelter base, 6.22 ft above land-surface datum.
REMARKS.—Well drilled by the U.S.G.S. The water level is affected by pumping from municipal well field and by river stages in Conewango Creek which is within 100 ft of the well.
PERIOD OF RECORD.—March 1983 to current year.
EXTREMES FOR PERIOD OF RECORD.—Highest water level, 1.09 ft above land-surface datum, Feb. 20, 1984; lowest, 19.53 ft below land-surface datum, Aug. 25, 1987.
EXTREMES FOR CURRENT YEAR.—Highest water level, 3.55 ft below land-surface datum, Apr. 9; lowest, 19.53 ft, below land-surface datum, Aug. 25.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

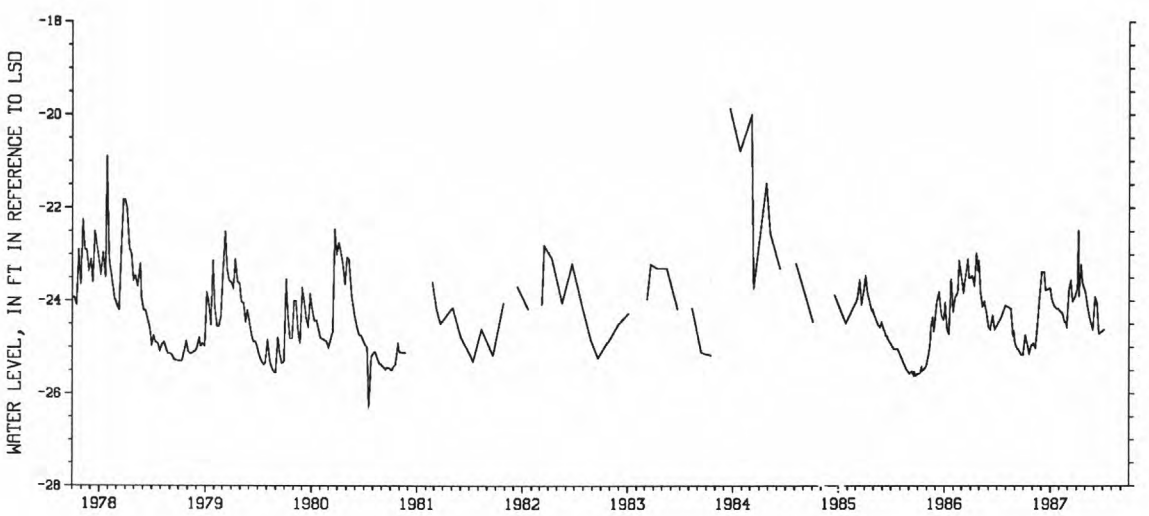
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.36	11.07	7.20	8.40	9.98	11.38	7.58	11.39	12.76	14.13	15.22	15.65
2	12.87	10.84	7.90	8.94	10.79	10.42	7.49	12.31	13.28	12.83	14.59	15.90
3	11.68	11.03	7.43	8.73	11.12	10.34	6.59	11.08	13.37	10.69	14.20	15.64
4	10.10	11.57	6.04	9.50	10.85	10.14	6.02	10.98	13.44	10.57	14.58	15.56
5	7.65	11.95	5.73	9.71	11.36	10.06	5.46	11.53	13.56	9.40	15.20	14.73
6	7.36	12.19	5.12	10.04	11.51	10.04	5.02	11.74	13.40	10.16	15.12	14.52
7	6.20	11.79	4.99	9.78	10.85	8.53	4.75	11.92	12.79	10.01	15.09	13.76
8	5.98	11.92	5.03	10.01	10.61	7.37	4.61	12.11	13.10	10.31	14.81	13.82
9	6.12	12.87	4.74	10.46	11.56	7.82	4.46	11.43	13.44	10.61	14.60	14.08
10	6.21	12.71	4.38	10.0	11.64	7.49	4.68	11.19	13.09	11.02	14.40	14.12
11	6.02	12.10	4.80	9.70	11.84	7.27	4.50	11.86	13.49	11.34	14.67	13.91
12	5.91	12.36	4.08	10.12	11.36	6.93	4.38	12.14	13.64	10.46	14.85	13.50
13	7.43	12.54	3.96	10.65	11.86	7.04	5.30	12.35	13.75	11.66	14.92	12.80
14	7.76	12.69	4.92	10.24	11.88	6.32	6.34	12.48	12.69	12.71	15.06	13.31
15	7.71	12.01	5.74	10.62	11.63	6.86	7.27	12.62	12.89	12.37	15.25	13.60
16	8.43	11.44	7.06	9.74	11.64	8.28	7.57	11.90	13.96	11.67	14.55	13.83
17	8.39	11.83	7.62	9.97	11.65	8.93	7.85	11.43	14.71	13.68	15.93	13.21
18	8.59	11.84	7.52	8.80	11.64	8.85	7.90	12.17	15.13	13.74	17.00	13.36
19	8.64	11.34	7.79	8.92	11.65	9.53	8.16	12.48	14.81	12.30	17.81	11.78
20	9.11	11.65	7.22	9.76	11.65	9.79	9.09	12.85	15.12	13.20	18.36	11.61
21	9.83	11.80	7.80	9.86	11.65	9.69	9.71	13.00	14.36	13.82	18.72	11.36
22	9.91	10.82	8.14	10.16	11.46	9.17	10.03	12.47	13.83	14.13	18.70	11.84
23	10.32	10.68	8.99	9.85	11.16	9.49	9.72	12.72	14.30	14.63	18.35	11.98
24	10.67	10.70	8.74	9.33	11.16	9.88	9.84	11.88	14.19	14.96	18.86	11.16
25	10.35	10.60	7.35	9.45	11.16	10.05	10.50	11.38	14.48	14.80	19.24	11.80
26	10.06	10.10	6.52	9.49	11.16	9.39	11.40	12.20	14.93	13.58	19.07	12.23
27	10.57	9.23	6.11	9.49	11.16	9.49	11.18	12.52	14.39	13.93	18.63	13.42
28	11.13	7.80	5.99	9.49	11.31	9.15	11.23	12.71	13.81	14.20	18.19	12.60
29	11.46	7.03	6.90	10.05	---	8.02	11.85	13.05	13.32	15.08	16.89	13.21
30	11.50	7.48	7.66	10.93	---	8.57	11.90	13.19	14.03	15.36	16.12	14.05
31	11.65	---	8.31	10.79	---	8.31	---	12.61	---	15.25	16.18	---
MEAN	9.13	11.1	6.51	9.77	11.3	8.86	7.75	12.1	13.8	12.7	16.3	13.4
LOW	13.36	12.87	8.99	10.93	11.88	11.38	11.90	13.19	15.13	15.36	19.24	15.90
HIGH	5.91	7.03	3.96	8.40	9.98	6.32	4.38	10.98	12.69	9.40	14.20	11.16

CAL YR 1986 MEAN 8.04 HIGH .64 LOW 14.18
WTR YR 1987 MEAN 11.1 HIGH 3.96 LOW 19.24

420829076484801. Local number, Cm 46.
LOCATION.—Lat 42°08'29", long 76°48'48", Hydrologic Unit 02050105, near Horseheads. Owner: Original owner deceased.
AQUIFER.—Water-table 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.—Measurement made with chalked tape by observer and USGS personnel. Prior to April 1984 float tape read by observer or USGS personnel.
DATUM.—Elevation of land-surface datum is 885.69 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of pipe flange, 3.44 ft above land-surface datum.
REMARKS.—Water level affected by stage of Newtown Creek.
PERIOD OF RECORD.—October 1955 to current year. Unpublished record for October 1955 to September 1976 is 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 measured, 22.48 ft below land-surface datum, Apr. 07; lowest measured, 25.15 ft below land-surface datum, Aug. 31.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06	24.76	DEC 10	23.36	FEB 23	24.44	MAY 02	23.81
07	24.74	15	23.76	26	24.56	07	24.06
14	24.96	31	23.71	MAR 05	23.76	16	24.36
20	25.14	JAN 05	23.93	12	23.56	20	24.46
27	24.96	08	24.01	18	24.01	28	24.61
NOV 03	24.91	15	24.11	26	23.91	JUN 03	23.91
10	25.01	22	24.16	APR 03	23.71	11	24.06
17	24.56	28	24.16	07	22.48	17	24.71
24	23.96	FEB 03	24.21	09	23.91	JUL 06	24.61
25	23.91	11	24.26	16	23.21	AUG 31	25.15
DEC 01	23.36	19	24.46	21	23.61		



CHENANGO COUNTY

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.—Water-table aquifer in gravel of Pleistocene age.

WELL CHARACTERISTICS.—Drilled observation well, diameter 6 in, depth 13 ft, cased to 13 ft gravel-packed, open end.

INSTRUMENTATION.—Monthly measurements made with chalked tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 979.28 ft above National Geodetic Vertical Datum of 1929. Measuring point: File mark at top of shelter base, 1.37 ft above land-surface datum.

REMARKS.—This well drilled April 1974 as a replacement for 421556075281601 (local number Cn 11), located 90 ft north, which has a period of record from October 1965 to September 1972 (unpublished).

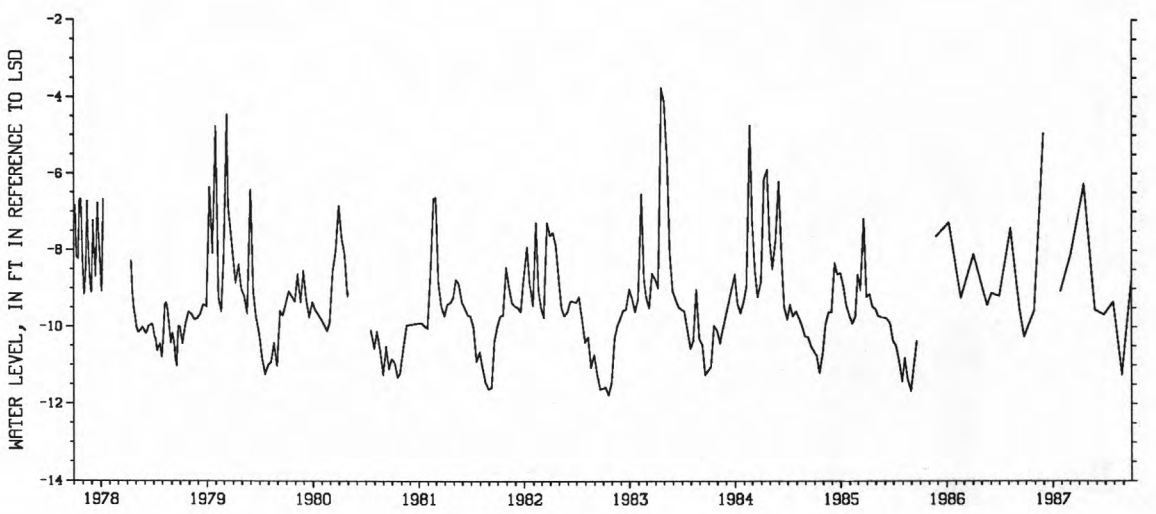
PERIOD OF RECORD.—April 1975 to current year. Unpublished record for April 1975 to September 1976 is available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.—Highest water level, 2.79 ft below land-surface datum, Mar. 7, 1979; lowest, 11.81 ft below land-surface datum, Sept. 26-29, 1982.

EXTREMES FOR CURRENT YEAR.—Highest water level, 4.95 ft below land-surface datum, Nov. 28; lowest, 11.23 ft below land-surface datum, Aug. 28.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29	9.57	MAR 04	8.08	JUN 26	9.68	AUG 28	11.23
NOV 28	4.95	APR 17	6.28	JUL 29	9.34	SEP 28	8.84
JAN 28	9.07	MAY 27	9.55				



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.—Weekly measurement made with chalked tape by paid observer and USGS personnel.

DATUM.—Elevation of land-surface datum is 1065.77 ft above National Geodetic Vertical Datum of 1929. Measuring point: Double file mark on top of coupling, 4.00 ft above land-surface datum.

REMARKS.—Water level may be affected by pumping from nearby farm well.

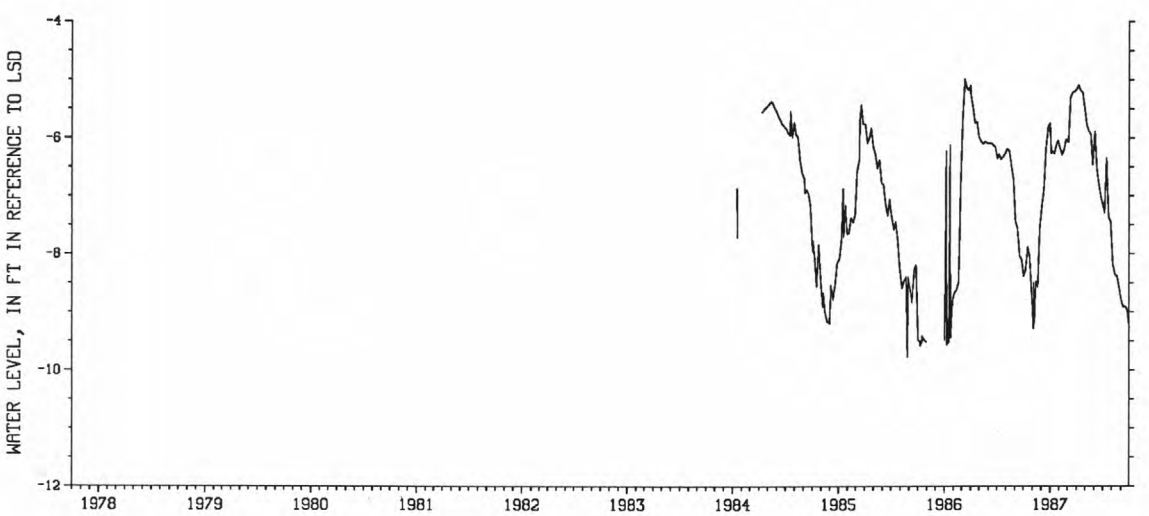
PERIOD OF RECORD.—April 1984 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 5.00 ft below land-surface datum, Mar. 12, 1986; lowest measured, 9.78 ft below land-surface datum, Aug. 26, 1985.

EXTREMES FOR CURRENT YEAR.—Highest water level measured, 5.09 ft below land-surface datum, Apr. 8; lowest measured, 9.29 ft below land-surface datum, Nov. 4.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01	8.38	DEC 31	5.74	MAR 25	5.20	JUL 07	7.28
08	8.29	JAN 04	6.26	APR 01	5.16	14	6.34
15	7.90	07	6.22	08	5.09	21	7.38
22	8.04	14	6.26	15	5.19	28	7.44
NOV 04	9.29	21	6.12	22	5.22	AUG 05	8.18
05	8.49	28	6.04	MAY 06	5.78	12	8.36
07	9.20	FEB 03	6.16	13	5.88	19	8.38
12	8.48	10	6.28	20	5.93	26	8.56
19	8.57	17	6.20	27	6.46	SEP 02	8.79
26	7.56	24	6.02	JUN 03	5.88	09	8.92
DEC 03	7.16	MAR 04	6.06	10	6.52	16	8.90
10	6.88	11	5.30	17	6.78	23	8.96
17	6.18	18	5.22	24	7.02	30	9.26
24	5.80						

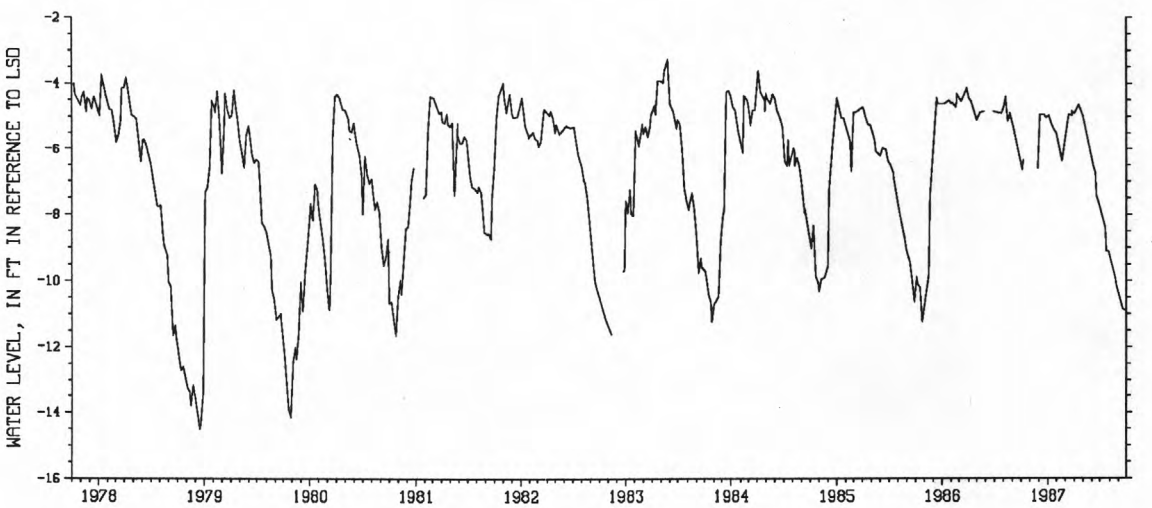


CORTLAND COUNTY

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.—Water-table aquifer in gravel of Pleistocene age.
WELL CHARACTERISTICS.—Driven unused well, diameter 1.25 in, depth 45 ft, 1.25 in well point.
INSTRUMENTATION.—Weekly measurement with chalked tape by USGS and County Health Dept. personnel.
DATUM.—Elevation of land-surface datum is 1136.59 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of coupling, 2.0 ft above land-surface datum.
REMARKS.—Water level is affected by pumping from adjacent 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. Unpublished record for October 1975 to September 1977 is available in files of the Geological Survey.
EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 3.07 ft below land-surface datum, September 25, 1977; lowest measured, 14.50 ft below land-surface datum, Dec. 14, 1978.
EXTREMES FOR CURRENT YEAR.—Highest water level measured, 4.65 ft below land-surface datum, Apr. 17; lowest measured, 10.90 ft below land-surface datum, Sept. 28.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

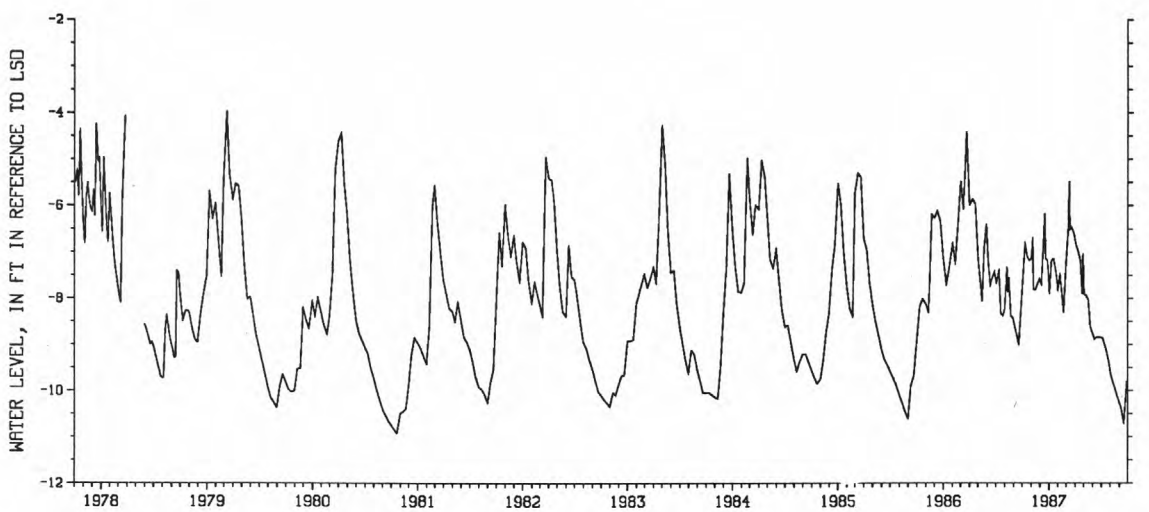
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03	6.62	JAN 19	5.33	MAY 01	5.00	JUL 24	9.11
08	6.32	30	5.52	27	6.00	28	9.10
NOV 25	6.58	FEB 20	6.36	JUN 05	6.48	29	9.14
DEC 05	4.96	MAR 13	4.93	12	6.71	AUG 22	9.90
18	4.94	24	4.97	19	7.42	26	10.13
22	5.06	25	4.85	25	7.64	SEP 18	10.88
JAN 02	4.98	APR 03	4.90	JUL 17	8.41	28	10.90
12	5.17	17	4.65				



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.—Water-table aquifer in gravel of Pleistocene age.
WELL CHARACTERISTICS.—Drilled observation well, diameter 6 in, depth 15.3 ft, cased to 16 ft, open end.
INSTRUMENTATION.—Float tape read weekly by observer.
DATUM.—Elevation of land-surface datum is 573.76 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of flange, 3.06 ft above land-surface datum.
REMARKS.—Well drilled April 1974 as a replacement for 430056075354101 (local number M 177), located 10 ft west, which has a period of record from October 1965 to September 1973 (unpublished).
PERIOD OF RECORD.—April 1975 to current year. Unpublished record for April 1975 to September 1976 is available in files of the Geological Survey.
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, 5.47 ft below land-surface datum, Mar. 11; lowest, 10.70 ft below land-surface datum, Sept. 16.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 10	6.81	JAN 09	7.18	APR 11	6.97	JUL 05	8.86
17	7.10	16	7.14	18	7.18	12	9.00
24	7.18	24	7.42	25	7.90	18	9.15
31	7.15	27	7.57	28	7.03	25	9.35
NOV 05	6.69	31	7.82	MAY 02	7.91	AUG 02	9.65
07	7.80	FEB 07	7.47	09	7.94	08	9.80
14	7.82	20	8.31	16	8.04	16	9.95
21	7.70	28	7.21	23	8.61	23	10.10
28	7.57	MAR 07	6.58	JUN 04	8.83	30	10.25
DEC 05	7.70	11	5.47	06	8.89	SEP 06	10.37
17	6.17	14	6.51	13	8.85	16	10.70
19	7.14	21	6.47	20	8.83	19	10.47
26	7.18	28	6.62	27	8.85	26	9.80
JAN 02	7.90	APR 04	6.85				



NIAGARA COUNTY

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 water-table aquifer in Lockport Dolomite of Middle Silurian age.

WELL CHARACTERISTICS.—Drilled observation well, diameter 8 in to 6 in, depth 36 ft, cased 8 in 0 ft to 17 ft, open hole 6 in 17 ft to 36 ft.

INSTRUMENTATION.—Measurement made with chalked tape by observer and USGS personnel.

DATUM.—Elevation of land-surface datum is 595.61 ft National Geodetic Vertical Datum of 1929. Measuring point: top of 2 in opening in 6 in plug of 8 in extended casing, 3.60 ft above land-surface datum.

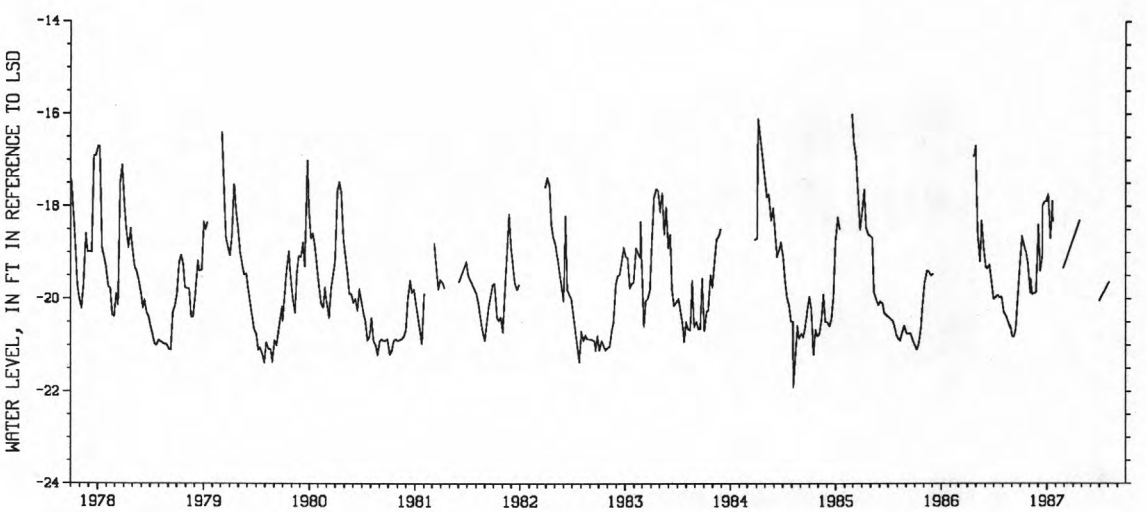
PERIOD OF RECORD.—October 1958 to current year. Unpublished record for October 1958 to September 1976 is available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 16.00 ft below land-surface datum, Feb. 25, 1985; lowest measured, 38.90 ft below land-surface datum, May 31, 1960.

EXTREMES FOR CURRENT YEAR.—Highest water level measured, 17.75 ft below land-surface datum, Jan. 5; lowest measured, 20.04 ft below land-surface datum, June 30.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

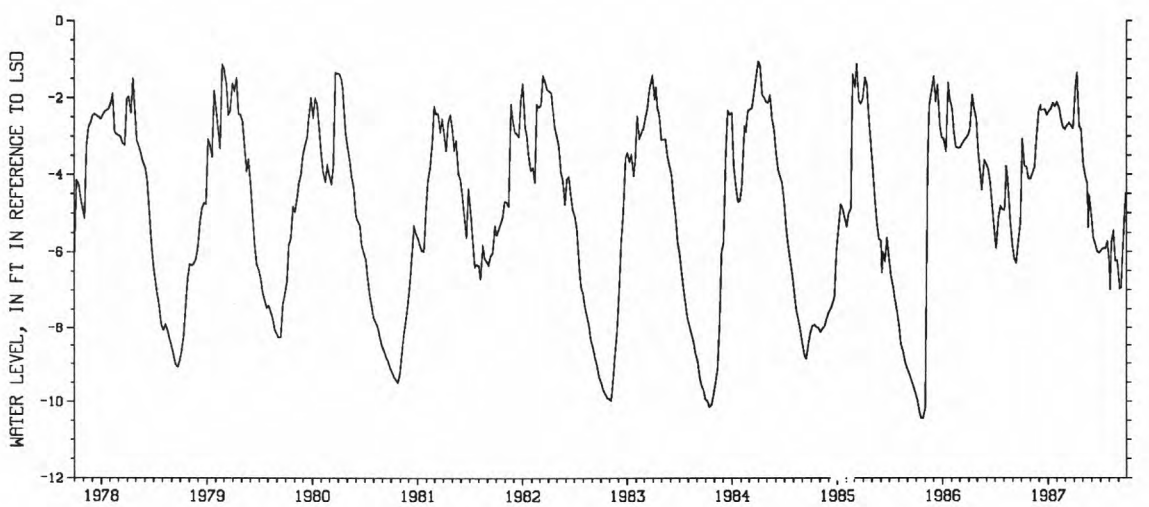
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06	18.64	NOV 10	19.90	DEC 22	17.90	JAN 21	18.32
14	18.88	24	19.86	29	17.88	FEB 26	19.33
20	19.00	DEC 01	18.40	JAN 05	17.75	APR 23	18.30
27	19.26	08	19.40	12	18.70	JUN 30	20.04
NOV 03	19.88	15	19.09	19	17.88	AUG 04	19.64
05	19.56	16	17.98				



431308078544501. Local number, Ni 70.
LOCATION.—Lat 43°13'08", long 78°54'45", Hydrologic Unit 04130001, near Ransomville. Owner: Calvin C. Schultz.
AQUIFER.—Water-table 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 made with chalked tape by observer.
DATUM.—Elevation of land-surface datum is 336.66 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 1 in hole in steel cover, at land-surface datum.
PERIOD OF RECORD.—August 1972 to current year. Unpublished record for August 1972 to September 1976 is available in files of the Geological Survey.
EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 1.05 ft below land-surface datum, Mar. 31, 1984; lowest measured, 10.45 ft below land-surface datum, Oct. 19, 26, 1985.
EXTREMES FOR CURRENT YEAR.—Highest water level measured, 1.35 ft below land-surface datum, Apr. 11; lowest measured, 7.00 ft below land-surface datum, Aug. 4.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04	3.05	JAN 10	2.27	APR 18	2.74	JUL 11	5.90
11	3.79	17	2.13	25	2.82	18	5.92
18	3.79	24	2.22	MAY 03	3.75	25	5.73
25	4.12	31	2.11	09	4.03	AUG 01	6.28
NOV 01	4.11	FEB 07	2.24	16	4.24	04	7.00
08	3.95	14	2.53	20	5.38	08	5.73
15	3.80	21	2.76	23	4.53	15	5.47
22	3.05	28	2.82	30	4.94	22	6.25
29	2.32	MAR 07	2.71	JUN 06	5.64	29	6.22
DEC 06	2.20	14	2.65	13	5.80	SEP 06	6.97
13	2.31	21	2.71	20	6.00	11	6.94
20	2.30	28	2.80	27	6.03	19	5.60
27	2.44	APR 05	1.73	JUL 04	5.96	26	4.50
JAN 03	2.35	11	1.35				



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 aquifer 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.

DATUM.—Elevation of land-surface datum is 556.70 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of instrument shelf, 11.63 ft above land-surface datum.

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 measured 4.59 ft above land-surface datum, Nov. 11, 1957.

EXTREMES FOR CURRENT YEAR.—Highest water level measured, 8.59 ft above land-surface datum, Apr. 20; lowest measured, 5.43 ft above land-surface datum, Sept. 28.

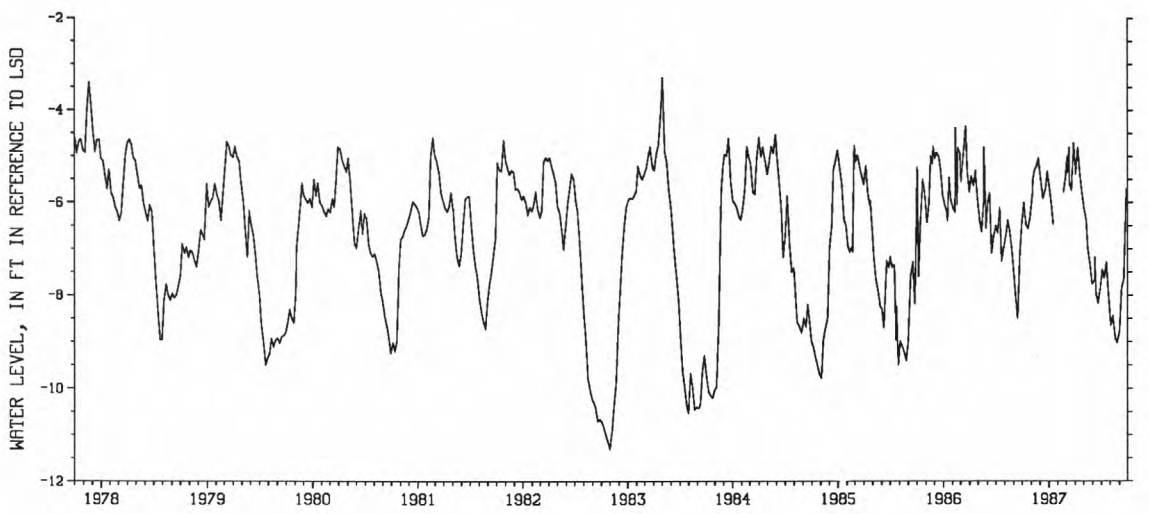
WATER LEVEL, IN FEET ABOVE LAND-SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06	6.67	JAN 12	7.99	APR 13	8.56	JUL 06	6.84
13	7.19	16	7.73	20	8.59	13	6.84
20	7.16	19	7.89	27	8.48	20	6.61
27	7.37	26	7.87	MAY 04	8.20	27	6.53
NOV 03	7.26	FEB 02	7.87	11	7.89	AUG 03	6.32
10	7.12	09	7.74	18	7.76	10	6.28
17	7.23	16	7.54	25	7.49	17	5.94
24	7.19	23	7.59	JUN 01	7.42	24	5.75
DEC 01	7.22	MAR 02	6.89	08	7.29	31	5.66
08	7.63	09	7.49	10	7.05	SEP 07	5.67
15	7.82	16	7.75	15	7.26	14	5.49
22	7.78	23	7.84	22	7.24	21	5.65
29	7.92	30	8.18	29	7.23	28	5.43
JAN 05	7.72	APR 06	8.31				

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.—Water-table aquifer in 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.
DATUM.—Elevation of land-surface datum is 1,432.44 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top edge of hole drilled through concrete well cover, at land-surface datum.
PERIOD OF RECORD.—May 1953 to current year. Unpublished record for May 1953 to September 1976 is 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, 4.70 ft below land-surface datum, Mar. 27; lowest measured, 9.02 ft below land-surface datum, Aug. 25.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

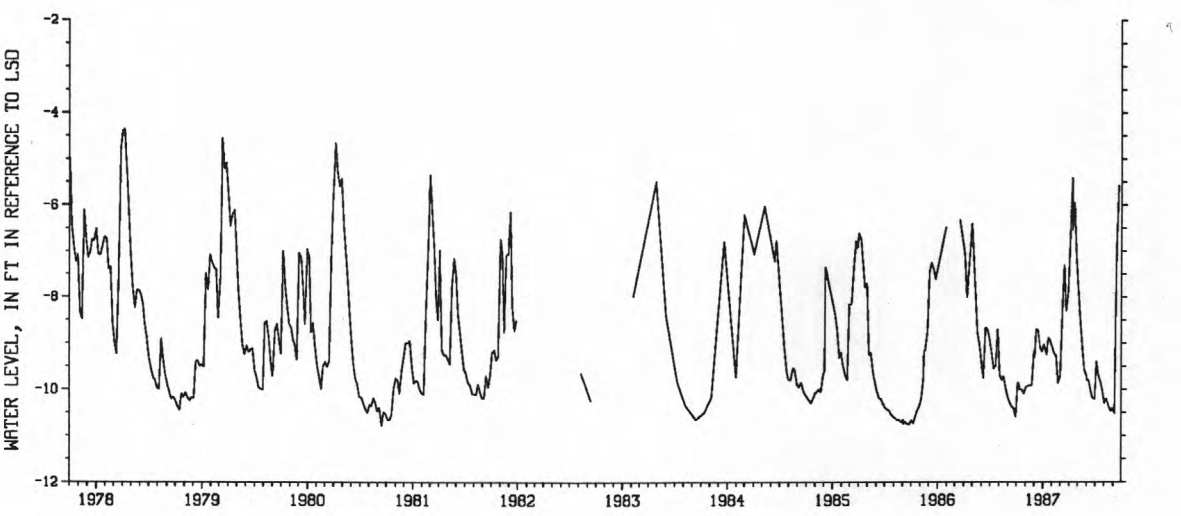
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06	6.02	JAN 02	5.66	APR 18	5.42	JUL 04	7.45
13	6.49	09	6.02	25	5.80	11	7.63
20	6.56	15	6.47	MAY 02	6.12	18	7.30
27	6.33	FEB 20	5.78	09	6.38	25	7.93
NOV 04	5.82	27	5.42	15	7.00	AUG 03	8.63
06	5.50	MAR 04	5.01	23	7.34	10	8.45
12	5.28	06	5.35	30	7.76	18	8.91
19	5.20	11	4.79	JUN 08	7.67	25	9.02
26	5.04	13	5.60	09	7.18	SEP 02	8.77
DEC 04	5.55	20	5.72	13	7.98	09	7.85
11	5.91	27	4.70	20	8.16	17	7.65
19	5.70	APR 03	5.38	27	7.85	25	5.70
26	5.34	11	4.79				



422445077203301. Local number, Sb 472.
LOCATION.—Lat 42°24'45", long 77°20'33", Hydrologic Unit 02050105, near Kanona. Owner: David Owens.
AQUIFER.—Water-table aquifer in gravel of Pleistocene age.
WELL CHARACTERISTICS.—Bored 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.
DATUM.—Elevation of land-surface datum is 1,209.78 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.00 ft above land-surface datum.
PERIOD OF RECORD.—November 1965 to current year. Unpublished record for November 1965 to September 1976 is available in files of the Geological Survey.
EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 3.64 ft below land-surface datum, June 25, 1972; lowest measured, 10.84 ft below land-surface datum, Sept. 22, 1966.
EXTREMES FOR CURRENT YEAR.—Highest water level measured, 5.41 ft below land-surface datum, Apr. 12; lowest measured, 10.51 ft below land-surface datum, Sept. 6.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

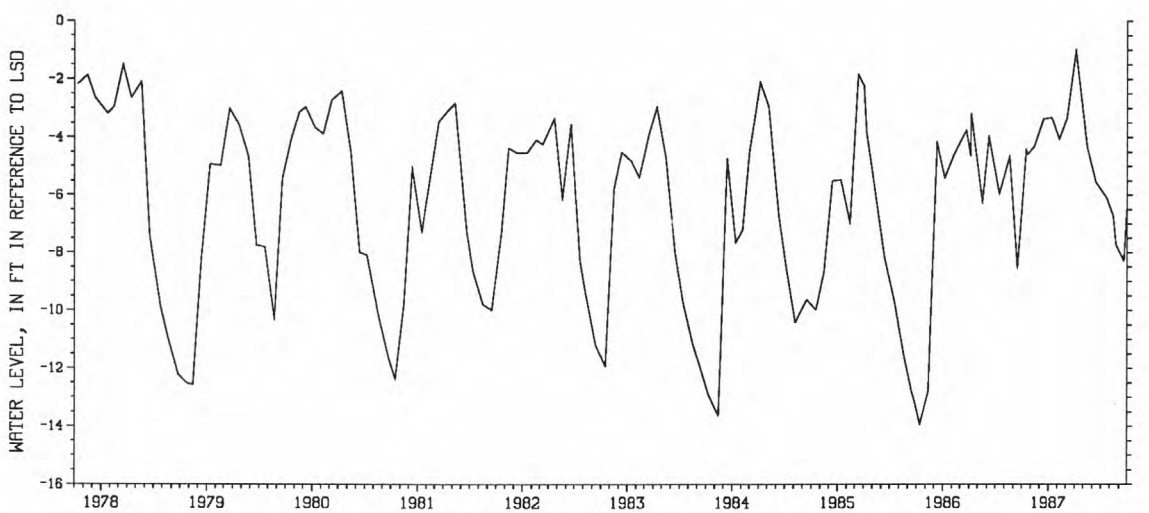
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05	9.85	JAN 04	9.02	APR 13	6.54	JUL 12	9.68
09	9.89	11	9.19	19	5.94	19	9.84
12	9.99	13	9.24	26	7.09	26	10.03
19	10.00	18	8.89	MAY 03	7.79	AUG 02	10.29
26	10.09	25	8.94	10	8.54	09	10.20
NOV 02	9.94	FEB 01	9.06	17	9.09	14	10.30
09	9.93	07	9.21	24	9.57	16	10.35
16	9.91	15	9.28	31	9.70	24	10.47
23	9.89	22	9.85	JUN 02	9.80	29	10.41
29	9.19	MAR 01	9.70	07	9.79	SEP 06	10.51
DEC 02	9.28	09	8.14	14	9.99	13	6.90
07	8.70	15	7.30	21	10.17	20	5.58
14	8.72	22	8.31	29	10.20	27	6.03
21	9.10	29	7.87	JUL 05	9.39	30	6.39
28	9.18	APR 12	5.41				



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.—Water-table aquifer in till of Pleistocene age.
WELL CHARACTERISTICS.—Driven unused well, diameter 2 in, depth 14 ft, well point (60-gauze screen 12 ft to 14 ft).
INSTRUMENTATION.—Monthly measurement with chalked tape by observer.
DATUM.—Elevation of land-surface datum is 1,045.44 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 2 in by 1 in reducing coupling, 3.33 ft above land-surface datum.
PERIOD OF RECORD.—November 1942 to current year.
EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 0.5 ft below land-surface datum, Apr. 5, 1947; lowest measured, dry, Dec. 6-27, 1964, Jan. 2, 1965.
EXTREMES FOR CURRENT YEAR.—Highest water level measured, 1.01 ft below land-surface datum, Apr. 5; lowest measured, 8.30 ft below land-surface datum, Sept. 19.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15	4.41	JAN 11	3.30	MAY 14	4.33	AUG 22	7.72
19	4.58	FEB 06	4.06	JUN 13	5.54	SEP 19	8.30
NOV 12	4.31	MAR 05	3.31	JUL 20	6.09	28	6.52
DEC 14	3.35	APR 05	1.01	AUG 12	6.72		

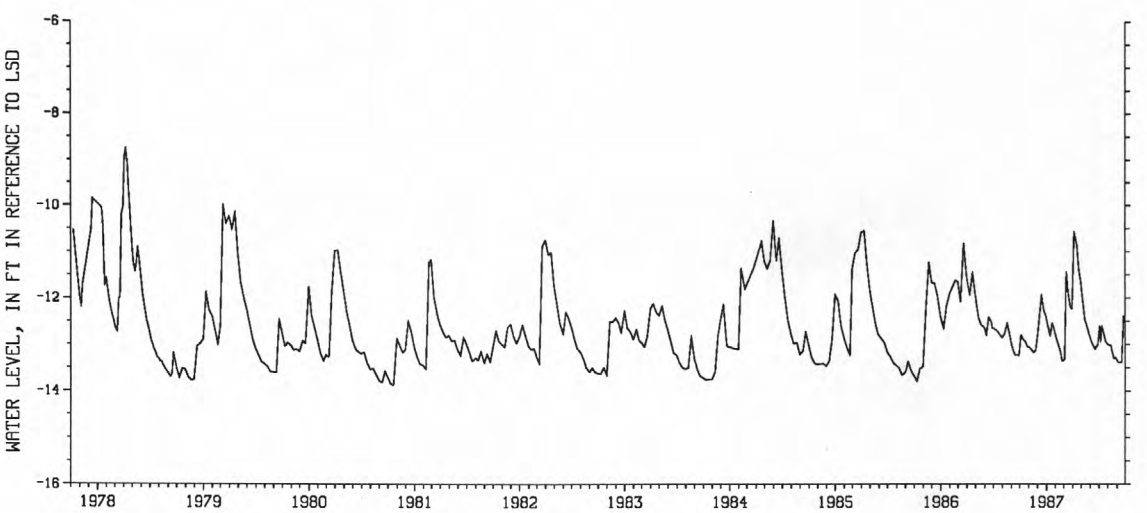


WYOMING COUNTY

423743078070802. Local number, Wo 4.
LOCATION.—Lat 42°37'43", long 78°07'08", Hydrologic Unit 04130002, near Gainesville. Owner: Letchworth Central School.
AQUIFER.—Water-table aquifer in sand of Pleistocene age.
WELL CHARACTERISTICS.—Drilled observation well, diameter 6 in, depth 20 ft, cased to 20 ft, open end.
INSTRUMENTATION.—Digital recorder--60-minute punch. Recorder removed May 27, weekly readings obtained by paid observer.
DATUM.—Elevation of land-surface datum is 1,606.76 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing 2.60 ft above land-surface datum.
REMARKS.—Well drilled May 1974 as a replacement for 423743078070801 (local number Wo 2), located 25 ft southeast, which has a period of record from November 1965 to May 1974 (unpublished).
PERIOD OF RECORD.—May 1974 to current year. Unpublished record for May 1974 to September 1976 is available in files of the Geological Survey.
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 observed water level, 10.58 ft below land-surface datum, Apr. 6; lowest, 13.39 ft below land-surface datum, Sept. 6.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05	12.80	JAN 13	12.82	APR 15	10.83	JUL 07	12.96
13	12.91	20	12.54	22	11.37	11	12.62
19	12.93	26	12.65	29	11.65	16	12.72
27	13.04	FEB 03	12.85	MAY 05	11.98	24	12.94
NOV 04	13.07	10	13.00	13	12.47	31	13.00
12	13.13	17	13.13	20	12.60	AUG 12	13.03
18	13.18	24	13.36	27	12.76	14	13.11
25	13.13	MAR 04	13.32	JUN 04	12.93	22	13.30
DEC 01	12.79	10	11.43	11	13.03	28	13.28
15	11.94	17	11.90	18	13.10	SEP 06	13.39
22	12.28	24	12.20	27	13.00	18	13.38
29	12.38	30	12.23	JUL 01	12.75	24	12.40
JAN 06	12.62	APR 06	10.58	03	12.61		



October 1, 1978

FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI).

Multiply inch-pound units	By	To obtain SI units
	Length	
inches (in)	2.54×10^{1}	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^{0}	kilometers (km)
	Area	
acres	4.047×10^{3}	square meters (m^2)
	4.047×10^{-1}	square hectometers (hm^2)
	4.047×10^{-3}	square kilometers (km^2)
square miles (mi^2)	2.590×10^{0}	square kilometers (km^2)
	Volume	
gallons (gal)	3.785×10^{0}	liters (L)
	3.785×10^{0}	cubic decimeters (dm^3)
	3.785×10^{-3}	cubic meters (m^3)
million gallons	3.785×10^{3}	cubic meters (m^3)
	3.785×10^{-3}	cubic hectometers (hm^3)
cubic feet (ft^3)	2.832×10^{1}	cubic decimeters (dm^3)
	2.832×10^{-2}	cubic meters (m^3)
cfs-days	2.447×10^{3}	cubic meters (m^3)
	2.447×10^{-3}	cubic hectometers (hm^3)
acre-feet (acre-ft)	1.233×10^{3}	cubic meters (m^3)
	1.233×10^{-3}	cubic hectometers (hm^3)
	1.233×10^{-6}	cubic kilometers (km^3)
	Flow	
cubic feet per second (ft^3/s)	2.832×10^{1}	liters per second (L/s)
	2.832×10^{1}	cubic decimeters per second (dm^3/s)
	2.832×10^{-2}	cubic meters per second (m^3/s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm^3/s)
	6.309×10^{-5}	cubic meters per second (m^3/s)
million gallons per day	4.381×10^{1}	cubic decimeters per second (dm^3/s)
	4.381×10^{-2}	cubic meters per second (m^3/s)
	Mass	
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons

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