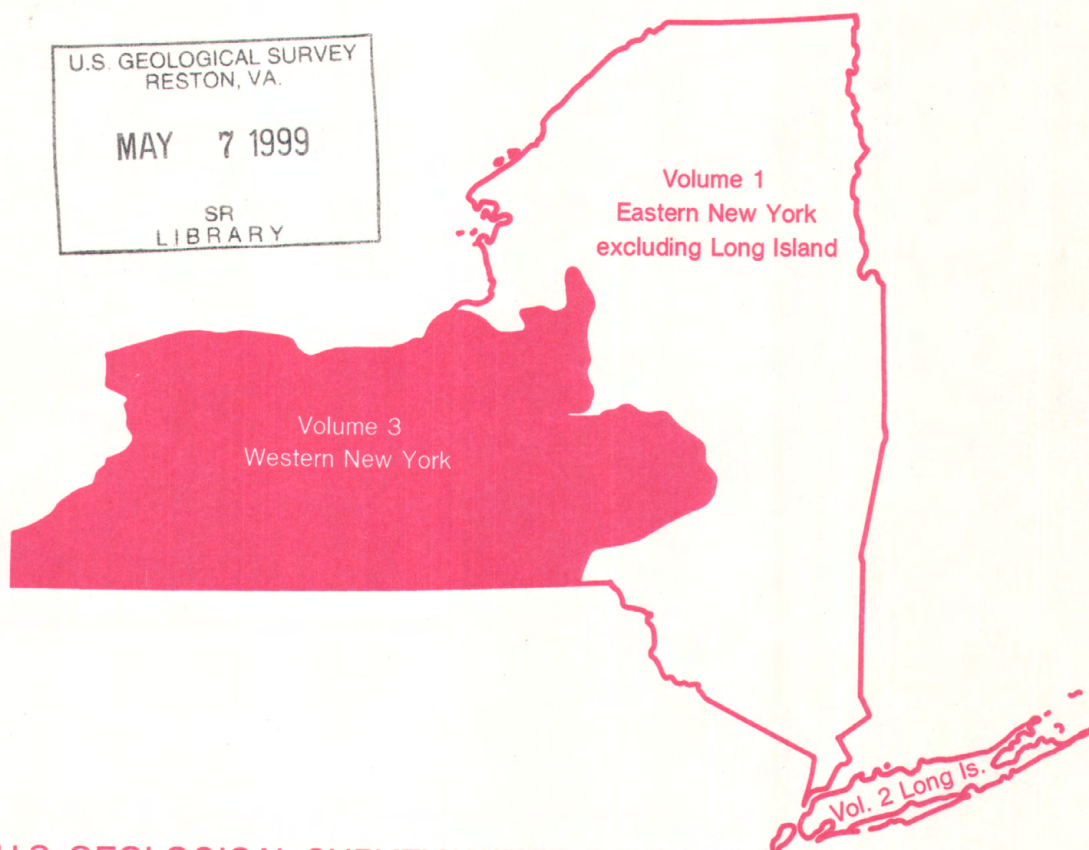
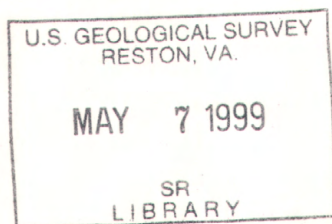


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Water Resources Data New York Water Year 1997

Volume 3. Western New York



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NY-97-3
Prepared in cooperation with the State of New York
and with other agencies



CALENDAR FOR WATER YEAR 1997

1996

OCTOBER

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Water Resources Data New York Water Year 1997

Volume 3. Western New York

by J.F. Hornlein, C.O. Szabo, H.J. Zajd, Jr., and R. L. Mulks



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NY-97-3
Prepared in cooperation with the State of New York
and with other agencies

U.S. DEPARTMENT OF THE INTERIOR

BRUCE BABBITT, Secretary

U.S. GEOLOGICAL SURVEY

Mark Schaefer, Acting Director

**For information on the water program in New York write to
District Chief, Water Resources Division
U.S. Geological Survey
425 Jordan Road
Troy, New York 12180
1997**

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, Ward O. Freeman, Associate District Chief
- Volume 2. Syosset, Bronius Nemickas, Subdistrict Chief
- Volume 3. Ithaca, Edward F. Bugliosi, Subdistrict Chief

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

C. A. Curran	W. F. Coon	D. A. Eckhardt	W. M. Kappel
J. E. Manzer	S. K. McInnes	D. A. Sherwood	M. J. Welsh

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

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13. ABSTRACT (Maximum 200 words) Water resources data for the 1997 water year for New York consist of records of stage, discharge, and water quality of streams; stage and contents of lakes and reservoirs; water levels and water quality of ground-water wells; and quantity and chemical quality of precipitation. This volume contains records for water discharge at 69 gaging stations; stage only at 16 gaging stations; stage and contents at 6 gaging stations; water quality at 24 gaging stations, 23 wells, and 26 partial record stations; water levels at 20 observation wells; daily precipitation totals at 3 sites, and chemical quality of precipitation at 3 sites. Also included are data for 43 crest-stage partial record stations. Locations of these sites are shown on figure 1. Additional water data were collected at various sites not involved in the systematic data collection program and are published as 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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SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE
PUBLISHED IN THIS VOLUME

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

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

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NORTH ATLANTIC SLOPE BASINS		
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Susquehanna River:		
Ouleout Creek at East Sidney (d)	01500000	36
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Cohocton River at Avoca (d)	01527500	54
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Chautauqua Lake (head of Chadakoin River) at Bemus Point (e)	03013946	70
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Buffalo Creek (head of Buffalo River) at Gardenville (d)	04214500	83
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SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE
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(Continued)

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ST. LAWRENCE RIVER MAIN STEM--Continued		
Lake Ontario--Continued		
STREAMS TRIBUTARY TO LAKE ONTARIO--Continued		
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East Branch Allen Creek at Pittsford (dct)	0423204920	152
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Tributary #6 below main mudboil depression area (dcs)	04237946	218
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SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE
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GROUND-WATER LEVELS

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Cattaraugus County		
Local well number Ct 121	420530078445201	284
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Local well number Cu 10	420815079121401	286
Chemung County		
Local well number Cm 46	420829076484801	287
Chenango County		
Local well number Cn 12	421556075281602	289
Cortland County		
Local well number C 102	423541076114701	291
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Local well number Mo 2	430855077304202	294
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Local well number Mo 659	430932077311501	296
Local well number Mo 663	430912077313301	297
Local well number Mo 664	430912077313302	298
Local well number Mo 665	430928077313802	299
Local well number Mo 666	430928077313803	300
Local well number Mo 667	430928077314001	301
Local well number Mo 668	430928077314002	302
Niagara County		
Local well number Ni 70	431308078544501	303
Otsego County		
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Steuben County		
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DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS

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

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

Discontinued surface-water discharge or stage-only stations

Station name	Station number	Drainage area (mi ²)	Period of record (water years)
SUSQUEHANNA RIVER BASIN			
Canadarago Lake at Schuyler Lake, NY (e)	01496450	65.0	1969-79
Oaks Creek at Index, NY (d)	01496500	102.0	1930-32, 1937-95
Cherry Valley Creek at Westville, NY (d)	01497000	81.4	1930-31, 1938-41
Susquehanna River at Colliersville, NY (d)	01497500	349.0	1907-09, 1924-68
Charlotte Creek at Davenport Center, NY (d)	01498000	164.0	1938-56
Charlotte Creek at West Davenport, NY (d)	01498500	167.0	1938-76
Otego Creek near Oneonta, NY (d)	01499000	108.0	1940-68
Flax Island Creek near Otego, NY (d)	01499050	4.22	1966-68
East Branch Handsome Brook at Franklin, NY (d)	01499470	9.12	1966-68
Susquehanna River at Unadilla, NY (d)	01500500 *	982.0	1938-95
Unadilla River near New Berlin, NY (d)	01501000	199.0	1924-68
Mill Brook at New Berlin, NY (d)	01501015	4.64	1974-81‡
Sage Brook near South New Berlin, NY (d)	01501500	0.70	1932-68
Butternut Creek at Morris, NY (d)	01502000	59.7	1938-95
Unadilla River at Rockdale, NY (d)	01502500 *	520.0	1930-33, 1937-95
Chenango River at Sherburne, NY (d)	01505000 *	263.0	1938-95
Canasawacta Creek near South Plymouth, NY (d)	01505500	57.9	1945-75
Chenango River at Greene, NY (d)	01507000 *	593.0	1937-70
Red Brook at Smithville Flats, NY (d)	01507470	7.06	1966-68
Genegantslet Creek at Smithville Flats, NY (d)	01507500	82.3	1938-70
Muller Gulf Creek near Cuyler, NY (d)	01507975	2.67	1966-68
Shackham Brook near Truxton, NY (d)	01508000	2.95	1932-68
Albright Creek at East Homer, NY (d)	01508500	6.81	1938-68
West Branch Tioughnioga River at Homer, NY (d)	01508803	71.5	1967-68, 1973-86
Otter Creek at mouth at Cortland, NY (d)	01508962	14.3	1976-77
Gridley Creek above East Virgil, NY (d)	01509150	10.4	1974-81
Dudley Creek at Lisle, NY (d)	01509500	30.0	1938-40
Otselic River near Upper Lisle, NY (d)	01510500	217.0	1937-69
Tioughnioga River at Itaska, NY (d)	01511500 *	730.0	1930-67
Susquehanna River at Vestal, NY (d)	01513500 *	3,941.0	1937-67
East Branch Nanticoke Creek above Glen Aubrey, NY (d)	01513719	12.8	1976-78
East Branch Nanticoke Creek at Glen Aubrey, NY (d)	01513720	15.4	1976
Nanticoke Creek at Union Center, NY (d)	01513790	90.7	1975-78
Pumpelly Creek at Owego, NY (d)	01513840	8.59	1966-68
Owego Creek near Owego, NY (d)	01514000 *	185.0	1930-79
Dean Creek at Spencer, NY (d)	01514500	8.03	1954-60
Susquehanna River near Waverly, NY (d)	01515000 *	4,773.0	1937-95
Cayuta Creek near Alpine, NY (d)	01515500	17.6	1930-31

‡ No winter record.

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

Station name	Station number	Drainage area (mi ²)	Period of record (water years)
SUSQUEHANNA RIVER BASIN--continued			
Tioga River at Lindley, NY (d)	01520500 *	771	1930-95
Canisteo River at Hornell, NY (d)	01522000	93.7	1938-43
Karr Valley Creek at Almond, NY (d)	01522500	27.4	1937-68
			1973-86
Canacadea Creek at Hornell, NY (d)	01524000	58.5	1925-29
Bennett Creek at Canisteo, NY (d)	01525000	95.3	1938-47
Canisteo River at West Cameron, NY (d)	01525500 *	340.0	1930-31,
			1937-70
Tuscarora Creek Tributary near Woodhull, NY (d)	01525750	9.43	1966-68
Tuscarora Creek near South Addison, NY (d)	01526000	114.0	1937-70
Mulholland Creek near Erwins, NY (d)	01526495	5.06	1966-68
Kirkwood Creek near Atlanta, NY (d)	01526980	4.65	1966-68
Cohocton River at Cohocton, NY (d)	01527000 *	52.2	1951-82
Switzer Creek near Cohocton, NY (d)	01527050	3.45	1979-81
Cohocton River at Avoca, NY (d)	01527500	157.0	1938-45
Fivemile Creek near Kanona, NY (d)	01528000	66.8	1937-95
Mud Creek near Savona, NY (d)	01529000	76.6	1918-20,
			1937-82
Newtown Creek at Breesport, NY (d)	01530380	20.6	1975-79‡
ALLEGHENY RIVER BASIN			
Olean Creek near Olean, NY (d)	03010800	198.0	1958-68‡,
			1976-81
Great Valley Creek near Salamanca, NY (d)	03011000	137.0	1951-68
Quaker Run near Quaker Bridge, NY (d)	03011550	28.5	1963-64‡
Conewango Creek below South Dayton, NY (d)	03012834	63.3	1975-78‡
Conewango Creek at Waterboro, NY (d)	03013000	290	1938-93
Ball Creek at Stow, NY (d)	03013800 *	9.06	1974
Chautauqua Lake at Celeron, NY (e)	03013980	189.0	1973
Chautauqua Lake near Mayville, NY (e)	03013990	189.0	1950-77
STREAMS TRIBUTARY TO LAKE ERIE			
Cattaraugus Creek near Arcade, NY (d)	04213410	79.0	1963-68
Franks Creek near West Valley, NY (d)	04213440	.28	1976-80
Franks Creek Tributary No. 4 near West Valley, NY (d)	04213441	.12	1976
Franks Creek Tributary No. 2 to Tributary No. 4 near West Valley, NY (d)	04213442	.002	1976-77
Franks Creek Tributary No. 3 to Tributary No. 4 near West Valley, NY (d)	04213443	.004	1976-77
Buttermilk Creek near Springville, NY (d)	04213450	30.0	1962-68
South Branch Cattaraugus Creek near Cattaraugus, NY (d)	04213492	70.4	1969,
			1980-82
Cattaraugus Creek at Versailles, NY (d)	04214000	466.0	1915-23
Cattaraugus Creek below Irving, NY (e)	0421402001	554	1985-93
Eighteenmile Creek at North Boston, NY (d)	04214200	37.2	1963-68
Buffalo Creek near Wales Hollow, NY (d)	04214400	76.9	1963-68
ST. LAWRENCE MAINSTEM			
Black Rock Canal at Porter Avenue, Buffalo, NY (e)	04216052	263,700	1984-94

‡ No winter record.

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

Station name	Station number	Drainage area (mi ²)	Period of record (water years)
STREAMS TRIBUTARY TO NIAGARA RIVER			
Scajaquada Creek at Buffalo, NY (d)	04216200	15.4	1957-94
Little Tonawanda Creek at Linden, NY (d)	04216500 *	22.1.0	1912-19 1920-68, 1977-92
Tonawanda Creek near Alabama, NY (d)	04217500	231.0	1956-89
Black Creek near Swormville, NY (d)	04218190	12.9	1978-80
Ellicott Creek at Milgrove, NY (d)	04218450	40.8	1963-68
Ellicott Creek at Williamsville, NY (d)	04218500	76.2	1956-73
Donner Brook near Lockport, NY (d)	04218592	3.84	1978-79‡
STREAMS TRIBUTARY TO LAKE ONTARIO			
Oak Orchard Creek near Elba, NY (d)	04219930	21.9	1974-79‡
Manning Muckland Creek near Barre Center, NY (d)	04219940	5.80	1974-79‡
West Creek near Hilton, NY (d)	04220250 *	31.0	1957-64
Dyke Creek near Andover, NY (d)	04220470	38.0	1964-68
Dyke Creek at Wellsville, NY (d)	04220500	72.1	1955-60
Genesee River at Scio, NY (d)	04221500	308.0	1916-72
Van Campen Creek at Friendship, NY (d)	04221600	45.9	1964-68
Angelica Creek at Transit Bridge, NY (d)	04221720	86.7	1964-68
Genesee River at Belfast, NY (d)	04221820	644.0	1964-67
Caneadea Creek at Caneadea, NY (d)	04222000	62.0	1949-68
Lost Nation Brook near Centerville, NY (d)	04222500	1.21	1934-35
East Koy Creek at East Koy, NY (d)	04222900	46.5	1964-68
Genesee River at St. Helena, NY (d)	04223500	1,019.0	1947-50
Canaseraga Creek near Canaseraga, NY (d)	04224650	58.4	1964-68
Canaseraga Creek near Dansville, NY (d)	04225000	152.0	1919-68 , 1970-77
Canaseraga Creek at Cumminsville, NY (d)	04225005	155.0	1910-13, 1915-17, 1918-19
Canaseraga Creek at Groveland, NY (d)	04225500	180.0	1915-20 , 1956-64
Keshequa Creek at Craig Colony, Sonyea, NY (d)	04226000	68.3	1917-32, 1975-78
Keshequa Creek near Sonyea, NY (d)	04226500	68.4	1915-17
Keshequa Creek at mouth at Sonyea, NY (d)	0422660005	69.0	1911-14
Conesus Creek near Lakeville, NY (d)	04228000	72.0	1920-34
Honeoye Lake near Honeoye, NY (e)	04228845	41.0	1962-63, 1965-95
Springwater Creek at Springwater, NY (d)	04228900	10.1	1964-68
Genesee River below Erie Canal at Rochester, NY (d)	04231500	2,457.0	1904-05, 1905-18
Irondequoit Creek near Pittsford, NY (d)	04232040	44.4	1980-91
Thomas Creek at Fairport, NY (d)	04232046	28.5	1980-90
Irondequoit Creek at Linden Avenue, East Rochester, NY (d)	04232047	101.0	1973-89
Irondequoit Creek at Wetland Narrows at Rochester, NY (d)	0423205023	144.0	1981-84
Sterling Creek at Sterling, NY (d)	04232100	44.4	1957-95
Catharine Creek at Montour Falls, NY (d)	04232200 *	41.1	1975-78‡
Kendig Creek near MacDougall, NY (d)	04232630 *	13.8	1965-68

‡ No winter record.

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

Station name	Station number	Drainage area (mi ²)	Period of record (water years)
STREAMS TRIBUTARY TO LAKE ONTARIO--continued			
Dryden Lake Inlet near Harford, NY (d)	04233678	2.73	1973-75
Virgil Creek at Freeville, NY (d)	04233700	40.3	1973-76
Salmon Creek at Ludlowville, NY (d)	04234018	81.7	1965-68
Canoga Creek at Canoga, NY (d)	04234055	3.20	1965-68
Mud Creek at East Victor, NY (d)	04234200 *	64.2	1958-68
Red Creek near Walworth, NY (d)	04234270	23.8	1965-69
Flint Creek at Potter, NY (d)	04235150	31.0	1964-68 , 1971-79
Flint Creek at Phelps, NY (d)	04235250	102.0	1960-95
Clyde River at Lock 26 Clyde, NY (d)	04235271	845.0	1935-67
Black Brook at Tyre, NY (d)	04235276	19.0	1985-95
Owasco Inlet at Moravia, NY (d)	04235300	106.0	1960-68
Skaneateles Lake at Skaneateles, NY (e)	04236000	72.7	1968-95
Skaneateles Creek at Willow Glen, NY (d)	04236500	75.8	1895-1908
Onondaga Creek Trib. #6 above main mudboil depression area (d)	04237944	0.32	1991-94
Onondaga Creek at Syracuse, NY (d)	04239500	95.0	1940-49
Onondaga Creek at Temple Street Syracuse, NY (d)	04240000	104.0	1949-51
Spafford Creek at Bromley Road near Spafford, NY (d)	04240145	3.14	1982-84
Spafford Creek at Sawmill Road near Spafford, NY (d)	04240150	8.06	1982-83, 1986
Rice Brook at Rice Grove, NY (d)	0424015305	2.64	1982-83
Willow Brook at Lader Point, NY (d)	0424016205	3.73	1982-83
Amber Brook at Amber, NY (d)	0424016825	3.75	1982-83
Van Benthuyzen Brook near Amber, NY (d)	0424016975	5.84	1982-83
West Branch Fish Creek at Blossvale, NY (d)	04241200	204.0	1966-68
East Branch Fish Creek at Fish Creek near Constableville, NY (d)	04241500	74.3	1924-32
East Branch Fish Creek at Taberg, NY (d)	04242500	188.0	1923-95
Chittenango Creek near Chittenango, NY (d)	04244000	66.3	1950-68
Limestone Creek at Fayetteville, NY (d)	04245000	85.5	1940-86
Butternut Creek below Dewitt, NY (d)	04245250	58.6	1964-66
Scriba Creek near Constantia, NY (d)	04245840 *	38.4	1966-68
Lake Ontario at Oswego, NY (e)	04249010	295,800.0	1860-95

DISCONTINUED SURFACE-WATER-QUALITY STATIONS

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

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

Discontinued continuous-record surface-water-quality stations

Station name	Station number	Drainage area (mi ²)	Type of record	Period of record (water years)
SUSQUEHANNA RIVER BASIN				
Unadilla River at Rockdale, NY	01502500	520.0	Temp.	1957
Susquehanna River at Conklin, NY	01503000	2,232.0	Temp.	1955
Chenango River at Greene, NY	01507000	593.0	Temp.	1957
Tioughnioga River at Cortland, NY	01509000	292.0	Temp. S.C.	1956-92
Susquehanna River at Johnson City, NY	01513110	3,891.0	Temp.	1956-92
Susquehanna River at Vestal, NY	01513500	3,941.0	Temp.	1961-62, 1966, 1968
Tioga River at Lindley, NY	01520500	771.0	Temp. Sed., S.C.	1975-81, 1975-77
Canisteo River at West Cameron, NY	01525500	340.0	Temp.	1957
Cohocton River at Cohocton, NY	01527000	52.2	Sed.	1980
Switzer Creek near Cohocton, NY	01527050	3.46	Sed.	1979-80
ALLEGHENY RIVER BASIN				
Allegheny River at Red House, NY	03011500	1,690.0	Temp.	1954-56
STREAMS TRIBUTARY TO LAKE ERIE				
Cattaraugus Creek at Gowanda, NY	04213500	436.0	Temp., S.C.	1978-81
Buffalo Creek at Gardenville, NY	04214500	142.0	Temp.	1962
STREAMS TRIBUTARY TO NIAGARA RIVER				
Tonawanda Creek at Batavia, NY	04217000	171.0	Temp., S.C.	1978-81
Erie (barge) Canal at Lock 35 at Lockport, NY	04218600	--	Temp.	1962
Erie (barge) Canal (west of Genesee River) at Rochester, NY	04218700	--	Temp.	1962
Niagara River at Niagara Falls, NY	04219350	--	Temp.	1959
Niagara River at Fort Niagara, NY	04219640	265,000.0	Temp., S.C.	1973-80
STREAMS TRIBUTARY TO LAKE ONTARIO				
Genesee River at Wellsville, NY	04221000	288.0	Sed.	1975-77
Genesee River at Scio, NY	04221500	308.0	Temp.	1955
Van Campen Creek at Friendship, NY	04221600	45.9	Temp.	1964-67
Genesee River at Portageville, NY	04223000	984.0	Sed.	1975-77
Canaseraga Creek at Canaseraga, NY	04224650	58.4	Temp.	1964-67
Canaseraga Creek at Groveland, NY	04225500	180.0	Temp.	1961
Canaseraga Creek at Shakers Crossing, NY	04227000	335.0	Sed.	1975-77
Genesee River at Mount Morris, NY	04227500	1,424.0	Temp., Sed.	1955-56, 1975-77
Genesee River at Avon, NY	04228500	1,673.0	Sed.	1975-77
Oatka Creek at Garbutt, NY	04230500	200.0	Temp., Sed.	1960-61, 1975-77
Black Creek at Churchville, NY	04231000	130.0	Temp.	1962
Genesee River at Rochester, NY	04232000	2,467.0	Temp., Sed.	1955-71, 1975-77
Cayuga Lake Trib. No. 6 at Interlaken, NY	04234035	--	Temp.	1965
Canoga Creek at Canoga, NY	04234055	3.20	Temp.	1965
Seneca River at Baldwinsville, NY	04237500	3,138.0	Temp.	1958-75
Spafford Creek at Bromley Road near Spafford, NY	04240145	3.14	Sed.	1981-83
Spafford Creek at Sawmill Road near Spafford, NY	04240150	8.06	Sed.	1981-83

DISCONTINUED SURFACE-WATER-QUALITY STATIONS--continued

Station name	Station number	Drainage area (mi ²)	Type of record	Period of record (water years)
STREAMS TRIBUTARY TO LAKE ONTARIO--continued				
Rice Brook at Rice Grove, NY	0424015305	2.44	Sed.	1981-83
Willow Brook at Lader Point, NY	0424016205	3.73	Sed.	1981-83
Amber Brook at Amber, NY	0424016825	3.69	Sed.	1981-83
Van Benthuyzen Brook near Amber, NY	0424016975	5.84	Sed.	1981-83
East Branch Fish Creek at Taberg, NY	04242500	188.0	Temp., S.C.	1966-67
Butternut Creek near Jamesville, NY	04245200	32.2	Temp., S.C.	1966-67
Chittenango Creek at Bridgeport, NY	04245500	--	Temp.	1967-69
Scriba Creek near Constantia, NY	04245840	38.4	Temp., S.C.	1966-67
Oneida River at Caughdenoy, NY	04246500	1,382.0	Temp.	1958
Oswego River at Lock 7, Oswego, NY	04249000	5,100.0	Temp., S.C.	1975-81

WATER RESOURCES DATA - NEW YORK, 1997

Volume 3.--Western New York

INTRODUCTION

Water resources data for the 1997 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 69 gaging stations; stage only at 16 gaging stations; stage and contents at 6 gaging stations; water quality at 24 gaging stations, 23 wells, and 26 partial-record stations; water levels at 20 observation wells; daily precipitation totals at 3 sites, and chemical quality of precipitation at 3 sites. Also included are data for 43 crest-stage partial-record stations. Locations of these sites are shown on figure 1. Additional water data were collected at various sites not involved in the systematic data-collection program and are published as measurements made at miscellaneous sites. These data together with the data in Volumes 1 and 2 represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State, local, and Federal agencies in New York.

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

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

Streamflow and water-quality data beginning with the 1971 water year, and ground-water data beginning with the 1975 water year are published only in reports on a State-boundary basis. Beginning with the 1975 water year, these Survey reports carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report NY-97-3." 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) 285-5600.

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 1997, through cooperative agreement with the Survey are:

- New York State Department of Environmental Conservation
- New York State Department of Transportation
- New York State Thruway Authority
- County of Chautauqua, 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
- County of Onondaga, Soil and Water Conservation District
- City of Auburn
- City of Ithaca
- Town of Amherst, Erie County
- Town of Cheektowaga, Erie County
- Irondequoit Bay Pure Waters District
- Village of Victor

Assistance in the form of funds for collecting records at gaging stations published in this report was also given by the U.S. Army Corps of Engineers, Onondaga Lake Management Conference, and U.S. Environmental Protection Agency.

The following organizations aided in collecting records:

Municipalities of Batavia, Canandaigua, 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.

SUMMARY OF HYDROLOGIC CONDITIONS¹Surface Water

Streamflow throughout western New York during the 1997 water year was characterized by above-average annual mean discharges (table 1) at most monitored sites. The greatest departures from normal streamflow conditions occurred during October through December, when monthly mean discharge ranged from 150 percent to more than 800 percent of the normal monthly discharges at most monitored sites, and in April, when monthly mean discharge averaged only about 60 percent of the normal monthly discharges (table 2). Departures from the median discharges at two index stations—Susquehanna River at Conklin and Allegheny River at Salamanca—are shown in figures 2 and 3.

Table 1.--Comparison of 1997 water year mean discharges with mean annual discharges for the period of record for selected streams
[Locations are shown in fig. 4. Discharges are in cubic feet per second.]

Station no.	Name	Period of record	Mean annual discharge for period of record	1997 water year mean discharge	Percent difference
01503000	Susquehanna River at Conklin	1913-96	3,567	3,940	+ 10.5
01531000	Chemung River at Chemung	1906-13, 1915-96	2,492	3,155	+ 26.6
03011020	Allegheny River at Salamanca	1904-96	2,766	3,375	+ 22.0
04213500	Cattaraugus Creek at Gowanda	1940-96	741	916	+ 23.6
04217000	Tonawanda Creek at Batavia	1944-96	211	276	+ 30.8
04221000	Genesee River at Wellsville	1955-58, 1973-96	393	465	+ 18.3
04234000	Fall Creek near Ithaca	1926-96	180	211	+ 17.2

The 1997 water year began with above-normal temperatures and precipitation. Streamflow in October was excessive (upper 25 percent of the record) at most monitored sites. The second-highest monthly mean discharges on record for October were recorded at Genesee River at Wellsville and Tonawanda Creek at Batavia. In November, precipitation in western New York remained above normal, and streamflow at all monitored sites either remained excessive or rose into the excessive range. The highest monthly mean discharge on record for November was recorded at Genesee River at Wellsville, and the second-highest monthly mean discharges were recorded at Chemung River at Chemung and Fall Creek near Ithaca.

Air temperatures and precipitation were above normal in most of western New York during December. Precipitation was 141 percent of normal, making this the 9th wettest December on record. The 1996 calendar year was the wettest year in 103 years of record. Streamflow continued to be excessive throughout most of the State. The highest monthly mean discharges on record for December were recorded at Susquehanna River at Conklin and Fall Creek near Ithaca.

Table 2.--Comparison of monthly mean discharges for water year 1997 at selected sites with normal monthly discharges.
[Locations are shown in fig. 4.]

Station no.	Name	Period of record used	Monthly mean discharge, as a percentage of median monthly mean discharges			
			Oct	Nov	Dec	Apr
01503000	Susquehanna River at Conklin	1913-96	160	242	301	80
01531000	Chemung River at Chemung	1915-96	819	611	359	57
03011020	Allegheny River at Salamanca	1904-96	473	260	152	52
04213500	Cattaraugus Creek at Gowanda	1940-96	252	193	116	56
04217000	Tonawanda Creek at Batavia	1944-95	756	215	174	63
04221000	Genesee River at Wellsville	1955-58, 1973-96	673	338	158	55
04234000	Fall Creek near Ithaca	1925-96	286	286	302	60

The 1997 calendar year began with normal air temperatures and below-normal precipitation. Streamflow for January fell into the normal range at all monitored sites in western New York. In February, temperatures averaged 6.1 degrees above normal. Precipitation in most of western New York was close to normal during February, and streamflows remained normal, except the Great Lakes region, where streamflows increased into the excessive range in response to precipitation, which was 131 percent of normal.

March precipitation was normal or slightly above normal across most of the State. Streamflows remained in the excessive range in the Great Lakes region and normal at most other monitored sites.

April air temperatures and precipitation were below normal throughout western New York during the month of April. As a result, streamflow at many monitored sites to decrease into the deficient range (lower 25 percent of the record) for the first time this year. The second-lowest April monthly mean discharge on record was recorded at Genesee River at Wellsville, and the third-lowest monthly mean discharge was recorded at Cattaraugus Creek at Gowanda.

Cold weather and above-normal precipitation prevailed throughout western New York during May. Streamflow at all monitored sites increased, but discharges ranged from deficient into the excessive range across western New York.

Mild weather with slightly above-normal precipitation prevailed throughout western New York during June. Streamflow was excessive at monitored sites in the Western Plateau and Great Lakes drainage and normal at monitored sites throughout the rest of western New York.

Cool, dry weather returned to the State during July and August. Precipitation was generally below normal but varied widely across western New York. Streamflow at most monitored sites remained normal, except in the Western Plateau and Great Lakes region, where streamflows decreased into the normal range, and in the Susquehanna River basin, where streamflows were in the deficient range. On July 17, the Susquehanna River Basin Commission declared a drought watch for the entire Susquehanna River Basin.

In September, air temperatures and precipitation returned to normal in most of western New York, except in the Great Lakes drainage, where more than 5 inches of rain was recorded for the month. Streamflows at monitored sites in the Great Lakes drainage were excessive, whereas those at all other monitored sites were in the normal range.

Water Quality

Water-quality data from Cattaraugus Creek at Gowanda (location shown in fig. 4) were collected and analyzed as part of the USGS National Water-Quality Assessment (NAWQA) project in the Lake Erie-Lake St. Clair Basin. Objectives of the NAWQA program are to broadly characterize the quality of water in the Nation's streams and aquifers in relation to human and natural factors. This project is one of 60 river-basin and aquifer-assessment projects being implemented across the nation. The period of intensive data collection for the Lake Erie-Lake St. Clair Basin projects is water years 1996-98.

Water samples from the Tully Valley mudboil/depression area (MDA) indicate a decrease in sediment loading to Onondaga Creek- from 4.7 tons per day in 1996, to 0.7 tons per day in 1997. The decreased loading rate is due to the reconfiguration of the impoundment structure outlet and below-normal precipitation, which decreased the artesian pressure that drives mudboil activity. The MDA impoundment is effective: preimpoundment loadings averaged 29.8 tons per day during 1992.

Water-quality analyses indicate that water discharging from the mudboils is from the confined fresh- and brackish-water aquifers. Installation of depressurizing wells around the MDA and along Onondaga Creek has increased the loading of chloride to the creek. Examination of data collected downstream along the Creek also indicates an increasing trend in conductivity and chloride concentrations from the Bare Mountain mudslide-area discharges. This trend may be indicative of a gradual change in the quality of water from the bedrock and confined glacial-drift aquifers since the cessation of brine withdrawal from the solution salt-mining field at the southern end of the Tully Valley.

Samples of atmospheric deposition, ground water, and surface water are collected at several sites throughout Monroe County for chemical analysis (locations shown in fig. 4). Results indicated no significant changes in chemical concentrations from previous years. Concentrations of all constituents monitored were within the historical range of the period of record of each station. Sites are periodically added to or dropped from this monitoring network, which currently emphasizes the Irondequoit Creek basin but is expanding to other parts of Monroe County. Constituent concentrations are used along with streamflow and rainfall data to estimate long-term trends in concentration and to calculate constituent loadings, which are used by county managers to assess environmental effects of water-resource management practices. Water samples are analyzed by the Monroe County Environmental Health Laboratory (in Rochester, N.Y.), which participates in the USGS Standard Reference Water Sample (SRWS) program.

Ground Water

Ground-water levels were below normal at the end of the 1996 water year and remained below normal through October 1996, despite above-normal precipitation. Above-normal precipitation in November and December, combined with the decline of evapotranspiration at the end of the growing season, caused ground-water levels to rise to above normal in November and to remain above normal through December. The highest water levels of the 1997 water year were recorded in December at 11 of the 20 observation wells. Water levels declined during January in response to low temperatures and below-normal precipitation. Water levels during February showed only a minimal response to snowmelt and, in most observation wells, remained relatively constant until the end of the month, when ground-water levels rose sharply in response to rain and snowmelt. Normal precipitation in March caused ground-water levels to remain relatively constant throughout the month, but below-normal temperatures and precipitation during April caused ground-water levels to fall to below normal at most observation wells in western New York. The seasonal increase in evapotranspiration in May and June, caused a continued decline in ground-water levels as the growing season started, despite above-normal precipitation. Normal to below-normal precipitation throughout the summer caused ground-water levels to continue their steady decline. A drought watch was declared in the Susquehanna River basin by the Susquehanna River Basin Commission. Ground-water levels in observation wells in the Susquehanna River basin were below normal throughout the summer. The lowest water levels for the 1997 water year were recorded during August and September at most observation wells in western New York.

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

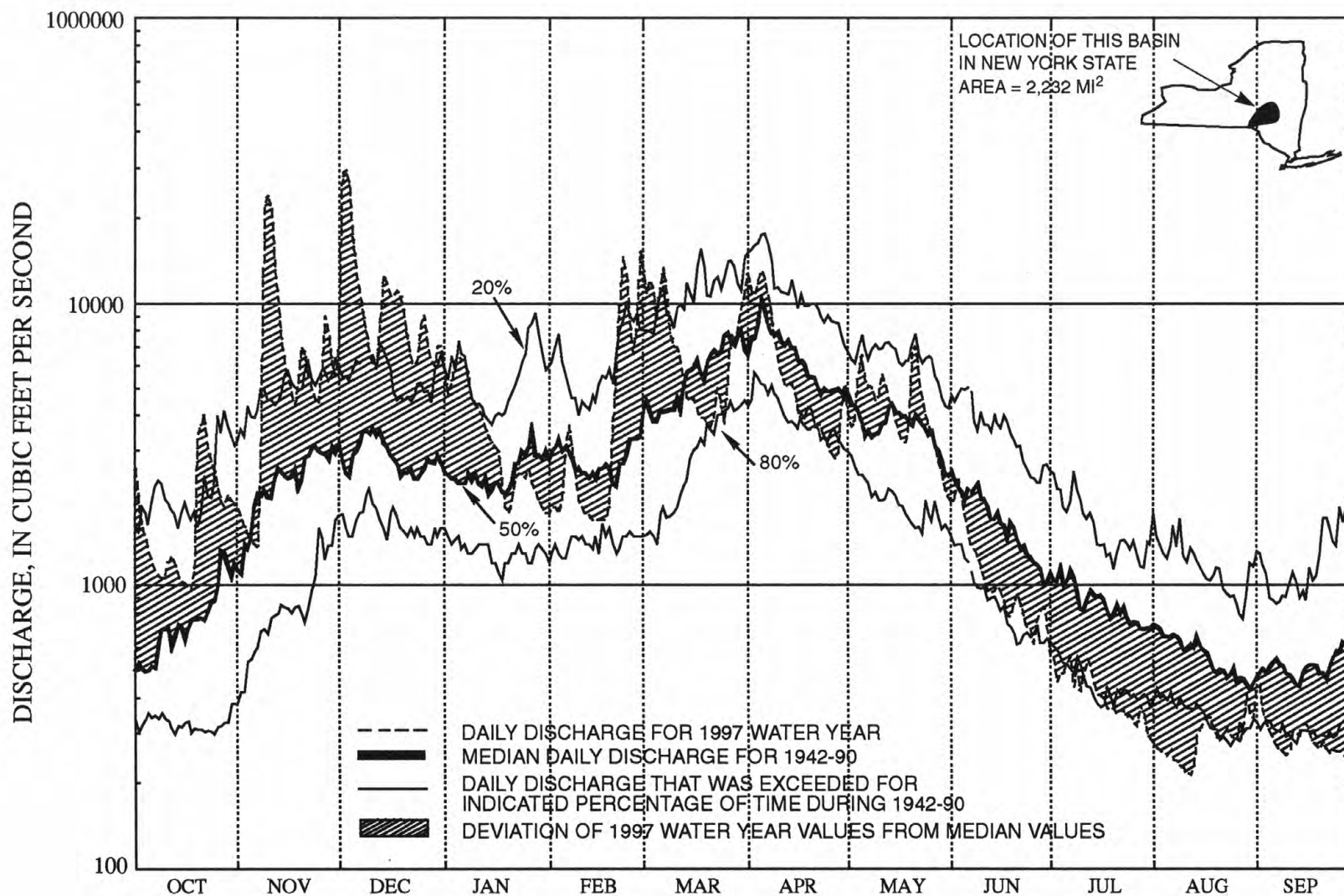


Figure 1.--Comparison of discharge at Susquehanna River at Conklin during 1997 water year with median discharge for 1942-90.

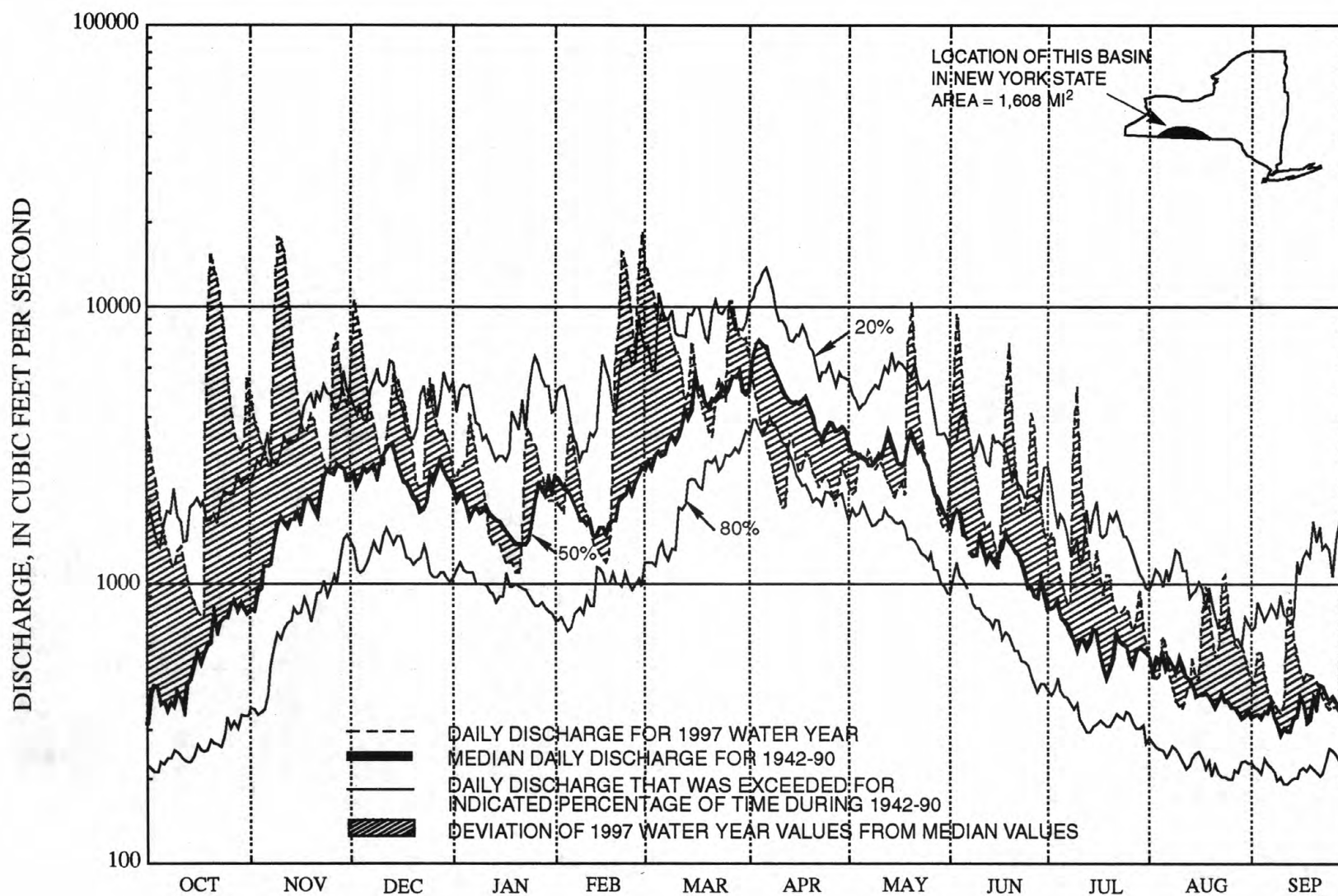


Figure 2.-- Comparison of discharge at Allegheny River at Salamanca during 1997 water year with median discharge for 1942-90.

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

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

EXPLANATION OF THE RECORDS

The surface-water and ground-water data published in this report are for the water year that began October 1, 1995, and ended September 30, 1996. A calendar of the water year is provided on the inside of the front cover. The data include discharge or stage of streams and canals, surface area, stage, and contents of lakes or reservoirs, surface-water quality, and ground-water levels. The locations of the stations and wells where data were collected are shown in figure 1. The following provide an explanation of how the data were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

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

Downstream Order System

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

The station-identification number is assigned according to downstream order. In assigning station numbers, no distinction is made between partial-record stations, miscellaneous sites, and other stations; therefore, the station number for a partial-record station or a miscellaneous site indicates downstream-order position in a list made up of all types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station, such as 01502500, includes the 2-digit Part number "01" plus the 6-digit downstream order number "502500." The Part number designates the major river basin. Part numbers used in this report and their corresponding river basins are: "01," the North Atlantic Slope basin; "03," the Ohio River basin; and "04," the St. Lawrence River basin. In a few instances where no gaps were left in the 8-digit numbering sequence, one or two digits were added (making a 9- or 10-digit station number) and (or) a latitude-longitude number was used to identify intermediate stations.

Latitude-Longitude System

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

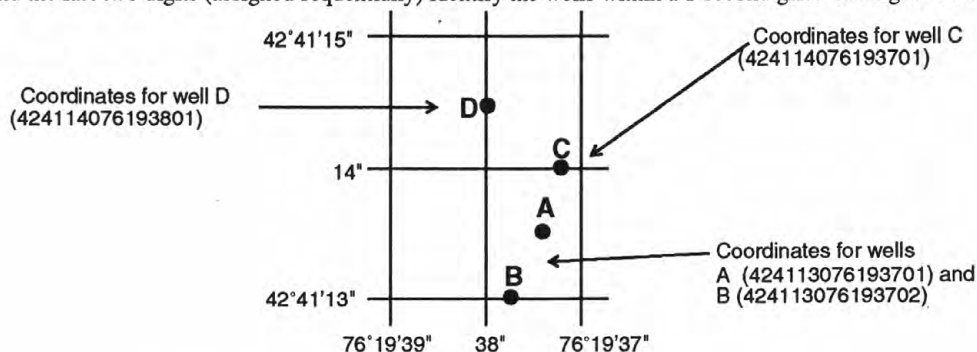


Figure 3. System for numbering wells (latitude and longitude)

Records of Stage and Water Discharge

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

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of the partial record is indicated by table titles such as "Crest-stage partial records," or "Low-flow partial records." Records of miscellaneous discharge measurements or of measurements from special studies, such as low-flow seepage studies, may be considered as partial records, but they are presented separately in this report. Locations of all complete-record stations for which data are given in this report are shown in figure 1.

Data Collection and Computation

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

Records of stage are obtained from direct readings on a nonrecording gage, analog recorders that trace continuous graphs of stage, digital recorders that punch stage values on paper tapes at selected time intervals, or with data-collection platforms (DCP) that electronically record and then transmit the data via satellite to ground receiving stations. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey. These methods are described in standard textbooks, in Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water Resources Investigations (TWRI's), Book 3, Chapter A1 through A19 and Book 8, Chapters A2 and B2. The methods are consistent with the American Society for Testing and Materials (ASTM) standards and generally follow the standards of the International Organization for Standards (ISO).

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 gaging stations, acoustic velocity meter (AVM) systems are used to compute discharge. The AVM system measures the stream's velocity at one or more paths in the cross section. Coefficients are developed to relate this path velocity to the mean velocity in the cross section. Because the AVM sensors are fixed in position, the adjustment coefficients generally vary with stage. Cross-sectional area curves are developed to relate stage, recorded as noted above, to cross section area. Discharge is computed by multiplying path velocity by the appropriate stage related coefficient and area.

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

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

For computing lake or reservoir contents, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents are computed. If the stage-capacity curve changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys the computed contents may be increasingly in error due to the gradual accumulation of sediment.

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

Data Presentation

Streamflow data in this report are presented in a new format that is considerably different from the format in data reports prior to the 1993 water year. The major changes are that statistical characteristics of discharge now appear in tabular summaries following the water-year data table and less information is provided in the text or station manuscript above the table. These changes represent the results of a pilot program to reformat the annual water-data report to meet current user needs and data preferences.

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

Station manuscript

The manuscript provides, under various headings, descriptive information, such as station location; period of record; historical extremes outside the period of record; record accuracy; and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments to follow clarify information presented under the various headings of the station description.

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

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

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

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

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

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

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

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

PEAK DISCHARGES FOR CURRENT YEAR.--For stations meeting certain criteria, all peak discharges and stages occurring during the water year and greater than a selected base discharge are presented under this heading. All peaks greater than the base discharge are listed with the maximum for the year footnoted by an asterisk (*). The base discharge, which is given in the heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for canals, ditches, drains, or streams for which the peaks are subject to substantial control by man. The time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330.

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

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

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

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

Data table of daily mean values

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

Statistics of monthly mean data

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

Summary statistics

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

The date or water year, as appropriate, of each statistic reporting extreme values of discharge is provided adjacent to the statistic. In some instances, these extremes may occur on more than one date or year. These repeated occurrences are identified with a letter symbol and printed in the footnotes. Because the designated period may not be the same as the station period of record published in the manuscript, occasionally the dates of occurrence listed for the daily and instantaneous extremes in the designated-period column may not be within the selected water years listed in the heading. When this occurs, it will be noted in the REMARKS paragraph or in footnotes. Selected streamflow duration curve statistics and runoff data are also given. Runoff data may be omitted if there is extensive regulation or diversion of flow in the drainage basin.

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

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

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

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

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

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

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

ANNUAL 7-DAY MINIMUM.--The lowest mean discharge for 7 consecutive days for a calendar year or a water year.

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

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

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

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

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

Acre-foot (AC-FT) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

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

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

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

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

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

Information published for partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in a table of annual maximum stage and discharge at crest-stage stations. The table of partial-record stations is followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Identifying Estimated Daily Discharge

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

Accuracy of the Records

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

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

Daily mean discharges in this report are given to the nearest hundredth of a cubic foot per second for discharges of less than 1 ft³/s; to tenths between 1.0 and 10 ft³/s; to whole numbers between 10 and 1,000 ft³/s; and to 3 significant figures above 1,000 ft³/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharge figures listed for partial-record stations.

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

Other Records Available

Information used in the preparation of records in this report, such as discharge measurement notes, water temperature measurements, gage-height records, and rating tables is on file in the district office. Also most gaging-station records are available in computer-readable form and many statistical analyses are available. Information on the availability of unpublished data or statistical analyses may be obtained from the district office.

Records of Surface-Water Quality

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because interpretation of records of surface-water quality nearly always requires corresponding discharge data. Records of surface-water quality in this report may involve a variety of types of data and measurement frequencies. Locations of all surface-water-quality stations for which data are given in this report are shown in figure 1.

Historical and current (1993) dissolved trace-element concentrations are reported herein for water that was collected, processed, and analyzed by using either ultraclean or other than ultraclean techniques. If ultraclean techniques were used, then those concentrations are reported in nanograms per liter. If other than ultraclean techniques were used, then those concentrations are reported in micrograms per liter and could reflect contamination introduced during some phase of the procedure.

Classification of Records

Water-quality data for surface-water sites are grouped into one of three classifications. A continuing-record station is a site where data are collected on a regularly scheduled basis. Frequency may be once or more times daily, weekly, monthly, or quarterly. A partial-record station is a site where limited water-quality data are collected systematically over a period of years. Frequency of sampling is usually less than quarterly. A miscellaneous sampling site is a location other than a continuing or partial-record station, where random samples are collected to give better areal coverage to define water-quality conditions in the river basin. Locations of surface-water quality stations are shown on figure 1.

Note that "continuing-record" differs from "continuous recording," which refers to a continuous graph or a series of discrete values recorded at predetermined intervals. Some water-quality data may be obtained through continuous recordings (i.e. temperature); however, most data are obtained only monthly or less frequently.

Arrangement of Records

Water-quality records collected at a surface-water daily record station are published immediately following that record, regardless of the frequency of sample collection. Station number and name are the same for both records. Where a surface-water daily record station is not available or where the location of the water quality sampling site differs significantly from that of the nearby surface-water station, the continuing-record water-quality site is given its own station number and name in the regular downstream order sequence. Water-quality data for partial-record stations and for miscellaneous sampling sites appear in separate tables following the table of discharge measurements at miscellaneous sites. Data for precipitation-quality stations appear next.

On-site Measurements and Sample Collection

In obtaining water-quality data, a major concern is that the data obtained represent the in situ quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen, need to be made onsite when the samples are taken. To assure that measurements made in the laboratory also represent the in situ water, carefully prescribed procedures need to be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for onsite measurements and for collecting, treating, and shipping samples are detailed in the TWRI Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, and A4. These references are listed in the PUBLICATIONS ON TECHNIQUES OF WATER RESOURCES INVESTIGATIONS section of this report. These methods are consistent with ASTM standards and generally follow ISO standards. 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.

For periods when no samples were collected, daily loads of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

Methods used in the computation of sediment records are described in the TWRI Book 3, Chapters C1 and C3. These methods are consistent with ASTM standards and generally follow ISO standards.

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. Methods used to analyze sediment samples and to compute sediment records are described in the TWRI, Book 5, Chapter C1. Methods used by the U. S. Geological Survey laboratories are given in the TWRI Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, A4 and A5. These methods are consistent with ASTM standards and generally follow ISO standards.

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

E
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K

REMARK

Estimated value
Actual value is known to be greater than the value shown
Actual value is known to be less than the value shown
Results based on colony count outside the acceptance range
(non-ideal colony count)

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

Water Quality-Control Data

Data generated from quality-control (QC) samples are a requisite for evaluating the quality of the sampling and processing techniques as well as data from the actual samples themselves. Without QC data, environmental sample data cannot be adequately interpreted because the errors associated with the sample data are unknown. The various types of QC samples collected by this district are described in the following section. Procedures have been established for the storage of water-quality-control data within the USGS. These procedures allow for storage of all derived QC data and are identified so that they can be related to corresponding environmental samples.

Blank Samples

Blank samples are collected and analyzed to ensure that environmental samples have not been contaminated by the overall data-collection process. The blank solution used to develop specific types of blank samples is a solution that is free of the analytes of interest. Any measured value signal in a blank sample for an analyte (a specific component measured in a chemical analysis) that was absent in the blank solution is believed to be due to contamination. There are many types of blank samples possible, each designed to segregate a different part of the overall data-collection process. The types of blank samples collected in this district are:

Field blank - a blank solution that is subjected to all aspects of sample collection, field processing preservation, transportation, and laboratory handling as an environmental sample.

Trip blank - a blank solution that is put in the same type of bottle used for an environmental sample and kept with the set of sample bottles before and after sample collection.

Equipment blank - a blank solution that is processed through all equipment used for collecting and processing an environmental sample (similar to a field blank but normally done in the more controlled conditions of the office.).

Sampler blank - a blank solution that is poured or pumped through the same field sampler used for collecting an environmental sample.

Filter blank - a blank solution that is filtered in the same manner and through the same filter apparatus used for an environmental sample.

Splitter blank - a blank solution that is mixed and separated using a field splitter in the same manner and through the same apparatus used for an environmental sample.

Preservation blank - a blank solution that is treated with the sampler preservatives used for an environmental sample.

Reference Samples

Reference material is a solution or material prepared by a laboratory whose composition is certified for one or more properties so that it can be used to assess a measurement method. Samples of reference material are submitted for analysis to ensure that an analytical method is accurate for the known properties of the reference material. Generally, the selected reference material properties are similar to the environmental sample properties.

Replicate Samples

Replicate samples are a set of environmental samples collected in a manner such that the samples are thought to be essentially identical in composition. Replicate is the general case for which a duplicate is the special case consisting of two samples. Replicate samples are collected and analyzed to establish the amount of variability in the data contributed by some part of the collection and analytical process. There are many types of replicate samples possible, each of which may yield slightly different results in a dynamic hydrologic setting, such as a flowing stream. The types of replicate samples collected in this district are: Sequential samples - a type of replicate sample in which the samples are collected one after the other, typically over a short time.

Split sample - a type of replicate sample in which a sample is split into subsamples contemporaneous in time and space.

Spike Samples

Spike samples are samples to which known quantities of a solution with one or more well-established analyte concentrations have been added. These samples are analyzed to determine the extent of matrix interference of degradation on the analyte concentration during sample processing and analysis.

Dissolved Trace-Element Concentrations

Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter ($\mu\text{g/L}$) level. Recent evidence, mostly from large rivers, indicates that actual dissolved-phase concentrations for a number of trace elements are within the range of 10's and 100's of nanograms per liter (ng/L). Data above the $\mu\text{g/L}$ level should be viewed with caution. Such data may actually represent elevated environmental concentrations from natural or human causes; however, these data could reflect contamination introduced during sampling, processing, or analysis. To confidently produce dissolved trace-element data with insignificant contamination, the U.S. Geological Survey began using new trace-element protocols at some stations in water year 1994. Full implementation of the protocols will take place during the 1995 water year.

Change in National Trends Network Procedures

Sample handling procedures at all National Trends Network stations were changed substantially on January 11, 1994, in order to reduce contamination from the sample shipping container. The data for samples before and after that date are different and not directly comparable. A tabular summary of the differences based on a special intercomparison study, is available from the NADP/NTN Coordination Office, Colorado State University, Fort Collins, CO 80523 (Telephone: 303-491-5643).

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 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.

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 six additional years.

Frequency-of-Sampling Notation

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

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

Records of Ground-Water Levels

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

Data Collection and Computation

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

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

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

Data Presentation

Each well record consists of three parts, the station description, the data table of water levels observed during the current water year, and a graph of the water levels for the current water year or other selected period. The description of the well is presented first through use of descriptive headings preceding the tabular data. The comments to follow clarify information presented under the various headings of the well description.

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

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

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

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

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

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

PERIOD OF RECORD.--Identifies the period for which there are published records for the observation well or for an equivalent well. This entry reports the month and year of the start of publication of water-level records by the U.S. Geological Survey and the words "to current year" if the records are to be continued into the following year. Periods for which water-level records are available, but are not published by the Geological Survey, may be noted. An equivalent well is one that was in operation at a time that the present well was not, and whose location was such that water-level records from it can reasonably be considered equivalent with records from the present observation well.

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

A table of water levels follows the station description for each well. Water levels are reported in feet above or below land-surface datum. For wells not equipped with continuous-stage recorders, the table lists the water levels and measurement dates. For wells equipped with recorders, mean daily values are published, with missing records indicated by dashes in place of the water level. Because mean daily values are published for wells with recorders, the extremes may be values that are not listed in the table.

A hydrograph of water levels follows the data table for each well. The current year and the previous 9 years of record are plotted in feet above or below land-surface datum. If the period of record is less than 10 years, the water levels for the entire record are plotted. Because all values are not plotted for wells with continuous-stage recorders, some extreme values may not appear on the plot.

Records of Ground-Water Quality

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

Data Collection and Computation

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

Most methods for collecting and analyzing water samples are described in the U. S. Geological Survey TWRI publications referred to in the "On-site Measurements and Sample Collection" and the "Laboratory Measurements" sections in this data report. In addition, the TWRI Book 1, Chapter D2, describes guidelines for the collection and field analysis of ground-water samples for selected unstable constituents. The values reported in this report represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. These methods are consistent with ASTM standards and generally follow ISO standards. All samples were obtained by trained personnel. The wells sampled were pumped long enough to assure that the water collected came directly from the aquifer and had not stood for a long time in the well casing where it would have been exposed to the atmosphere and to the material, possibly metal, comprising the casings.

Data Presentation

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

WATER RESOURCES DATA - NEW YORK, 1997
Selected Recent Water-Related U.S. Geological Survey Reports
Relevant to Western New York

- Bubeck, R.C., Staubitz, W.W., Weidemann, A.D., and Spittal, L.P., 1995, Physical and chemical limnology of Ides Cove near Rochester, New York, 1970-82: U.S. Geological Survey Water-Resources Investigations Report 92-4052, 45 p.
- Butch, G.K., 1996, Evaluation of selected instruments for monitoring scour at bridges in New York: Proceedings of the Sixth Federal Interagency Sedimentation Conference, March 10-14, 1996, Las Vegas, Nevada, p. IV-33 - IV-40.
- Butch, G.K., 1996, Scour-hole dimensions at selected bridge piers in New York, in Hydraulic Engineering '96, Proceedings of the 1996 Conference: Anaheim, Ca., June 22-28, 1996 (cdrom).
- Coon, W.F., 1995, Estimates of roughness coefficients for selected natural stream channels with vegetated banks in New York: U.S. Geological Survey Open-File Report 93-161, 127 p.
- Coon, W.F., 1997, Hydrology, sedimentology, and biology of Ellison Park wetland at the mouth of Irondequoit Creek near Rochester, New York: U.S. Geological Survey Water-Resources Investigations Report 96-4269, 41 p.
- Eckhardt, D.A., and Wagenet, R.J., 1996, Estimation of the potential for atrazine transport in a silt loam soil, *in* Meyer, M.T., and Thurman, E.M., *Herbicide Metabolites in Surface Water and Groundwater*: Washington, DC, American Chemical Society, ACS Symposium Series 630, p. 101-116.
- Johnston, W.H. and Sherwood, D.A., 1996, Water resources of Monroe County, New York, water years 1984-88, with emphasis on water quality in the Irondequoit Creek basin, part 2--atmospheric deposition, ground water, streamflow, trends in water quality, and chemical loads to Irondequoit Bay: U.S. Geological Survey Water-Resources Investigations Report 96-4054, 84 p.
- Kappel, W.M., 1995, Mudboils in the Tully Valley, Onondaga County, New York, *in* Prince, K.R., Galloway, D.L., and Leake, S.A., eds., U.S. Geological Survey subsidence interest group conference, Edwards Air-Force Base, Antelope Valley, California, November 18-1, 1992--Abstracts and Summary: U.S. Geological Survey Open File Report 94-532, p. 7-11.
- Kappel, W.M., 1997, Hydrogeologic features of the Tully Valley, Onondaga County, New York, *in* Field trip guide for the 69th annual meeting of the New York State Geological Association, September 26-28, 1997: Clinton, New York, New York State Geological Association, p. 159-165.
- Kappel, W.M., 1997, Hydrogeology, geology, and remediation of the Tully Valley mudboils, Onondaga County, New York, *in* Field trip guide for the 69th annual meeting of the New York State Geological Association, September 26-28, 1997: Clinton, New York, New York State Geological Association, p. 199-214.
- Kappel, W.M. and Miller, T.S., 1996, Geology, hydrology, and ground-water flow near the Akron municipal well, Erie County, New York: U.S. Geological Survey Water-Resources Investigations Report 96-4193, 21 p.
- Kappel, W.M., Sherwood, D.A., and Johnston, W.H., 1996, Hydrogeology of the Tully Valley and characterization of mudboil activity, Onondaga County, New York: U.S. Geological Survey Water-Resources Investigations Report 96-4043, 71 p.
- Lawrence, G.B., David, M.B., and Shortle, W.C., 1995, A new mechanism for calcium loss in the forest-floor soils: *Nature*, v. 378, no. 6553, p. 162-165.
- Lee, M.P., 1996, U.S. Geological Survey Water-Resources Programs in the New York District-- Fiscal Years 1993-94: U.S. Geological Survey Open-File Report 96-113, 48 p.
- Michel, R.L. and Kraemer, T.F., 1995, Use of isotopic data to estimate water residence times of the Finger Lakes, New York: *Journal of Hydrology*, v. 164, no. 1-4, p. 1-18.
- [Pearsall, K.A.], 1996, U.S. Geological Survey Programs in New York: U.S. Geological Survey Fact Sheet FS-032-96, 4 p.
- Randall, A.D., 1996, Mean annual runoff, precipitation, and evapotranspiration in the glaciated northeastern United States, 1951-80: U.S. Geological Survey Open-File Report 96-395, 2 pls.
- Tepper, D.H., Kappel, W.M., Miller, T.S., and Williams, J.H., 1997, Hydrogeologic effects of flooding in the partially collapsed Retsof salt mine, Livingston County, New York, *in* Prince, K.R. and Leake, S.A., eds., U.S. Geological Survey Subsidence Interest Group Conference, Proceedings of the Technical Meeting, Las Vegas, Nevada, February 14-16, 1995: U.S. Geological Survey Open-File Report 97-47, p. 36-37.
- Tepper, D.H., Miller, T.S., Kappel, W.M., and Williams, J.H., 1995, Hydrogeologic effects of the partial collapse of the Retsof salt mine in western New York: U.S. Geological Survey Yearbook, Fiscal Year 1994, p. 38-39.
- Williams, J.H., 1996, Application of borehole geophysics at the Retsof salt-mine collapse site, western New York, *in* Bell, R. S. and Cramer, M. H., comp., *Symposium on the Application of Geophysics to Engineering and Environmental Problems*: Proceedings, April 28-May 2, 1996, Keystone, Colorado, p. 813-821.

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- Yager, R.M., 1996, Disposal of low-level radioactive waste below the water table--an experiment in clay-rich till at West Valley, New York: U.S. Geological Survey Water-Resources Investigations Report 95-4015, p. 201-207.
- Yager, R.M., Miller, T.S., and Thayer, John, 1997, Delineation of areas contributing recharge to municipal wells in three selected confined-glacial aquifers in Erie County, New York: U.S. Geological Survey Water-Resources Investigations Report 96-4229, 40 p.
- Yanosky, T.M. and Kappel, W.M., 1997, Effects of solution mining of salt on wetland hydrology as inferred from tree rings: Water Resources Research, v. 33, no. 3, p. 457-470.
- Yanosky, T.M. and Kappel, W.M., 1997, Tree rings record 100 years of hydrologic change within a wetland: U.S. Geological Survey Fact Sheet FS 057-97, 4 p.
- Zarriello, P.J., 1995, Accuracy, precision, and stability of a vibrating-wire transducer measurement system to measure hydraulic head: Ground Water Monitoring Review, Spring, 1995, v. 15, no. 2, p. 157-168.
- Zarriello, P.J., 1996, Simulated effects of a stormwater-detention basin on peak flows and water quality of East Branch Allen Creek, Monroe County, New York: U.S. Geological Survey Water-Resources Investigations Report 95-4157-NY, 34 p.

ACCESS TO USGS WATER DATA

The USGS provides near real-time stage and discharge data for many of the gaging stations equipped with the necessary telemetry and historic daily-mean and peak-flow discharge data for most current or discontinued gaging stations through the world wide web (WWW). These data may be accessed at

<http://www.water.usgs.gov>

Some water-quality and ground-water data also are available through the WWW. In addition, data can be provided in various machine-readable formats on magnetic tape or 3-1/2 inch floppy disk. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Division District Offices (See address on the back of the title page.).

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

Dry mass refers to the mass of residue present after drying in an oven at 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 carbonaceous organic pollution from sewage or industrial wastes.

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

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

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

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

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

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

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

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

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

Cubic foot per second (FT³/S, ft³/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

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

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

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

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

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

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

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

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

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

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

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

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

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate (CaCO_3).

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology.

The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay.....	0.00024 – 0.004	Sedimentation.
Silt.....	.004 – .062	Sedimentation.
Sand062 – 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 naphthalenes (PCNs) are industrial chemicals that are mixtures of chlorinated naphthalene compounds. They have properties and applications similar to polychlorinated biphenyls (PCBs) and have been identified in commercial PCB preparations.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Substrate is the physical surface upon which an organism lived.

Natural substrates refers to any naturally occurring 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 planimeted. All areas shown are those for the stage when the planimeted 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 classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata, is the following:

KingdomAnimal
Phylum Arthropoda
Class..... Insecta
Order Ephemeroptera
Family.....Ephemeridae
Genus Hexageria
SpeciesHexagenia limbata

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

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

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

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

Total (as used in tables of chemical analyses):

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

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

Water year in U.S. Geological Survey reports dealing with surface-water supply is the 12-month period October 1 through September 30. The water year is designated by the calendar year in which it ends and that includes 9 of the 12 months. Thus, the year ending September 30, 1985 is called the "1985 water year."

WDR is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to state annual basic-data reports published beginning in 1975.

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

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

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

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

The reports listed below are for sale by the U.S. Geological Survey, Branch of Information Services, Box 25286, Federal Center, 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-D2. *Application of seismic-refraction techniques to hydrologic studies*, by F. P. Haeni: USGS--TWRI Book 2, Chapter D2. 1988. 86 pages.
- 2-E1. *Application of borehole geophysics to water-resources investigations*, by W. S. Keys and L.M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.
- 2-E2. *Borehole geophysics applied to ground-water investigations*, by W. S. Keys: USGS--TWRI Book 2, Chapter E2. 1990. 150 pages.
- 2-F1. *Application of drilling, coring, and sampling techniques to test holes and wells*, by Eugene Shuter and W. E. Teasdale: USGS--TWRI Book 2, Chapter F1. 1989. 97 pages.
- 3-A1. *General field and office procedures for indirect discharge measurements*, by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.
- 3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.
- 3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.
- 3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages.
- 3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.
- 3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.
- 3-A7. *Stage measurement at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.
- 3-A8. *Discharge measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.

- 3-A9. *Measurement of time of travel in streams by dye tracing*, by F. A. Kilpatrick and J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1989. 27 pages.
- 3-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 the moving-boat method*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.
- 3-A12. *Fluorometric procedures for dye tracing*, Revised, by J. F. Wilson, Jr., E. D. Cobb, and F. A. Kilpatrick: USGS--TWRI Book 3, Chapter A12. 1986. 34 pages.
- 3-A13. *Computation of continuous records of streamflow*, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A13. 1983. 53 pages.
- 3-A14. *Use of flumes in measuring discharge*, by F. A. Kilpatrick and V. R. Schneider: USGS--TWRI Book 3, Chapter A14. 1983. 46 pages.
- 3-A15. *Computation of water-surface profiles in open channels*, by Jacob Davidian: USGS--TWRI Book 3, Chapter A15. 1984. 48 pages.
- 3-A16. *Measurement of discharge using tracers*, by F. A. Kilpatrick and E. D. Cobb: USGS--TWRI Book 3, Chapter A16. 1985. 52 pages.
- 3-A17. *Acoustic velocity meter systems*, by Antonius Laenen: USGS--TWRI Book 3, Chapter A17. 1985. 38 pages.
- 3-A18. *Determination of stream reaeration coefficients by use of tracers*, by F. A. Kilpatrick, R. E. Rathbun, Nobuhiro Yotsukura, G. W. Parker, and L. L. DeLong: USGS--TWRI Book 3, Chapter A18. 1989. 52 pages.
- 3-A19. *Levels at streamflow gaging stations*, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A19. 1990. 31 pages.
- 3-A20. *Simulation of soluble waste transport and buildup in surface waters using tracers*, by F. A. Kilpatrick: USGS--TWRI Book 3, Chapter A20. 1993. 38 pages.
- 3-A21. *Stream-gaging cableways*, by C. Russell Wagner: USGS--TWRI Book 3, Chapter A21. 1995. 56 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-B4. *Regression modeling of ground-water flow*, by R. L. Cooley and R. L. Naff: USGS--TWRI Book 3, Chapter B4. 1990. 232 pages.
- 3-B4. *Supplement 1. Regression modeling of ground-water flow - Modifications to the computer code for nonlinear regression solution of steady-state ground-water flow problems*, by R. L. Cooley: USGS--TWRI Book 3, Chapter B4. 1993. 8 pages.
- 3-B5. *Definition of boundary and initial conditions in the analysis of saturated ground-water flow systems--An introduction*, by O. L. Franke, T. E. Reilly, and G. D. Bennett: USGS--TWRI Book 3, Chapter B5. 1987. 15 pages.
- 3-B6. *The principle of superposition and its application in ground-water hydraulics*, by T. E. Reilly, O. L. Franke, and G. D. Bennett: USGS--TWRI Book 3, Chapter B6. 1987. 28 pages.
- 3-B7. *Analytical solutions for one-, two-, and three-dimensional solute transport in ground-water systems with uniform flow*, by E. J. Wexler: USGS--TWRI Book 3, Chapter B7. 1992. 190 pages.

- 3-C1. *Fluvial sediment concepts*, by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.
- 3-C2. *Field methods for measurement of fluvial sediment*, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.
- 3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.
- 4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.
- 4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.
- 4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.
- 4-B2. *Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.
- 4-B3. *Regional analyses of streamflow characteristics*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.
- 4-D1. *Computation of rate and volume of stream depletion by wells*, by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.
- 5-A1. *Methods for determination of inorganic substances in water and fluvial sediments*, by M.J. Fishman and L. C. Friedman, editors: USGS--TWRI Book 5, Chapter A1. 1989. 545 pages.
- 5-A2. *Determination of minor elements in water by emission spectroscopy*, by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.
- 5-A3. *Methods for the determination of organic substances in water and fluvial sediments*, edited by R. L. Wershaw, M. J. Fishman, R. R. Grabbe, and L. E. Lowe: USGS--TWRI Book 5, Chapter A3. 1987. 80 pages.
- 5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, by L. J. Britton and P. E. Greeson, editors: USGS--TWRI Book 5, Chapter A4. 1989. 363 pages.
- 5-A5. *Methods for determination of radioactive substances in water and fluvial sediments*, by L.L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.
- 5-A6. *Quality assurance practices for the chemical and biological analyses of water and fluvial sediments*, by L. C. Friedman and D. E. Erdmann: USGS--TWRI Book 5, Chapter A6. 1982. 181 pages.
- 5-C1. *Laboratory theory and methods for sediment analysis*, by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.
- 6-A1. *A modular three-dimensional finite-difference ground-water flow model*, by M. G. McDonald and A. W. Harbaugh: USGS--TWRI Book 6, Chapter A1. 1988. 586 pages.
- 6-A2. *Documentation of a computer program to simulate aquifer-system compaction using the modular finite-difference ground-water flow model*, by S. A. Leake and D. E. Prudic: USGS--TWRI Book 6, Chapter A2. 1991. 68 pages.
- 6-A3. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 1: Model Description and User's Manual*, by L. J. Torak: USGS--TWRI Book 6, Chapter A3. 1993. 136 pages.
- 6-A4. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 2: Derivation of finite-element equations and comparisons with analytical solutions*, by R. L. Cooley: USGS--TWRI Book 6, Chapter A4. 1992. 108 pages.

- 6-A5. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 3: Design philosophy and programming details*, by L. J. Torak: USGS--TWRI Book 6, Chapter A5, 1993. 243 pages.
- 6-A6. *A coupled surface-water and ground-water flow model (MODBRANCH) for simulation of stream-aquifer interaction*, by Eric D. Swain and Eliezer J. Wexler. 1995. 125 pages.
- 7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.
- 7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water*, by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.
- 7-C3. *A model for simulation of flow in singular and interconnected channels*, by R. W. Schaffranek, R. A. Baltzer, and D. E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1981. 110 pages.
- 8-A1. *Methods of measuring water levels in deep wells*, by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages.
- 8-A2. *Installation and service manual for U.S. Geological Survey manometers*, by J. D. Craig: USGS--TWRI Book 8, Chapter A2. 1983. 57 pages.
- 8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.
- 9-A7. *National Field Manual for the Collection of Water-Quality Data: Biological Indicators*, by D. N. Myers and F. D. Wilde: USGS--TWRI Book 9, Chapter A7. 1997. 49 pages.

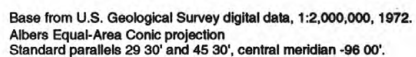
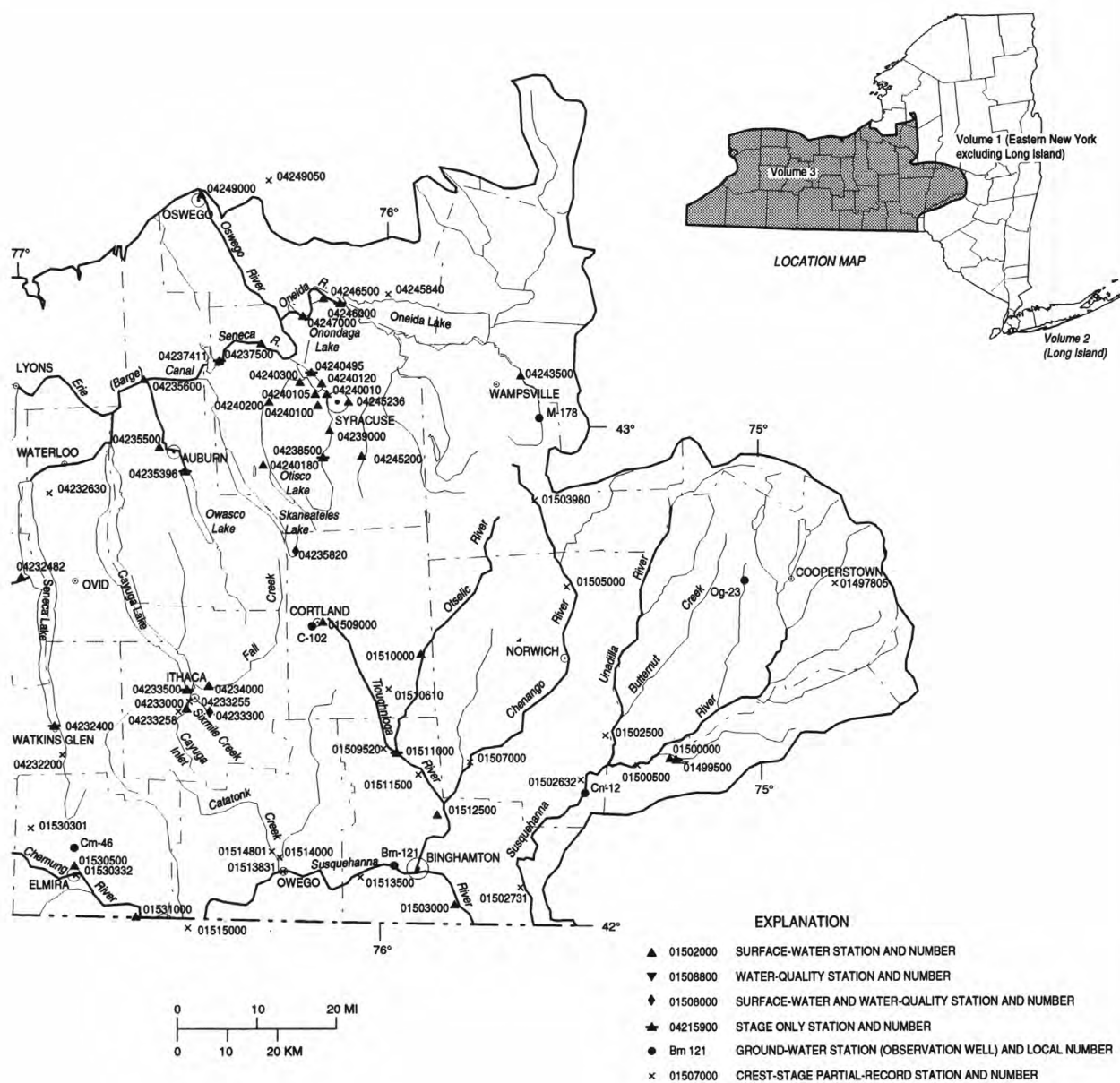
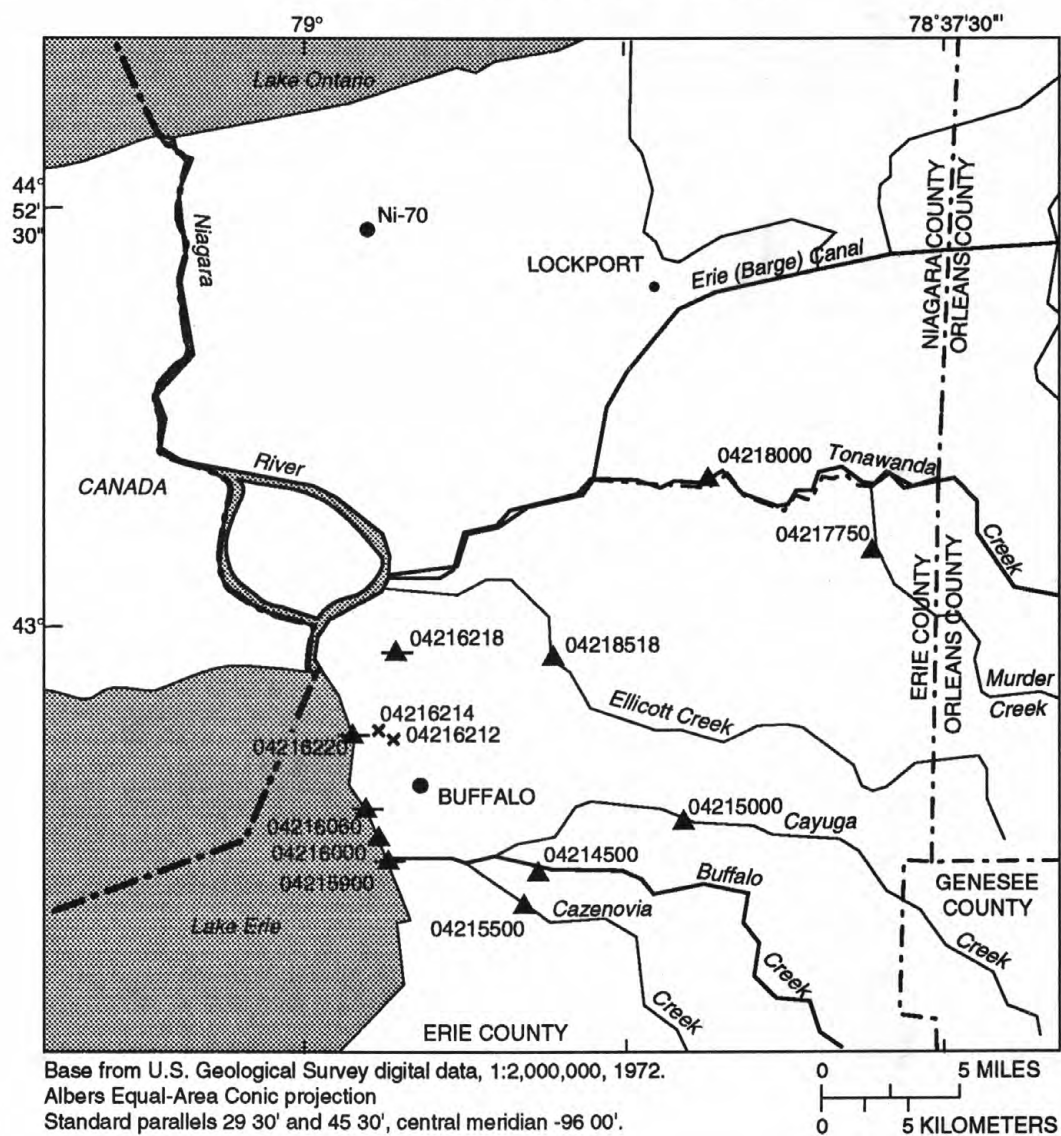


FIGURE 4. LOCATION OF GAGING STATIONS AND



OBSERVATION WELLS IN WESTERN NEW YORK

WATER RESOURCES DATA- NEW YORK, 1997



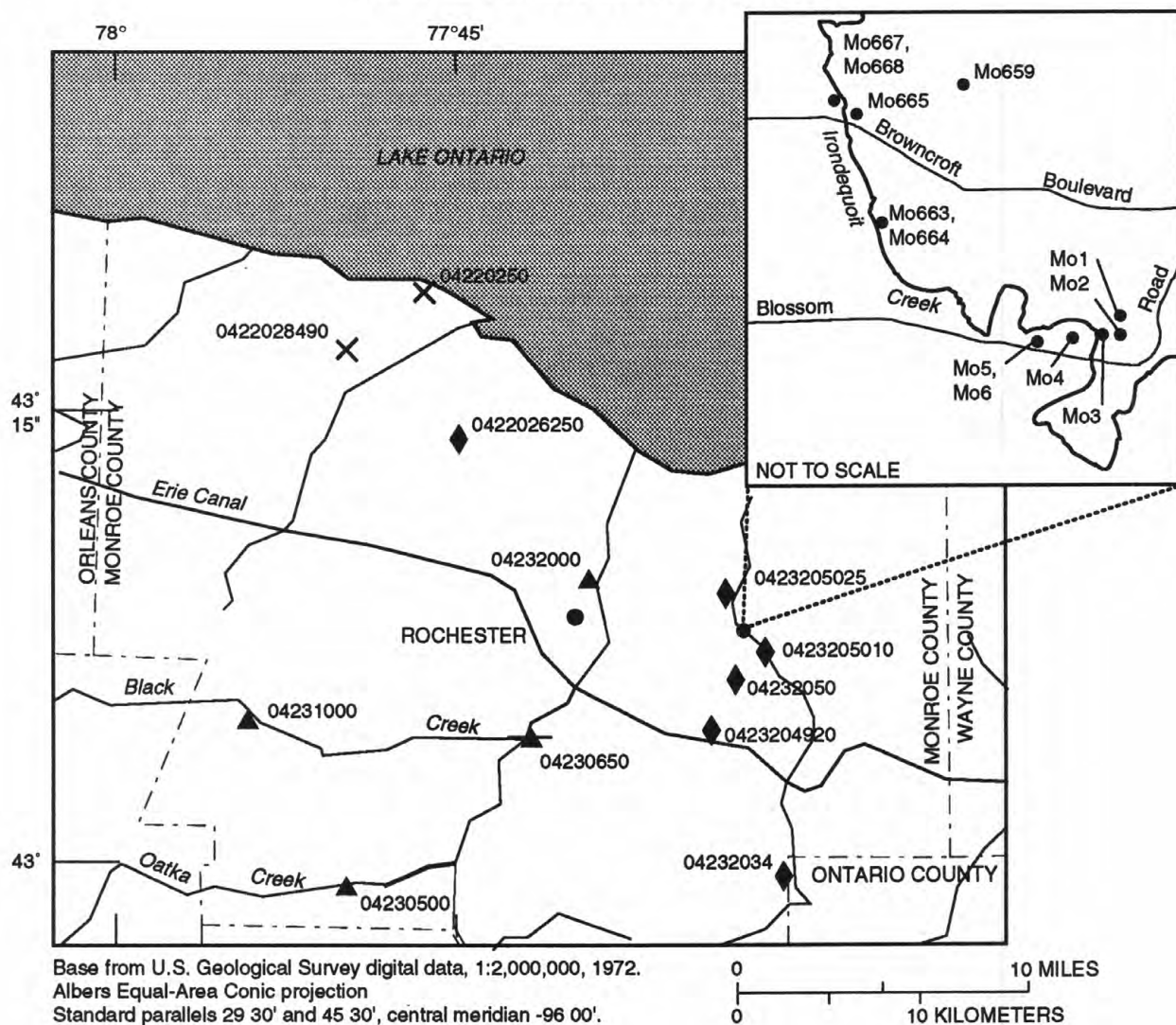
EXPLANATION

- | | | |
|---|----------|---|
| ▲ | 04215500 | SURFACE-WATER STATION
AND NUMBER |
| ▲ | 04215900 | STAGE ONLY STATION
AND NUMBER |
| ● | Ni-70 | GROUND-WATER STATION (OBSERVATION
WELL) AND LOCAL NUMBER |
| × | 04216214 | CREST-STAGE PARTIAL-RECORD STATION
AND NUMBER |



FIGURE 5. LOCATION OF GAGING STATIONS AND OBSERVATION WELLS IN ERIE AND NIAGARA COUNTIES, NY.

WATER RESOURCES DATA- NEW YORK, 1997



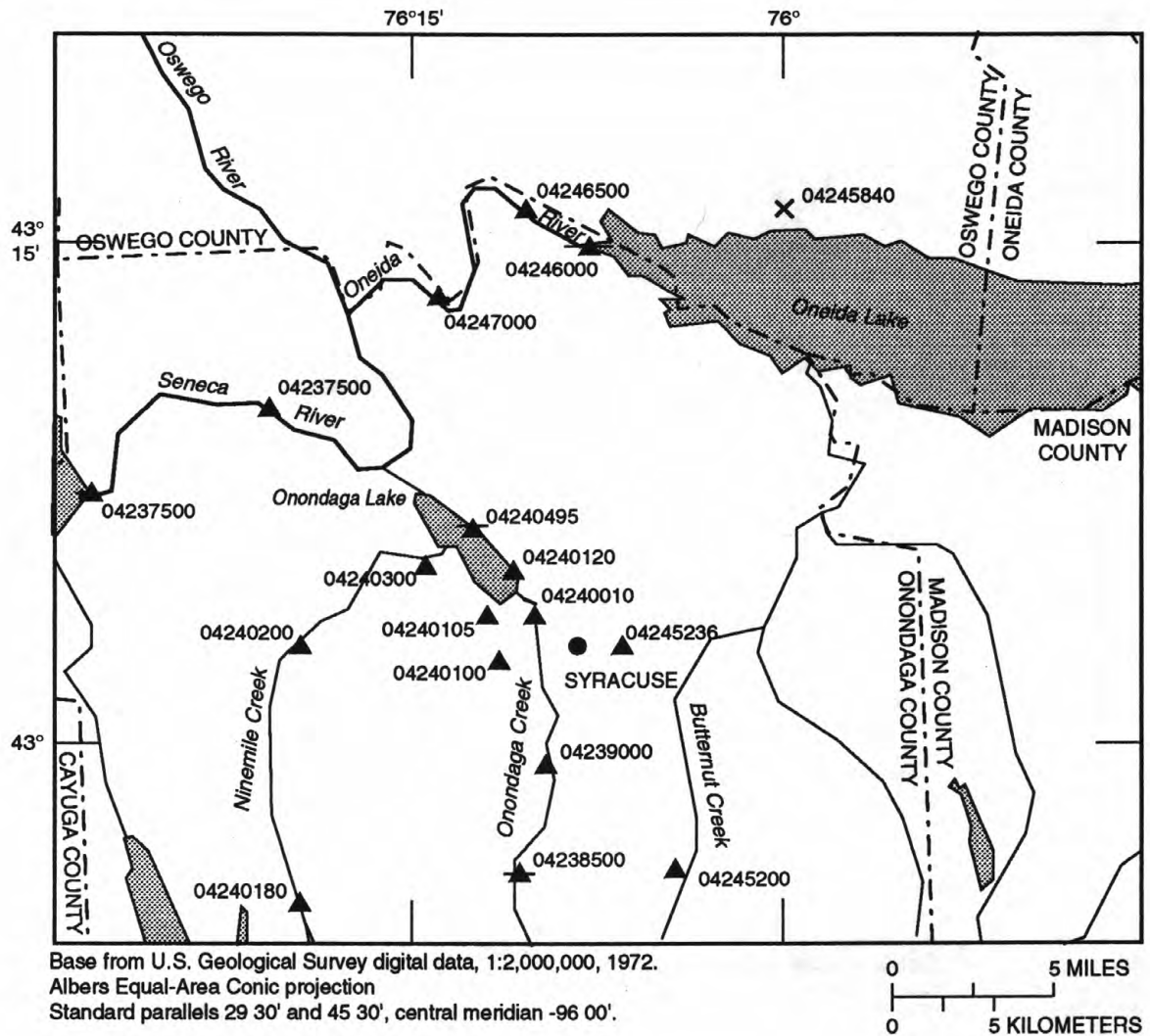
EXPLANATION

- ▲ 04231000 SURFACE-WATER STATION AND NUMBER
- ▲ 04230650 STAGE ONLY STATION AND NUMBER
- ◆ 04232050 SURFACE-WATER AND WATER-QUALITY STATION AND NUMBER
- Mo659 GROUND-WATER STATION (OBSERVATION WELL) AND LOCAL NUMBER
- ✕ 04220250 CREST-STAGE PARTIAL-RECORD STATION AND NUMBER



FIGURE 6. LOCATION OF GAGING STATIONS AND OBSERVATION WELLS IN MONROE COUNTY, NY.

WATER RESOURCES DATA- NEW YORK, 1997



EXPLANATION

- ▲ 04245200 SURFACE-WATER STATION AND NUMBER
- ▲ 04240495 STAGE ONLY STATION AND NUMBER
- x 04245840 CREST-STAGE PARTIAL-RECORD STATION AND NUMBER



FIGURE 7. LOCATION OF GAGING STATIONS AND OBSERVATION WELLS IN ONONDAGA COUNTY, NY.

SUSQUEHANNA RIVER BASIN

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 mi².

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

REVISED RECORDS.--WSP 2103: Drainage area.

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

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

EXTREMES OUTSIDE PERIOD OF RECORD.--A discharge of 16,700 ft³/s, in July 1935, was determined by computation of flow over dam and from floodmarks.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	118	90	567	170	83	462	710	111	100	11	12	13
2	118	92	287	163	83	622	497	114	79	10	12	13
3	118	92	351	277	79	566	487	175	72	18	12	13
4	75	92	1450	341	72	422	803	293	72	23	13	15
5	59	92	1710	275	140	377	923	186	43	15	14	15
6	59	84	1580	260	172	648	751	189	32	9.6	14	15
7	59	72	1050	265	125	496	476	191	58	9.6	14	15
8	59	340	532	215	113	364	381	193	70	9.6	14	15
9	59	449	360	180	100	333	309	203	48	9.6	14	15
10	59	741	262	210	92	331	276	351	39	10	14	14
11	61	1680	238	193	92	285	251	371	39	10	14	14
12	61	1690	306	136	91	242	231	349	39	10	14	12
13	61	1070	538	110	90	176	268	309	54	10	14	11
14	61	437	509	142	90	218	207	257	72	10	14	11
15	61	460	472	138	90	214	171	206	72	11	14	10
16	61	308	494	132	90	140	145	193	52	11	14	10
17	61	200	580	95	90	110	148	193	33	11	14	9.7
18	61	181	608	72	101	178	149	160	22	11	14	10
19	62	428	485	72	131	167	151	209	25	11	14	9.9
20	267	415	403	72	322	154	154	663	25	11	14	11
21	238	265	272	99	323	122	204	363	25	11	14	11
22	178	234	256	110	622	199	180	348	25	11	14	11
23	178	234	286	110	953	220	154	289	25	11	14	10
24	179	234	372	112	566	136	155	220	18	11	14	10
25	135	235	607	110	421	145	157	222	14	11	14	9.9
26	118	563	339	112	343	377	157	205	25	11	14	9.6
27	119	550	323	113	883	391	157	188	38	11	14	10
28	84	394	295	111	615	366	180	149	31	11	14	9.6
29	120	317	278	92	---	423	174	134	25	12	13	11
30	154	283	351	83	---	486	123	109	16	12	13	11
31	118	---	293	83	---	710	---	100	---	12	13	---
TOTAL	3221	12322	16454	4653	6972	10080	9129	7243	1288	355.4	424	354.7
MEAN	104	411	531	150	249	325	304	234	42.9	11.5	13.7	11.8
MAX	267	1690	1710	341	953	710	923	663	100	23	14	15
MIN	59	72	238	72	72	110	123	100	14	9.6	12	9.6

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1997, BY WATER YEAR (WY)

MEAN	95.3	183	222	186	202	342	378	199	101	56.6	41.4	55.0
MAX	618	411	531	517	604	690	1117	483	370	305	200	408
(WY)	1978	1997	1997	1996	1981	1977	1993	1983	1968	1973	1994	1977
MIN	3.35	4.46	45.0	28.3	33.3	86.2	91.6	35.4	16.2	6.95	3.86	2.45
(WY)	1965	1965	1961	1961	1980	1960	1946	1987	1964	1965	1964	1964

SUSQUEHANNA RIVER BASIN

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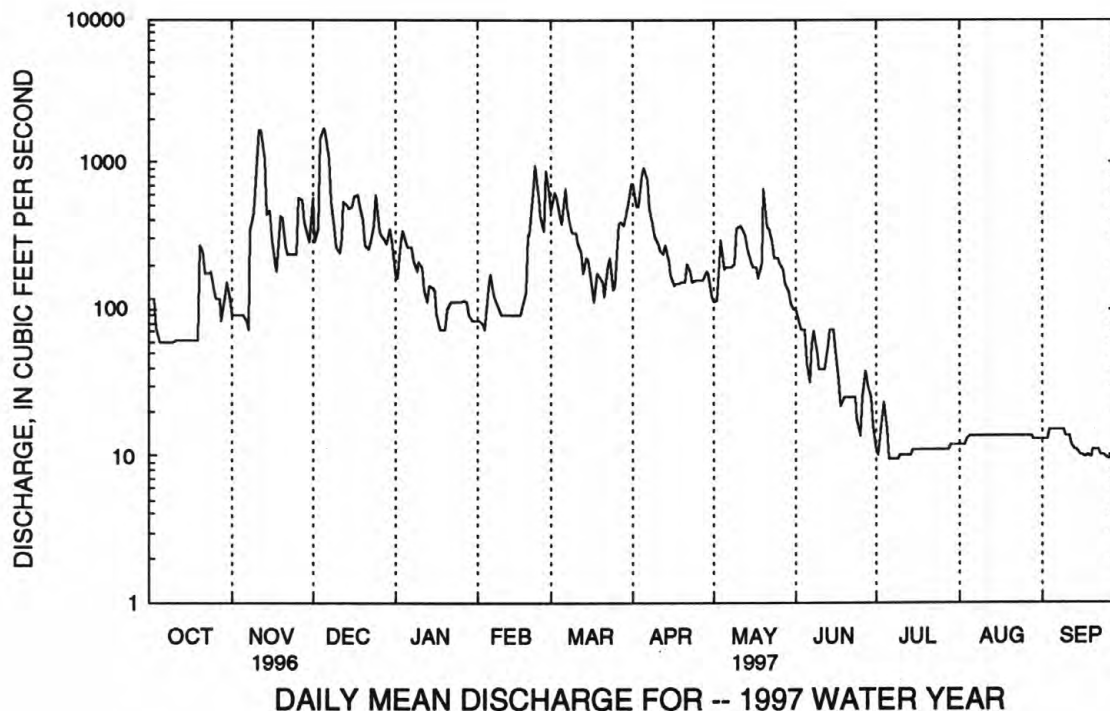
01500000 OULEOUT CREEK AT EAST SIDNEY, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1940 - 1997	
ANNUAL TOTAL	99066		72496.1		172	
ANNUAL MEAN	271		199		242	
HIGHEST ANNUAL MEAN					1960	
LOWEST ANNUAL MEAN					77.9	
HIGHEST DAILY MEAN	1970	Jan 23	1710	Dec 5	3820	Dec 30 1942
LOWEST DAILY MEAN	11	Sep 12	9.6	a	1.2	Aug 13 1949
ANNUAL SEVEN-DAY MINIMUM	21	Sep 10	9.8	Jul 6	1.8	Nov 5 1973
INSTANTANEOUS PEAK FLOW			1820	Dec 4	b7250	Dec 30 1942
INSTANTANEOUS PEAK STAGE			4.63	Dec 4	c7.62	Dec 30 1942
10 PERCENT EXCEEDS	583		485		403	
50 PERCENT EXCEEDS	174		118		85	
90 PERCENT EXCEEDS	39		11		12	

a July 6-9, Sept. 26, 28.

b From rating curve extended above 4,000 ft³/s.

c Site and datum then in use.



SUSQUEHANNA RIVER BASIN

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 mi².

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

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

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

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 18,000 ft³/s and maximum (*);

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Nov. 9	2000	24,700	12.38	Dec. 2	1800	*31,600	*14.29

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2840	1860	7300	5640	e1800	13200	12700	4090	1970	551	273	437
2	2030	1740	28700	4730	e1900	10800	11000	3630	2080	555	265	442
3	1680	1630	29500	5170	e1900	12100	10700	3870	2430	456	261	362
4	1500	1520	26200	6210	e1800	10900	12000	5670	2080	489	256	324
5	1360	1460	17600	6430	e2000	8800	13000	6550	1790	486	252	302
6	1210	1400	12700	6290	e2900	11700	12200	5370	1550	531	260	287
7	1140	1370	11200	6300	e3700	13400	10800	5090	1390	560	241	270
8	1080	2800	9270	5600	e3100	10500	9150	5040	1340	436	239	263
9	1060	21700	7830	4720	e2500	7940	7510	4520	1260	523	230	259
10	1060	24100	6740	e4400	e2000	7040	6400	4710	1160	421	225	252
11	1210	21800	5940	e4200	e1900	6980	5660	5630	1050	478	217	258
12	1270	13900	5990	e4000	e1800	6250	5160	5080	962	549	215	305
13	1210	10100	8200	e3700	e1800	5380	5110	4590	940	523	225	298
14	1100	7640	12600	e3400	e1700	e4650	5230	4300	954	454	293	296
15	1030	6140	11800	e3200	e1700	e4500	4900	3870	995	414	312	320
16	1020	5440	10600	e3100	e1700	e4600	4200	3500	957	409	333	324
17	989	4740	10600	e3000	e1700	e4200	3820	3220	874	396	341	297
18	959	4380	11100	e2400	e1700	3930	3650	3210	781	369	339	278
19	1110	5120	10700	e1900	e1900	3940	3570	3670	774	367	311	271
20	3380	7030	9240	e1800	e3400	3700	3560	6700	849	369	289	264
21	3720	6620	7640	e2000	5740	3630	3590	7080	934	348	287	281
22	4050	5570	6410	e2400	10200	3990	3730	5420	865	361	297	264
23	3170	4960	6020	e2500	14600	5010	3660	4610	771	361	309	255
24	2800	4570	6250	e2500	12700	4500	3390	4100	702	342	296	261
25	2560	4390	8390	e2400	8750	3730	3130	3680	699	345	286	258
26	2290	5860	9090	e2600	6640	5180	2950	3480	619	327	286	258
27	2000	9030	7110	e2300	8200	7760	2820	3130	764	317	282	254
28	1910	7930	6300	e2200	15300	7460	2970	2770	805	379	317	243
29	2090	6170	5970	e2000	---	8090	4230	2500	837	351	414	257
30	2020	5510	7040	e1900	---	9300	5170	2210	738	300	352	283
31	1940	---	7100	e1800	---	11000	---	2050	---	287	336	---
TOTAL	56788	206480	331130	110790	125030	224160	185960	133340	33920	13054	8839	8723
MEAN	1832	6883	10680	3574	4465	7231	6199	4301	1131	421	285	291
MAX	4050	24100	29500	6430	15300	13400	13000	7080	2430	560	414	442
MIN	959	1370	5940	1800	1700	3630	2820	2050	619	287	215	243

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 1997, BY WATER YEAR (WY)

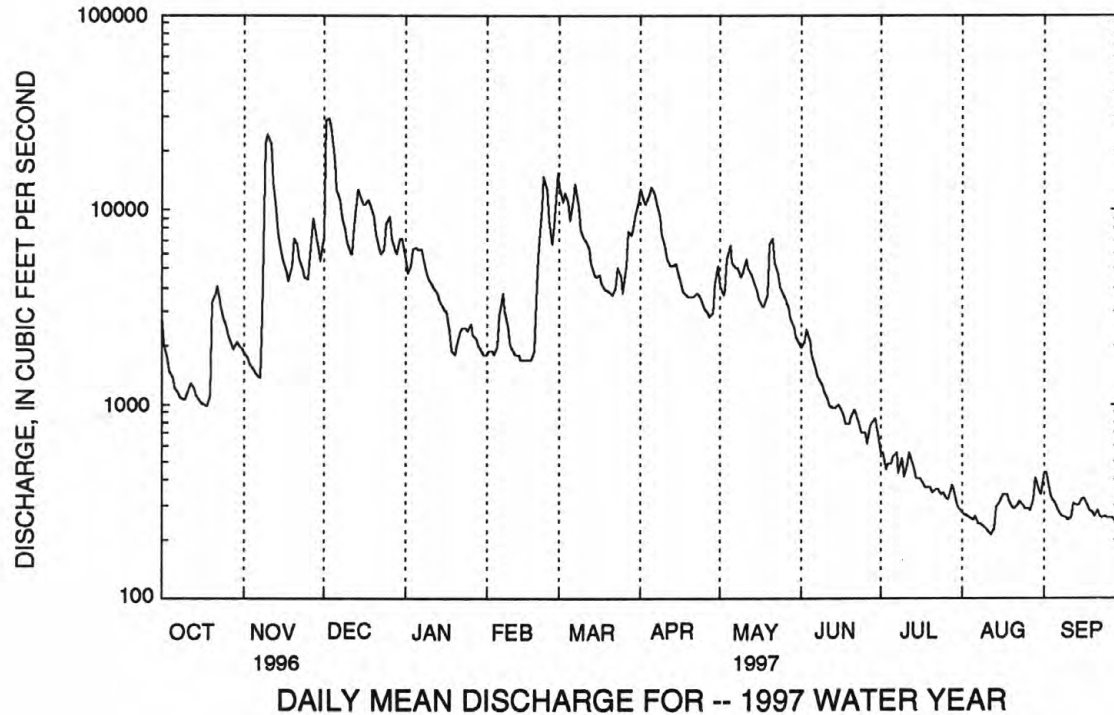
	1877	3445	4011	3867	3905	7559	8455	4236	2201	1422	995	1174
MEAN	1877	3445	4011	3867	3905	7559	8455	4236	2201	1422	995	1174
MAX	12860	9281	10680	10110	11150	18540	21340	10590	8122	7929	5033	8783
(WY)	1978	1928	1997	1913	1981	1936	1940	1943	1917	1915	1915	1977
MIN	130	140	641	476	724	2808	2000	1300	510	267	171	142
(WY)	1965	1965	1931	1931	1980	1965	1946	1985	1964	1936	1964	1964

SUSQUEHANNA RIVER BASIN
01503000 SUSQUEHANNA RIVER AT CONKLIN, NY--Continued

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SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1913 - 1997	
ANNUAL TOTAL	1939399		1438214			
ANNUAL MEAN	5299		3940		3591	
HIGHEST ANNUAL MEAN					5667	
LOWEST ANNUAL MEAN					1690	
HIGHEST DAILY MEAN	43000	Jan 20	29500	Dec 3	57800	Mar 19 1936
LOWEST DAILY MEAN	531	Sep 15	215	Aug 12	105	Oct 24 1964
ANNUAL SEVEN-DAY MINIMUM	557	Sep 10	227	Aug 7	114	Oct 19 1964
INSTANTANEOUS PEAK FLOW			31600	Dec 2	61600	Mar 18 1936
INSTANTANEOUS PEAK STAGE			14.29	Dec 2	20.83	Mar 22 1948
INSTANTANEOUS LOW FLOW			213	a	85	Oct 14 1964
10 PERCENT EXCEEDS	11100		9620		8430	
50 PERCENT EXCEEDS	3360		2500		2000	
90 PERCENT EXCEEDS	1090		287		427	

a Aug 11, 13.



SUSQUEHANNA RIVER BASIN

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.

DRAINAGE AREA.--292 mi², including 14.0 mi², the flow from which may be diverted into De Ruyter Reservoir in Oswego River basin.

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

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

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

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

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

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Nov. 9	1630	6,670	10.12	Dec. 2	1930	*7,190	*10.45

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	279	220	1510	e580	315	1970	1680	631	475	186	93	72
2	238	213	6010	e620	309	1890	1400	648	512	208	90	66
3	215	210	4880	753	302	2240	1450	670	430	228	86	75
4	199	210	2770	880	298	1570	1700	766	362	250	84	80
5	186	213	1810	875	332	1220	1490	630	331	215	82	73
6	179	207	1480	1040	374	1630	1340	572	316	194	79	69
7	174	210	1270	870	345	1450	1210	560	315	177	76	69
8	167	1480	1090	e710	327	1130	983	499	304	168	74	67
9	161	5710	939	e670	e290	e900	843	479	293	253	73	66
10	158	4520	819	e670	e290	e840	742	523	267	359	71	64
11	162	2490	748	e610	e300	865	679	534	252	252	e67	67
12	159	1600	726	e530	295	743	636	489	245	214	e71	78
13	152	1230	1410	e500	e280	e630	689	478	251	192	e78	80
14	143	1000	2840	e480	e270	e600	653	431	253	176	88	73
15	143	858	2270	e450	285	e620	574	407	239	163	87	69
16	147	745	1750	e430	e270	548	522	403	226	163	82	66
17	148	691	1580	e400	e260	e490	504	401	277	157	80	65
18	146	661	1320	e390	e270	509	492	381	332	142	80	67
19	161	667	1120	e380	312	465	494	484	346	136	78	64
20	195	681	984	e370	488	467	501	983	314	131	75	65
21	200	621	832	e360	660	459	501	754	305	127	75	64
22	201	573	755	e350	2030	822	491	632	265	130	78	63
23	197	539	722	398	2230	692	460	551	242	127	78	61
24	330	509	1170	e380	1440	569	430	492	233	121	75	61
25	293	492	1520	e370	e980	561	403	456	231	117	72	62
26	247	909	1110	e370	e840	1080	382	429	248	112	70	63
27	227	1060	933	e340	2010	1120	362	389	292	110	70	63
28	222	824	849	e330	3030	1530	776	357	237	105	83	60
29	223	731	865	e320	---	1850	984	333	216	101	89	72
30	224	683	854	e320	---	2020	728	320	194	98	86	94
31	224	---	e700	e310	---	2050	---	317	---	95	77	---
TOTAL	6100	30757	47636	16056	19432	33530	24099	15999	8803	5207	2447	2058
MEAN	197	1025	1537	518	694	1082	803	516	293	168	78.9	68.6
MAX	330	5710	6010	1040	3030	2240	1700	983	512	359	93	94
MIN	143	207	700	310	260	459	362	317	194	95	67	60

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1997, BY WATER YEAR (WY)

MEAN	254	438	582	512	554	1048	1258	576	325	179	131	154
MAX	1553	1119	1537	1338	1469	2432	3487	1352	1674	539	480	1125
(WY)	1978	1969	1997	1996	1976	1945	1993	1943	1972	1976	1992	1977
MIN	33.2	44.3	86.7	112	127	359	305	212	88.7	43.5	34.6	23.8
(WY)	1965	1965	1961	1961	1963	1941	1946	1985	1939	1962	1939	1939

SUSQUEHANNA RIVER BASIN
01509000 TIOUGHNIAGA RIVER AT CORTLAND, NY--Continued

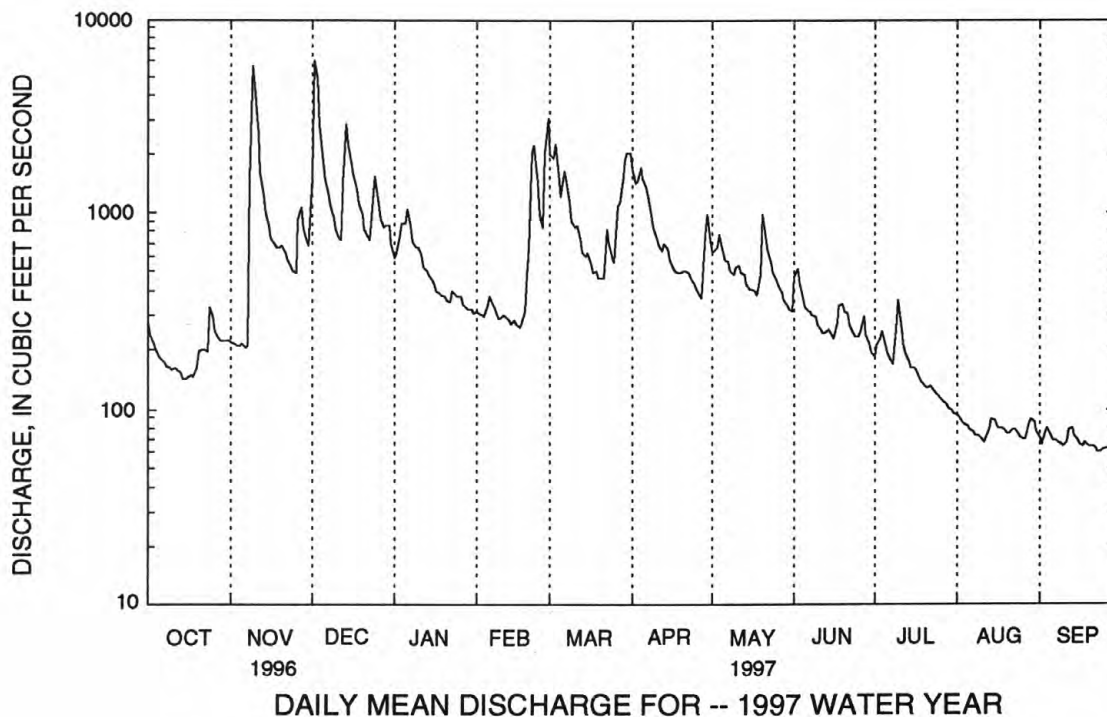
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SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1938 - 1997	
ANNUAL TOTAL	270505		212124			
ANNUAL MEAN	739		581		500	
HIGHEST ANNUAL MEAN					723	
LOWEST ANNUAL MEAN					303	
HIGHEST DAILY MEAN	9660	Jan 20	6010	Dec 2	11500	Mar 6 1979
LOWEST DAILY MEAN	103	Sep 6	60	Sep 28	17	a
ANNUAL SEVEN-DAY MINIMUM	106	Sep 1	62	Sep 22	21	Sep 19 1939
INSTANTANEOUS PEAK FLOW			7190	Dec 2	13000	Mar 5 1964
INSTANTANEOUS PEAK STAGE			10.45	Dec 2	13.82	Apr 5 1950
INSTANTANEOUS LOW FLOW			58	b	9.8	c
10 PERCENT EXCEEDS	1610		1400		1120	
50 PERCENT EXCEEDS	439		357		285	
90 PERCENT EXCEEDS	153		75		69	

a Sep. 26, 27, 1959.

b Sep. 28, 29.

c Sep. 20, 1939, Sep. 29, 1959.



SUSQUEHANNA RIVER BASIN

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 Cincinnati.

DRAINAGE AREA.--147 mi².

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

REVISED RECORDS.--WSP 2103: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,031.67 ft above sea level.

REMARKS.--Records fair. Telephone and satellite gage-height telemeters at station. Several measurements of water temperature were made during the year. Pesticide sample collected as part of state-wide sampling network in cooperation with the New York State Department of Environmental Conservation. Analyses published on page 277.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Nov. 9	0430	2,630	6.16	Dec. 13	2045	2,720	6.28
Dec. 2	0645	*5,100	*8.78				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	193	97	1210	244	109	1070	1020	308	294	50	22	21
2	124	97	4280	311	106	1530	885	e370	228	49	22	19
3	106	97	1820	393	102	1370	929	e400	150	55	21	20
4	92	97	1120	443	99	914	1060	e450	129	67	e22	23
5	84	97	814	460	114	728	868	e390	117	53	e20	22
6	80	97	705	578	128	1390	827	367	110	48	e19	20
7	76	97	623	425	117	912	747	351	104	44	e19	19
8	70	612	540	e370	e100	700	561	283	100	42	e16	18
9	68	2390	460	307	e90	567	456	287	99	52	e16	17
10	68	1430	402	e280	e92	540	378	353	89	86	e15	16
11	68	1070	368	e250	e96	491	331	326	82	61	e15	19
12	65	850	382	e220	e94	398	300	288	76	48	e15	24
13	61	713	1390	e200	88	314	363	278	81	42	e15	22
14	58	595	1830	e180	e90	301	311	226	79	39	17	19
15	56	486	1100	e160	e92	350	245	194	70	38	17	18
16	55	393	955	e150	89	266	212	176	63	37	22	17
17	55	348	908	e130	86	223	191	177	76	37	21	17
18	52	324	752	e130	91	235	173	153	98	35	19	20
19	56	367	630	e120	109	180	175	252	116	33	16	20
20	74	356	531	e120	215	190	181	623	96	32	14	20
21	85	318	421	128	329	173	166	367	94	31	14	20
22	86	297	399	126	1560	596	150	310	80	32	e18	19
23	81	277	367	151	1210	376	141	263	68	32	19	18
24	140	256	701	128	731	283	134	216	62	29	18	18
25	112	231	819	136	520	276	126	192	62	28	16	17
26	95	912	525	138	469	896	121	167	71	26	16	18
27	88	752	455	116	1640	862	114	142	92	25	17	18
28	91	560	413	e118	1720	1220	601	130	67	25	20	17
29	98	497	418	113	---	1400	539	121	57	24	40	21
30	97	442	412	109	---	1350	363	116	52	23	31	30
31	97	---	323	108	---	1400	---	116	---	22	25	---
TOTAL	2631	15155	26073	6842	10286	21501	12668	8392	2962	1245	597	587
MEAN	84.9	505	841	221	367	694	422	271	98.7	40.2	19.3	19.6
MAX	193	2390	4280	578	1720	1530	1060	623	294	86	40	30
MIN	52	97	323	108	86	173	114	116	52	22	14	16

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1964, 1970 - 1997 BY WATER YEAR (WY)

	148	252	334	266	283	586	681	290	155	83.7	56.7	87.1
MEAN	148	252	334	266	283	586	681	290	155	83.7	56.7	87.1
MAX	713	628	841	648	764	1302	1693	687	773	299	277	706
(WY)	1978	1960	1997	1996	1976	1945	1940	1947	1972	1976	1994	1977
MIN	9.90	23.3	66.9	55.6	63.1	178	150	80.3	24.6	12.5	8.99	5.54
(WY)	1964	1954	1961	1961	1987	1941	1946	1985	1962	1962	1964	1964

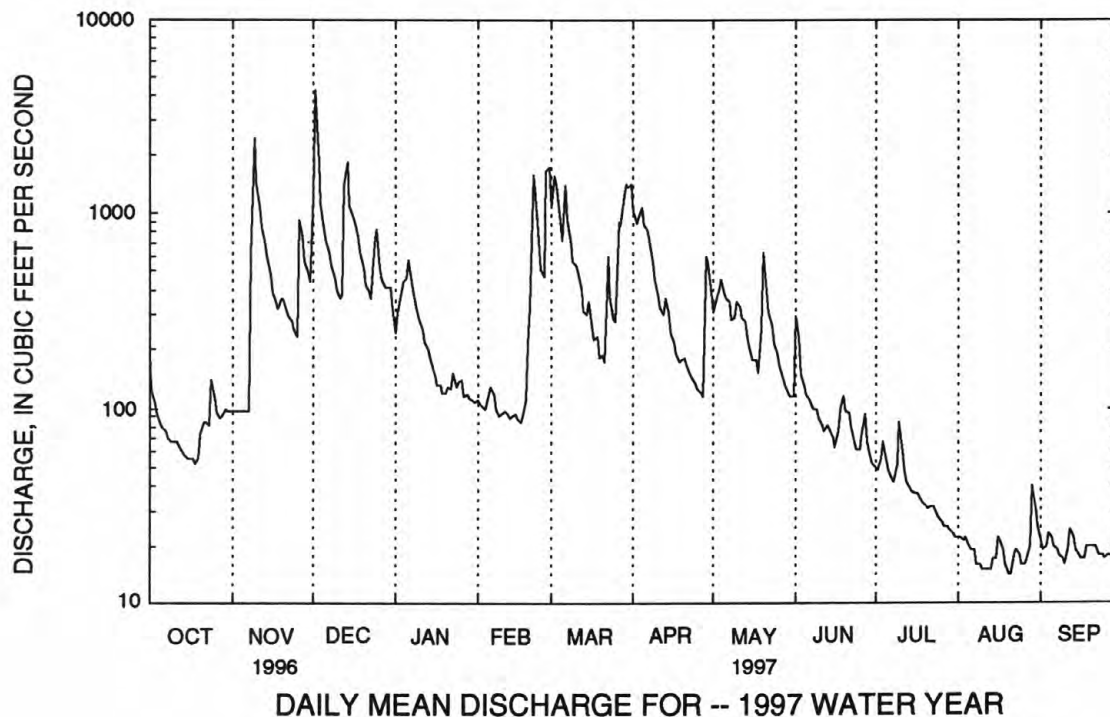
SUSQUEHANNA RIVER BASIN
01510000 OTSELIC RIVER AT CINCINNATUS, NY--Continued

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SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1938 - 1964 1970 - 1997	
ANNUAL TOTAL	149073		108939		268	
ANNUAL MEAN	407		298		151	
HIGHEST ANNUAL MEAN					391	
LOWEST ANNUAL MEAN					151	
HIGHEST DAILY MEAN	4500	Jan 19	4280	Dec 2	6200	Mar 20 1948
LOWEST DAILY MEAN	32	Sep 6	14	a	4.1	Sep 24 1939
ANNUAL SEVEN-DAY MINIMUM	34	Sep 1	16	Aug 8	4.3	Sep 19 1939
INSTANTANEOUS PEAK FLOW			5100	Dec 2	8390	Dec 30 1942
INSTANTANEOUS PEAK STAGE			8.78	Dec 2	b10.89	Jan 19 1996
INSTANTANEOUS LOW FLOW			Unknown		3.8	Sep 25 1939
10 PERCENT EXCEEDS	857		822		613	
50 PERCENT EXCEEDS	267		121		138	
90 PERCENT EXCEEDS	58		19		23	

a Aug. 20, 21.

b Ice jam.



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 mi².

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

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

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 18,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Nov. 9	0900	19,500	9.76	Dec. 2	1300	*24,500	*10.80

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e1800	1170	6210	2710	e1300	10300	8830	2610	1910	518	245	264
2	1490	1140	22500	2790	e1350	9600	e7000	2530	e2400	508	213	215
3	1270	1120	20100	3290	e1350	e10400	6910	3010	e2050	520	206	209
4	e1080	1100	14900	4360	1270	e8100	8000	e5050	e1600	590	202	211
5	983	1060	11000	4440	1370	e6100	e7000	e3700	1380	607	192	204
6	918	1040	e8900	e4950	1670	10400	6100	3070	e1150	548	185	198
7	e850	999	e7600	e4350	1630	9150	e5600	3110	e1580	510	181	190
8	805	3330	e6200	e3530	1460	e6100	e4800	2780	e1250	492	173	185
9	785	17800	5660	e3050	e1300	e5000	e3900	2600	1080	561	171	179
10	795	15300	e4900	e3000	e1200	4850	3370	2880	987	975	167	171
11	869	11700	e4300	e2800	e1150	e4600	3050	3010	902	908	163	180
12	836	e8500	4150	e2700	e1100	e3900	2840	2740	857	e740	190	210
13	782	e6300	7610	e2500	e1100	e3200	3060	e2550	1280	e580	214	214
14	760	e4450	14700	e2300	e1050	3000	3070	e2350	e1020	485	284	207
15	e700	e3400	11600	e2150	e1050	3150	2690	e2100	e840	449	232	194
16	676	e2880	e9300	e1950	e1050	2980	e2350	1930	718	393	255	182
17	666	e2500	e8000	e1800	1020	2580	e2150	1910	779	357	276	168
18	663	2410	e6900	e1650	1030	2520	e1950	1890	932	355	267	172
19	922	3010	e5950	e1550	1190	2370	1870	2430	1210	336	248	177
20	1590	3420	e5200	e1500	2370	2360	1860	e5750	1100	316	203	193
21	1670	e2800	e4100	e1600	3350	2310	1810	e4200	1270	308	203	217
22	1700	e2500	3750	e1700	9150	e4050	1750	e3240	e1050	350	219	205
23	1450	e2200	3650	e1700	e10600	e4200	e1620	e2800	870	367	226	171
24	1820	2150	4310	e1800	e7800	e3050	e1450	e2380	746	350	215	166
25	e1750	2150	e6800	e1700	e4900	e2650	1360	2170	736	331	200	162
26	1470	5060	e5200	e1800	4230	5290	1300	2100	903	317	194	170
27	e1300	e6000	e4220	e1700	9730	e6100	1200	1910	e1150	339	187	166
28	1270	e4200	3860	e1600	13300	7450	2390	e1650	e900	313	223	157
29	1390	e3600	3920	e1400	---	8300	4260	e1440	e730	287	391	196
30	1300	3330	e4400	e1350	---	8840	3130	1320	e600	272	364	286
31	1380	---	e3650	e1300	---	9690	---	1290	---	261	297	---
TOTAL	35740	126619	233540	75020	89070	172590	106670	82500	33980	14243	6986	5819
MEAN	1153	4221	7534	2420	3181	5567	3556	2661	1133	459	225	194
MAX	1820	17800	22500	4950	13300	10400	8830	5750	2400	975	391	286
MIN	663	999	3650	1300	1020	2310	1200	1290	600	261	163	

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 1997, BY WATER YEAR (WY)

MEAN	1307	2294	2756	2594	2623	5335	5757	2622	1463	913	646	777
MAX	7210	6167	7534	7361	7688	12560	15330	6485	7439	5713	3138	5766
(WY)	1978	1928	1997	1913	1976	1936	1993	1943	1917	1935	1915	1977
MIN	155	168	525	445	472	1977	1317	770	346	175	145	107
(WY)	1940	1965	1961	1961	1980	1937	1946	1985	1939	1939	1913	1939

SUSQUEHANNA RIVER BASIN

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01512500 CHENANGO RIVER NEAR CHENANGO FORKS, NY--Continued

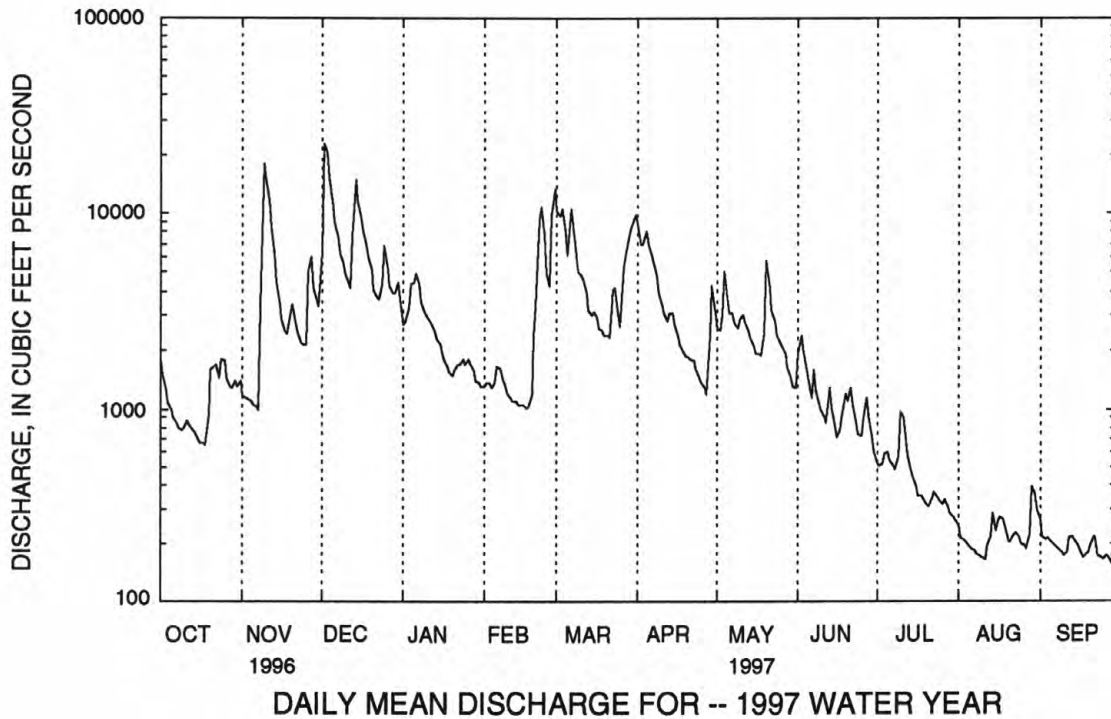
SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1913 - 1997	
ANNUAL TOTAL	1303826		982777		2420	
ANNUAL MEAN	3562		2693		3618	1943
HIGHEST ANNUAL MEAN					1307	1965
LOWEST ANNUAL MEAN					55400	Jul 8 1935
HIGHEST DAILY MEAN	31200	Jan 20	22500	Dec 2	88	Sep 19 1939
LOWEST DAILY MEAN	329	Sep 5	157	Sep 28	94	Sep 19 1939
ANNUAL SEVEN-DAY MINIMUM	364	Sep 1	170	Sep 23	a96000	Jul 8 1935
INSTANTANEOUS PEAK FLOW			24500	Dec 2	b20.30	Jul 8 1935
INSTANTANEOUS PEAK STAGE			10.80	Dec 2		
INSTANTANEOUS LOW FLOW			155	c	84	d
10 PERCENT EXCEEDS	8550		6840		6000	
50 PERCENT EXCEEDS	2050		1600		1300	
90 PERCENT EXCEEDS	752		207		300	

a From rating curve extended above 32,000 ft³/s on basis of slope-area measurement of peak flow.

b From floodmarks.

c Sep. 25, 28, 29.

d Sep. 19, 25, 1939.



SUSQUEHANNA RIVER BASIN

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 mi².

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

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,202.85 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Since November 1939, flows above 500 ft³/s controlled by detention in Arkport Reservoir (see station 01521000). Several measurements of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 8, 1935, reached a discharge of 4,820 ft³/s, on basis of slope-area measurement.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	26	228	e22	18	71	76	17	155	e6.5	e2.0	1.9
2	12	22	275	25	16	122	66	15	290	e6.0	e1.8	1.7
3	11	20	77	37	17	74	51	17	261	e6.0	e1.8	4.5
4	8.8	19	55	29	18	50	40	21	70	e5.5	e3.0	3.4
5	7.5	19	46	39	54	53	33	16	39	e5.0	e5.0	2.3
6	6.4	17	39	46	39	222	31	33	28	e5.0	e3.0	2.0
7	5.8	16	35	e30	28	81	28	28	24	e4.5	1.8	1.8
8	5.2	411	31	e28	e24	62	24	21	21	e4.5	1.5	2.0
9	5.0	754	27	e26	e22	53	21	19	17	e60	1.4	1.8
10	7.9	233	24	e24	e19	56	19	19	14	e45	1.4	1.9
11	11	75	24	e22	e17	59	18	19	12	e6.0	2.2	6.7
12	9.0	50	43	e20	15	40	32	17	10	e5.0	3.1	15
13	7.6	40	185	e18	e14	e30	62	16	16	e4.5	2.9	7.9
14	6.8	35	117	e16	e13	49	39	14	12	e4.0	3.3	6.1
15	6.0	29	60	e15	e12	68	30	15	9.2	e4.5	2.6	4.4
16	7.2	25	44	e14	e11	e40	25	17	7.9	e7.0	7.6	3.5
17	5.4	26	38	e13	e10	e35	32	19	51	e5.0	5.9	3.2
18	5.9	33	34	e13	e16	34	44	17	110	e3.5	6.6	4.2
19	421	32	30	e12	e170	29	40	330	e90	e3.5	4.3	3.8
20	449	27	e21	e11	153	30	43	303	e25	e3.0	3.0	9.4
21	199	23	e21	e10	309	27	33	71	e12	e4.5	2.9	11
22	122	21	20	e11	306	71	27	44	e9.0	e8.0	3.0	5.8
23	63	18	23	e50	74	e40	25	32	e7.0	e6.0	3.1	4.3
24	48	18	98	e35	e40	e30	22	26	e80	e25	3.1	3.9
25	34	20	70	e70	e30	41	20	23	e50	e12	2.6	3.7
26	26	129	38	e60	27	373	19	21	e35	e8.0	2.3	6.3
27	22	53	32	e40	549	87	16	18	e40	e5.0	2.2	5.7
28	21	e40	33	e25	287	69	27	15	e15	e3.0	2.0	4.3
29	20	30	38	e22	---	79	25	13	e9.0	e2.8	2.0	176
30	38	29	31	e21	---	90	20	13	e7.0	e2.5	2.0	101
31	38	---	e26	e20	---	131	---	15	---	e2.5	1.9	---
TOTAL	1646.5	2290	1863	824	2308	2296	988	1264	1526.1	273.3	91.3	409.5
MEAN	53.1	76.3	60.1	26.6	82.4	74.1	32.9	40.8	50.9	8.82	2.95	13.6
MAX	449	754	275	70	549	373	76	330	290	60	7.6	176
MIN	5.0	16	20	10	10	27	16	13	7.0	2.5	1.4	1.7

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 1997, BY WATER YEAR (WY)

MEAN	16.9	30.0	39.0	36.5	45.1	86.3	83.2	40.4	26.7	7.91	6.25	10.3
MAX	98.4	106	132	113	195	188	205	144	245	46.2	58.6	151
(WY)	1977	1951	1973	1996	1976	1942	1993	1943	1972	1992	1984	1977
MIN	1.09	1.62	1.67	1.85	8.28	24.9	10.9	5.81	1.57	.82	.88	.59
(WY)	1942	1961	1961	1961	1958	1981	1946	1955	1955	1955	1966	1995

SUSQUEHANNA RIVER BASIN
01521500 CANISTEO RIVER AT ARKPORT, NY--Continued

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SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1937 - 1997	
ANNUAL TOTAL	21353.5		15779.7		35.6	
ANNUAL MEAN	58.3		43.2		55.9	
HIGHEST ANNUAL MEAN					20.9	
LOWEST ANNUAL MEAN					1300	
HIGHEST DAILY MEAN	950	Jan 20	754	Nov 9		Feb 20 1939
LOWEST DAILY MEAN	1.7	a	1.4	b	.19	Sep 12 1995
ANNUAL SEVEN-DAY MINIMUM	1.9	Aug 24	2.0	Aug 27	.28	Sep 7 1995
INSTANTANEOUS PEAK FLOW			798	Nov 9	2000	c
INSTANTANEOUS PEAK STAGE			3.25	Nov 9	d5.63	Feb 19 1939
INSTANTANEOUS LOW FLOW			1.2	f	g.00	h
10 PERCENT EXCEEDS	121		79		77	
50 PERCENT EXCEEDS	21		21		12	
90 PERCENT EXCEEDS	2.8		3.1		1.7	

a Aug. 26, 27, 28.

b Aug. 9, 10.

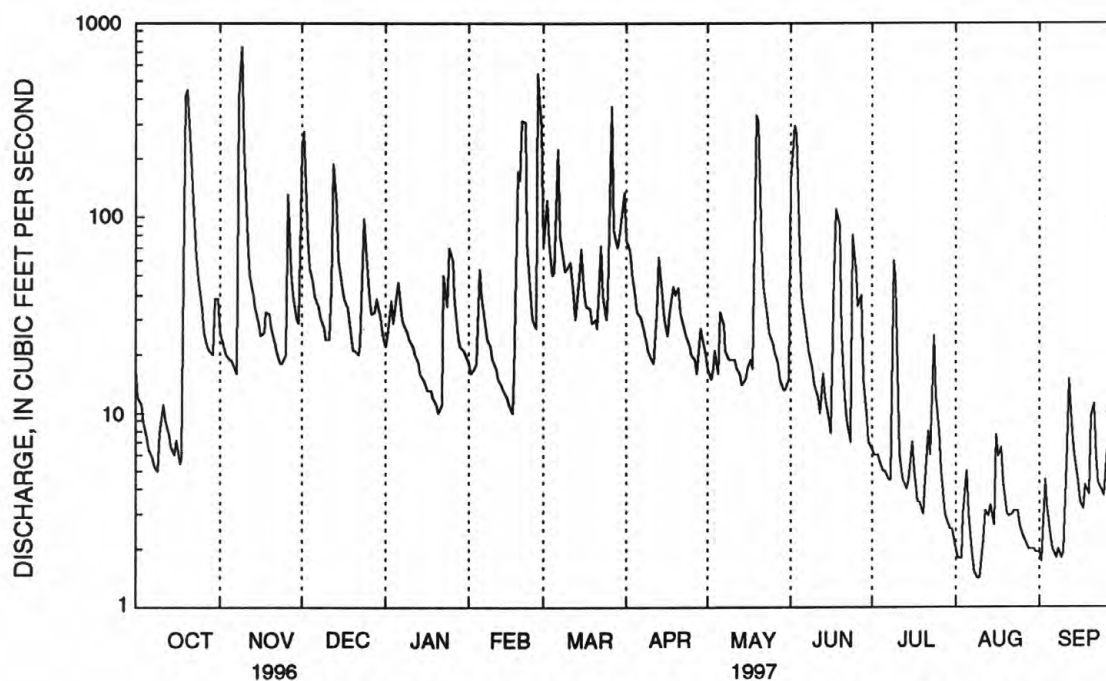
c Mar 5, 1938, Feb. 20, 1939.

d Ice jam.

f Aug. 9, 10, 11.

g Practically no flow (result of construction operations).

h Jul 30, 1938, Sep. 30, 1939.



DAILY MEAN DISCHARGE FOR -- 1997 WATER YEAR

01523500 CANACADEA CREEK NEAR HORNELL, NY

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

DRAINAGE AREA.--57.9 mi².

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

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

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

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 8, 1935, reached a stage of 16.61 ft, from floodmarks, discharge, 21,000 ft³/s, on basis of slope-area measurement of peak flow.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.8	82	235	32	32	386	160	35	519	18	12	17
2	7.8	74	566	44	31	208	123	30	465	16	12	8.6
3	7.2	50	238	82	35	236	86	36	663	18	13	13
4	5.9	38	105	67	32	172	74	46	332	15	15	19
5	9.0	44	92	52	78	110	63	49	131	12	19	19
6	12	47	84	83	83	271	55	50	64	14	17	12
7	12	39	80	66	46	240	27	50	45	14	13	6.3
8	16	116	58	e45	47	148	6.8	39	51	14	9.9	6.3
9	18	328	51	37	40	123	6.4	31	46	134	14	11
10	18	1140	50	34	31	122	21	30	34	98	18	14
11	23	1080	50	44	31	112	41	36	32	11	12	18
12	25	264	90	37	28	79	41	43	34	15	17	34
13	25	126	320	31	28	55	69	38	38	13	22	30
14	21	93	295	31	28	59	88	29	40	9.3	14	23
15	13	62	122	26	30	107	73	32	38	11	12	20
16	11	59	78	28	26	104	53	35	35	17	21	18
17	13	55	71	25	23	63	44	38	91	15	20	8.3
18	16	70	70	e20	37	68	71	37	143	9.3	16	6.9
19	234	49	56	e20	261	77	84	567	325	9.3	14	6.6
20	872	27	45	e20	359	60	71	799	73	9.3	13	18
21	883	53	e39	28	273	52	66	397	50	19	13	25
22	524	99	39	26	655	130	61	147	39	20	14	25
23	218	64	44	86	301	107	52	85	28	16	14	17
24	113	38	86	64	55	47	47	55	58	33	14	12
25	73	49	191	56	38	43	47	49	78	30	14	12
26	56	238	108	68	41	460	43	43	49	20	14	13
27	47	214	63	47	400	322	36	39	54	14	14	13
28	47	91	79	39	685	133	45	38	44	9.3	11	13
29	41	65	85	37	---	133	61	36	29	9.3	7.8	191
30	41	70	54	31	---	114	48	33	21	13	12	189
31	84	---	42	33	---	172	---	43	---	13	17	---
TOTAL	3493.7	4824	3586	1339	3754	4513	1763.2	3015	3649	668.8	448.7	819.0
MEAN	113	161	116	43.2	134	146	58.8	97.3	122	21.6	14.5	27.3
MAX	883	1140	566	86	685	460	160	799	663	134	22	191
MIN	5.9	27	39	20	23	43	6.4	29	21	9.3	7.8	6.3

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1943, 1945 - 1997 BY WATER YEAR (WY)

MEAN	34.3	58.3	71.3	65.7	77.4	152	143	74.8	56.8	23.1	18.9	26.0
MAX	139	193	218	215	278	341	470	215	547	111	128	198
(WY)	1977	1951	1973	1996	1976	1945	1993	1984	1972	1972	1984	1977
MIN	6.81	7.63	7.13	6.55	17.7	33.4	22.8	15.5	5.24	4.63	5.13	5.60
(WY)	1942	1942	1961	1961	1980	1969	1946	1955	1965	1965	1965	1941

SUSQUEHANNA RIVER BASIN
01523500 CANACADEA CREEK NEAR HORNELLS, NY--Continued

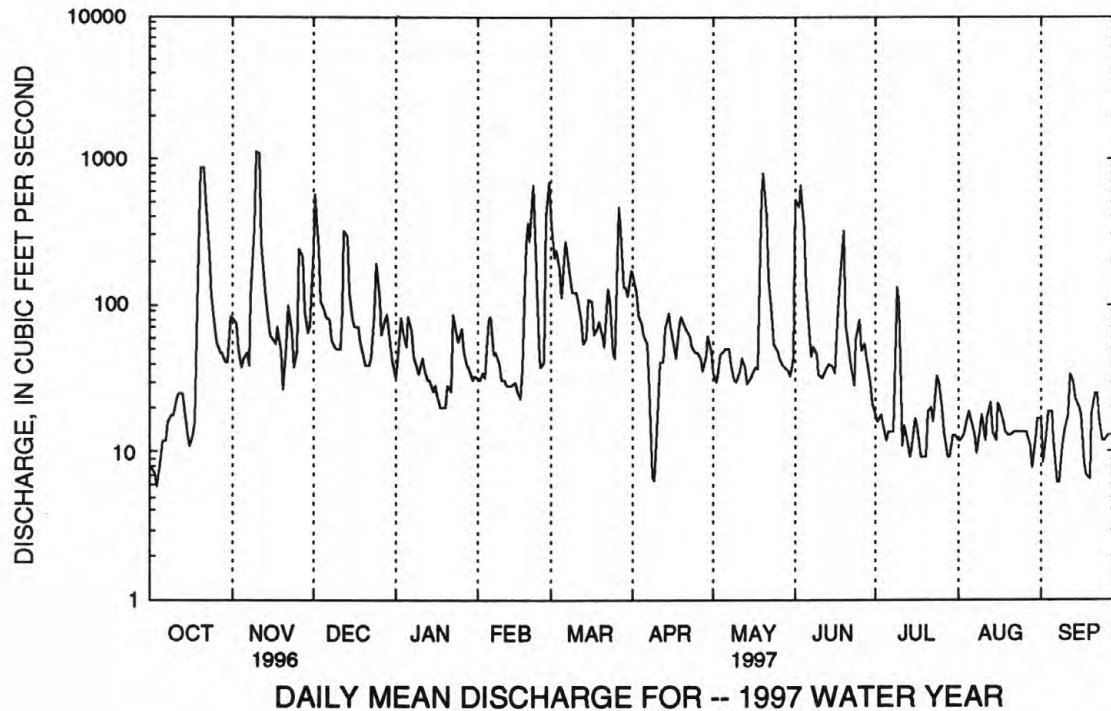
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SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1941 - 1943 1945 - 1997	
ANNUAL TOTAL	40140.4		31873.4		66.5	
ANNUAL MEAN	110		87.3		110	
HIGHEST ANNUAL MEAN					36.9	
LOWEST ANNUAL MEAN					1972	
HIGHEST DAILY MEAN	1450	Jan 22	1140	Nov 10	3970	Jun 23 1972
LOWEST DAILY MEAN	5.9	Oct 4	5.9	Oct 4	.60	a
ANNUAL SEVEN-DAY MINIMUM	6.9	Aug 30	8.8	Oct 1	.83	May 26 1965
INSTANTANEOUS PEAK FLOW			1630	Nov 10	b9430	May 17 1945
INSTANTANEOUS PEAK STAGE			3.33	Nov 10	6.65	Jun 3 1947
INSTANTANEOUS LOW FLOW			4.6	c	.50	May 29 1965
10 PERCENT EXCEEDS	238		216		146	
50 PERCENT EXCEEDS	44		41		26	
90 PERCENT EXCEEDS	9.6		12		8.2	

a May 30, 31, June 1, 1965

b From rating curve extended above 3,400 ft³/s.

c Sep. 2, 3.



SUSQUEHANNA RIVER BASIN

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 mi².

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

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,131.32 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Diversion from Carrington Creek, a tributary upstream from station, by City of Hornell for municipal supply (1997 average 3.8 ft³/s); effluent from wastewater treatment plant enters river downstream from gage. Since Nov. 1939, flood flows regulated by Arkport Reservoir (see station 01521000), and, since October 1948, by Almond Lake (see station 01523000); normal regulation occasionally sufficient to affect figures of monthly runoff. Telephone and satellite gage-height telemeters at station. Several measurements of water temperature were made during the year.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	171	689	101	90	573	389	103	994	64	29	35
2	46	146	1170	109	76	478	345	89	1010	63	27	30
3	40	121	526	e160	83	421	278	101	1230	61	29	38
4	34	100	341	e130	79	327	236	122	555	57	34	40
5	31	105	304	e125	172	278	203	113	299	49	38	38
6	30	107	268	e170	179	727	183	130	195	48	36	34
7	28	96	238	e130	114	463	145	133	153	46	30	28
8	27	1050	204	e110	105	339	102	105	144	46	26	27
9	27	1590	167	e100	e80	290	91	91	126	228	28	30
10	30	1520	149	90	e70	298	95	91	100	184	33	33
11	e55	1170	148	79	72	301	119	99	88	56	33	52
12	e50	442	234	72	81	221	133	101	86	50	35	78
13	e40	304	706	e65	e50	161	235	93	104	47	43	61
14	e35	248	658	e55	e50	199	214	78	94	39	34	46
15	27	202	349	51	e52	295	176	81	84	40	30	40
16	25	178	263	47	e52	231	145	89	75	50	47	37
17	23	176	232	e42	e50	163	149	93	194	41	46	28
18	24	190	212	e42	96	168	212	89	282	31	47	28
19	796	176	183	42	477	179	219	1040	547	31	38	28
20	1350	138	e140	37	652	164	213	1350	178	30	39	45
21	1280	131	e120	e40	623	144	186	563	123	41	37	58
22	826	147	e120	e44	1150	306	168	292	96	56	37	48
23	408	129	128	e160	482	234	147	198	71	49	37	39
24	290	104	265	140	e200	142	133	149	313	88	38	33
25	203	108	363	154	e120	146	123	130	246	59	36	34
26	157	498	201	164	e110	946	115	115	207	45	36	45
27	131	357	154	120	1240	540	100	99	202	38	35	40
28	127	201	148	e90	1210	335	133	91	131	32	33	35
29	115	169	161	e78	---	356	149	84	93	31	29	489
30	147	157	134	e75	---	376	124	77	73	32	31	374
31	200	---	117	73	---	510	---	216	---	32	36	---
TOTAL	6655	10231	9092	2895	7815	10311	5260	6205	8093	1764	1087	1971
MEAN	215	341	293	93.4	279	333	175	200	270	56.9	35.1	65.7
MAX	1350	1590	1170	170	1240	946	389	1350	1230	228	47	489
MIN	23	96	117	37	50	142	91	77	71	30	26	27

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1997, BY WATER YEAR (WY)

	MEAN	78.5	130	162	154	185	360	345	197	141	55.4	47.1	60.8
	MAX	304	455	551	440	722	826	877	696	1226	249	303	498
	(WY)	1977	1951	1973	1996	1976	1945	1993	1943	1972	1972	1984	1977
	MIN	13.5	17.9	16.6	15.6	35.6	111	66.6	42.4	20.1	13.8	13.2	11.7
	(WY)	1965	1965	1961	1961	1963	1969	1946	1955	1955	1955	1965	1955

SUSQUEHANNA RIVER BASIN

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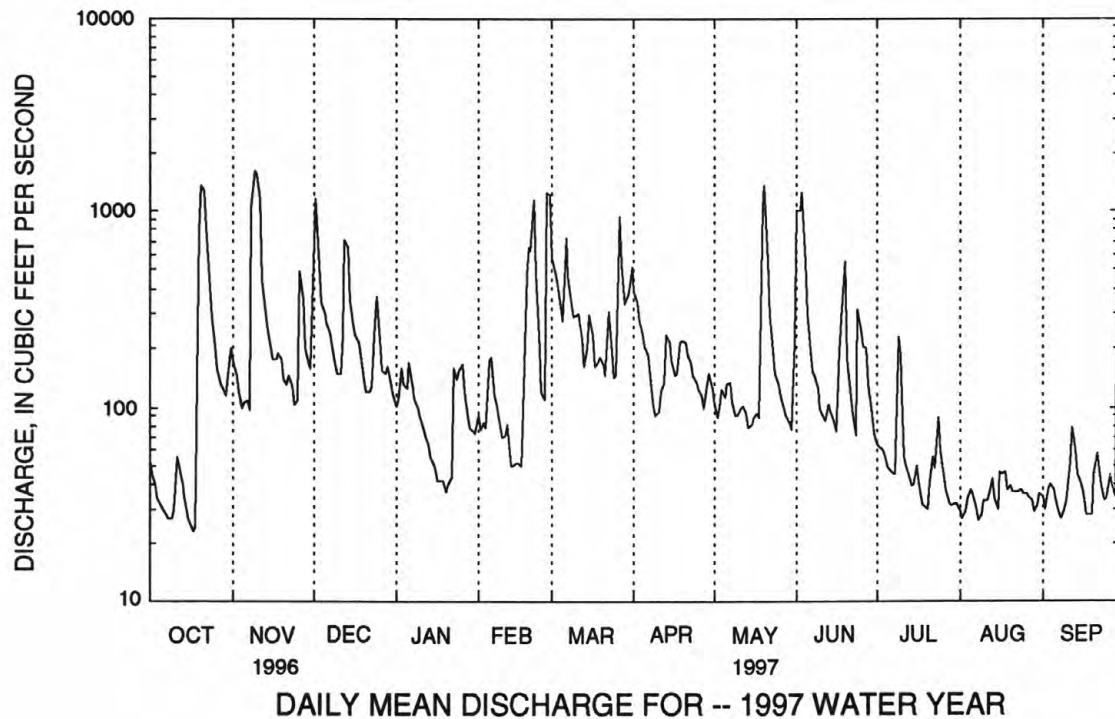
01524500 CANISTEO RIVER BELOW CANACADEA CREEK, AT HORNE LL, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1942 - 1997	
ANNUAL TOTAL	86569		71379		159	
ANNUAL MEAN	237		196		255	
HIGHEST ANNUAL MEAN					79.8	
LOWEST ANNUAL MEAN					1972	
HIGHEST DAILY MEAN	2370	Apr 14	1590	Nov 9	7440	Jun 23 1972
LOWEST DAILY MEAN	19	Jul 29	23	Oct 17	9.0	Sep 13 1955
ANNUAL SEVEN-DAY MINIMUM	23	Jan 9	30	Oct 4	10	Sep 8 1955
INSTANTANEOUS PEAK FLOW			2090	Nov 8	a9560	Jun 23 1972
INSTANTANEOUS PEAK STAGE			4.35	Nov 8	b13.45	Jun 23 1972
INSTANTANEOUS LOW FLOW			23	Oct 17	7.4	c
10 PERCENT EXCEEDS	536		469		350	
50 PERCENT EXCEEDS	112		113		70	
90 PERCENT EXCEEDS	29		33		22	

a From rating curve extended above 7,600 ft³/s on basis of critical-depth measurement of peak flow.

b From floodmark.

c Sep. 13, 14, 1955.



SUSQUEHANNA RIVER BASIN
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 mi².

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

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

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

REMARKS.--Records good except those for estimated daily discharges, which are fair. High flows regulated by upstream reservoirs. Since March 1979, flood flows regulated by Tioga Lake; normal regulation occasionally sufficient to affect figures of monthly runoff. Telephone and satellite gage-height telemeters at station. Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	826	e1400	2480	1210	544	5460	3810	822	1360	293	153	151
2	704	e1100	12900	970	599	5630	3090	746	2810	413	148	153
3	599	e1000	8440	1380	591	5000	2810	724	6830	353	144	167
4	548	e980	6250	1630	579	3460	2470	928	3700	283	141	158
5	482	920	3750	1520	888	3490	2090	844	2130	236	146	156
6	424	761	2850	1440	1740	9710	2020	790	1430	210	147	149
7	387	722	e2620	e1350	1090	6530	1730	861	1140	210	144	145
8	349	15200	2340	e940	868	4050	1360	832	1060	221	137	139
9	337	e16000	1930	e730	e650	3460	1070	841	843	458	128	124
10	313	e12200	1670	e730	e600	2960	1030	766	748	1640	123	117
11	320	e12000	1690	e720	e540	2760	1080	737	638	805	123	135
12	323	e11800	3120	e700	e520	2310	1110	744	567	573	124	168
13	317	e9000	7630	e700	e460	1730	1680	732	653	432	140	280
14	312	7610	11500	e680	e420	1640	1450	685	574	327	146	e310
15	300	7200	6230	e640	e440	2150	1110	607	503	249	147	e290
16	288	5410	3950	e600	e440	2140	819	582	429	210	156	e240
17	250	1610	3330	e580	e420	1500	1040	540	420	206	148	e190
18	238	1840	2830	e560	e520	1350	1260	533	632	198	166	e160
19	5700	2040	2450	e540	e1500	1760	1190	2140	1650	175	156	143
20	14600	1970	2000	e520	e4500	1850	1200	4300	1020	168	185	145
21	12700	1390	1390	e540	3080	1670	1130	2780	643	164	230	137
22	9640	1350	1330	e620	5460	2360	1030	1570	541	174	183	154
23	4680	1320	1470	e700	4700	2600	875	1150	473	193	166	152
24	3440	1250	1910	e900	2530	2010	871	981	503	203	164	148
25	2670	1240	2390	e950	1970	1540	851	896	1110	231	164	135
26	1960	3980	2240	e1350	1380	4360	843	897	864	208	151	134
27	1590	4310	1870	e950	6660	4520	737	857	1130	185	143	135
28	1490	2270	1610	e860	7650	2760	837	754	770	180	143	141
29	1370	2150	1810	e780	---	3060	1010	654	474	170	140	294
30	1330	2020	2050	e680	---	3980	907	577	334	163	135	1340
31	1540	---	1860	e540	---	4590	---	546	---	156	145	---
TOTAL	70027	132043	109890	27010	51339	102390	42510	31416	35979	9687	4666	6290
MEAN	2259	4401	3545	871	1834	3303	1417	1013	1199	312	151	210
MAX	14600	16000	12900	1630	7650	9710	3810	4300	6830	1640	230	1340
MIN	238	722	1330	520	420	1350	737	533	334	156	123	117
CFSM	1.64	3.20	2.57	.63	1.33	2.40	1.03	.74	.87	.23	.11	.15
IN.	1.89	3.57	2.97	.73	1.39	2.77	1.15	.85	.97	.26	.13	.17

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1918 - 1997, BY WATER YEAR (WY)

MEAN	613	1169	1344	1264	1493	3435	3317	1952	1017	436	353	356
MAX	4160	5296	4369	4870	5305	11350	11970	7043	8905	2310	3257	3993
(WY)	1991	1928	1973	1996	1976	1936	1993	1919	1972	1935	1994	1975
MIN	44.8	60.4	95.5	108	140	843	469	316	136	72.7	49.6	38.7
(WY)	1965	1965	1931	1961	1934	1981	1946	1934	1955	1962	1966	1932

SUSQUEHANNA RIVER BASIN
01526500 TIOGA RIVER NEAR ERWINS, NY--Continued

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SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1918 - 1997	
ANNUAL TOTAL	918719		623247		1394	
ANNUAL MEAN	2510		1708		2371	
HIGHEST ANNUAL MEAN					634	
LOWEST ANNUAL MEAN					1978	
HIGHEST DAILY MEAN	28000	Jan 19	e16000	Nov 9	110000	Jun 23 1972
LOWEST DAILY MEAN	116	Sep 4	117	Sep 10	20	Sep 2 1939
ANNUAL SEVEN-DAY MINIMUM	121	Aug 31	131	Aug 7	22	Aug 28 1939
INSTANTANEOUS PEAK FLOW			30000	Nov 8	a190000	Jun 23 1972
INSTANTANEOUS PEAK STAGE			13.72	Nov 8	b26.74	Jun 23 1972
INSTANTANEOUS LOW FLOW			117	c	18	d
ANNUAL RUNOFF (CFSM)	1.82		1.24		1.01	
ANNUAL RUNOFF (INCHES)	24.82		16.84		13.76	
10 PERCENT EXCEEDS	7320		4150		3320	
50 PERCENT EXCEEDS	1170		844		533	
90 PERCENT EXCEEDS	173		152		107	

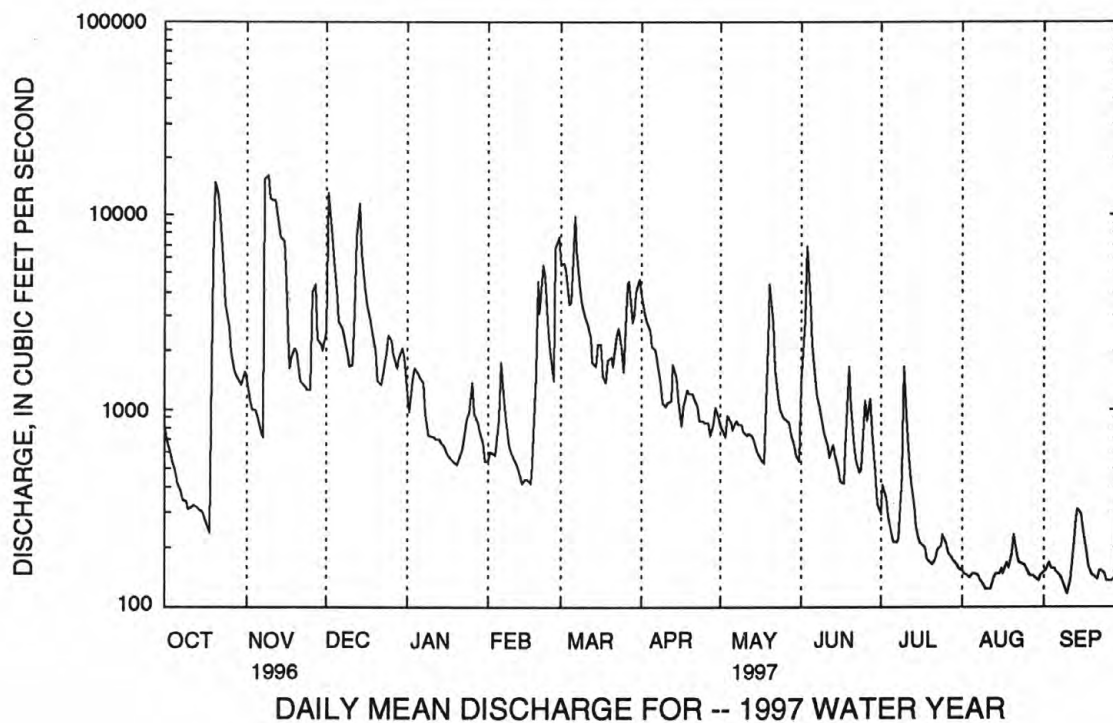
a From rating curve extended above 90,000 ft³/s, on basis of computation of peak flow at Lindley and Canisteo River at Erwins, 7.2 mi and 2.0 mi upstream, respectively, adjusted for flow from intervening area.

b From floodmarks.

c Sep. 10, 11

d Sep. 2, 3, 1939.

e Estimated



SUSQUEHANNA RIVER BASIN
01527500 COHOCTON RIVER AT AVOCA, NY

LOCATION.--Lat 42°23'52", long 77°25'04", Steuben County, Hydrologic Unit 02050105, on left bank just downstream from bridge on State Highway 415, 0.2 mi north of Avoca, 1.6 mi upstream from Goff Creek, and 6.4 mi north of Bath.

DRAINAGE AREA.-- 152 mi².

PERIOD OF RECORD.-- May 1938 to September 1945; June 1996 to September 1997 (station discontinued).

GAGE.--Water-stage recorder. Datum of gage is 1,182.75 ft above sea level. May 16, 1938 to Sep. 30, 1945, at site 4,200 ft downstream at datum 2.75 ft lower.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 23, 1972 reached a discharge of 13,300 ft³/s, on basis of contracted opening measurement of peak flow.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	175	52	28
2	---	---	---	---	---	---	---	---	---	147	52	28
3	---	---	---	---	---	---	---	---	---	167	51	27
4	---	---	---	---	---	---	---	---	---	162	47	26
5	---	---	---	---	---	---	---	---	---	140	44	29
6	---	---	---	---	---	---	---	---	---	124	42	29
7	---	---	---	---	---	---	---	---	---	110	40	39
8	---	---	---	---	---	---	---	---	---	103	89	43
9	---	---	---	---	---	---	---	---	---	92	186	45
10	---	---	---	---	---	---	---	---	e130	83	90	45
11	---	---	---	---	---	---	---	---	114	78	66	41
12	---	---	---	---	---	---	---	---	105	72	58	61
13	---	---	---	---	---	---	---	---	119	69	53	377
14	---	---	---	---	---	---	---	---	107	66	51	231
15	---	---	---	---	---	---	---	---	99	116	46	155
16	---	---	---	---	---	---	---	---	90	97	47	118
17	---	---	---	---	---	---	---	---	82	80	48	138
18	---	---	---	---	---	---	---	---	e90	71	45	213
19	---	---	---	---	---	---	---	---	e120	78	41	152
20	---	---	---	---	---	---	---	---	e200	87	39	128
21	---	---	---	---	---	---	---	---	259	75	37	109
22	---	---	---	---	---	---	---	---	286	68	36	96
23	---	---	---	---	---	---	---	---	285	62	35	88
24	---	---	---	---	---	---	---	---	231	55	35	77
25	---	---	---	---	---	---	---	---	278	52	34	82
26	---	---	---	---	---	---	---	---	198	54	33	76
27	---	---	---	---	---	---	---	---	166	53	31	68
28	---	---	---	---	---	---	---	---	145	51	31	102
29	---	---	---	---	---	---	---	---	132	49	30	184
30	---	---	---	---	---	---	---	---	244	50	29	129
31	---	---	---	---	---	---	---	---	---	50	28	---
TOTAL	---	---	---	---	---	---	---	---	---	2736	1546	2964
MEAN	---	---	---	---	---	---	---	---	---	88.3	49.9	98.8
MAX	---	---	---	---	---	---	---	---	---	175	186	377
MIN	---	---	---	---	---	---	---	---	---	49	28	26

e Estimated

SUSQUEHANNA RIVER BASIN
01527500 COHOCTON RIVER AT AVOCA, NY--Continued

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DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	116	195	606	e180	99	572	438	163	341	107	43	31
2	104	184	1160	200	97	565	422	150	421	106	39	30
3	95	173	749	235	98	466	399	168	445	103	38	75
4	90	163	603	220	96	412	366	169	347	96	36	44
5	84	151	506	231	133	386	331	148	288	87	35	38
6	77	141	450	233	123	550	312	156	245	78	35	35
7	72	151	401	204	108	427	287	145	250	72	33	33
8	67	1050	364	e170	100	399	257	133	212	74	33	33
9	64	1850	322	e170	e90	364	235	127	182	150	32	32
10	74	1200	290	e160	e90	365	214	149	159	119	32	31
11	88	883	277	e160	e90	360	199	156	139	98	34	43
12	79	668	303	e140	85	319	215	141	136	79	42	73
13	74	525	543	e135	79	282	254	133	174	69	43	58
14	69	436	572	e130	84	288	226	123	138	62	42	53
15	62	376	505	e130	83	296	203	126	115	70	37	46
16	58	327	457	e120	80	e250	188	125	104	73	44	40
17	55	298	416	e110	80	232	201	122	171	62	46	36
18	54	286	379	e100	95	237	217	117	185	56	50	39
19	708	266	346	e95	289	222	212	322	223	53	42	38
20	973	247	297	e90	382	218	218	470	150	50	37	44
21	786	225	e265	e100	442	206	206	373	140	52	37	42
22	641	208	253	118	603	258	199	339	117	65	39	38
23	508	192	248	150	425	214	191	287	102	56	37	36
24	424	182	313	e140	358	192	184	248	191	64	36	35
25	348	184	294	e140	e280	213	175	228	160	61	33	34
26	292	325	249	e130	257	480	166	209	266	56	33	48
27	247	248	237	e120	1030	391	157	187	231	54	32	42
28	234	238	236	e110	740	398	216	173	169	54	33	40
29	209	221	243	e100	---	410	190	146	139	53	32	189
30	237	213	228	e95	---	421	172	141	118	48	32	184
31	224	---	208	e95	---	498	---	151	---	e45	31	---
TOTAL	7213	11806	12320	4511	6516	10891	7250	5825	6058	2272	1148	1540
MEAN	233	394	397	146	233	351	242	188	202	73.3	37.0	51.3
MAX	973	1850	1160	235	1030	572	438	470	445	150	50	189
MIN	54	141	208	90	79	192	157	117	102	45	31	30

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1945, 1996 - 1997 BY WATER YEAR (WY)

MEAN	65.6	117	159	113	182	492	486	269	134	81.3	44.7	73.8
MAX	233	394	397	280	417	997	1143	746	211	187	95.4	231
(WY)	1997	1997	1997	1943	1939	1945	1940	1943	1945	1942	1942	1945
MIN	15.2	19.2	34.5	43.8	68.4	237	242	84.1	38.9	25.8	18.9	13.5
(WY)	1942	1942	1942	1942	1942	1941	1997	1941	1939	1941	1941	1941

SUSQUEHANNA RIVER BASIN
01527500 COHOCTON RIVER AT AVOCA, NY--Continued

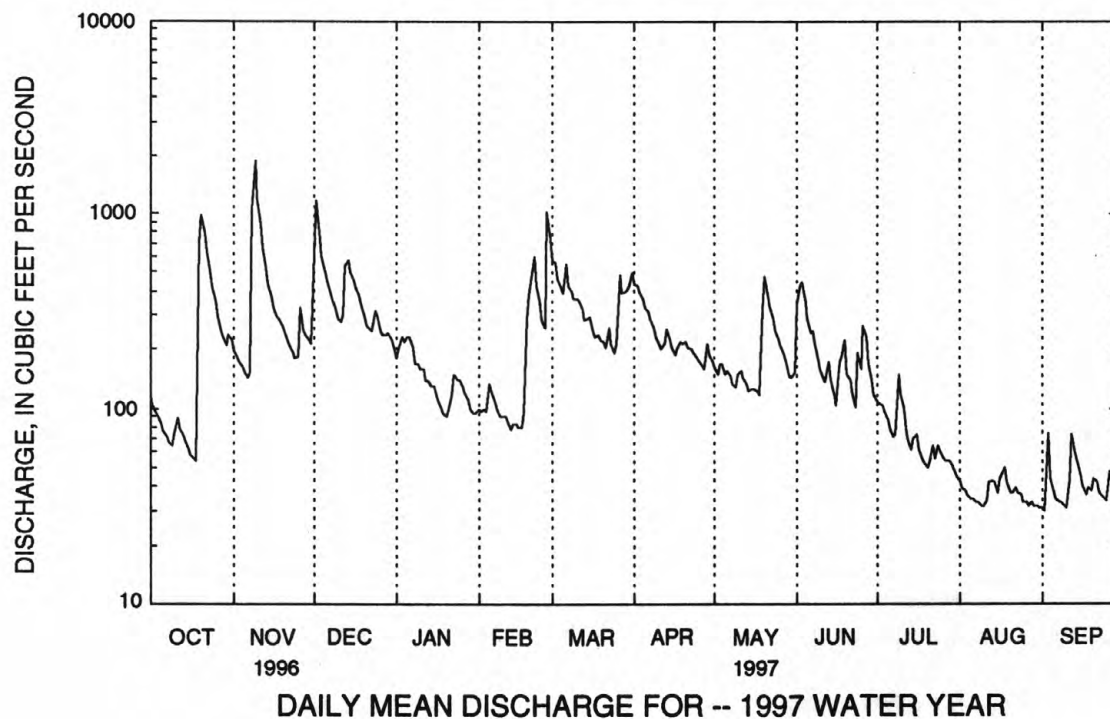
SUMMARY STATISTICS

FOR 1997 WATER YEAR

WATER YEARS 1938 - 1945
1996 - 1997

ANNUAL TOTAL	77350			
ANNUAL MEAN	212			184
HIGHEST ANNUAL MEAN				245 1943
LOWEST ANNUAL MEAN				141 1941
HIGHEST DAILY MEAN	1850	Nov 9	3450	Mar 17 1942
LOWEST DAILY MEAN	30	Sep 2	10	Sep 26 1941
ANNUAL SEVEN-DAY MINIMUM	32	Aug 27	11	Sep 23 1941
INSTANTANEOUS PEAK FLOW	2260	Nov 9	3880	Mar 17 1942
INSTANTANEOUS PEAK STAGE	5.72	Nov 9	8.88	Mar 17 1942
INSTANTANEOUS LOW FLOW	28	Sep 2	26	a
10 PERCENT EXCEEDS	426		426	
50 PERCENT EXCEEDS	160		80	
90 PERCENT EXCEEDS	39		25	

a Sep. 3, 4, 1996.



01529500 COHOCTON RIVER NEAR CAMPBELL, NY

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

DRAINAGE AREA.--470 mi².

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

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

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

REMARKS.--Records good except those for periods of estimated daily discharges, which are fair. During each year since March 1931, a large part of flow from 45.5 mi² of drainage area upstream from Lake Lamoka on Mud Creek, a tributary upstream from this station, has been diverted into Keuka Lake (Oswego River basin), for power development. Telephone and satellite gage-height telemeters at station. Several measurements of water temperature were made during the year. Pesticide sample collected as part of state-wide sampling network in cooperation with the New York State Department of Environmental Conservation. Analyses published on page 277.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Oct. 19	2300	4,820	5.02	Dec. 2	0500	4,230	4.62
Nov. 9	0330	*8,820	*6.93	Feb. 27	1530	4,420	4.75

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	348	637	1390	382	e210	1700	1480	379	1050	200	79	55
2	254	580	3410	423	e210	1610	1440	346	1260	199	78	54
3	228	539	2240	508	e200	1420	1320	357	1780	189	75	92
4	204	495	1630	550	e220	1170	1160	419	1010	234	73	91
5	186	452	1370	506	e320	1110	972	359	729	249	74	67
6	172	419	1220	573	394	2020	887	335	571	232	72	60
7	162	408	1100	e460	306	e1500	820	337	542	221	67	56
8	151	3680	969	e380	267	e1200	722	308	478	172	64	54
9	145	7220	859	e380	e220	1100	583	292	397	296	61	51
10	146	4130	765	e360	e200	e1000	510	306	342	374	58	51
11	180	2730	711	e350	e200	e1000	476	340	301	230	57	61
12	166	2040	843	e310	e190	826	487	313	271	181	70	144
13	152	1670	1700	e300	e180	675	766	295	315	155	77	112
14	142	1420	2370	e290	e170	678	627	276	284	137	77	101
15	133	1220	1690	e280	e180	e720	614	272	245	128	69	88
16	125	1050	1360	e280	e180	e600	591	271	221	160	74	75
17	119	953	1180	e260	e170	552	599	266	262	133	84	67
18	115	907	1040	e230	e200	e600	602	256	285	123	92	68
19	2060	856	943	e210	e750	e580	540	938	466	142	83	65
20	3830	734	814	e200	1360	612	576	1300	316	162	72	72
21	2930	639	e680	e220	1290	572	529	1090	275	112	70	79
22	2410	581	e660	e260	1910	793	490	844	240	139	69	70
23	1790	537	649	e320	1230	675	454	669	210	123	69	64
24	1410	511	831	e300	846	544	425	555	292	168	67	60
25	1010	529	884	e350	605	543	394	494	467	142	64	60
26	687	1170	671	e300	561	1440	375	453	458	118	61	80
27	566	944	618	e280	2690	1130	357	388	686	107	59	82
28	514	728	608	e250	2550	1090	502	387	350	102	57	70
29	579	770	643	e230	---	1120	549	362	267	100	60	371
30	637	703	613	e220	---	1300	429	348	224	91	56	360
31	748	---	486	e200	---	1750	---	356	---	84	55	---
TOTAL	22299	39252	34947	10162	17809	31630	20276	13911	14594	5203	2143	2780
MEAN	719	1308	1127	328	636	1020	676	449	486	168	69.1	92.7
MAX	3830	7220	3410	573	2690	2020	1480	1300	1780	374	92	371
MIN	115	408	486	200	170	543	357	256	210	84	55	51

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1918 - 1997, BY WATER YEAR (WY)

	190	341	431	406	486	1115	1132	609	339	181	120	136
MEAN	190	341	431	406	486	1115	1132	609	339	181	120	136
MAX	1284	1611	1861	1494	2059	3793	3579	2074	3167	2278	649	1204
(WY)	1956	1928	1928	1996	1976	1936	1993	1919	1972	1935	1992	1977
MIN	25.7	33.0	42.5	32.5	75.1	312	201	143	59.2	31.1	25.0	15.5
(WY)	1942	1942	1961	1961	1920	1965	1946	1934	1955	1955	1934	1934

SUSQUEHANNA RIVER BASIN
01529500 COHOCTON RIVER NEAR CAMPBELL, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1918 - 1997	
ANNUAL TOTAL	318560		215006			
ANNUAL MEAN	870		589		457	
HIGHEST ANNUAL MEAN					766	
LOWEST ANNUAL MEAN					210	
HIGHEST DAILY MEAN	10500	Jan 19	7220	Nov 9	24400	Jul 8 1935
LOWEST DAILY MEAN	48	Sep 4	51	a	8.0	Sep 6 1934
ANNUAL SEVEN-DAY MINIMUM	50	Aug 31	57	Aug 27	11	Sep 3 1934
INSTANTANEOUS PEAK FLOW			8820	Nov 9	b41100	Jul 8 1935
INSTANTANEOUS PEAK STAGE			6.93	Nov 9	c11.60	Jul 8 1935
INSTANTANEOUS LOW FLOW			51	d	8.0	f
10 PERCENT EXCEEDS	1980		1340		1100	
50 PERCENT EXCEEDS	506		360		205	
90 PERCENT EXCEEDS	105		72		50	

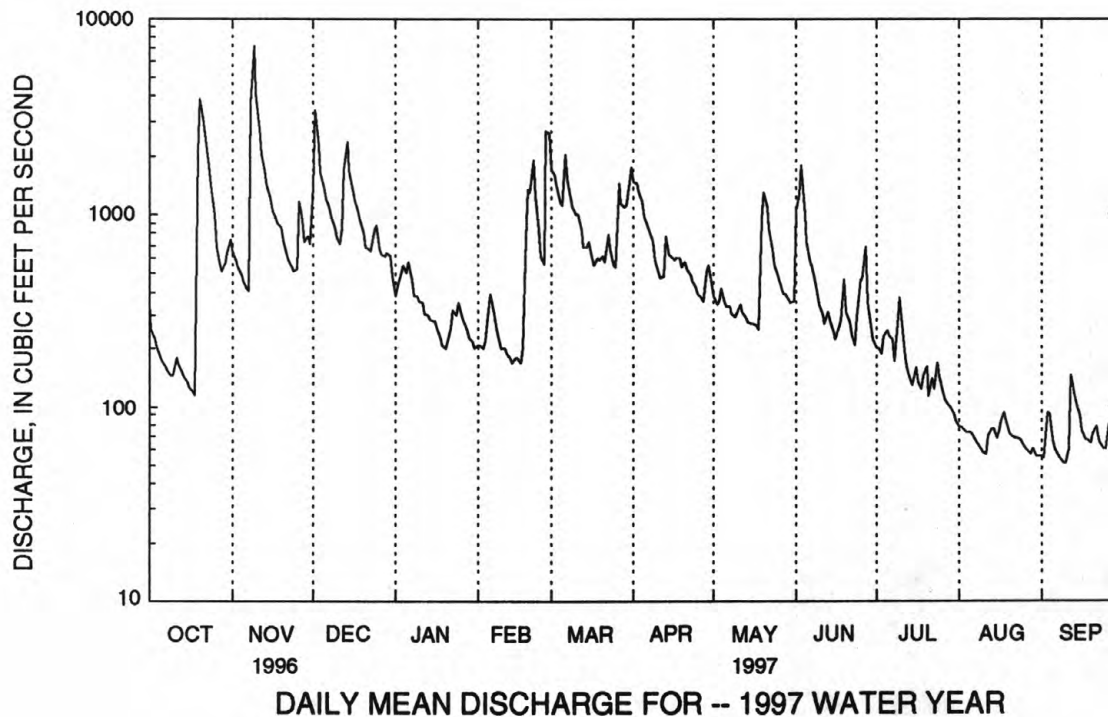
a Sep. 9, 10.

b From rating curve extended above 24,200 ft³/s on basis of velocity-area and slope-area measurements of peak flow.

c From floodmark.

d Sep. 8, 9, 10, 11.

f Sep. 6, 7, 1934.



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EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 23, 1972, reached a stage of 40.71 ft, from floodmark; discharge 228,000 ft³/s, from peak flows determined at upstream and downstream stations adjusted for drainage area and channel storage.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e1250	e2100	e3900	e2000	e850	e7500	e5500	e1250	e2450	e550	263	227
2	e1000	e1750	e19000	e1600	e850	e7500	e4800	e1150	e4100	e650	255	227
3	e850	e1600	e13000	e2000	e880	e6700	e4400	e1150	e8800	e600	250	260
4	e780	e1500	e9000	e2200	e900	e4900	e3900	e1400	4780	e550	241	292
5	e700	e1400	e6000	e2100	e1300	e4800	e3300	e1250	2910	e520	242	264
6	e650	e1250	e4500	e2100	e2200	e12500	e3000	e1200	e2100	e480	245	244
7	e600	e1200	e4000	e2000	e1500	e8500	e2600	e1300	e1700	e460	233	233
8	e550	e19000	e3500	e1500	e1200	e5500	e2200	e1200	e1600	e440	224	227
9	e520	e28000	e3000	e1280	e1000	e4800	e1800	e1150	e1300	618	216	210
10	e500	e19000	e2600	e1200	e900	e4200	e1700	e1100	e1100	2100	200	200
11	e540	e16000	e2600	e1150	e820	e4000	e1700	e1100	e1000	1100	e210	230
12	e530	e14500	e4100	e1100	e760	e3400	e1800	e1100	e900	768	e230	310
13	e510	e11000	e10000	e1100	e700	e2600	e2600	e1050	e1050	619	e240	430
14	e500	e9300	e17000	e1050	e660	e2500	e2200	e1000	e900	515	243	445
15	e480	e8200	e10000	e1000	e680	e3000	e1850	e950	e800	434	252	417
16	e460	6660	e6200	e950	e680	e2900	e1550	e900	e700	406	262	352
17	e420	3160	e5000	e900	e660	e2200	e1750	e850	e730	385	251	e290
18	e400	2900	e4300	e900	e800	e2100	e1950	e820	e980	368	268	e260
19	e8000	2920	e3700	e850	e2300	e2500	e1800	e3200	e2200	334	271	253
20	e20000	2830	e3200	e850	e5900	e2600	e1850	e6000	e1400	369	275	254
21	e17000	2190	e2600	e900	e4400	e2400	e1700	e4200	e1000	313	331	250
22	e13500	e2050	e2300	e1000	e7400	e3300	e1600	e2700	e850	332	294	266
23	e7500	e1950	e2400	e1160	e6000	e3400	e1400	e2000	e750	345	262	258
24	e5500	e1850	e3000	e1300	e3500	e2700	e1350	e1700	e850	384	257	250
25	e4000	e1800	e3400	e1400	e2700	e2200	e1300	e1500	e1700	408	257	239
26	e2900	e5200	e3100	e1700	e2050	e6000	e1250	e1400	e1400	366	241	240
27	e2300	e5400	e2700	e1400	e8500	e5800	e1150	e1300	e1900	330	228	254
28	e2100	e3200	e2400	e1250	e10500	e4000	e1400	e1200	e1200	310	228	256
29	e2000	e3000	e2500	e1100	---	e4300	e1600	e1100	e800	300	222	560
30	e2000	e2800	e2700	e1000	---	e5400	e1400	e1000	e600	282	219	1730
31	e2350	---	e2500	e800	---	e6500	---	e950	---	267	218	---
TOTAL	100390	183710	164200	40840	70590	140700	66400	48170	52550	15903	7628	9928
MEAN	3238	6124	5297	1317	2521	4539	2213	1554	1752	513	246	331
MAX	20000	28000	19000	2200	10500	12500	5500	6000	8800	2100	331	1730
MIN	400	1200	2300	800	660	2100	1150	820	600	267	200	200
CFSM	1.62	3.05	2.64	.66	1.26	2.26	1.10	.77	.87	.26	.12	.17
IN.	1.86	3.41	3.05	.76	1.31	2.61	1.23	.89	.97	.30	.14	.18

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1997, BY WATER YEAR (WY)

MEAN	1304	1914	2373	2083	2655	4374	4666	2531	1609	716	664	917
MAX	5478	6124	5297	6879	7993	9533	16150	6692	5835	1851	3388	5569
(WY)	1991	1997	1997	1996	1976	1979	1993	1989	1989	1984	1994	1975
MIN	157	341	389	328	537	1284	1599	549	244	173	184	141
(WY)	1992	1992	1989	1981	1980	1981	1981	1985	1991	1991	1991	1991

SUSQUEHANNA RIVER BASIN
01529950 CHEMUNG RIVER AT CORNING, NY--Continued

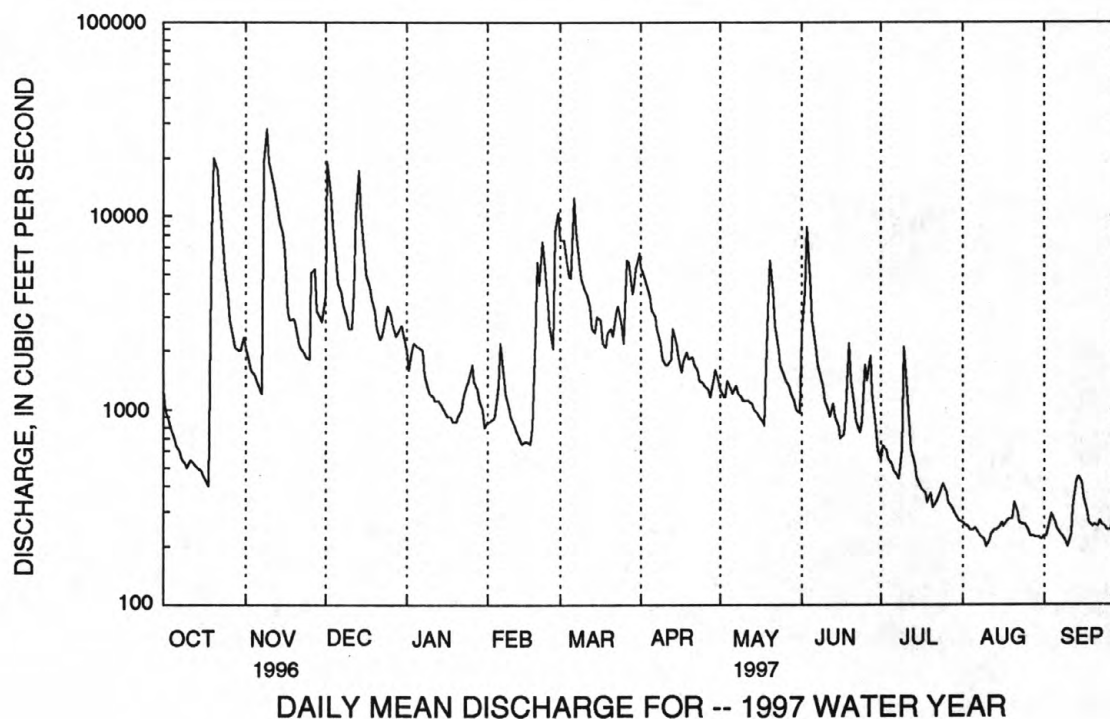
SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1975 - 1997	
ANNUAL TOTAL	1326612		901009		2145	
ANNUAL MEAN	3625		2469		3284	
HIGHEST ANNUAL MEAN					1287	
LOWEST ANNUAL MEAN					1978	
HIGHEST DAILY MEAN	e42000	Jan 19	e28000	Nov 9	87100	Sep 26 1975
LOWEST DAILY MEAN	190	Sep 2	200	a	105	Oct 3 1980
ANNUAL SEVEN-DAY MINIMUM	200	Aug 31	222	Aug 7	108	Oct 2 1980
INSTANTANEOUS PEAK FLOW			b36000	Nov 8	127000	Sep 26 1975
INSTANTANEOUS PEAK STAGE			23.95	Nov 8	32.46	Sep 26 1975
INSTANTANEOUS LOW FLOW			200	Aug 10	95	c
ANNUAL RUNOFF (CFSM)	1.81		1.23		1.07	
ANNUAL RUNOFF (INCHES)	24.61		16.72		14.54	
10 PERCENT EXCEEDS	10000		5840		5000	
50 PERCENT EXCEEDS	1700		1300		991	
90 PERCENT EXCEEDS	317		256		239	

a Aug. 10, Sep. 10.

b About.

c Sep. 9, 10, 23, 24, 1991.

e Estimated.



SUSQUEHANNA RIVER BASIN

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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 mi².

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

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

GAGE.--Water-stage recorder. Datum of gage is 838.35 ft above sea level.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	56	395	58	26	156	161	72	68	24	13	9.6
2	29	56	1700	60	25	284	196	66	82	25	12	9.6
3	29	55	582	73	25	219	251	75	150	23	13	13
4	29	53	269	86	26	156	184	91	76	21	12	12
5	23	49	212	82	80	157	141	65	57	20	12	11
6	19	48	192	105	75	738	124	58	49	19	12	11
7	18	48	177	72	50	288	107	55	44	18	12	11
8	20	1280	150	e54	42	200	82	50	40	20	11	11
9	19	2420	131	e48	e30	157	69	48	37	50	11	12
10	19	1220	114	e45	e28	148	62	48	33	72	10	12
11	19	741	111	e44	e30	145	59	50	29	34	10	12
12	18	271	196	e40	e28	110	56	47	29	26	11	14
13	18	203	436	e38	25	82	70	44	50	22	13	13
14	18	163	678	e36	e24	80	64	41	38	19	11	12
15	20	139	324	e34	e24	94	58	39	30	18	12	11
16	18	120	257	e32	22	74	52	37	26	18	14	11
17	16	111	218	e30	23	62	52	36	31	16	12	11
18	15	108	179	e30	e26	64	53	34	60	15	13	11
19	463	124	158	28	70	64	53	353	166	14	11	11
20	701	116	136	28	123	66	58	357	64	14	11	12
21	454	97	107	29	115	63	54	163	47	14	12	10
22	284	85	100	29	220	94	50	121	37	18	11	10
23	179	75	97	32	121	74	47	89	31	16	11	11
24	214	70	134	29	75	59	44	69	60	16	10	11
25	142	81	143	36	56	56	42	61	68	15	10	11
26	107	412	95	41	54	132	40	57	45	14	9.8	12
27	82	222	78	30	460	109	36	50	42	14	11	10
28	79	154	76	e28	266	102	154	45	34	14	12	9.5
29	83	138	87	27	---	102	128	41	28	13	11	37
30	68	126	92	26	---	114	78	38	25	13	10	24
31	66	---	72	27	---	187	---	38	---	13	9.6	---
TOTAL	3306	8841	7696	1357	2169	4436	2625	2438	1576	648	353.4	375.7
MEAN	107	295	248	43.8	77.5	143	87.5	78.6	52.5	20.9	11.4	12.5
MAX	701	2420	1700	105	460	738	251	357	166	72	14	37
MIN	15	48	72	26	22	56	36	34	25	13	9.6	9.5
CFSM	1.38	3.80	3.20	.56	1.00	1.85	1.13	1.01	.68	.27	.15	.16
IN.	1.59	4.24	3.69	.65	1.04	2.13	1.26	1.17	.76	.31	.17	.18

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1997, BY WATER YEAR (WY)

MEAN	52.4	77.3	94.7	76.9	96.8	191	187	111	63.1	35.6	32.0	32.1
MAX	365	295	248	269	274	364	747	313	297	111	171	232
(WY)	1956	1997	1997	1996	1976	1945	1993	1943	1972	1958	1994	1975
MIN	7.32	8.23	12.3	9.32	18.9	43.0	36.8	20.1	12.8	7.30	5.49	6.22
(WY)	1942	1942	1961	1981	1980	1981	1946	1985	1985	1991	1980	1985

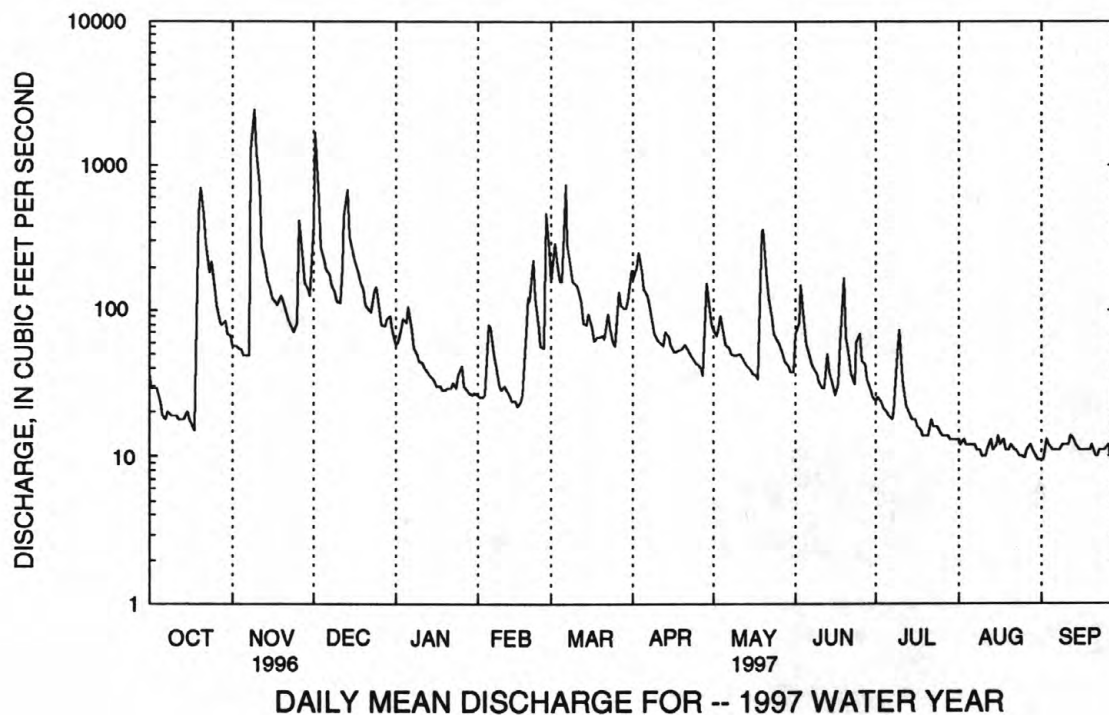
SUSQUEHANNA RIVER BASIN
01530500 NEWTOWN CREEK AT ELMIRA, NY

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1938 - 1997	
ANNUAL TOTAL	58604		35821.1		87.3	
ANNUAL MEAN	160		98.1		140	
HIGHEST ANNUAL MEAN					38.2	
LOWEST ANNUAL MEAN					1.7	
HIGHEST DAILY MEAN	2470	Jan 19	2420	Nov 9	3030	Sep 26 1975
LOWEST DAILY MEAN	15	a	9.5	Sep 28	1.7	Sep 16 1985
ANNUAL SEVEN-DAY MINIMUM	17	Aug 28	10	Aug 27	2.8	Sep 13 1985
INSTANTANEOUS PEAK FLOW			3360	Nov 8	b4000	Jun 23 1972
INSTANTANEOUS PEAK STAGE			16.08	Nov 8	c19.28	Jun 23 1972
ANNUAL RUNOFF (CFSM)	2.07		1.27		1.13	
ANNUAL RUNOFF (INCHES)	28.13		17.19		15.30	
10 PERCENT EXCEEDS	318		194		188	
50 PERCENT EXCEEDS	74		48		39	
90 PERCENT EXCEEDS	21		12		12	

a Sep. 2, 3.

b About (backwater from Chemung River).

c From floodmarks (backwater from Chemung River).



01531000 CHEMUNG RIVER AT CHEMUNG, NY

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

DRAINAGE AREA.--2,506 mi².

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

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

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

REMARKS.--Records good except those for estimated daily discharges, which are fair. High flows significantly regulated by upstream reservoirs. During each year a large part of flow from 45.5 mi² of drainage area is diverted upstream from Lake Lamoka on Mud Creek, an upstream tributary, into Keuka Lake (Oswego River basin) for power development. Telephone and satellite gage-height telemeters at station. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 30,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Oct. 20	0900	33,700	13.39	Dec. 2	1500	33,000	13.26
Nov. 9	0800	*67,500	*18.52				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1930	2380	4040	2620	1050	9390	7660	1940	1760	810	350	265
2	1350	2090	25000	2110	1050	8220	6650	1790	3720	761	340	274
3	1150	1820	17800	2270	1110	9330	6410	1710	8200	819	332	309
4	1030	1700	11500	2820	1080	6360	5590	2090	7120	731	326	306
5	931	1630	8050	2790	1270	5720	4640	2060	4300	689	322	317
6	838	1460	5960	2690	2120	13400	4230	1870	3120	665	315	297
7	773	1310	5410	e2580	2060	13400	3850	1870	2510	599	315	283
8	726	14300	4760	e2170	1580	7930	3290	1820	2240	584	304	274
9	671	56500	4040	1660	1280	6510	2790	1750	2020	677	293	269
10	641	27600	3420	e1500	e1050	5370	2410	1710	1730	2080	280	261
11	611	20700	3130	e1470	1020	5150	2290	1670	1530	1810	267	253
12	635	16700	4290	e1450	972	4560	2270	1670	1340	1140	263	295
13	622	13300	7580	e1450	919	3630	2800	1640	1470	909	281	353
14	596	11000	21500	e1400	911	3180	3100	1570	1440	745	297	450
15	573	9710	13500	e1300	e900	3550	2620	1510	1250	630	297	457
16	566	8730	8430	e1200	884	3760	2270	1460	1090	546	345	433
17	541	4470	6580	e1150	855	3140	2160	1450	1020	503	342	375
18	488	3390	5650	e1150	870	2750	2390	1440	1090	479	333	330
19	3720	3680	4900	e1100	1490	2900	2450	2190	1990	457	328	299
20	28200	3660	4330	e1100	5950	3170	2390	8380	2410	423	328	291
21	21500	2990	3380	e1150	4990	3080	2390	6490	1590	449	339	287
22	18400	2600	3020	e1250	7130	3270	2240	4280	1250	e450	379	279
23	9620	2460	3020	1370	7990	4360	2050	3190	1080	445	352	279
24	6960	2320	3370	1560	e4450	3580	1920	2650	1000	465	333	285
25	5170	2250	4410	1730	e3300	2970	1840	2360	1510	487	322	277
26	3690	4510	3900	1830	2520	4190	1770	2230	1700	494	315	275
27	2880	7890	3460	1820	4910	7790	1670	2100	1870	450	301	274
28	2570	4530	3050	1620	15100	5340	1960	1920	1830	419	300	274
29	2440	3850	3090	e1350	---	4750	2520	1760	1300	405	300	457
30	2320	3680	3470	e1200	---	6350	2180	1640	978	376	279	1350
31	2470	---	3290	e1100	---	7700	---	1530	---	360	269	---
TOTAL	124612	243210	207330	51960	78811	174800	92800	71740	65458	20857	9747	10428
MEAN	4020	8107	6688	1676	2815	5639	3093	2314	2182	673	314	348
MAX	28200	56500	25000	2820	15100	13400	7660	8380	8200	2080	379	1350
MIN	488	1310	3020	1100	855	2750	1670	1440	978	360	263	253
CFSM	1.60	3.24	2.67	.67	1.12	2.25	1.23	.92	.87	.27	.13	.14
IN.	1.85	3.61	3.08	.77	1.17	2.59	1.38	1.06	.97	.31	.14	.15

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1906 - 1913, 1915 - 1997 BY WATER YEAR (WY)

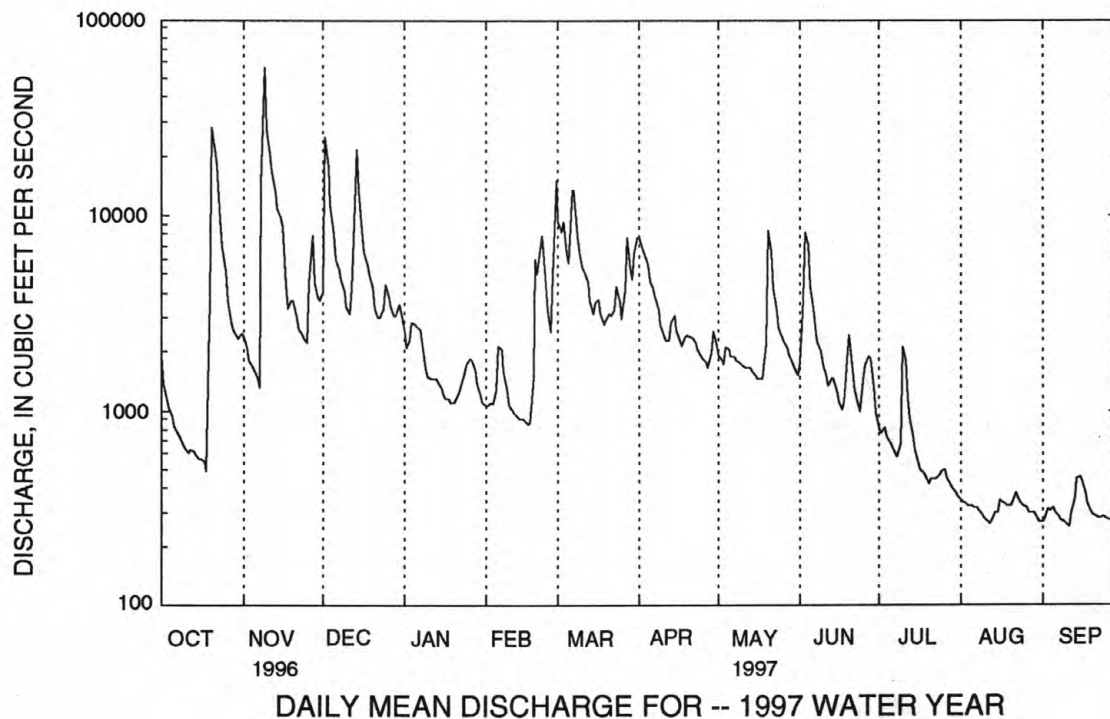
	1159	1960	2378	2350	2758	6283	6197	3647	1934	901	736	670
MEAN	1159	1960	2378	2350	2758	6283	6197	3647	1934	901	736	670
MAX	8408	9126	8752	8569	10090	20910	21600	11500	15720	5885	5001	7247
(WY)	1956	1928	1928	1996	1915	1936	1993	1919	1972	1935	1994	1975
MIN	101	115	137	207	327	1674	925	660	275	130	124	97.3
(WY)	1965	1931	1909	1931	1934	1965	1946	1934	1955	1911	1965	1932

SUSQUEHANNA RIVER BASIN
01531000 CHEMUNG RIVER AT CHEMUNG, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1906 - 1913 1915 - 1997	
ANNUAL TOTAL	1698618		1151753			
ANNUAL MEAN	4641		3155		2567	
HIGHEST ANNUAL MEAN					4416	1978
LOWEST ANNUAL MEAN					1120	1965
HIGHEST DAILY MEAN	65400	Jan 20	56500	Nov 9	159000	Jun 23 1972
LOWEST DAILY MEAN	256	Sep 4	253	Sep 11	52	Aug 14 1911
ANNUAL SEVEN-DAY MINIMUM	269	Aug 31	276	Sep 6	75	Aug 10 1911
INSTANTANEOUS PEAK FLOW			67500	Nov 9	a189000	Jun 23 1972
INSTANTANEOUS PEAK STAGE			18.52	Nov 9	b31.62	Jun 23 1972
INSTANTANEOUS LOW FLOW			251	Sep 11	49	Aug 14 1911
ANNUAL RUNOFF (CFSM)	1.85		1.26		1.02	
ANNUAL RUNOFF (INCHES)	25.21		17.10		13.91	
10 PERCENT EXCEEDS	11900		7120		6110	
50 PERCENT EXCEEDS	2270		1770		1040	
90 PERCENT EXCEEDS	446		315		220	

a From rating curve extended above 65,000 ft³/s, on basis of slope-area and velocity-area studies at gage height 19.57 ft, and slope-area and contracted opening measurements at gage heights 23.97 ft and 31.62 ft.

b From floodmark.



LAKES AND RESERVOIRS IN SUSQUEHANNA RIVER BASIN

01499500 EAST SIDNEY LAKE.--Lat 42°19'40", long 75°13'42", Delaware County, Hydrologic Unit 02050101, at East Sidney Dam, on Ouleout Creek, 0.3 mi upstream from bridge on County Highway 44 at East Sidney, 4.4 mi upstream from mouth, and 4.5 mi east of Unadilla. DRAINAGE AREA, 103 mi². PERIOD OF RECORD, November 1949 to September 1952 (monthend elevations and contents), October 1952 to September 1985 (mean daily elevations and monthend contents), October 1986 to current year (monthend elevations and contents). Prior to October 1970, published as "East Sidney Reservoir at East Sidney". REVISED RECORDS, WSP 2103: Drainage area. GAGE, water-stage recorder. Datum of gage is sea level. Prior to Oct. 1, 1979, at datum 0.05 ft lower.

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 25,690 acre-ft, Apr. 3, 1993, elevation, 1,195.10 ft; minimum 56 acre-ft, Aug. 31, 1953, Sept. 7-26, Nov. 4, 1964, elevation, 1,115.0 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 10,616 acre-ft, Nov. 10, elevation, 1,172.26 ft; minimum, 1,415 acre-ft, Apr. 7, elevation, 1,137.39 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 Otselec River, 0.3 mi upstream from spillway, 0.9 mi upstream from mouth, and 1.0 mi north of Whitney Point. DRAINAGE AREA, 257 mi². PERIOD OF RECORD, October 1942 to September 1985 (mean daily elevations and monthend contents), October 1985 to current year (monthend elevations and contents). REVISED RECORDS, WSP 2103: Drainage area. GAGE, water-stage recorder. Datum of gage is sea level (levels by Corps of Engineers). Prior to October 1970, published as "Whitney Point Reservoir at Whitney Point".

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

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

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

EXTREMES FOR CURRENT YEAR.--Maximum contents, 31,820 acre-ft, Dec. 3, elevation, 985.96 ft; minimum, 4,840 acre-ft, Apr. 9, elevation, 965.61 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)
01499500 East Sidney Lake				01511000 Whitney Point Lake		
Sept. 30	1,150.31	3,346	--	973.18	12,914	--
Oct. 31	1,150.25	3,334	- 0.2	973.02	12,710	- 3.3
Nov. 30	1,149.59	3,199	- 2.7	972.81	12,457	- 4.3
Dec. 31	1,139.81	1,607	- 25.9	966.04	5,254	- 117
CAL YR 1996	--	--	- 0.1	--	--	- 0.2
Jan. 31	1,139.73	1,597	- 0.2	966.08	5,294	+ 0.7
Feb. 28	1,141.34	1,807	+ 3.8	969.35	8,594	+ 59.4
Mar. 31	1,141.75	1,863	+ 0.9	966.92	6,121	- 40.2
Apr. 30	1,142.55	1,978	+ 1.9	972.82	12,469	+ 107
May 31	1,150.44	3,374	+ 22.7	973.21	12,952	+ 7.9
June 30	1,150.79	3,448	+ 1.2	973.01	12,698	- 4.3
July 31	1,150.59	3,405	- 0.7	973.21	12,952	+ 4.1
Aug. 31	1,149.07	3,095	- 5.0	973.30	13,066	+ 1.9
Sept. 30	1,148.25	2,937	- 2.7	973.51	13,333	+ 4.5
WTR YR 1997	--	--	- 0.6	--	--	+ 0.6

SUSQUEHANNA RIVER BASIN

LAKES AND RESERVOIRS IN SUSQUEHANNA RIVER BASIN--Continued

01517900 TIOGA LAKE.--Lat 41°53'57", long 77°08'21", Tioga County, Hydrologic Unit 02050104, at Tioga Dam on Tioga River, 0.8 mi south of Tioga, and 1.7 mi upstream from Crooked Creek. DRAINAGE AREA, 280 mi². PERIOD OF RECORD, November 1979 to current year. GAGE, water-stage recorder. Datum of gage is sea level (levels by U.S. Army Corps of Engineers).

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 50,090 acre-ft, Apr. 3, 1993, elevation, 1,123.21 ft; minimum, 2,210 acre-ft, Oct. 25, 1980, elevation, 1,060.05 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 28,280 acre-ft, Nov. 9, elevation, 1,105.44 ft; minimum, 7,060 acre ft, Apr. 15, elevation, 1,075.36 ft.

01518498 HAMMOND LAKE.--Lat 41°53'56", long 77°08'52", Tioga County, Hydrologic Unit 02050104, at Hammond Dam on Crooked Creek, 3.0 mi upstream from mouth, and 0.8 mi southwest of Tioga. DRAINAGE AREA, 122 mi². PERIOD OF RECORD, November 1979 to current year. GAGE, water-stage recorder. Datum of gage is sea level (levels by U.S. Army Corps of Engineers).

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 50,650 acre-ft, Apr.3, 1993, elevation, 1,123.55 ft; minimum, 2,430 acre-ft, Oct. 24, 1980, elevation, 1,074.00 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 26,220 acre-ft, Nov. 9, elevation, 1,105.45 ft; minimum, 6,410 acre-ft, Mar. 27, elevation, 1,082.28 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)
01517900 Tioga Lake				01518498 Hammond Lake		
Sept. 30	1,081.43	9,710	--	1,086.15	8,940	--
Oct. 31	1,081.44	9,720	+ 0.2	1,086.74	9,300	+ 5.9
Nov. 30	1,083.56	10,780	+ 17.8	1,087.09	9,530	+ 3.9
Dec. 31	1,083.01	10,500	- 4.6	1,087.06	9,500	- 0.5
CAL YR 1996	--	--	+ 1.1	--	--	+ 0.8
Jan. 31	1,081.65	9,820	- 11.1	1,085.73	8,650	- 13.8
Feb. 29	1,080.93	9,470	- 6.3	1,086.08	8,900	+ 4.5
Mar. 31	1,077.96	8,140	- 21.6	1,082.70	6,660	- 36.4
Apr. 30	1,079.98	9,040	+ 15.1	1,084.70	7,910	+ 21.0
May 31	1,081.27	9,630	+ 9.6	1,086.62	9,230	+ 21.5
June 30	1,081.21	9,600	- 0.5	1,086.53	9,170	- 1.0
July 31	1,081.06	9,530	- 1.1	1,086.41	9,100	- 1.1
Aug. 31	1,081.44	9,720	+ 3.1	1,086.41	9,100	0
Sept. 30	1,081.64	9,810	+ 1.5	1,086.17	8,950	- 2.5
WTR YR 1997	--	--	+ 0.1	--	--	0

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 mi². PERIOD OF RECORD, December 1979 to current year. GAGE, water-stage recorder. Datum of gage is sea level (levels by U.S. Army Corps of Engineers).

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 84,560 acre-ft, Apr. 2, 1993, elevation, 1,114.78 ft; minimum, 65 acre-ft, June 23, 1980, elevation, 1,011.50 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 60,320 acre-ft, Nov. 10, elevation 1,101.20 ft; minimum, 22,660 acre-ft, Oct. 18, elevation, 1,069.84 ft.

01523000 ALMOND LAKE NEAR ALMOND, NY.--Lat 42°20'56", long 77°42'10", Steuben County, Hydrologic Unit 02050104, at Almond Dam on Canacadea Creek, 2.0 mi northeast of Almond, and 3.0 mi upstream from mouth. DRAINAGE AREA, 55.8 mi². PERIOD OF RECORD, July 1949 to September 1952 (monthly elevations and contents), October 1952 to September 1985 (mean daily elevations and monthend contents), October 1985 to current year (monthend elevations and contents). Prior to October 1970, published as "Almond Reservoir near Almond". REVISED RECORDS, WSP 2103: Drainage area. GAGE, Water-stage recorder. Datum of gage is sea level (levels by Corps of Engineers).

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

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

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

EXTREMES FOR CURRENT YEAR.--Maximum contents, 5,724 acre-ft, Nov. 9, elevation, 1,277.28 ft; minimum, 1,416 acre-ft, Mar. 24, elevation, 1,257.66 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)
01519995 Cowanesque Lake				01523000 Almond Lake		
Sept. 30	1,070.06	22,850	--	1,259.03	1,604	--
Oct. 31	1,076.37	28,770	+ 96.3	1,261.09	1,925	+ 5.2
Nov. 30	1,077.12	29,520	+ 12.6	1,260.67	1,857	- 1.1
Dec. 31	1,080.08	32,680	+ 51.4	1,260.24	1,788	- 1.1
CAL YR 1996	--	--	- 0.1	--	--	0
Jan. 31	1,080.11	32,710	+ 0.5	1,260.08	1,763	- 0.4
Feb. 28	1,079.69	32,260	- 8.1	1,263.19	2,296	+ 9.6
Mar. 31	1,077.09	29,490	- 45.0	1,258.93	1,590	- 11.5
Apr. 30	1,080.13	32,730	+ 54.4	1,259.97	1,745	- 2.6
May 31	1,080.27	32,870	+ 2.3	1,260.83	1,883	+ 2.2
June 30	1,080.24	32,840	- 0.5	1,259.79	1,718	- 2.8
July 31	1,080.30	32,900	+ 1.0	1,260.53	1,835	+ 1.9
Aug. 31	1,080.35	32,950	+ 0.8	1,260.47	1,825	- 0.2
Sept. 30	1,080.54	33,140	+ 3.2	1,261.34	1,968	+ 2.4
WTR YR 1997	--	--	+ 14.2	--	--	+ 0.5

OHIO RIVER MAIN STEM

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 mi².

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

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

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

REMARKS.--Records good except those for estimated daily discharges, which are fair. U.S. Army Corps of Engineers telephone gage-height telemeter and satellite gage-height and precipitation telemeter at station. Several measurements of water temperature were made during the year. Pesticide sample collected as part of state-wide sampling network in cooperation with the New York State Department of Environmental Conservation. Analyses published on page 277.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 17,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Nov. 9	1300	18,200	10.33	Feb. 28	0100	*19,900	*10.88

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3900	4810	5360	2470	2020	14300	6710	2250	3500	1370	532	458
2	3020	4040	10500	2420	1950	12800	5570	2120	5140	1530	485	440
3	2540	3610	9290	2670	1880	11800	4740	2180	9440	1450	454	567
4	2150	3270	7960	2670	1810	10000	4130	3030	7070	1210	475	565
5	1770	3060	6410	2850	3100	8710	3600	2860	4840	1050	652	484
6	1530	2820	5160	4070	3710	9730	3240	2850	3820	938	588	415
7	1360	2600	4410	3450	3100	9240	2940	3030	3250	843	494	388
8	1230	6760	3820	2930	2610	8630	2590	2740	2870	858	427	373
9	1150	17600	3340	e2400	2250	7580	2290	2590	2410	3260	384	359
10	1300	17300	2920	e2300	e1900	6920	2060	2770	2030	5160	365	346
11	1370	15600	2640	e1900	e1800	6760	1890	2720	1740	2780	359	374
12	1200	12100	3350	e1500	e1600	5690	1930	2490	1560	1860	405	805
13	1040	8620	4010	e1400	e1400	4570	3520	2330	1660	1450	428	889
14	945	6040	5620	e1400	e1350	4980	3380	2160	1520	1200	539	668
15	869	4700	5540	e1400	e1300	7460	2800	2070	1330	1060	473	553
16	810	3960	5120	e1300	e1250	6050	2560	2220	1150	1330	450	495
17	762	3550	4550	e1200	e1200	4770	2620	2300	1840	1120	783	454
18	750	3590	4020	e1200	e1300	4380	2980	2100	3810	917	987	481
19	7750	4140	3470	e1200	2410	3930	2880	7430	7430	1080	896	473
20	15500	3880	2920	e1100	6760	3640	2590	10300	4330	1080	667	469
21	13500	3430	e2300	e1100	8620	3410	2390	6420	2760	848	546	454
22	12700	3060	e2250	e1500	15700	4690	2240	4270	2230	801	559	427
23	10500	2770	2290	e3400	14300	5540	2370	3520	1800	788	1040	392
24	8310	2520	4040	3630	11300	4730	2470	2950	1860	817	1080	371
25	6060	2680	5520	3200	8900	4580	2330	2600	2220	837	833	356
26	4370	7450	4250	e3200	6520	10400	2080	2440	4120	761	684	365
27	3640	7900	3710	e2700	12700	10400	1920	2220	3620	676	610	362
28	3240	5800	3500	e2500	18400	8770	2310	1880	2400	743	591	348
29	2990	4910	3590	e2200	---	7800	2800	1680	1860	943	604	1480
30	3240	4340	3320	e2000	---	7620	2470	1590	1550	731	550	3580
31	5540	---	2920	e2000	---	7710	---	1560	---	603	487	---
TOTAL	125036	176910	138100	69260	141140	227590	88400	93670	95160	40094	18427	18191
MEAN	4033	5897	4455	2234	5041	7342	2947	3022	3172	1293	594	606
MAX	15500	17600	10500	4070	18400	14300	6710	10300	9440	5160	1080	3580
MIN	750	2520	2250	1100	1200	3410	1890	1560	1150	603	359	346
CFSM	2.51	3.67	2.77	1.39	3.13	4.57	1.83	1.88	1.97	.80	.37	.38
IN.	2.89	4.09	3.19	1.60	3.27	5.27	2.05	2.17	2.20	.93	.43	.42

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 1997, BY WATER YEAR (WY)

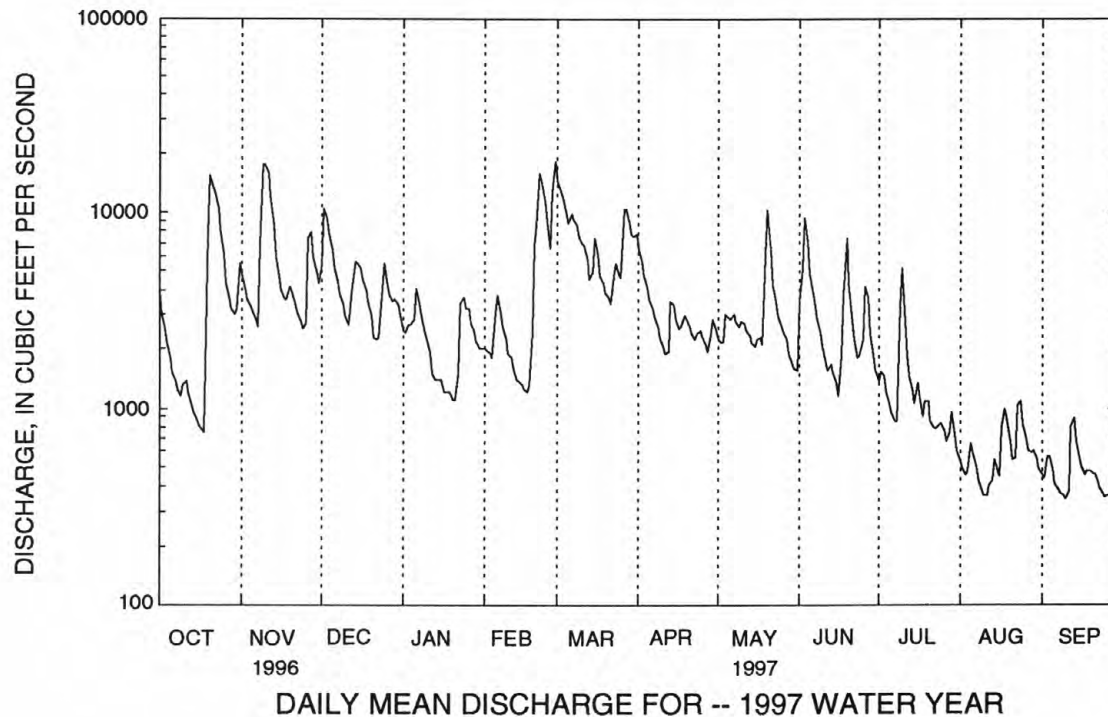
	1361	2566	3105	3320	3176	6017	5841	3480	2030	1100	724	847
MEAN	1361	2566	3105	3320	3176	6017	5841	3480	2030	1100	724	847
MAX	5801	8605	9147	10200	9683	14850	15540	9574	11520	6074	3882	7477
(WY)	1991	1928	1928	1913	1976	1936	1940	1943	1972	1942	1977	1977
MIN	124	146	189	255	550	1983	970	796	299	150	119	118
(WY)	1931	1931	1961	1961	1905	1937	1946	1985	1934	1934	1930	1932

OHIO RIVER MAIN STEM
03011020 ALLEGHENY RIVER AT SALAMANCA, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1904 - 1997	
ANNUAL TOTAL	1434954		1231978		2794	
ANNUAL MEAN	3921		3375		4174	
HIGHEST ANNUAL MEAN					1784	
LOWEST ANNUAL MEAN					67900	
HIGHEST DAILY MEAN	36300	Jan 20	18400	Feb 28	Jun 23 1972	
LOWEST DAILY MEAN	242	Sep 5	346	Sep 10	a	
ANNUAL SEVEN-DAY MINIMUM	271	Aug 31	374	Sep 22	84	
INSTANTANEOUS PEAK FLOW			19900	Feb 28	73000	
INSTANTANEOUS PEAK STAGE			10.88	Feb 28	b24.01	
ANNUAL RUNOFF (CFSM)	2.44		2.10		1.74	
ANNUAL RUNOFF (INCHES)	33.20		28.50		23.61	
10 PERCENT EXCEEDS	8950		7730		6790	
50 PERCENT EXCEEDS	2620		2470		1520	
90 PERCENT EXCEEDS	554		536		289	

a Sep. 10, 11, 1971.

b From floodmarks.



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.

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

REMARKS.--Lake regulated for flood control by Warner Dam. Area of water surface, 20.98 mi². Telephone gage-height telemeter at station.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,309.18 ft, Mar. 15; minimum, 1,307.32 ft, Feb. 18.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1308.49	1308.18	1308.29	1307.86	1307.69	1308.90	1308.46	1308.25	1308.21	1308.17	1307.92	1308.07
2	1308.39	1308.12	1308.41	1307.83	1307.65	1309.01	1308.40	1308.27	1308.51	1308.18	1307.90	1308.07
3	1308.28	1308.06	1308.39	1307.83	1307.62	1309.06	1308.33	1308.29	1308.88	1308.19	1307.89	1308.11
4	1308.16	1307.99	1308.35	1307.81	1307.61	1308.99	1308.26	1308.27	1308.88	1308.16	1307.90	1308.08
5	1308.06	1307.95	1308.32	1307.83	1307.77	1308.91	1308.20	1308.23	1308.79	1308.15	1307.89	1308.06
6	1307.97	1307.91	1308.27	1307.92	1307.83	1308.97	1308.14	1308.30	1308.70	1308.13	1307.86	1308.05
7	1307.95	1307.88	1308.20	1307.93	1307.81	1308.95	1308.09	1308.35	1308.66	1308.12	1307.84	1308.05
8	1307.93	1308.14	1308.14	1307.92	1307.77	1308.89	1308.07	1308.32	1308.62	1308.12	1307.82	1308.04
9	1307.94	1308.45	1308.09	1307.88	1307.72	1308.84	1308.05	1308.28	1308.55	1308.41	1307.81	1308.03
10	1308.04	1308.53	1308.03	1307.86	1307.67	1308.89	1308.03	1308.32	1308.49	1308.44	1307.79	1308.02
11	1308.03	1308.53	1307.99	1307.83	1307.62	1308.98	1308.02	1308.38	1308.42	1308.38	1307.78	1308.03
12	1308.00	1308.52	1308.04	1307.77	1307.62	1308.95	1308.06	1308.38	1308.37	1308.30	1307.77	1308.05
13	1307.97	1308.51	1308.10	1307.73	1307.58	1308.88	1308.19	1308.38	1308.32	1308.23	1307.78	1308.06
14	1307.96	1308.48	1308.09	1307.67	1307.54	1308.97	1308.17	1308.34	1308.23	1308.16	1307.76	1308.05
15	1307.95	1308.43	1308.04	1307.63	1307.49	1309.13	1308.13	1308.32	1308.14	1308.16	1307.74	1308.05
16	1307.95	1308.37	1308.00	1307.61	1307.45	1309.09	1308.06	1308.33	1308.12	1308.16	1307.78	1308.04
17	1307.95	1308.31	1308.01	1307.60	1307.41	1309.00	1308.05	1308.32	1308.16	1308.14	1307.97	1308.05
18	1308.00	1308.35	1307.99	1307.56	1307.37	1308.92	1308.02	1308.29	1308.20	1308.13	1307.99	1308.07
19	1308.50	1308.43	1307.95	1307.52	1307.46	1308.84	1308.00	1308.63	1308.25	1308.11	1307.97	1308.06
20	1308.82	1308.42	1307.88	1307.48	1307.73	1308.76	1307.98	1309.01	1308.26	1308.08	1307.96	1308.11
21	1308.87	1308.39	1307.80	1307.44	1307.98	1308.69	1307.96	1308.97	1308.27	1308.07	1307.95	1308.09
22	1308.93	1308.35	1307.75	1307.45	1308.35	1308.70	1307.96	1308.87	1308.27	1308.07	1307.98	1308.08
23	1308.87	1308.28	1307.71	1307.62	1308.39	1308.65	1308.00	1308.77	1308.27	1308.04	1308.05	1308.07
24	1308.78	1308.21	1307.90	1307.67	1308.35	1308.56	1308.03	1308.67	1308.26	1308.02	1308.07	1308.05
25	1308.69	1308.20	1308.02	1307.77	1308.28	1308.52	1308.05	1308.57	1308.26	1308.00	1308.07	1308.04
26	1308.59	1308.40	1307.99	1307.84	1308.24	1308.68	1308.06	1308.48	1308.28	1307.99	1308.07	1

ALLEGHENY RIVER BASIN

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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 mi².

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

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

GAGE.--Water-stage recorder, crest-stage gages, and concrete control. Datum of gage is 1,256.41 ft above sea level.

REMARKS.--Records good. Flow regulated by Chautauqua Lake. Diurnal fluctuation caused by mills upstream from station. Monthly figures for 1951-66 water years adjusted for regulation. Telephone gage-height telemeter at station. U.S. Army Corps of Engineers satellite gage-height and precipitation telemeter at station. Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	824	737	768	593	529	1040	917	53	696	73	73	57
2	801	721	811	591	527	1100	889	101	943	62	62	66
3	786	700	783	592	523	1090	864	462	1040	70	62	62
4	726	672	785	585	508	1070	798	633	1050	68	65	56
5	691	656	752	607	575	1050	687	456	1010	68	61	55
6	415	640	748	620	605	1110	680	77	827	66	59	54
7	162	612	732	542	596	1080	568	318	981	63	59	53
8	97	759	715	e460	591	1040	249	432	959	66	59	53
9	66	812	699	e460	579	1000	246	637	589	432	59	52
10	362	831	674	515	568	1080	244	644	680	632	59	50
11	458	838	424	e530	427	1090	241	641	625	628	60	78
12	274	837	396	e530	305	1090	316	642	561	624	59	51
13	272	828	428	e530	527	1030	810	640	836	621	61	47
14	213	815	690	e520	512	1070	800	637	817	266	59	46
15	59	797	663	e510	509	1210	779	639	492	175	58	46
16	58	773	404	505	497	1110	765	648	54	231	112	46
17	57	764	421	504	486	1080	774	635	63	60	57	49
18	175	782	449	535	248	1070	609	632	56	60	54	47
19	800	804	654	535	322	1030	358	934	47	59	53	48
20	921	811	610	534	423	1010	357	1140	46	59	54	48
21	950	506	606	521	382	969	356	1120	45	61	54	47
22	958	801	581	432	728	1010	163	1090	45	62	61	48
23	936	763	576	414	770	975	58	1030	43	67	56	48
24	930	739	610	409	778	942	55	984	42	76	53	47
25	881	751	616	430	761	933	53	949	43	76	52	48
26	840	826	611	425	436	1030	53	915	276	77	55	44
27	816	810	609	438	946	981	55	582	348	74	56	43
28	814	778	605	510	1060	947	65	757	60	77	59	45
29	768	766	609	543	---	945	54	752	59	70	59	313
30	507	741	610	537	---	931	53	763	59	70	57	889
31	772	---	604	532	---	956	---	465	---	75	58	---
TOTAL	17389	22670	19243	15989	15718	32069	12916	20408	13392	5168	1865	2636
MEAN	561	756	621	516	561	1034	431	658	446	167	60.2	87.9
MAX	958	838	811	620	1060	1210	917	1140	1050	632	112	889
MIN	57	506	396	409	248	931	53	53	42	59	52	43

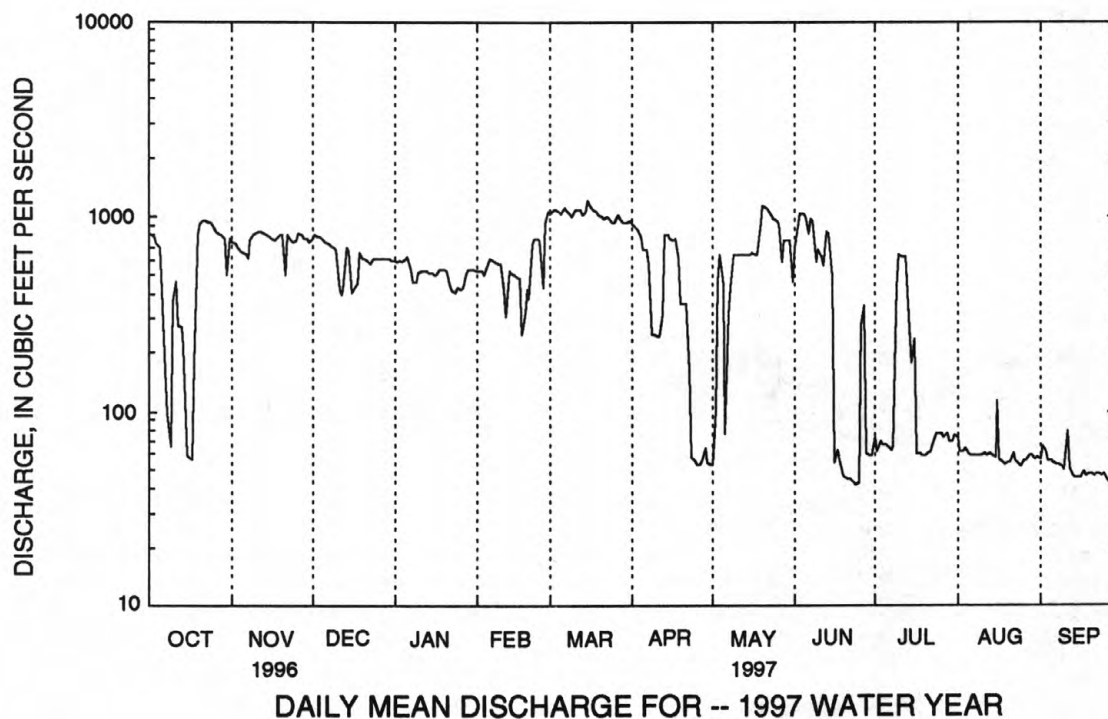
e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 1997, BY WATER YEAR (WY)

MEAN	214	372	506	512	517	688	635	305	212	121	108	156
MAX	751	997	997	955	989	1358	1305	974	852	729	540	705
(WY)	1946	1986	1951	1993	1990	1976	1947	1943	1986	1986	1977	1977
MIN	8.12	5.69	6.38	36.3	195	282	53.1	58.5	15.1	8.55	7.44	17.8
(WY)	1964	1961	1961	1961	1963	1983	1946	1941	1954	1954	1954	1941

ALLEGHENY RIVER BASIN
03014500 CHADAKOIN RIVER AT FALCONER, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1935 - 1997	
ANNUAL TOTAL	193342		179463			
ANNUAL MEAN	528		492		363	
HIGHEST ANNUAL MEAN					527	
LOWEST ANNUAL MEAN					228	
HIGHEST DAILY MEAN	1100	Jun 19	1210	Mar 15	2020	Mar 6 1976
LOWEST DAILY MEAN	30	Sep 11	42	Jun 24	3.0	Nov 20 1960
ANNUAL SEVEN-DAY MINIMUM	36	Sep 5	44	Jun 19	3.7	Nov 18 1960
INSTANTANEOUS PEAK FLOW			1450	May 19	2250	Sep 14 1979
INSTANTANEOUS PEAK STAGE			3.23	May 19	4.93	Sep 14 1979
INSTANTANEOUS LOW FLOW			6.0	Feb 12	2.5	Sep 18 1995
10 PERCENT EXCEEDS	882		958		831	
50 PERCENT EXCEEDS	630		530		280	
90 PERCENT EXCEEDS	55		54		37	



ALLEGHENY RIVER BASIN
LAKES IN ALLEGHENY RIVER BASIN

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

STREAMS TRIBUTARY TO LAKE ERIE

04213500 CATTARAUGUS CREEK AT GOWANDA, NY

(National Water-Quality Assessment Program. Lake Erie - Lake St. Clair Basin Study Unit)

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.

DRAINAGE AREA.--436 mi².

WATER-DISCHARGE RECORDS

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

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

GAGE.--Water-stage recorder. Datum of gage is 738.85 ft above sea level. Prior to Oct. 1, 1969, at datum 0.11 ft lower.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Diurnal fluctuation at low and medium flow caused by powerplant 20 mi upstream from station. Telephone gage-height telemeter at station. Several measurements of water temperature were made during the year. Pesticide sample collected as part of state-wide sampling network in cooperation with the New York State Department of Environmental Conservation. Analyses published on page 277.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Feb. 21	2230	8,370	6.97	May 20	0030	11,000	7.83
Feb. 27	1130	*12,800	*8.35				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	436	527	2670	562	655	1820	1390	519	1860	261	187	172
2	347	467	3520	688	621	4000	1200	501	3630	326	179	169
3	304	454	1550	1150	653	2220	1010	545	3460	274	196	932
4	285	429	1220	956	660	1400	898	628	1360	250	214	350
5	269	474	1100	1340	1800	1200	809	500	930	243	232	241
6	248	447	959	1650	1230	2080	749	793	726	229	194	206
7	238	413	857	1040	913	e1400	704	717	730	219	174	206
8	223	3680	768	e840	e700	e1280	628	541	693	221	165	192
9	223	4330	701	e700	e560	e1180	584	512	551	1790	156	177
10	580	2190	640	e650	e540	2040	550	727	479	845	147	172
11	567	1560	645	e540	e520	2270	528	772	434	454	148	226
12	381	1210	1040	e500	e500	1480	718	705	424	331	164	756
13	317	1080	987	e480	e420	1070	1420	753	436	271	172	391
14	294	1030	1030	e460	e480	2390	1050	568	407	241	198	319
15	270	952	783	e440	e460	2600	867	647	369	517	165	248
16	253	873	679	e420	e400	1370	692	1610	338	421	678	215
17	239	862	676	e400	e390	1140	780	1280	409	282	350	213
18	245	2030	629	e400	e460	1140	1180	925	405	300	266	320
19	3670	1980	567	e380	2350	1040	1040	6060	513	379	208	236
20	3570	1270	e460	e380	3780	1040	811	5600	388	254	184	471
21	2150	993	e440	e400	5170	955	694	1880	335	237	207	422
22	1470	841	542	e750	5500	2490	618	1260	316	337	316	277
23	976	730	585	e2500	2030	1380	643	989	294	274	656	236
24	763	674	2630	1160	1260	1010	595	829	700	486	398	261
25	622	738	1560	1570	921	1350	536	750	590	322	273	224
26	518	2840	962	e1100	952	4670	489	673	401	252	230	379
27	459	1470	841	e860	8180	1970	456	571	386	230	248	273
28	446	1020	999	e780	3950	1690	777	506	309	389	206	230
29	456	901	1350	e620	---	1580	864	477	272	326	189	4260
30	613	858	999	e610	---	1990	597	485	262	230	180	3510
31	777	---	785	e620	---	2200	---	493	---	206	173	---
TOTAL	22209	37323	33174	24946	46055	55445	23877	33816	22407	11397	7453	16284
MEAN	716	1244	1070	805	1645	1789	796	1091	747	368	240	543
MAX	3670	4330	3520	2500	8180	4670	1420	6060	3630	1790	678	4260
MIN	223	413	440	380	390	955	456	477	262	206	147	169
CFSM	1.64	2.85	2.45	1.85	3.77	4.10	1.83	2.50	1.71	.84	.55	1.24
IN.	1.89	3.18	2.83	2.13	3.93	4.73	2.04	2.89	1.91	.97	.64	1.39

e Estimated

STREAMS TRIBUTARY TO LAKE ERIE
04213500 CATTARAUGUS CREEK AT GOWANDA, NY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1997, BY WATER YEAR (WY)

MEAN	406	721	959	828	942	1601	1455	744	494	292	241	316
MAX	1573	1772	2089	1727	2819	3824	3686	1948	1436	867	1225	2423
(WY)	1946	1986	1991	1952	1976	1945	1947	1943	1989	1986	1977	1977
MIN	81.8	118	111	136	222	799	279	283	143	78.3	79.5	85.8
(WY)	1964	1961	1961	1961	1963	1981	1946	1941	1955	1955	1941	1960

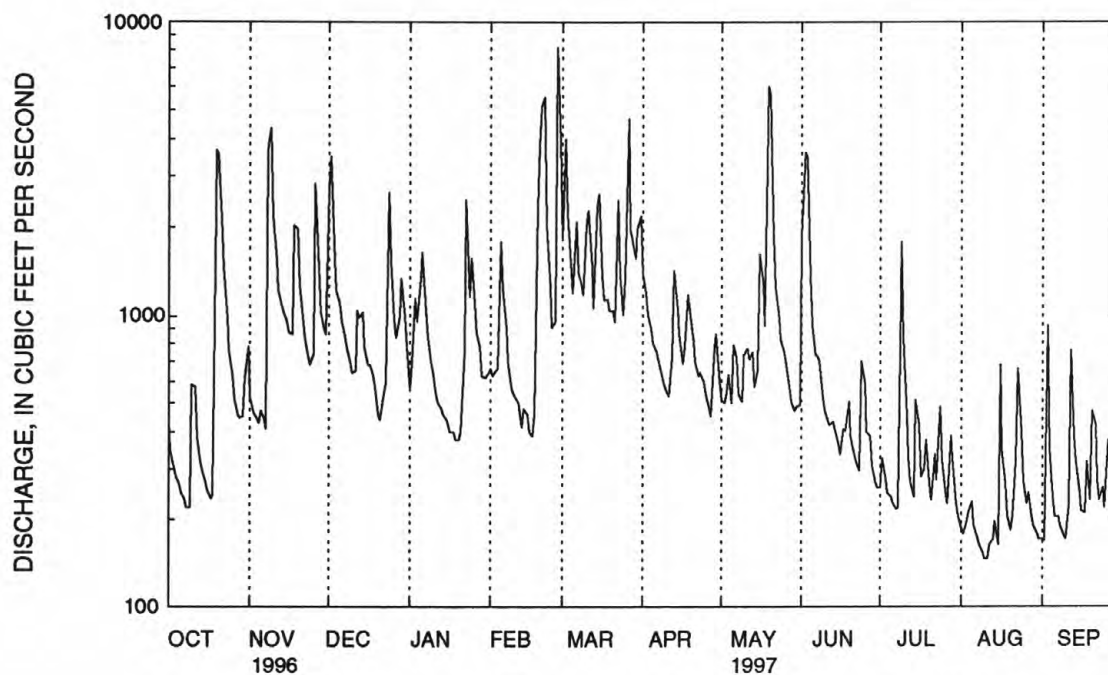
SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1940 - 1997	
ANNUAL TOTAL	376442		334386			
ANNUAL MEAN	1029		916		747	
HIGHEST ANNUAL MEAN					1030	
LOWEST ANNUAL MEAN					532	
HIGHEST DAILY MEAN	17000	Jan 19	8180	Feb 27	22900	Mar 17 1942
LOWEST DAILY MEAN	141	Sep 4	147	Aug 10	52	a
ANNUAL SEVEN-DAY MINIMUM	149	Aug 31	161	Aug 7	57	Sep 7 1945
INSTANTANEOUS PEAK FLOW			12800	Feb 27	34600	Mar 7 1956
INSTANTANEOUS PEAK STAGE			8.35	Feb 27	b14.03	Mar 7 1956
INSTANTANEOUS LOW FLOW			144	c	d6.0	Aug 21 1941
ANNUAL RUNOFF (CFSM)	2.36		2.10		1.71	
ANNUAL RUNOFF (INCHES)	32.12		28.53		23.28	
10 PERCENT EXCEEDS	1990		1980		1620	
50 PERCENT EXCEEDS	648		613		420	
90 PERCENT EXCEEDS	229		225		126	

a Sep. 13, 1945, Aug. 1, 1955.

b Present datum.

c Aug. 10, 11.

d About, result of regulation.



DAILY MEAN DISCHARGE FOR -- 1997 WATER YEAR

STREAMS TRIBUTARY TO LAKE ERIE
04213500 CATTARAUGUS CREEK AT GOWANDA, NY--Continued
WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959, 1963-64, 1972 to 1993, 1996 to current year.

CHEMICAL DATA: 1959 (e), 1963 (b), 1972 (a), 1975 (b), 1976-78 (c), 1979-80 (d), 1981-82 (c), 1983-91 (c) 1992-93 (b), 1996 (c), 1997 (d).

MINOR ELEMENTS DATA: 1972-74 (a), 1975 (b), 1976-77 (c), 1978-86 (b), 1987-89 (d), 1990-91 (c), 1992-93 (b), 1996 (c), 1997 (d).

ORGANIC DATA: OC--1975 (b), 1976-77 (c), 1978-80 (d), 1981 (c), 1996 (c), 1997 (d).

NUTRIENT DATA: 1975 (b), 1976-77 (c), 1978-80 (d), 1981-82 (c), 1983-93 (b), 1996 (c), 1997 (d).

BIOLOGICAL DATA:

Bacterial--1978-80 (d), 1981-82 (c), 1983-93 (b), 1996 (c), 1997 (d).

Phytoplankton--1978 (b), 1979-80 (c), 1981 (b).

Fish tissue--1997 (a).

SEDIMENT DATA: 1964 (b), 1978-82 (c), 1983-86 (c), 1987-89 (d), 1990-91 (c), 1992-93 (b), 1996 (c), 1997 (d).

BOTTOM SEDIMENT DATA: 1996 (a).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1958 to September 1959, unpublished; January 1978 to September 1981.

pH: October 1958 to September 1959, unpublished.

TEMPERATURE: April 1996 to February 1998, unpublished.

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.

WATER-QUALITY DATA, OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
OCT										
10...	0830	455	365	8.0	9.0	11.0	740	10.8	101	2800
NOV										
05...	0930	484	337	8.2	7.0	5.5	748	12.5	101	110
DEC										
17...	0930	672	310	7.9	8.0	5.0	731	12.3	100	340
JAN										
31...	0830	e620	318	8.2	-2.0	0.0	737	13.2	94	170
FEB										
21...	1000	3980	203	7.9	13.0	3.5	738	12.2	95	700
MAR										
13...	0850	1000	286	7.9	-4.0	0.0	757	12.9	89	240
APR										
10...	0930	546	332	8.2	6.0	2.5	753	12.9	96	K10
MAY										
01...	0840	514	327	7.7	18.0	13.5	728	--	--	41
20...	0810	6230	161	7.8	8.0	11.5	--	--	--	--
JUN										
18...	1050	379	350	8.3	20.0	19.0	739	8.4	94	200
JUL										
16...	0910	410	325	8.3	28.5	21.0	745	8.4	97	2600
AUG										
07...	0900	176	390	8.1	20.5	17.5	750	8.5	90	K60
29...	0850	189	390	8.1	19.5	19.5	742	9.2	103	83
SEP										
25...	0840	223	354	8.2	13.0	11.5	735	10.2	98	120

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

e Estimated.

STREAMS TRIBUTARY TO LAKE ERIE
04213500 CATTARAUGUS CREEK AT GOWANDA, NY--Continued

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WATER-QUALITY DATA, OCTOBER 1996 TO SEPTEMBER 1997

DATE	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA- LITY TOT IT FIELD MG/L AS CACO3 (39086)
OCT									
10...	1900	160	50	9.5	9.8	1.8	156	0	128
NOV									
05...	K120	150	47	8.3	9.8	1.6	148	0	121
DEC									
17...	310	130	41	7.3	8.9	1.2	127	0	104
JAN									
31...	120	140	44	7.6	10	1.2	123	0	101
FEB									
21...	K270	79	25	4.1	10	1.4	65	0	53
MAR									
13...	70	120	37	6.3	10	1.3	100	0	82
APR									
10...	K3	150	46	8.1	10	1.3	134	0	110
MAY									
01...	31	140	43	7.5	10	1.4	124	0	102
20...	3300	68	22	3.1	4.1	1.5	65	0	53
JUN									
18...	160	160	52	8.7	9.9	1.6	149	0	122
JUL									
16...	2500	140	44	7.7	8.6	1.8	128	0	105
AUG									
07...	28	170	53	9.8	12	1.6	178	0	146
29...	65	180	54	10	11	1.7	174	0	143
SEP									
25...	66	160	50	9.4	11	1.7	166	0	136
DATE	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
OCT									
10...	33	16	<0.1	2.5	212	<0.01	0.48	0.02	<0.2
NOV									
05...	25	15	<0.1	4.3	201	0.02	0.77	0.02	<0.2
DEC									
17...	24	14	<0.1	4.4	176	<0.01	1.0	0.03	<0.2
JAN									
31...	23	17	<0.1	4.8	187	0.01	1.2	0.02	<0.2
FEB									
21...	15	16	<0.1	3.9	120	0.02	0.80	0.04	1.1
MAR									
13...	19	18	<0.1	4.4	160	<0.01	1.2	0.02	0.2
APR									
10...	22	18	<0.1	3.7	190	0.01	1.4	0.03	<0.2
MAY									
01...	23	17	<0.1	2.7	184	<0.01	0.98	<0.02	<0.2
20...	10	5.5	<0.1	3.2	102	<0.01	0.42	0.02	3.0
JUN									
18...	22	17	<0.1	3.6	207	<0.01	4.8	<0.02	<0.2
JUL									
16...	23	13	0.1	4.4	202	<0.01	0.88	<0.02	0.4
AUG									
07...	25	19	<0.1	3.2	230	0.01	0.80	<0.02	<0.2
29...	24	17	<0.1	2.8	226	<0.01	0.60	0.02	0.4
SEP									
25...	23	16	<0.1	2.8	215	<0.01	0.45	<0.02	<0.2

STREAMS TRIBUTARY TO LAKE ERIE
04213500 CATTARAUGUS CREEK AT GOWANDA, NY--Continued

WATER-QUALITY DATA, OCTOBER 1996 TO SEPTEMBER 1997												
		NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C) (00689)	SEDI- MENT, SUS- PENDE (MG/L) (80154)		
DATE												
OCT												
10...		<0.2	<0.010	<0.01	<0.01	11	12	2.8	0.70	36		
NOV												
05...		<0.2	<0.010	<0.01	<0.01	10	9	2.2	0.30	14		
DEC												
17...		<0.2	<0.010	<0.01	<0.01	9	9	1.9	0.30	31		
JAN												
31...		<0.2	<0.010	<0.01	<0.01	5	6	1.6	0.30	19		
FEB												
21...		<0.2	0.410	<0.01	<0.01	26	12	2.6	>5.0	797		
MAR												
13...		<0.2	0.094	<0.01	<0.01	12	8	2.0	0.70	63		
APR												
10...		<0.2	<0.010	<0.01	<0.01	4	8	1.7	0.30	10		
MAY												
01...		<0.2	<0.010	<0.01	<0.01	10	5	2.0	1.2	9		
20...		0.3	1.21	0.04	0.01	41	7	4.4	>5.0	1960		
JUN												
18...		<0.2	<0.010	<0.01	<0.01	48	4	2.0	0.20	18		
JUL												
16...		<0.2	0.118	<0.01	<0.01	40	5	3.3	1.6	119		
AUG												
07...		0.2	<0.010	<0.01	0.01	15	6	1.9	0.50	18		
29...		<0.2	<0.010	<0.01	0.01	<3	5	1.9	0.50	20		
SEP												
25...		<0.2	0.041	<0.01	<0.01	11	5	13	0.30	15		
DATE	ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)
OCT												
10...	<0.002	<0.002	0.011	E0.005	<0.001	<0.002	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002
NOV												
05...	<0.002	<0.002	0.010	E0.009	<0.001	<0.002	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002
DEC												
17...	<0.002	<0.002	0.007	E0.004	<0.001	<0.002	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002
JAN												
31...	<0.002	<0.002	0.006	E0.008	<0.001	<0.002	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002
FEB												
21...	<0.002	<0.002	0.012	E0.004	<0.001	<0.002	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002
MAR												
13...	<0.002	<0.002	0.009	E0.005	<0.001	<0.002	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002
APR												
10...	<0.002	<0.002	0.005	E0.002	<0.001	<0.002	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002
MAY												
01...	<0.002	<0.002	0.015	E0.004	<0.001	<0.002	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002
20...	0.005	0.015	0.347	E0.013	<0.001	<0.002	<0.002	<0.003	<0.003	<0.004	0.006	<0.002
JUN												
18...	<0.002	0.009	0.040	E0.008	<0.001	<0.002	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002
JUL												
16...	<0.002	0.013	0.181	E0.023	<0.001	<0.002	<0.002	E0.011	<0.003	<0.004	<0.004	<0.002
AUG												
07...	<0.002	<0.002	0.028	E0.006	<0.001	<0.002	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002
29...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
25...	<0.002	<0.002	0.012	E0.005	<0.040	<0.002	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002

STREAMS TRIBUTARY TO LAKE ERIE
04213500 CATTARAUGUS CREEK AT GOWANDA, NY--Continued

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WATER-QUALITY DATA, OCTOBER 1996 TO SEPTEMBER 1997

DATE	P, P'- DDE DISSOLV (UG/L) (34653)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U (UG/L) (82660)	DISUL- FOTON WATER FLTRD 0.7 U (UG/L) (82677)	EPTC WATER FLTRD 0.7 U (UG/L) (82668)	ETHAL- FLUR- ALIN WAT FLT 0.7 U (UG/L) (82663)	ETHO- PROP WATER FLTRD 0.7 U (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	ALPHA HCH DIS- SOLVED (UG/L) (34253)	LINDANE DIS- SOLVED (UG/L) (39341)	LIN- URON WATER FLTRD 0.7 U (UG/L) (82666)
OCT												
10...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.002	<0.004	<0.002
NOV												
05...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.002	<0.004	<0.002
DEC												
17...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.002	<0.004	<0.002
JAN												
31...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.002	<0.004	<0.002
FEB												
21...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.002	<0.004	<0.002
MAR												
13...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.002	<0.004	<0.002
APR												
10...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.002	<0.004	<0.002
MAY												
01...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.002	<0.004	<0.002
20...	<0.006	<0.002	<0.001	<0.003	<0.017	E0.002	<0.004	<0.003	<0.003	<0.002	<0.004	<0.002
JUN												
18...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.002	<0.004	<0.002
JUL												
16...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.002	<0.004	<0.002
AUG												
07...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.002	<0.004	<0.002
29...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
25...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.002	<0.004	<0.002
DATE	MALA- THON, DIS- SOLVED (UG/L) (39532)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL- INATE WATER FLTRD 0.7 U (UG/L) (82671)	NAPROP- AMIDE WATER FLTRD 0.7 U (UG/L) (82684)	PARA- THON, DIS- SOLVED (UG/L) (39542)	METHYL PARA- THION WAT FLT 0.7 U (UG/L) (82667)	FEB- ULATE WATER FILTRD 0.7 U (UG/L) (82669)	PENDI- METH- ALIN WAT FLT 0.7 U (UG/L) (82683)	PER- METHRIN CIS WAT FLT 0.7 U (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U (UG/L) (82664)	PRO- METON, WATER, DISS, REC (UG/L) (04037)
OCT												
10...	<0.005	E0.003	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004	<0.004	<0.005	<0.002	<0.018
NOV												
05...	<0.005	E0.003	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004	<0.004	<0.005	<0.002	<0.018
DEC												
17...	<0.005	0.004	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004	<0.004	<0.005	<0.002	<0.018
JAN												
31...	<0.005	E0.003	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004	<0.004	<0.005	<0.002	<0.018
FEB												
21...	<0.005	0.005	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004	<0.004	<0.005	<0.002	<0.018
MAR												
13...	<0.005	0.005	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004	<0.004	<0.005	<0.002	<0.018
APR												
10...	<0.005	E0.002	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004	<0.004	<0.005	<0.002	<0.018
MAY												
01...	<0.005	0.022	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004	<0.004	<0.005	<0.002	<0.018
20...	<0.005	0.367	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004	<0.004	<0.005	<0.002	E0.002
JUN												
18...	<0.005	0.015	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004	<0.004	<0.005	<0.002	<0.018
JUL												
16...	<0.005	0.040	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004	<0.004	<0.005	<0.002	<0.018
AUG												
07...	<0.005	0.006	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004	<0.004	<0.005	<0.002	<0.018
29...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
25...	<0.005	E0.003	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004	<0.004	<0.005	<0.002	<0.018

STREAMS TRIBUTARY TO LAKE ERIE
04213500 CATTARAUGUS CREEK AT GOWANDA, NY--Continued

WATER-QUALITY DATA, OCTOBER 1996 TO SEPTEMBER 1997

DATE	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROP- CHLOR, WATER, FLTRD DISS, REC (UG/L) (04024)	PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	SI- MAZINE, WATER, FLTRD DISS, REC (UG/L) (04035)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)
OCT											
10...	<0.003	<0.007	<0.004	<0.013	E0.004	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
NOV											
05...	<0.003	<0.007	<0.004	<0.013	E0.004	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
DEC											
17...	<0.003	<0.007	<0.004	<0.013	E0.004	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
JAN											
31...	<0.003	<0.007	<0.004	<0.013	E0.003	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
FEB											
21...	<0.003	<0.007	<0.004	<0.013	<0.005	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
MAR											
13...	<0.003	<0.007	<0.004	<0.013	E0.004	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
APR											
10...	<0.003	<0.007	<0.004	<0.013	E0.003	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
MAY											
01...	<0.003	<0.007	<0.004	<0.013	E0.004	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
20...	<0.003	<0.007	<0.004	<0.013	0.011	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
JUN											
18...	<0.003	<0.007	<0.004	<0.013	0.227	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
JUL											
16...	<0.003	<0.007	<0.004	<0.013	0.010	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
AUG											
07...	<0.003	<0.007	<0.004	<0.013	0.009	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
29...	--	--	--	--	--	--	--	--	--	--	--
SEP											
25...	<0.003	<0.007	<0.004	<0.013	E0.003	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002

E Estimated.

STREAMS TRIBUTARY TO LAKE ERIE

81

04213500 CATTARAUGUS CREEK AT GOWANDA, NY--Continued

Concentrations of trace elements and organochlorine compounds in fish tissue

The purpose of this survey was to assess the occurrence and distribution of trace elements and organochlorine compounds in fish tissue. The following species are typically collected: common carp (*Cyprinus carpio*), and Northern Hog Sucker (*Hypentelium nigricans*); however, only the Northern Hog Sucker was found at Cattaraugus Creek. More information regarding methods can be found in Crawford and Luoma, 1994.

Concentrations of trace elements in fish liver composites

The sample for trace element analysis consists of a composite of liver tissue taken from 12 fish. Sexually-mature fish were sought. Laboratory procedures include (1) drying, (2) digestion, and (3) analysis by use of inductively-coupled plasma-emission spectrometry (for Al, Ba, B, Cr, Cu, Fe, Mn, Sr, and Zn), inductively-coupled plasma-mass spectrometry (for Sb, As, Be, Cd, Co, Pb, Mo, Ni, Se, Ag, U, and V), and cold vapor atomic absorption (for Hg). Constituent concentrations are provided on a dry-weight (DRY WGT) basis. Concentrations are corrected for percent water. (MM = Millimeters, SDEV = Standard deviation, MIN = Minimum, MAX = Maximum, F = Female, M = Male, REC = Recoverable, UG/G = micrograms per gram, (49273) = a USGS National Water Information System parameter code).

SPECIES	NUMBER IN COMPOSITE			TOTAL LENGTH OF FISH (MM)				WEIGHT OF FISH (GRAMS)				AGE OF FISH (YEARS)			
	M	F	TOTAL	MEAN	SDEV	MIN	MAX	MEAN	SDEV	MIN	MAX	MEAN	SDEV	MIN	MAX
HOG SUCKER	6	6	12	238	34	202	298	165	67	95	283	3.2	1.4	1	5
DATE	TIME	WATER, PRESENT BIO TIS DRY WGT REC PERCENT (49273)	ALUMI-NUM, BIOTA, TISSUE, DRY WGT REC (49237)	ANTI-MONY, BIOTA, TISSUE, DRY WGT REC (49246)	ARSENIC BIOTA, TISSUE, DRY WGT REC (49247)	BARIUM, BIOTA, TISSUE, DRY WGT REC (49238)	BERYL-LIUM-, BIOTA, TISSUE, DRY WGT REC (49248)	BORON, BIOTA, TISSUE, DRY WGT REC (49239)	CADMIUM BIOTA, TISSUE, DRY WGT REC (49249)	CHROM-IUM-, BIOTA, TISSUE, DRY WGT REC (49240)	COBALT, BIOTA, TISSUE, DRY WGT REC (49250)	COPPER, BIOTA, TISSUE, DRY WGT REC (49241)			
SEP 24...	1330	77	<0.1	<0.3	0.6	0.2	<0.3	0.4	1.1	0.6	<0.3	23			
DATE		IRON, BIOTA, TISSUE, DRY WGT REC (49242)	LEAD, BIOTA, TISSUE, DRY WGT REC (49251)	MANGAN-ESE, BIOTA, TISSUE, DRY WGT REC (49243)	MERCURY BIOTA, TISSUE, DRY WGT REC (49258)	MOLYB-DENUM, BIOTA, TISSUE, DRY WGT REC (49252)	NICKEL, BIOTA, TISSUE, DRY WGT REC (49253)	SELEN-IUM, BIOTA, TISSUE, DRY WGT REC (49254)	SILVER, BIOTA, TISSUE, DRY WGT REC (49255)	STRON-TIUM, BIOTA, TISSUE, DRY WGT REC (49244)	URANIUM BIOTA, TISSUE, DRY WGT REC (49257)	VANA-DIUM, BIO TIS LIVER REC (49465)	ZINC, BIOTA, TISSUE, DRY WGT REC (49245)		
SEP 24...	150	<0.3	5.6	0.1	1.9	<0.3	4.5	<0.3	0.2	<0.3	<0.3	89			

STREAMS TRIBUTARY TO LAKE ERIE

04213500 CATTARAUGUS CREEK AT GOWANDA, NY--Continued

Concentrations of trace elements and organochlorine compounds in fish tissue

Concentrations of organochlorine compounds in whole fish

The sample for organochlorine analysis consists of a composite of 8 whole fish. Sexually-mature fish were sought. Laboratory procedures include (1) homogenization, (2) extraction by use of methylene chloride in a soxhlet apparatus, (3) clean-up by use of gel permeation chromatography, (4) fractionation by use of alumina/silica gel, and (5) analysis by gas chromatography with two dissimilar capillary columns coupled with an electron capture detector. Constituent concentrations are provided on a wet-weight (WW) basis and are not corrected for percent lipids. Constituent names are abbreviated as follows: DDD, dichlorodiphenyldichloroethane; DDE, dichlorodiphenyldichloroethene; DCPA, dimethyl tetra-chloroterephthalate; DDT, dichlorodiphenyltrichloroethane; HCH, hexachlorocyclohexane; PCB polychlorinated biphenyls. (MM = Millimeters, SDEV = Standard deviation, MIN = Minimum, MAX = Maximum, F = Female, M = Male, REC = Recoverable, WH ORG = Whole organic analysis fish, UG/KG = micrograms per kilogram, (49273) = a USGS National Water Information System parameter code, e = Estimated, -- = No data).

SPECIES	NUMBER IN COMPOSITE			TOTAL LENGTH OF FISH (MM)				WEIGHT OF FISH (GRAMS)				AGE OF FISH (YEARS)			
	M	F	TOTAL	MEAN	SDEV	MIN	MAX	MEAN	SDEV	MIN	MAX	MEAN	SDEV	MIN	MAX
HOG SUCKER	5	3	8	245	17	220	276	167	36	120	230	3	1.1	2	5
				LIPIDS,	ALDRIN,	CIS-CHLOR-	TRANS-CHLOR-	DCPA,	O,P'-	P,P'-	O,P'-	P,P'-	O,P'-	O,P'-	
				BIOTA,	BIOTA,	DANE,	DANE,	BIOTA,	DDD,	DDD,	DDE,	DDE,	DDT,	DDT,	
				WH ORG	WH ORG	WH ORG	WH ORG	WH ORG	WH ORG	WH ORG	WH ORG	WH ORG	WH ORG	WH ORG	
DATE				WW, REC	WW, REC	WW, REC	WW, REC	WW, REC	WW, REC	WW, REC	WW, REC	WW, REC	WW, REC	WW, REC	
				(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	
				(49289)	(49353)	(49380)	(49379)	(49378)	(49374)	(49375)	(49373)	(49372)	(49377)		
SEP															
24...			3.2	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	E4.6	<5.0		
				P,P'-	DIEL-		ALPHA-	BETA-	DELTA-		HEPTA-	BENZENE			
				DDT,	DRIN,	ENDRIN,	HCH,	HCH,	HCH,	LINDANE	CHLOR	HEXA-			
				BIOTA,	BIOTA,	BIOTA,	BIOTA,	BIOTA,	BIOTA,	BIOTA,	BIOTA,	BIOTA,	CHLORO-		
				WH ORG	WH ORG	WH ORG	WH ORG	WH ORG	WH ORG	WH ORG	WH ORG	WH ORG	WH ORG	WH ORG	
DATE				WW, REC	WW, REC	WW, REC	WW, REC	WW, REC	WW, REC	WW, REC	WW, REC	WW, REC	WW, REC	WW, REC	
				(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	
				(49376)	(49371)	(49370)	(49366)	(49365)	(49364)	(49363)	(49369)	(49368)	(49367)		
SEP															
24...			<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0		
				METHOXY	METHOXY		CIS-	TRANS-	OXY-	PENTA		TOXA-			
				CHLOR,	CHLOR,	MIREX,	NONA-	NONA-	CHLOR	CHLORO		PHENE,			
				O,P'-,	P,P'-,	BIOTA,	CHLOR,	CHLOR,	DANE,	ANISOLE	PCB,	BIOTA,	BIOTA,		
				WH ORG	WH ORG	WH ORG	WH ORG	WH ORG	WH ORG	WH ORG	WH ORG	WH ORG	WH ORG	WH ORG	
DATE				WW, REC	WW, REC	WW, REC	WW, REC	WW, REC	WW, REC	WW, REC	WW, REC	WW, REC	WW, REC	WW, REC	
				(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	
				(49362)	(49361)	(49360)	(49359)	(49358)	(49357)	(49356)	(49354)	(49355)			
SEP															
24...			<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<50	<200		

STREAMS TRIBUTARY TO LAKE ERIE

83

04214500 BUFFALO CREEK AT GARDENVILLE, NY

LOCATION.--Lat 42°51'17", long 78°45'19", Erie County, Hydrologic Unit 04120103, on left bank 300 ft downstream from bridge on Union Road in Gardenville, 2.0 mi upstream from Cayuga Creek, and 10.1 mi upstream from mouth.

DRAINAGE AREA.--142 mi².

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

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

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

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,750 ft³/s and maximum (*);

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Feb. 27	1600	*5,270	*6.79	May 20	0330	3,980	6.01

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75	161	1100	e130	e150	398	340	162	657	38	12	15
2	52	172	1110	e300	e170	809	342	132	1200	43	11	14
3	40	154	406	619	e220	489	269	119	655	35	11	47
4	36	122	588	338	e505	311	220	168	258	28	47	53
5	32	155	479	495	e950	273	187	139	150	27	38	29
6	30	129	339	581	537	347	178	168	104	25	21	23
7	29	106	296	e145	323	318	171	235	102	23	16	23
8	27	1530	257	e125	248	292	155	156	118	21	13	24
9	28	1470	238	e115	e140	262	128	128	83	65	12	23
10	80	597	197	e110	e130	721	117	150	68	96	11	24
11	129	483	194	e110	e115	837	110	200	58	42	10	25
12	72	331	329	e105	e105	457	119	196	52	29	11	102
13	49	254	328	e95	e95	278	435	264	49	23	56	75
14	38	228	317	e95	e95	1240	345	189	47	20	24	75
15	34	190	210	e90	e90	943	258	167	43	18	19	41
16	32	176	180	e90	e85	322	190	259	38	17	17	29
17	30	183	259	e85	e90	260	173	360	40	16	23	30
18	35	306	227	e85	e450	267	287	299	64	15	18	37
19	874	299	176	e85	e1400	241	352	737	111	14	14	36
20	1480	208	101	e90	1470	254	261	1580	58	13	14	59
21	642	162	144	e90	1810	228	205	371	45	15	71	101
22	472	138	247	e900	1260	623	169	256	37	32	60	50
23	280	121	e240	e1650	e355	312	176	182	34	38	67	34
24	248	115	1910	e480	e240	217	173	140	70	25	43	30
25	225	119	553	e750	e140	338	143	116	128	20	26	28
26	144	426	299	465	e205	1730	121	104	66	18	20	29
27	108	300	279	283	2590	456	105	86	54	16	17	40
28	105	180	419	e180	809	342	138	72	44	16	16	34
29	127	202	753	e160	---	318	264	65	34	17	18	1490
30	234	192	439	e150	---	463	217	67	29	17	18	939
31	274	---	271	e150	---	569	---	78	---	14	17	---
TOTAL	6061	9209	12885	9146	14777	14915	6348	7345	4496	836	771	3559
MEAN	196	307	416	295	528	481	212	237	150	27.0	24.9	119
MAX	1480	1530	1910	1650	2590	1730	435	1580	1200	96	71	1490
MIN	27	106	101	85	85	217	105	65	29	13	10	14
CFSM	1.38	2.16	2.93	2.08	3.72	3.39	1.49	1.67	1.06	.19	.18	.84
IN.	1.59	2.41	3.38	2.40	3.87	3.91	1.66	1.92	1.18	.22	.20	.93

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1997, BY WATER YEAR (WY)

	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
MEAN	92.0	204	293	250	299	499	378	179	103	49.5	46.7	70.1
MAX	381	686	706	512	835	1048	950	495	531	354	376	827
(WY)	1987	1986	1991	1969	1976	1942	1947	1984	1989	1992	1992	1977
MIN	9.32	18.2	17.4	27.4	40.2	197	68.8	38.5	15.6	6.89	10.8	6.25
(WY)	1965	1961	1961	1961	1963	1981	1946	1941	1955	1955	1966	1964

STREAMS TRIBUTARY TO LAKE ERIE
04214500 BUFFALO CREEK AT GARDENVILLE, NY--Continued

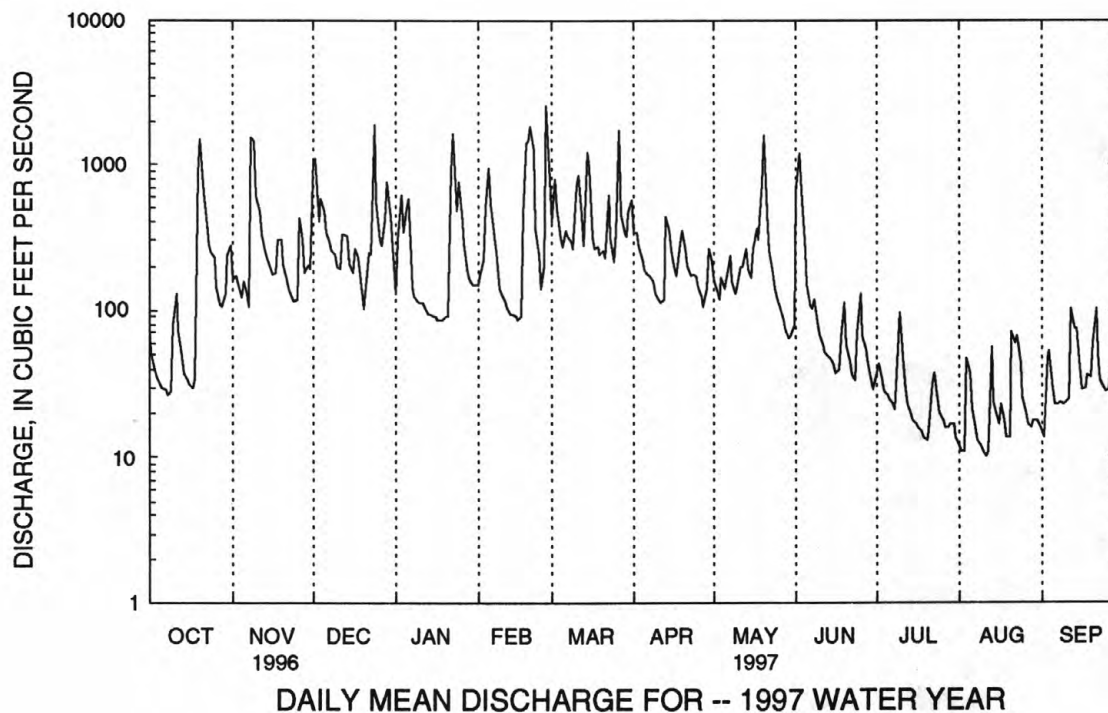
SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1939 - 1997	
ANNUAL TOTAL	105137.9		90348			
ANNUAL MEAN	287		248		205	
HIGHEST ANNUAL MEAN					301	
LOWEST ANNUAL MEAN					128	
HIGHEST DAILY MEAN	e5000	Jan 19	2590	Feb 27	7650	Mar 7 1956
LOWEST DAILY MEAN	8.7	Sep 3	10	Aug 11	1.0	Sep 1 1964
ANNUAL SEVEN-DAY MINIMUM	9.2	Aug 30	13	Aug 6	2.6	Sep 13 1964
INSTANTANEOUS PEAK FLOW			5270	Feb 27	a11300	b
INSTANTANEOUS PEAK STAGE			6.79	Feb 27	c14.34	Mar 21 1978
INSTANTANEOUS LOW FLOW			9.7	Aug 11	.20	Sep 1 1964
ANNUAL RUNOFF (CFSM)	2.02		1.74		1.44	
ANNUAL RUNOFF (INCHES)	27.54		23.67		19.60	
10 PERCENT EXCEEDS	598		584		464	
50 PERCENT EXCEEDS	140		138		87	
90 PERCENT EXCEEDS	19		20		15	

a From rating curve extended above 3,200 ft³/s on basis of slope-area measurement at gage-height 7.07 ft.

b Mar. 1, 1955, Mar. 7, 1956.

c Ice jam.

e Estimated.



STREAMS TRIBUTARY TO LAKE ERIE

85

04215000 CAYUGA CREEK NEAR LANCASTER, NY

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

DRAINAGE AREA.--96.4 mi².

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

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

GAGE.--Water-stage recorder and low concrete dam as control. Datum of gage is 672.02 ft above sea level.

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Feb. 27	1100	*4,150	7.58	Mar. 26	0200	3,600	7.26
Mar. 14	1630	3,020	6.92				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	110	991	e100	e110	263	241	72	710	76	5.0	7.8
2	34	125	662	237	e120	531	241	65	812	40	5.0	7.0
3	26	114	276	570	e140	271	164	77	390	27	4.4	9.2
4	23	90	549	228	e200	185	136	111	153	21	6.2	15
5	20	78	369	466	e900	168	118	71	102	20	8.7	8.6
6	17	68	260	400	431	e150	116	142	77	16	6.4	7.0
7	16	65	228	e160	226	e140	108	119	85	14	5.4	6.8
8	14	1350	195	e105	167	e130	90	75	86	13	4.5	6.9
9	14	1080	169	e80	e100	e120	77	85	59	60	4.0	6.8
10	63	460	145	e65	e80	583	70	110	47	49	3.9	6.6
11	93	368	142	e60	e70	625	69	121	39	24	4.1	7.3
12	46	219	249	e50	e60	317	105	151	35	16	4.2	19
13	31	156	361	e50	e54	e150	359	150	33	13	34	19
14	24	128	236	e48	e54	1480	216	87	32	10	23	14
15	20	103	150	e45	e50	688	148	108	26	9.1	10	11
16	17	89	131	e45	e46	198	107	174	23	8.8	27	8.3
17	16	95	189	e42	e46	168	124	180	26	8.5	18	8.0
18	16	128	154	e42	e100	e160	249	131	57	7.8	14	14
19	957	121	120	e42	e1100	e150	236	902	112	7.8	8.5	11
20	1630	101	e55	e42	e1200	e150	162	928	45	7.4	7.5	22
21	582	87	e80	e45	1630	143	122	216	33	8.2	79	38
22	354	75	105	e130	875	565	102	149	26	17	46	22
23	200	66	135	e1000	e200	196	112	114	21	15	61	13
24	180	67	1550	e390	e120	135	90	94	78	12	31	11
25	199	65	317	e650	e110	459	75	82	87	10	18	10
26	120	177	e180	e800	e140	1550	63	76	42	8.5	13	16
27	89	142	164	e250	2340	314	56	63	35	7.9	10	17
28	91	87	326	e130	537	231	140	51	24	8.7	8.8	12
29	105	100	453	e90	---	269	155	48	18	9.4	9.4	861
30	187	118	282	e80	---	335	91	49	20	6.7	9.4	488
31	178	---	e140	e100	---	465	---	57	---	5.6	8.4	---
TOTAL	5414	6032	9363	6542	11206	11289	4142	4858	3333	557.4	497.8	1703.3
MEAN	175	201	302	211	400	364	138	157	111	18.0	16.1	56.8
MAX	1630	1350	1550	1000	2340	1550	359	928	812	76	79	861
MIN	14	65	55	42	46	120	56	48	18	5.6	3.9	6.6
CFSM	1.81	2.09	3.13	2.19	4.15	3.78	1.43	1.63	1.15	.19	.17	.59
IN.	2.09	2.33	3.61	2.52	4.32	4.36	1.60	1.87	1.29	.22	.19	.66

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1968, 1974 - 1997 BY WATER YEAR (WY)

MEAN	60.5	129	189	169	210	345	250	108	54.9	22.4	29.9	47.4
MAX	252	601	505	397	457	680	623	330	338	163	323	572
(WY)	1987	1986	1978	1996	1976	1942	1940	1947	1989	1992	1977	1977
MIN	2.90	4.34	5.60	9.85	25.1	146	36.5	18.7	5.88	1.06	1.87	.80
(WY)	1967	1961	1961	1961	1963	1981	1946	1941	1955	1955	1939	1960

STREAMS TRIBUTARY TO LAKE ERIE

04215000 CAYUGA CREEK NEAR LANCASTER, NY--Continued

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1939 - 1968
1974 - 1997

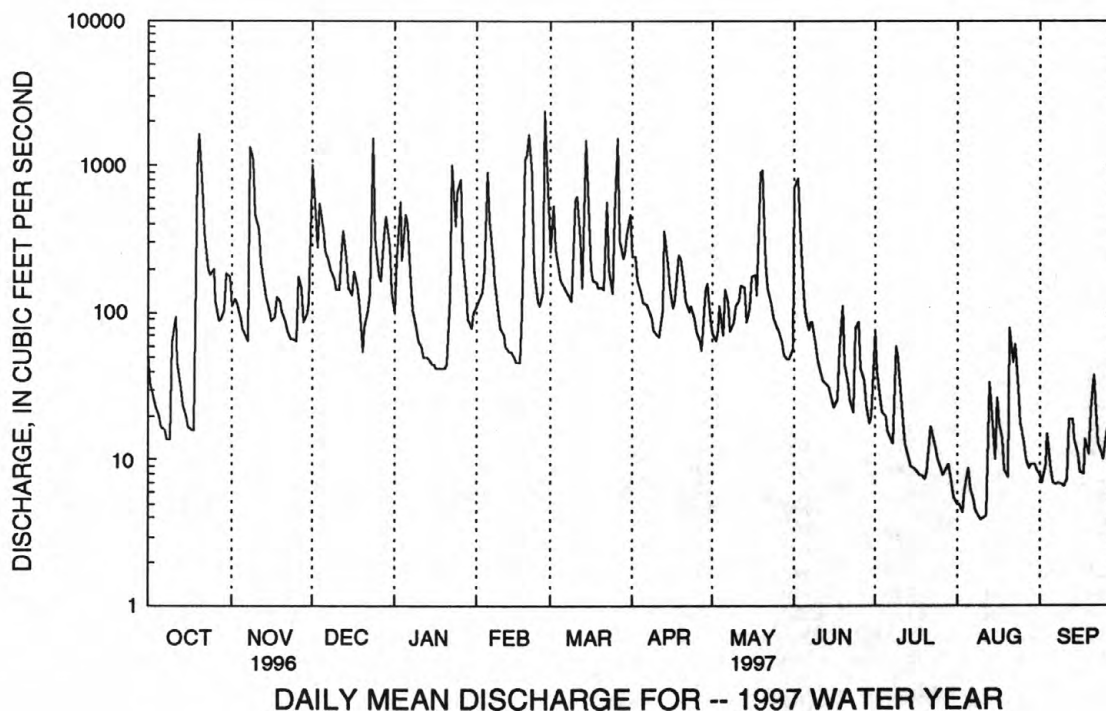
ANNUAL TOTAL	74241.3		64937.5			
ANNUAL MEAN	203		178		134	
HIGHEST ANNUAL MEAN					206	1956
LOWEST ANNUAL MEAN					78.5	1962
HIGHEST DAILY MEAN	4010	Jan 19	2340	Feb 27	5830	Feb 24 1985
LOWEST DAILY MEAN	2.4	a	3.9	Aug 10	.10	Aug 9 1939
ANNUAL SEVEN-DAY MINIMUM	2.6	Aug 31	4.6	Aug 6	.19	Jul 11 1955
INSTANTANEOUS PEAK FLOW			4150	Feb 27	9440	Sep 14 1979
INSTANTANEOUS PEAK STAGE			b8.29	Feb 20	b12.58	Mar 30 1960
INSTANTANEOUS LOW FLOW			3.7	Aug 10	c.00	d
ANNUAL RUNOFF (CFSM)	2.10		1.85		1.39	
ANNUAL RUNOFF (INCHES)	28.65		25.06		18.94	
10 PERCENT EXCEEDS	452		459		310	
50 PERCENT EXCEEDS	89		87		47	
90 PERCENT EXCEEDS	9.0		8.8		3.9	

a Sep. 3, 4.

b Ice jam.

c Practically no flow when stop logs were installed in the dam.

d Aug. 8, 9, 1939.



04215500 CAZENOVIA CREEK AT EBENEZER, NY

LOCATION.--Lat 42°49'47", long 78°46'31", Erie County, Hydrologic Unit 04120103, on right bank 30 ft upstream from bridge on Ridge Road in Ebenezer, 4.0 mi upstream from mouth, and 5.0 mi southeast of Buffalo.

DRAINAGE AREA.--135 mi².

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

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

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

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Nov. 8	1645	4,180	7.96	Mar. 26	0130	5,000	8.67
Dec. 24	0745	4,330	8.10	May 19	2400	5,390	8.99
Feb. 27	1315	*6,720	10.01				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78	158	1500	e220	e130	439	376	104	1320	46	14	12
2	54	161	1210	357	e130	1170	349	99	1540	81	13	15
3	44	136	443	664	e120	516	264	137	853	39	13	90
4	37	112	703	338	e130	335	226	188	297	30	94	49
5	33	136	442	820	e1300	288	201	111	186	29	35	22
6	30	115	335	610	e800	e350	194	311	137	25	20	16
7	28	99	274	e300	e400	e300	193	183	138	24	15	19
8	27	2330	231	e200	e240	e280	168	117	131	23	13	16
9	27	1580	200	e150	e150	e250	151	120	101	172	12	15
10	122	675	171	e120	e130	888	142	191	86	89	11	16
11	147	534	173	e110	e100	749	138	208	74	43	11	18
12	68	353	326	e100	e86	432	215	274	67	29	12	63
13	51	267	328	e95	e80	282	563	245	63	24	48	89
14	43	249	249	e90	e80	1720	275	154	56	21	28	66
15	41	210	170	e85	e72	893	192	250	51	20	19	32
16	37	194	149	e85	e66	362	137	748	49	19	18	22
17	34	195	e190	e80	e66	278	174	477	50	18	28	29
18	43	529	e150	e80	e78	280	286	283	123	18	30	33
19	1450	439	e110	e80	e500	250	264	1930	95	28	15	32
20	1640	254	e70	e85	e2200	262	164	2040	52	24	19	95
21	607	184	e105	e90	e2700	234	131	462	43	38	63	142
22	425	149	e180	e250	1710	754	116	299	38	82	84	51
23	250	126	e240	e1500	437	323	159	214	33	40	136	34
24	206	120	2900	e470	303	235	119	171	145	27	58	29
25	198	121	627	e850	214	767	98	146	96	29	30	30
26	134	542	331	e600	235	2200	86	131	89	23	22	34
27	105	301	270	e400	3570	497	78	111	49	19	18	32
28	112	191	542	e220	857	393	231	95	35	22	16	30
29	133	173	969	e150	---	404	257	90	30	25	15	1740
30	265	187	498	e120	---	540	132	94	27	20	14	1280
31	251	---	289	e130	---	671	---	107	---	16	13	---
TOTAL	6720	10820	14375	9449	16884	17342	6079	10090	6054	1143	937	4151
MEAN	217	361	464	305	603	559	203	325	202	36.9	30.2	138
MAX	1640	2330	2900	1500	3570	2200	563	2040	1540	172	136	1740
MIN	27	99	70	80	66	234	78	90	27	16	11	12
CFSM	1.61	2.67	3.43	2.26	4.47	4.14	1.50	2.41	1.49	.27	.22	1.02
IN.	1.85	2.98	3.96	2.60	4.65	4.78	1.68	2.78	1.67	.31	.26	1.14

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1997, BY WATER YEAR (WY)

MEAN	112	250	352	295	332	556	418	205	110	51.2	48.4	80.1
MAX	410	705	868	576	859	1062	1005	585	473	381	371	978
(WY)	1946	1986	1991	1957	1976	1945	1947	1984	1989	1992	1977	1977
MIN	9.76	16.2	20.4	37.8	55.8	216	79.9	43.6	17.5	6.11	9.62	7.93
(WY)	1954	1961	1961	1961	1963	1981	1946	1941	1955	1955	1966	1960

STREAMS TRIBUTARY TO LAKE ERIE

04215500 CAZENOVIA CREEK AT EBENEZER, NY--Continued

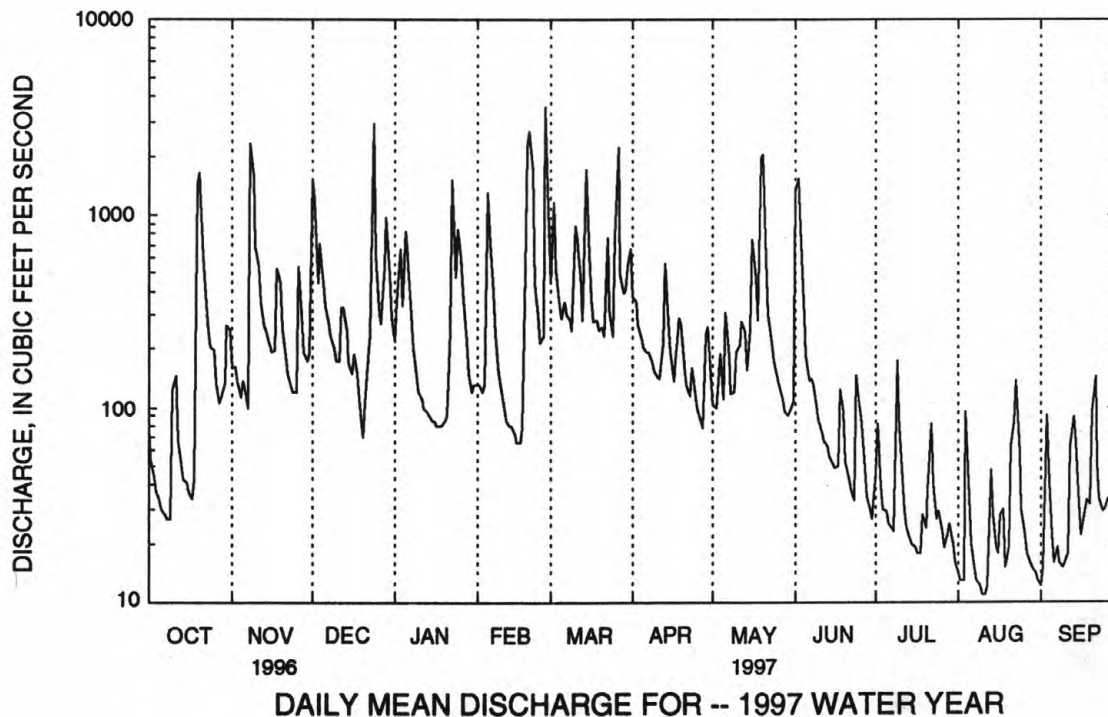
SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1940 - 1997	
ANNUAL TOTAL	115178.3		104044		234	
ANNUAL MEAN	315		285		332	
HIGHEST ANNUAL MEAN					1977	
LOWEST ANNUAL MEAN					163	
HIGHEST DAILY MEAN	6100	Jan 19	3570	Feb 27	7560	Mar 7 1956
LOWEST DAILY MEAN	9.3	Sep 6	11	a	3.1	Jul 20 1955
ANNUAL SEVEN-DAY MINIMUM	9.9	Aug 31	13	Aug 6	3.5	Jul 17 1955
INSTANTANEOUS PEAK FLOW			6720	Feb 27	b13500	Mar 1 1955
INSTANTANEOUS PEAK STAGE			c12.86	Feb 5	d15.82	Mar 1 1955
INSTANTANEOUS LOW FLOW			9.7	Aug 11	2.6	Nov 7 1953
ANNUAL RUNOFF (CFSM)	2.33		2.11		1.73	
ANNUAL RUNOFF (INCHES)	31.74		28.67		23.52	
10 PERCENT EXCEEDS	641		673		548	
50 PERCENT EXCEEDS	150		133		98	
90 PERCENT EXCEEDS	27		22		15	

a Aug. 10, 11.

b From rating curve extended above 7,700 ft³/s.

c Ice jam.

d Present datum.



89

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

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

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

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

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 578.19 ft, Oct. 30; minimum elevation, 570.32 ft, Jan. 9.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	572.58	573.32	572.92	572.43	572.52	572.82	573.55	574.50	573.16	574.07	573.89	573.36
2	572.86	572.75	573.13	572.66	572.26	573.27	573.53	573.43	573.48	574.06	574.09	573.45
3	572.44	572.79	572.35	572.63	572.23	572.56	573.52	573.79	573.83	574.88	573.84	573.26
4	572.35	572.60	572.46	572.36	572.00	573.05	573.40	573.75	574.11	574.79	573.73	573.38
5	572.31	572.10	572.14	573.97	572.91	573.02	573.33	573.80	574.12	574.25	573.56	573.60
6	572.55	572.07	572.56	574.19	572.61	574.00	573.64	573.77	574.08	574.13	573.64	573.71
7	572.52	572.25	572.61	573.66	572.43	573.34	574.72	573.70	573.96	574.04	573.75	573.24
8	572.24	572.29	572.70	572.68	572.08	573.22	574.10	573.49	574.12	573.97	573.61	572.98
9	572.40	572.27	572.54	572.21	572.48	573.01	573.50	573.93	574.15	574.03	573.54	573.05
10	572.42	572.39	572.45	574.85	572.45	573.61	573.52	573.87	574.21	574.04	573.67	573.17
11	572.51	572.88	571.45	574.91	572.57	573.45	573.30	573.69	574.18	574.03	573.52	573.45
12	572.68	572.71	571.66	573.88	572.61	573.30	573.07	573.87	574.19	574.07	573.35	573.60
13	572.65	572.43	572.55	573.40	572.11	572.63	573.89	573.59	574.16	574.10	573.79	573.40
14	572.36	572.27	572.32	573.12	572.62	573.73	573.60	573.47	574.09	574.08	573.42	573.35
15	572.13	571.96	572.13	572.43	572.62	574.55	573.52	574.57	574.01	574.14	573.69	573.41
16	572.50	572.09	572.35	574.35	572.44	573.65	573.54	574.14	574.21	574.08	573.82	573.21
17	572.24	572.19	573.11	574.41	572.47	573.59	573.68	573.70	574.15	574.35	573.53	573.42
18	572.52	572.34	573.09	572.82	572.56	573.12	573.70	573.36	574.08	574.15	573.40	573.34
19	572.12	572.40	573.10	572.51	572.73	573.19	573.60	573.76	574.07	573.88	573.28	573.41
20	571.74	572.33	573.85	572.82	572.38	573.38	573.54	573.83	574.15	573.80	573.23	573.43
21	572.21	572.21	572.90	572.16	572.61	573.43	573.40	573.84	574.17	573.88	574.11	573.22
22	572.22	572.32	572.55	572.58	573.35	573.44	573.47	573.75	574.28	573.53	574.18	573.42
23	572.84	572.38	572.37	572.15	572.91	573.38	573.42	573.63	574.17	573.60	573.91	573.44
24	573.60	571.68	574.03	571.99	572.86	573.20	573.52	573.53	574.21	573.72	573.56	573.15
25	572.45	571.76	573.45	574.09	572.76	573.52	573.63	573.42	574.37	573.86	573.37	573.71
26	572.28	572.24	572.59	572.46	572.69	573.76	573.56	573.39	574.34	573.84	573.45	573.18
27	572.48	572.20	572.41	572.11	573.42	573.64	573.37	573.38	574.18	574.02	573.52	572.94
28	572.65	572.43	572.56	573.15	572.79	573.38	573.59	573.46	574.07	573.96	573.58	573.12
29	572.											

ST. LAWRENCE RIVER MAIN STEM
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 mi².

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.--137 years, 206,300 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	227000	244000	239000	226000	228000	240000	251000	281000	248000	254000	254000	241000
2	233000	232000	248000	233000	220000	251000	252000	252000	250000	255000	256000	244000
3	224000	231000	225000	234000	222000	230000	254000	258000	261000	271000	254000	240000
4	221000	226000	232000	227000	215000	240000	249000	264000	270000	277000	249000	243000
5	220000	216000	220000	257000	242000	242000	245000	260000	269000	263000	246000	248000
6	225000	215000	231000	279000	235000	260000	244000	264000	267000	261000	246000	246000
7	225000	220000	231000	258000	231000	253000	267000	259000	264000	258000	250000	242000
8	217000	226000	234000	234000	216000	242000	266000	252000	264000	255000	246000	230000
9	219000	225000	230000	218000	221000	237000	254000	265000	263000	261000	245000	233000
10	222000	230000	230000	284000	223000	261000	252000	264000	265000	261000	247000	238000
11	222000	238000	207000	287000	229000	252000	246000	259000	263000	261000	244000	246000
12	228000	235000	202000	263000	229000	247000	237000	266000	261000	261000	239000	248000
13	226000	227000	232000	245000	211000	230000	257000	257000	259000	262000	249000	242000
14	221000	224000	225000	239000	226000	257000	272000	253000	254000	261000	243000	242000
15	211000	216000	222000	209000	230000	279000	259000	276000	254000	263000	246000	241000
16	222000	219000	224000	256000	212000	257000	254000	275000	254000	259000	254000	241000
17	216000	219000	242000	255000	227000	252000	269000	260000	254000	266000	248000	244000
18	221000	225000	243000	226000	231000	243000	280000	254000	250000	262000	239000	244000
19	218000	226000	243000	200000	237000	242000	261000	261000	252000	254000	242000	241000
20	208000	224000	264000	212000	232000	249000	254000	266000	252000	252000	239000	242000
21	221000	220000	238000	208000	241000	251000	260000	263000	252000	255000	260000	237000
22	221000	225000	232000	230000	254000	250000	253000	262000	258000	245000	262000	241000
23	228000	226000	225000	218000	241000	242000	251000	259000	253000	246000	255000	244000
24	255000	211000	268000	183000	237000	247000	252000	257000	256000	250000	251000	233000
25	225000	210000	256000	266000	230000	251000	255000	253000	256000	252000	243000	250000
26	220000	218000	233000	236000	232000	264000	254000	251000	260000	253000	248000	236000
27	222000	221000	230000	204000	260000	262000	249000	251000	257000	257000	250000	230000
28	229000	225000	230000	239000	241000	253000	254000	251000	255000	256000	250000	235000
29	219000	224000	233000	208000	---	261000	254000	254000	255000	250000	245000	261000
30	258000	220000	227000	206000	---	251000	250000	259000	256000	248000	245000	264000
31	262000	---	214000	225000	---	255000	---	257000	---	252000	244000	---
TOTAL	6986000	6718000	7210000	7265000	6453000	7751000	7655000	8063000	7732000	7981000	7689000	7267000
MEAN	225400	223900	232600	234400	230500	250000	255200	260100	257700	257500	248000	242200
MAX	262000	244000	268000	287000	260000	279000	280000	281000	277000	277000	262000	264000
MIN	208000	210000	202000	183000	211000	230000	237000	251000	248000	245000	239000	230000

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 1997, BY WATER YEAR (WY)

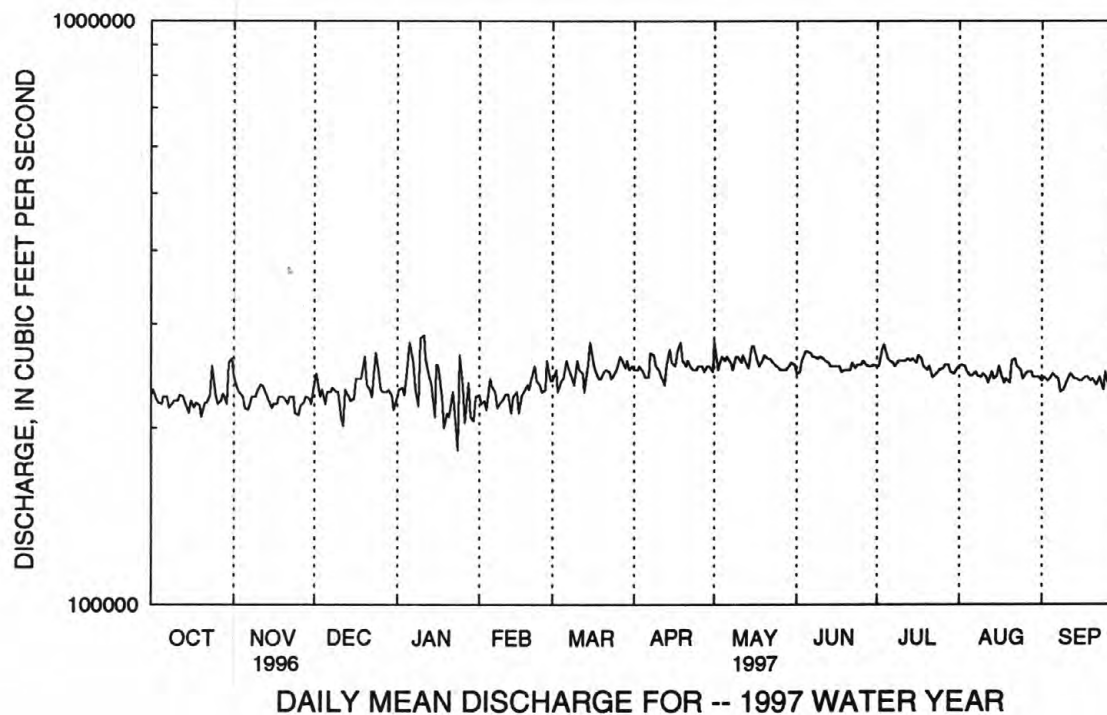
MEAN	200700	200900	201400	195400	192800	199000	208100	216900	216700	212700	209000	204800
MAX	254000	248000	260900	254000	241600	255500	264200	264700	268400	265200	253500	243700
(WY)	1987	1987	1986	1987	1987	1986	1985	1974	1986	1986	1986	1986
MIN	152700	148100	149800	138500	116200	142700	152000	159100	158000	154100	155000	153900
(WY)	1935	1935	1965	1964	1936	1934	1935	1934	1934	1934	1934	1934

ST. LAWRENCE RIVER MAIN STEM
04216000 NIAGARA RIVER AT BUFFALO, NY--Continued

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SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1926 - 1997	
ANNUAL TOTAL	79012000		88770000		205400	
ANNUAL MEAN	215900		243200		249600	
HIGHEST ANNUAL MEAN					155300	
LOWEST ANNUAL MEAN					90000	
HIGHEST DAILY MEAN	268000	Dec 24	287000	Jan 11	a347000	Dec 2 1985
LOWEST DAILY MEAN	149000	Jan 3	183000	Jan 24	105000	Jan 13 1964
ANNUAL SEVEN-DAY MINIMUM	174000	Jan 2	211000	Jan 18	239000	Feb 6 1936
10 PERCENT EXCEEDS	231000		263000		206000	
50 PERCENT EXCEEDS	220000		246000		170000	
90 PERCENT EXCEEDS	195000		220000			

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



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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 572.72 ft, Dec. 2, 1985; minimum recorded, 563.65 ft, Oct. 5, 1995.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 570.62 ft. Oct. 30; minimum, 565.46 ft. Dec. 12.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	567.15	567.61	567.13	566.67	567.01	567.14	567.68	568.38	567.32	567.71	567.88	567.59
2	567.37	567.07	567.40	566.91	566.77	567.49	567.63	567.61	567.58	567.81	568.05	567.69
3	567.08	567.12	566.80	566.92	566.78	566.98	567.61	567.80	567.90	568.39	567.87	567.57
4	566.98	567.01	566.92	566.73	566.72	567.29	567.51	567.84	568.13	568.48	567.86	567.44
5	566.87	566.65	566.66	567.71	567.22	567.28	567.47	567.74	568.15	567.98	567.73	567.56
6	567.05	566.58	566.95	568.14	567.04	567.98	567.49	567.94	568.07	567.87	567.74	567.87
7	567.02	566.72	566.94	567.73	566.86	567.53	568.82	567.79	568.02	567.90	567.80	567.57
8	566.83	566.90	567.04	566.98	566.72	567.40	568.46	567.61	568.08	567.81	567.70	567.31
9	566.92	566.77	566.89	566.50	567.11	567.32	568.07	567.92	568.13	567.97	567.60	567.34
10	566.98	566.82	566.77	568.48	567.05	567.74	567.67	567.96	568.21	567.98	567.70	567.47
11	566.95	567.21	566.14	568.61	567.08	567.62	567.51	567.73	568.21	567.95	567.64	567.47
12	567.06	567.08	566.09	567.99	567.06	567.60	567.26	567.88	568.20	567.99	567.51	567.57
13	567.02	566.87	567.04	567.65	566.81	567.10	567.95	567.68	568.22	567.99	567.90	567.68
14	566.92	566.78	566.80	567.60	567.07	567.72	567.81	567.63	568.21	567.97	567.59	567.65
15	566.63	566.48	566.52	566.91	567.07	568.64	567.64	568.29	568.12	568.02	567.77	567.67
16	566.98	566.57	566.79	568.33	567.14	567.86	567.72	568.23	568.27	567.95	567.90	567.53
17	566.76	566.63	567.25	568.81	567.02	567.75	567.97	567.76	568.32	568.13	567.74	567.45
18	566.96	566.78	567.29	567.79	567.03	567.37	568.22	567.50	568.23	568.09	567.63	567.38
19	566.80	566.83	567.30	567.10	567.11	567.42	567.92	567.80	568.20	567.91	567.60	567.35
20	566.40	566.74	567.86	567.69	566.86	567.53	567.73	567.91	568.17	567.79	567.49	567.77
21	566.84	566.67	567.08	567.13	567.03	567.54	567.62	567.94	568.11	567.91	568.01	567.48
22	566.81	566.73	566.92	566.92	567.59	567.58	567.66	567.88	568.20	567.64	568.27	567.67
23	567.09	566.78	566.74	566.82	567.52	567.59	567.62	567.74	568.05	567.66	568.11	567.77
24	567.96	566.24	567.92	566.83	567.36	567.46	567.75	567.59	568.00	567.80	567.80	567.41
25	567.00	566.32	567.64	568.54	567.00	567.59	567.75	567.46	568.10	567.90	567.67	567.98
26	566.77	566.67	567.00	567.53	567.10	567.84	567.69	567.45	568.18	567.89	567.62	567.54
27	566.89	566.73	566.84	567.11	567.76	567.72	567.56	567.51	567.91	567.98	567.58	567.32
28	567.05	566.83	566.90	567.77	567.36	567.55	567.75	567.57	567.82	567.95	567.65	567.48
29	566.											

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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.

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

GAGE.--Water stage recorder. Datum of gage is International Great Lakes Datum (IGLD) of 1985. Prior to Oct. 1, 1991, datum of gage was International Great Lakes Datum (IGLD) of 1955. Station temporarily discontinued on Apr. 1, 1997 due to rehabilitation of Black Rock Lock.

EXTREMES FOR CURRENT PERIOD.--October 1996 to March 1997: Maximum recorded elevation, 575.48 ft, Dec. 12, but may have been higher during periods of missing gage-height record; minimum recorded, 570.04 ft, Jan. 9, but may have been lower during periods of missing gage-height record..

[illegible]

ST. LAWRENCE RIVER MAIN STEM

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 mi².

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

GAGE.--Water-stage recorder. Datum of gage is International Great Lakes Datum (IGLD) of 1985. Prior to Oct. 1, 1991, datum of gage was International Great Lakes Datum (IGLD) of 1955. Station temporarily discontinued on Apr. 1, 1997 due to rehabilitation of Black Rock Lock.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 571.15 ft, Dec. 2, 1985; minimum recorded, 563.28 ft, Oct. 5, 1995.

EXTREMES FOR CURRENT PERIOD.--October 1996 to March 1997: Maximum elevation, 569.36 ft, Oct. 30; minimum, 564.74 ft, Dec. 12.

ELEVATION (FEET IGLD), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	566.36	566.64	566.26	565.80	566.14	566.28	---	---	---	---	---	---
2	566.54	566.14	566.42	566.20	565.98	566.54	---	---	---	---	---	---
3	566.12	566.14	565.92	566.23	565.97	565.99	---	---	---	---	---	---
4	566.05	566.13	565.98	566.04	565.95	566.26	---	---	---	---	---	---
5	565.94	565.86	565.80	566.81	566.37	566.29	---	---	---	---	---	---
6	566.17	565.81	566.07	567.22	566.23	566.78	---	---	---	---	---	---
7	566.17	565.88	566.08	566.78	566.09	566.40	---	---	---	---	---	---
8	565.99	565.91	566.15	566.12	565.91	566.25	---	---	---	---	---	---
9	566.01	565.77	565.95	565.79	566.21	566.27	---	---	---	---	---	---
10	565.99	565.72	565.89	567.54	566.22	566.66	---	---	---	---	---	---
11	565.96	566.07	565.41	567.57	566.26	566.52	---	---	---	---	---	---
12	566.09	565.97	565.35	566.99	566.20	566.45	---	---	---	---	---	---
13	566.12	565.80	566.16	566.69	565.90	566.05	---	---	---	---	---	---
14	565.98	565.72	565.90	566.69	566.26	566.62	---	---	---	---	---	---
15	565.68	565.44	565.64	566.23	566.23	567.42	---	---	---	---	---	---
16	566.12	565.53	565.97	567.40	566.24	566.70	---	---	---	---	---	---
17	565.94	565.63	566.41	567.83	566.10	566.70	---	---	---	---	---	---
18	566.09	565.79	566.39	566.92	566.29	566.27	---	---	---	---	---	---
19	565.82	565.80	566.35	566.29	566.34	566.32	---	---	---	---	---	---
20	565.48	565.70	566.87	566.92	566.08	566.49	---	---	---	---	---	---
21	565.85	565.65	566.22	566.40	566.27	566.51	---	---	---	---	---	---
22	565.85	565.68	566.14	566.23	566.62	566.45	---	---	---	---	---	---
23	566.08	565.75	566.04	566.02	566.51	566.49	---	---	---	---	---	---
24	566.92	565.24	567.06	566.08	566.32	566.41	---	---	---	---	---	---
25	566.06	565.34	566.72	567.58	565.94	566.61	---	---	---	---	---	---
26	565.83	565.64	566.19	566.63	566.25	566.83	---	---	---	---	---	---
27	565.94	565.71	566.08	566.29	566.81	566.82	---	---	---	---	---	---
28	566.04	565.80	566.25	566.84	566.43	566.64	---	---	---	---	---	---
29	565.75	565.78	566.29	566.00	---	566.78	---	---	---	---	---	---
30	567.11	565.76	565.93	565.96	---	566.52	---	---	---	---	---	---
31	567.19	---	565.55	566.20	---	---	---	---	---	---	---	---
MEAN	566.10	565.79	566.11	566.59	566.22	---	---	---	---	---	---	---
MAX	567.19	566.64	567.06	567.83	566.81	---	---	---	---	---	---	---
MIN	565.48	565.24	565.35	565.79	565.90	---	---	---	---	---	---	---

NIAGARA RIVER BASIN

95

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 mi².

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

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

GAGE.--Water-stage recorder, crest-stage gage, and concrete weir. Datum of gage is 954.63 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year. Pesticide sample collected as part of state-wide sampling network in cooperation with the New York State Department of Environmental Conservation. Analyses published on page 277.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, about 6,000 ft³/s, June 23, 1972, gage height, about 12.0 ft, from information supplied by Village of Attica.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,900 ft³/s and maximum(*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Oct. 19	1845	2,060	6.76	Mar. 26	0145	2,100	6.77
Feb. 27	1230	*2,810	*7.52	May 19	2345	2,190	6.87

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	86	878	e110	105	267	239	76	369	24	9.0	8.4
2	33	80	517	154	97	545	216	70	710	24	8.3	8.8
3	29	75	238	355	99	268	169	76	277	20	8.0	30
4	25	68	262	178	102	189	139	79	144	19	18	19
5	22	77	197	291	385	171	123	64	105	21	15	12
6	21	68	156	239	209	186	119	97	84	21	8.9	9.7
7	20	64	133	e140	143	162	111	82	107	19	7.8	10
8	20	770	117	e100	115	153	95	66	90	20	6.9	12
9	20	671	103	e88	e84	141	86	73	70	72	6.1	12
10	74	302	91	e78	e76	287	79	88	59	42	5.8	11
11	73	205	89	e72	e70	312	77	96	51	26	5.6	15
12	43	150	122	e70	e66	197	148	97	45	20	6.4	42
13	34	118	214	e68	e64	141	276	100	44	18	18	26
14	29	102	162	e66	e62	605	172	74	42	15	17	22
15	25	88	112	e65	e60	408	134	106	37	14	9.4	17
16	23	80	99	e64	e56	186	107	180	34	15	8.3	16
17	21	85	120	e64	e62	158	115	164	38	12	8.8	16
18	22	114	99	e64	e80	164	159	119	39	11	8.9	23
19	860	104	85	e64	e720	145	173	613	44	11	7.7	18
20	1120	88	67	e62	641	145	141	698	36	9.5	7.0	30
21	522	76	80	e62	1210	147	127	225	33	14	10	38
22	334	68	103	e76	822	562	119	158	30	38	19	24
23	191	63	102	e500	258	192	125	121	27	20	24	20
24	187	63	686	211	179	142	97	102	114	16	16	18
25	141	61	232	313	139	395	84	91	79	15	12	16
26	98	145	e140	209	154	932	75	83	52	12	9.6	28
27	80	103	133	e140	1520	312	68	72	42	12	8.8	24
28	85	84	236	e120	443	279	136	64	33	13	8.2	20
29	80	87	302	e100	---	327	124	58	28	16	10	375
30	134	97	203	e94	---	312	89	61	24	12	10	258
31	119	---	e110	e96	---	381	---	64	---	12	8.2	---
TOTAL	4528	4242	6188	4313	8021	8811	3922	4117	2887	613.5	326.7	1178.9
MEAN	146	141	200	139	286	284	131	133	96.2	19.8	10.5	39.3
MAX	1120	770	878	500	1520	932	276	698	710	72	24	375
MIN	20	61	67	62	56	141	68	58	24	9.5	5.6	8.4
CFSM	1.90	1.84	2.60	1.81	3.73	3.70	1.70	1.73	1.25	.26	.14	.51
IN.	2.19	2.05	2.99	2.09	3.88	4.26	1.90	1.99	1.40	.30	.16	.57

e Estimated

NIAGARA RIVER BASIN
04216418 TONAWANDA CREEK AT ATTICA, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1997, BY WATER YEAR (WY)

MEAN	71.1	129	163	132	143	231	213	105	62.4	36.1	34.3	46.0
MAX	182	353	329	258	293	459	367	264	278	179	192	172
(WY)	1987	1986	1978	1979	1981	1979	1978	1984	1989	1992	1992	1992
MIN	10.8	16.6	34.5	41.5	34.4	122	73.1	36.4	18.8	10.1	7.28	6.19
(WY)	1992	1992	1990	1994	1980	1981	1995	1995	1991	1983	1991	1995

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1978 - 1997

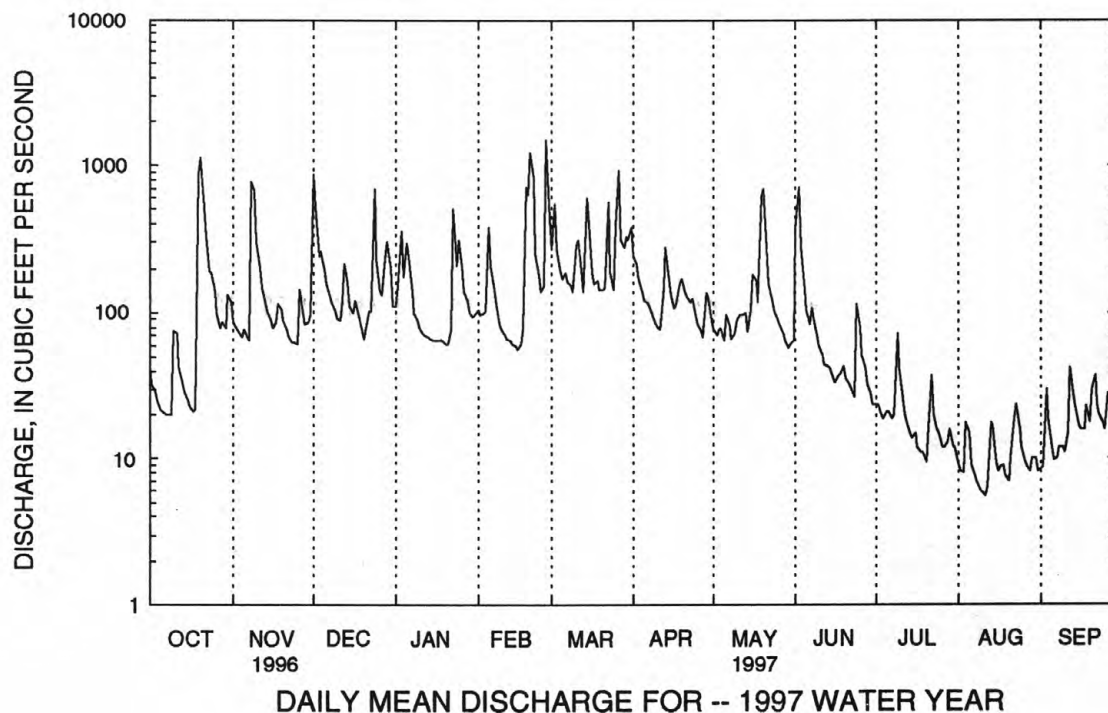
ANNUAL TOTAL	53969.3	49148.1	
ANNUAL MEAN	147	135	114
HIGHEST ANNUAL MEAN			157
LOWEST ANNUAL MEAN			72.8
HIGHEST DAILY MEAN	2130	Apr 13	2630
LOWEST DAILY MEAN	5.7	Sep 3	3.7
ANNUAL SEVEN-DAY MINIMUM	6.1	Aug 29	3.9
INSTANTANEOUS PEAK FLOW		2810	Feb 27
INSTANTANEOUS PEAK STAGE		7.52	Feb 27
INSTANTANEOUS LOW FLOW		5.2	c
ANNUAL RUNOFF (CFSM)	1.92	1.75	1.48
ANNUAL RUNOFF (INCHES)	26.11	23.78	20.07
10 PERCENT EXCEEDS	301	302	251
50 PERCENT EXCEEDS	80	80	61
90 PERCENT EXCEEDS	14	12	14

a Aug. 24-27, Sep. 6, 7, 1995.

b Ice jam.

c Aug. 10, 11.

d Aug. 26, Sep. 7, 1995.



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 mi².

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

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 876.33 ft above sea level.

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

COOPERATION.--City of Batavia maintains records of diversion.

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,800 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Oct. 21	0330	2,780	8.10	Feb. 28	0800	*2,980	*8.42
Nov. 10	0015	1,810	6.16	Mar. 26	2230	2,060	6.69
Feb. 22	1630	2,110	6.78				

 DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	99	219	554	e180	209	1050	650	149	e150	43	21	22
2	66	199	1350	266	205	742	558	132	e900	45	19	25
3	52	190	1170	617	e190	868	399	127	1060	41	18	35
4	47	173	770	555	204	490	314	152	567	39	18	47
5	43	160	683	370	546	369	266	126	263	40	26	31
6	39	149	444	700	774	365	246	126	183	38	25	24
7	37	136	363	e370	451	347	224	170	164	39	20	22
8	35	302	304	e230	294	e310	197	122	195	39	18	23
9	35	1270	273	e160	183	e270	167	117	140	66	15	23
10	64	1470	237	e150	e170	e420	154	139	109	103	15	21
11	167	880	216	e140	e150	823	145	181	91	56	15	26
12	98	458	246	e140	e130	e730	146	155	79	41	15	58
13	69	311	347	e130	e120	e360	544	198	74	37	31	63
14	56	250	487	e130	e120	e420	424	144	70	34	57	45
15	47	210	295	e120	e110	e1120	304	142	64	30	33	37
16	41	175	239	e120	e100	934	231	213	58	28	60	31
17	39	177	243	e115	e100	e400	205	305	56	26	44	31
18	37	189	251	e110	e120	408	295	244	62	31	32	33
19	296	221	201	e110	e550	328	353	374	80	26	26	37
20	1660	197	150	e110	e1350	328	328	1040	67	25	24	38
21	2350	172	115	e110	1430	287	269	e1100	57	24	33	75
22	1330	151	167	130	1830	693	237	e400	52	37	40	52
23	863	134	165	e630	1280	809	233	e300	46	46	52	38
24	527	129	579	871	e520	e360	204	e220	85	32	48	33
25	395	121	902	685	318	350	175	e200	230	29	36	32
26	294	184	e410	727	292	1290	156	e180	112	27	29	38
27	220	251	307	396	887	1400	137	e160	97	26	26	46
28	195	156	289	310	2490	810	176	e140	69	26	23	38
29	212	177	594	e210	---	575	273	e120	54	27	22	427
30	195	171	529	e180	---	743	185	e100	47	26	24	910
31	321	---	e290	189	---	773	---	e110	---	22	23	---
TOTAL	9929	8982	13170	9261	15123	19172	8195	7386	5281	1149	888	2361
MEAN	320	299	425	299	540	618	273	238	176	37.1	28.6	78.7
MAX	2350	1470	1350	871	2490	1400	650	1100	1060	103	60	910
MIN	35	121	115	110	100	270	137	100	46	22	15	21

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1997, BY WATER YEAR (WY)

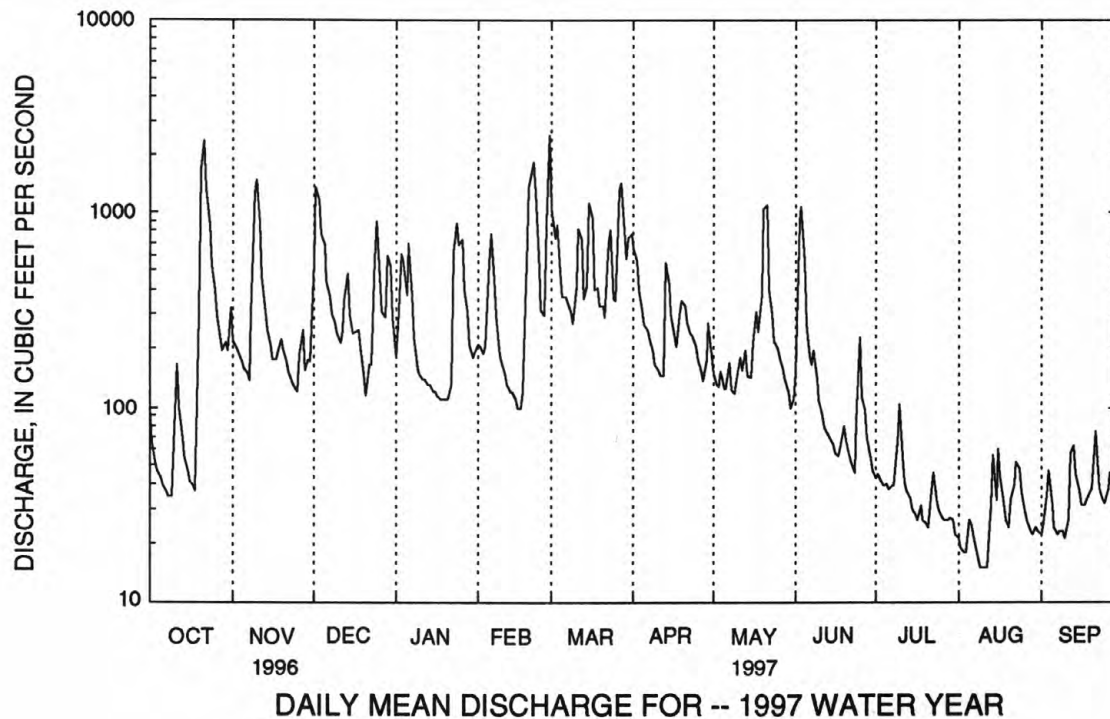
MEAN	84.8	173	266	257	309	541	459	205	107	52.4	48.8	63.9
MAX	344	653	718	552	903	1206	1100	544	723	247	451	873
(WY)	1946	1986	1978	1996	1976	1945	1947	1984	1989	1992	1977	1977
MIN	9.03	15.3	13.6	17.5	50.9	244	82.1	65.8	20.1	6.17	7.91	5.63
(WY)	1965	1961	1961	1961	1963	1965	1946	1995	1965	1955	1944	1955

NIAGARA RIVER BASIN
04217000 TONAWANDA CREEK AT BATAVIA, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1944 - 1997	
ANNUAL TOTAL	117048.0		100897		213	
ANNUAL MEAN	320		276		124	
HIGHEST ANNUAL MEAN					311	
LOWEST ANNUAL MEAN					124	
HIGHEST DAILY MEAN	3940	Jan 20	2490	Feb 28	6660	Mar 31 1960
LOWEST DAILY MEAN	8.9	Sep 5	15	a	.60	Aug 2 1955
ANNUAL SEVEN-DAY MINIMUM	11	Aug 30	18	Aug 6	1.1	Jul 31 1955
INSTANTANEOUS PEAK FLOW			2980	Feb 28	7200	Mar 31 1960
INSTANTANEOUS PEAK STAGE			8.42	Feb 28	13.85	Apr 6 1947
INSTANTANEOUS LOW FLOW			14	Aug 12	.40	b
10 PERCENT EXCEEDS	817		735		510	
50 PERCENT EXCEEDS	172		160		97	
90 PERCENT EXCEEDS	32		27		14	

a Aug. 9-12.

b Aug. 5, 6, 7, 1955.



NIAGARA RIVER BASIN

99

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 mi².

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 623.78 ft above sea level.

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*).

Discharge				Gage Height			
Date	Time	(ft ³ /s)	(ft)	Date	Time	(ft ³ /s)	(ft)
Oct. 21	2300	665	4.40	Mar. 1	0100	675	4.40
Nov. 10	1800	574	4.23	Mar. 16	1830	574	4.19
Jan. 27	1500	504	4.09	Mar. 27	1300	597	4.24
Feb. 21	1830	*759	*4.56				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	81	113	e75	59	538	190	53	48	17	6.1	7.2
2	28	69	229	81	59	310	164	43	131	39	5.0	14
3	19	63	351	127	66	251	138	41	232	38	5.1	14
4	14	61	267	164	85	208	106	43	191	26	5.4	14
5	11	56	229	165	204	144	83	46	94	19	5.6	16
6	10	52	227	e160	221	121	73	45	53	15	5.9	12
7	9.5	48	169	e140	e280	106	66	50	41	14	6.1	11
8	9.6	100	131	e90	e200	e110	58	49	35	13	5.4	9.9
9	8.7	269	106	e65	e140	e80	51	43	36	23	4.8	9.1
10	10	488	90	e60	e70	170	44	41	29	25	4.8	8.9
11	9.5	434	78	e50	e50	293	40	44	24	29	5.3	10
12	16	241	71	e46	47	361	42	52	21	21	5.6	10
13	15	150	75	e44	e40	270	64	65	18	15	6.5	11
14	13	100	87	42	37	283	112	67	16	13	5.6	16
15	12	75	93	e40	36	418	106	55	14	12	5.4	15
16	12	59	74	e40	e34	488	81	54	14	10	16	13
17	9.8	56	76	e38	e34	325	66	64	13	9.7	17	11
18	9.1	52	80	e36	38	197	80	75	14	9.4	29	11
19	39	53	74	e36	166	141	104	109	15	8.4	16	9.5
20	262	53	55	e36	376	115	107	259	26	8.1	13	11
21	505	51	e46	e36	645	104	94	339	25	9.6	20	11
22	580	48	46	e45	606	143	76	219	19	8.8	35	22
23	347	44	44	e90	420	192	62	109	16	7.8	46	22
24	227	42	113	e170	e210	161	61	71	21	8.5	37	16
25	180	41	e160	274	e120	125	53	57	25	7.7	30	15
26	142	42	e180	e260	99	355	44	48	46	6.9	20	14
27	108	46	116	e250	292	528	39	43	35	6.3	15	12
28	83	49	92	e200	500	350	43	38	39	7.1	11	13
29	71	51	125	e130	---	202	60	33	29	6.7	9.6	97
30	78	51	146	e80	---	155	67	31	21	6.4	8.6	242
31	83	---	e110	66	---	183	---	30	---	6.4	7.5	---
TOTAL	2984.2	3025	3853	3136	5134	7427	2374	2316	1341	446.8	413.3	697.6
MEAN	96.3	101	124	101	183	240	79.1	74.7	44.7	14.4	13.3	23.3
MAX	580	488	351	274	645	538	190	339	232	39	46	242
MIN	8.7	41	44	36	34	80	39	30	13	6.3	4.8	7.2
CFSM	1.64	1.71	2.11	1.72	3.12	4.07	1.35	1.27	.76	.25	.23	.40
IN.	1.89	1.91	2.44	1.98	3.25	4.70	1.50	1.47	.85	.28	.26	.44

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1997, BY WATER YEAR (WY)

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
MEAN	29.3	74.8	107	97.0	114	145	138	73.4	41.4	15.0	14.4	16.3			
MAX	96.3	183	222	221	243	240	227	157	183	58.8	96.2	109			
(WY)	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
MIN	5.33	6.63	15.0	30.5	29.0	88.6	44.9	22.5	7.27	4.54	2.18	2.88			
(WY)	1983	1984	1990	1994	1987	1983	1995	1985	1995	1983	1991	1991			

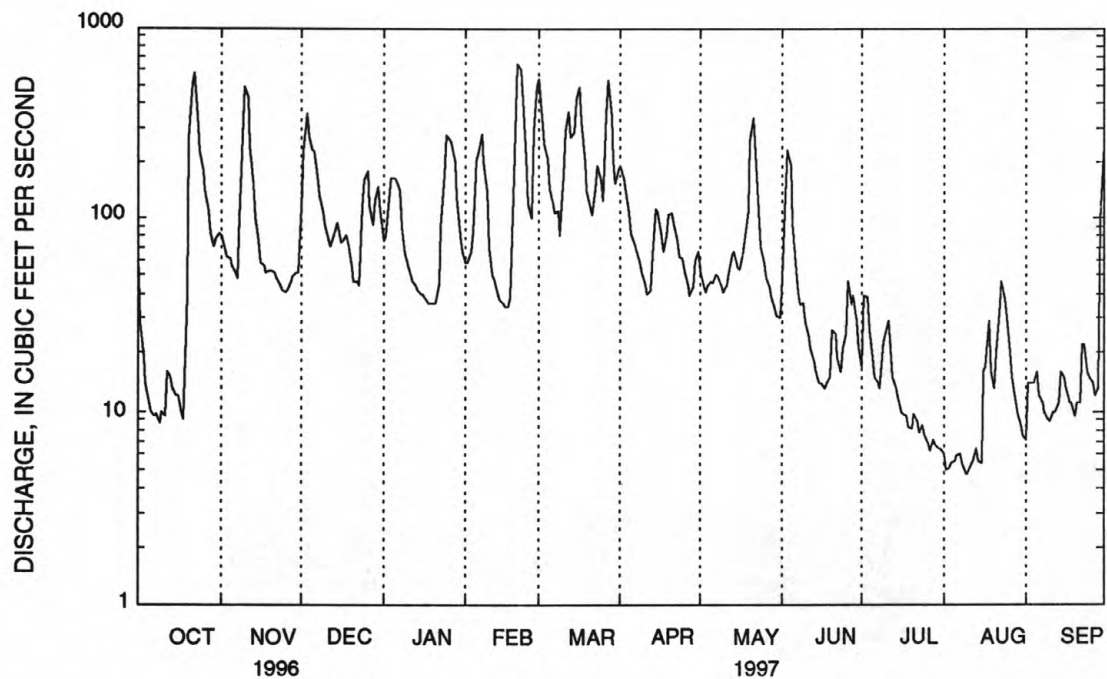
NIAGARA RIVER BASIN
04217750 MURDER CREEK NEAR AKRON, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1983 - 1997	
ANNUAL TOTAL	39609.4		33147.9		72.7	
ANNUAL MEAN	108		90.8		94.9	
HIGHEST ANNUAL MEAN					54.9	
LOWEST ANNUAL MEAN					1996	
HIGHEST DAILY MEAN	1360	Jan 20	645	Feb 21	2710	Feb 25 1985
LOWEST DAILY MEAN	5.6	a	4.8	b	.86	Aug 24 1991
ANNUAL SEVEN-DAY MINIMUM	6.2	Aug 25	5.4	Aug 5	1.4	Aug 23 1991
INSTANTANEOUS PEAK FLOW			759	Feb 21	3000	Feb 25 1985
INSTANTANEOUS PEAK STAGE			4.56	Feb 21	7.16	Feb 25 1985
INSTANTANEOUS LOW FLOW			4.2	c	.53	Aug 24 1991
ANNUAL RUNOFF (CFSM)	1.84		1.54		1.24	
ANNUAL RUNOFF (INCHES)	25.06		20.97		16.80	
10 PERCENT EXCEEDS	257		236		177	
50 PERCENT EXCEEDS	56		49		36	
90 PERCENT EXCEEDS	8.7		9.5		4.8	

a Aug. 25, 31.

b Aug. 9, 10.

c Aug. 9, 10.



NIAGARA RIVER BASIN

101

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 mi², includes 0.76 mi² in Mud Creek from which flow is diverted into Black Creek.

PERIOD OF RECORD.--August 1955 to September 1965, March 1978 to September 1979 (seasonal gage-height records only), October 1979 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 571.19 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year. Pesticide sample collected as part of state-wide sampling network in cooperation with the New York State Department of Environmental Conservation. Analyses published on page 277.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Oct. 23	0430	3,060	9.82	Mar. 1	2300	*3,140	*9.99
Nov. 11	1500	2,490	8.47	Mar. 28	0930	2,450	8.37
Feb. 21	2230	3,030	9.76				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	407	562	608	601	e550	2780	1170	321	271	106	32	36
2	231	484	1240	510	560	2730	1110	263	594	104	28	42
3	147	404	1780	706	578	1690	960	238	1160	126	26	79
4	112	374	2000	1010	619	1390	769	248	1370	111	24	118
5	92	349	1510	1070	1190	1060	594	260	980	93	24	81
6	82	322	1230	1030	1680	839	507	262	482	81	22	76
7	76	301	1000	1050	1790	779	438	254	330	73	22	62
8	70	431	798	735	1560	753	368	284	280	69	27	52
9	68	1130	659	e450	977	648	327	257	293	75	25	46
10	71	1800	593	e400	628	787	289	247	243	121	21	42
11	89	2410	537	e350	493	1380	264	263	196	149	19	45
12	152	2040	492	e340	e420	1610	253	298	166	129	19	51
13	171	1210	499	e330	e360	1470	320	323	148	91	24	84
14	127	731	591	e320	e320	1250	732	351	140	71	26	105
15	103	562	703	e300	310	1790	749	324	128	61	35	95
16	90	470	569	e290	304	1920	539	299	114	56	84	77
17	82	396	525	e280	273	1820	392	366	106	53	93	66
18	77	381	579	e260	275	1220	384	528	102	49	101	57
19	121	389	551	e260	819	921	503	534	113	44	90	59
20	905	416	449	e260	1820	751	587	889	137	56	64	59
21	1890	394	298	e260	2570	669	566	1400	150	52	72	65
22	2700	355	290	e280	2990	728	462	1580	125	48	109	70
23	2900	318	341	e500	2760	1060	368	969	105	46	124	103
24	2080	293	604	e950	2330	1210	339	580	103	51	127	86
25	1310	281	959	e1500	1180	824	317	458	128	63	119	69
26	924	280	1210	e1800	661	1320	274	384	285	50	99	66
27	686	323	870	e1500	1160	1910	251	335	224	43	75	68
28	550	410	645	e1200	2030	2340	244	299	187	40	59	65
29	475	368	815	e1000	---	1620	290	266	158	39	49	303
30	486	368	1020	e600	---	1110	392	241	119	38	42	938
31	535	---	928	e500	---	1120	---	228	---	36	37	---
TOTAL	17809	18552	24893	20642	31207	41499	14758	13549	8937	2224	1718	3165
MEAN	574	618	803	666	1115	1339	492	437	298	71.7	55.4	106
MAX	2900	2410	2000	1800	2990	2780	1170	1580	1370	149	127	938
MIN	68	280	290	260	273	648	244	228	102	36	19	36
CFSM	1.65	1.77	2.30	1.91	3.19	3.84	1.41	1.25	.85	.21	.16	.30
IN.	1.90	1.98	2.65	2.20	3.33	4.42	1.57	1.44	.95	.24	.18	.34

e Estimated

NIAGARA RIVER BASIN
04218000 TONAWANDA CREEK AT RAPIDS, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 1997, BY WATER YEAR (WY)

MEAN	154	325	498	509	633	965	925	408	215	92.1	87.2	96.7
MAX	642	1239	1116	1142	1363	1650	1534	1046	1372	463	601	614
(WY)	1987	1986	1987	1996	1981	1956	1960	1956	1989	1992	1992	1992
MIN	14.8	25.7	23.3	29.4	103	452	334	144	45.6	26.1	15.9	10.1
(WY)	1965	1961	1961	1961	1963	1981	1995	1993	1965	1991	1991	1991

SUMMARY STATISTICS

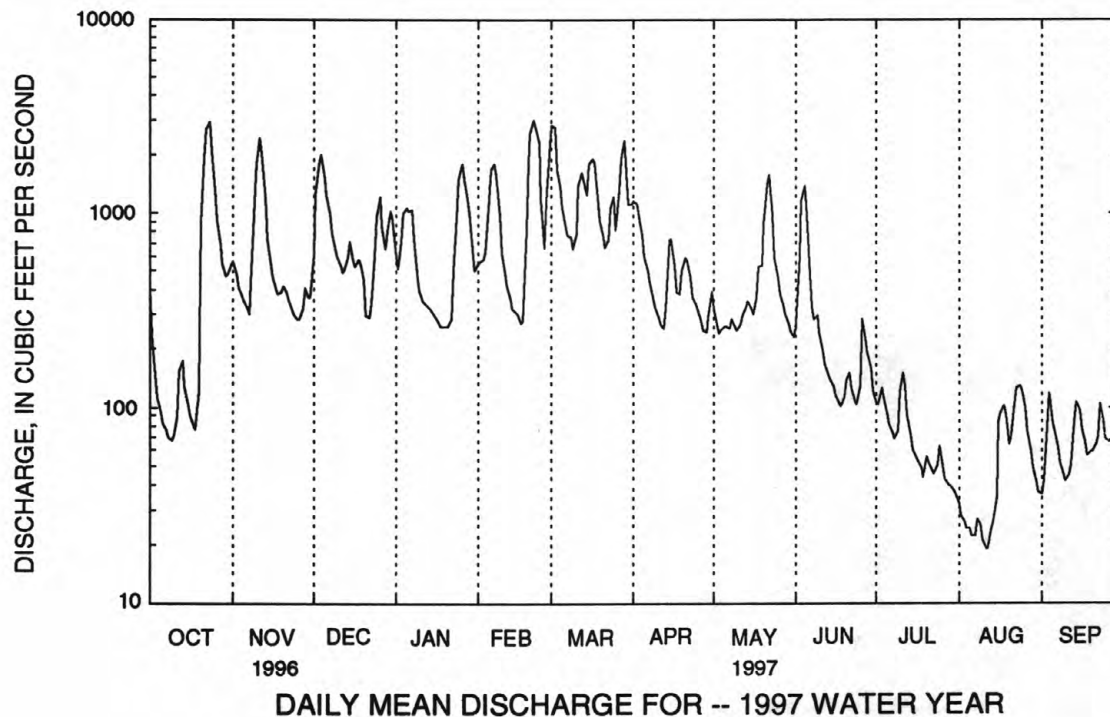
FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1955 - 1997

ANNUAL TOTAL	235172		198953									
ANNUAL MEAN	643		545							408		
HIGHEST ANNUAL MEAN										556		1956
LOWEST ANNUAL MEAN										255		1965
HIGHEST DAILY MEAN	4970	Jan 22	2990	Feb 22						6130	Apr 1	1960
LOWEST DAILY MEAN	22	Sep 2	19	a						4.8	Jul 28	1983
ANNUAL SEVEN-DAY MINIMUM	23	Sep 1	22	Aug 6						6.8	Sep 1	1991
INSTANTANEOUS PEAK FLOW			3140	Mar 1						6280	Apr 1	1960
INSTANTANEOUS PEAK STAGE			9.99	Mar 1						16.96	Apr 1	1960
INSTANTANEOUS LOW FLOW			19	a						4.5	Jul 28	1983
ANNUAL RUNOFF (CFSM)	1.84		1.56							1.17		
ANNUAL RUNOFF (INCHES)	25.07		21.21							15.88		
10 PERCENT EXCEEDS	1650		1380							1070		
50 PERCENT EXCEEDS	385		323							194		
90 PERCENT EXCEEDS	61		52							30		

a Aug. 11, 12.



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MEAN	73.2	145	204	160	182	277	212	115	77.6	42.2	55.5	70.2
MAX	196	342	441	335	377	519	363	258	275	144	397	425
(WY)	1997	1986	1978	1996	1990	1977	1996	1989	1989	1976	1977	1977
MIN	11.2	27.1	40.6	39.2	56.0	119	94.8	47.5	24.2	11.8	13.5	9.76
(WY)	1975	1979	1990	1977	1980	1981	1995	1977	1988	1978	1974	1973

NIAGARA RIVER BASIN

04218518 ELLICOTT CREEK BELOW WILLIAMSVILLE, NY--Continued

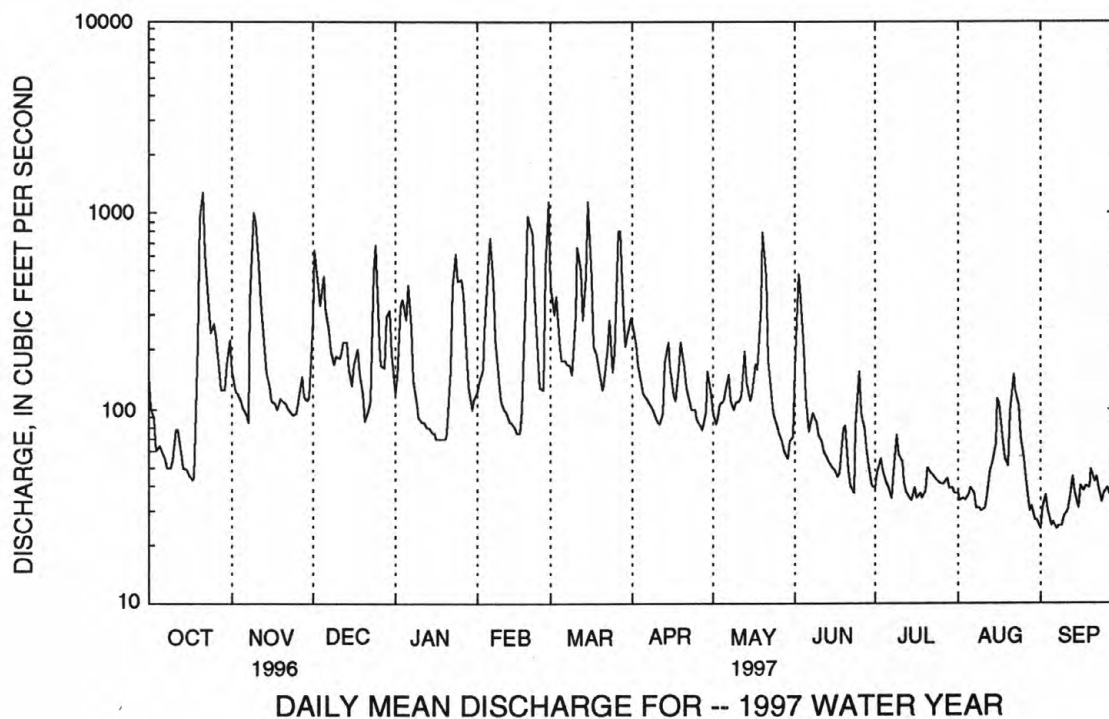
SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1973 - 1997	
ANNUAL TOTAL	71999		62107		134	
ANNUAL MEAN	197		170		177	
HIGHEST ANNUAL MEAN					97.7	
LOWEST ANNUAL MEAN					1977	
HIGHEST DAILY MEAN	2180	Jan 19	1260	Oct 21	3280	Feb 25 1985
LOWEST DAILY MEAN	19	a	24	b	2.7	Aug 15 1978
ANNUAL SEVEN-DAY MINIMUM	20	Aug 31	26	Sep 4	3.6	Jul 15 1978
INSTANTANEOUS PEAK FLOW			1410	Oct 21	3640	Feb 25 1985
INSTANTANEOUS PEAK STAGE			6.35	Oct 21	11.19	Feb 25 1985
INSTANTANEOUS LOW FLOW			c7.0	Oct 4	d.00	Jul 27 1976
ANNUAL RUNOFF (CFSM)	2.41		2.09		1.65	
ANNUAL RUNOFF (INCHES)	32.82		28.31		22.35	
10 PERCENT EXCEEDS	383		410		304	
50 PERCENT EXCEEDS	112		105		74	
90 PERCENT EXCEEDS	44		37		18	

a Sep. 1, 3.

b Sep. 1, 7.

c Result of regulation.

d Result of pipeline construction.



NIAGARA RIVER BASIN

105

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

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

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

REVISED RECORDS.--WSP 1237: 1951

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

REMARKS.--No estimated daily values. Records good. 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.

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 Canal Corporation.

AVERAGE DISCHARGE.--27 years (water years 1951-77), 200 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 874 ft³/s, Dec. 3, 1969; no significant flow at times in many years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	231	199	---	---	---	---	---	106	173	211	242	238
2	229	200	---	---	---	---	---	107	187	215	239	216
3	230	199	---	---	---	---	---	102	186	209	240	221
4	226	207	---	---	---	---	---	104	184	214	247	220
5	228	217	---	---	---	---	---	112	179	214	246	210
6	227	206	---	---	---	---	---	122	178	221	253	212
7	233	174	---	---	---	---	---	140	175	212	248	213
8	237	129	---	---	---	---	---	158	182	217	255	211
9	231	148	---	---	---	---	---	155	188	209	249	216
10	229	156	---	---	---	---	---	160	219	209	244	223
11	220	144	---	---	---	---	---	155	206	214	241	218
12	235	129	---	---	---	---	---	159	200	211	248	213
13	239	116	---	---	---	---	---	161	201	207	243	217
14	225	103	---	---	---	---	---	160	195	207	251	229
15	230	93	---	---	---	---	---	160	206	173	229	206
16	221	84	---	---	---	---	---	157	218	213	246	206
17	229	77	---	---	---	---	---	157	219	231	242	210
18	219	---	---	---	---	---	---	157	219	231	244	210
19	217	---	---	---	---	---	---	161	211	227	244	205
20	240	---	---	---	---	---	---	163	208	233	239	193
21	232	---	---	---	---	---	---	161	217	231	227	192
22	200	---	---	---	---	---	---	173	214	238	215	197
23	204	---	---	---	---	---	---	190	214	231	213	199
24	200	---	---	---	---	---	---	212	213	229	224	206
25	202	---	---	---	---	---	---	189	211	234	213	205
26	206	---	---	---	---	---	---	185	218	240	220	201
27	198	---	---	---	---	---	---	185	213	222	229	205
28	193	---	---	---	---	---	---	194	223	241	220	194
29	189	---	---	---	---	---	---	181	232	247	226	208
30	192	---	---	---	---	---	50	180	219	250	228	221
31	200	---	---	---	---	---	---	176	---	240	218	---
TOTAL	6792	---	---	---	---	---	---	4882	6108	6881	7323	6315
MEAN	219	---	---	---	---	---	---	157	204	222	236	211
MAX	240	---	---	---	---	---	---	212	232	250	255	238
MIN	189	---	---	---	---	---	---	102	173	173	213	192

STREAMS TRIBUTARY TO LAKE ONTARIO

0422026250 NORTHRUP CREEK AT NORTH GREECE, NY

LOCATION.--Lat 43°15'13", long 77°43'33", Monroe County, Hydrologic Unit 04130001, on right bank 75 ft downstream from bridge on State Highway 18 (Latta Road), 0.5 mi west of North Greece and 5.1 mi upstream from mouth.

DRAINAGE AREA.--11.7 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1989 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 306 ft above sea level, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Unpublished water-quality records for prior years are available in files of Monroe County Department of Health.

COOPERATION.--Discharge measurements were provided by the Monroe County Environmental Health Laboratory at Rochester, N.Y.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 758 ft³/s, May 17, 1974, from rating curve extended above 15 ft³/s on basis of contracted-opening measurement of peak flow.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	24	110	e16	e26	27	27	5.4	19	5.0	5.4	6.2
2	9.3	23	63	e18	e24	27	28	4.2	19	5.1	5.4	6.1
3	8.7	23	28	41	e22	21	20	5.1	14	4.8	5.6	7.7
4	8.4	23	27	24	e26	19	16	4.9	12	4.6	5.3	6.0
5	8.2	23	27	e21	e40	e16	15	4.7	10	5.0	5.0	5.8
6	8.2	22	26	e18	e64	e15	14	4.7	9.5	5.0	5.4	6.0
7	8.2	21	22	e14	25	e15	12	4.2	9.5	4.9	4.8	6.2
8	8.1	80	20	e14	e18	e14	11	4.0	9.1	4.5	5.2	6.1
9	8.3	112	19	e15	e20	e14	10	4.6	8.1	6.8	5.2	5.9
10	15	53	19	e14	e18	34	9.8	5.3	7.4	5.3	5.1	6.0
11	13	36	18	e14	e14	50	9.2	5.0	7.0	4.0	4.7	12
12	10	28	16	e15	e12	34	12	6.1	6.7	3.8	5.3	13
13	9.6	26	38	e15	e15	e19	25	5.5	7.5	4.2	8.0	7.4
14	10	23	31	e17	e16	42	18	5.5	8.1	3.6	5.7	6.5
15	9.0	20	23	e18	e11	48	13	5.9	7.1	4.0	5.6	6.3
16	8.7	17	20	e14	e12	e22	11	5.8	6.5	3.5	11	6.1
17	8.6	18	23	e10	e14	e18	10	6.3	7.4	4.0	5.8	6.1
18	8.5	24	e17	e9.0	e18	29	10	6.3	7.8	3.8	5.5	6.7
19	136	21	e14	e11	e60	26	11	13	7.3	3.9	5.3	6.3
20	298	19	e13	e14	e40	26	14	16	8.4	3.9	5.6	9.4
21	82	17	e14	e16	e36	28	11	12	6.7	4.9	8.4	7.2
22	40	15	e16	e30	e30	38	10	15	5.9	4.3	5.9	6.3
23	30	14	e12	e40	e20	23	8.9	14	5.5	3.8	6.0	6.1
24	26	13	e16	e20	e16	19	7.3	14	11	3.2	5.9	6.0
25	21	13	e18	e18	e16	37	5.7	14	7.6	2.9	5.9	7.0
26	18	15	e19	e15	e16	75	4.8	14	7.4	4.6	5.7	7.5
27	27	16	e15	e14	135	32	4.5	13	6.2	5.5	5.9	6.5
28	27	17	e14	e12	42	26	8.7	13	5.6	5.7	9.3	6.4
29	25	16	e13	e14	---	23	7.0	12	5.2	5.6	6.0	45
30	31	19	e12	e20	---	21	5.8	12	5.1	5.4	5.9	16
31	27	---	e11	e22	---	31	---	12	---	5.0	6.5	---
TOTAL	957.8	791	734	553.0	806	869	369.7	267.5	257.6	140.6	186.3	255.8
MEAN	30.9	26.4	23.7	17.8	28.8	28.0	12.3	8.63	8.59	4.54	6.01	8.53
MAX	298	112	110	41	135	75	28	16	19	6.8	11	45
MIN	8.1	13	11	9.0	11	14	4.5	4.0	5.1	2.9	4.7	5.8
CFSM	2.64	2.25	2.02	1.52	2.46	2.40	1.05	.74	.73	.39	.51	.73
IN.	3.05	2.51	2.33	1.76	2.56	2.76	1.18	.85	.82	.45	.59	.81

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1997, BY WATER YEAR (WY)

MEAN	9.40	13.0	13.6	18.8	21.0	26.5	23.5	13.4	6.34	4.24	4.42	4.84
MAX	30.9	26.4	23.7	37.9	38.9	40.7	31.7	28.8	16.8	7.88	7.49	9.94
(WY)	1997	1997	1997	1996	1990	1993	1991	1996	1996	1996	1996	1996
MIN	1.83	2.49	3.65	7.52	7.82	15.7	5.27	4.77	3.06	1.96	1.60	1.92
(WY)	1995	1992	1992	1994	1993	1995	1995	1993	1991	1993	1993	1994

STREAMS TRIBUTARY TO LAKE ONTARIO

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0422026250 NORTHRUP CREEK AT NORTH GREECE, NY--Continued

SUMMARY STATISTICS

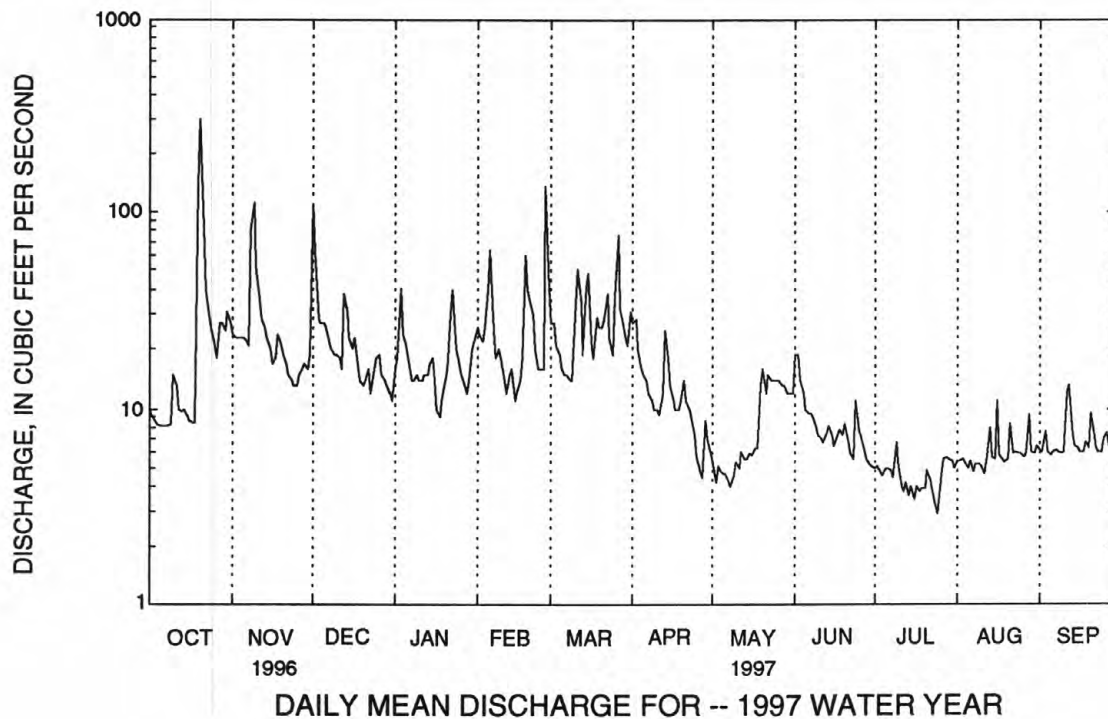
FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1990 - 1997

ANNUAL TOTAL	7890.5		6188.3		
ANNUAL MEAN	21.6		17.0		13.2
HIGHEST ANNUAL MEAN					17.6
LOWEST ANNUAL MEAN					7.33
HIGHEST DAILY MEAN	319	Jan 19	298	Oct 20	420
LOWEST DAILY MEAN	e4.2	Jan 5	2.9	Jul 25	1.1
ANNUAL SEVEN-DAY MINIMUM	5.2	Jan 1	3.8	Jul 14	1.4
INSTANTANEOUS PEAK FLOW			495	Oct 20	573
INSTANTANEOUS PEAK STAGE			3.63	Oct 20	3.89
INSTANTANEOUS LOW FLOW			1.9	Jul 15	.39
ANNUAL RUNOFF (CFSM)	1.84		1.45		1.13
ANNUAL RUNOFF (INCHES)	25.09		19.68		15.34
10 PERCENT EXCEEDS	36		29		26
50 PERCENT EXCEEDS	13		12		7.1
90 PERCENT EXCEEDS	6.1		5.0		2.3

e Estimated.



STREAMS TRIBUTARY TO LAKE ONTARIO
0422026250 NORTHROP CREEK AT NORTH GREECE, NY--Continued
WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1989 to current year.

CHEMICAL DATA: 1989-97 (e).

NUTRIENT DATA: 1989-97 (e).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: November 1994 to current year.

INSTRUMENTATION.--Automatic water sampler since October 1989. Water temperature recorder since November 1994 provides 15-minute-interval readings.

COOPERATION.--Water-quality samples were collected and analyzed by the Monroe County Environmental Health Laboratory at Rochester, N.Y.

REMARKS.--Prior to 1994 water year, data published in "Water Resources of Monroe County New York, Water Years 1989-93", U. S. Geological Survey open-file report 97-587.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 27.0°C, July 15, 1995; minimum, 0.0°C, on many days during winter period.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 25.5°C, July 15; minimum, 0.0°C, on many days during winter period.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	17.0	14.0	15.5	8.0	6.5	7.0	5.0	2.5	3.5	.0	.0	.0
2	17.5	16.5	17.0	7.0	6.0	6.5	5.0	3.0	4.0	.0	.0	.0
3	16.5	11.5	13.0	6.0	5.0	5.5	4.5	3.0	3.5	3.0	.0	2.0
4	11.5	10.5	11.0	7.5	5.5	6.5	4.5	4.0	4.5	4.0	2.5	3.0
5	11.5	9.0	10.5	8.0	7.0	7.5	4.0	3.5	4.0	7.0	4.0	6.0
6	13.0	11.0	12.0	8.5	7.0	7.5	4.5	4.0	4.0	5.0	1.0	2.5
7	14.5	12.5	13.5	12.0	8.5	10.0	4.0	3.5	4.0	1.0	.0	.0
8	14.5	13.5	14.0	12.0	8.5	10.5	4.0	3.5	4.0	.5	.0	.0
9	13.5	13.0	13.5	8.5	7.5	8.0	3.5	2.5	3.0	.0	.0	.0
10	13.0	11.0	12.0	7.5	6.5	7.0	3.5	2.5	3.0	.0	.0	.0
11	11.0	9.5	10.0	6.5	5.0	6.0	4.0	3.0	3.5	.0	.0	.0
12	11.5	9.0	10.0	5.0	3.5	4.0	5.0	3.5	4.0	.0	.0	.0
13	14.0	11.5	12.5	3.5	2.5	3.0	5.5	5.0	5.5	.0	.0	.0
14	14.0	11.5	13.0	3.5	2.0	2.5	5.0	4.0	4.5	.0	.0	.0
15	11.5	9.0	10.0	3.0	1.5	2.5	4.5	4.0	4.5	.0	.0	.0
16	13.5	10.5	12.0	3.0	.5	2.0	5.0	3.5	4.5	.0	.0	.0
17	14.0	13.0	13.5	4.5	2.0	3.0	6.0	5.0	5.5	.0	.0	.0
18	15.0	12.5	14.0	6.5	4.5	5.5	5.5	4.0	5.0	.0	.0	.0
19	14.5	10.5	12.0	6.0	4.5	5.5	4.0	1.0	2.5	.0	.0	.0
20	10.5	10.0	10.5	4.5	3.5	4.0	1.0	.0	.0	.0	.0	.0
21	11.5	10.0	11.0	4.0	3.5	3.5	.0	.0	.0	.0	.0	.0
22	11.5	10.5	11.0	4.0	3.0	3.5	.0	.0	.0	.0	.0	.0
23	12.5	10.0	11.0	3.5	2.0	3.0	2.5	.0	1.5	.0	.0	.0
24	12.0	10.5	11.0	3.0	1.5	2.5	4.0	1.5	3.0	.0	.0	.0
25	11.5	10.0	10.5	2.0	1.0	1.5	1.5	.0	.5	.0	.0	.0
26	11.5	9.0	10.5	1.5	.0	1.0	.5	.0	.0	.0	.0	.0
27	13.5	10.5	12.0	1.0	.0	.5	1.0	.0	.0	.0	.0	.0
28	13.0	10.5	12.0	1.0	.0	.5	3.5	1.0	2.5	.0	.0	.0
29	11.0	9.5	10.0	2.0	.5	1.5	4.0	3.5	4.0	.0	.0	.0
30	11.5	10.0	11.0	2.5	1.5	2.0	3.5	.5	2.0	.0	.0	.0
31	10.5	7.0	8.5	---	---	---	.5	.0	.0	.0	.0	.0
MONTH	17.5	7.0	11.9	12.0	.0	4.4	6.0	.0	2.9	7.0	.0	.4

STREAMS TRIBUTARY TO LAKE ONTARIO
0422026250 NORTHROP CREEK AT NORTH GREECE, NY--Continued

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WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	.0	.0	.0	6.5	2.5	4.5	7.5	1.5	4.5	16.5	11.5	15.0
2	.0	.0	.0	7.5	5.0	6.5	9.5	3.5	6.5	14.0	9.0	11.5
3	.0	.0	.0	5.0	3.0	4.0	10.5	6.5	8.5	14.0	11.0	12.0
4	.0	.0	.0	3.5	2.5	3.0	12.0	7.5	10.0	13.5	9.0	11.5
5	.0	.0	.0	4.0	1.0	3.5	12.5	9.5	11.0	15.0	9.0	11.5
6	.5	.0	.0	2.0	.0	1.0	16.5	11.0	13.5	13.5	10.5	12.0
7	1.5	.5	1.0	1.5	.0	.5	15.0	6.5	9.5	13.5	8.0	10.5
8	1.0	.0	.5	1.0	.0	.5	6.5	4.0	5.0	13.0	8.5	11.0
9	.0	.0	.0	2.5	.0	1.0	6.0	2.0	4.0	13.5	11.0	12.5
10	.0	.0	.0	3.5	2.0	2.5	7.5	2.0	4.5	12.0	10.5	11.0
11	.0	.0	.0	4.0	2.0	2.5	8.5	4.5	6.0	15.0	9.0	11.5
12	.5	.0	.0	3.0	1.0	2.0	7.5	5.5	6.0	15.5	12.0	13.5
13	.0	.0	.0	2.5	.0	1.0	6.0	5.5	6.0	15.5	11.0	13.0
14	.0	.0	.0	1.0	.0	.5	9.5	4.0	6.5	13.5	11.0	12.5
15	.0	.0	.0	1.5	.0	.5	10.5	5.5	8.0	14.5	11.5	12.5
16	.0	.0	.0	.5	.0	.0	11.0	7.0	9.0	12.0	10.0	10.5
17	.0	.0	.0	2.5	.0	1.0	10.0	7.0	8.0	10.5	9.0	9.5
18	2.0	.0	.5	3.0	.5	2.0	8.5	5.5	7.0	11.5	7.5	9.5
19	3.0	1.5	2.0	4.0	.0	2.0	7.5	5.5	6.0	11.5	9.5	10.5
20	3.0	.5	2.0	3.5	2.0	3.0	6.5	5.0	6.0	13.5	10.5	11.5
21	7.5	3.0	5.0	3.0	2.0	2.5	12.0	6.0	8.5	13.0	9.5	11.0
22	7.0	2.0	5.0	4.0	2.0	2.5	12.5	7.5	10.0	14.5	9.5	11.5
23	2.0	.5	1.0	4.0	.0	2.0	14.5	8.5	11.5	15.5	10.0	13.0
24	1.5	.0	.5	5.0	.5	2.5	14.0	9.5	12.0	16.0	12.5	14.5
25	.0	.0	.0	3.5	2.0	3.0	15.0	10.0	12.0	15.5	13.5	14.5
26	4.0	.0	2.0	3.5	2.5	3.0	16.0	10.0	12.5	16.0	11.5	13.5
27	5.5	2.5	3.5	9.0	2.5	5.5	13.5	10.0	12.0	17.0	11.5	14.0
28	4.5	2.0	3.5	10.5	5.5	8.0	12.0	9.5	11.0	17.0	12.5	15.0
29	---	---	---	11.0	9.0	9.5	15.0	8.0	11.0	16.0	14.5	15.0
30	---	---	---	9.5	5.5	8.0	18.0	11.5	14.5	16.0	14.5	15.0
31	---	---	---	5.5	2.5	3.5	---	---	---	16.5	15.0	16.0
MONTH	7.5	.0	.9	11.0	.0	3.0	18.0	1.5	8.7	17.0	7.5	12.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	16.0	15.0	15.5	23.0	22.0	22.5	21.5	20.5	21.0	21.0	19.0	20.0
2	16.0	14.5	15.0	24.0	22.0	23.0	23.0	20.5	21.5	21.0	19.5	20.5
3	18.5	14.5	16.5	23.5	21.5	23.0	22.5	21.5	22.5	20.0	15.5	17.5
4	19.0	14.5	17.0	21.5	18.0	19.5	21.5	20.5	21.0	16.0	14.5	15.0
5	19.5	16.0	18.0	20.0	16.5	18.5	21.0	19.5	20.0	17.0	14.5	16.0
6	19.5	17.0	18.5	21.0	18.0	19.5	20.0	18.0	19.0	19.0	16.5	18.0
7	19.0	17.5	18.0	20.0	18.5	19.5	20.5	17.5	19.0	19.0	17.5	18.0
8	20.0	16.0	18.0	18.5	16.5	17.5	22.0	19.5	20.5	18.0	17.0	17.5
9	21.0	17.0	19.0	18.5	17.5	18.0	22.5	20.0	21.0	18.0	15.5	17.0
10	22.0	18.5	20.0	20.0	16.5	18.0	23.0	21.0	22.0	18.0	17.5	18.0
11	22.0	19.0	20.5	21.0	18.0	19.5	23.0	21.0	22.0	19.0	17.5	18.0
12	21.5	19.5	21.0	22.0	19.0	20.5	21.5	20.0	20.5	19.5	18.0	18.5
13	21.5	19.5	20.5	23.5	20.5	21.5	22.5	21.0	21.5	19.0	18.0	18.5
14	20.0	17.5	19.0	24.5	21.5	23.0	21.0	19.0	20.0	19.0	17.5	18.5
15	19.0	16.0	18.0	25.5	23.5	24.5	20.5	18.5	19.0	19.5	17.5	18.5
16	20.5	17.5	19.0	25.0	22.5	23.5	23.5	20.5	22.0	19.5	18.0	19.0
17	21.5	20.0	20.5	25.0	22.5	23.5	23.5	20.5	22.0	19.0	17.0	18.0
18	20.5	19.0	19.5	24.5	22.5	23.5	20.5	18.5	19.5	19.5	18.0	18.5
19	20.0	18.5	19.0	22.5	19.0	20.0	20.0	17.5	18.5	18.5	17.5	18.0
20	21.0	18.5	19.5	20.5	17.5	19.0	19.0	17.0	18.0	19.5	16.0	18.0
21	23.5	20.5	22.0	19.5	19.0	19.0	19.5	18.0	18.5	16.0	13.5	14.5
22	23.5	22.0	22.5	21.0	18.0	19.5	19.0	18.0	18.5	15.0	12.5	14.0
23	22.5	20.0	21.5	20.5	17.5	19.0	18.5	17.5	18.0	15.5	14.0	15.0
24	22.0	20.0	21.0	21.5	19.5	20.0	19.0	17.0	18.0	14.0	12.0	13.0
25	24.5	21.5	23.0	22.0	18.5	20.0	20.0	18.5	19.0	14.0	12.5	13.0
26	24.0	22.0	23.0	22.0	19.0	20.5	20.0	17.5	19.0	14.5	12.5	13.5
27	22.5	20.0	21.5	23.0	22.0	22.5	21.0	19.5	20.0	13.0	11.0	12.0
28	23.0	20.0	21.5	23.5	22.0	22.5	20.5	19.5	20.0	15.5	12.5	14.0
29	24.0	21.0	22.5	22.0	20.0	20.5	20.0	19.0	19.5	16.0	15.0	15.5
30	24.0	21.5	23.0	21.5	19.0	20.0	20.5	19.0	19.5	15.5	14.5	15.0
31	---	---	---	22.5	20.0	21.0	20.0	19.0	19.5	---	---	---
MONTH	24.5	14.5	19.8	25.5	16.5	20.7	23.5	17.0	20.0	21.0	11.0	16.7

STREAMS TRIBUTARY TO LAKE ONTARIO
0422026250 NORTHROP CREEK AT NORTH GREECE, NY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	TUR- BID- ITY (NTU) (00076)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	RESIDUE TOTAL AT 105 DEG. C, PENDEDED (MG/L) (00530)	RESIDUE VOLA- TILE, PENDEDED (MG/L) (00535)
OCT							
19-20	0125	0425	195	55	415	204	31
20-21	0525	0825	205	32	--	--	--
21-24	0925	0825	42	13	512	27	<11
24-28	0950	0850	23	5.9	587	17	<6
28-31	0925	0825	28	12	518	--	--
NOV							
07-08	2125	0825	23	7.1	594	--	--
08-09	0925	0025	119	40	462	80	11
09-12	0125	0825	60	16	538	--	--
12-14	0950	0850	26	6.7	781	--	--
14-18	0920	0820	19	7.7	779	--	--
NOV 30-							
DEC 02	1235	0835	84	28	637	--	--
02-05	0925	0825	31	11	737	--	--
05-09	0925	0825	23	6.0	804	--	--
13-13	0115	2015	39	22	651	--	--
14-16	2115	0815	23	7.9	722	--	--
16-19	0920	0820	19	4.4	805	--	--
19-23	0910	0810	14	3.7	448	--	--
25-26	2115	0815	19	4.3	836	--	--
26-30	0930	0830	15	3.3	855	--	--
DEC 31							
JAN 01	0940	0840	13	29	880	--	--
01-02	0940	0840	17	3.1	901	--	--
02-03	0925	1225	28	15	925	--	--
03-06	1325	0825	25	7.2	798	--	--
06-09	0925	0825	15	3.6	950	--	--
21-23	0950	0850	28	8.6	1060	--	--
23-27	0920	0820	21	--	1010	--	--
FEB							
04-05	1515	0815	33	40	773	113	15
05-06	0915	0815	48	40	618	150	17
06-10	0920	0820	28	13	844	--	--
18-19	0915	2015	42	25	780	--	--
19-20	2115	0815	45	29	603	--	--
20-24	0925	0825	29	4.5	767	--	--
26-27	1225	0825	64	20	782	--	--
MAR							
10-11	0920	2020	46	7.6	795	--	--
11-13	2120	0820	32	6.8	805	--	--
14-15	0915	0015	56	10	855	--	--
15-17	0115	0815	32	10	848	--	--
17-20	0925	0825	25	4.2	839	--	--
21-22	0520	0820	33	5.2	699	--	--
22-24	0920	0820	26	4.1	754	--	--
25-26	0920	0220	59	28	616	--	--
26-27	0320	0820	57	38	550	--	--
27-31	0920	0820	26	4.5	696	--	--
MAR 31-							
APR 03	0925	0825	28	4.9	693	--	--
12-13	1315	0415	19	14	696	--	--
13-14	0515	0815	22	6.8	673	--	--
14-17	0915	0815	13	2.0	773	--	--
29-29	1235	1255	6.7	2.9	775	4	<2
MAY							
15-18	0925	1225	6.0	2.2	858	--	--
18-19	1325	0825	7.0	5.2	857	--	--
19-20	0925	0225	17	16	720	--	--
20-22	0325	0825	14	5.2	738	--	--

STREAMS TRIBUTARY TO LAKE ONTARIO
0422026250 NORTHRUP CREEK AT NORTH GREECE, NY--Continued

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
OCT							
19-20	.01	.68	.91	.490	.120	41	39
20-21	.03	--	.94	--	.100	32	30
21-24	.03	.70	.97	.140	.069	53	41
24-28	.05	.67	1.2	.140	.064	60	52
28-31	.03	.63	1.0	.130	.065	46	49
NOV							
07-08	.02	.93	1.3	.130	.066	54	54
08-09	.03	1.6	.72	.420	.164	39	34
09-12	.04	.80	.89	.150	.076	52	39
12-14	.06	.74	1.2	.110	.052	100	55
14-18	.10	.76	1.6	.120	.050	100	50
NOV 30-							
DEC 02	.05	.78	1.0	.220	.044	88	34
02-05	.12	.72	1.3	.110	.038	97	40
05-09	.12	.89	1.6	.070	.035	110	53
13-13	.12	.75	1.4	.200	.044	78	42
14-16	.09	.74	1.4	.110	.043	90	46
16-19	.10	.53	1.6	.090	.039	99	52
19-23	.18	.93	2.3	.090	.044	110	55
25-26	.22	.86	1.7	.085	.034	110	49
26-30	.29	.90	1.8	.080	.037	120	51
DEC 31							
JAN 01	.43	1.1	1.9	.085	.042	110	53
01-02	.50	1.2	2.1	.085	.043	120	52
02-03	.31	.71	1.5	.120	.036	150	44
03-06	.22	.60	1.4	.085	.035	120	41
06-09	.38	.77	1.7	.075	.036	130	50
21-23	.97	1.5	1.9	.095	.036	180	58
23-27	.54	1.2	1.5	.080	.036	180	45
FEB							
04-05	.36	1.2	1.2	.230	.030	130	37
05-06	.23	.98	.92	.300	.043	100	33
06-10	.36	1.2	1.4	.130	.034	130	41
18-19	.37	1.2	1.3	.180	.028	140	37
19-20	.18	.94	.86	.160	.025	97	31
20-24	.20	.83	1.1	.060	.015	120	39
26-27	.26	1.3	1.3	.180	.016	120	39
MAR							
10-11	.17	.96	1.0	.015	.013	140	35
11-13	.15	.98	1.1	.065	.012	130	36
14-15	.22	1.2	1.2	.130	.012	150	35
15-17	.18	.92	1.2	.075	.014	140	36
17-20	.18	.94	1.2	.040	.012	140	39
21-22	.16	1.1	1.3	.065	.008	100	37
22-24	.12	.82	1.2	.055	.007	110	39
25-26	.13	1.3	1.1	.210	.009	85	35
26-27	.14	1.1	1.0	.210	.016	71	31
27-31	.09	.80	1.2	.070	.006	95	39
MAR 31-							
APR 03	.12	.89	1.0	.065	.010	95	36
12-13	.34	1.3	1.7	.150	.018	99	44
13-14	.20	1.1	1.1	.100	.016	92	37
14-17	.06	.74	1.4	.060	.011	110	44
29-29	.01	.93	1.7	.090	.033	100	42
MAY							
15-18	.03	.53	2.7	.160	.110	120	41
18-19	.02	.65	3.1	.250	.130	120	41
19-20	.06	.43	2.5	.420	.100	95	37
20-22	.06	.80	1.8	.220	.300	97	41

STREAMS TRIBUTARY TO LAKE ONTARIO
0422026250 NORTHROP CREEK AT NORTH GREECE, NY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	TUR- BID- ITY (NTU) (00076)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	RESIDUE VOLA- TILE, SUS- PENDE (MG/L) (00535)
MAY 31-							
JUN 02	2135	0835	18	2.0	597	--	--
02-05	0935	0835	14	21	678	--	--
24-24	0025	1425	11	70	559	--	--
24-26	1525	0825	8.3	60	539	--	--
26-30	0950	0750	5.8	26	619	--	--
JUL							
08-08	0110	1210	4.6	26	616	--	--
08-09	1310	0610	5.2	28	569	--	--
09-10	0710	0910	6.3	50	522	114	17
10-14	1100	1000	4.1	8.8	554	--	--
21-22	1315	0015	5.9	23	518	--	--
22-24	0115	0915	3.9	12	502	--	--
AUG							
13-13	0645	1745	9.9	21	417	--	--
13-14	1845	0845	6.2	31	364	90	15
15-16	2215	0915	14	31	373	--	--
16-18	1015	0915	6.3	33	445	95	13
18-20	1010	1810	5.4	6.3	450	--	--
20-21	1910	0910	9.3	26	417	--	--
21-25	1025	0925	6.0	18	485	--	--
SEP							
11-12	1020	0120	17	40	434	244	30
12-15	0220	0920	8.3	18	534	--	--
20-20	0210	2210	9.7	11	558	--	--
21-22	0210	0910	6.9	17	501	--	--
28-29	2225	0925	8.1	80	440	286	32
SEP 29-							
OCT 02	1055	0955	18	41	550	145	18
DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTH, DIS- SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
MAY 31-							
JUN 02	.07	1.3	1.9	.320	.170	63	40
02-05	.05	1.2	1.8	.400	.140	77	49
24-24	.03	.82	1.9	.680	.185	60	60
24-26	.03	.89	1.5	.590	.170	61	49
26-30	.02	.56	1.8	.380	.180	69	67
JUL							
08-08	.02	1.2	2.2	.360	.170	64	80
08-09	.02	.81	2.0	.330	.195	57	66
09-10	.02	.93	1.8	.470	.225	46	48
10-14	.02	1.0	1.8	.340	.190	58	56
21-22	.02	.82	1.7	.390	.165	52	83
22-24	.02	.78	1.8	.300	.180	53	54
AUG							
13-13	<.01	.43	1.3	.430	<.005	38	49
13-14	.01	.59	1.2	.340	<.005	36	38
15-16	.02	.36	1.1	.570	.130	33	43
16-18	.01	.39	1.2	.340	.135	45	52
18-20	.01	.39	1.3	.200	.155	53	50
20-21	.01	.31	1.4	.330	.145	39	45
21-25	.02	.34	1.5	.200	.125	49	59
SEP							
11-12	.02	.48	1.3	.640	.140	42	48
12-15	<.01	.60	1.3	.300	.125	62	54
20-20	<.01	.59	1.6	.220	.140	61	65
21-22	<.01	.60	1.8	.230	.145	55	52
28-29	.02	.46	1.3	.910	.125	44	48
SEP 29-							
OCT 02	.01	.60	1.2	.360	.093	68	49

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,600 ft³/s and maximum (*):

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 1958, 1973 - 1997 BY WATER YEAR (WY)

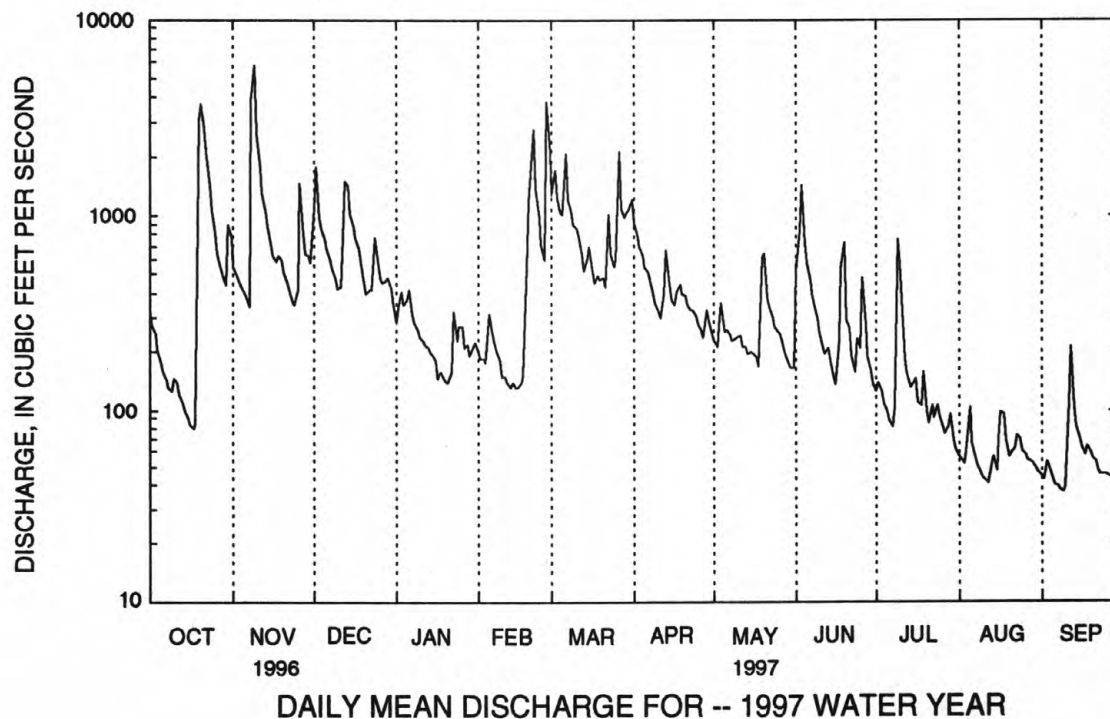
MEAN	244	372	468	371	464	781	856	463	279	159	125	181
MAX	784	1001	1016	1263	1443	1689	1925	1208	1269	656	666	1246
(WY)	1991	1997	1973	1996	1976	1956	1958	1996	1989	1977	1994	1977
MIN	25.0	37.3	104	52.1	94.4	320	361	113	45.3	27.5	25.0	18.8
(WY)	1958	1958	1990	1981	1958	1981	1976	1985	1991	1993	1957	1995

STREAMS TRIBUTARY TO LAKE ONTARIO
04221000 GENESEE RIVER AT WELLSVILLE, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1955 - 1958 1973 - 1997	
ANNUAL TOTAL	232099		169777			
ANNUAL MEAN	634		465		396	
HIGHEST ANNUAL MEAN					564	
LOWEST ANNUAL MEAN					261	
HIGHEST DAILY MEAN	13800	Jan 19	5750	Nov 9	13800	Jan 19 1996
LOWEST DAILY MEAN	22	a	37	Sep 9	13	b
ANNUAL SEVEN-DAY MINIMUM	24	Aug 29	41	Sep 4	15	Sep 3 1995
INSTANTANEOUS PEAK FLOW			8120	Nov 8	22700	Jan 19 1996
INSTANTANEOUS PEAK STAGE			10.63	Nov 8	16.13	Jan 19 1996
ANNUAL RUNOFF (CFSM)	2.20		1.62		1.38	
ANNUAL RUNOFF (INCHES)	29.98		21.93		18.69	
10 PERCENT EXCEEDS	1410		1030		890	
50 PERCENT EXCEEDS	383		268		210	
90 PERCENT EXCEEDS	43		57		42	

a Sep. 3, 4.

b Sep. 2, 3, 1991.



STREAMS TRIBUTARY TO LAKE ONTARIO
04223000 GENESEE RIVER AT PORTAGEVILLE, NY

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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 mi².

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

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

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

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

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

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Oct. 19	2230	16,600	16.11	Feb. 27	2000	23,000	18.25
Nov. 9	0630	*24,400	*18.71				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	DAILY MEAN VALUES											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1010	1410	3400	959	889	4330	2780	798	2740	448	175	e150
2	851	1170	7640	990	791	4810	2540	720	4470	437	167	e145
3	607	1110	4360	1470	e720	4400	2110	742	8060	483	e165	323
4	553	1040	3630	1390	e800	2990	1820	1050	3170	387	274	324
5	468	1080	3300	1440	e1700	2660	1580	904	1860	345	281	186
6	413	1020	2510	2170	1880	5260	1460	932	1380	316	212	e140
7	374	937	1850	1420	1220	3630	1300	1060	1270	289	210	e130
8	339	7520	1660	e1000	e950	2910	1160	841	1190	277	e180	e125
9	318	18500	1470	e880	e800	2610	1050	771	969	1630	e170	e120
10	442	6540	1300	e850	e780	2870	964	773	806	2390	e160	e130
11	560	4310	1200	e800	e750	3060	900	789	719	971	e140	181
12	469	3220	1800	e740	e700	2300	922	732	651	637	e135	458
13	393	2550	2770	e700	e650	1820	2180	704	720	489	e170	500
14	346	2230	4410	e650	e620	2570	1680	642	689	403	246	330
15	310	1900	2710	e600	e600	3530	1300	637	572	365	190	253
16	285	1630	2180	e560	e550	2170	1120	792	480	362	255	215
17	265	1620	1940	e520	e500	1760	1150	869	1270	347	304	192
18	259	1870	1780	e500	e600	1860	1640	748	2530	289	277	206
19	6410	1950	1580	e480	e1500	1680	1470	6210	6660	317	224	198
20	10600	1610	1310	e460	e5300	1680	1350	7890	1880	332	202	272
21	7020	1550	1080	e440	6070	1540	1200	2630	1090	278	187	366
22	5360	1380	1150	e650	10900	2950	1080	1740	874	350	182	230
23	3250	1110	1460	e1700	5060	2380	1020	1350	729	306	195	195
24	2360	1030	3520	e1250	3060	1740	968	1130	829	288	201	181
25	1880	1030	3890	e1250	2100	1890	888	1010	1270	281	202	173
26	1460	4360	2490	e1550	1880	8470	813	962	1400	265	187	221
27	1230	3400	2280	e1300	12600	4420	749	829	1290	232	178	197
28	1140	2260	1900	e1300	9010	3500	1010	734	885	219	235	176
29	1110	2050	1720	e1000	---	2930	1220	662	669	222	175	2670
30	1250	1740	1510	e950	---	3460	930	629	522	226	e160	3380
31	2250	---	1230	e900	---	4080	---	638	---	195	e155	---
TOTAL	53582	83127	75030	30869	72980	96260	40354	40918	51644	14376	6194	12367
MEAN	1728	2771	2420	996	2606	3105	1345	1320	1721	464	200	412
MAX	10600	18500	7640	2170	12600	8470	2780	7890	8060	2390	304	3380
MIN	259	937	1080	440	500	1540	749	629	480	195	135	120

e Estimated

STREAMS TRIBUTARY TO LAKE ONTARIO
04223000 GENESEE RIVER AT PORTAGEVILLE, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1908 - 1997, BY WATER YEAR (WY)

MEAN	642	1092	1347	1393	1453	2916	2785	1516	890	442	322	416
MAX	3320	4201	4314	4795	5838	7360	7780	4826	7006	1876	1875	4949
(WY)	1918	1928	1928	1913	1976	1936	1940	1919	1972	1915	1977	1977
MIN	74.1	110	160	100	229	945	450	294	118	64.8	64.5	50.1
(WY)	1965	1965	1909	1961	1920	1937	1946	1934	1934	1934	1934	1913

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1908 - 1997	
ANNUAL TOTAL	726073		577701			
ANNUAL MEAN	1984		1583		1266	
HIGHEST ANNUAL MEAN					2038	
LOWEST ANNUAL MEAN					766	
HIGHEST DAILY MEAN	37400	Jan 20	18500	Nov 9	72000	Jun 23 1972
LOWEST DAILY MEAN	e120	a	e120	Sep 9	20	Oct 5 1913
ANNUAL SEVEN-DAY MINIMUM	132	Aug 31	145	Sep 5	34	Jul 25 1934
INSTANTANEOUS PEAK FLOW			24400	Nov 9	b90000	Jun 23 1972
INSTANTANEOUS PEAK STAGE			18.71	Nov 9	c35.25	Jun 23 1972
INSTANTANEOUS LOW FLOW			Unknown		18	d
10 PERCENT EXCEEDS	4150		3480		2900	
50 PERCENT EXCEEDS	1080		990		600	
90 PERCENT EXCEEDS	184		202		134	

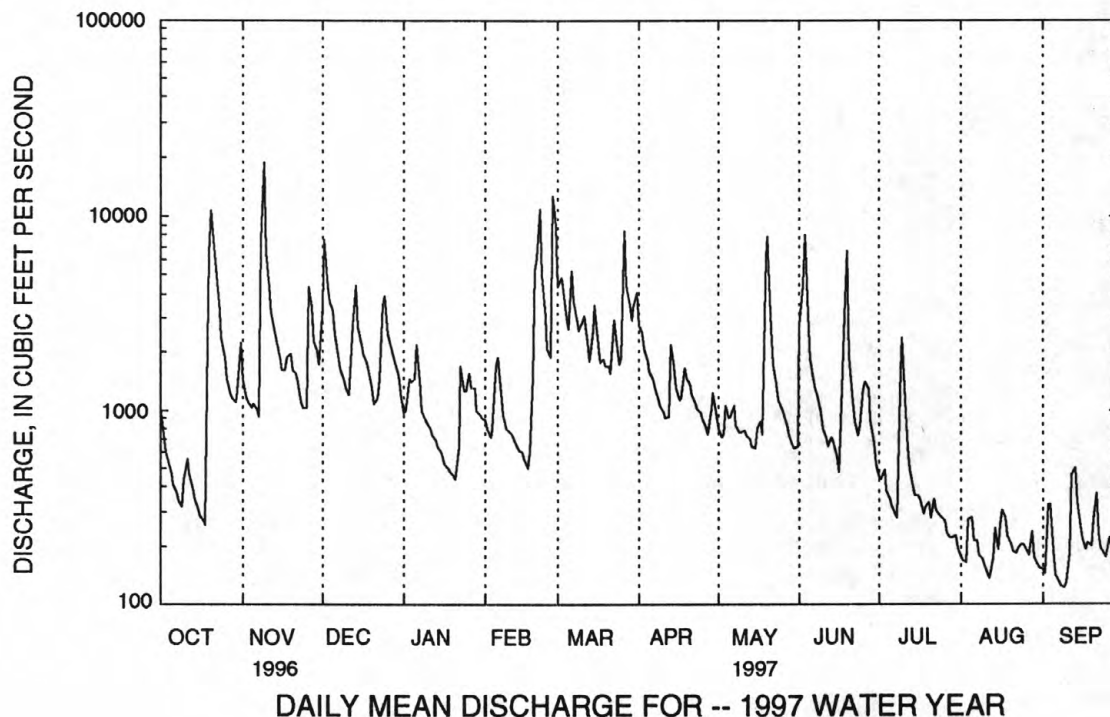
a Sep. 3, 4.

b About, from rating curve extended above 25,000 ft³/s on basis of contracted-opening measurement of 71,000 ft³/s, at highway bridge 0.4 mi upstream and contracted-opening measurement of 98,200 ft³/s, 0.7 mi downstream from gage.

c From high-water mark, site and datum then in use.

d Oct. 5, 17, 1913.

e Estimated.



STREAMS TRIBUTARY TO LAKE ONTARIO

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04224000 MOUNT MORRIS LAKE NEAR MOUNT MORRIS, NY

LOCATION.--Lat 42°44'00", long 77°54'40", Livingston County, Hydrologic Unit 04130002, at Mount Morris Dam on Genesee River, 2.0 mi northwest of Mount Morris, 5.0 mi upstream from Canaseraga Creek, and 69.3 mi upstream from mouth.

DRAINAGE AREA.--1,080 mi².

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

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

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

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 755.46 ft, June 25, 1972, contents, 322,600 acre-ft; minimum, 584.06 ft, Aug. 30, 1991, contents, 446.4 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 672.55 ft, Mar. 1, contents, 103,700 acre-ft; minimum recorded, 584.32 ft, Sep. 9, contents 491 acre-ft.

Capacity table (elevation, in feet, and usable contents, in acre-feet)

(Furnished by U. S. Army Corps of Engineers in 1953)

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

ELEVATION (FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	594.90	608.86	592.80	---	---	625.09	591.51	598.70	590.17	589.30	588.68
2	---	592.21	624.90	592.48	---	---	621.37	591.03	612.39	590.10	589.00	588.63
3	---	591.67	633.14	594.52	---	---	617.66	590.85	627.36	590.20	588.96	588.13
4	---	591.47	634.79	595.10	---	---	612.23	592.17	630.61	590.15	589.00	587.41
5	---	591.53	633.57	594.83	---	---	603.47	592.60	627.73	590.16	589.28	586.57
6	---	591.25	630.30	602.12	---	---	594.20	591.66	628.83	590.14	589.10	585.77
7	---	592.89	624.19	599.27	---	---	594.03	593.50	630.52	589.37	589.10	584.80
8	588.56	596.51	617.17	593.76	---	---	593.49	592.20	631.22	589.04	589.34	584.61
9	588.41	644.78	610.53	591.69	---	---	592.83	591.46	627.06	591.67	589.13	585.05
10	588.65	657.27	602.76	592.73	---	---	592.38	591.31	618.50	607.64	589.00	585.98
11	589.83	660.80	594.06	592.38	---	---	591.99	591.35	606.96	608.05	589.09	586.27
12	589.49	661.12	596.17	589.85	---	---	591.91	591.31	591.35	593.45	589.16	587.16
13	589.01	659.44	601.67	589.64	---	---	596.52	591.04	591.06	590.81	589.25	588.09
14	588.63	656.51	613.65	589.85	---	---	595.90	590.82	591.40	590.47	588.98	587.48
15	588.35	652.44	617.50	589.68	---	---	593.85	590.59	590.83	590.39	588.70	587.00
16	588.15	647.82	616.34	590.54	---	---	593.21	590.85	590.16	590.18	588.75	586.71
17	587.99	642.87	613.78	590.06	---	---	592.93	592.12	592.09	589.92	588.87	586.55
18	587.87	637.85	610.30	589.65	---	---	594.36	591.74	597.26	589.78	589.01	586.55
19	596.19	632.94	605.11	590.44	---	---	594.22	601.80	619.84	589.69	588.98	586.56
20	632.00	627.43	595.74	591.26	---	---	594.35	630.48	622.57	589.65	588.92	586.72
21	643.29	620.46	592.81	592.57	---	---	593.95	---	616.49	589.65	588.93	587.38
22	650.92	610.67	593.18	---	---	599.87	593.35	---	604.00	589.76	588.96	586.95
23	653.45	593.29	594.49	---	---	607.60	592.89	624.49	591.99	589.69	588.99	586.55
24	651.58	590.52	603.80	---	---	602.34	592.62	616.33	594.63	589.57	589.02	587.10
25	647.76	591.33	615.13	---	---	595.28	592.26	604.55	608.21	589.45	589.04	587.40
26	643.33	603.02	617.27	---	---	615.62	591.85	593.24	608.99	589.29	589.05	587.63
27	637.89	616.94	616.13	---	---	629.52	591.50	592.51	602.60	589.17	588.89	587.86
28	631.79	616.98	614.25	---	---	630.06	591.71	591.94	592.80	589.30	588.78	587.50
29	624.59	614.46	610.28	---	---	628.84	593.70	591.63	591.32	589.27	588.80	595.15
30	615.11	611.01	605.15	---	---	627.64	592.52	591.54	590.51	589.46	588.77	609.68
31	606.47	---	595.35	---	---	626.51	---	591.61	---	589.46	588.70	---
MEAN	---	619.75	611.04	---	---	---	597.08	---	607.60	591.13	589.00	587.93
MAX	---	661.12	634.79	---	---	---	625.09	---	631.22	608.05	589.34	609.68
MIN	---	590.52	592.81	---	---	---	591.50	---	590.16	589.04	588.70	584.61

STREAMS TRIBUTARY TO LAKE ONTARIO
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 mi².

PERIOD OF RECORD.--August 1974 to current year.

REVISED RECORDS.--WDR NY-82-3: Drainage area. WDR NY-91-3: 1984, 1986(P).

GAGE.--Water-stage recorder. Datum of gage is 715.60 ft above sea level.

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

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

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Nov. 8	2245	2,230	3.82	Feb. 27	1015	*2,290	*3.88

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	e115	e350	e80	e55	152	133	e75	e120	60	e18	e13
2	19	e110	531	e90	e65	196	137	e70	277	e55	e17	e13
3	16	e105	299	e110	e75	e160	145	e70	e180	e55	e16	40
4	15	e100	212	e100	e85	e140	128	e100	e110	e55	e16	18
5	14	99	166	e110	e240	e140	e115	e80	e100	e50	e18	16
6	13	93	133	130	e120	227	e110	e75	e90	e45	e18	e15
7	13	88	e120	e110	e100	e170	e105	e85	e80	e42	e16	e15
8	13	861	e110	e80	e80	e150	e100	e70	e75	e45	e15	16
9	13	1100	e100	e70	e65	e130	e95	e65	e60	101	e14	16
10	17	e370	e90	e60	e60	e170	e90	e70	e50	103	e13	e15
11	27	270	e80	e55	e55	206	e80	e70	e50	e60	e14	23
12	20	183	e110	e50	e50	139	e85	e65	e50	e45	e20	47
13	17	139	257	e50	e45	e110	e120	e60	e65	e40	e16	26
14	16	122	276	e50	e45	e120	e100	e60	e50	e35	e18	21
15	15	e100	165	e45	e40	189	e95	e60	e45	e35	e16	16
16	14	e85	129	e42	e40	e130	e90	e65	e40	e50	e20	16
17	13	e80	e115	e42	e45	e120	e95	e65	90	e35	e22	16
18	15	e85	e100	e40	e60	e115	e110	e60	110	e30	e22	16
19	e400	e86	e90	e40	e150	e110	e90	e300	131	e28	e20	16
20	e280	e80	e80	e45	213	e110	e100	396	67	e25	e16	17
21	e230	e75	e70	e50	320	e105	e90	189	48	e25	16	20
22	e190	e75	e70	e60	493	168	e90	150	39	e40	16	17
23	e150	e75	e75	e130	188	116	e85	e100	32	e28	16	e16
24	e120	e70	e170	e80	147	e100	e85	e90	182	e26	16	e16
25	e100	e70	184	e110	e110	e120	e85	e80	118	e25	e15	19
26	e95	e200	e115	e120	e100	427	e80	e75	114	e23	e15	34
27	e90	e110	e100	e85	e1000	131	e80	e65	112	e22	e15	19
28	e80	e100	e100	e75	397	147	e100	e60	e100	e22	e14	16
29	e80	e110	e110	e70	---	166	e95	e55	e80	e24	e14	156
30	e105	e110	e105	e60	---	140	e80	e55	e65	e20	e13	99
31	e120	---	e100	e55	---	135	---	e55	---	e19	e13	---
TOTAL	2334	5266	4712	2294	4443	4739	2993	2935	2730	1268	508	803
MEAN	75.3	176	152	74.0	159	153	99.8	94.7	91.0	40.9	16.4	26.8
MAX	400	1100	531	130	1000	427	145	396	277	103	22	156
MIN	13	70	70	40	40	100	80	55	32	19	13	13
CFSM	.85	1.97	1.71	.83	1.78	1.72	1.12	1.06	1.02	.46	.18	.30
IN.	.98	2.20	1.97	.96	1.86	1.98	1.25	1.23	1.14	.53	.21	.33

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1997, BY WATER YEAR (WY)

MEAN	55.6	93.6	111	104	134	206	209	118	68.2	37.2	29.6	42.5
MAX	175	194	252	411	432	419	519	327	270	128	77.1	331
(WY)	1991	1993	1978	1996	1976	1979	1993	1996	1989	1992	1992	1977
MIN	10.7	19.5	38.9	24.4	31.4	70.6	81.8	26.2	16.8	10.8	7.52	6.83
(WY)	1984	1992	1989	1984	1980	1984	1981	1985	1991	1985	1985	1995

STREAMS TRIBUTARY TO LAKE ONTARIO
04224775 CANASERAGA CREEK ABOVE DANSVILLE, NY--Continued

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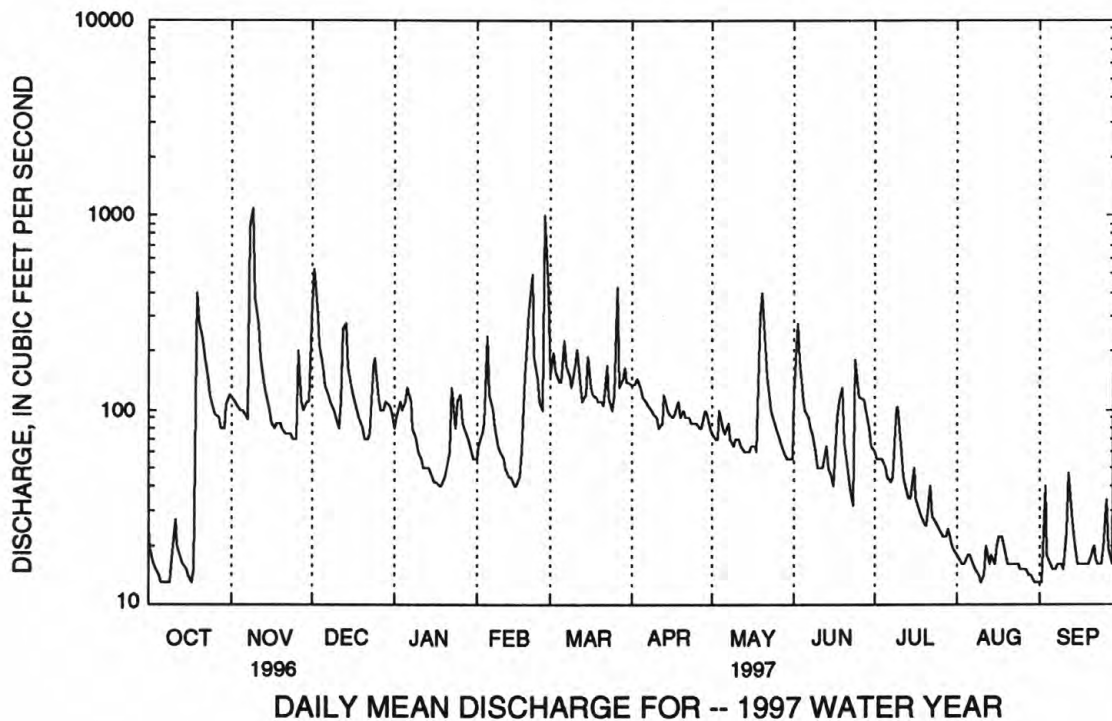
SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1974 - 1997	
ANNUAL TOTAL	60728.5		35025		100	
ANNUAL MEAN	166		96.0		154	
HIGHEST ANNUAL MEAN					65.5	
LOWEST ANNUAL MEAN					1985	
HIGHEST DAILY MEAN	3680	Jan 19	1100	Nov 9	3680	Jan 19 1996
LOWEST DAILY MEAN	9.0	Sep 2	13	a	e6.6	b
ANNUAL SEVEN-DAY MINIMUM	9.3	Aug 29	14	Aug 27	6.7	Sep 2 1995
INSTANTANEOUS PEAK FLOW			2290	Feb 27	c7340	Jan 19 1996
INSTANTANEOUS PEAK STAGE			3.88	Feb 27	8.50	Jan 19 1996
ANNUAL RUNOFF (CFSM)	1.87		1.08		1.13	
ANNUAL RUNOFF (INCHES)	25.41		14.66		15.30	
10 PERCENT EXCEEDS	373		170		219	
50 PERCENT EXCEEDS	70		80		52	
90 PERCENT EXCEEDS	13		16		13	

a Oct. 6-9, 17, Aug. 10, 30, 31, Sep. 1, 2.

b Sep. 26, 27, 1995.

c From rating curve extended above 1,400 ft³/s.

e Estimated.



STREAMS TRIBUTARY TO LAKE ONTARIO

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 mi².

WATER-DISCHARGE RECORDS

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

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

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height 23.62 ft, present datum, May 17, 1916 (backwater from Genesee River).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 23, 1972 reached an estimated discharge of 11,200 ft³/s from U. S. Army Corps of Engineers publication (Tropical Storm Agnes, June 1972).

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Oct. 20	Unknown	3,550	10.78	Feb. 27	1500	*3,740	*11.02

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	77	e300	1070	248	e150	1370	758	255	555	143	55	43
2	63	e280	1820	320	e170	1200	739	229	1310	138	54	42
3	55	e270	1040	400	e200	887	605	231	1470	137	51	150
4	52	e260	730	348	e210	617	502	331	654	133	53	92
5	50	e250	643	396	e820	492	437	259	443	118	57	59
6	49	e240	512	551	649	1010	401	247	351	108	56	50
7	47	e230	427	379	425	666	375	271	317	99	50	49
8	46	e800	392	267	292	528	361	229	299	93	47	53
9	46	e2000	354	e210	193	464	331	217	203	287	44	53
10	75	e1300	323	e190	e180	857	308	222	163	286	42	48
11	93	e900	294	e170	e160	878	261	222	163	156	43	63
12	79	e700	365	e160	e150	568	273	203	164	128	58	210
13	65	e500	706	e160	e140	384	536	195	205	111	51	123
14	57	373	1090	e160	e135	733	407	181	172	99	56	97
15	e52	271	656	e150	e130	997	337	181	149	100	50	74
16	e50	233	529	e140	e120	511	296	189	135	138	63	64
17	e48	230	450	e130	e130	386	322	191	294	96	71	58
18	e45	229	406	e125	e180	421	507	182	268	82	72	69
19	e500	239	368	e130	e500	368	430	541	383	79	63	63
20	e1900	233	306	e140	e800	373	471	1650	189	71	52	74
21	e1000	214	e240	e170	836	353	417	695	166	74	57	93
22	e700	208	259	187	1480	528	398	461	132	119	54	77
23	e550	208	270	416	e700	398	357	339	136	90	51	67
24	e420	199	481	255	e450	325	326	273	504	82	51	63
25	e320	202	600	365	301	389	327	253	547	80	49	58
26	e300	671	369	403	332	1760	305	243	447	73	49	93
27	e280	544	338	e230	2270	1070	283	213	522	69	49	90
28	e260	332	338	e200	2380	762	374	190	273	69	47	70
29	e250	352	378	e170	---	650	356	175	204	73	44	709
30	e250	369	348	e160	---	679	285	172	165	62	44	770
31	e350	---	329	e150	---	1040	---	175	---	58	43	---
TOTAL	8129	13137	16431	7480	14483	21664	12085	9415	10983	3451	1626	3624
MEAN	262	438	530	241	517	699	403	304	366	111	52.5	121
MAX	1900	2000	1820	551	2380	1760	758	1650	1470	287	72	770
MIN	45	199	240	125	120	325	261	172	132	58	42	42
CFSM	.78	1.31	1.58	.72	1.54	2.09	1.20	.91	1.09	.33	.16	.36
IN.	.90	1.46	1.82	.83	1.61	2.41	1.34	1.05	1.22	.38	.18	.40

e Estimated

STREAMS TRIBUTARY TO LAKE ONTARIO
04227000 CANASERAGA CREEK AT SHAKERS CROSSING, NY--continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1970, 1975 - 1997 BY WATER YEAR (WY)

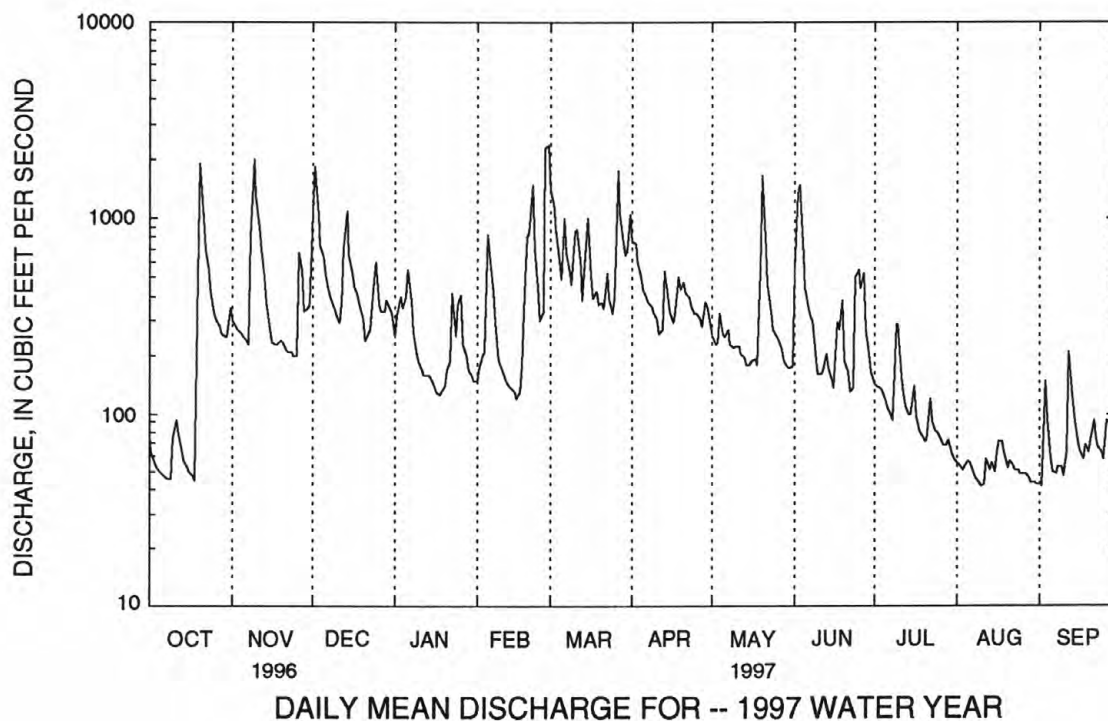
MEAN	150	229	310	301	403	663	665	350	208	105	83.3	108
MAX	601	647	906	899	1452	1575	1537	1081	913	454	297	1162
(WY)	1978	1993	1978	1996	1976	1979	1993	1996	1989	1992	1992	1977
MIN	24.4	31.3	29.9	30.9	74.6	209	231	109	48.1	22.9	19.9	22.6
(WY)	1965	1965	1961	1961	1963	1965	1995	1995	1965	1965	1965	1965

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1959 - 1970 1975 - 1997	
ANNUAL TOTAL	164937		122508			
ANNUAL MEAN	451		336		298	
HIGHEST ANNUAL MEAN					461	
LOWEST ANNUAL MEAN					137	
HIGHEST DAILY MEAN	5010	Jan 20	2380	Feb 28	5010	Jan 20 1996
LOWEST DAILY MEAN	30	Jan 4	42	a	b8.5	Aug 18 1970
ANNUAL SEVEN-DAY MINIMUM	35	Jan 2	45	Aug 27	15	Jul 26 1965
INSTANTANEOUS PEAK FLOW			3740	Feb 27	5510	Jan 19 1996
INSTANTANEOUS PEAK STAGE			11.02	Feb 27	c13.33	Mar 4 1976
INSTANTANEOUS LOW FLOW			39	Aug 10	b4.3	Aug 19 1970
ANNUAL RUNOFF (CFSM)	1.35		1.00		.89	
ANNUAL RUNOFF (INCHES)	18.32		13.60		12.09	
10 PERCENT EXCEEDS	1080		707		701	
50 PERCENT EXCEEDS	224		240		149	
90 PERCENT EXCEEDS	47		54		39	

a Aug. 10, Sep. 2.

b Result of temporary regulation.

c Backwater from Genesee River.



STREAMS TRIBUTARY TO LAKE ONTARIO
04227000 CANASERAGA CREEK AT SHAKERS CROSSING, NY--continued
WATER-QUALITY RECORDS

PERIOD OF RECORD.--1975-1977, 1997.

SEDIMENT DATA: 1975-1977.

PESTICIDE DATA: 1997 (e).

PERIOD OF DAILY RECORD.--

SEDIMENT: March 1975 to September 1977.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,940 mg/L, May 6, 1975; minimum daily mean, 2 mg/L, Jan. 28, 1977.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 35,900 tons, Mar. 4, 1976; minimum daily, 0.39 tons, Jan. 28, 1977.
REMARKS. --Samples were taken as part of a state-wide pesticide sampling network in cooperation with the New York State Department of Environmental Conservation. A complete list of compounds included when pesticide analyses were performed on samples appears following the introduction to the State-wide Monitoring of Pesticides in Surface Water of New York State section on page 277. Only those compounds which were detected at or above the method detection limit (MDL) were included in the tables.

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)
APR							
24...	0840	325	<0.002	0.020	<0.003	<0.004	<0.004
MAY							
22...	1030	448	0.006	0.085	<0.003	<0.004	0.010
JUN							
10...	1440	170	0.005	0.140	<0.003	<0.004	0.008
18...	0800	257	0.011	0.320	<0.003	<0.004	0.032
24...	1700	1090	0.066	3.13	E0.005	--	0.409
25...	1040	490	0.024	0.862	<0.003	E0.004	0.031
JUL							
24...	0930	82	0.004	0.222	E0.005	<0.004	0.013
24...	0939	82	0.004	0.226	E0.005	<0.004	0.014
AUG							
21...	0920	58	<0.002	0.044	<0.003	<0.004	<0.004

DATE	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)
APR						
24...	E0.004	<0.002	0.013	<0.004	<0.004	<0.005
MAY						
22...	E0.004	<0.002	0.142	<0.004	<0.004	<0.005
JUN						
10...	E0.016	0.032	0.142	<0.004	<0.004	<0.005
18...	E0.028	0.043	0.202	0.006	0.010	0.059
24...	E0.169	0.068	0.643	<0.004	<0.004	0.027
25...	E0.104	0.008	0.969	0.008	0.030	0.029
JUL						
24...	E0.014	<0.002	0.074	<0.004	<0.004	0.007
24...	E0.015	<0.002	0.076	<0.004	<0.004	0.008
AUG						
21...	E0.004	<0.002	0.016	<0.020	<0.004	<0.005

STREAMS TRIBUTARY TO LAKE ONTARIO

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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 mi².

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. Datum of gage is 540.12 ft above sea level. Prior to Sept. 11, 1915, nonrecording gage on bridge at datum 2.85 ft lower.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1260	2300	3350	1360	e1300	5470	5370	1210	2030	702	280	191
2	1010	1540	4260	1330	e1300	6150	4960	1080	4190	649	270	187
3	772	1380	3730	1740	e1400	6570	4100	1050	5300	690	238	392
4	682	1320	3940	1910	e1500	6320	3720	1380	5180	630	290	479
5	610	1340	5020	1700	e2000	6730	3220	1390	3770	542	435	335
6	541	1300	5530	2550	e2200	7390	2130	1190	1060	493	369	232
7	492	1090	5240	2280	e2000	7350	1910	1520	1010	449	277	212
8	452	2190	4120	e1470	e1800	6970	1740	1250	2080	417	287	206
9	421	4410	3140	e1370	e1600	6740	1560	1120	3810	928	209	200
10	501	3320	2540	e1350	e1400	7530	1430	1090	3880	2050	238	191
11	695	4130	1670	e1250	e1250	7130	1300	1120	2780	2160	197	235
12	650	4580	1830	902	e1150	6030	1280	1080	1140	1280	217	536
13	549	5170	2680	e860	e1000	6350	2440	1020	993	710	236	694
14	481	5660	3640	e850	e900	6670	2540	956	1010	586	276	530
15	430	6170	3440	e820	e850	6630	1900	915	871	575	312	388
16	397	5960	3290	e700	e800	6030	1600	991	733	628	256	311
17	369	5700	3120	e600	e700	5840	1550	1220	1120	549	389	282
18	353	5430	2940	e580	e800	4750	2250	1110	1970	473	382	260
19	1680	5150	2660	e600	e1400	3770	2180	2010	3260	430	331	278
20	5140	4820	1940	e750	2570	3400	2090	4960	3660	484	280	301
21	3210	4370	1430	e900	3000	2580	1900	4570	3400	452	275	456
22	2640	3790	1390	e1300	5210	2830	1720	4850	2760	528	244	393
23	3890	2000	1480	e2100	5430	3360	1570	4860	1080	508	234	286
24	5710	1310	2450	e2200	3400	3040	1490	4020	1190	452	258	257
25	6020	1270	3200	e2400	1160	2360	1410	3090	1090	425	255	243
26	5700	2440	3120	e2300	1180	4710	1300	1450	2220	414	248	282
27	5360	3300	3060	e2200	3060	4740	1210	1240	2680	374	237	335
28	5010	3140	2980	e2100	4940	4840	1370	1090	1420	346	244	264
29	4620	3070	2870	e2000	---	4650	1770	994	1060	340	268	1580
30	4090	2950	2600	e1800	---	4800	1420	961	828	331	209	3100
31	3590	---	1870	e1400	---	5620	---	963	---	310	198	---
TOTAL	67325	100600	94530	45672	55300	167350	64430	55750	67575	19905	8439	13636
MEAN	2172	3353	3049	1473	1975	5398	2148	1798	2253	642	272	455
MAX	6020	6170	5530	2550	5430	7530	5370	4960	5300	2160	435	3100
MIN	353	1090	1390	580	700	2360	1210	915	733	310	197	187

e Estimated

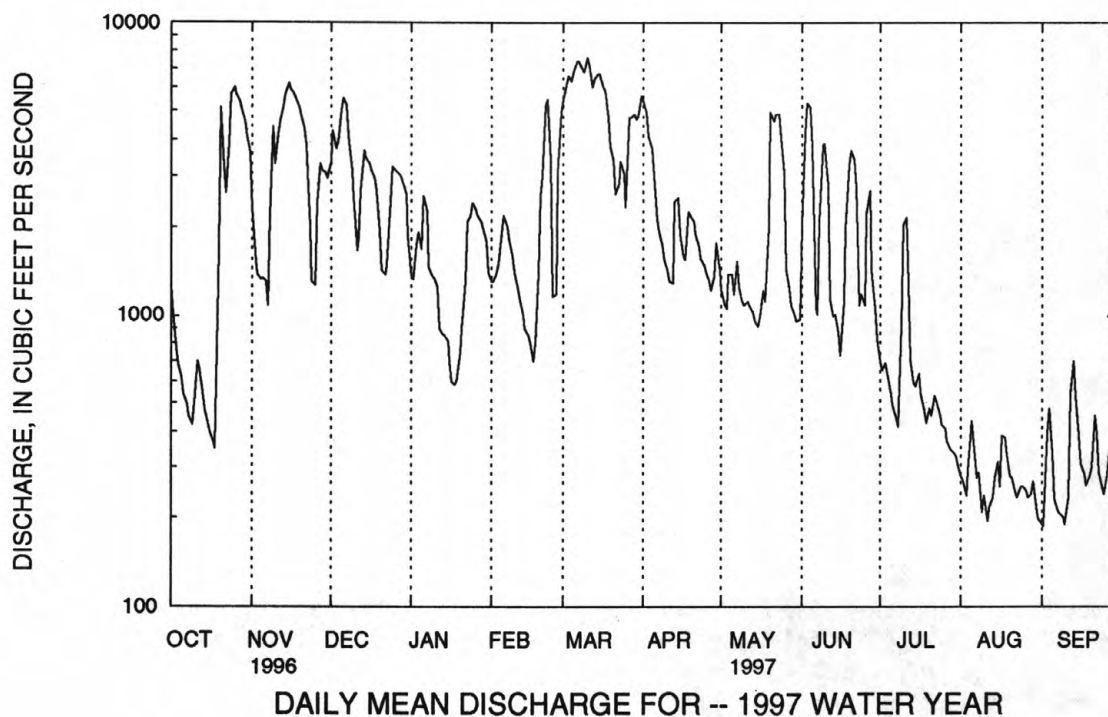
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903 - 1906, 1908 - 1914, 1915 - 1997 BY WATER YEAR (WY)

MEAN	837	1339	1753	1815	1892	3940	3900	2119	1137	649	428	474
MAX	4743	5447	6319	5903	5194	10010	9914	6545	4305	6801	2205	4130
(WY)	1978	1928	1928	1913	1925	1936	1940	1919	1989	1972	1977	1977
MIN	107	152	230	135	356	1289	636	410	146	84.3	82.8	99.2
(WY)	1961	1965	1909	1961	1920	1937	1946	1934	1934	1934	1934	1995

STREAMS TRIBUTARY TO LAKE ONTARIO
04227500 GENESEE RIVER NEAR MOUNT MORRIS, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1903 - 1906	
					1908 - 1914	
					1915 - 1997	
ANNUAL TOTAL	944211		760512			
ANNUAL MEAN	2580		2084		1691	
HIGHEST ANNUAL MEAN					2641	1916
LOWEST ANNUAL MEAN					972	1934
HIGHEST DAILY MEAN	8190	Jan 29	7530	Mar 10	45700	May 17 1916
LOWEST DAILY MEAN	107	Aug 31	187	Sep 2	15	Oct 9 1980
ANNUAL SEVEN-DAY MINIMUM	134	Aug 31	219	Aug 27	54	Sep 2 1934
INSTANTANEOUS PEAK FLOW			8060	Mar 11	55100	May 17 1916
INSTANTANEOUS PEAK STAGE			13.33	Mar 11	a25.80	Mar 13 1920
INSTANTANEOUS LOW FLOW			102	Aug 4	12	Jul 23 1955
10 PERCENT EXCEEDS	6270		5140		4360	
50 PERCENT EXCEEDS	1680		1400		819	
90 PERCENT EXCEEDS	266		281		190	

a Ice jam.



STREAMS TRIBUTARY TO LAKE ONTARIO
04227980 CONESUS LAKE NEAR LAKEVILLE, NY

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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 mi².

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

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

GAGE.--Water-stage recorder. Datum of gage is sea level. To convert elevations to adjustment of 1988, subtract 0.53 ft. Oct. 1, 1970 to Sept. 30, 1975, at datum 800.00 ft higher. Prior to Oct. 1, 1970, nonrecording gage at site 200 ft downstream at datum 796.59 ft higher.

REMARKS.--Lake elevation regulated by gates at outlet. Area of water surface, 5.08 mi². Daily average of about 2 ft³/s diverted from lake for water supply for Avon, Geneseo, and Lakeville Water District.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 822.50 ft, June 24, 1972; minimum, 816.11 ft, Dec. 22, 24, 1988.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 819.29 ft, Mar. 21; minimum, 817.43 ft, Jan. 15, 16.

ELEVATION (FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	817.63	818.27	817.87	817.49	817.61	819.12	819.07	818.99	818.76	818.56	818.17	817.82
2	817.62	818.23	818.02	817.48	817.62	819.15	819.13	818.94	818.87	818.53	818.14	817.81
3	817.60	818.19	817.97	817.50	817.64	819.05	819.16	818.92	818.83	818.52	818.12	817.86
4	817.58	818.14	817.90	817.51	817.67	818.93	819.16	818.88	818.79	818.49	818.12	817.84
5	817.56	818.08	817.83	817.56	817.85	818.84	819.16	818.84	818.74	818.45	818.11	817.81
6	817.54	818.03	817.74	817.62	817.90	818.86	819.17	818.80	818.70	818.42	818.09	817.79
7	817.52	817.99	817.66	817.62	817.93	818.84	819.08	818.77	818.66	818.39	818.06	817.78
8	817.51	818.13	817.64	817.61	817.95	818.82	818.95	818.77	818.62	818.37	818.04	817.78
9	817.51	818.50	817.62	817.59	817.96	818.79	818.82	818.79	818.61	818.42	818.03	817.77
10	817.58	818.54	817.61	817.58	817.97	818.77	818.79	818.82	818.61	818.42	818.01	817.76
11	817.58	818.46	817.58	817.56	817.98	818.79	818.81	818.84	818.60	818.40	818.00	817.77
12	817.56	818.34	817.56	817.53	817.99	818.79	818.85	818.86	818.59	818.39	818.00	817.79
13	817.55	818.22	817.58	817.49	818.00	818.77	818.93	818.87	818.57	818.38	818.02	817.75
14	817.54	818.10	817.65	817.46	818.00	818.82	818.98	818.88	818.55	818.37	818.03	817.70
15	817.53	817.97	817.67	817.44	818.01	818.88	819.00	818.89	818.53	818.37	818.01	817.68
16	817.52	817.85	817.68	817.45	818.02	818.89	819.03	818.88	818.53	818.38	818.00	817.66
17	817.51	817.73	817.69	817.45	818.04	818.87	819.06	818.82	818.57	818.36	817.99	817.66
18	817.51	817.64	817.65	817.45	818.05	818.86	819.10	818.77	818.59	818.34	817.97	817.66
19	817.68	817.59	817.64	817.45	818.09	818.89	819.13	818.79	818.60	818.32	817.95	817.65
20	818.00	817.59	817.60	817.46	818.15	818.96	819.15	818.87	818.61	818.30	817.94	817.65
21	818.20	817.60	817.56	817.46	818.21	818.94	819.13	818.80	818.62	818.30	817.94	817.63
22	818.33	817.60	817.52	817.47	818.31	818.89	819.11	818.74	818.61	818.32	817.93	817.61
23	818.41	817.60	817.49	817.48	818.37	818.81	819.08	818.71	818.59	818.31	817.93	817.59
24	818.49	817.61	817.50	817.50	818.42	818.76	819.05	818.68	818.65	818.29	817.92	817.58
25	818.52	817.63	817.51	817.53	818.45	818.77	819.02	818.69	818.70	818.27	817.90	817.56
26	818.48	817.71	817.50	817.56	818.47	818.85	818.98	818.70	818.68	818.26	817.89	817.56
27	818.45	817.77	817.50	817.57	818.73	818.84	818.96	818.70	818.66	818.25	817.88	817.55
28	818.42	817.82	817.50	817.58	819.01	818.84	818.99	818.70	818.64	818.25	817.86	817.54
29	818.38	817.83	817.50	817.59	---	818.87	819.00	818.69	818.62	818.23	817.85	817.69
30	818.36	817.81	817.51	817.59	---	818.92	819.00	818.69	818.58	818.21	817.83	817.74
31	818.32	---	817.50	817.60	---	819.01	---	818.69	---	818.18	817.82	---
MEAN	817.87	817.95	817.64	817.52	818.09	818.88	819.03	818.80	818.64	818.36	817.99	817.70
MAX	818.52	818.54	818.02	817.62	819.01	819.15	819.17	818.99	818.87	818.56	818.17	817.86
MIN	817.51	817.59	817.49	817.44	817.61	818.76	818.79	818.68	818.53	818.18	817.82	817.54

CAL YR 1996 MEAN 818.20 MAX 818.73 MIN 817.49
WTR YR 1997 MEAN 818.21 MAX 819.17 MIN 817.44

STREAMS TRIBUTARY TO LAKE ONTARIO
04227995 CONESUS CREEK NEAR LAKEVILLE, NY

LOCATION.--Lat 42°51'20", long 77°43'00", Livingston County, Hydrologic Unit 04130003, on right bank 100 ft upstream from bridge on West Lake Road (State Highway 256), 1.5 mi downstream from Lakeville, and 10.7 mi upstream from mouth.

DRAINAGE AREA.--69.8 mi².

PERIOD OF RECORD.--April 1996 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 810 ft above sea level, from topographic map.

REMARKS.--April 1996 to September 1996: No estimated daily discharges. Records good. Flow regulated by Conesus Lake (see station 04227980). Several measurements of water temperature were made during the period.

October 1996 to September 1997: Records good except those for estimated daily discharges, which are fair. Flow regulated by Conesus Lake (see station 04227980). Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	11	281	25	165	12	9.9
2	---	---	---	---	---	---	11	370	26	91	12	9.8
3	---	---	---	---	---	---	13	350	26	54	12	9.7
4	---	---	---	---	---	---	14	342	25	53	12	9.7
5	---	---	---	---	---	---	14	334	25	53	12	9.9
6	---	---	---	---	---	---	14	268	23	29	12	9.7
7	---	---	---	---	---	---	14	62	22	18	18	10
8	---	---	---	---	---	---	14	57	20	15	19	19
9	---	---	---	---	---	---	13	35	20	15	19	16
10	---	---	---	---	---	---	12	93	20	15	13	16
11	---	---	---	---	---	---	13	502	21	15	13	16
12	---	---	---	---	---	---	41	997	21	15	13	16
13	---	---	---	---	---	---	520	944	21	15	13	53
14	---	---	---	---	---	---	670	855	20	15	19	72
15	---	---	---	---	---	---	603	686	19	16	12	71
16	---	---	---	---	---	---	413	336	19	15	12	70
17	---	---	---	---	---	---	111	111	19	15	12	70
18	---	---	---	---	---	---	89	112	17	23	12	36
19	---	---	---	---	---	---	49	112	21	14	12	15
20	---	---	---	---	---	---	59	111	172	13	11	16
21	---	---	---	---	---	---	62	167	418	13	11	16
22	---	---	---	---	---	---	66	212	117	13	11	16
23	---	---	---	---	---	---	264	136	55	13	11	16
24	---	---	---	---	---	---	570	96	14	13	12	16
25	---	---	---	---	---	---	522	71	14	13	14	16
26	---	---	---	---	---	---	253	48	14	22	11	16
27	---	---	---	---	---	---	245	48	14	12	11	15
28	---	---	---	---	---	---	154	47	14	12	11	16
29	---	---	---	---	---	---	86	43	15	12	9.9	14
30	---	---	---	---	---	---	155	25	89	17	10	14
31	---	---	---	---	---	---	---	25	---	12	9.9	---
TOTAL	---	---	---	---	---	---	5075	7876	1346	816	391.8	709.7
MEAN	---	---	---	---	---	---	169	254	44.9	26.3	12.6	23.7
MAX	---	---	---	---	---	---	670	997	418	165	19	72
MIN	---	---	---	---	---	---	11	25	14	12	9.9	9.7

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 1996, BY WATER YEAR (WY)

MEAN	---	---	---	---	---	---	169	254	44.9	26.3	12.6	23.7
MAX	---	---	---	---	---	---	169	254	44.9	26.3	12.6	23.7
(WY)	---	---	---	---	---	---	1996	1996	1996	1996	1996	1996
MIN	---	---	---	---	---	---	169	254	44.9	26.3	12.6	23.7
(WY)	---	---	---	---	---	---	1996	1996	1996	1996	1996	1996

STREAMS TRIBUTARY TO LAKE ONTARIO
04227995 CONESUS CREEK NEAR LAKEVILLE, NY--Continued

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DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	85	291	e70	8.8	77	89	80	107	31	9.9	11
2	14	71	320	71	8.8	282	95	120	340	32	10	9.7
3	12	70	307	76	9.2	335	100	119	269	32	9.9	9.5
4	10	88	302	72	16	318	98	113	159	31	10	9.2
5	10	116	297	82	20	248	99	112	143	30	9.9	9.2
6	9.9	114	285	75	9.8	184	132	110	121	30	10	9.3
7	10	115	190	72	9.5	164	279	50	120	28	9.9	9.3
8	10	209	110	e72	9.2	160	259	11	97	10	9.9	9.2
9	8.3	350	108	71	9.2	161	202	12	26	17	9.9	9.3
10	11	371	108	71	9.1	174	8.4	12	26	17	10	9.4
11	9.3	362	107	e70	8.8	149	9.2	13	26	12	7.7	14
12	8.7	333	107	e70	8.8	126	14	15	26	11	7.7	75
13	8.5	282	119	e70	8.9	122	20	14	25	11	10	74
14	8.4	274	113	e68	8.8	161	20	15	24	11	7.8	63
15	8.2	265	111	e45	9.0	119	23	17	20	15	7.8	10
16	8.1	257	111	e10	8.9	114	26	92	16	11	8.6	10
17	8.2	209	112	e12	9.0	114	31	128	16	11	10	10
18	8.2	181	110	14	12	73	37	125	13	12	13	10
19	35	109	109	13	11	25	71	148	8.0	11	12	10
20	34	22	108	9.7	10	11	150	304	6.0	11	13	11
21	20	22	106	9.0	12	70	146	272	5.5	11	13	10
22	13	22	105	9.7	13	197	141	142	20	11	13	10
23	13	22	104	8.7	10	188	137	141	17	12	13	10
24	13	22	91	8.5	10	108	132	66	35	9.1	13	10
25	68	22	71	11	10	126	128	31	55	9.0	13	10
26	124	29	70	8.9	11	227	104	31	44	9.1	13	10
27	103	25	70	8.6	45	172	57	30	45	9.1	13	10
28	102	24	71	8.3	36	105	62	30	30	9.3	13	10
29	101	54	73	9.0	---	84	62	30	27	13	11	20
30	102	142	72	8.4	---	63	62	30	31	10	11	12
31	101	---	70	8.6	---	78	---	30	---	10	11	---
TOTAL	1005.8	4267	4328	1212.4	351.8	4535	2793.6	2443	1897.5	486.6	334.0	494.1
MEAN	32.4	142	140	39.1	12.6	146	93.1	78.8	63.3	15.7	10.8	16.5
MAX	124	371	320	82	45	335	279	304	340	32	13	75
MIN	8.1	22	70	8.3	8.8	11	8.4	11	5.5	9.0	7.7	9.4

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 1997, BY WATER YEAR (WY)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
MEAN	32.4	142	140	39.1	12.6	146	131	166	54.1	21.0	11.7	20.1
MAX	32.4	142	140	39.1	12.6	146	169	254	63.3	26.3	12.6	23.7
(WY)	1997	1997	1997	1997	1997	1997	1996	1996	1997	1996	1996	1996
MIN	32.4	142	140	39.1	12.6	146	93.1	78.8	44.9	15.7	10.8	16.5
(WY)	1997	1997	1997	1997	1997	1997	1997	1997	1996	1997	1997	1997

STREAMS TRIBUTARY TO LAKE ONTARIO
04227995 CONESUS CREEK NEAR LAKEVILLE, NY--Continued

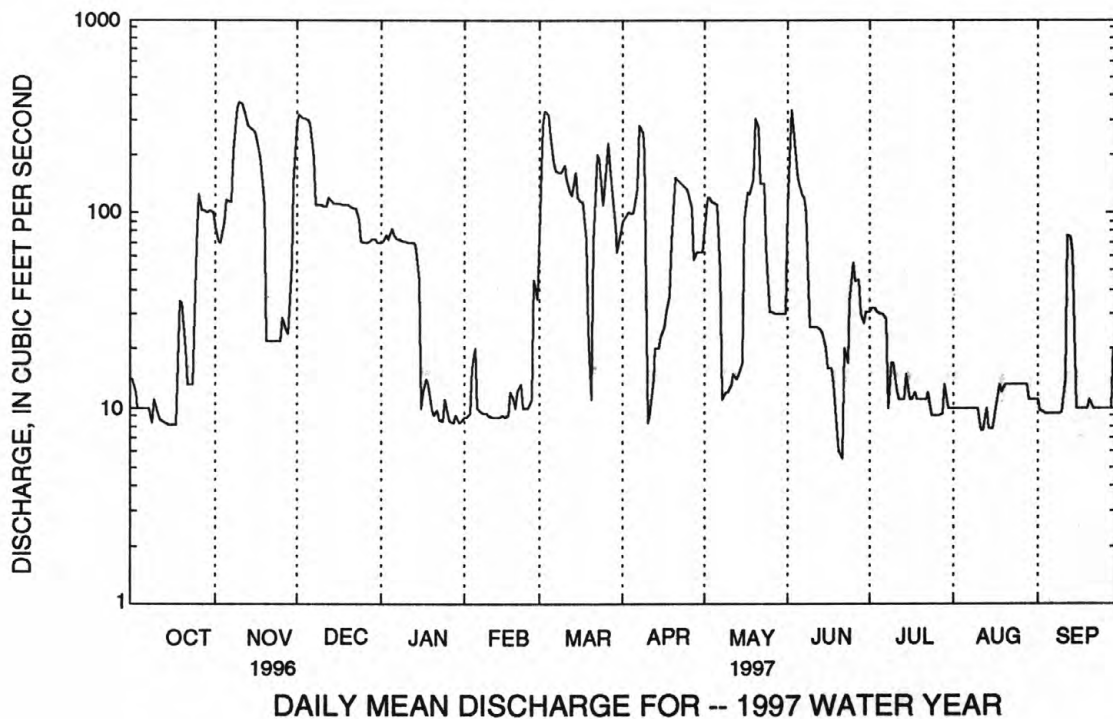
SUMMARY STATISTICS

FOR 1997 WATER YEAR

WATER YEARS 1996 - 1997

ANNUAL TOTAL	24148.8		
ANNUAL MEAN	66.2		66.2
HIGHEST ANNUAL MEAN			66.2 1997
LOWEST ANNUAL MEAN			66.2 1997
HIGHEST DAILY MEAN	371	Nov 10	997 May 12 1996
LOWEST DAILY MEAN	5.5	Jun 21	5.5 Jun 21 1997
ANNUAL SEVEN-DAY MINIMUM	8.3	Oct 12	8.3 Oct 12 1996
INSTANTANEOUS PEAK FLOW	427	Dec 1	1030 May 12 1996
INSTANTANEOUS PEAK STAGE	3.37	Dec 1	5.55 May 12 1996
INSTANTANEOUS LOW FLOW	5.0	a	5.0 a
10 PERCENT EXCEEDS	162		209
50 PERCENT EXCEEDS	26		22
90 PERCENT EXCEEDS	9.1		9.7

a Jun. 21, 22, 1997.



STREAMS TRIBUTARY TO LAKE ONTARIO
04228500 GENESEE RIVER AT AVON, NY

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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 mi².

WATER-DISCHARGE RECORDS

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

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

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 500.11 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Diurnal fluctuation at low flow caused by powerplant. Flow regulated to some extent by Rushford Lake, at high flows by Mount Morris Lake (see station 04224000), and by Conesus Lake (see station 04227980). Monthly figures of discharge and runoff August 1955 to September 1965 adjusted for change in contents in Rushford Lake and Mount Morris Lake. Telephone gage-height telemeter and satellite gage-height and precipitation telemeter at station. Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1930	3340	4160	1850	1470	5980	5920	1450	1270	838	317	252
2	1180	2100	6110	1590	1490	6400	5660	1320	4260	740	302	247
3	988	1680	5300	1930	1500	7190	4780	1230	5790	702	294	262
4	776	1560	4550	2370	1550	7020	4130	1310	5750	747	265	448
5	698	1560	5210	2190	e2300	6970	3630	1570	5260	638	349	432
6	616	1580	5850	2570	e2500	7340	2900	1410	2610	570	398	320
7	550	1450	6010	2790	e2300	7720	2370	1440	1290	520	341	274
8	503	1710	5090	2180	e2000	7480	2190	1440	1330	468	300	260
9	464	5790	3970	1520	e1800	7120	1990	1230	2950	490	296	255
10	439	5340	3090	e1460	e1600	7370	1650	1150	4050	1650	253	251
11	620	4780	2470	e1400	e1450	8580	1480	1160	3390	1850	268	255
12	741	5050	2000	e1200	e1300	7170	1410	1160	2160	2030	242	403
13	648	5380	2560	e1000	e1200	6460	1860	1100	1100	995	295	661
14	550	5800	3830	e950	e1000	6990	2750	1040	1080	713	285	695
15	436	6280	3990	e900	e950	8100	2330	986	1010	609	309	484
16	440	6360	3690	e800	e900	6790	1900	1010	871	707	320	372
17	413	6100	3500	e700	e800	6210	1690	1240	822	598	322	330
18	387	5790	3310	e650	e750	5520	1990	1310	1680	526	396	316
19	639	5510	3040	e600	e1300	4290	2370	1310	2250	455	381	301
20	4950	5100	2660	e650	e2200	3610	2400	4070	3460	438	337	315
21	5470	4730	1900	e750	e2900	3130	2270	5000	3500	467	323	353
22	3810	4250	1660	e1000	4590	2860	2060	4780	3140	467	314	460
23	3340	3290	1710	e1400	5700	3550	1870	4930	2040	528	287	364
24	5120	1780	2120	2200	5000	3400	1750	4500	1160	464	286	312
25	6110	1500	3070	2400	2440	2810	1650	3440	1490	427	301	295
26	6100	1810	3310	2520	1440	4210	1540	2350	1370	408	298	290
27	5740	3250	3240	2440	2910	5450	1380	1470	2650	394	290	331
28	5400	3350	3150	2310	5800	5180	1370	1240	2170	365	282	337
29	5040	3240	3150	2230	---	4950	1700	1110	1310	353	295	536
30	4620	3230	3030	2020	---	4820	1740	1050	1020	343	291	2540
31	4080	---	2610	1580	---	5590	---	1030	---	338	261	---
TOTAL	72908	112690	109340	50150	61140	180260	72730	58836	72233	20838	9498	12951
MEAN	2352	3756	3527	1618	2184	5815	2424	1898	2408	672	306	432
MAX	6110	6360	6110	2790	5800	8580	5920	5000	5790	2030	398	2540
MIN	387	1450	1660	600	750	2810	1370	986	822	338	242	247

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 1997, BY WATER YEAR (WY)

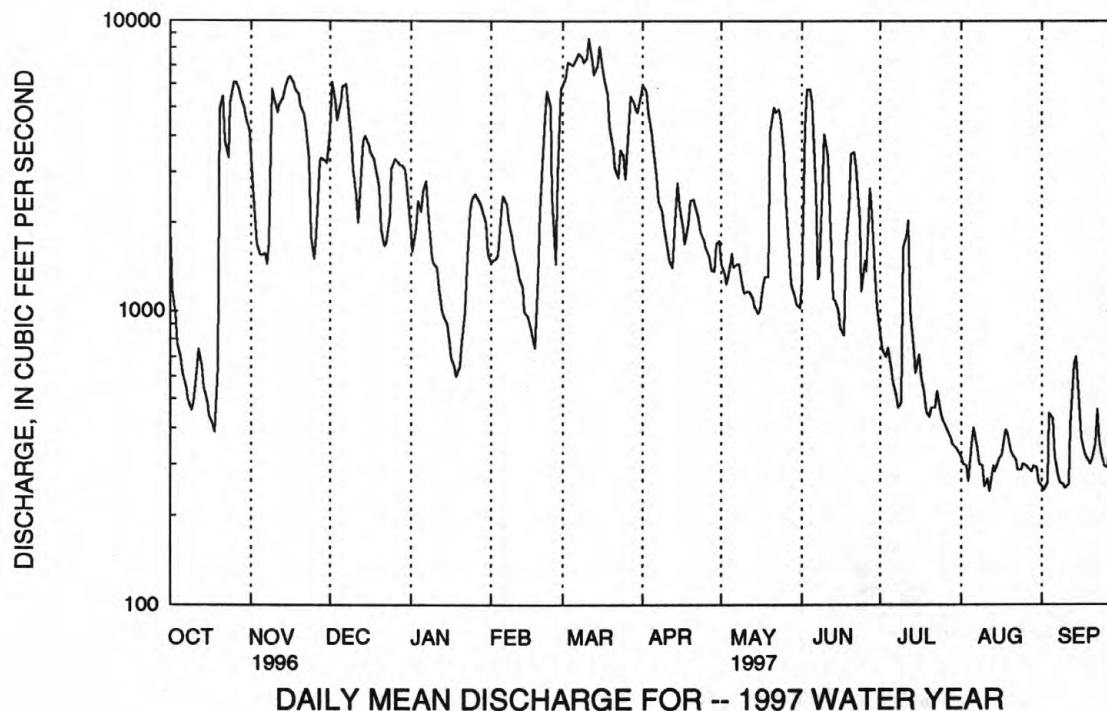
	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966
MEAN	1058	1646	2294	1987	2290	4152	4587	2379	1347	820	515	606
MAX	5146	3756	5942	4781	6036	8916	7846	6516	4906	7032	2408	4569
(WY)	1978	1997	1973	1979	1990	1956	1993	1996	1989	1972	1992	1977
MIN	145	182	325	155	397	1813	1672	613	334	172	142	111
(WY)	1964	1965	1961	1961	1958	1960	1995	1985	1991	1962	1965	1955

STREAMS TRIBUTARY TO LAKE ONTARIO
04228500 GENESEE RIVER AT AVON, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1955 - 1997	
ANNUAL TOTAL	1078420		833574		1972	
ANNUAL MEAN	2947		2284		2846	
HIGHEST ANNUAL MEAN					1130	
LOWEST ANNUAL MEAN					1978	
HIGHEST DAILY MEAN	10800	Jan 20	8580	Mar 11	16200	Jun 25 1972
LOWEST DAILY MEAN	189	Sep 1	242	Aug 12	49	Oct 10 1980
ANNUAL SEVEN-DAY MINIMUM	210	Sep 1	270	Aug 28	88	Aug 1 1955
INSTANTANEOUS PEAK FLOW			8770	Mar 11	16500	Jun 25 1972
INSTANTANEOUS PEAK STAGE			31.48	Mar 11	40.67	Jun 25 1972
INSTANTANEOUS LOW FLOW			240	a	47	b
10 PERCENT EXCEEDS	7150		5550		5400	
50 PERCENT EXCEEDS	1910		1580		1100	
90 PERCENT EXCEEDS	333		319		219	

a Aug. 4, 12.

b Oct. 10, 11, 1980.



WATER-QUALITY RECORDS

PERIOD OF RECORD.--1975-1977, 1997.

SEDIMENT DATA: 1975-1977.

PESTICIDE DATA: 1997 (e).

PERIOD OF DAILY RECORD.--

SEDIMENT: April 1975 to September 1977.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean 2,680 mg/L, July 8, 1977; minimum daily mean 1 mg/L, Nov. 27, 28, 1975.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 39,800 tons, July 8, 1977; minimum daily, 1.7 tons, Nov. 27, 1975.

REMARKS. --Samples were taken as part of a state-wide pesticide sampling network in cooperation with the New York State Department of Environmental Conservation. A complete list of compounds included when pesticide analyses were performed on samples appears following the introduction to the State-wide Monitoring of Pesticides in Surface Water of New York State section on page 277. Only those compounds which were detected at or above the method detection limit (MDL) were included in the tables. Additional water-quality data available from New York State Department of Environmental Conservation.

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA- CHLOR, WATER, FLTRD REC (UG/L) (46342)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)
APR							
24...	1000	1740	<0.002	<0.002	0.023	<0.003	<0.004
MAY							
22...	1150	4690	0.004	0.008	0.132	<0.003	0.010
JUN							
10...	1530	4120	<0.002	0.007	0.119	<0.003	0.017
18...	0910	1610	<0.002	0.008	0.114	<0.003	0.006
19...	1140	2050	<0.002	0.006	0.094	<0.003	0.006
25...	1240	1630	<0.002	0.073	0.582	E0.040	0.078
JUL							
24...	1120	458	<0.002	0.007	0.094	<0.003	0.018
24...	1129	458	<0.002	0.006	0.092	<0.003	0.011
AUG							
21...	1030	326	<0.002	E0.002	0.048	<0.003	<0.004

DATE	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)
APR							
24...	E0.006	<0.002	<0.002	<0.004	0.011	<0.004	<0.005
MAY							
22...	E0.009	<0.002	<0.002	<0.004	0.183	0.007	0.018
JUN							
10...	E0.016	<0.002	0.005	<0.004	0.102	<0.004	0.015
18...	E0.014	<0.002	0.027	<0.004	0.069	<0.004	0.009
19...	E0.015	<0.002	0.012	<0.004	0.065	<0.004	0.015
25...	E0.040	<0.002	0.045	0.004	1.12	0.006	0.035
JUL							
24...	E0.016	<0.002	0.004	<0.004	0.050	<0.004	0.008
24...	E0.015	<0.002	E0.003	<0.004	0.044	<0.004	0.007
AUG							
21...	E0.007	E0.003	<0.002	<0.004	0.017	<0.004	0.006

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 mi².

PERIOD OF RECORD.--October 1945 to September 1970, October 1972 to current year.

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

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

REMARKS.--Records good except those for estimated daily discharges, which are poor. Outlet of Honeoye Lake not controlled. 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 ft³/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. Pesticide sample collected as part of state-wide sampling network in cooperation with the New York State Department of Environmental Conservation. Analyses published on page 277.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 23, 1972, reached a stage of about 6.3 ft, present datum; discharge, about 6,600 ft³/s, from rating curve extended above 2,700 ft³/s.

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

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Oct. 20	1900	*1,130	*3.18				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	93	579	e85	e65	627	556	117	127	27	11	3.5
2	2.8	e80	1060	134	e70	416	588	108	604	25	10	3.2
3	2.3	e75	763	232	e74	469	513	93	653	24	8.0	3.7
4	2.4	e70	417	242	e100	367	439	113	365	24	6.7	3.3
5	2.3	e65	337	198	e350	308	361	118	237	22	6.4	3.2
6	1.9	e60	293	291	288	311	327	109	180	20	6.4	4.5
7	2.0	e58	251	195	124	319	306	105	152	19	6.0	4.3
8	1.9	e150	211	e110	89	273	236	91	140	18	4.6	3.8
9	1.6	e400	178	e95	e75	218	196	89	118	25	4.0	3.3
10	4.2	e850	153	e90	e70	280	165	96	94	36	3.7	3.2
11	9.7	e600	139	e86	e62	489	145	98	79	33	3.4	5.9
12	14	e500	133	e75	e56	358	138	102	66	26	3.4	12
13	9.0	e350	218	e70	e55	224	243	104	60	23	9.6	21
14	6.2	272	474	e65	e50	271	264	91	56	21	11	17
15	4.3	225	311	e62	e48	602	210	94	46	20	9.7	11
16	3.4	181	225	e62	e46	296	176	101	39	26	11	7.6
17	3.5	159	200	e60	e45	187	161	106	48	24	7.4	6.4
18	3.7	142	180	e58	e60	190	183	102	75	20	6.1	9.9
19	70	130	154	e55	e180	146	199	131	64	18	5.4	26
20	925	120	117	e54	e210	155	245	611	56	18	5.3	14
21	922	109	89	e50	203	134	244	509	46	19	5.5	8.2
22	603	97	110	e65	267	248	213	327	40	18	4.9	6.7
23	337	86	73	e150	e200	268	201	264	35	20	5.2	6.1
24	239	79	151	138	e150	189	174	226	24	19	5.5	5.4
25	201	75	234	114	121	180	149	202	62	19	5.5	5.3
26	154	126	147	176	134	586	136	178	77	19	5.0	5.5
27	123	191	163	121	523	649	121	151	54	17	4.9	5.1
28	104	131	141	98	978	476	139	128	44	16	4.0	5.5
29	95	177	172	95	---	421	200	108	36	15	3.6	49
30	92	150	176	74	---	428	155	98	30	14	3.4	101
31	100	---	e120	68	---	521	---	92	---	12	3.4	---
TOTAL	4046.4	5801	7969	3468	4693	10606	7383	4862	3707	657	190.0	364.6
MEAN	131	193	257	112	168	342	246	157	124	21.2	6.13	12.2
MAX	925	850	1060	291	978	649	588	611	653	36	11	101
MIN	1.6	58	73	50	45	134	121	89	24	12	3.4	3.2

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 1970, 1973 - 1997 BY WATER YEAR (WY)

MEAN	43.1	78.5	132	129	161	297	331	177	78.5	32.0	23.3	22.1
MAX	443	345	493	369	664	685	1146	608	344	377	336	538
(WY)	1978	1978	1946	1979	1976	1976	1993	1996	1989	1992	1992	1977
MIN	.45	2.06	2.04	2.15	10.3	107	50.0	23.7	3.19	1.04	.75	.64
(WY)	1964	1961	1961	1961	1958	1965	1946	1995	1995	1955	1949	1964

STREAMS TRIBUTARY TO LAKE ONTARIO
04229500 HONEOYE CREEK AT HONEOYE FALLS, NY--Continued

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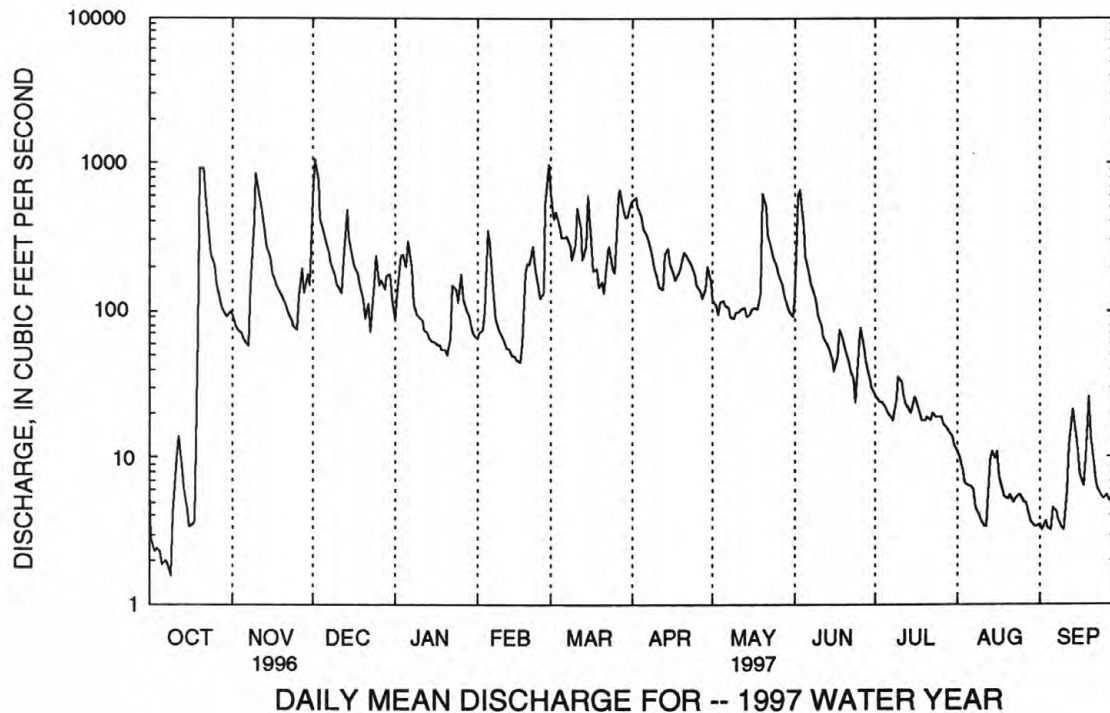
SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1946 - 1970 1973 - 1997	
ANNUAL TOTAL	74845.0		53747.0		125	
ANNUAL MEAN	204		147		238	
HIGHEST ANNUAL MEAN					46.4	
LOWEST ANNUAL MEAN					3820	
HIGHEST DAILY MEAN	2280	May 12	1060	Dec 2		1993
LOWEST DAILY MEAN	e1.0	a	1.6	Oct 9	.10	Aug 24 1949
ANNUAL SEVEN-DAY MINIMUM	1.1	Aug 31	2.1	Oct 3	.13	Aug 22 1949
INSTANTANEOUS PEAK FLOW			1130	Oct 20	b4630	Mar 28 1950
INSTANTANEOUS PEAK STAGE			3.18	Oct 20	c6.42	Mar 28 1950
INSTANTANEOUS LOW FLOW			1.4	Oct 9	.06	Aug 28 1949
10 PERCENT EXCEEDS	505		359		326	
50 PERCENT EXCEEDS	95		95		54	
90 PERCENT EXCEEDS	3.2		5.2		2.4	

a Sep. 4, 5.

b From rating curve extended above 2,700 ft³/s.

c Datum then in use.

e Estimated.



STREAMS TRIBUTARY TO LAKE ONTARIO
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 mi².

PERIOD OF RECORD.--December 1963 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 987.15 ft above sea level (levels by Corps of Engineers).

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 690 ft³/s and maximum(*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Oct. 20	0230	734	3.53	Feb. 27	1000	*1,570	*5.51
Nov. 8	2000	782	3.66	Mar. 26	0030	1,020	4.26
Dec. 1	2045	858	3.86	May 19	2200	1,090	4.44
Feb. 19	1930	935	4.06				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	39	431	e80	e44	145	112	37	177	12	5.4	5.6
2	12	39	264	80	e45	309	99	34	318	13	5.2	8.9
3	12	37	125	158	47	e120	80	40	141	12	5.1	27
4	11	35	114	85	e50	e100	70	38	72	11	18	8.7
5	10	37	88	136	122	e90	62	32	52	11	11	6.1
6	10	33	76	115	e60	e90	61	47	42	9.5	6.9	5.3
7	9.3	31	64	80	e55	88	57	38	58	9.0	5.9	5.6
8	9.0	367	57	e60	e50	95	48	33	45	9.3	5.2	7.5
9	10	320	49	e48	e45	e85	45	36	36	33	5.0	6.3
10	37	141	45	e50	e42	e140	42	42	31	18	4.6	6.1
11	25	96	46	e49	e40	e160	42	40	27	12	4.7	13
12	18	72	55	e37	e40	e110	85	47	24	10	5.7	21
13	15	57	105	e37	e36	e80	136	42	24	8.8	13	11
14	13	51	80	e37	e34	262	84	36	22	7.8	8.4	8.9
15	13	44	56	e36	e33	184	62	53	20	8.3	7.7	6.8
16	11	42	50	e34	e32	115	51	90	18	9.5	6.2	5.8
17	10	44	62	e32	e30	104	64	72	27	7.3	5.3	6.2
18	11	51	e60	e30	e34	99	87	51	26	8.1	5.6	9.5
19	363	46	e55	e30	e450	87	83	332	25	7.0	4.6	6.1
20	471	42	e60	e30	314	87	72	290	20	6.3	5.1	11
21	326	39	e55	e30	458	103	59	107	18	15	8.7	10
22	163	36	54	e32	312	283	54	75	16	20	9.5	6.9
23	87	34	65	e250	e90	111	55	56	14	11	12	6.2
24	61	34	233	e240	e75	85	45	48	92	9.9	8.2	7.1
25	50	35	e85	e110	e65	214	41	44	38	8.6	6.6	8.1
26	41	79	e70	e90	e70	419	37	41	29	7.4	6.0	17
27	36	50	63	e110	754	153	35	36	21	7.3	5.6	10
28	40	45	103	e70	197	137	73	33	16	9.7	5.1	8.4
29	37	43	e125	e58	---	135	54	31	14	8.3	4.9	215
30	57	48	87	e47	---	131	41	32	12	6.2	4.7	156
31	47	---	e58	e43	---	158	---	34	---	5.7	4.8	---
TOTAL	2031.3	2067	2940	2324	3624	4479	1936	1967	1475	332.0	214.7	631.1
MEAN	65.5	68.9	94.8	75.0	129	144	64.5	63.5	49.2	10.7	6.93	21.0
MAX	471	367	431	250	754	419	136	332	318	33	18	215
MIN	9.0	31	45	30	30	80	35	31	12	5.7	4.6	5.3
CFSM	1.68	1.76	2.43	1.92	3.31	3.70	1.65	1.62	1.26	.27	.18	.54
IN.	1.93	1.97	2.80	2.21	3.45	4.26	1.84	1.87	1.40	.32	.20	.60

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1997, BY WATER YEAR (WY)

MEAN	25.2	50.7	69.3	65.5	75.2	126	112	51.7	31.1	16.4	13.6	18.5
MAX	76.7	131	130	234	235	228	185	129	165	116	86.8	166
(WY)	1978	1986	1978	1979	1976	1979	1996	1984	1989	1992	1992	1977
MIN	2.76	5.09	17.2	15.1	22.5	49.2	33.2	16.9	6.36	2.52	2.36	1.81
(WY)	1965	1965	1965	1981	1980	1981	1995	1995	1965	1965	1965	1964

STREAMS TRIBUTARY TO LAKE ONTARIO
04230380 OATKA CREEK AT WARSAW, NY--continued

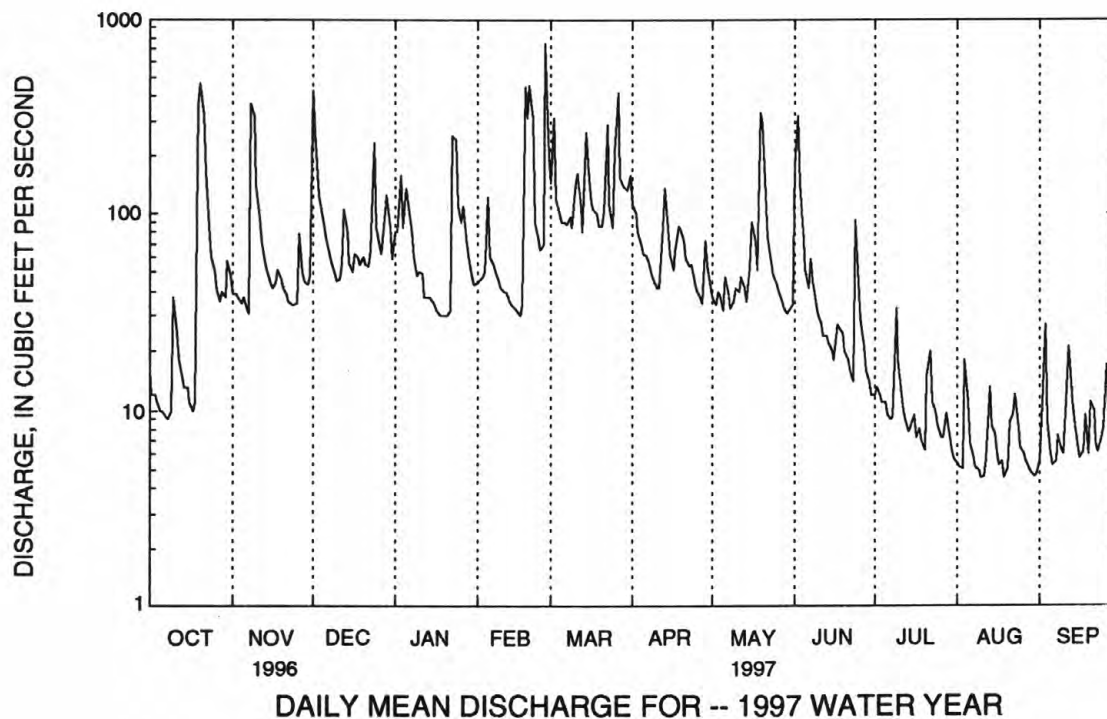
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SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1964 - 1997	
ANNUAL TOTAL	29610.7		24021.1		54.7	
ANNUAL MEAN	80.9		65.8		73.8	
HIGHEST ANNUAL MEAN					29.6	
LOWEST ANNUAL MEAN					1.0	
HIGHEST DAILY MEAN	1700	Jan 19	754	Feb 27	1700	Jan 19 1996
LOWEST DAILY MEAN	4.2	Sep 4	4.6	a	1.0	Aug 1 1965
ANNUAL SEVEN-DAY MINIMUM	4.8	Aug 30	5.2	Aug 26	1.4	Jul 26 1965
INSTANTANEOUS PEAK FLOW			1570	Feb 27	b4010	Jun 23 1972
INSTANTANEOUS PEAK STAGE			5.51	Feb 27	9.75	Jun 23 1972
INSTANTANEOUS LOW FLOW			4.1	c	.90	Aug 1 1965
ANNUAL RUNOFF (CFSM)	2.07		1.68		1.40	
ANNUAL RUNOFF (INCHES)	28.17		22.85		19.00	
10 PERCENT EXCEEDS	179		140		123	
50 PERCENT EXCEEDS	44		41		29	
90 PERCENT EXCEEDS	8.7		6.9		4.9	

a Aug. 10, 19.

b From rating curve extended above 1,770 ft³/s on basis of slope-area measurement of peak discharge.

c Aug. 11, 19, 20.



STREAMS TRIBUTARY TO LAKE ONTARIO
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 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 2112; WDR NY-82-3: Drainage area. WRD NY 1971: 1960(M). WRD NY 1993: 1991.

GAGE.--Water-stage recorder. Datum of gage is 560.86 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Telephone gage-height telemeter and satellite gage-height and precipitation telemeter at station. Several measurements of water temperature were made during the year. Pesticide sample collected as part of state-wide sampling network in cooperation with the New York State Department of Environmental Conservation. Analyses published on page 277.

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

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Mar. 1	0345	*1,650	*5.34	No other peak greater than base discharge.			

REVISIONS.--The peak discharges and annual maximum (*) reported for water year 1996 have been revised as shown in the following table. These figures supersede those published in the report for 1996.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 20	1000	*3,340	*6.79	May 13	0400	2,170	5.85
Apr. 14	1845	3,220	6.71	June 21	0545	1,920	5.62

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95	242	453	232	217	1430	558	221	209	69	44	40
2	73	215	886	245	223	774	542	199	539	67	44	39
3	65	199	937	372	234	598	464	189	652	64	44	41
4	59	189	864	448	252	627	399	187	679	64	44	39
5	58	177	605	405	465	510	361	187	449	63	43	39
6	56	165	472	414	528	427	340	178	255	61	43	38
7	55	161	400	402	489	408	324	175	201	59	43	39
8	54	229	357	293	412	385	304	181	197	59	42	39
9	53	767	324	229	289	360	279	167	186	72	41	39
10	60	787	298	250	244	395	259	166	154	67	41	39
11	79	850	279	237	235	609	247	181	135	75	40	44
12	100	577	266	185	214	665	249	186	123	68	41	49
13	83	387	296	185	e180	585	362	173	113	61	46	42
14	72	315	377	186	e170	522	439	180	105	58	43	40
15	67	279	370	e180	185	904	388	161	100	56	41	39
16	65	248	308	e170	171	789	320	167	96	55	54	39
17	63	229	297	e160	158	694	289	228	93	54	44	39
18	59	227	302	153	173	511	316	229	91	53	43	40
19	138	232	280	e150	400	450	358	231	99	53	42	39
20	1110	230	242	155	780	416	368	517	97	52	42	42
21	1050	215	185	152	1210	404	340	656	93	53	46	41
22	1260	199	198	156	1090	541	297	640	82	53	43	40
23	912	186	210	313	957	634	267	353	76	51	44	40
24	673	177	275	e350	693	636	254	249	93	50	43	39
25	438	172	402	e350	394	454	231	209	125	48	42	40
26	319	187	397	e370	307	788	210	188	160	48	41	41
27	269	256	333	e350	757	1040	199	172	108	48	40	40
28	237	236	283	e295	1300	905	213	156	94	48	40	39
29	225	222	337	265	---	630	272	143	82	47	40	88
30	225	226	400	227	---	545	265	135	74	46	40	219
31	235	---	348	214	---	569	---	132	---	45	40	---
TOTAL	8307	8781	11981	8093	12727	19205	9714	7136	5560	1767	1324	1432
MEAN	268	293	386	261	455	620	324	230	185	57.0	42.7	47.7
MAX	1260	850	937	448	1300	1430	558	656	679	75	54	219
MIN	53	161	185	150	158	360	199	132	74	45	40	38
CFSM	1.34	1.46	1.93	1.31	2.27	3.10	1.62	1.15	.93	.28	.21	.24
IN.	1.55	1.63	2.23	1.51	2.37	3.57	1.81	1.33	1.03	.33	.25	.27

e Estimated

STREAMS TRIBUTARY TO LAKE ONTARIO
04230500 OATKA CREEK AT GARBUTT, NY-- Continued

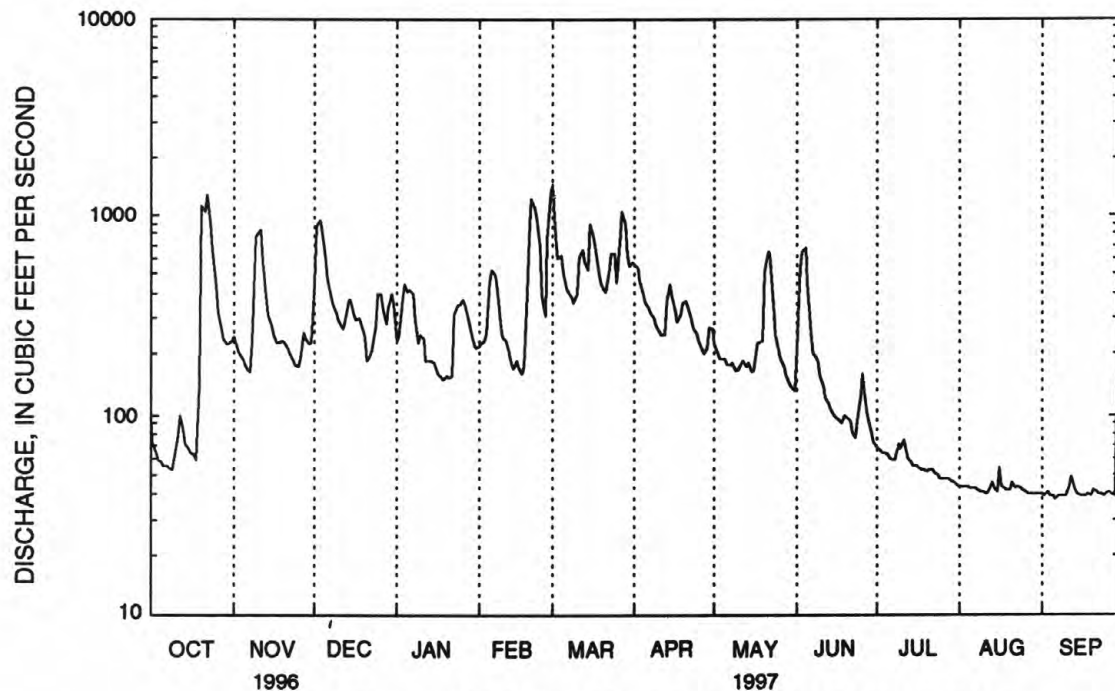
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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 1997, BY WATER YEAR (WY)

MEAN	78.7	141	226	229	294	554	508	248	136	73.0	58.6	61.1
MAX	400	567	798	505	868	1048	1069	581	760	249	294	748
(WY)	1978	1986	1978	1993	1976	1956	1947	1984	1989	1972	1992	1977
MIN	18.0	17.2	20.1	22.9	33.4	244	117	99.7	45.6	31.8	22.5	19.2
(WY)	1966	1965	1961	1961	1958	1965	1946	1995	1949	1965	1965	1965

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1946 - 1997	
ANNUAL TOTAL	120664		96027			
ANNUAL MEAN	330		263		217	
HIGHEST ANNUAL MEAN					371	
LOWEST ANNUAL MEAN					117	
HIGHEST DAILY MEAN	2520	Jan 20	1430	Mar 1	6500	Mar 31 1960
LOWEST DAILY MEAN	50	Sep 10	38	Sep 6	13	a
ANNUAL SEVEN-DAY MINIMUM	52	Sep 6	39	Sep 4	14	Oct 26 1966
INSTANTANEOUS PEAK FLOW			1650	Mar 1	7050	Mar 31 1960
INSTANTANEOUS PEAK STAGE			5.34	Mar 1	8.64	Mar 31 1960
INSTANTANEOUS LOW FLOW			38	b	3.3	c
ANNUAL RUNOFF (CFSM)	1.65		1.32		1.08	
ANNUAL RUNOFF (INCHES)	22.44		17.86		14.73	
10 PERCENT EXCEEDS	734		607		518	
50 PERCENT EXCEEDS	228		199		110	
90 PERCENT EXCEEDS	62		42		30	

a Oct. 30, 31, Nov. 1, 1966.
b Sep. 5, 6, 7, 9, 10, 17.
c Sep. 11, 12, 1958.



DAILY MEAN DISCHARGE FOR -- 1997 WATER YEAR

STREAMS TRIBUTARY TO LAKE ONTARIO
04230500 OATKA CREEK AT GARBUTT, NY--continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956, 1960, 1961, 1975 to 1977, 1997.

CHEMICAL DATA: 1956 (a), 1960-61 (e), 1997 (e)

NUTRIENT data: 1956 (a), 1960-61 (e), 1997 (e)

SEDIMENT DATA: 1975-77 (e)

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1959 to March 1961 (discontinued).

SUSPENDED SEDIMENT DISCHARGE: 1975 to September 1977 (discontinued).

INSTRUMENTATION.--Automatic water sampler since July 1997. Water temperature recorder since November 1994 provides 15-minute-interval readings.

COOPERATION.--Water-quality samples were collected and analyzed by the Monroe County Environmental Health Laboratory at Rochester, N.Y.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT CONCENTRATION: Maximum daily mean, 282 mg/L Aug. 17, 1997, minimum daily mean, 0 mg/L Apr. 14, 1975.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 2,980 tons Mar. 5, 1976, minimum daily, 0 ton Apr. 14, 1975

WATER-QUALITY DATA, OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	TUR- BID- ITY (NTU) (00076)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	RESIDUE VOLA- TILE, SUS- PENDE (MG/L) (00535)
JUL							
01-03	1520	0820	65	1.7	--	--	--
03-07	0925	0825	63	8.8	--	--	--
07-08	0915	0815	59	2.1	--	--	--
09-10	1215	0815	71	3.9	--	--	--
10-14	1205	1105	67	1.4	--	--	--
14-17	1140	1040	56	1.8	--	--	--
17-21	1110	1010	52	1.2	--	--	--
21-24	1125	1025	52	2.4	--	--	--
24-28	1055	0955	48	1.6	--	--	--
28-31	1200	1100	47	1.7	--	--	--
JUL 31-							
AUG 04	1125	1025	44	1.5	--	--	--
04-07	1155	0945	43	2.0	--	--	--
07-11	1110	1010	41	1.8	--	--	--
11-13	1035	0635	41	1.4	--	--	--
13-13	0735	1835	49	1.6	--	--	--
13-14	1935	0935	46	2.8	--	--	--
14-15	1100	2200	42	1.0	--	--	--
15-16	2300	1400	57	--	--	--	--
16-18	1500	1000	45	1.8	--	--	--
18-20	1055	1255	41	1.2	--	--	--
20-21	1355	0955	45	1.7	--	--	--
21-25	1125	1025	43	1.2	--	--	--
25-28	1050	0950	41	1.9	--	--	--
AUG 29-							
SEP 02	1050	0950	40	1.8	--	--	--
02-04	1055	0955	40	1.5	--	--	--
04-08	1120	1020	39	5.2	--	--	--
08-11	1120	1020	39	.85	--	--	--
11-12	1105	0605	49	1.1	--	--	--
12-15	0705	1005	42	.75	--	--	--
15-18	1105	1005	39	.95	--	--	--
18-22	1050	0950	41	1.5	--	--	--
22-25	1105	1005	39	.85	--	--	--
25-28	1110	2210	40	.55	--	--	--
28-29	2310	1010	56	2.6	--	--	--
29-30	1125	1925	171	17	--	--	--
SEP 30-							
OCT 02	2025	1025	207	44	--	48	9

STREAMS TRIBUTARY TO LAKE ONTARIO
04230500 OATKA CREEK AT GARBUTT, NY--continued

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WATER-QUALITY DATA, OCTOBER 1996 TO SEPTEMBER 1997

DATE	NITRO- GEN, AM- MONIA + DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
JUL							
01-03	.02	.38	1.6	.030	.011	44	300
03-07	.01	.29	1.6	.015	.006	46	330
07-08	<.01	.46	1.6	.015	.004	47	340
09-10	.02	.43	1.6	.020	.006	45	330
10-14	.01	.66	1.5	.025	.008	54	320
14-17	.01	<.10	1.4	.045	.017	48	360
17-21	<.01	.23	1.5	.025	.011	48	380
21-24	.02	.37	1.5	.040	.009	48	380
24-28	.01	.43	1.4	.045	.003	48	390
28-31	.03	.37	1.4	.040	.005	47	380
JUL 31-							
AUG 04	.03	.39	1.4	.030	.004	49	390
04-07	.02	.32	1.4	.030	.006	51	400
07-11	<.01	.32	1.4	.045	.003	50	410
11-13	<.01	.28	1.3	.035	<.002	52	410
13-13	<.01	.24	1.3	.030	<.002	50	400
13-14	<.01	.27	1.3	.060	<.002	51	400
14-15	.01	.23	1.3	.025	.004	52	420
15-16	.02	.47	1.3	.100	.003	48	380
16-18	.02	.33	1.3	.035	.002	52	410
18-20	.01	.24	1.3	.015	.003	54	420
20-21	.01	.31	1.3	.015	.004	52	410
21-25	.01	.11	1.3	.010	.004	55	430
25-28	<.01	.18	1.3	.015	<.002	53	420
AUG 29-							
SEP 02	<.01	.30	1.2	.013	<.002	57	440
02-04	<.01	.19	1.2	.020	.004	60	440
04-08	<.01	.25	1.3	.010	.004	57	440
08-11	<.01	.40	1.3	.015	.004	57	460
11-12	<.01	.29	1.3	.015	.003	55	430
12-15	<.01	.24	1.3	.010	.003	57	450
15-18	<.01	.38	1.2	.015	.004	56	450
18-22	<.01	.36	1.2	.015	<.002	59	450
22-25	<.01	.26	1.3	.010	.006	64	480
25-28	<.01	.18	1.3	.010	.003	57	460
28-29	<.01	.19	1.2	.030	.005	51	420
29-30	<.01	.32	1.0	.075	.006	44	390
SEP 30-							
OCT 02	<.01	.53	1.7	.110	.015	46	130

STREAMS TRIBUTARY TO LAKE ONTARIO

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 mi².

PERIOD OF RECORD.--October 1973 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 500.00 ft above sea level.

REMARKS.--River regulated for operation of Erie (Barge) Canal, downstream powerplants, and at high stages by Mount Morris Lake (see station 04224000). Satellite gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 19.93 ft, Apr. 2-3, 1993; minimum recorded, 8.20 ft, Nov. 9, 1979, but may have been lower as a result of extreme regulation.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 15.32 ft, Mar. 15; minimum, 9.09 ft, Apr. 28.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.94	12.45	12.64	11.44	11.16	14.73	13.90	11.94	11.56	11.68	11.61	10.68
2	11.55	11.95	14.59	10.96	11.50	14.28	13.61	11.79	12.75	11.67	11.59	10.78
3	11.49	11.85	14.37	11.43	11.51	14.34	13.09	11.57	13.73	11.62	11.64	10.95
4	11.49	11.76	13.69	12.01	11.44	14.20	12.65	11.77	13.75	11.60	11.68	11.09
5	11.48	12.19	13.59	11.94	12.51	13.99	12.22	11.79	13.30	11.53	11.67	10.93
6	11.54	12.05	13.78	12.16	12.77	14.03	11.89	11.59	12.27	11.61	11.68	10.96
7	11.62	11.80	13.82	12.36	12.41	14.27	11.33	11.58	11.54	11.60	11.54	10.94
8	11.57	11.94	13.35	11.58	12.29	14.18	11.85	11.73	11.39	11.45	11.45	10.97
9	11.50	14.10	13.05	10.97	11.98	13.92	11.81	11.35	12.18	11.47	11.42	11.07
10	11.54	14.42	12.57	11.85	12.04	13.95	11.39	11.30	12.64	11.62	11.41	10.98
11	11.53	13.73	12.22	12.03	12.12	14.93	11.27	11.65	12.39	11.91	11.47	10.91
12	11.72	13.52	12.20	11.49	11.95	14.65	11.62	11.79	11.85	11.89	11.38	10.71
13	11.54	13.46	12.29	10.97	11.95	13.96	12.15	11.43	11.60	11.60	11.40	10.81
14	11.58	13.62	12.92	10.79	11.76	13.96	12.49	11.29	11.74	11.47	11.43	11.00
15	11.48	13.79	12.91	10.75	11.77	15.17	12.09	11.30	11.74	11.35	11.40	10.78
16	11.33	13.88	12.83	11.13	11.80	14.47	12.02	11.22	11.63	11.67	11.39	10.71
17	10.93	13.70	12.57	11.05	11.19	13.85	11.73	11.54	11.73	11.56	11.36	10.98
18	10.88	13.47	12.40	10.94	10.49	13.35	12.14	11.82	11.84	11.56	11.60	11.02
19	11.45	13.32	12.18	10.96	11.33	12.59	12.30	11.79	11.90	11.56	11.71	10.92
20	13.54	13.16	12.11	11.24	12.13	12.19	12.47	12.73	12.40	11.59	11.70	10.92
21	14.60	13.08	11.91	10.84	12.76	12.35	12.44	13.35	12.46	11.69	11.45	10.76
22	13.69	13.02	11.81	10.27	13.38	12.38	12.13	13.12	12.28	11.56	11.31	10.80
23	13.04	12.71	11.90	10.66	13.97	13.03	12.02	12.96	11.84	11.35	11.44	10.86
24	13.47	11.81	11.94	11.28	13.56	12.88	12.23	12.79	11.44	11.24	11.56	10.80
25	13.85	12.36	12.49	11.60	12.27	12.08	11.91	12.37	11.84	11.40	11.44	10.84
26	13.64	12.22	12.68	11.75	11.56	12.92	11.60	11.93	11.80	11.49	10.54	10.85
27	13.40	12.64	12.65	11.88	12.35	14.08	11.32	11.80	12.19	11.64	10.74	10.89
28	13.21	12.80	12.52	12.46	14.62	13.67	10.40	11.74	11.86	11.63	10.69	10.99
29	12.97	12.60	12.55	12.01	---	13.45	10.19	11.56	11.43	11.35	10.63	10.68
30	12.86	12.10	12.58	11.49	---	13.12	11.32	11.44	11.70	11.37	10.79	11.47
31	12.78	---	12.32	11.35	---	13.64	---	11.65	---	11.50	10.64	---
MEAN	12.23	12.85	12.76	11.41	12.16	13.70	11.99	11.86	12.09	11.56	11.35	10.90
MAX	14.60	14.42	14.59	12.46	14.62	15.17	13.90	13.35	13.75	11.91	11.71	11.47
MIN	10.88	11.76	11.81	10.27	10.49	12.08	10.19	11.22	11.39	11.24	10.54	10.68

CAL YR 1996 MEAN 12.47 MAX 16.99 MIN 10.38
WTR YR 1997 MEAN 12.07 MAX 15.17 MIN 10.19

STREAMS TRIBUTARY TO LAKE ONTARIO

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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 Carroll 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 mi².

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

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

GAGE.--Water-stage recorder. Datum of gage is 551.88 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Prior to May 1952, small diversion by Penn Central Transportation Co. and slight regulation by pumping operations upstream from station. Telephone gage-height telemeter and satellite gage-height and precipitation telemeter at station. Several measurements of water temperature were made during the year. Pesticide sample collected as part of state-wide sampling network in cooperation with the New York State Department of Environmental Conservation. Analyses published on page 277.

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

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Oct. 21	1700	*1,530	*6.52	Mar. 16	1500	809	4.76
Feb. 28	2300	1,020	5.33				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	103	151	312	114	124	849	340	92	75	21	7.9	13
2	62	130	659	148	134	456	318	80	157	26	7.9	16
3	42	119	738	250	152	357	283	79	217	27	6.2	20
4	35	113	490	353	181	296	230	83	196	23	7.1	26
5	32	105	363	337	355	230	195	81	107	22	6.8	23
6	29	97	335	e270	555	208	182	74	72	20	6.4	19
7	28	93	281	e240	546	e200	165	71	63	18	6.2	16
8	26	177	233	e165	366	e190	138	69	59	16	5.8	14
9	26	423	199	107	e230	186	123	72	54	28	5.3	13
10	52	703	178	134	155	230	111	81	47	42	6.1	13
11	91	585	163	127	138	479	104	85	41	35	6.4	22
12	94	369	154	e100	121	660	115	88	36	26	5.9	56
13	70	254	173	97	e100	461	178	90	33	20	14	72
14	55	198	223	e90	91	367	233	85	33	18	12	45
15	46	167	241	e88	e90	551	198	76	31	16	12	32
16	41	146	197	e86	e85	709	152	76	29	14	47	24
17	38	137	185	e84	79	507	129	80	32	13	48	21
18	36	141	191	e82	104	352	127	81	35	11	40	20
19	176	151	179	e82	261	288	137	106	46	10	27	18
20	716	151	129	81	490	255	145	186	62	10	21	21
21	1390	143	78	77	640	240	141	260	62	14	36	21
22	1190	129	111	86	527	299	120	196	48	15	47	21
23	690	113	106	e155	436	391	105	116	36	14	38	21
24	434	105	e150	e180	282	311	94	91	43	14	31	19
25	327	102	e180	e250	165	233	86	80	93	14	26	20
26	268	107	177	e280	160	405	77	74	86	12	22	26
27	215	117	167	e270	422	733	72	66	59	12	19	27
28	175	110	152	e230	854	495	88	63	43	12	17	24
29	153	134	e180	e180	---	328	111	63	31	10	16	77
30	151	144	e210	e140	---	286	103	55	24	9.9	15	178
31	159	---	e180	124	---	319	---	48	---	9.2	14	---
TOTAL	6950	5614	7314	5007	7843	11871	4600	2847	1950	552.1	580.0	938
MEAN	224	187	236	162	280	383	153	91.8	65.0	17.8	18.7	31.3
MAX	1390	703	738	353	854	849	340	260	217	42	48	178
MIN	26	93	78	77	79	186	72	48	24	9.2	5.3	13
CFSM	1.72	1.44	1.81	1.24	2.15	2.95	1.18	.71	.50	.14	.14	.24
IN.	1.99	1.61	2.09	1.43	2.24	3.40	1.32	.81	.56	.16	.17	.27

e Estimated

STREAMS TRIBUTARY TO LAKE ONTARIO
04231000 BLACK CREEK AT CHURCHVILLE, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 1997, BY WATER YEAR (WY)

MEAN	41.3	77.9	126	125	184	333	256	125	63.9	26.1	21.6	25.9
MAX	235	405	497	375	460	664	497	325	348	143	201	284
(WY)	1946	1971	1978	1993	1981	1971	1947	1956	1989	1992	1992	1977
MIN	2.61	6.07	5.68	6.15	15.4	122	51.6	38.1	10.7	3.75	2.55	1.66
(WY)	1964	1965	1961	1961	1958	1989	1946	1949	1949	1965	1965	1959

SUMMARY STATISTICS

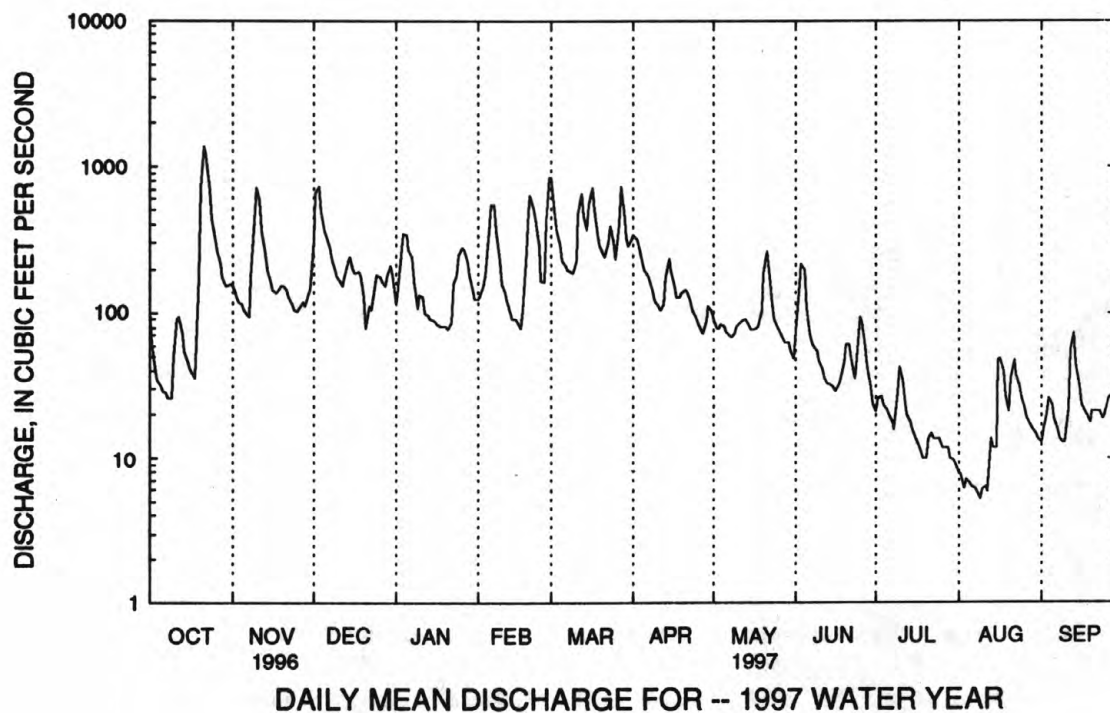
FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1946 - 1997

ANNUAL TOTAL	74859.8	56066.1	
ANNUAL MEAN	205	154	117
HIGHEST ANNUAL MEAN			207
LOWEST ANNUAL MEAN			52.3
HIGHEST DAILY MEAN	1930	Jun 22	4120
LOWEST DAILY MEAN	7.2	Sep 5	.30
ANNUAL SEVEN-DAY MINIMUM	8.5	Aug 31	.47
INSTANTANEOUS PEAK FLOW			4880
INSTANTANEOUS PEAK STAGE			9.44
INSTANTANEOUS LOW FLOW			.22
ANNUAL RUNOFF (CFSM)	1.57	1.18	.90
ANNUAL RUNOFF (INCHES)	21.42	16.04	12.21
10 PERCENT EXCEEDS	455	356	290
50 PERCENT EXCEEDS	124	100	48
90 PERCENT EXCEEDS	31	15	6.8

a Aug. 9, 10.



STREAMS TRIBUTARY TO LAKE ONTARIO
04232000 GENESEE RIVER AT ROCHESTER, NY

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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 Corporation plant, 5,100 ft upstream from bridge on Driving Park Avenue in Rochester, and 6.4 mi upstream from mouth.

DRAINAGE AREA.--2,467 mi².

PERIOD OF RECORD.--April 1904 to September 1918, December 1919 to current year. Published as "at Driving Park Avenue," 1919-68.

REVISED RECORDS.--WSP 1912; WDR NY-82-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 244.24 ft (revised) above sea level (245.00 ft, Barge Canal datum). April 1904 to December 1910, nonrecording gage and December 1910 to September 1918, water-stage recorder at site 5 mi upstream at datum 506.85 ft, Barge Canal datum. December 1919 to Apr. 4, 1927, water-stage recorder in plant 5, and Apr. 4, 1927 to June 19, 1956, at present site at datum 3.00 ft higher. June 20, 1956 to Sept. 30, 1985, at present site at datum 2.00 ft higher.

REMARKS.--Records fair. Extensive diurnal fluctuation caused by powerplants upstream from station. New York State Erie (Barge) Canal crosses river 5.4 mi upstream from station. Water diverted by the canal from Lake Erie is discharged into river from the west, the canal again diverting a smaller amount of water from river to the east. Additional regulation is provided by Rushford Lake, Mount Morris Lake (see station 04224000), and Conesus Lake (see station 04227980).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge on Mar. 18, 1865, was about 54,000 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2850	4730	5610	2840	1720	9590	8060	e1600	e2050	e1080	e256	e340
2	1900	3230	9240	2300	1650	9030	7860	e2360	5120	e1260	e247	e417
3	1330	2530	8860	2770	1920	9090	6740	e1890	7690	e868	e238	e394
4	e1010	2170	7370	3590	1690	8870	5770	e2060	7590	e1000	e511	e557
5	e905	1940	7150	3600	3320	8210	5100	e2460	7160	e944	e264	e841
6	e729	2060	7410	3720	4250	8450	4320	e2530	4240	e623	e637	e595
7	e841	1870	7520	4200	3940	8840	3440	e2040	e2500	e862	e580	e667
8	e800	2380	6530	3390	3640	8550	3100	e2390	e2110	e677	e507	e310
9	e815	7890	5360	2210	2670	8140	2930	e2280	e3300	e1030	e448	e344
10	e905	8880	4350	1920	2560	8210	e2540	e1970	4900	e1600	e372	e609
11	996	7760	3530	2210	2090	9920	e2170	e1720	4630	e2470	e210	e751
12	1040	7390	2780	1750	1780	9530	e2020	e2070	e3460	e2500	e406	e1010
13	1240	6900	3430	1460	1770	8490	e2630	e2150	e1660	e1710	e511	e950
14	932	7000	5080	1500	1740	8370	3890	e1900	e1410	e1340	e436	e1170
15	901	7230	5570	1400	e1400	10300	3690	e1840	e1520	e481	e182	e1170
16	947	7320	5030	1530	1450	9270	2880	e1820	e1220	e1120	e1010	e751
17	1010	6950	4680	e1300	1620	8420	e2480	e1770	e1220	e862	e538	e623
18	782	6640	4450	e1220	e1360	7680	e2710	e2110	e2070	e800	e391	e826
19	1370	6420	4070	e878	1850	6180	3220	e2190	e2870	e762	e502	e852
20	6910	5970	3540	e944	3720	5120	3350	5090	4100	e473	e557	e846
21	9880	5560	2650	1440	4970	4510	3320	7320	4400	e703	e767	e868
22	8510	4950	2200	1310	6490	4000	3050	6950	4100	e852	e464	e773
23	7130	4350	2250	1670	7520	4830	e2630	6470	e3060	e894	e160	e784
24	7110	2430	2710	2190	7030	4960	e2540	6050	e1870	e868	e131	e713
25	7980	2050	3960	2700	4050	4130	e2430	4970	e1830	e464	e795	e677
26	7800	2140	4390	2950	2360	5250	e2190	e3670	e2040	e452	e800	e846
27	7070	3900	4300	2700	3890	8200	e2040	e2390	e3170	e413	e417	e642
28	6690	4280	4090	2680	9050	7740	e1610	e1930	e3360	e613	e729	e762
29	6200	4130	4170	2610	---	7040	e543	e1940	e1840	e815	e317	1960
30	5670	4260	4260	2470	---	6530	e1200	e1680	e1400	e297	e481	2810
31	5060	---	3830	1830	---	7120	---	e1680	---	e241	e460	---
TOTAL	107313	145310	150370	69282	91500	234570	100453	89290	97890	29074	14324	24858
MEAN	3462	4844	4851	2235	3268	7567	3348	2880	3263	938	462	829
MAX	9880	8880	9240	4200	9050	10300	8060	7320	7690	2500	1010	2810
MIN	729	1870	2200	878	1360	4000	543	1600	1220	241	131	310

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904-1918, 1920-1997, BY WATER YEAR (WY)

MEAN	1468	2167	2790	2844	3204	6239	6003	3548	2078	1305	973	1009
MAX	7095	7383	9973	8830	9157	14300	14160	10230	7311	8524	3927	6722
(WY)	1978	1928	1928	1913	1925	1945	1940	1943	1972	1972	1992	1977
MIN	338	436	502	152	560	2213	1561	1140	479	350	229	199
(WY)	1914	1910	1910	1961	1920	1937	1946	1915	1915	1913	1913	1913

STREAMS TRIBUTARY TO LAKE ONTARIO
04232000 GENESEE RIVER AT ROCHESTER, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1904 - 1918 1920 - 1997	
ANNUAL TOTAL	1480755		1154234			
ANNUAL MEAN	4046		3162		2820	
HIGHEST ANNUAL MEAN					4426	
LOWEST ANNUAL MEAN					1666	
HIGHEST DAILY MEAN	14200	May 13	10300	Mar 15	46300	Mar 31 1916
LOWEST DAILY MEAN	268	Sep 2	e131	Aug 24	91	a
ANNUAL SEVEN-DAY MINIMUM	322	Aug 31	293	Jul 30	104	Jan 26 1961
INSTANTANEOUS PEAK FLOW			12800	Mar 27	b48300	Mar 30 1916
INSTANTANEOUS PEAK STAGE			12.51	Mar 27	c17.08	Apr 2 1940
10 PERCENT EXCEEDS	8890		7450		d	
50 PERCENT EXCEEDS	2730		2250		1580	
90 PERCENT EXCEEDS	616		551		580	

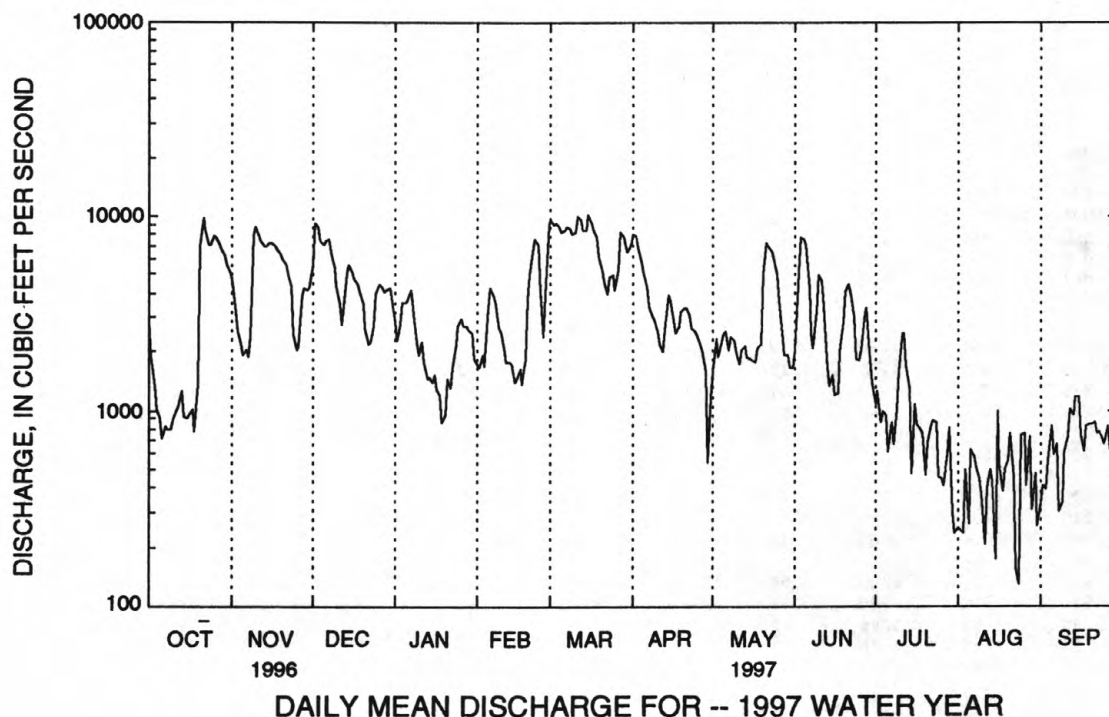
a Jan. 9, 29, Feb. 1, 8, 1961.

b Site then in use; maximum at present site, 34,400 ft³/s, Mar. 19, 1942.

c Datum then in use.

d Minimum discharge, less than 10 ft³/s, occurred during low-water periods in some years when powerplant was shut down.

e Estimated.



STREAMS TRIBUTARY TO LAKE ONTARIO

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04232034 IRONDEQUOIT CREEK AT RAILROAD MILLS NEAR FISHERS, NY

LOCATION.--Lat 43°01'40", long 77°28'42", Ontario County, Hydrologic Unit 04140101, on right bank 90 ft upstream from bridge on Railroad Mills Road, 1.5 mi northwest of Fishers, and 4.0 mi southwest of Fairport.

DRAINAGE AREA.--39.2 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Elevation of gage is 450 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Unpublished water-quality records for prior years are available in files of Monroe County Department of Health. Several measurements of water temperature were made during the year.

COOPERATION.--Many discharge measurements were provided by the Monroe County Environmental Health Laboratory at Rochester, N.Y.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Oct. 20	1330	*465	*8.51	Dec. 2	0500	394	7.98
Nov. 9	0945	426	8.22				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	44	193	e38	30	65	99	33	74	18	12	14
2	19	39	297	47	30	68	114	30	116	20	12	13
3	19	38	104	102	31	56	81	36	67	18	12	16
4	19	39	79	74	35	47	63	36	39	19	12	14
5	18	34	77	70	148	46	57	31	31	18	12	13
6	17	31	72	89	58	e52	58	31	29	17	12	13
7	17	31	64	e42	41	e46	49	30	27	15	12	14
8	15	127	57	e36	e34	e44	49	28	e25	15	12	13
9	16	340	53	e32	e30	e40	45	30	e23	25	11	13
10	45	136	50	e32	e26	e68	43	32	e33	23	11	13
11	38	79	48	e28	e26	130	41	32	e28	18	11	26
12	25	58	47	e26	e24	85	46	33	e24	16	12	31
13	21	50	125	e26	e24	e50	72	31	24	15	22	19
14	20	46	137	e26	e24	e70	55	29	21	14	20	16
15	19	43	72	e26	e24	149	44	33	19	14	14	15
16	18	40	59	e22	e24	62	41	32	18	15	30	14
17	18	40	60	e22	e22	50	40	30	31	15	20	14
18	18	41	55	e24	e32	57	44	29	29	14	16	16
19	120	41	50	e28	73	51	44	61	27	14	14	14
20	389	41	e40	e28	58	52	54	145	43	14	13	18
21	182	38	e32	e24	57	53	45	59	37	14	17	17
22	110	36	e34	e28	74	113	39	44	27	15	16	15
23	68	33	42	e24	e42	68	36	38	23	14	16	14
24	78	33	73	e22	e30	49	34	35	34	14	15	14
25	58	34	e60	e34	e24	55	33	32	29	14	14	17
26	45	67	e38	e26	e30	147	33	30	43	13	14	19
27	39	64	e40	e22	171	84	31	29	30	13	14	17
28	47	48	45	e20	141	71	50	29	22	14	14	15
29	46	46	62	e22	---	71	44	29	19	14	13	100
30	45	51	60	e20	---	76	36	28	17	13	13	62
31	55	---	e38	e22	---	114	---	29	---	13	13	---
TOTAL	1664	1788	2263	1082	1363	2189	1520	1154	1009	488	449	609
MEAN	53.7	59.6	73.0	34.9	48.7	70.6	50.7	37.2	33.6	15.7	14.5	20.3
MAX	389	340	297	102	171	149	114	145	116	25	30	100
MIN	15	31	32	20	22	40	31	28	17	13	11	13
CFSM	1.37	1.52	1.86	.89	1.24	1.80	1.29	.95	.86	.40	.37	.52
IN.	1.58	1.70	2.15	1.03	1.29	2.08	1.44	1.10	.96	.46	.43	.58

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1997, BY WATER YEAR (WY)

	1991	1992	1993	1994	1995	1996	1997
MEAN	28.4	41.1	42.5	44.1	37.1	69.8	72.5
MAX	53.7	67.5	73.0	74.6	48.7	98.0	143
(WY)	1997	1993	1997	1997	1993	1993	1996
MIN	14.1	17.6	21.6	25.4	27.8	47.3	27.4
(WY)	1992	1992	1996	1994	1995	1995	1995

STREAMS TRIBUTARY TO LAKE ONTARIO

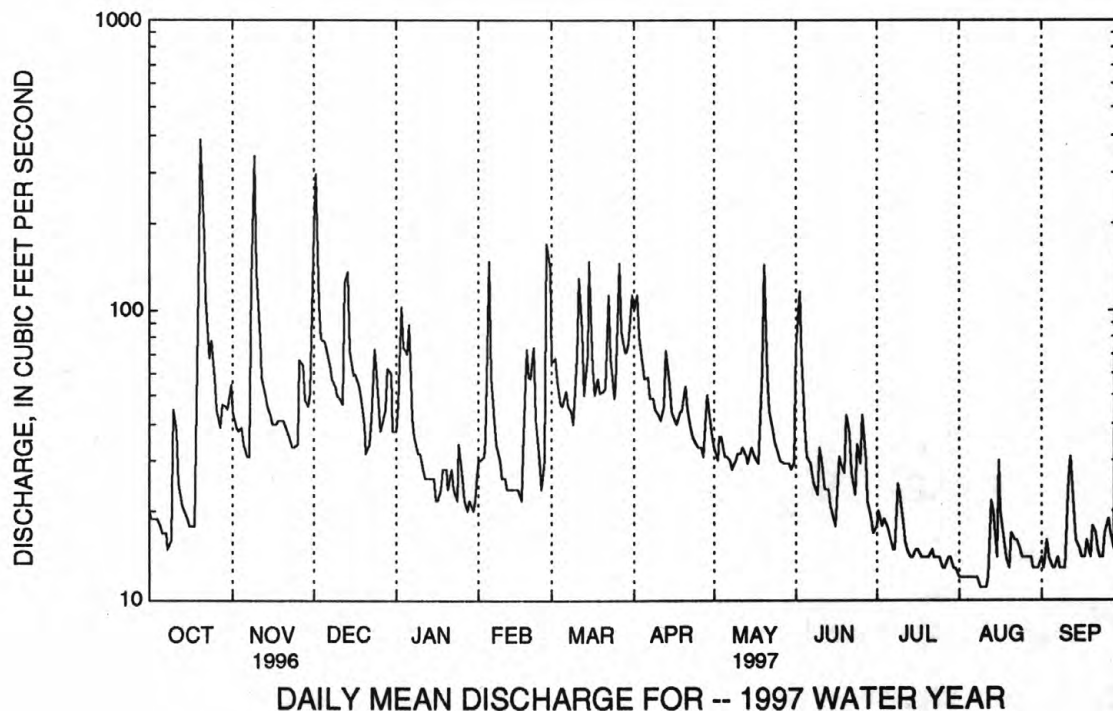
04232034 IRONDEQUOIT CREEK AT RAILROAD MILLS NEAR FISHERS, NY,--continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1991 - 1997	
ANNUAL TOTAL	18389.5		15578			
ANNUAL MEAN	50.2		42.7		39.5	
HIGHEST ANNUAL MEAN					53.5	
LOWEST ANNUAL MEAN					24.7	
HIGHEST DAILY MEAN	450	Jan 19	389	Oct 20	553	Apr 2 1993
LOWEST DAILY MEAN	e9.0	Sep 1	11	a	7.5	b
ANNUAL SEVEN-DAY MINIMUM	10	Aug 29	12	Aug 5	7.6	Aug 20 1995
INSTANTANEOUS PEAK FLOW			465	Oct 20	588	Apr 2 1993
INSTANTANEOUS PEAK STAGE			8.51	Oct 20	9.36	Apr 2 1993
INSTANTANEOUS LOW FLOW			11	a	6.8	Aug 21 1995
ANNUAL RUNOFF (CFSM)	1.28		1.09		1.01	
ANNUAL RUNOFF (INCHES)	17.45		14.78		13.70	
10 PERCENT EXCEEDS	91		74		71	
50 PERCENT EXCEEDS	38		32		26	
90 PERCENT EXCEEDS	16		14		13	

a Aug. 9, 10, 11.

b Aug. 24, 25, 1995.

e Estimated.



STREAMS TRIBUTARY TO LAKE ONTARIO

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

WATER-QUALITY RECORDS

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

CHEMICAL DATA: 1991-97 (e).

NUTRIENT DATA: 1991-97 (e).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: February 1995 to current year.

INSTRUMENTATION.--Automatic water sampler since July 1991. Water temperature recorder since February 1995 provides 15-minute-interval readings.

COOPERATION.--Water-quality samples were collected and analyzed by the Monroe County Environmental Health Laboratory at Rochester, N.Y.

REMARKS.--Prior to 1994 water year, data published in "Water Resources of Monroe County New York, Water Years 1989-93", U. S. Geological Survey open-file report 97-587.

EXTREMES FOR PERIOD OF RECORD.--

WATER TEMPERATURES: Maximum, 22.5°C, July 15, 1995; minimum 0.0°C, many days during winter period.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 21.5°C, June 22, 25, July 17; minimum 0.5°C, many days during winter period.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	14.0	12.0	13.0	7.5	6.5	7.0	3.5	2.5	3.0	2.0	1.0	1.5
2	15.0	13.5	14.5	6.5	5.5	6.0	4.0	3.5	4.0	3.5	2.0	3.0
3	15.0	10.5	12.0	6.0	4.5	5.5	4.0	3.0	3.5	4.0	3.5	4.0
4	10.5	9.0	10.0	7.0	5.5	6.0	4.5	4.0	4.0	5.5	4.0	4.5
5	9.5	7.5	8.5	7.5	6.5	7.0	4.5	4.0	4.0	7.0	5.5	6.5
6	10.5	8.0	9.5	8.5	6.0	7.0	4.5	4.0	4.0	6.5	3.5	5.0
7	12.0	9.5	10.5	11.5	8.0	9.5	4.5	4.0	4.0	3.5	2.0	2.5
8	12.0	11.0	11.5	11.5	9.0	10.5	4.5	4.0	4.0	2.5	1.5	2.0
9	12.0	11.5	12.0	9.0	7.5	8.0	4.0	3.0	3.5	2.5	1.5	2.0
10	12.0	10.0	11.0	7.5	6.0	7.0	4.0	3.5	3.5	3.0	2.5	3.0
11	10.0	8.5	9.5	6.0	5.0	5.5	4.0	3.5	3.5	2.5	1.5	2.0
12	10.0	8.0	9.0	5.0	4.5	4.5	5.0	4.0	4.5	1.5	1.0	1.5
13	12.5	10.0	11.0	4.5	3.5	4.0	5.5	5.0	5.5	2.0	1.5	1.5
14	13.0	11.0	12.0	4.0	3.0	3.5	5.0	4.5	4.5	2.5	1.5	2.0
15	11.0	8.5	9.5	3.5	3.0	3.0	4.5	4.0	4.5	3.0	1.5	2.0
16	12.5	9.0	10.5	3.5	2.0	3.0	5.0	4.0	4.0	3.5	1.0	3.0
17	13.0	11.5	12.5	4.5	2.5	3.5	6.0	5.0	5.5	1.0	.5	.5
18	13.5	12.0	13.0	6.5	4.5	5.5	5.5	5.0	5.5	.5	.5	.5
19	13.0	10.5	11.5	6.0	5.5	6.0	5.0	3.0	4.0	.5	.5	.5
20	10.5	10.0	10.0	5.5	4.5	5.0	3.0	1.5	2.0	1.5	.5	.5
21	10.5	10.0	10.5	4.5	4.0	4.0	2.0	1.0	1.5	2.5	1.0	1.5
22	11.0	10.0	10.5	4.5	3.5	4.0	3.5	2.0	2.5	4.5	2.5	3.5
23	11.5	9.5	10.5	4.0	3.0	3.5	4.5	3.5	4.0	3.5	1.0	2.5
24	11.0	10.0	10.5	4.0	3.0	3.5	5.0	4.5	5.0	2.0	.5	1.0
25	11.0	9.5	10.0	3.5	2.0	2.5	4.5	2.5	3.0	3.5	2.0	3.0
26	10.5	8.5	9.5	3.0	1.0	2.5	3.0	2.0	2.5	2.0	1.0	1.5
27	11.5	9.0	10.0	1.5	1.0	1.0	3.5	3.0	3.5	1.5	.5	1.0
28	12.0	10.5	11.5	1.5	.5	1.0	5.5	3.5	4.5	2.0	1.5	2.0
29	10.5	9.0	9.5	3.0	1.5	2.0	5.5	5.5	5.5	1.5	.5	1.0
30	10.5	9.5	10.0	3.0	2.0	2.5	5.5	3.5	4.5	2.0	.5	1.0
31	10.0	7.5	9.0	---	---	---	3.5	2.0	2.5	3.0	2.0	2.5
MONTH	15.0	7.5	10.7	11.5	.5	4.8	6.0	1.0	3.9	7.0	.5	2.2

STREAMS TRIBUTARY TO LAKE ONTARIO

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

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	3.0	2.5	3.0	6.0	3.5	4.5	6.0	2.0	4.0	15.5	12.5	14.0
2	3.5	2.0	3.0	7.5	6.0	6.5	8.0	3.5	5.5	13.5	9.0	11.5
3	3.5	3.0	3.0	6.0	4.5	5.0	9.0	6.0	7.5	12.5	10.5	11.5
4	3.0	2.0	2.5	4.5	4.0	4.5	11.0	7.0	9.0	12.5	9.0	11.0
5	2.5	1.0	1.5	5.5	4.0	4.5	11.5	8.5	10.0	13.5	8.0	11.0
6	2.0	1.0	1.5	4.0	2.5	3.0	14.5	10.5	12.5	13.0	10.5	11.5
7	3.0	2.0	2.5	3.5	1.5	2.5	14.0	8.0	10.5	11.5	8.0	10.0
8	2.5	1.0	2.0	2.5	2.0	2.0	8.0	5.5	6.5	12.0	7.5	10.0
9	2.0	.5	1.0	4.0	1.5	2.5	6.5	3.5	5.0	12.0	10.5	11.5
10	2.5	1.0	1.5	5.5	3.5	4.0	7.5	3.5	5.0	11.5	10.0	10.0
11	3.0	2.0	2.5	4.0	2.5	3.5	8.0	5.0	6.5	14.0	8.5	11.0
12	3.0	2.0	2.5	4.0	2.0	3.0	7.0	6.0	6.5	14.0	11.0	12.5
13	2.5	1.0	1.5	3.5	1.5	2.5	6.5	6.0	6.0	14.0	10.5	12.0
14	3.0	1.5	2.0	3.0	1.0	2.0	9.0	4.5	6.5	13.0	10.0	11.5
15	3.5	3.0	3.0	2.0	.5	1.0	9.5	5.5	7.5	13.0	10.5	11.5
16	3.0	1.5	2.0	2.5	.5	1.5	10.5	6.5	8.5	11.5	9.0	9.5
17	2.5	1.0	2.0	3.5	1.0	2.0	10.0	7.0	8.0	9.5	8.5	9.0
18	5.0	2.5	3.5	4.5	2.5	3.5	7.0	6.0	6.5	12.0	7.5	10.0
19	5.0	3.0	4.0	5.0	1.5	3.5	6.5	5.5	6.0	12.5	10.5	11.0
20	4.5	2.5	4.0	4.5	3.0	3.5	6.5	5.5	6.0	12.5	11.5	12.0
21	8.0	4.5	6.0	4.5	3.0	3.5	11.0	6.0	8.0	11.5	10.0	10.5
22	8.0	4.5	6.5	4.0	2.5	3.5	12.0	7.5	9.5	12.0	9.0	10.5
23	4.5	2.5	3.0	4.0	1.5	2.5	13.5	9.0	11.0	14.0	9.0	11.5
24	3.0	2.0	3.0	5.0	1.0	3.0	13.5	9.0	11.0	15.0	11.0	13.0
25	3.0	1.0	2.0	4.0	3.0	3.5	12.0	9.0	10.5	14.5	12.5	13.5
26	5.0	2.0	3.5	4.0	3.0	3.5	13.5	8.5	11.0	14.0	10.5	12.5
27	5.0	3.5	4.0	8.0	3.0	5.5	12.0	8.5	10.5	14.5	10.0	12.5
28	4.5	3.0	4.0	10.0	5.5	7.5	11.0	9.0	10.0	15.5	10.5	13.0
29	---	---	---	10.5	8.5	9.5	13.5	7.0	10.0	15.0	12.5	13.5
30	---	---	---	9.5	7.0	8.5	15.5	9.5	12.5	14.0	12.5	13.5
31	---	---	---	7.0	2.5	4.5	---	---	---	14.5	13.0	13.5
MONTH	8.0	.5	2.9	10.5	.5	3.9	15.5	2.0	8.3	15.5	7.5	11.6
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	14.5	13.5	14.0	19.5	18.0	18.5	17.5	16.0	17.0	17.5	15.0	16.0
2	14.5	13.5	14.0	20.5	17.5	19.0	18.5	16.0	17.0	17.0	15.5	16.5
3	17.0	13.5	15.0	21.0	19.0	20.0	19.0	17.0	18.0	16.5	13.5	15.0
4	17.0	13.0	15.0	19.5	16.5	18.0	18.0	16.5	17.0	14.0	12.0	13.0
5	17.0	13.5	15.5	18.0	15.0	16.5	17.5	15.0	16.5	14.5	12.0	13.0
6	16.5	14.0	15.5	18.5	15.0	16.5	16.5	14.5	15.5	15.5	13.5	14.5
7	16.0	15.0	15.5	18.0	16.0	17.0	17.0	13.5	15.5	15.5	14.5	15.0
8	17.0	13.5	15.0	16.5	14.0	15.5	17.5	15.0	16.5	15.5	14.0	14.5
9	17.5	14.0	16.0	16.0	15.5	16.0	18.0	15.5	17.0	14.5	13.5	14.5
10	19.5	14.5	17.0	18.0	14.0	16.0	18.5	16.0	17.5	15.0	14.5	14.5
11	19.5	16.0	18.0	18.5	15.0	17.0	18.0	17.0	17.5	15.5	14.5	15.0
12	19.0	16.5	17.5	19.0	15.5	17.5	18.0	16.0	17.0	16.5	15.0	16.0
13	19.0	15.5	17.5	20.0	16.5	18.5	18.5	17.0	17.5	16.0	15.5	15.5
14	17.5	15.0	16.5	20.5	17.5	19.0	18.0	16.5	17.5	16.0	14.5	15.5
15	17.0	13.0	15.0	20.5	18.5	19.5	17.5	15.5	16.5	16.0	14.0	15.0
16	17.5	14.0	16.0	21.0	17.5	19.0	19.5	16.5	18.0	16.5	15.0	15.5
17	19.0	16.0	17.5	21.5	18.0	19.5	19.5	17.5	18.5	16.0	14.5	15.0
18	18.5	17.0	17.0	20.5	19.0	20.0	18.0	16.0	17.0	16.5	14.5	15.5
19	17.5	16.0	16.5	19.5	16.5	17.5	17.0	14.5	16.0	15.5	14.0	14.5
20	18.5	15.5	17.0	18.0	14.5	16.5	16.0	14.5	15.0	15.0	14.0	15.0
21	21.0	17.5	19.0	17.0	16.0	16.5	16.5	15.0	15.5	14.0	12.5	13.0
22	21.5	18.5	20.0	18.0	15.0	16.5	16.0	15.0	15.5	12.5	11.0	12.0
23	20.0	17.0	19.0	17.5	14.5	16.5	15.5	14.5	15.0	13.0	12.5	12.5
24	20.0	16.5	18.5	17.5	16.5	17.0	16.0	13.5	15.0	12.5	11.0	11.5
25	21.5	18.5	20.0	18.5	15.0	17.0	16.5	15.0	15.5	12.0	11.0	11.0
26	21.0	19.0	20.0	18.0	15.5	17.0	16.0	14.0	15.0	12.0	11.5	12.0
27	20.0	17.0	19.0	18.5	17.0	18.0	16.5	15.0	16.0	11.5	9.5	10.5
28	20.0	16.0	18.5	19.0	17.0	18.0	16.5	15.0	16.0	12.5	10.5	11.5
29	20.0	17.0	18.5	19.0	16.5	17.5	17.0	15.0	16.0	14.0	12.5	13.5
30	20.0	17.0	19.0	18.0	15.0	16.5	17.0	15.0	16.0	14.0	13.5	13.5
31	---	---	---	19.0	15.5	17.0	16.0	15.0	15.5	---	---	---
MONTH	21.5	13.0	17.1	21.5	14.0	17.6	19.5	13.5	16.4	17.5	9.5	14.0

STREAMS TRIBUTARY TO LAKE ONTARIO

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	TUR- BID- ITY (NTU) (00076)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	RESIDUE VOLA- TILE, SUS- PENDE (MG/L) (00535)
OCT							
09-10	1610	1910	35	24	--	--	--
10-11	2010	1110	47	15	--	--	--
11-15	1115	1015	23	3.6	--	--	--
21-24	1225	1125	99	210	--	--	--
24-28	1240	1140	51	8.6	--	22	<5
28-30	1150	1350	46	6.6	--	--	--
NOV							
07-08	2210	0910	39	4.8	--	--	--
08-09	0950	1250	275	95	--	239	26
09-12	1350	0850	130	45	--	77	10
12-14	1300	1100	50	8.3	--	--	--
NOV 30-							
DEC 01	1350	0950	71	33	--	229	22
02-05	1205	1135	110	50	--	76	10
05-09	1140	1040	64	11	--	--	--
13-14	0215	0115	137	65	--	150	19
14-16	0215	0915	94	55	--	88	12
16-19	1145	1045	57	12	--	--	--
19-23	1155	1055	38	6.8	--	--	--
JAN							
02-03	1210	1910	80	27	--	--	--
03-06	2010	1110	80	50	--	78	11
06-09	1205	1105	46	31	--	43	7
15-15	1020	1045	26	1.8	--	3	<1
22-23	0830	1130	26	9.0	--	--	--
23-27	1145	1045	26	3.0	--	--	--
FEB							
18-19	1215	0315	40	7.5	--	--	--
19-20	0415	0915	70	24	--	--	--
20-22	1020	0920	59	7.3	--	--	--
26-27	1335	0835	97	46	--	--	--
FEB 27-							
MAR 03	1125	1025	108	80	--	--	--
10-11	1015	0615	87	74	--	192	14
11-13	0715	0915	94	31	--	--	--
14-15	0010	0710	88	17	--	--	--
15-17	0810	1010	78	19	--	--	--
17-20	1040	0940	54	3.9	--	--	--
APR							
12-13	1405	0905	63	8.1	--	--	--
13-14	1005	0905	66	5.5	--	--	--
14-17	1010	0910	44	3.6	--	--	--
19-20	0610	0910	48	3.6	--	--	--
20-21	1010	0910	51	4.1	--	--	--
21-24	1020	0920	39	4.2	--	--	--
23-23	0940	1030	36	1.7	--	3	<3
MAY							
15-19	1025	0125	31	6.5	--	--	--
19-19	0225	0925	37	8.6	--	--	--
19-20	1030	0930	115	65	--	174	23
20-23	1030	0930	64	30	--	53	8
MAY 31-							
JUN 02	1910	0910	76	24	--	--	--
02-05	1005	0905	65	26	--	--	--
19-20	2225	1325	38	55	--	176	26
20-23	1425	0925	33	21	--	--	--

STREAMS TRIBUTARY TO LAKE ONTARIO
04232034 IRONDEQUOIT CREEK AT RAILROAD MILLS NEAR FISHERS, NY,--continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
OCT							
09-10	<.01	<.01	1.0	.120	.007	75	250
10-11	<.01	<.01	.69	.110	.006	71	180
11-15	--	--	--	.025	.007	80	250
21-24	.01	.76	.85	.120	.018	50	110
24-28	.02	.46	.88	.045	.013	62	150
28-30	.02	.40	.84	.050	.012	67	160
NOV							
07-08	--	--	--	.035	.007	75	200
08-09	--	--	--	.270	.026	49	83
09-12	--	--	--	.120	.020	44	94
12-14	--	--	--	.045	.012	62	150
NOV 30-							
DEC 01	--	--	--	.260	.011	76	96
02-05	--	--	--	.120	.014	56	100
05-09	--	--	--	.040	.009	66	130
13-14	--	--	--	.190	.009	52	100
14-16	--	--	--	.140	.011	130	78
16-19	--	--	--	.045	.009	64	140
19-23	--	--	--	.040	.007	75	180
JAN							
02-03	--	--	--	.090	.006	91	130
03-06	--	--	--	.140	.007	65	120
06-09	--	--	--	.095	.007	72	150
15-15	<.01	.24	1.7	.010	.003	75	210
22-23	--	--	--	.040	.004	88	190
23-27	--	--	--	.020	.004	85	190
FEB							
18-19	--	--	--	.045	.004	230	270
19-20	--	--	--	.075	.005	76	130
20-22	--	--	--	.040	<.002	140	140
26-27	--	--	--	.170	.012	140	260
FEB 27-							
MAR 03	.10	.56	1.2	.200	.009	69	100
10-11	--	--	--	.190	.008	110	110
11-13	--	--	--	.090	.006	68	100
14-15	--	--	--	.065	.005	120	120
15-17	--	--	--	.065	.006	73	110
17-20	--	--	--	.020	.005	85	150
APR							
12-13	--	--	--	.045	.002	84	150
13-14	--	--	--	.035	<.002	72	130
14-17	--	--	--	.025	.002	91	150
19-20	--	--	--	.020	.003	76	160
20-21	--	--	--	.020	.003	73	140
21-24	--	--	--	.030	<.002	75	180
23-23	<.01	.31	1.2	.010	<.002	74	180
MAY							
15-19	<.01	.53	1.5	.025	.009	95	230
19-19	.01	.39	1.2	.035	.003	74	200
19-20	--	--	--	.180	.010	70	120
20-23	--	--	--	.100	.006	63	140
MAY 31-							
JUN 02	--	--	--	.130	.005	71	150
02-05	--	--	--	.130	.004	66	130
19-20	--	--	--	.140	.010	69	190
20-23	--	--	--	.100	.011	63	160

STREAMS TRIBUTARY TO LAKE ONTARIO

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	TUR- BID- ITY (NTU) (00076)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	RESIDUE VOLA- TILE, SUS- PENDED (MG/L) (00535)
AUG							
13-13	0500	1600	24	19	--	--	--
13-14	1700	1000	24	110	--	250	17
15-16	2225	1325	32	35	--	192	32
16-18	1425	0925	20	16	--	--	--
18-21	1015	0915	14	4.1	--	--	--
21-25	1035	0935	16	11	--	--	--
SEP							
11-12	1020	0520	36	20	--	--	--
12-15	0620	0920	20	5.4	--	--	--
SEP 29-							
OCT 01	1045	1545	80	26	--	--	--
DATE	NITRO- GEN,AM- MONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
AUG							
13-13	--	--	--	.160	<.002	55	140
13-14	--	--	--	.170	<.002	56	130
15-16	.01	<.01	1.2	.230	.007	72	250
16-18	.01	<.01	1.2	.100	.008	76	250
18-21	.01	.24	1.5	.025	.009	77	300
21-25	--	--	--	.025	.007	82	280
SEP							
11-12	--	--	--	.120	.008	76	230
12-15	--	--	--	.095	.007	72	250
SEP 29-							
OCT 01	<.01	1.2	1.1	.120	.014	66	160

STREAMS TRIBUTARY TO LAKE ONTARIO

0423204920 EAST BRANCH ALLEN CREEK AT PITTSFORD, NY

LOCATION.--Lat 43°06'11", long 77°32'01", Monroe County, Hydrologic Unit 04140101, on left bank 25 ft upstream from culvert of abandoned Conrail railroad, 0.2 mi downstream from State Highway 31, 0.7 mi northwest of Pittsford and 1.8 mi upstream from mouth.

DRAINAGE AREA.--6.96 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR NY-92-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 400.00 ft above sea level.

REMARKS.--Records poor. Unpublished water-quality records for prior years are available in files of Monroe County Department of Health. Discharge includes undetermined diversion from Erie (Barge) Canal upstream from station. Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	e5.2	92	5.7	e2.2	21	23	3.5	11	3.2	e1.8	3.0
2	1.2	e10	62	7.7	e2.1	16	25	3.3	7.9	2.9	e2.0	4.8
3	1.4	15	31	22	e3.5	11	19	5.2	e5.0	2.5	e2.6	3.7
4	1.4	e6.0	25	20	15	7.8	12	4.0	e4.0	3.7	e3.0	3.2
5	1.3	e4.2	19	19	40	6.3	10	3.8	e3.8	3.0	e2.6	3.1
6	1.3	e3.4	16	18	24	8.6	9.7	4.1	e3.6	2.6	e2.0	3.1
7	1.1	e3.0	13	12	15	8.1	8.4	3.5	e4.2	2.4	e1.6	3.4
8	1.7	40	10	9.7	11	7.6	7.1	3.8	e3.8	5.5	e1.8	3.3
9	.95	98	9.2	8.7	e10	6.7	5.9	3.7	e3.2	7.8	e2.0	3.8
10	24	83	8.4	8.0	e7.6	18	5.3	4.3	e2.7	2.7	e1.8	3.8
11	18	48	7.9	7.1	e6.0	32	4.7	3.3	e2.8	2.3	e2.4	10
12	e11	24	7.4	6.5	e5.0	29	8.5	4.6	e2.7	1.5	3.5	5.1
13	e7.2	16	34	5.1	e2.5	16	7.5	3.5	e2.8	1.7	9.9	2.6
14	e5.0	14	32	3.8	e2.2	33	4.0	3.5	e2.3	2.0	2.0	2.1
15	e4.0	13	19	2.3	e2.3	41	2.1	3.5	e2.0	5.8	1.9	1.9
16	e2.8	12	12	1.9	e2.2	21	3.5	3.2	e2.1	3.0	19	1.8
17	e2.6	11	11	2.0	e2.2	11	4.9	3.2	3.7	2.4	4.8	3.1
18	3.1	7.8	9.4	1.4	4.1	7.9	3.7	2.9	5.4	2.4	4.0	2.2
19	90	4.6	7.8	2.0	5.8	12	4.5	19	4.6	2.4	3.5	2.0
20	135	4.5	5.9	1.4	2.0	12	3.8	14	7.0	2.6	4.0	3.5
21	67	3.7	4.4	1.1	6.2	13	3.0	13	5.3	3.9	3.6	2.0
22	27	3.5	4.4	4.6	10	30	2.5	9.0	4.8	2.7	3.1	1.9
23	23	3.7	5.4	3.4	e9.0	20	e2.6	7.0	4.3	2.5	3.1	2.0
24	23	3.7	11	1.7	e4.5	12	e4.5	5.6	9.9	2.8	2.8	1.8
25	18	4.1	9.8	e1.6	e3.0	15	e2.3	4.7	5.4	2.8	2.8	3.9
26	e13	8.6	7.1	e1.7	e5.0	32	e2.0	4.0	6.1	e2.0	2.8	2.5
27	e11	10	6.1	e1.7	50	22	e2.3	3.8	4.1	e2.4	3.6	1.9
28	e10	9.6	6.2	e1.7	35	15	7.1	3.7	3.4	e3.0	4.0	1.8
29	e7.0	9.4	11	e1.8	---	14	1.9	3.4	4.0	e2.8	3.1	40
30	e6.4	11	11	e1.7	---	14	2.3	3.3	3.5	e2.2	3.0	18
31	e5.2	---	7.5	e1.8	---	23	---	3.7	---	e2.0	3.0	---
TOTAL	524.95	490.0	515.9	187.1	287.4	536.0	203.1	161.1	135.4	91.5	111.1	145.3
MEAN	16.9	16.3	16.6	6.04	10.3	17.3	6.77	5.20	4.51	2.95	3.58	4.84
MAX	135	98	92	22	50	41	25	19	11	7.8	19	40
MIN	.95	3.0	4.4	1.1	2.0	6.3	1.9	2.9	2.0	1.5	1.6	1.8
CFSM	2.43	2.35	2.39	.87	1.47	2.48	.97	.75	.65	.42	.51	.70
IN.	2.81	2.62	2.76	1.00	1.54	2.86	1.09	.86	.72	.49	.59	.78

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1997, BY WATER YEAR (WY)

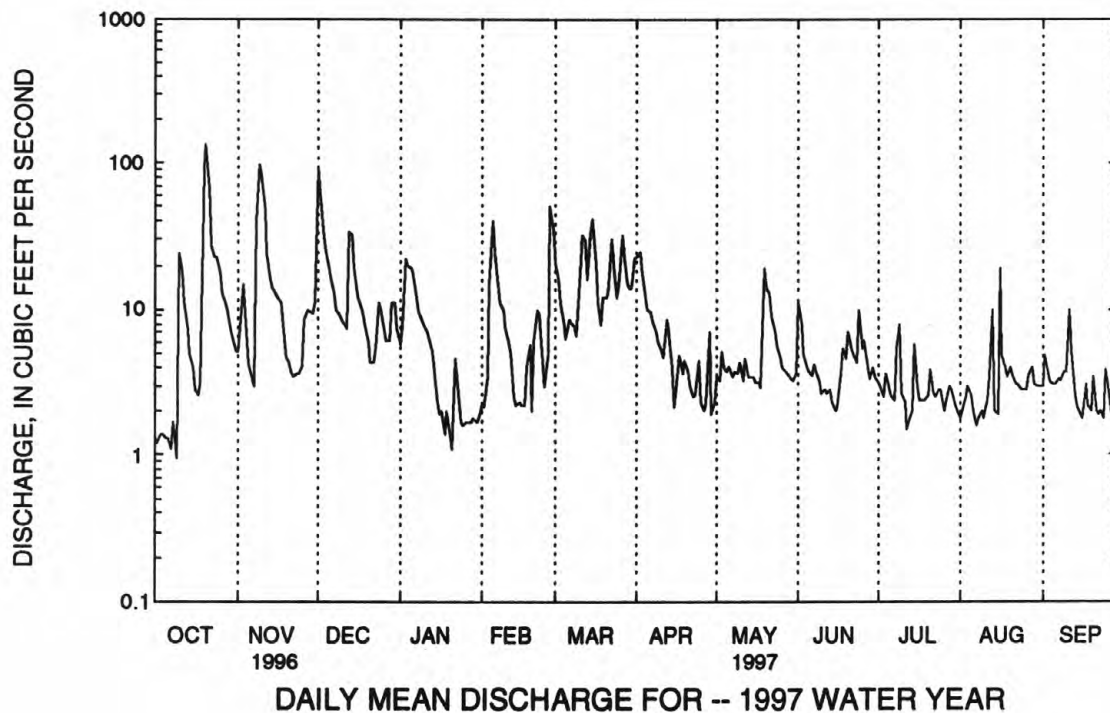
	1990	1991	1992	1993	1994	1995	1996	1997
MEAN	7.11	9.81	9.98	8.69	7.72	18.3	15.1	9.22
MAX	16.9	16.3	18.1	15.9	12.0	26.7	23.4	20.4
(WY)	1997	1997	1991	1996	1994	1991	1993	1996
MIN	3.38	2.23	2.97	3.57	3.60	8.96	3.32	2.39
(WY)	1993	1992	1992	1992	1993	1995	1995	1993

STREAMS TRIBUTARY TO LAKE ONTARIO
0423204920 EAST BRANCH ALLEN CREEK AT PITTSFORD, NY--continued

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SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1990 - 1997	
ANNUAL TOTAL	4594.50		3388.85		8.98	
ANNUAL MEAN	12.6		9.28		10.1	
HIGHEST ANNUAL MEAN					5.28	
LOWEST ANNUAL MEAN					230	
HIGHEST DAILY MEAN	157	Jan 19	135	Oct 20	Mar 4	1991
LOWEST DAILY MEAN	e.90	Feb 17	.95	Oct 9	May 30	1993
ANNUAL SEVEN-DAY MINIMUM	1.1	Feb 13	1.3	Oct 1	Feb 13	1996
INSTANTANEOUS PEAK FLOW			177	Dec 1	Aug 27	1992
INSTANTANEOUS PEAK STAGE			5.03	Dec 1	Aug 27	1992
ANNUAL RUNOFF (CFSM)	1.80		1.33		1.29	
ANNUAL RUNOFF (INCHES)	24.56		18.11		17.52	
10 PERCENT EXCEEDS	27		20		18	
50 PERCENT EXCEEDS	7.0		4.3		4.4	
90 PERCENT EXCEEDS	1.9		2.0		1.9	

e Estimated.



STREAMS TRIBUTARY TO LAKE ONTARIO
0423204920 EAST BRANCH ALLEN CREEK AT PITTSFORD, NY--continued
WATER-QUALITY RECORDS

PERIOD OF RECORD.--1990 to current year.

CHEMICAL DATA: 1990-97 (e).

NUTRIENT DATA: 1990-97 (e).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: November 1994 to current year.

INSTRUMENTATION.--Automatic water sampler since 1990. Water-temperature recorder since November 1994 provides 15-minute-interval readings.

COOPERATION.--Water-quality samples were collected and analyzed by the Monroe County Environmental Health Laboratory at Rochester, N.Y.

REMARKS.--Prior to 1994 water year, data published in "Water Resources of Monroe County New York, Water Years 1989-93", U. S. Geological Survey open-file report 97-587.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 27.5°C, July 15, 1997; minimum, 0.0°C, on many days during winter period.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 27.5°C, July 15; minimum, 0.0°C, on many days during winter period.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	17.0	13.5	15.0	8.0	7.0	7.5	4.0	2.5	3.0	1.5	.5	1.0
2	18.0	16.0	17.0	7.0	5.5	6.5	4.5	4.0	4.0	3.0	1.5	2.5
3	16.0	11.0	12.5	6.0	5.0	5.5	5.5	4.5	5.0	3.5	3.0	3.0
4	11.5	9.5	10.5	7.0	5.5	6.5	4.5	4.5	4.5	3.5	3.0	3.0
5	11.0	7.5	9.5	8.0	7.0	7.5	4.5	4.5	4.5	7.0	3.5	5.0
6	12.5	9.0	10.5	8.5	6.5	7.5	4.5	4.5	4.5	4.5	2.5	3.5
7	14.5	10.5	12.5	12.5	8.5	10.5	4.5	4.0	4.5	2.5	1.5	2.0
8	14.5	12.0	13.0	14.0	9.5	11.5	4.5	4.0	4.5	1.5	1.0	1.0
9	13.5	13.0	13.0	9.5	8.5	9.0	4.5	3.5	4.0	1.5	1.0	1.0
10	14.0	11.0	12.0	8.5	7.5	8.0	4.5	3.5	4.0	2.0	1.0	1.5
11	11.0	10.0	10.5	7.5	6.5	7.0	4.0	3.5	4.0	1.0	1.0	1.0
12	12.0	9.5	10.5	6.5	5.0	6.0	5.0	4.0	4.5	1.0	1.0	1.0
13	14.0	11.5	12.5	5.5	4.5	5.0	6.0	5.0	5.5	1.0	1.0	1.0
14	15.0	11.5	13.5	5.0	4.0	4.5	5.0	4.5	5.0	1.0	1.0	1.0
15	11.5	9.0	10.5	4.5	3.0	4.0	5.0	4.5	5.0	2.0	1.0	1.0
16	14.5	10.5	12.5	4.5	2.5	3.5	5.5	4.5	5.0	2.5	.5	1.5
17	15.0	13.0	13.5	5.5	3.0	4.0	6.5	5.0	5.5	1.0	.5	.5
18	15.5	13.0	14.0	7.5	5.0	6.0	5.5	4.5	5.0	1.0	.5	.5
19	14.0	11.0	12.0	6.5	5.5	6.0	4.5	2.5	4.0	.5	.5	.5
20	11.0	10.5	11.0	5.5	4.5	5.0	2.5	1.0	1.5	1.5	.5	1.0
21	11.5	10.5	11.0	4.5	4.0	4.5	1.5	.5	1.0	2.0	.5	1.0
22	11.5	10.5	11.0	5.0	3.5	4.0	3.0	1.5	2.0	3.0	1.5	2.0
23	13.0	10.5	11.5	5.0	3.0	4.0	4.0	2.5	3.0	2.0	.5	1.0
24	11.5	11.0	11.0	4.5	2.5	3.0	4.5	2.0	3.5	1.5	.5	1.0
25	12.0	10.5	11.0	3.5	2.0	2.5	2.0	1.0	1.5	2.0	.5	1.0
26	12.0	10.0	10.5	3.0	1.0	3.0	2.0	1.0	1.5	.5	.5	.5
27	12.5	10.5	11.5	2.5	1.0	2.0	2.5	2.0	2.0	.5	.5	.5
28	12.5	11.0	12.0	2.5	1.5	2.0	4.5	2.0	3.5	.5	.5	.5
29	11.5	10.0	11.0	3.5	2.0	2.5	5.0	3.5	4.0	.5	.0	.5
30	12.5	10.5	11.5	3.5	2.0	3.0	3.5	2.0	3.0	.5	.0	.5
31	10.5	8.0	9.0	---	---	---	2.0	.5	1.5	1.0	.5	1.0
MONTH	18.0	7.5	11.8	14.0	1.0	5.4	6.5	.5	3.7	7.0	.0	1.4

STREAMS TRIBUTARY TO LAKE ONTARIO

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

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	1.5	1.0	1.5	4.5	2.5	4.0	7.0	3.5	5.0	16.5	10.5	13.5
2	2.5	.5	1.5	5.5	4.0	5.0	8.0	4.5	6.0	15.5	8.5	11.5
3	2.5	1.0	1.5	5.0	3.5	4.0	9.0	5.5	7.0	13.0	10.0	11.5
4	2.0	.5	1.0	4.5	3.5	4.0	11.5	6.5	8.5	14.5	9.0	11.5
5	1.0	1.0	1.0	4.5	1.5	3.5	11.0	7.0	9.0	16.0	8.0	12.0
6	1.5	1.0	1.0	4.0	1.5	2.5	14.5	8.5	11.0	13.0	9.5	11.5
7	2.0	1.0	1.0	3.5	1.0	2.0	10.5	7.0	9.0	13.5	8.0	10.5
8	2.0	.0	1.0	2.5	1.5	1.5	8.5	5.0	6.5	14.0	8.0	11.0
9	1.5	.0	.5	3.5	.5	2.0	9.0	3.5	5.5	13.5	10.5	12.0
10	1.5	.0	1.0	5.0	2.0	3.0	9.5	3.5	6.0	12.0	10.0	10.5
11	2.0	.5	1.0	4.0	2.5	3.0	9.0	4.5	6.5	16.0	9.0	12.0
12	2.0	.0	1.0	3.5	1.5	2.5	7.0	5.5	6.0	15.5	11.5	13.0
13	.5	.0	.0	4.0	1.0	2.0	7.0	6.0	6.5	15.5	10.5	12.5
14	1.5	.0	1.0	2.0	.5	1.5	10.5	5.0	7.0	14.5	10.0	12.5
15	2.0	.0	1.0	2.0	.5	1.0	10.5	4.0	7.0	14.0	11.0	12.5
16	.5	.0	.0	2.0	.0	1.0	12.5	5.0	8.0	11.5	10.0	10.5
17	.5	.0	.5	3.5	.5	2.0	8.5	7.0	7.5	10.5	9.5	10.0
18	4.0	.5	2.0	4.5	1.5	2.5	8.0	6.5	7.0	13.0	8.0	10.5
19	4.5	2.0	3.0	5.0	1.5	3.0	7.0	6.0	6.5	14.5	10.0	11.5
20	4.0	1.0	2.5	4.0	2.5	3.5	7.0	5.5	6.5	12.5	10.5	12.0
21	8.0	3.0	5.0	4.0	2.5	3.5	12.0	6.0	8.0	12.0	10.5	11.0
22	5.5	1.5	3.5	4.0	2.5	3.5	14.0	6.5	9.5	13.0	10.0	11.5
23	2.5	1.0	2.0	4.5	2.0	3.0	14.5	7.5	10.0	15.0	10.0	12.0
24	2.0	.0	1.0	5.5	1.5	3.0	13.5	9.0	10.5	15.0	11.0	13.0
25	1.5	.0	.5	4.5	2.5	3.5	13.5	9.5	11.5	13.5	12.0	12.5
26	4.0	.5	2.5	4.0	3.5	3.5	16.0	9.0	12.0	15.0	10.5	12.5
27	4.0	2.0	3.0	7.0	3.5	5.0	13.5	9.0	11.5	16.0	10.5	13.0
28	4.0	2.5	3.0	8.5	4.5	6.5	11.5	9.0	10.5	16.5	11.0	13.5
29	---	---	---	9.5	6.5	8.0	16.0	7.0	11.0	15.0	13.0	14.0
30	---	---	---	8.5	6.0	7.5	17.5	9.0	13.0	15.5	14.0	15.0
31	---	---	---	6.0	4.5	5.0	---	---	---	16.5	14.5	15.5
MONTH	8.0	.0	1.6	9.5	.0	3.4	17.5	3.5	8.3	16.5	8.0	12.1

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	15.5	14.5	15.0	24.0	22.0	23.0	22.5	20.0	21.5	22.0	19.5	20.5
2	15.5	14.5	15.0	25.0	22.0	23.5	24.0	20.5	22.0	22.0	19.5	20.5
3	17.0	14.0	15.5	24.5	22.0	23.5	23.0	21.5	22.5	20.0	16.5	18.0
4	18.0	14.0	15.5	22.0	19.5	20.5	22.5	20.5	21.5	18.0	15.5	16.5
5	18.0	14.0	16.0	22.0	18.0	20.0	22.0	19.0	20.5	19.0	15.5	17.0
6	19.0	14.5	16.5	23.0	18.0	20.5	21.0	18.5	20.0	20.5	17.0	18.5
7	17.0	15.5	16.0	21.5	19.5	20.5	22.5	18.0	20.0	19.5	18.0	18.5
8	20.0	15.0	17.0	21.0	17.5	19.0	23.5	19.5	21.5	19.0	17.5	18.0
9	21.0	15.0	18.0	20.0	18.5	19.0	24.0	19.5	21.5	20.0	16.5	18.0
10	22.0	16.5	19.0	22.0	17.0	19.5	24.0	20.0	22.0	18.5	18.0	18.5
11	22.5	17.5	19.5	22.5	18.5	20.5	23.0	21.0	22.5	19.5	18.0	18.5
12	23.0	19.0	21.0	23.5	19.0	21.0	23.0	20.0	21.5	19.5	18.0	18.5
13	23.5	20.5	21.5	24.0	20.0	22.0	22.0	21.0	21.5	19.0	17.5	18.5
14	21.5	18.5	20.0	24.5	20.5	22.5	22.0	19.0	20.5	19.5	17.5	18.5
15	21.5	16.5	18.5	27.5	22.0	23.0	21.5	18.5	20.0	19.5	17.0	18.0
16	22.5	17.0	19.5	24.0	21.5	22.5	23.0	19.5	21.5	19.5	17.5	18.5
17	22.0	19.5	20.5	25.5	22.0	23.5	22.5	20.5	21.5	21.0	16.0	18.0
18	21.0	19.0	20.0	24.5	23.0	23.5	21.5	19.0	20.0	19.5	17.0	18.0
19	21.0	19.0	20.0	23.0	20.0	21.0	21.5	17.5	19.5	19.5	17.0	17.5
20	21.5	18.0	20.0	22.5	19.0	20.5	20.5	17.5	19.0	19.5	15.5	17.5
21	24.0	20.5	22.0	21.0	19.5	20.5	20.5	18.0	19.0	15.5	13.5	14.5
22	24.0	21.5	22.5	22.5	19.0	21.0	20.0	18.5	19.0	16.0	12.5	14.0
23	23.5	20.5	21.5	22.5	18.5	20.5	19.5	18.0	19.0	15.5	14.0	15.0
24	23.0	19.0	21.5	22.5	20.5	21.5	20.5	17.5	19.0	14.5	12.0	13.0
25	25.0	21.5	23.0	23.0	19.5	21.0	21.0	18.5	19.5	15.5	12.5	13.5
26	24.0	22.0	23.0	23.5	19.5	21.5	21.0	17.5	19.5	14.5	12.0	14.0
27	24.0	20.5	22.0	23.5	22.0	23.0	21.5	19.5	20.5	14.0	10.5	12.0
28	24.5	19.5	22.0	24.0	21.0	22.5	21.0	18.5	20.0	15.0	11.5	13.5
29	25.0	21.0	23.0	22.5	20.0	21.0	21.0	19.0	20.0	16.5	14.5	15.5
30	25.5	22.0	23.5	23.0	19.0	21.0	21.0	19.0	20.0	16.0	14.5	15.0
31	---	---	---	24.0	19.5	21.5	21.0	18.5	19.5	---	---	---
MONTH	25.5	14.0	19.6	27.5	17.0	21.4	24.0	17.5	20.5	22.0	10.5	16.9

STREAMS TRIBUTARY TO LAKE ONTARIO
0423204920 EAST BRANCH ALLEN CREEK AT PITTSFORD, NY--continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	TUR- BID- ITY (NTU) (00076)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	RESIDUE VOLA- TILE, SUS- PENDE (MG/L) (00535)
OCT							
09-10	2105	1205	20	24	--	--	--
10-11	1305	1205	21	27	--	--	--
11-15	1210	1110	e8.6	20	--	--	--
18-20	2035	0735	97	70	--	190	32
20-21	0835	1135	111	90	--	149	22
21-24	1340	1240	25	40	--	53	9
24-28	1310	1210	e15	22	--	37	6
28-31	1235	1135	e7.0	22	--	--	--
NOV							
02-03	1235	0335	e11	33	--	--	--
03-04	0435	1135	e12	17	--	--	--
07-08	2255	0955	e37	38	--	77	12
08-09	1050	1350	77	65	--	126	20
09-12	1450	0950	65	45	--	38	7
12-14	1400	1200	16	24	--	--	--
DEC							
02-05	1300	1200	29	75	--	148	29
12-14	2255	0155	34	45	--	75	14
14-16	0255	0955	22	40	--	42	7
16-19	1220	1120	10	24	--	--	--
19-23	1225	1125	5.2	16	--	--	--
JAN							
02-03	1250	1950	17	16	--	--	--
04-06	2050	1150	19	21	--	--	--
06-09	1240	1140	12	25	--	--	--
16-16	1210	1240	1.6	5.0	--	15	3
21-22	2310	1810	3.4	18	--	30	10
22-23	1910	1210	5.6	18	--	34	9
23-27	1220	1120	e1.9	6.6	--	--	--
FEB							
04-05	1105	0105	24	34	--	101	19
05-06	0205	1005	36	4.1	--	--	--
06-10	1110	1010	e13	38	--	51	7
18-19	1100	1800	5.7	8.6	--	--	--
19-20	1900	1000	3.6	18	--	--	--
20-24	1105	1005	e7.1	7.4	--	--	--
MAR							
10-11	1100	1600	28	21	--	--	--
11-13	1700	1000	27	19	--	--	--
14-14	0045	1945	29	16	--	--	--
14-17	2045	1045	29	15	--	--	--
17-20	1115	1015	9.8	10	--	--	--
APR							
12-12	1030	2130	12	17	--	--	--
13-14	2230	0930	5.9	7.2	--	--	--
14-17	1055	0955	3.0	4.0	--	--	--
19-19	0245	1745	4.4	5.4	--	--	--
19-21	1845	0945	3.8	5.8	--	--	--
21-24	1100	1000	3.0	5.4	--	--	--
29-29	1110	1140	1.7	4.0	--	6	<2
MAY							
15-18	1110	2210	3.1	5.9	--	--	--
18-19	2310	1010	11	85	--	183	44
19-20	1115	1015	20	37	--	88	10
20-23	1115	1015	11	20	--	--	--
MAY 31-							
JUN 01							
01-02	1550	0650	9.5	22	--	--	--
02-05	0750	0950	8.9	16	--	--	--
02-05	1035	0935	e5.0	11	--	--	--
16-17	1940	0640	e3.1	10	--	--	--
17-19	0740	0940	5.1	10	--	--	--
20-20	0305	1805	8.0	20	--	--	--
20-23	1905	1005	5.0	18	--	--	--

e Estimated daily discharge.

STREAMS TRIBUTARY TO LAKE ONTARIO

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHOPHOS- PHORUS SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
OCT							
09-10	.06	<.01	.56	.210	.030	77	140
10-11	.01	<.01	.36	.150	.019	91	93
11-15	--	--	--	.110	.025	110	120
18-20	.02	.68	.54	.330	.051	50	63
20-21	.02	.65	1.5	.410	.115	45	27
21-24	.01	.91	1.6	.210	.073	67	49
24-28	.02	.87	1.8	.140	.051	85	61
28-31	.02	.73	1.6	.120	.032	99	86
NOV							
02-03	--	--	--	.130	.025	110	74
03-04	--	--	--	.085	.024	110	96
07-08	--	--	--	.130	.016	94	100
08-09	--	--	--	.330	.055	51	48
09-12	--	--	--	.280	.092	37	37
12-14	--	--	--	.150	.058	110	55
DEC							
02-05	--	--	--	.440	.053	96	46
12-14	--	--	--	.190	.027	83	41
14-16	--	--	--	.170	.041	180	93
16-19	--	--	--	.100	.032	97	54
19-23	--	--	--	.085	.025	130	69
JAN							
02-03	--	--	--	.075	.013	260	61
04-06	--	--	--	.150	.017	140	50
06-09	--	--	--	.100	.018	130	53
16-16	.04	.48	1.2	.040	.006	270	190
21-22	--	--	--	.060	.009	950	200
22-23	--	--	--	.090	.011	390	130
23-27	--	--	--	.045	.009	310	120
FEB							
04-05	--	--	--	.190	.006	390	63
05-06	<.01	.40	1.7	.040	.008	240	150
06-10	--	--	--	.180	.029	190	47
18-19	--	--	--	.090	.005	310	100
19-20	--	--	--	.090	.006	260	110
20-24	--	--	--	.055	.004	200	79
MAR							
10-11	--	--	--	.120	.006	170	53
11-13	--	--	--	.095	.009	160	48
14-14	--	--	--	.095	.007	250	52
14-17	--	--	--	.065	.011	170	43
17-20	--	--	--	.050	.008	180	68
APR							
12-12	--	--	--	.100	.004	130	75
13-14	--	--	--	.055	.002	130	71
14-17	--	--	--	.055	.003	160	110
19-19	--	--	--	.040	<.002	130	65
19-21	--	--	--	.040	<.002	140	66
21-24	--	--	--	.050	<.002	160	91
29-29	.04	.47	.52	.030	.004	180	180
MAY							
15-18	.02	.43	.58	.060	.003	150	150
18-19	.03	.64	.56	.430	.008	110	130
19-20	--	--	--	.200	.006	91	92
20-23	--	--	--	.090	.006	120	64
MAY 31-							
JUN 01							
01-02	--	--	--	.120	.009	95	80
02-05	--	--	--	.095	.011	120	82
16-17	--	--	--	.140	.030	99	110
17-19	--	--	--	.150	.030	93	120
20-20	--	--	--	.140	.032	82	99
20-23	--	--	--	.120	.033	81	100

STREAMS TRIBUTARY TO LAKE ONTARIO
0423204920 EAST BRANCH ALLEN CREEK AT PITTSFORD, NY--continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	TUR- BID- ITY (NTU) (00076)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	RESIDUE VOLA- TILE, SUS- PENDED (MG/L) (00535)
JUL							
08-09	1420	0420	13	35	--	74	10
09-10	0520	1020	4.2	38	--	77	10
15-16	1405	0105	10	22	--	--	--
16-17	0205	1005	2.8	22	--	--	--
AUG							
01-02	0805	2305	e1.9	18	--	--	--
03-04	0005	1105	e2.7	16	--	--	--
13-13	0535	1635	17	15	--	--	--
13-14	1735	1035	3.3	33	--	109	20
15-16	2320	1420	28	18	--	--	--
16-18	1520	1020	4.7	6.6	--	--	--
18-21	1150	1050	3.8	8.5	--	--	--
21-25	1135	1035	3.0	13	--	--	--
SEP							
02-03	1720	0420	7.6	16	--	--	--
03-04	0520	1020	3.4	12	--	--	--
11-12	1140	0640	12	9.1	--	--	--
12-15	0740	1040	2.7	18	--	--	--
28-29	2325	1025	55	48	--	436	54
SEP 29- OCT 02	1155	1055	14	27	--	--	--

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS SO4) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTH, DIS- SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
JUL							
08-09	--	--	--	.180	.034	77	140
09-10	--	--	--	.150	.040	75	140
15-16	--	--	--	.140	.046	58	120
16-17	--	--	--	.170	.043	57	120
AUG							
01-02	--	--	--	.170	.031	68	150
03-04	--	--	--	.150	.036	66	150
13-13	--	--	--	.130	<.002	78	310
13-14	--	--	--	.150	<.002	75	220
15-16	.02	<.01	.70	.140	.033	58	120
16-18	.01	<.01	.68	.080	.035	57	130
18-21	.01	.28	.69	.120	.035	69	140
21-25	--	--	--	.100	.030	70	150
SEP							
02-03	--	--	--	.130	.027	60	150
03-04	--	--	--	.090	.026	74	170
11-12	--	--	--	.160	.028	51	110
12-15	--	--	--	.120	.022	88	140
28-29	.01	.52	.29	.410	.036	43	73
SEP 29- OCT 02	.01	.99	.55	.140	.029	71	61

e Estimated daily discharge.

DRAINAGE AREA.--30.1 mi², flow from 3.5 mi² noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1959 to current year.

REVISED RECORDS.--WRD NY 1974: 1972(M), 1973(M, P). WDR NY-76-1: 1960-75 (M, P), 1960-63, 1972-74.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 323.54 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Unpublished water-quality records for prior years are available in files of Monroe County Department of Health. Discharge prior to January 1980 included undetermined diversion (maximum 20 ft³/s) from Erie (Barge) Canal upstream from station. January 1980 to present, diversion reduced to a maximum of 3 ft³/s for use by several golf courses adjacent to stream. Several measurements of water temperature were made during the year.

COOPERATION.--Many discharge measurements were provided by the Monroe County Health Laboratory at Rochester, N.Y.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Oct. 20	0215	*642	*4.47	Dec. 1	2230	455	4.14

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.4	13	266	e16	e15	45	70	13	57	6.0	3.5	5.2
2	6.1	15	162	26	e12	41	65	11	43	6.2	3.3	13
3	5.0	18	68	63	e16	30	49	19	22	5.1	3.8	16
4	4.9	11	55	42	e22	24	34	14	15	8.7	4.6	6.5
5	4.9	9.4	45	50	136	e20	27	12	11	8.3	3.9	5.9
6	4.3	8.5	49	41	47	e28	28	13	9.3	5.5	3.4	5.2
7	4.2	9.2	37	e24	28	e26	22	11	13	4.9	3.4	6.0
8	4.1	135	30	e16	22	26	19	10	13	8.4	2.9	5.6
9	4.3	168	27	e16	e16	24	17	13	9.2	44	3.1	5.8
10	50	82	25	e16	e14	70	15	13	8.2	10	3.0	5.8
11	22	52	22	e14	e13	96	15	12	8.5	6.7	3.2	35
12	13	36	21	e12	e12	64	33	16	8.1	5.7	3.8	31
13	9.3	31	120	e10	e9.0	39	41	13	8.6	5.0	44	11
14	12	26	73	e9.0	e9.2	108	26	12	7.1	4.1	11	6.8
15	7.3	24	45	e8.0	e8.8	103	15	12	6.1	25	6.7	5.6
16	6.3	21	33	e7.0	e8.0	51	15	11	6.2	13	82	4.7
17	5.6	21	35	e10	e8.0	39	19	10	17	6.3	18	7.8
18	5.4	20	27	e6.0	22	42	21	9.8	14	4.7	9.7	13
19	242	18	e22	e10	32	37	25	65	12	3.8	7.7	5.8
20	366	17	e16	11	25	34	26	52	25	3.9	7.3	14
21	121	13	e14	5.5	26	38	21	24	12	12	19	8.4
22	56	11	e14	20	31	75	17	17	9.7	7.5	8.6	5.4
23	44	11	18	e22	e18	41	14	13	7.9	5.5	9.0	4.5
24	45	11	e38	e9.0	e13	28	19	11	38	5.4	7.0	5.2
25	37	11	e26	e8.2	e10	49	14	10	14	4.2	5.6	16
26	27	32	e18	e9.0	14	106	12	9.1	18	3.5	5.7	13
27	22	31	18	e9.0	182	57	13	8.4	11	5.3	6.5	6.7
28	21	27	19	e9.2	78	42	30	8.6	7.2	5.6	22	5.4
29	17	26	34	e9.2	---	43	16	9.4	7.2	5.4	7.7	188
30	24	30	e26	e8.0	---	44	12	11	6.5	4.2	6.2	62
31	17	---	e16	9.5	---	78	---	13	---	3.8	5.7	---
TOTAL	1215.1	938.1	1419	525.6	847.0	1548	750	476.3	444.8	247.7	331.3	524.3
MEAN	39.2	31.3	45.8	17.0	30.3	49.9	25.0	15.4	14.8	7.99	10.7	17.5
MAX	366	168	266	63	182	108	70	65	57	44	82	188
MIN	4.1	8.5	14	5.5	8.0	20	12	8.4	6.1	3.5	2.9	4.5

e Estimated

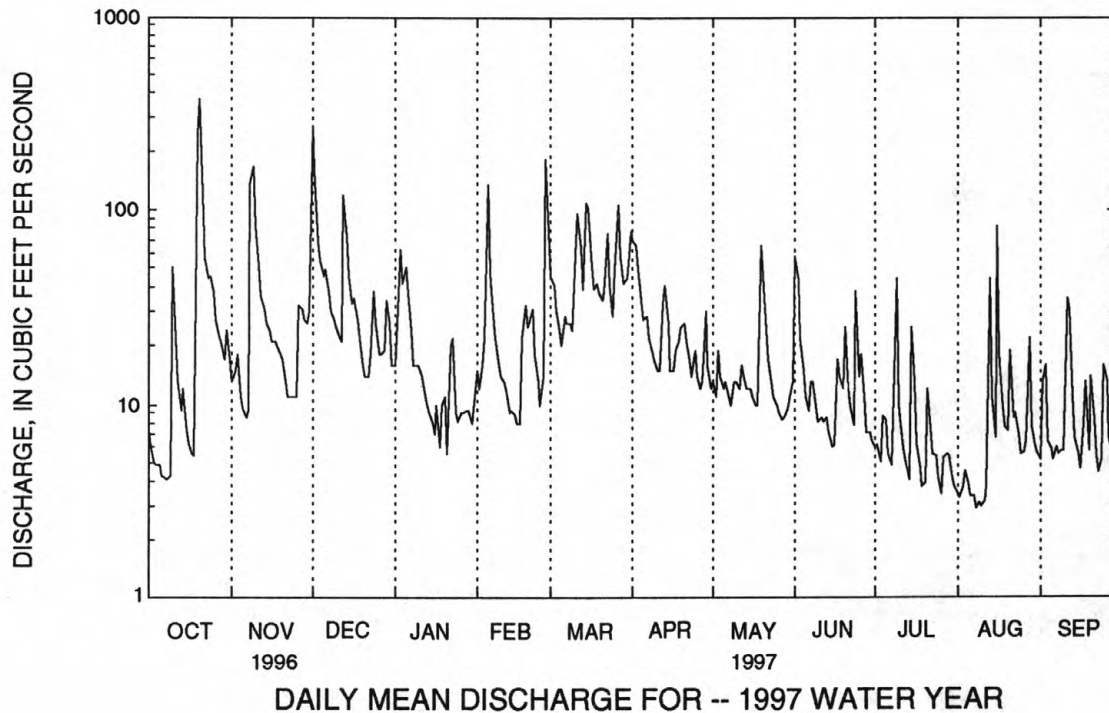
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1997, BY WATER YEAR (WY)

MEAN	25.9	31.9	31.2	22.9	34.2	56.7	46.6	33.0	27.6	21.6	24.3	23.0
MAX	74.8	102	89.7	50.4	94.9	131	80.7	103	78.4	63.0	50.7	60.5
(WY)	1978	1973	1978	1969	1981	1960	1969	1974	1972	1976	1992	1977
MIN	7.99	7.42	4.80	4.40	10.4	22.6	11.2	8.94	8.99	7.18	8.84	6.07
(WY)	1962	1961	1961	1963	1989	1981	1995	1995	1995	1960	1961	1961

STREAMS TRIBUTARY TO LAKE ONTARIO
04232050 ALLEN CREEK NEAR ROCHESTER, NY--continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1960 - 1997	
ANNUAL TOTAL	12656.2		9267.2			
ANNUAL MEAN	34.6		25.4		31.3	
HIGHEST ANNUAL MEAN					50.6	
LOWEST ANNUAL MEAN					16.1	
HIGHEST DAILY MEAN	446 Jan 19		366 Oct 20		1970 Mar 30 1960	
LOWEST DAILY MEAN	3.4 Sep 1		2.9 Aug 8		1.7 Jan 24 1963	
ANNUAL SEVEN-DAY MINIMUM	3.8 Aug 31		3.3 Aug 6		2.3 Feb 15 1962	
INSTANTANEOUS PEAK FLOW			642 Oct 20		a3280 May 17 1974	
INSTANTANEOUS PEAK STAGE			4.47 Oct 20		7.42 May 17 1974	
10 PERCENT EXCEEDS	73		50		56	
50 PERCENT EXCEEDS	19		14		20	
90 PERCENT EXCEEDS	6.3		5.4		7.7	

a From rating curve extended above 1,000 ft³/s on basis of contracted-opening measurement of peak discharge and step-backwater analysis.



STREAMS TRIBUTARY TO LAKE ONTARIO
04232050 ALLEN CREEK NEAR ROCHESTER, NY--continued
WATER-QUALITY RECORDS

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PERIOD OF RECORD.--October 1983 to current year.

CHEMICAL DATA: 1983-97 (e).

NUTRIENT DATA: 1983-97 (e).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: November 1994 to current year.

INSTRUMENTATION.--Automatic water sampler since October 1983. Water temperature recorder since November 1994 provides 15-minute-interval readings.

COOPERATION.--Water-quality samples were collected and analyzed by the Monroe County Environmental Health Laboratory at Rochester, N.Y.

REMARKS.--Prior to 1994 water year, data published in "Water Resources of Monroe County New York, Water Years 1984-88", U. S. Geological Survey open-file report 93-370, and in "Water Resources of Monroe County New York, Water Years 1989-93", U. S. Geological Survey open-file report 97-587.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 25.5°C, July 15, Aug. 15, 1995; minimum, 0.0°C, many days during winter period.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 24.5°C, July 15; minimum, 0.0°C, many days during winter period.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	16.5	13.5	14.5	9.0	7.5	8.0	5.0	3.0	4.0	2.5	.0	1.5
2	17.0	15.0	16.0	8.0	6.5	7.5	4.5	4.0	4.5	3.5	2.5	3.0
3	15.5	11.5	12.5	7.0	6.0	6.5	5.5	4.0	4.5	4.0	3.0	3.5
4	12.0	10.0	11.0	8.5	7.0	7.5	5.5	5.0	5.5	4.5	3.5	4.5
5	12.0	8.5	10.0	9.0	8.0	8.5	5.5	4.5	5.0	6.5	4.5	5.5
6	13.5	9.5	11.0	9.5	7.5	8.5	5.5	5.0	5.5	5.5	2.5	3.5
7	14.5	10.5	12.5	12.5	9.5	11.0	5.5	5.0	5.0	2.5	1.5	2.0
8	14.0	12.5	13.0	13.0	9.5	11.5	5.5	5.0	5.5	2.0	1.0	1.5
9	13.5	13.0	13.0	9.5	8.5	9.0	5.0	4.0	4.5	2.0	1.0	1.5
10	13.0	11.5	12.5	8.5	7.5	8.0	5.5	4.5	5.0	3.0	1.5	2.5
11	11.5	10.0	11.0	7.5	6.5	7.0	5.5	5.0	5.0	1.5	.5	1.0
12	12.0	10.0	11.0	6.5	5.5	6.0	6.5	5.5	6.0	1.5	.5	1.0
13	14.0	11.5	12.5	6.0	4.5	5.5	7.0	5.5	6.5	1.5	.5	1.0
14	14.0	11.5	13.0	5.5	4.0	5.0	5.5	5.0	5.5	2.0	1.0	1.5
15	11.5	9.5	10.5	5.5	4.0	4.5	6.0	5.0	5.5	3.0	.5	1.5
16	14.5	10.5	12.5	5.5	3.0	4.5	6.0	5.0	5.5	3.5	.5	2.5
17	15.0	13.0	13.5	6.5	4.0	5.5	7.5	6.0	6.5	.5	.0	.0
18	15.5	13.0	14.0	8.0	6.5	7.0	6.5	5.5	6.0	.0	.0	.0
19	13.5	11.0	12.0	7.5	6.0	7.0	5.5	3.5	5.0	.0	.0	.0
20	11.5	11.0	11.0	6.5	6.0	6.0	3.5	2.0	2.5	1.5	.0	.5
21	11.5	11.0	11.5	6.0	5.5	6.0	3.0	1.5	2.0	3.0	1.0	2.0
22	12.0	11.0	11.5	6.5	5.0	6.0	4.5	3.0	3.5	4.5	2.0	3.0
23	13.0	10.5	11.5	6.0	5.0	5.5	5.0	4.0	4.5	2.0	.5	1.5
24	12.5	11.0	11.5	5.5	4.5	5.0	5.0	3.0	4.5	2.5	.0	1.0
25	12.0	10.5	11.0	5.0	4.0	4.5	3.0	1.5	2.5	3.0	1.0	2.0
26	12.0	9.5	11.0	4.5	2.5	4.0	2.5	1.0	2.0	1.5	.0	.5
27	13.0	10.5	11.5	3.5	2.0	2.5	3.5	2.5	3.0	1.5	.0	1.0
28	13.0	11.0	12.0	3.5	2.0	3.0	5.5	3.5	4.5	2.5	.5	1.5
29	11.5	9.5	10.5	4.5	3.0	4.0	5.5	4.5	5.0	1.5	.0	.5
30	12.0	10.5	11.5	5.0	3.5	4.5	4.5	2.5	3.5	2.0	.0	1.0
31	11.0	8.5	9.5	---	---	---	2.5	1.0	1.5	3.5	1.5	2.5
MONTH	17.0	8.5	11.9	13.0	2.0	6.3	7.5	1.0	4.5	6.5	.0	1.7

STREAMS TRIBUTARY TO LAKE ONTARIO
04232050 ALLEN CREEK NEAR ROCHESTER, NY--continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	3.5	1.5	3.0	5.5	3.0	4.5	7.5	3.0	5.5	16.0	10.5	13.0
2	4.0	1.5	3.0	7.0	5.0	6.0	9.0	4.5	6.5	14.0	8.5	11.0
3	3.5	2.0	3.0	5.0	4.0	4.5	10.0	6.0	8.0	12.0	10.0	11.0
4	3.0	1.5	2.0	4.5	3.5	4.0	11.5	7.0	9.0	13.0	9.0	10.5
5	1.5	.5	1.0	5.0	3.0	4.0	11.5	8.0	10.0	14.5	8.0	11.0
6	2.0	1.5	1.5	4.0	1.5	2.5	14.0	10.0	12.0	13.0	9.5	11.0
7	3.0	1.5	2.0	4.0	1.0	2.0	13.0	7.5	9.5	12.5	7.5	10.0
8	2.5	.5	2.0	2.5	1.5	2.0	8.0	6.0	7.0	13.0	7.5	10.5
9	2.5	.0	1.0	4.0	1.0	2.5	8.0	4.0	5.5	12.5	10.5	11.5
10	2.5	.5	1.5	5.0	3.0	4.0	9.0	4.0	6.0	11.0	9.5	10.0
11	3.0	1.5	2.0	4.5	3.0	3.5	8.5	5.5	7.0	14.5	8.5	11.0
12	3.0	1.5	2.0	4.0	2.0	2.5	7.5	6.5	7.0	14.0	11.0	12.0
13	2.0	.5	1.0	3.5	1.0	2.5	7.0	6.0	6.5	14.5	10.0	11.5
14	3.0	1.0	2.0	2.0	.0	1.5	9.5	5.0	7.0	13.5	9.5	11.5
15	4.0	2.0	2.5	2.0	.5	1.5	10.0	5.5	7.5	13.5	10.5	11.5
16	2.0	.5	1.0	2.5	.0	1.5	11.5	6.5	8.5	10.5	9.0	9.5
17	2.5	.5	1.5	4.0	1.0	2.0	9.0	7.0	8.0	10.5	9.0	9.0
18	5.5	2.0	3.5	4.5	2.0	3.0	8.0	6.0	7.0	12.5	7.5	10.0
19	5.0	3.0	4.0	5.0	1.0	3.0	7.0	6.0	6.5	13.5	10.0	11.0
20	4.5	2.5	3.5	4.0	3.0	3.5	7.0	6.0	6.5	13.5	11.0	12.0
21	8.5	4.5	6.5	4.5	3.0	4.0	11.5	6.5	8.5	11.5	9.5	10.5
22	8.0	3.0	6.0	4.5	3.0	4.0	12.5	7.0	9.5	13.5	9.0	11.0
23	3.5	2.0	2.5	5.0	2.0	3.5	14.0	8.0	10.5	15.5	9.5	12.0
24	3.0	1.0	2.0	6.0	2.0	4.0	13.0	8.5	10.5	16.0	11.0	13.0
25	3.5	.5	2.0	5.0	3.5	4.5	13.0	9.0	11.0	13.5	12.0	13.0
26	5.0	2.0	3.5	5.0	4.0	4.5	14.5	8.5	11.0	16.0	10.0	12.5
27	5.0	3.0	4.0	9.0	4.0	6.0	12.0	9.0	10.5	16.5	10.0	13.0
28	5.0	3.0	3.5	10.0	5.5	8.0	11.0	9.0	10.0	17.0	10.5	13.5
29	---	---	---	10.0	8.0	9.0	14.5	8.0	10.5	14.5	12.5	13.5
30	---	---	---	9.0	6.5	8.0	16.5	9.0	12.5	14.5	12.5	13.5
31	---	---	---	6.5	4.0	5.0	---	---	---	15.5	13.0	14.0
MONTH	8.5	.0	2.6	10.0	.0	3.9	16.5	3.0	8.5	17.0	7.5	11.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	14.5	13.5	14.5	20.5	19.0	20.0	20.0	17.5	19.0	20.5	17.5	18.5
2	15.0	14.0	14.5	22.5	18.5	20.0	21.5	17.5	19.5	21.0	17.5	19.0
3	17.5	13.5	15.0	22.0	19.0	20.5	21.0	18.5	19.5	20.0	15.0	17.0
4	18.5	13.5	15.5	19.0	16.0	17.5	21.0	18.0	19.0	16.5	14.0	15.0
5	18.5	13.5	16.0	19.5	14.5	16.5	21.0	17.0	18.5	17.5	13.5	15.0
6	18.5	14.5	16.0	20.5	15.5	17.5	19.0	15.5	17.0	19.0	15.5	17.0
7	16.5	15.0	15.5	19.0	16.5	17.5	20.0	15.0	17.0	18.0	16.0	17.0
8	18.5	14.0	16.0	18.5	14.5	16.5	21.5	16.5	18.5	18.0	15.5	16.5
9	20.0	14.5	16.5	18.5	16.0	17.5	22.0	17.5	19.5	18.0	15.0	16.5
10	20.5	15.5	17.5	19.0	14.5	16.5	22.0	17.5	20.0	17.0	16.5	17.0
11	21.0	16.5	18.5	20.0	15.5	17.5	21.0	19.0	20.5	18.5	16.5	17.0
12	20.0	17.0	18.5	21.5	16.0	18.0	21.0	18.0	19.5	18.5	17.0	17.5
13	21.0	17.0	18.5	23.0	17.5	19.5	21.0	19.0	20.0	17.5	16.5	17.0
14	19.5	16.0	17.5	23.5	18.5	20.5	20.0	17.0	18.0	18.0	16.0	17.0
15	20.0	14.5	16.5	24.5	20.0	21.5	18.5	16.5	17.5	19.0	15.5	17.0
16	20.0	14.5	17.0	22.0	20.0	21.0	21.0	18.0	20.5	18.5	16.0	17.0
17	19.0	16.5	18.0	24.0	19.5	21.0	20.5	18.5	19.5	18.5	15.0	16.5
18	18.0	16.0	17.0	23.0	20.0	21.0	20.0	17.0	18.0	18.5	16.5	17.5
19	18.5	16.5	17.0	20.5	17.5	19.0	19.5	15.5	17.5	17.0	15.5	16.5
20	19.0	15.5	17.5	21.0	16.0	18.0	18.0	16.0	17.0	17.5	15.0	16.5
21	21.0	17.5	19.0	18.5	17.0	18.0	18.0	16.0	17.0	15.0	13.0	14.0
22	22.0	19.0	20.0	20.0	16.0	17.5	18.0	16.0	17.0	15.5	12.0	13.5
23	22.0	18.0	19.5	20.5	16.0	18.0	17.5	16.0	16.5	15.0	13.0	14.0
24	20.5	16.0	19.0	21.0	17.5	19.0	19.0	15.5	17.0	14.0	11.5	13.0
25	22.0	18.5	20.0	22.0	17.0	19.0	20.0	17.0	18.0	14.0	11.5	13.0
26	21.5	18.5	20.0	21.5	17.0	19.0	19.5	16.0	17.5	14.0	12.0	13.5
27	21.5	17.5	19.0	21.0	19.5	20.0	20.0	17.5	18.5	14.0	10.5	12.0
28	22.5	17.0	19.0	22.0	18.5	19.5	19.5	17.0	18.5	15.0	11.5	13.0
29	23.0	18.0	20.0	21.0	17.5	19.0	19.0	17.0	18.0	15.5	14.0	15.0
30	23.0	19.0	20.5	21.5	16.5	18.5	20.0	17.0	18.0	15.0	14.5	14.5
31	---	---	---	22.5	17.5	19.0	19.0	17.0	17.5	---	---	---
MONTH	23.0	13.5	17.6	24.5	14.5	18.8	22.0	15.0	18.4	21.0	10.5	15.8

STREAMS TRIBUTARY TO LAKE ONTARIO
04232050 ALLEN CREEK NEAR ROCHESTER, NY--continued

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	TUR- BID- ITY (NTU) (00076)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDEDED (MG/L) (00530)	RESIDUE VOLA- TILE, SUS- PENDEDED (MG/L) (00535)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
OCT							
09-10	2335	1435	48	20	--	--	0.05
10-11	1535	1035	37	14	--	--	0.02
11-15	1045	0945	12	4.8	--	--	--
18-20	1915	0615	274	26	--	--	0.02
20-20	0715	1015	448	50	141	23	0.02
21-24	1150	1050	56	16	--	--	0.02
24-28	1210	1110	29	7.7	13	<5	0.02
28-31	1115	1015	21	6.4	--	--	0.04
NOV							
07-08	2135	0835	22	3.6	--	--	--
08-09	0910	0010	202	44	134	21	--
09-12	0110	0810	91	18	--	--	--
12-14	1205	1105	31	9.8	--	--	--
NOV 30-							
DEC 01	1310	0910	66	26	--	--	--
02-05	1135	1035	68	17	--	--	--
05-09	1105	1005	38	7.1	--	--	--
13-13	0140	2040	130	33	74	15	--
13-16	2140	0840	58	18	--	--	--
16-19	1115	1015	e30	8.4	--	--	--
19-23	1115	1015	e16	5.2	--	--	--
JAN							
02-03	1135	1435	50	10	--	--	--
03-06	1535	1035	49	14	--	--	--
06-09	1135	1035	e23	9.4	--	--	--
16-16	0940	1000	e7.0	3.6	5	1	<0.01
16-16	0941	1001	e7.0	4.6	7	2	<0.01
21-23	1555	1055	e18	16	29	7	--
23-27	1115	1015	e11	14	--	--	--
FEB							
04-05	1250	0550	e62	50	162	23	--
05-06	0650	0850	94	36	82	11	--
06-10	0935	0835	e25	15	--	--	--
18-18	0940	2040	29	7.6	--	--	--
18-19	2140	0840	46	9.9	--	--	--
20-24	0945	0845	e24	3.0	--	--	--
MAR							
10-11	0945	1745	92	17	--	--	--
11-13	1845	0845	64	77	--	--	--
13-14	0940	2240	75	24	--	--	--
15-17	2340	0840	47	7.0	--	--	--
17-20	0955	0855	40	5.5	--	--	--
APR							
12-13	1335	0035	57	15	--	--	--
13-14	0135	0835	38	47	--	--	--
14-17	0835	0935	17	1.9	--	--	--
19-20	0130	0030	25	3.2	--	--	--
20-21	0130	0830	24	3.2	--	--	--
21-24	0945	0845	17	2.6	--	--	--
23-23	1055	1145	13	2.6	4	<2	<0.01
23-23	1056	1146	13	3.8	12	<3	<0.01
MAY							
15-19	0945	0045	11	4.9	--	--	0.01
19-19	0145	0845	44	170	363	68	0.08
19-20	0945	0045	84	70	216	27	--
20-23	0145	0845	27	11	--	--	--
MAY 31-							
JUN 01	1830	0930	52	16	--	--	--
01-02	1030	0930	48	14	--	--	--
02-05	1025	0825	22	5.1	--	--	--
16-17	1825	0525	17	7.4	--	--	--
17-19	0625	0825	14	6.1	--	--	--
19-19	0925	2025	11	5.6	--	--	--
19-20	2125	1625	12	18	--	--	--
20-23	1725	0825	11	7.3	--	--	--

STREAMS TRIBUTARY TO LAKE ONTARIO
04232050 ALLEN CREEK NEAR ROCHESTER, NY--continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
OCT						
09-10	<0.01	0.85	0.170	0.038	110	71
10-11	<0.01	0.57	0.120	0.035	85	52
11-15	--	--	0.055	0.023	150	66
18-20	0.33	0.85	0.200	0.055	100	51
20-20	0.85	0.52	0.330	0.068	42	23
21-24	0.70	1.1	0.130	0.048	100	47
24-28	0.70	1.4	0.085	0.038	120	59
28-31	0.69	1.4	0.095	0.056	140	70
NOV						
07-08	--	--	0.065	0.024	190	79
08-09	--	--	0.340	0.066	64	33
09-12	--	--	0.150	0.048	86	37
12-14	--	--	0.080	0.037	190	54
NOV 30-						
DEC 01	--	--	0.150	0.037	230	44
02-05	--	--	0.110	0.037	160	45
05-09	--	--	0.055	0.026	180	56
13-13	--	--	0.180	0.027	120	40
13-16	--	--	0.095	0.030	44	44
16-19	--	--	0.055	0.022	160	55
19-23	--	--	0.040	0.018	220	66
JAN						
02-03	--	--	0.055	0.012	570	59
03-06	--	--	0.060	0.014	110	25
06-09	--	--	0.050	0.014	210	56
16-16	0.55	1.8	0.025	0.007	390	72
16-16	0.39	1.8	0.030	0.007	410	74
21-23	--	--	0.070	0.014	720	81
23-27	--	--	0.060	0.014	530	61
FEB						
04-05	--	--	0.220	0.009	630	60
05-06	--	--	0.150	0.022	270	37
06-10	--	--	0.085	0.016	300	56
18-18	--	--	0.085	0.005	770	82
18-19	--	--	0.065	0.009	520	58
20-24	--	--	0.030	0.004	320	59
MAR						
10-11	--	--	0.085	0.005	340	57
11-13	--	--	0.045	0.006	240	49
13-14	--	--	0.130	0.007	430	51
15-17	--	--	0.090	0.007	320	52
17-20	--	--	0.030	0.006	290	58
APR						
12-13	--	--	0.110	0.004	190	57
13-14	--	--	0.035	0.003	200	58
14-17	--	--	0.025	0.002	200	52
19-20	--	--	0.025	0.002	220	61
20-21	--	--	0.025	0.003	230	61
21-24	--	--	0.030	0.003	230	66
23-23	0.61	0.86	0.025	<0.002	270	70
23-23	0.61	0.91	0.040	0.003	270	68
MAY						
15-19	0.90	0.96	0.260	0.003	240	90
19-19	2.1	0.95	0.066	0.006	190	76
19-20	--	--	0.280	0.007	110	41
20-23	--	--	0.050	0.006	170	51
MAY 31-						
JUN 01	--	--	0.130	0.009	150	59
01-02	--	--	0.085	0.012	120	44
02-05	--	--	0.065	0.011	180	55
16-17	--	--	0.190	0.028	170	76
17-19	--	--	0.120	0.027	150	69
19-19	--	--	0.075	0.025	140	70
19-20	--	--	0.140	0.024	130	63
20-23	--	--	0.090	0.028	150	68

STREAMS TRIBUTARY TO LAKE ONTARIO
04232050 ALLEN CREEK NEAR ROCHESTER, NY--continued

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	TUR- BID- ITY (NTU) (00076)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDEDED (MG/L) (00530)	RESIDUE VOLA- TILE, SUS- PENDEDED (MG/L) (00535)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
JUL							
08-09	1845	0845	58	15	--	--	--
09-10	0945	0845	18	33	93	14	--
15-15	1245	2345	49	22	--	--	--
16-17	0045	0845	11	16	--	--	--
AUG							
13-13	0425	1525	69	30	217	29	--
13-14	1625	0925	20	21	--	--	--
15-16	2145	1245	111	31	171	21	0.03
16-18	1345	0845	18	16	--	--	0.02
18-21	0935	0835	10	5.8	--	--	0.02
21-25	1000	0900	8.6	5.2	--	--	--
SEP							
02-03	1800	0500	36	15	--	--	--
03-04	0600	0900	9.8	7.5	--	--	--
28-29	2215	0915	192	35	11	17	0.02
29-29	1000	1200	337	29	--	--	0.01
SEP 30- OCT 02	0100	0900	38	29	--	--	0.01

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
JUL						
08-09	--	--	0.110	0.043	130	67
09-10	--	--	0.210	0.110	76	50
15-15	--	--	0.230	0.034	120	74
16-17	--	--	0.130	0.041	94	53
AUG						
13-13	--	--	0.370	<0.002	74	61
13-14	--	--	0.150	<0.002	73	57
15-16	<0.01	0.66	0.280	0.030	91	54
16-18	<0.01	0.61	0.130	0.027	120	59
18-21	0.33	0.76	0.065	0.029	160	85
21-25	--	--	0.055	0.025	140	85
SEP						
02-03	--	--	0.180	0.039	97	72
03-04	--	--	0.075	0.031	110	75
28-29	0.41	0.46	0.230	0.033	85	48
29-29	0.49	0.61	0.110	0.043	120	48
SEP 30- OCT 02	0.49	0.61	0.110	0.043	120	48

STREAMS TRIBUTARY TO LAKE ONTARIO

0423205010 IRONDEQUOIT CREEK ABOVE BLOSSOM ROAD, ROCHESTER, NY

LOCATION.--Lat 43°08'42", long 77°30'44", Monroe County, Hydrologic Unit 04140101, on right bank 4,000 ft upstream from bridge on Blossom Road, 1.8 mi east of Rochester, 1.7 mi downstream from Allen Creek, and 4.4 mi upstream from mouth.

DRAINAGE AREA.--142 mi²., flow from 8.45 mi². noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional discharge measurements water years 1977-80. December 1980 to current year.

GAGE.--Water-stage recorder. Datum of gage is 247.87 ft above sea level (levels by Corps of Engineers). Prior to Oct. 1, 1991, at site 0.8 mi downstream at datum 1.56 ft lower.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Discharge includes undetermined diversion from Erie (Barge) Canal. Unpublished water-quality records for prior years are available in files of Monroe County Department of Health. Several measurements of water temperature were made during the year.

COOPERATION.--Many discharge measurements were provided by the Monroe County Environmental Health Laboratory at Rochester, N.Y.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Oct. 20	0545	*1,600	*9.03	Sep. 29	0945	962	8.14
Dec. 2	0400	1,220	8.61				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	119	651	e100	e92	286	346	97	209	48	33	41
2	45	109	1080	140	95	240	365	88	230	51	33	53
3	45	112	573	251	e100	198	303	103	176	47	35	71
4	45	104	350	236	e100	159	234	100	110	53	34	45
5	43	96	281	232	452	145	194	89	89	54	34	41
6	42	87	269	247	272	170	190	91	77	47	32	40
7	42	89	234	179	176	e170	167	75	75	43	33	43
8	44	384	199	e120	e130	e150	149	60	76	48	32	43
9	44	815	179	e110	e100	146	137	62	69	132	32	41
10	174	628	164	e110	e98	234	126	65	67	61	31	40
11	114	279	152	e100	93	385	121	66	68	50	32	103
12	70	168	141	e90	89	321	154	81	62	45	33	146
13	58	171	401	e86	e76	222	216	87	63	43	116	68
14	61	154	434	e82	e76	309	178	106	58	40	59	52
15	51	139	284	e78	e74	462	137	128	54	76	42	45
16	50	129	217	e76	e72	287	123	102	52	56	213	42
17	49	126	205	e66	e68	217	120	88	92	43	70	45
18	48	128	179	e64	e100	229	124	81	79	39	52	60
19	538	132	160	e68	181	213	132	195	73	37	45	44
20	1410	130	e130	e66	192	206	146	347	109	37	43	62
21	931	119	e100	e72	177	204	131	193	86	53	69	53
22	428	108	e100	e100	206	330	115	128	67	47	57	45
23	268	101	122	149	166	263	104	105	57	40	56	42
24	243	98	202	e90	e120	195	103	94	128	38	48	44
25	206	139	181	155	e98	217	96	88	84	36	43	61
26	158	208	138	e110	e106	427	90	83	81	35	42	71
27	137	202	129	e80	521	338	88	77	77	44	42	50
28	135	164	126	e86	485	255	142	74	57	43	67	45
29	126	152	167	e80	---	244	123	74	52	39	46	582
30	139	158	165	e74	---	246	104	79	50	35	43	298
31	140	---	e126	e76	---	353	---	82	---	34	41	---
TOTAL	5932	5548	7839	3573	4515	7821	4758	3188	2627	1494	1588	2416
MEAN	191	185	253	115	161	252	159	103	87.6	48.2	51.2	80.5
MAX	1410	815	1080	251	521	462	365	347	230	132	213	582
MIN	42	87	100	64	68	145	88	60	50	34	31	40

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1997, BY WATER YEAR (WY)

MEAN	93.2	126	146	131	166	215	229	146	95.0	69.5	80.0	72.2
MAX	191	224	253	279	347	348	468	292	186	181	253	132
(WY)	1997	1986	1997	1993	1981	1993	1993	1984	1989	1992	1992	1992
MIN	39.5	54.5	49.5	60.8	67.1	122	82.8	62.1	46.9	42.2	40.8	39.8
(WY)	1983	1992	1990	1989	1989	1988	1995	1995	1988	1983	1985	1995

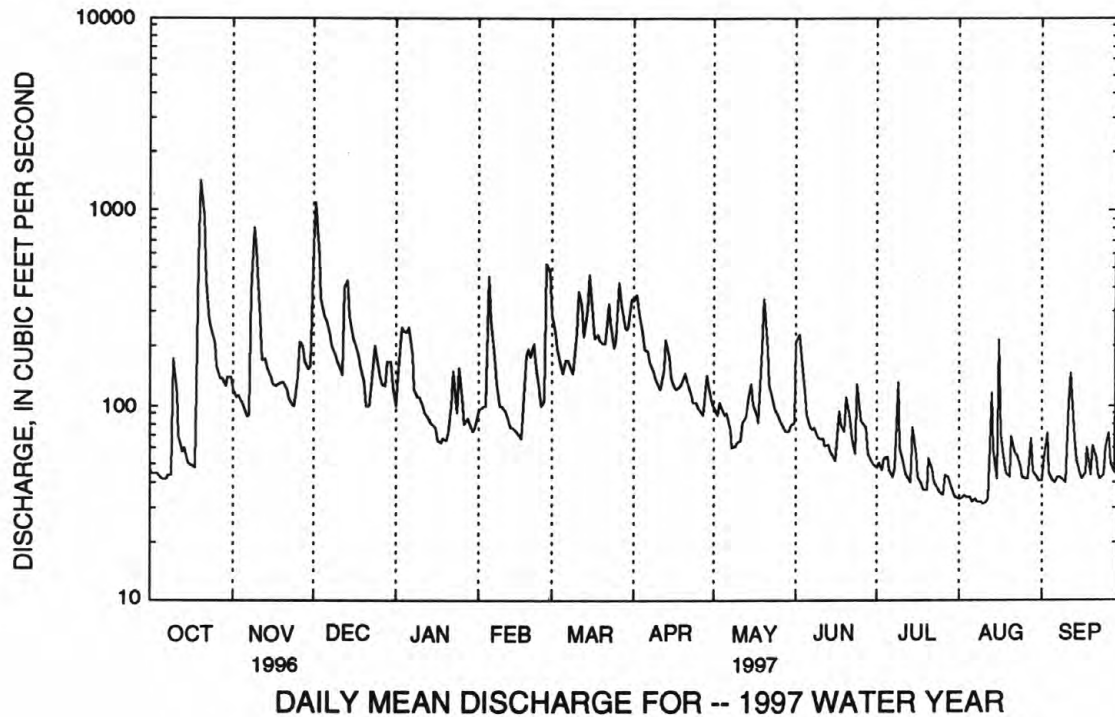
STREAMS TRIBUTARY TO LAKE ONTARIO

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

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1981 - 1997	
ANNUAL TOTAL	64036		51299			
ANNUAL MEAN	175		141		132	
HIGHEST ANNUAL MEAN					182	
LOWEST ANNUAL MEAN					80.1	
HIGHEST DAILY MEAN	1410	Oct 20	1410	Oct 20	1630	Apr 2 1993
LOWEST DAILY MEAN	e34	Jan 3	31	Aug 10	29	a
ANNUAL SEVEN-DAY MINIMUM	36	Aug 27	32	Aug 6	30	Aug 21 1995
INSTANTANEOUS PEAK FLOW			1600	Oct 20	1710	Apr 2 1993
INSTANTANEOUS PEAK STAGE			9.03	Oct 20	9.12	Apr 2 1993
INSTANTANEOUS LOW FLOW			30	Aug 10	27	Aug 31 1995
10 PERCENT EXCEEDS	362		270		252	
50 PERCENT EXCEEDS	122		100		88	
90 PERCENT EXCEEDS	49		43		45	

a Aug. 20, 1985, Aug. 24, 25, 26, 1995.
e Estimated.



STREAMS TRIBUTARY TO LAKE ONTARIO

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

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1983 to current year.

CHEMICAL DATA: 1983-97 (e).

NUTRIENT DATA: 1983-97 (e).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: November 1994 to current year.

INSTRUMENTATION.--Automatic water sampler since October 1983. Water temperature recorder since November 1994 provides 15-minute-interval readings.

COOPERATION.--Water-quality samples were collected and analyzed by the Monroe County Environmental Health Laboratory at Rochester, N.Y.

REMARKS.--Prior to 1994 water year, data published in "Water Resources of Monroe County New York, Water Years 1984-88", U. S. Geological Survey open-file report 93-370 and in "Water Resources of Monroe County New York, Water Years 1989-93", U. S. Geological Survey open-file report 97-587.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 26.0°C, July 14, 15, 1995; minimum 0.0°C, many days during winter period.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 25.0°C, Jul. 15; minimum 0.0°C, many days during winter period.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	15.5	12.5	14.0	8.5	7.0	8.0	4.5	3.5	4.0	3.0	1.5	2.5
2	16.5	14.0	15.0	7.5	6.0	7.0	4.5	3.5	4.0	4.5	2.5	3.5
3	15.5	11.5	13.0	6.5	5.5	6.0	4.5	3.5	4.0	4.5	3.5	4.0
4	11.5	9.5	10.5	7.0	6.0	6.5	4.5	4.5	4.5	4.5	3.5	4.0
5	10.5	8.0	9.0	8.0	7.0	7.5	4.5	4.0	4.5	6.5	4.5	5.5
6	11.5	8.5	10.0	8.5	6.5	7.5	5.0	4.5	4.5	6.0	3.0	4.5
7	12.5	9.5	11.0	11.5	8.0	9.5	4.5	4.5	4.5	3.0	1.0	2.0
8	13.0	11.5	12.0	12.0	9.5	11.0	4.5	4.0	4.5	1.0	.5	1.0
9	12.5	12.5	12.5	9.5	8.0	9.0	4.0	3.5	3.5	1.0	.5	.5
10	12.5	11.0	12.0	8.0	7.0	7.5	4.5	3.5	4.0	2.0	1.0	1.5
11	11.0	9.5	10.0	7.0	6.0	6.5	4.5	4.0	4.0	1.5	.0	.5
12	10.5	9.0	9.5	6.0	5.5	5.5	5.5	4.5	5.0	.5	.0	.5
13	12.5	10.5	11.0	6.0	5.0	5.5	6.5	5.5	6.0	.5	.0	.5
14	13.0	11.5	12.5	5.5	4.5	5.0	5.5	4.5	5.0	1.0	.0	.5
15	11.5	9.5	10.5	5.0	4.0	4.5	5.0	4.5	4.5	1.0	.0	.5
16	12.5	10.0	11.0	5.5	3.5	4.5	5.0	4.5	5.0	2.0	.5	1.5
17	13.5	12.0	12.5	6.0	4.5	5.5	6.5	5.0	6.0	.5	.0	.0
18	14.5	12.0	13.0	7.0	6.0	6.5	6.0	5.5	5.5	.5	.0	.0
19	13.5	11.0	12.0	7.0	7.0	7.0	5.5	3.0	4.5	.5	.0	.0
20	11.5	10.5	11.0	7.0	6.5	6.5	3.0	1.5	2.0	.5	.0	.5
21	11.0	10.5	11.0	6.5	6.0	6.5	2.0	1.0	1.5	.5	.5	.5
22	11.5	10.5	11.0	6.5	6.0	6.0	3.5	2.0	3.0	1.5	.5	.5
23	11.5	10.5	11.0	6.0	4.5	5.5	4.0	3.0	3.5	1.5	.5	1.0
24	11.5	10.5	11.0	6.0	4.5	5.5	5.0	4.0	4.5	.5	.0	.5
25	11.5	10.0	10.5	5.0	4.0	4.5	4.5	3.0	3.5	2.0	.5	1.5
26	11.0	9.0	10.0	4.0	3.0	3.5	3.5	2.5	3.0	1.0	.0	.5
27	12.0	9.5	10.5	3.0	2.0	2.5	4.0	3.5	3.5	.5	.0	.0
28	12.0	11.0	11.5	2.5	2.0	2.5	5.5	4.0	4.5	1.0	.0	.5
29	11.0	10.0	10.5	4.0	2.5	3.0	6.0	5.5	5.5	.5	.0	.0
30	11.0	10.0	10.5	4.5	3.0	3.5	5.5	4.5	5.0	.5	.0	.5
31	10.5	8.5	9.5	---	---	---	4.5	3.0	3.5	1.5	.5	1.0
MONTH	16.5	8.0	11.3	12.0	2.0	6.0	6.5	1.0	4.2	6.5	.0	1.3

STREAMS TRIBUTARY TO LAKE ONTARIO
0423205010 IRONDEQUOIT CREEK ABOVE BLOSSOM ROAD, ROCHESTER, NY--Continued

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WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	3.0	1.5	2.5	5.0	3.0	3.5	6.0	3.0	4.5	16.5	13.0	14.5
2	3.5	2.0	2.5	6.0	5.0	5.5	8.0	4.5	6.5	14.5	10.5	12.5
3	3.5	2.5	3.0	5.0	4.0	4.5	9.0	6.5	8.0	13.0	11.0	12.0
4	2.5	1.5	2.0	4.5	3.5	4.0	11.0	8.0	9.5	13.0	10.0	11.0
5	2.0	1.0	1.5	4.5	3.5	4.0	11.5	9.5	10.5	14.0	9.0	11.5
6	1.5	1.0	1.5	3.5	2.5	3.0	14.5	11.0	12.5	13.0	11.0	12.0
7	2.5	1.5	2.0	3.0	2.0	2.5	14.0	8.5	11.0	13.0	9.0	11.0
8	2.5	1.0	2.0	2.5	2.0	2.5	8.5	6.0	7.5	13.0	8.5	10.5
9	1.5	.5	1.0	3.5	2.0	2.5	7.0	4.0	5.5	13.0	11.0	12.0
10	1.5	.5	1.0	5.0	3.5	4.0	8.0	4.0	5.5	11.5	10.0	11.0
11	2.5	1.0	1.5	4.0	2.5	3.5	8.0	5.0	6.5	14.0	9.5	11.5
12	2.5	1.5	2.0	3.0	1.5	2.0	7.0	6.5	7.0	14.5	12.0	13.0
13	1.5	.5	1.0	3.0	.5	1.5	7.0	6.5	6.5	14.5	11.5	12.5
14	2.0	.5	1.0	1.5	.0	1.0	9.0	5.0	7.0	13.5	11.5	12.5
15	3.0	1.5	2.0	1.5	.5	1.0	10.0	6.0	8.0	14.0	12.0	13.0
16	2.0	.0	1.0	1.5	.0	.5	11.0	7.0	9.0	12.5	10.0	11.0
17	1.5	.0	.5	2.5	.0	1.5	10.0	8.0	8.5	10.5	9.5	10.0
18	4.5	1.0	3.0	3.5	2.0	2.5	8.0	6.5	7.0	12.0	8.5	10.0
19	5.0	3.5	4.5	4.0	1.0	2.5	7.0	6.0	6.5	13.0	10.5	11.5
20	4.0	3.0	3.5	4.0	2.5	3.5	7.0	6.0	6.5	13.5	12.0	12.5
21	7.0	3.5	5.5	4.0	3.0	3.5	11.0	6.0	8.0	12.0	11.0	11.5
22	7.5	4.0	6.5	4.0	3.0	3.5	12.5	8.0	10.0	13.5	9.5	11.5
23	4.0	2.5	3.0	4.0	2.0	3.0	14.0	9.0	11.5	15.0	10.0	12.5
24	2.5	.5	1.5	5.0	1.5	3.0	14.0	10.0	12.0	16.0	12.0	14.0
25	2.0	.0	1.0	4.5	3.0	4.0	13.5	10.0	12.0	15.0	13.5	14.0
26	3.5	1.0	2.5	4.5	4.0	4.5	14.5	10.0	12.0	16.0	11.5	13.5
27	4.5	3.0	4.0	7.5	3.5	5.5	12.5	10.0	11.5	16.5	11.5	14.0
28	4.0	3.0	3.5	9.5	6.0	8.0	12.0	10.0	10.5	17.0	12.0	14.5
29	---	---	---	10.5	9.0	9.5	13.5	8.5	11.0	15.0	13.5	14.5
30	---	---	---	10.0	7.5	9.0	16.5	10.5	13.0	15.0	14.0	14.5
31	---	---	---	7.5	4.0	5.5	---	---	---	16.0	14.0	15.0
MONTH	7.5	.0	2.4	10.5	.0	3.7	16.5	3.0	8.8	17.0	8.5	12.4
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	15.5	14.5	15.0	21.5	20.5	21.0	20.0	17.5	19.0	19.5	17.0	18.0
2	15.5	14.5	15.0	22.0	19.5	21.0	21.0	17.5	19.5	20.0	16.5	18.0
3	18.0	14.5	16.0	23.0	20.5	21.5	21.0	19.0	20.0	19.5	15.0	17.0
4	19.0	14.5	16.5	21.0	17.5	19.5	20.5	18.0	19.0	15.5	13.5	14.5
5	19.5	15.0	17.0	20.0	16.0	18.0	20.0	17.0	18.5	16.5	13.0	14.5
6	20.0	16.0	17.5	20.5	16.0	18.0	18.5	16.0	17.0	18.0	14.5	16.0
7	18.0	16.5	17.0	19.5	17.0	18.0	19.5	15.0	17.0	17.0	16.0	16.0
8	20.0	15.5	17.5	18.5	15.5	17.0	20.5	16.5	18.5	17.5	15.0	16.0
9	20.5	16.0	18.0	18.5	17.0	18.0	21.5	17.5	19.5	17.0	14.5	16.0
10	21.5	17.0	19.0	19.5	15.0	17.5	21.5	18.0	19.5	16.5	15.5	16.0
11	21.5	17.5	19.5	20.5	16.5	18.0	20.5	19.0	20.0	18.0	16.0	16.5
12	21.0	18.5	19.5	21.5	17.0	19.0	21.0	17.5	19.0	18.0	17.0	17.5
13	21.0	18.0	19.5	22.5	18.5	20.5	22.0	18.5	20.5	17.5	16.5	17.0
14	20.0	17.0	18.5	23.5	19.5	21.0	21.0	18.5	20.0	18.0	16.0	17.0
15	20.0	15.5	17.5	25.0	20.5	22.5	19.5	17.5	18.5	18.5	15.5	17.0
16	20.5	16.0	18.0	23.5	21.0	22.0	22.0	19.0	21.0	18.0	16.5	17.0
17	20.5	18.0	19.5	24.0	20.0	22.0	21.5	19.5	20.5	18.0	15.5	16.5
18	19.0	18.0	18.5	23.5	21.0	22.0	20.5	18.0	19.0	18.5	16.5	17.5
19	19.0	17.5	18.0	21.5	19.0	20.0	19.5	16.5	18.0	17.0	15.5	16.5
20	19.5	17.0	18.0	21.0	17.0	18.5	18.0	16.0	17.0	17.0	15.5	16.5
21	22.0	18.0	20.0	19.0	17.5	18.0	18.0	16.0	17.0	15.5	13.0	14.5
22	23.0	20.0	21.5	20.0	17.0	18.5	17.5	16.5	17.0	14.5	11.5	13.0
23	22.5	19.5	21.0	20.0	16.5	18.0	17.0	16.0	16.5	14.0	13.0	13.5
24	21.5	19.0	20.5	20.5	18.0	19.0	18.5	15.5	16.5	13.5	11.5	12.5
25	23.0	19.5	21.0	21.5	17.5	19.5	18.5	16.0	17.5	13.0	11.5	12.0
26	22.5	21.0	21.5	21.0	17.0	19.0	18.5	15.5	17.0	13.5	12.0	13.0
27	22.5	19.0	20.5	21.0	19.0	20.0	19.0	16.5	17.5	13.0	10.5	11.5
28	22.5	18.5	20.5	21.5	19.0	20.0	19.0	17.5	18.0	14.0	11.0	12.5
29	23.0	19.0	21.0	21.0	18.0	19.5	19.0	17.0	17.5	15.5	13.5	15.0
30	23.5	19.5	21.5	21.0	17.0	19.0	19.0	16.5	17.5	15.5	14.5	15.0
31	---	---	---	21.5	17.5	19.5	18.0	16.5	17.0	---	---	---
MONTH	23.5	14.5	18.8	25.0	15.0	19.5	22.0	15.0	18.4	20.0	10.5	15.4

STREAMS TRIBUTARY TO LAKE ONTARIO
0423205010 IRONDEQUOIT CREEK ABOVE BLOSSOM ROAD, ROCHESTER, NY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	TUR- BID- ITY (NTU) (00076)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	ALKA- LITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	RESIDUE VOLA- TILE, SUS- PENDE (MG/L) (00535)
OCT								
03-07	1120	1020	44	3.1	--	--	--	--
07-09	1105	2205	44	1.7	--	--	--	--
09-10	2305	1405	140	17	--	--	--	--
10-11	1505	1005	173	22	--	--	--	--
11-15	1115	1015	66	4.0	--	--	--	--
15-17	1120	1020	50	2.4	--	--	--	--
17-18	1045	2145	48	2.6	--	--	--	--
19-20	2245	0945	1490	45	--	--	267	42
20-21	1045	0945	1250	55	--	--	252	32
21-24	1110	1010	407	40	--	--	119	18
24-28	1140	1040	171	12	--	--	30	5
28-31	1045	0945	135	5.8	--	--	--	--
OCT 31-								
NOV 04								
04-07	1055	0955	114	22	--	--	--	--
07-08	1045	2145	93	4.4	--	--	--	--
07-08	2245	0945	124	3.9	--	--	--	--
08-09	1035	0135	605	42	--	--	--	--
09-12	0235	0935	517	42	--	--	--	--
12-14	1125	1025	167	8.0	--	--	--	--
14-18	1040	0940	134	6.7	--	--	--	--
18-19	1035	1535	129	14	--	--	--	--
21-22	1050	0550	114	7.6	--	--	--	--
25-26	1110	0810	178	7.6	--	--	--	--
27-29	1110	1210	168	7.2	--	--	--	--
DEC								
02-04	1105	1605	613	45	--	--	116	14
05-09	1040	0940	233	6.1	--	--	--	--
09-12	1045	0945	159	3.2	--	--	--	--
12-13	1050	2150	295	12	--	--	--	--
14-16	2250	0950	271	30	--	--	60	9
16-19	1040	0940	191	7.2	--	--	--	--
19-23	1025	0925	e118	3.9	--	--	--	--
23-25	1040	0040	176	6.3	--	--	--	--
25-26	0140	0940	168	5.2	--	--	--	--
26-28	1055	1755	129	2.8	--	--	--	--
28-29	1855	1355	150	2.7	--	--	--	--
29-30	1455	0955	178	4.4	--	--	--	--
DEC 30								
JAN 02								
02-03	1110	1010	e126	3.2	--	--	--	--
02-03	1100	2200	212	5.7	--	--	--	--
04-06	2300	1000	238	12	--	--	--	--
06-09	1100	1000	e162	12	--	--	--	--
09-13	1045	0945	e100	3.4	--	--	--	--
13-17	1110	0820	e79	2.5	--	--	--	--
15-15	1240	1305	e78	2.1	--	--	3	<1
15-15	1241	1306	e78	3.3	--	--	6	<1
17-21	1110	1010	e67	4.8	--	--	--	--
21-22	1120	0220	e76	2.6	--	--	--	--
22-23	0320	1020	e116	6.9	--	--	--	--
23-27	1040	0940	e118	5.5	--	--	--	--
27-30	1055	0955	e82	3.7	--	--	--	--
JAN 30-								
FEB 03								
03-04	1050	0950	e87	4.1	--	--	--	--
03-04	1100	1300	e100	30	--	--	64	12
04-05	1400	1300	e299	80	--	--	281	35
05-06	1400	1000	370	110	--	--	266	35
06-10	1055	0955	e150	29	--	--	--	--
10-11	1040	0940	e96	13	--	--	--	--
14-18	1045	0945	e75	4.8	--	--	--	--
18-20	1050	0050	e154	37	--	--	148	10
20-24	1150	0950	e177	12	--	--	--	--
24-26	1100	1900	e106	8.2	--	--	--	--
26-27	2000	1000	e402	44	--	--	--	--

e Estimated daily discharge.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
OCT								
03-07	0.01	0.48	0.96	0.040	0.013	130	210	40
07-09	<0.01	0.42	0.98	0.055	0.010	140	240	20
09-10	<0.01	<0.10	0.97	0.130	0.011	110	200	20
10-11	<0.01	0.39	0.72	0.170	0.012	77	120	40
11-15	0.01	0.45	0.78	0.045	0.015	120	170	20
15-17	<0.01	0.40	0.87	0.025	0.014	130	200	20
17-18	0.01	0.29	0.79	0.035	0.013	130	200	30
19-20	0.01	0.73	0.54	0.370	0.015	75	100	80
20-21	0.02	0.68	0.68	0.350	0.023	57	52	50
21-24	<0.01	0.89	0.91	0.250	0.030	73	80	40
24-28	0.02	0.55	1.0	0.090	0.027	97	120	20
28-31	0.02	0.68	1.0	0.065	0.023	110	140	40
OCT 31-								
NOV 04	<0.01	0.76	0.98	0.110	0.026	110	140	30
04-07	0.01	0.78	1.0	0.055	0.017	120	160	20
07-08	0.01	0.58	1.0	0.050	0.014	120	160	--
08-09	0.01	0.95	0.59	0.260	0.020	84	88	20
09-12	0.01	0.81	0.69	0.220	0.033	66	64	50
12-14	0.01	0.69	1.0	0.080	0.026	110	97	20
14-18	<0.01	0.51	1.2	0.063	0.023	120	110	20
18-19	0.01	0.72	1.2	0.090	0.020	120	120	30
21-22	0.01	0.43	1.1	0.070	0.017	120	120	20
25-26	0.03	0.42	1.1	0.075	0.013	180	120	20
27-29	<0.01	0.40	1.1	0.055	0.010	220	100	20
DEC								
02-04	0.03	0.54	1.0	0.210	0.029	88	62	50
05-09	<0.01	0.51	1.4	0.055	0.021	110	94	20
09-12	<0.01	0.52	1.5	0.040	0.019	120	110	40
12-13	<0.01	0.36	1.4	0.075	0.017	110	100	30
14-16	<0.01	0.55	1.1	0.110	0.018	87	70	30
16-19	<0.01	0.38	1.4	0.055	0.020	110	100	20
19-23	<0.01	0.49	1.6	0.040	0.017	120	120	20
23-25	<0.01	0.62	1.6	0.040	0.014	150	120	20
25-26	<0.01	0.67	1.4	0.040	0.014	110	100	20
26-28	<0.01	0.34	1.5	0.030	0.014	120	120	10
28-29	<0.01	0.27	1.5	0.030	0.014	130	130	10
29-30	<0.01	0.26	1.5	0.035	0.013	130	110	20
DEC 30								
JAN 02	0.02	0.54	1.5	0.030	0.013	130	110	20
02-03	0.01	0.42	1.5	0.040	0.012	270	110	20
04-06	0.01	0.51	1.3	0.065	0.012	140	84	30
06-09	0.02	0.45	1.4	0.055	0.013	120	98	20
09-13	<0.01	0.37	1.7	0.030	0.012	170	130	10
13-17	<0.01	0.20	1.8	0.025	0.008	140	160	20
15-15	0.01	0.44	1.8	0.020	0.007	140	160	20
15-15	<0.01	0.21	1.8	0.025	0.009	140	140	20
17-21	0.01	0.26	1.8	0.035	0.008	160	170	20
21-22	<0.01	0.28	1.7	0.025	0.009	170	170	5
22-23	<0.01	0.84	1.7	0.040	0.009	310	150	20
23-27	<0.01	0.56	1.5	0.035	0.008	250	120	20
27-30	<0.01	0.32	1.6	0.025	0.008	220	150	10
JAN 30-								
FEB 03	<0.01	0.40	1.7	0.040	0.008	240	150	10
03-04	<0.01	0.65	1.5	0.140	0.004	200	130	60
04-05	<0.01	0.67	1.3	0.390	0.007	290	91	110
05-06	0.04	1.1	1.1	0.170	0.015	170	56	100
06-10	<0.01	0.69	1.4	0.130	0.009	150	99	30
10-11	<0.01	0.70	1.5	0.100	0.005	150	140	20
14-18	<0.01	0.33	1.5	0.045	0.003	170	160	10
18-20	<0.01	0.67	1.3	0.170	0.004	270	120	30
20-24	0.03	0.64	1.0	0.075	0.004	140	92	20
24-26	<0.01	0.96	1.2	0.055	0.003	140	120	10
26-27	0.01	0.99	1.1	0.320	0.005	290	150	60

STREAMS TRIBUTARY TO LAKE ONTARIO
0423205010 IRONDEQUOIT CREEK ABOVE BLOSSOM ROAD, ROCHESTER, NY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	TUR- BID- ITY (NTU) (00076)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	ALKA- LINITY WAT WH TOT FET MG/L AS CACO3 (00410)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	RESIDUE VOLA- TILE, SUS- PENDE (MG/L) (00535)
FEB 27-								
MAR 03	1020	0920	371	75	--	--	--	--
03-06	1130	1030	159	8.0	--	--	--	--
06-10	1120	1020	e166	2.8	--	--	--	--
10-11	1045	1845	339	32	--	--	106	10
11-13	1945	0945	311	24	--	--	--	--
13-14	1100	0200	205	7.8	--	--	--	--
14-15	0300	0200	346	34	--	--	136	18
15-17	0300	1000	338	29	--	--	--	--
17-20	1200	1000	218	10	--	--	--	--
20-21	1100	1400	198	6.1	--	--	--	--
21-22	1500	1800	293	25	--	--	--	--
22-24	1900	1000	258	23	--	--	--	--
24-25	1100	1100	181	7.0	--	--	--	--
27-29	1145	1045	263	42	--	--	127	15
MAR 31-								
APR 01	1125	1025	353	22	--	--	--	--
03-04	1115	1415	265	13	--	--	--	--
07-08	1135	2235	153	5.3	--	--	--	--
10-12	1100	1000	121	2.9	--	--	--	--
12-13	1100	0200	193	13	--	--	--	--
13-14	0300	1000	206	8.0	--	--	--	--
14-17	1110	1010	135	4.6	--	--	--	--
17-21	1100	1000	133	3.0	--	--	--	--
21-24	1110	1010	112	4.3	--	--	--	--
23-23	1205	1245	103	2.9	--	--	4	<3
23-23	1206	1246	103	3.7	--	--	8	<2
24-27	1110	1810	93	4.8	--	--	--	--
27-28	2310	1010	126	6.8	--	--	--	--
APR 28-								
MAY 01	1115	1015	118	4.2	--	--	--	--
01-05	1115	1015	96	4.2	--	--	--	--
05-08	1105	0605	82	3.2	--	--	--	--
08-12	1145	1045	64	4.6	--	--	--	--
12-14	1120	0720	87	6.8	--	--	--	--
14-15	1420	1020	140	8.2	--	--	--	--
15-18	1105	2205	95	1.9	--	--	--	--
19-19	1120	2020	179	38	--	--	145	19
22-23	0920	1120	211	18	--	--	--	--
23-27	1200	1100	89	16	--	--	--	--
27-29	1125	1125	75	11	--	--	--	--
29-31	1145	1045	78	7.6	--	--	--	--
MAY 31-								
JUN 01	1145	1045	139	25	--	--	--	--
01-02	1145	2245	224	34	--	--	90	14
03-05	1135	1035	151	32	--	--	90	18
05-09	1105	1005	77	15	--	--	--	--
09-12	1110	1010	67	12	--	--	--	--
12-16	1115	1015	58	14	--	--	--	--
16-19	1110	1010	78	10	--	--	--	--
19-20	1115	0215	68	22	--	--	--	--
20-20	0315	1815	115	38	--	--	66	8
20-22	1915	2315	81	50	--	--	138	21
23-24	1115	0915	58	31	--	--	--	--
26-27	1120	2020	80	70	--	--	--	--
JUN 30-								
JUL 03	1035	0835	49	--	--	--	--	--
03-07	0920	0820	50	21	--	--	--	--
07-08	0910	1110	43	20	1150	227	50	9
10-11	0915	1615	54	9.6	--	--	--	--
14-15	0915	0815	40	5.5	--	--	--	--
17-18	0920	0220	42	2.1	--	--	--	--
21-21	0910	2010	66	5.5	--	--	--	--
21-22	2110	1410	50	4.6	--	--	--	--
24-25	0945	0845	37	3.1	--	--	--	--
28-29	0945	1445	41	3.3	--	--	--	--

e Estimated daily discharge.

STREAMS TRIBUTARY TO LAKE ONTARIO

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- ORTHOPHOS- PHORUS DIS- SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
FEB 27-								
MAR 03	0.02	0.97	1.1	0.290	0.006	130	68	50
03-06	<0.01	0.72	1.2	0.045	0.004	130	100	40
06-10	0.01	0.70	1.2	0.035	0.003	270	100	30
10-11	<0.01	0.69	1.1	0.150	<0.002	200	74	70
11-13	<0.01	0.61	1.2	0.110	0.005	150	72	30
13-14	<0.01	0.74	1.2	0.055	0.004	140	91	80
14-15	<0.01	0.92	1.1	0.180	0.004	250	73	60
15-17	<0.01	0.72	1.1	0.100	0.004	170	70	50
17-20	<0.01	0.65	1.2	0.050	0.004	170	93	20
20-21	<0.01	0.55	1.2	0.040	0.004	150	99	20
21-22	<0.01	0.74	1.2	0.120	0.004	150	85	30
22-24	<0.01	0.67	1.2	0.085	0.004	130	81	20
24-25	<0.01	0.64	1.2	0.045	0.004	130	98	10
27-29	0.02	0.96	1.1	0.230	0.003	120	81	70
MAR 31-								
APR 01	0.01	0.71	0.92	0.110	0.004	150	69	30
03-04	0.01	0.87	0.95	0.070	0.004	120	78	30
07-08	<0.01	0.64	1.1	0.045	0.004	130	110	20
10-12	0.01	0.68	1.2	0.030	0.003	130	120	30
12-13	0.02	0.89	1.2	0.075	0.004	130	110	60
13-14	0.01	0.68	1.1	0.055	0.003	190	150	20
14-17	0.01	0.60	1.0	0.030	0.003	130	110	30
17-21	<0.01	0.63	1.1	0.025	0.003	130	120	30
21-24	<0.01	0.55	0.99	0.025	0.003	130	120	20
23-23	<0.01	0.41	0.94	0.020	0.002	130	130	7
23-23	<0.01	0.44	0.94	0.025	0.002	130	130	20
24-27	0.01	0.40	0.93	0.030	0.003	130	140	10
27-28	0.03	0.43	0.95	0.055	0.004	130	140	20
APR 28-								
MAY 01	<0.01	0.47	0.91	0.040	0.003	130	120	20
01-05	0.01	0.46	0.90	0.040	0.003	130	140	30
05-08	0.02	0.51	0.89	0.040	0.003	130	150	30
08-12	0.01	0.47	0.98	0.030	0.003	130	150	50
12-14	<0.01	<0.01	0.87	0.045	0.003	130	130	30
14-15	<0.01	<0.01	0.81	0.055	0.002	130	130	20
15-18	<0.01	0.22	<0.01	0.020	0.003	130	150	5
19-19	0.03	0.60	1.0	0.210	0.003	110	100	40
22-23	0.07	0.54	0.87	0.085	0.005	120	120	20
23-27	0.06	0.53	0.92	0.075	0.006	130	140	20
27-29	<0.01	0.61	0.93	0.060	0.007	130	160	30
29-31	<0.01	0.70	1.0	0.065	0.013	120	160	20
MAY 31-								
JUN 01	<0.01	0.76	1.0	0.170	0.010	120	130	30
01-02	0.07	1.0	0.81	0.230	0.009	95	100	30
03-05	<0.01	0.90	0.92	0.220	0.011	100	98	30
05-09	0.02	0.84	1.1	0.090	0.014	130	150	30
09-12	0.02	0.52	1.1	0.090	0.016	130	170	30
12-16	0.02	0.50	1.2	0.090	0.018	130	170	30
16-19	0.02	0.44	1.3	0.160	0.017	130	180	60
19-20	0.03	0.64	1.2	0.120	0.027	110	150	30
20-20	0.02	0.78	1.2	0.260	0.021	110	130	70
20-22	0.02	0.68	1.2	0.280	0.026	100	140	40
23-24	<0.01	0.88	1.2	0.200	0.026	120	150	40
26-27	<0.01	1.1	1.2	0.330	0.029	110	150	60
JUN 30-								
JUL 03	<0.01	<0.01	1.3	0.150	0.026	130	200	30
03-07	0.01	0.45	1.2	0.130	0.023	120	190	30
07-08	<0.01	0.79	1.2	0.100	0.058	120	190	20
10-11	<0.01	0.91	1.1	0.130	0.027	120	180	30
14-15	0.01	0.12	1.1	0.120	0.022	130	210	40
17-18	<0.01	0.22	1.1	0.075	0.020	130	210	20
21-21	<0.01	0.54	1.1	0.110	0.017	110	180	20
21-22	<0.01	0.47	1.1	0.070	0.018	120	200	30
24-25	0.02	0.37	0.99	0.060	0.016	120	200	20
28-29	0.03	0.49	1.0	0.070	0.012	130	210	20

STREAMS TRIBUTARY TO LAKE ONTARIO
0423205010 IRONDEQUOIT CREEK ABOVE BLOSSOM ROAD, ROCHESTER, NY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	TUR- BID- ITY (NTU) (00076)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	ALKA- LITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	RESIDUE VOLA- TILE, SUS- PENDE (MG/L) (00535)
JUL 31-								
AUG 01	1020	0120	33	35	--	--	358	63
04-05	0940	2340	34	3.9	--	--	--	--
07-09	0925	2025	32	2.2	--	--	--	--
11-13	0950	0250	33	2.1	--	--	--	--
13-13	0350	1750	142	28	--	--	--	--
13-14	1850	0850	82	23	--	--	--	--
14-15	0915	2015	46	19	1060	195	21	<11
15-16	2115	1215	257	45	726	170	496	49
16-18	1315	0815	77	27	861	165	139	23
18-21	0900	0800	49	8.0	--	--	--	--
21-25	0910	0810	54	15	--	--	--	--
25-29	1000	0900	49	16	--	--	--	--
SEP								
01-02	1325	0825	40	11	--	--	--	--
02-03	0925	0225	70	14	--	--	--	--
03-04	0325	0825	58	14	--	--	--	--
04-05	0910	1210	43	3.7	--	--	--	--
08-10	0900	2000	41	7.1	--	--	--	--
10-11	2100	0800	45	7.5	--	--	--	--
11-12	0910	0410	167	5.5	--	--	--	--
12-15	0510	0810	72	6.3	--	--	--	--
15-17	0910	1610	42	6.3	--	--	--	--
18-21	0920	0820	52	5.0	--	--	--	--
SEP 29-								
OCT 02	0920	0820	296	44	743	166	201	29

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHOS- TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
JUL 31-								
AUG 01	0.01	0.79	1.1	0.710	0.011	130	230	150
04-05	0.02	0.62	0.96	0.055	0.010	130	240	20
07-09	0.02	0.44	0.90	0.030	0.008	130	240	20
11-13	<0.01	0.27	0.87	0.060	<0.002	130	250	20
13-13	<0.01	0.40	0.85	0.280	<0.002	91	160	30
13-14	<0.01	0.76	0.82	0.210	<0.002	74	140	30
14-15	0.02	0.45	0.92	0.062	0.016	110	180	20
15-16	0.02	1.3	0.74	0.540	0.017	77	100	40
16-18	0.02	0.77	0.78	0.220	0.018	97	130	30
18-21	0.02	0.36	0.97	0.090	0.020	99	190	20
21-25	0.01	0.10	0.94	0.085	0.018	120	190	30
25-29	<0.01	0.15	1.0	0.100	0.015	120	220	30
SEP								
01-02	<0.01	0.42	0.97	0.070	0.015	130	240	20
02-03	<0.01	0.27	0.91	0.140	0.021	120	210	30
03-04	<0.01	0.27	<0.01	0.120	0.018	100	170	20
04-05	<0.01	0.45	0.99	0.065	0.018	120	200	10
08-10	<0.01	0.30	1.1	0.095	0.016	130	230	30
10-11	<0.01	0.12	1.2	0.110	0.013	130	240	10
11-12	<0.01	0.28	1.0	0.130	0.014	110	180	30
12-15	<0.01	0.86	0.83	0.140	0.019	99	140	30
15-17	<0.01	0.35	1.0	0.100	0.019	130	200	20
18-21	<0.01	0.34	0.98	0.075	0.020	120	180	20
SEP 29-								
OCT 02	<0.01	0.63	0.67	0.340	0.024	82	97	30

0423205025 IRONDEQUOIT CREEK AT EMPIRE BOULEVARD, ROCHESTER, NY

LOCATION.--Lat 43°10'34", long 77°31'37", Monroe County, Hydrologic Unit 04140101, on right bank 25 ft upstream from bridge on Empire Boulevard (Route 404), 200 ft upstream from mouth at south end of Irondequoit Bay, and 1.5 mi east of Rochester.

DRAINAGE AREA.--151 mi², flow from 8.45 mi² noncontributing.

WATER-DISCHARGE RECORDS

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

GAGE.--Ultrasonic velocity meter, water-stage recorder, and crest-stage gage. Datum of gage is 242.66 ft above sea level (levels by Corps of Engineers).

REMARKS.--Records good except those for estimated daily discharges and those for periods of daily mean velocities less than 0.1 ft/s, which are fair. Records affected by backwater from Irondequoit Bay. Discharge includes undetermined diversion from Erie (Barge) Canal. Undetermined discharge (usually less than 5 percent of the total flow) bypasses gage through culvert 900 ft west of main channel. Unpublished gage-height record for March 1989 to May 1990 is available in files of U.S. Geological Survey. Unpublished water-quality records are available in files of Monroe County Department of Health.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Oct. 20	1515	*1,260	a4.35	Dec. 2	Unknown	1,000	Unknown

a Backwater from Irondequoit Bay.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	120	433	112	105	327	378	86	209	51	30	45
2	50	105	e900	142	102	228	382	96	241	52	24	42
3	49	117	e700	240	109	201	329	102	193	31	32	98
4	57	109	392	254	117	169	255	104	125	34	31	51
5	53	103	300	231	423	141	209	100	100	73	43	44
6	52	96	274	257	310	174	196	71	86	49	41	32
7	48	103	238	180	181	186	166	82	78	36	34	45
8	52	271	202	140	146	171	132	54	87	48	28	57
9	52	674	181	127	114	176	155	54	77	157	32	46
10	183	696	170	126	110	208	144	68	62	79	31	47
11	164	365	149	108	101	372	129	72	68	57	25	91
12	94	176	157	94	91	352	146	69	54	43	39	192
13	78	175	328	95	92	267	231	87	62	33	129	e79
14	73	158	451	93	88	268	197	106	61	31	83	61
15	73	148	309	91	86	466	146	134	59	e61	51	e46
16	64	136	217	86	73	340	124	95	45	e77	239	e50
17	62	132	201	72	93	229	116	94	93	e38	86	45
18	60	133	174	69	111	238	127	78	78	e33	68	e60
19	351	134	156	77	183	228	150	185	85	e39	58	e44
20	1030	130	137	75	215	216	153	355	114	e42	52	e50
21	972	125	116	82	186	205	135	213	90	e57	80	73
22	556	117	112	110	207	318	122	135	59	e57	64	53
23	295	107	121	168	177	292	108	118	66	e49	62	e40
24	244	113	191	96	132	222	110	96	126	e42	54	e42
25	202	136	178	169	126	210	98	87	96	e38	46	e48
26	152	198	139	126	117	408	95	96	81	e38	45	97
27	136	219	130	91	421	382	92	79	99	e52	43	61
28	123	178	125	104	518	276	142	78	64	e32	79	55
29	130	163	158	82	---	252	135	78	49	48	54	470
30	134	167	168	87	---	249	105	75	56	46	53	387
31	138	---	137	91	---	342	---	86	---	31	44	---
TOTAL	5787	5604	7644	3875	4734	8113	5007	3233	2763	1554	1780	2551
MEAN	187	187	247	125	169	262	167	104	92.1	50.1	57.4	85.0
MAX	1030	696	900	257	518	466	382	355	241	157	239	470
MIN	48	96	112	69	73	141	92	54	45	31	24	32

e Estimated

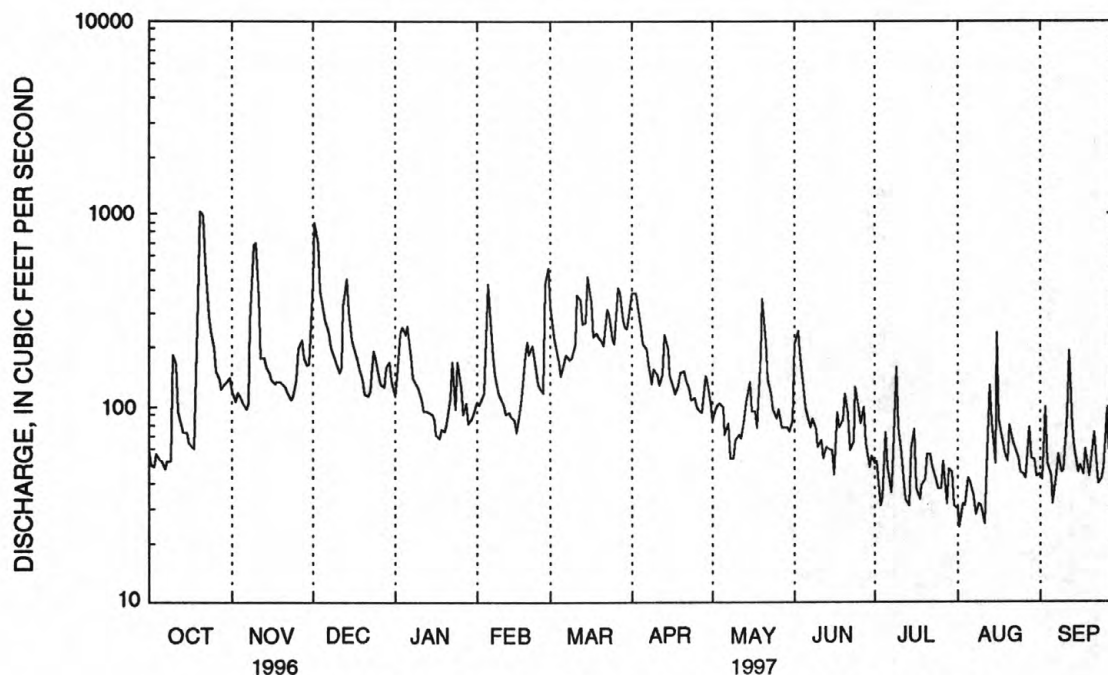
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1997, BY WATER YEAR (WY)

	1990	1991	1992	1993	1994	1995	1996	1997
MEAN	103	134	156	159	148	268	257	130
MAX	187	208	247	286	199	351	481	232
(WY)	1997	1993	1997	1993	1994	1993	1996	1996
MIN	52.2	63.3	87.4	85.6	85.6	160	82.0	63.8
(WY)	1995	1992	1996	1994	1995	1995	1995	1995

STREAMS TRIBUTARY TO LAKE ONTARIO
0423205025 IRONDEQUOIT CREEK AT EMPIRE BOULEVARD, ROCHESTER, NY--continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1990 - 1997	
ANNUAL TOTAL	63133		52645		141	
ANNUAL MEAN	172		144		183	
HIGHEST ANNUAL MEAN					80.3	
LOWEST ANNUAL MEAN					1870	
HIGHEST DAILY MEAN	1250	Jan 20	1030	Oct 20	1870	Apr 2 1993
LOWEST DAILY MEAN	37	Jan 3	24	Aug 2	24	Aug 27 1995
ANNUAL SEVEN-DAY MINIMUM	38	Aug 27	33	Aug 6	27	Aug 24 1995
INSTANTANEOUS PEAK FLOW			1260	Oct 20	2130	Apr 3 1993
INSTANTANEOUS PEAK STAGE			a5.71	May 22	a6.64	Apr 23 1993
10 PERCENT EXCEEDS	347		282		272	
50 PERCENT EXCEEDS	124		105		93	
90 PERCENT EXCEEDS	52		45		45	

a Backwater from Irondequoit Bay.



STREAMS TRIBUTARY TO LAKE ONTARIO

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

WATER-QUALITY RECORDS

PERIOD OF RECORD.--1989 to current year.

CHEMICAL DATA: 1989-97 (e).

NUTRIENT DATA: 1989-97 (e).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: November 1994 to current year.

INSTRUMENTATION. --Automatic water sampler since September 1989. Water-temperature recorder since November 1994 provides 15-minute-interval readings.

COOPERATION.--Water-quality samples were collected and analyzed by the Monroe County Environmental Health Laboratory at Rochester, N.Y.

REMARKS.--Prior to 1994 water year, data published in "Water Resources of Monroe County New York, Water Years 1989-93", U. S. Geological Survey open-file report 97-587,

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 29.0°C, July 15, 1995; minimum, 0.0°C, many days during winter period.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 28.5°C, July 15; minimum, 0.5°C, many days during winter period.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	17.0	14.0	15.5	8.5	7.0	7.5	4.5	4.0	4.0	.5	.5	.5
2	18.0	15.5	16.5	7.0	6.0	6.5	4.5	4.0	4.0	2.5	.5	1.0
3	17.0	13.0	14.5	6.0	5.0	5.5	4.5	3.5	4.0	4.0	2.5	3.5
4	13.5	11.0	12.5	8.0	5.5	6.5	4.5	4.5	4.5	4.0	3.5	4.0
5	12.5	9.0	11.0	8.0	7.0	7.5	5.0	4.5	4.5	6.0	4.0	5.5
6	13.0	9.0	11.0	8.5	7.0	7.5	5.0	4.5	4.5	6.0	3.0	4.5
7	14.5	10.5	12.0	11.5	8.0	10.0	5.0	4.5	4.5	3.0	1.0	2.0
8	14.0	12.0	13.0	12.5	10.5	11.5	5.0	4.5	4.5	1.0	.5	.5
9	13.5	13.0	13.5	10.5	8.5	9.5	4.5	3.5	4.0	.5	.5	.5
10	13.0	11.5	12.5	8.5	7.5	8.0	4.0	3.5	4.0	1.5	.5	1.0
11	11.5	10.0	10.5	7.5	6.0	7.0	4.5	4.0	4.0	1.0	.5	.5
12	11.5	9.0	10.5	6.0	5.0	5.5	5.5	4.5	4.5	.5	.5	.5
13	14.0	10.5	12.0	5.5	4.5	5.0	6.5	5.5	6.0	.5	.5	.5
14	15.0	12.5	13.5	5.0	4.0	4.5	6.0	5.0	5.5	1.0	.5	.5
15	12.5	10.0	11.5	5.0	4.0	4.5	5.0	4.5	5.0	1.0	.5	.5
16	14.0	10.5	12.0	5.0	3.0	4.0	5.5	4.5	5.0	1.0	.5	.5
17	15.0	12.5	13.5	5.5	3.5	4.5	6.5	5.5	6.0	1.0	.5	.5
18	16.0	13.0	14.0	7.0	5.5	6.0	6.0	5.5	6.0	.5	.5	.5
19	14.5	11.0	12.5	6.5	6.0	6.5	5.5	3.0	4.5	.5	.5	.5
20	11.5	11.0	11.0	6.0	5.0	5.5	3.0	1.0	1.5	.5	.5	.5
21	11.5	11.0	11.0	5.5	5.0	5.0	1.0	.5	.5	.5	.5	.5
22	12.0	11.0	11.5	5.0	4.5	5.0	2.0	.5	1.5	.5	.5	.5
23	12.0	10.5	11.0	4.5	4.0	4.5	3.5	2.0	3.0	.5	.5	.5
24	11.5	11.0	11.5	4.5	3.5	4.0	5.0	3.5	4.5	.5	.5	.5
25	12.0	10.5	11.0	4.0	3.0	3.5	4.0	1.5	2.5	1.0	.5	.5
26	11.5	9.5	10.5	4.0	2.5	3.5	1.5	1.0	1.0	1.0	.5	.5
27	12.5	10.0	11.0	2.5	1.5	2.0	2.5	1.5	2.0	.5	.5	.5
28	13.0	11.5	12.5	2.0	1.0	1.5	4.5	2.5	3.0	.5	.5	.5
29	11.5	10.0	11.0	3.0	1.5	2.5	5.0	4.5	5.0	.5	.5	.5
30	11.5	10.0	10.5	4.0	2.5	3.0	5.0	3.0	4.0	.5	.5	.5
31	11.0	8.5	9.5	---	---	---	3.0	.5	1.5	.5	.5	.5
MONTH	18.0	8.5	12.1	12.5	1.0	5.6	6.5	.5	3.8	6.0	.5	1.1

STREAMS TRIBUTARY TO LAKE ONTARIO
0423205025 IRONDEQUOIT CREEK AT EMPIRE BOULEVARD, ROCHESTER, NY--continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	1.0	.5	.5	5.0	3.0	4.0	6.0	2.5	4.5	16.5	12.5	15.0
2	2.5	1.0	1.5	6.5	5.0	6.0	8.0	5.0	6.5	14.5	12.0	13.5
3	3.0	2.5	3.0	5.5	4.5	5.0	9.0	6.5	8.0	13.5	12.0	13.0
4	2.5	2.0	2.5	4.5	4.0	4.0	11.0	8.0	9.5	13.5	11.0	12.0
5	2.0	1.0	1.5	4.5	3.5	4.0	11.5	9.5	10.5	14.0	10.5	12.5
6	1.5	.5	1.0	3.5	1.5	2.5	14.5	11.0	12.5	13.5	11.5	12.5
7	2.5	1.0	1.5	3.0	1.5	2.0	14.0	9.0	11.0	13.0	10.5	12.0
8	2.5	1.5	2.0	2.5	1.5	2.0	9.0	6.5	8.0	13.5	10.5	12.0
9	1.5	.5	1.0	3.5	1.5	2.5	7.0	4.5	6.0	14.5	11.5	13.0
10	1.0	.5	.5	5.5	3.0	4.0	7.0	4.5	5.5	14.0	10.5	12.0
11	2.0	1.0	1.5	5.0	3.5	4.5	8.0	6.0	7.0	14.5	10.0	12.0
12	2.0	1.5	1.5	3.5	2.5	3.0	7.5	7.0	7.0	15.5	12.0	13.5
13	1.5	.5	1.0	3.5	1.5	2.5	7.0	6.5	7.0	15.0	13.0	14.0
14	1.0	.5	.5	2.5	1.0	1.5	8.5	5.5	7.0	15.0	13.0	14.0
15	2.5	1.0	1.5	2.0	1.0	1.5	9.5	7.0	8.0	14.5	12.5	13.5
16	2.0	1.0	1.5	2.0	.5	1.0	10.5	8.0	9.0	13.5	10.5	12.0
17	1.0	.5	.5	3.0	1.0	1.5	10.0	8.0	9.0	11.5	10.0	10.5
18	4.0	.5	2.0	4.5	2.5	3.5	8.0	7.0	7.5	12.0	9.0	11.0
19	5.0	4.0	4.5	4.5	2.0	3.5	7.0	6.5	6.5	12.5	10.5	11.5
20	4.5	3.0	4.0	4.0	3.5	4.0	6.5	6.0	6.5	13.5	11.0	12.5
21	8.0	4.0	5.5	4.0	3.0	3.5	10.0	6.5	8.0	13.0	11.0	12.0
22	8.0	4.5	7.0	4.5	3.5	4.0	12.0	9.0	10.5	14.0	10.5	12.5
23	4.5	2.5	3.5	4.5	2.0	3.0	13.5	10.5	12.0	15.5	12.0	13.5
24	2.5	1.0	2.0	5.0	2.0	3.5	14.0	12.0	12.5	16.5	13.5	15.0
25	2.0	.5	1.0	4.5	3.0	4.0	14.0	12.0	13.0	16.0	15.0	15.5
26	3.5	1.0	2.5	4.5	4.0	4.5	14.5	11.5	13.0	17.0	13.5	15.0
27	5.0	3.5	4.0	7.5	3.5	5.5	13.5	12.5	13.0	18.0	14.5	16.0
28	4.5	3.5	4.0	9.5	6.5	8.0	12.5	10.5	11.5	18.5	14.5	16.5
29	---	---	---	10.5	9.0	9.5	13.0	9.5	11.0	17.0	15.5	16.5
30	---	---	---	10.0	8.5	9.0	16.5	10.0	13.5	17.0	15.0	15.5
31	---	---	---	8.5	4.0	6.0	---	---	---	17.0	15.0	16.0
MONTH	8.0	.5	2.3	10.5	.5	4.0	16.5	2.5	9.1	18.5	9.0	13.4
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	16.5	15.0	16.0	25.5	23.0	24.0	--	--	--	22.5	18.5	20.0
2	17.0	14.5	15.5	26.0	22.5	23.5	--	--	--	22.5	20.0	21.0
3	19.0	14.5	16.5	25.5	23.0	24.0	--	--	--	20.5	17.0	18.5
4	19.5	16.5	18.0	24.5	20.5	22.0	--	--	--	18.0	15.0	16.5
5	21.5	17.5	19.0	23.0	18.5	20.5	--	--	--	20.0	15.0	17.0
6	22.0	18.0	19.5	23.5	19.0	21.0	--	--	--	20.5	16.5	18.0
7	20.5	18.5	19.5	22.5	20.0	21.0	--	--	--	19.0	17.5	18.0
8	21.5	17.5	19.0	21.5	19.0	20.0	--	--	--	19.5	16.5	18.0
9	23.0	18.5	20.0	20.5	17.5	19.0	--	--	--	20.0	16.5	18.0
10	24.0	19.5	21.5	21.5	17.0	19.0	--	--	--	18.0	17.0	17.5
11	24.5	19.5	22.0	23.5	18.5	20.5	--	--	--	18.0	17.0	17.5
12	24.0	20.5	22.0	25.0	19.5	21.5	--	--	--	19.5	17.5	18.5
13	24.0	20.5	21.5	26.0	21.0	23.0	--	--	--	19.0	17.5	18.5
14	23.0	19.5	21.0	27.0	22.5	24.0	23.0	19.5	21.0	20.0	17.0	18.5
15	23.0	19.0	20.5	28.5	24.0	25.0	21.5	19.5	20.0	21.0	17.0	19.0
16	23.0	19.0	21.0	27.0	23.5	25.0	23.0	19.0	21.0	21.5	18.0	19.5
17	23.0	19.5	21.5	27.5	23.5	25.0	23.0	20.5	21.5	20.0	17.5	19.0
18	22.0	19.0	21.0	27.0	24.0	25.5	22.5	19.0	20.5	21.0	17.0	19.0
19	21.0	18.5	19.5	26.0	22.5	24.0	22.5	19.0	20.5	19.5	17.5	18.0
20	21.5	18.5	20.0	24.5	20.5	22.5	20.5	18.5	19.5	19.0	16.5	17.5
21	24.0	20.0	21.5	23.0	19.5	21.0	19.5	17.5	18.5	16.5	14.5	15.5
22	25.5	21.5	23.5	23.0	18.5	20.5	20.0	17.5	18.5	16.5	13.0	14.5
23	26.0	22.0	23.5	23.0	19.0	20.5	19.0	17.5	18.0	15.5	14.0	14.5
24	24.5	22.0	23.0	24.0	20.0	22.0	20.0	17.0	18.5	16.0	12.5	14.0
25	25.5	22.0	23.5	25.0	20.5	22.5	22.5	18.5	20.0	14.5	12.5	13.0
26	26.0	22.5	24.0	24.5	20.5	22.5	21.5	18.5	20.0	14.0	13.0	13.5
27	25.5	21.0	23.0	24.5	22.0	23.0	22.5	19.0	20.5	15.0	11.0	13.0
28	26.0	21.5	23.0	--	--	--	21.0	19.0	20.0	16.0	11.5	14.0
29	27.0	22.0	24.0	--	--	--	21.5	19.0	20.0	16.0	14.0	15.0
30	26.0	22.5	24.0	--	--	--	22.5	19.0	20.5	16.0	14.5	15.0
31	---	---	---	--	--	--	21.0	19.0	20.0	---	---	---
MONTH	27.0	14.5	20.9	--	--	--	--	--	--	22.5	11.0	17.0

STREAMS TRIBUTARY TO LAKE ONTARIO

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	TUR- BID- ITY (NTU) (00076)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	ALKA- LITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	RESIDUE VOLA- TILE, SUS- PENDE (MG/L) (00535)
SEP 30-								
OCT 03	1105	1005	55	5.8	--	--	--	--
03-07	1055	0955	54	3.6	--	--	--	--
07-09	1040	2140	50	3.2	--	--	--	--
09-11	2240	0940	184	8.5	--	--	--	--
11-15	1050	0950	89	4.7	--	--	--	--
15-17	1100	1000	64	4.4	--	--	--	--
17-18	1020	2120	62	5.3	--	--	--	--
18-20	2220	1720	585	55	--	--	292	42
20-21	1820	0920	1100	45	524	--	211	35
21-24	1045	0945	495	27	--	--	54	8
24-28	1120	1020	167	8.4	--	--	23	<5
28-31	1025	0925	133	6.7	--	--	--	--
OCT 31-								
NOV 04	1025	0925	117	3.9	--	--	--	--
04-08	1020	0920	101	3.7	--	--	--	--
08-09	1015	1315	516	35	--	--	79	9
09-12	1415	0915	509	30	--	--	--	--
12-14	1100	1000	172	8.0	--	--	--	--
14-18	1020	0920	140	4.6	--	--	--	--
18-21	1015	0915	133	3.8	--	--	--	--
21-25	1025	0925	112	3.7	--	--	--	--
25-27	1025	0925	193	4.5	--	--	--	--
27-30	1025	2225	176	5.4	--	--	--	--
NOV 30-								
DEC 01	2325	0925	234	35	--	--	95	11
02-05	1025	0925	e606	27	--	--	--	--
05-09	1015	0915	240	5.8	--	--	--	--
09-12	1020	0920	163	3.8	--	--	--	--
12-13	1025	0525	151	3.1	--	--	--	--
13-14	0625	0525	418	32	--	--	67	11
14-16	0625	0925	339	32	--	--	45	7
16-19	1020	0920	187	6.3	--	--	--	--
19-23	1005	0905	126	4.4	--	--	--	--
23-26	1015	0915	168	5.2	--	--	--	--
26-30	1030	0930	140	4.0	--	--	--	--
DEC 30								
JAN 02	1035	0935	135	4.6	--	--	--	--
02-04	1030	0130	209	5.4	--	--	--	--
04-06	0230	0930	244	14	--	--	--	--
06-09	1035	0935	173	14	--	--	--	--
09-12	1020	1020	113	3.4	--	--	--	--
13-17	1050	0950	88	3.1	--	--	--	--
17-21	1040	0940	75	2.5	--	--	--	--
21-22	1055	0955	85	2.7	--	--	--	--
22-23	1055	0955	151	7.5	--	--	--	--
23-27	1015	0915	129	5.2	--	--	--	--
27-30	1025	0925	94	3.2	--	--	--	--
JAN 30-								
FEB 03	1025	0925	99	2.6	--	--	--	--
03-04	1015	1815	110	3.8	--	--	--	--
04-05	1915	1515	346	32	--	--	78	10
05-06	1615	0915	410	50	--	--	90	12
06-10	1020	0920	160	13	--	--	--	--
10-14	1015	0915	96	3.1	--	--	--	--
14-18	1015	0915	85	4.5	--	--	--	--
18-20	1025	0925	177	8.9	--	--	--	--
20-24	1025	0925	187	5.8	--	--	--	--
24-27	1025	0025	122	2.9	--	--	--	--
27-27	0125	0925	255	9.5	--	--	--	--

e Estimated daily discharge.

STREAMS TRIBUTARY TO LAKE ONTARIO
0423205025 IRONDEQUOIT CREEK AT EMPIRE BOULEVARD, ROCHESTER, NY--continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
SEP 30-								
OCT 03	0.02	0.34	0.79	0.058	0.023	120	180	20
03-07	0.05	0.44	0.82	0.040	0.017	130	200	20
07-09	0.05	0.16	0.86	0.035	0.012	140	220	30
09-11	0.08	0.38	0.79	0.075	0.023	90	140	--
11-15	0.06	0.59	0.73	0.050	0.020	110	150	20
15-17	0.04	0.46	0.76	0.050	0.017	130	180	--
17-18	0.07	0.36	0.71	0.075	0.016	140	200	20
18-20	0.03	0.64	0.54	0.480	0.030	76	95	90
20-21	0.02	0.79	0.68	0.300	0.039	58	53	50
21-24	0.03	0.74	0.83	0.160	0.037	73	76	30
24-28	0.05	0.06	0.96	0.075	0.027	98	110	30
28-31	0.06	0.58	0.97	0.075	0.026	110	140	30
OCT 31-								
NOV 04	0.03	0.62	0.94	0.040	0.026	110	140	20
04-08	0.06	0.80	1.0	0.050	0.017	120	150	10
08-09	0.01	0.85	0.62	0.250	0.039	75	76	50
09-12	0.03	0.82	0.70	0.160	0.042	65	62	30
12-14	0.06	0.81	0.95	0.070	0.028	110	93	20
14-18	0.06	0.56	1.1	0.060	0.022	130	110	20
18-21	0.07	0.62	1.1	0.045	0.017	120	110	10
21-25	0.06	0.57	1.1	0.035	0.015	120	120	<10
25-27	0.06	0.47	1.1	0.050	0.014	240	120	20
27-30	0.04	0.50	1.1	0.040	0.012	210	110	50
NOV 30-								
DEC 01	0.03	0.47	0.96	0.170	0.029	160	71	10
02-05	0.03	0.69	1.0	0.130	0.031	94	62	30
05-09	0.05	0.57	1.3	0.055	0.020	120	91	20
09-12	0.05	0.52	1.4	0.040	0.016	120	110	30
12-13	0.05	0.55	1.5	0.035	0.015	120	120	20
13-14	0.04	0.53	1.1	0.140	0.020	100	74	50
14-16	0.03	0.55	1.1	0.110	0.024	89	69	20
16-19	0.04	--	1.4	0.050	0.018	110	96	10
19-23	0.06	0.60	1.5	0.040	0.015	120	120	20
23-26	0.04	0.62	1.4	0.040	0.012	140	110	20
26-30	0.03	0.30	1.4	0.030	0.012	130	120	20
DEC 30								
JAN 02	0.06	0.58	1.4	0.035	0.012	130	110	20
02-04	0.06	0.40	1.4	0.035	0.011	260	110	30
04-06	0.05	0.53	1.3	0.060	0.014	150	84	20
06-09	0.05	0.27	1.3	0.055	0.013	130	93	30
09-12	0.05	0.45	1.6	0.025	0.010	180	130	<5
13-17	0.04	0.32	1.7	0.025	0.010	150	150	20
17-21	0.06	0.37	1.8	0.025	0.007	160	170	20
21-22	0.06	0.30	1.7	0.020	0.008	180	170	10
22-23	0.09	0.55	1.6	0.040	0.011	330	140	20
23-27	0.06	0.54	1.4	0.030	0.008	280	120	20
27-30	0.05	0.46	1.5	0.025	0.007	220	130	20
JAN 30-								
FEB 03	0.03	1.1	1.6	0.025	0.006	260	150	20
03-04	0.02	0.43	1.5	0.025	0.006	200	130	10
04-05	0.06	0.70	1.3	0.120	0.011	270	85	190
05-06	0.08	0.83	1.1	0.190	0.020	200	60	120
06-10	0.05	0.79	1.3	0.065	0.013	160	92	10
10-14	0.02	0.42	1.5	0.030	0.007	160	130	10
14-18	0.02	0.48	1.5	0.025	0.005	170	150	5
18-20	0.03	0.60	1.3	0.040	0.005	260	120	20
20-24	0.04	0.64	0.98	0.035	0.006	150	90	10
24-27	0.03	0.69	1.1	0.030	0.004	150	110	10
27-27	0.04	0.62	1.2	0.045	0.006	270	180	20

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	TUR- BID- ITY (NTU) (00076)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	ALKA- LINITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	RESIDUE VOLA- TILE, SUS- PENDE (MG/L) (00535)
FEB 27-								
MAR 03	0940	0840	373	37	--	--	--	--
03-06	1100	1000	163	3.6	--	--	--	--
06-10	1055	0955	176	6.0	--	--	--	--
10-12	1020	0020	325	9.5	--	--	--	--
12-13	0120	0920	334	10	--	--	--	--
13-14	1015	0915	233	4.5	--	--	--	--
14-15	1015	0915	376	10	--	--	--	--
15-17	1015	0915	360	10	--	--	--	--
17-20	1025	0925	226	3.7	--	--	--	--
20-21	1015	1715	210	3.2	--	--	--	--
21-22	1815	1715	283	7.1	--	--	--	--
22-24	1815	0915	288	11	--	--	--	--
24-25	1020	1520	207	5.4	--	--	--	--
25-27	1620	0920	377	20	--	--	--	--
27-31	1020	0920	278	18	--	--	--	--
MAR 31-								
APR 03	1025	0925	374	15	--	--	--	--
03-06	1025	2325	233	20	--	--	--	--
10-12	1015	0215	132	5.6	--	--	--	--
14-17	1020	0920	144	14	--	--	--	--
17-21	1020	0920	139	7.4	--	--	--	--
21-24	1025	0925	117	18	--	--	--	--
24-28	1015	0915	100	17	--	--	--	--
APR 28-								
MAY 01	1025	0925	126	16	--	--	--	--
APR								
29-29	0940	1115	114	13	--	--	27	5
MAY								
01-05	1025	0925	98	17	--	--	--	--
05-08	1025	0925	79	14	--	--	--	--
08-12	1010	0910	63	13	--	--	--	--
12-15	1025	0925	100	14	--	--	--	--
15-19	1015	0915	97	7.8	--	--	--	--
19-20	1025	1525	304	19	--	--	--	--
20-22	1625	0825	217	24	--	--	--	--
22-23	0900	1000	125	13	--	--	--	--
23-27	1025	0925	95	6.6	--	--	--	--
27-29	1025	0925	80	7.8	--	--	--	--
29-31	1055	2155	79	6.9	--	--	--	--
MAY 31-								
JUN 02	2255	0955	214	9.8	--	--	--	--
02-05	1035	0935	168	17	--	--	--	--
05-09	1025	0925	84	14	--	--	--	--
09-12	1025	0925	68	15	--	--	--	--
12-16	1025	0925	60	17	--	--	--	--
16-19	1025	0925	73	8.2	--	--	--	--
19-20	1025	0525	81	15	--	--	--	--
20-20	0625	2125	124	14	--	--	--	--
20-23	2225	0925	75	15	--	--	--	--
23-24	1025	0925	65	11	--	--	--	--
24-24	1025	2125	182	13	--	--	--	--
24-26	2225	0925	91	17	--	--	--	--
26-30	1045	0945	72	5.6	--	--	--	--
JUN 30-								
JUL 03	0955	0855	52	4.2	--	--	--	--
03-07	1105	1005	45	8.9	--	--	--	--
07-08	1110	1910	42	14	1190	242	29	6
08-09	2010	1010	135	16	--	--	--	--
09-10	1110	1010	111	21	--	--	--	--
10-14	0835	0735	50	6.0	--	--	--	--
14-17	0915	0815	e56	8.9	--	--	--	--
17-21	0915	0815	e40	3.5	--	--	--	--
21-21	0905	2005	e57	6.9	--	--	--	--
21-24	2105	0805	e52	7.7	--	--	--	--
24-28	0905	0805	e42	3.3	--	--	--	--
28-31	0925	0825	e40	6.8	--	--	--	--

e Estimated daily discharge.

STREAMS TRIBUTARY TO LAKE ONTARIO
0423205025 IRONDEQUOIT CREEK AT EMPIRE BOULEVARD, ROCHESTER, NY--continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTH, DIS- SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
FEB 27-								
MAR 03	0.04	0.68	1.1	0.120	0.008	130	64	20
03-06	0.03	0.69	1.1	0.025	0.004	130	96	20
06-10	0.03	0.78	1.2	0.020	0.004	270	100	20
10-12	0.01	0.79	1.1	0.045	0.005	230	84	60
12-13	0.02	0.72	1.1	0.045	0.007	150	68	30
13-14	0.02	0.79	1.2	0.030	0.005	150	83	80
14-15	0.03	0.79	1.1	0.050	0.007	250	75	110
15-17	0.02	0.67	1.1	0.045	0.006	180	67	60
17-20	0.03	0.63	1.2	0.025	0.004	170	91	10
20-21	<0.01	0.69	1.2	0.025	0.004	150	94	10
21-22	<0.01	0.60	1.2	0.035	0.012	170	89	10
22-24	<0.01	0.76	1.1	0.040	0.005	130	17	10
24-25	<0.01	0.71	1.0	0.030	0.004	130	89	20
25-27	0.01	0.64	1.1	0.065	0.005	130	76	50
27-31	0.03	0.73	1.0	0.070	0.005	120	78	30
MAR 31-								
APR 03	0.03	0.82	0.84	0.060	0.006	140	68	30
03-06	0.04	0.65	0.92	0.110	0.007	120	82	20
10-12	0.03	0.58	1.2	0.040	0.005	140	120	80
14-17	0.03	0.47	0.95	0.075	0.005	130	100	30
17-21	0.03	0.55	1.2	0.045	<0.002	130	120	30
21-24	0.02	0.86	0.93	0.085	0.006	130	120	30
24-28	0.04	0.50	0.82	0.095	0.006	140	130	30
APR 28-								
MAY 01	0.04	0.52	0.86	0.080	0.006	130	120	30
APR 29-29	0.07	0.70	0.93	0.080	0.006	130	120	20
MAY 01-05	0.05	0.51	0.74	0.090	0.006	140	130	30
05-08	0.04	0.58	0.75	0.075	0.006	140	150	20
08-12	0.04	0.37	0.77	0.065	0.006	140	150	20
12-15	0.01	<0.01	0.73	0.070	0.004	130	140	20
15-19	0.03	0.47	<0.01	0.055	0.006	140	150	20
19-20	0.04	0.66	0.80	0.100	0.005	110	110	20
20-22	0.05	0.63	0.65	0.095	0.007	92	77	20
22-23	0.01	0.65	0.65	0.065	0.006	110	92	40
23-27	0.02	0.51	0.67	0.055	0.008	120	120	30
27-29	0.02	0.52	0.68	0.065	0.007	130	150	20
29-31	0.04	0.84	0.70	0.065	0.007	130	150	20
MAY 31-								
JUN 02	<0.01	0.81	0.73	0.075	0.010	110	120	20
02-05	0.05	0.85	0.74	0.130	0.013	100	93	20
05-09	0.07	0.50	0.81	0.095	0.016	130	130	20
09-12	0.04	0.52	0.83	0.130	0.011	130	160	50
12-16	0.04	0.62	0.82	0.130	0.012	130	160	30
16-19	0.06	0.67	0.92	0.130	0.019	130	160	20
19-20	0.09	0.62	0.99	0.110	0.025	120	140	20
20-20	0.07	0.64	0.95	0.120	0.025	120	14	20
20-23	0.07	0.62	0.93	0.120	0.026	110	130	20
23-24	0.03	0.73	0.91	0.120	0.031	120	140	30
24-24	0.03	0.68	0.89	0.120	0.030	120	140	20
24-26	0.04	0.89	0.81	0.130	0.028	96	110	20
26-30	0.03	0.63	0.92	0.080	0.034	110	130	20
JUN 30-								
JUL 03	0.04	0.43	0.94	0.120	0.032	130	170	20
03-07	0.04	0.46	0.84	0.100	0.031	130	180	20
07-08	0.02	0.93	0.81	0.055	0.037	130	180	20
08-09	0.03	1.3	0.82	0.110	0.071	130	180	--
09-10	0.04	1.6	0.90	0.150	0.036	91	120	--
10-14	0.03	1.1	0.85	0.060	0.031	120	160	20
14-17	0.03	0.33	0.76	0.130	0.028	120	160	30
17-21	0.02	0.37	0.70	0.070	0.029	120	180	10
21-21	0.02	0.54	0.66	0.130	0.018	130	210	20
21-24	0.03	0.55	0.78	0.110	0.019	120	180	20
24-28	0.03	0.44	0.67	0.055	0.012	130	210	10
28-31	0.05	0.65	0.75	0.120	0.017	130	200	30

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	TUR- BID- ITY (NTU) (00076)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	ALKA- LILITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)	RESIDUE TOTAL AT 105 DEG. C, PENDE (MG/L) (00530)	RESIDUE VOLTA- TILE, SUS- PENDE (MG/L) (00535)
JUL 31-								
AUG 04	0925	0825	30	5.4	--	--	--	--
04-07	0940	0840	39	5.8	--	--	--	--
07-11	0915	0815	30	5.1	--	--	--	--
11-13	0855	0455	32	5.0	--	--	--	--
13-13	0555	1955	164	12	--	--	--	--
13-14	2055	0755	117	18	--	--	--	--
14-15	0925	2025	56	7.6	886	163	28	<13
15-16	2125	1625	256	7.0	737	143	70	<16
16-18	1725	0825	90	16	740	141	45	<12
18-21	0915	0815	62	8.7	--	--	--	--
21-25	0925	0825	61	7.5	--	--	--	--
25-29	0910	0810	54	12	--	--	--	--
AUG 29-								
SEP 02	0910	0810	49	6.9	--	--	--	--
02-04	0925	0825	70	8.9	--	--	--	--
04-08	0925	0823	44	2.8	--	--	--	--
08-11	0925	0825	49	3.8	--	--	--	--
11-12	0925	0825	179	4.3	--	--	--	--
12-15	0925	0825	e83	4.6	--	--	--	--
15-18	0925	0825	e48	5.2	--	--	--	--
18-22	0915	0815	e56	5.1	--	--	--	--
22-25	0915	0815	e44	5.5	--	--	--	--
25-28	0925	1625	e73	5.4	--	--	--	--
28-29	1725	0825	141	19	1070	215	77	12
29-30	1010	0310	612	18	456	114	413	47
SEP 30-								
OCT 02	0410	0910	230	40	761	162	55	8
DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHOR- THO, DIS- SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
JUL 31-								
AUG 04	0.06	0.41	0.68	0.090	0.017	130	210	30
04-07	0.05	0.41	0.66	0.090	0.018	140	220	30
07-11	0.04	0.49	0.61	0.075	0.015	140	230	20
11-13	0.04	0.36	0.55	0.005	<0.002	140	240	20
13-13	0.04	0.35	0.62	0.100	<0.002	110	190	20
13-14	0.06	0.50	0.67	0.160	<0.002	68	100	30
14-15	0.07	0.76	0.74	0.100	0.024	88	150	20
15-16	0.06	0.58	0.65	0.160	0.024	79	110	30
16-18	0.08	0.62	0.61	0.140	0.026	80	100	20
18-21	0.07	0.47	0.78	0.095	0.029	120	160	20
21-25	0.05	0.27	0.84	0.070	0.021	110	180	10
25-29	0.03	0.48	0.78	0.060	0.018	190	290	20
AUG 29-								
SEP 02	0.03	0.41	0.73	0.055	0.017	130	210	20
02-04	0.03	0.35	0.71	0.085	0.020	110	180	30
04-08	0.02	0.43	0.80	0.045	0.018	130	200	5
08-11	0.03	0.26	0.88	0.050	0.030	130	220	10
11-12	0.04	0.41	0.85	0.055	0.022	100	170	10
12-15	0.04	0.48	0.75	0.065	0.024	99	130	20
15-18	0.02	0.64	0.83	0.075	0.023	130	180	10
18-22	0.01	0.44	0.86	0.065	0.026	120	170	10
22-25	0.03	0.35	0.88	0.060	0.019	130	200	20
25-28	0.04	0.37	0.83	0.070	0.019	110	160	20
28-29	0.03	0.51	0.83	0.130	0.028	120	170	20
29-30	0.04	1.1	0.46	0.620	0.037	44	54	40
SEP 30-								
OCT 02	0.03	0.46	0.65	0.140	0.036	84	94	30

e Estimated daily discharge.

STREAMS TRIBUTARY TO LAKE ONTARIO

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 mi².

PERIOD OF RECORD.--October 1956 to current year.

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is sea level (1.59 ft Barge Canal datum). To convert elevations to sea level adjustment of 1988, subtract 0.62 ft. Prior to Oct. 1, 1975, at datum 438.41 ft higher.

REMARKS.--Area of water surface, 67.6 mi². Diversion from Susquehanna River basin enters lake through Keuka Lake Outlet at Dresden. For table of diversion, see station 01528700. Lake elevation regulated by taintor gates on Seneca River at Lock 4, Waterloo, for operation of Erie (Barge) Canal and power generation by New York State Electric and Gas Corp.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 448.95 ft, April 26, 27, 1993; minimum, 442.64 ft, Mar. 14, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 446.71 ft, Nov. 10; minimum, 443.40 ft, Jan. 22.

ELEVATION (FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	445.02	445.37	445.59	444.53	443.54	444.24	444.53	444.99	445.15	445.04	445.00	444.70
2	444.97	445.28	445.87	444.47	443.55	444.33	444.52	445.00	445.24	445.04	444.96	444.65
3	445.04	445.21	445.92	444.45	443.56	444.37	444.56	444.98	445.26	445.05	444.99	444.82
4	444.97	445.16	445.92	444.39	443.54	444.36	444.62	445.01	445.23	445.08	444.98	444.73
5	444.88	445.10	445.87	444.33	443.63	444.36	444.61	444.97	445.20	445.10	444.97	444.65
6	444.86	445.05	445.83	444.31	443.68	444.47	444.61	444.97	445.16	445.05	444.97	444.62
7	444.82	444.98	445.76	444.28	443.69	444.50	444.67	444.97	445.13	445.05	444.87	444.63
8	444.86	445.51	445.70	444.24	443.71	444.48	444.65	444.92	445.09	445.10	444.89	444.67
9	444.89	446.47	445.65	444.17	443.70	444.41	444.65	444.91	445.05	445.13	444.85	444.57
10	444.91	446.65	445.56	444.11	443.69	444.38	444.61	444.92	445.02	445.18	444.82	444.54
11	444.91	446.65	445.51	444.06	443.69	444.38	444.59	444.92	444.99	445.16	444.85	444.54
12	444.82	446.63	445.46	444.00	443.69	444.35	444.60	444.90	444.96	445.12	444.88	444.60
13	444.79	446.61	445.47	443.94	443.70	444.30	444.65	444.90	444.93	445.16	444.84	444.58
14	444.89	446.54	445.61	443.88	443.67	444.26	444.69	444.90	444.94	445.13	444.91	444.60
15	444.86	446.47	445.60	443.78	443.70	444.28	444.68	444.89	444.93	445.13	444.80	444.56
16	444.78	446.38	445.54	443.73	443.71	444.25	444.69	444.89	444.86	445.16	444.78	444.58
17	444.81	446.30	445.50	443.67	443.70	444.18	444.73	444.91	444.89	445.11	444.86	444.54
18	444.81	446.25	445.47	443.64	443.67	444.18	444.77	444.93	444.94	445.13	444.87	444.52
19	445.04	446.22	445.43	443.57	443.75	444.13	444.77	445.00	444.99	445.19	444.82	444.52
20	445.44	446.16	445.33	443.56	443.80	444.12	444.78	445.13	444.99	445.12	444.79	444.53
21	445.54	446.08	445.23	443.55	443.79	444.11	444.79	445.14	444.98	445.10	444.76	444.58
22	445.59	446.01	445.16	443.49	443.90	444.20	444.81	445.18	445.01	445.16	444.75	444.44
23	445.64	445.90	445.09	443.59	443.93	444.20	444.84	445.16	445.08	445.10	444.74	444.46
24	445.61	445.84	445.04	443.53	443.97	444.21	444.86	445.15	445.07	445.06	444.76	444.46
25	445.61	445.78	445.02	443.55	443.95	444.19	444.87	445.16	445.04	445.11	444.72	444.36
26	445.60	445.83	444.94	443.58	443.94	444.28	444.89	445.17	445.09	445.09	444.72	444.46
27	445.54	445.83	444.88	443.53	444.08	444.31	444.89	445.16	445.13	445.06	444.70	444.42
28	445.53	445.74	444.79	443.56	444.25	444.33	444.98	445.13	445.09	445.11	444.72	444.32
29	445.51	445.67	444.76	443.56	---	444.34	445.02	445.10	445.03	445.12	444.75	444.47
30	445.42	445.57	444.73	443.53	---	444.38	445.00	445.07	445.01	445.05	444.71	444.51
31	445.38	---	444.67	443.51	---	444.50	---	445.08	---	444.99	444.67	---
MEAN	445.14	445.91	445.38	443.87	443.76	444.30	444.73	445.02	445.05	445.10	444.83	444.55
MAX	445.64	446.65	445.92	444.53	444.25	444.50	445.02	445.18	445.26	445.19	445.00	444.82
MIN	444.78	444.98	444.67	443.49	443.54	444.11	444.52	444.89	444.86	444.99	444.67	444.32

CAL YR 1996 MEAN 444.80 MAX 447.02 MIN 443.78
WTR YR 1997 MEAN 445.20 MAX 446.65 MIN 443.49

STREAMS TRIBUTARY TO LAKE ONTARIO
04232482 KEUKA LAKE OUTLET AT DRESDEN, NY

185

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 mi².

PERIOD OF RECORD.--April 1965 to current year.

REVISED RECORD.--WDR NY-86-3: 1984 (P).

GAGE.--Water-stage recorder. Datum of gage is 445.35 ft above sea level. Prior to Sept. 6, 1991 at datum 0.68 ft lower and prior to Oct. 1, 1982, at datum 1.32 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by village of Penn Yan. During each year a large part of flow from 45.5 mi² of Mud Creek drainage area (Susquehanna River basin) is diverted into Keuka Lake (Oswego River basin) for power development. Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	124	371	799	437	e24	242	62	39	39	22	14	16
2	121	359	683	420	28	256	75	37	74	131	14	16
3	68	351	535	414	31	245	63	38	87	148	14	25
4	25	335	509	404	31	244	49	38	160	129	14	16
5	24	319	495	410	112	133	43	36	345	136	15	16
6	23	312	484	398	41	267	41	37	385	170	15	16
7	23	311	471	368	30	293	38	36	34	27	15	16
8	23	1110	457	343	28	153	34	35	33	25	15	15
9	23	973	444	328	e28	47	32	69	207	121	15	15
10	24	761	433	330	e28	296	30	157	513	119	15	15
11	24	661	419	313	27	493	30	156	496	110	17	16
12	23	620	417	297	26	484	33	155	337	124	17	17
13	23	603	611	211	e26	472	38	155	31	122	17	16
14	23	580	610	197	e26	496	33	239	289	26	17	15
15	22	559	513	e40	26	506	31	327	228	32	17	14
16	23	545	494	35	e26	473	30	320	30	28	17	14
17	23	530	473	e32	e26	463	31	314	30	26	17	14
18	23	518	451	e30	85	444	31	303	31	94	17	14
19	182	504	440	e28	72	403	31	329	234	117	17	14
20	171	487	433	e27	43	429	31	328	282	111	17	14
21	318	470	416	e26	42	422	153	313	265	20	17	14
22	495	451	403	e28	46	433	266	308	472	20	17	14
23	467	439	470	e34	e34	414	259	301	230	99	17	20
24	455	420	577	e36	e30	398	252	301	33	111	16	24
25	435	419	550	e34	e35	405	216	300	85	106	16	24
26	424	546	528	e26	32	482	127	293	71	123	16	24
27	418	485	507	e25	340	240	103	208	66	170	16	24
28	410	459	502	e24	265	49	113	30	127	15	17	23
29	398	442	488	e24	---	47	87	29	123	14	41	36
30	402	439	459	e24	---	46	40	29	22	15	17	26
31	393	---	441	e24	---	64	---	29	---	14	29	---
TOTAL	5630	15379	15512	5367	1588	9839	2402	5289	5359	2525	535	543
MEAN	182	513	500	173	56.7	317	80.1	171	179	81.5	17.3	18.1
MAX	495	1110	799	437	340	506	266	329	513	170	41	36
MIN	22	311	403	24	24	46	30	29	22	14	14	14

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1997, BY WATER YEAR (WY)

MEAN	118	196	243	204	210	305	323	264	189	108	81.7	86.3
MAX	404	534	532	465	421	601	737	1003	676	892	450	256
(WY)	1978	1978	1978	1978	1978	1976	1993	1996	1972	1972	1972	1987
MIN	14.6	28.8	25.4	18.3	19.2	31.8	34.9	22.2	17.2	21.1	13.7	7.14
(WY)	1989	1979	1981	1966	1967	1989	1995	1988	1980	1985	1983	1982

TRIBUTARY TO LAKE ONTARIO
04232482 KEUKA LAKE OUTLET AT DRESDEN, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1965 - 1997	
ANNUAL TOTAL	123107		69968		196	
ANNUAL MEAN	336		192		362	
HIGHEST ANNUAL MEAN					81.1	
LOWEST ANNUAL MEAN					2200	
HIGHEST DAILY MEAN	1540	May 11	1110	Nov 8	2200	Jun 22 1972
LOWEST DAILY MEAN	21	a	14	b	3.2	c
ANNUAL SEVEN-DAY MINIMUM	21	Aug 20	14	Sep 15	3.4	Sep 4 1982
INSTANTANEOUS PEAK FLOW			2130	Nov 8	d4000	Jun 22 1972
INSTANTANEOUS PEAK STAGE			6.40	Nov 8	f8.37	Jun 22 1972
INSTANTANEOUS LOW FLOW			13	g	3.2	h
10 PERCENT EXCEEDS	685		484		447	
50 PERCENT EXCEEDS	270		85		138	
90 PERCENT EXCEEDS	24		16		21	

a Aug. 20-29.

b Jul. 29, 31, Aug. 1-4, Sep. 15-22.

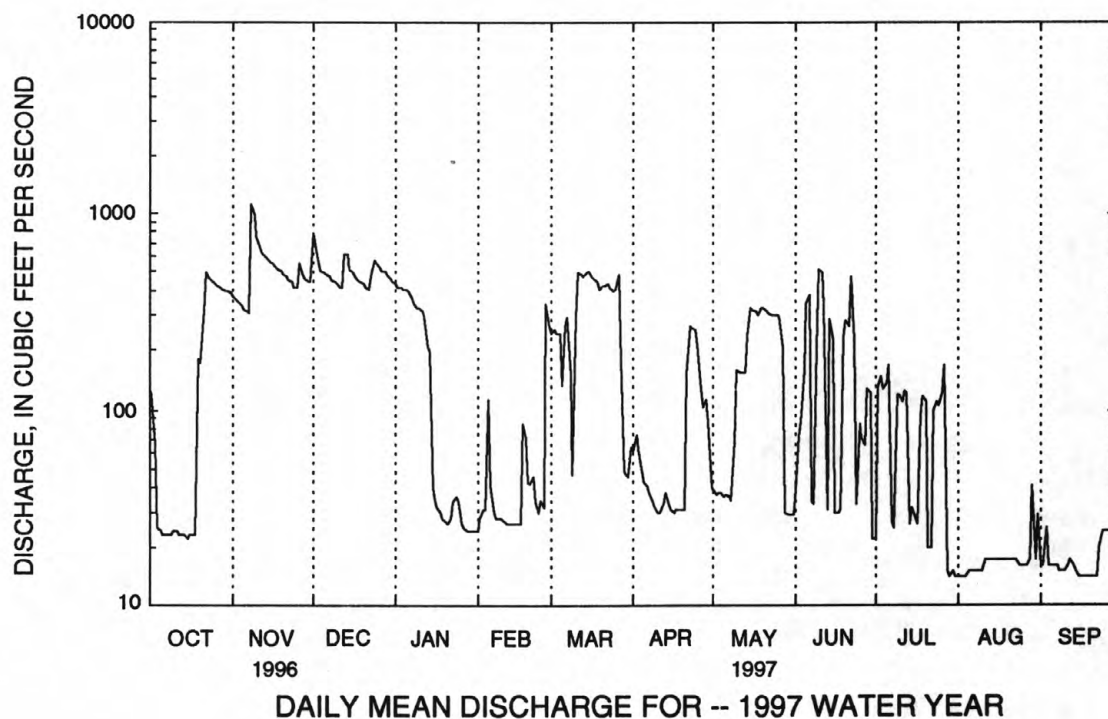
c Sep. 9, 10, 1982.

d From rating curve extended above 730 ft³/s on basis of contracted-opening measurement at Mays Mill, adjusted for intervening area.

f Datum then in use.

g Jul. 29, Aug. 4.

h Part or all of each day Sep. 6-10, 1982.



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PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Nov. 8	1345	*3.320	*6.69	Dec. 2	0245	1.500	4.41

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	27	169	35	19	90	77	38	77	19	8.1	8.3
2	15	25	604	41	18	103	89	36	60	22	7.8	7.5
3	15	24	204	53	21	100	98	45	56	18	7.6	13
4	14	22	140	50	20	87	89	44	39	16	7.5	9.0
5	13	21	112	57	97	79	77	35	33	15	7.6	7.6
6	12	20	110	59	50	171	e70	36	31	13	7.2	7.0
7	12	21	97	45	36	104	e60	33	37	12	6.5	7.1
8	12	969	84	37	30	91	e57	30	31	15	5.8	7.0
9	12	657	71	e35	27	76	53	30	37	91	5.5	6.4
10	12	238	65	e34	25	73	49	33	26	63	5.0	6.2
11	12	146	63	e30	24	68	45	37	22	31	5.8	9.5
12	11	108	80	29	23	56	44	32	32	24	6.3	16
13	11	89	195	e26	e21	47	53	30	55	21	12	10
14	10	74	214	e24	e21	50	48	27	32	19	12	8.6
15	9.8	65	146	e22	e20	60	41	26	24	17	11	7.5
16	9.7	56	139	e20	21	47	37	26	21	15	22	6.9
17	9.5	54	120	e18	21	41	37	25	32	14	11	6.5
18	9.3	53	101	16	30	45	37	25	54	15	10	8.0
19	116	59	93	e15	104	41	39	117	71	19	7.9	7.0
20	92	51	77	e15	89	41	39	137	40	14	7.1	7.5
21	102	44	68	e14	83	40	35	80	33	14	8.1	7.6
22	65	40	62	e15	113	e55	32	63	27	23	8.4	6.6
23	58	37	62	e17	73	e45	30	52	22	15	7.8	5.9
24	76	35	89	e20	58	e44	28	45	50	15	7.2	5.7
25	51	40	75	36	47	e45	27	42	34	13	7.1	5.3
26	39	133	57	25	46	65	26	39	60	12	7.0	8.9
27	35	84	55	20	210	56	25	33	44	11	6.8	7.8
28	39	63	55	e19	122	53	e62	30	27	11	34	6.6
29	36	59	56	e19	---	55	e50	28	22	11	26	39
30	33	55	52	e20	---	56	41	28	19	9.6	13	22
31	30	---	44	e20	---	89	---	29	---	8.5	9.6	---
TOTAL	990.3	3369	3559	886	1469	2073	1495	1311	1148	616.1	308.7	282.0
MEAN	31.9	112	115	28.6	52.5	66.9	49.8	42.3	38.3	19.9	9.96	9.40
MAX	116	969	604	59	210	171	98	137	77	91	34	39
MIN	9.3	20	44	14	18	40	25	25	19	8.5	5.0	5.3
CFSM	.91	3.19	3.26	.81	1.49	1.90	1.42	1.20	1.09	.56	.28	.27
IN.	1.05	3.56	3.76	.94	1.55	2.19	1.58	1.39	1.21	.65	.33	.30

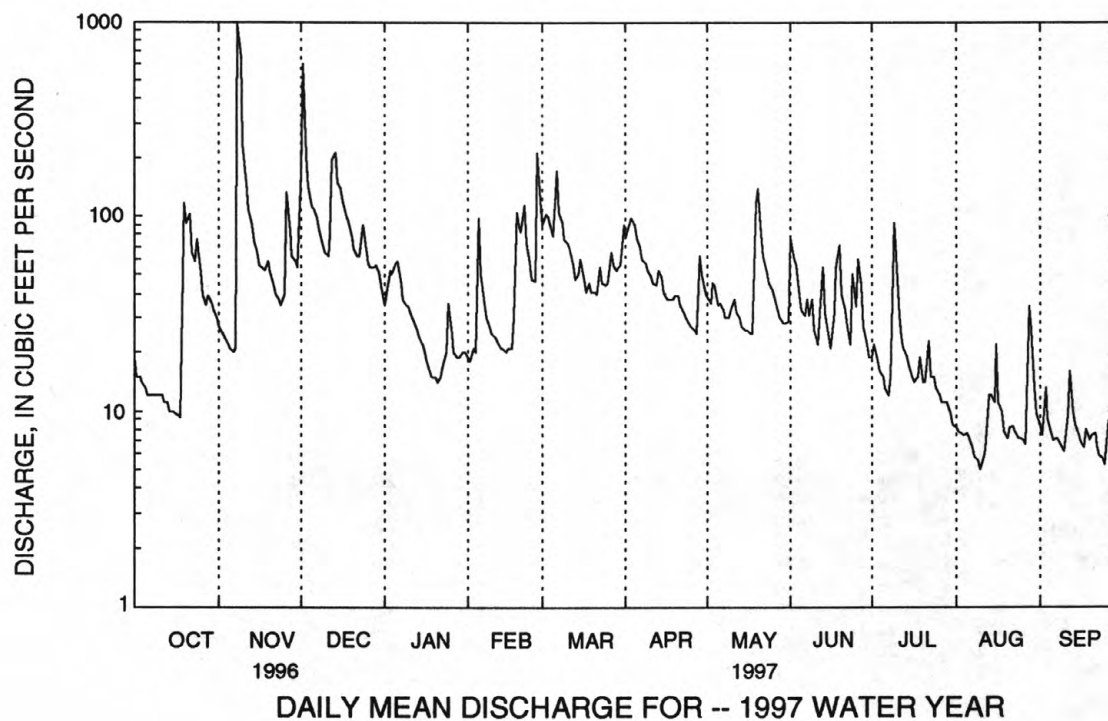
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 1997, BY WATER YEAR (WY)

MEAN	20.5	31.8	40.5	36.1	46.6	88.9	87.6	51.2	27.2	14.2	11.9	11.6
MAX	106	112	118	116	113	182	310	132	163	57.4	66.2	61.0
(WY)	1956	1997	1973	1996	1976	1945	1993	1984	1972	1972	1942	1975
MIN	3.76	4.56	6.09	6.32	11.8	25.0	21.8	16.7	5.47	3.77	3.24	2.98
(WY)	1965	1965	1961	1961	1980	1965	1946	1955	1955	1955	1966	1964

STREAMS TRIBUTARY TO LAKE ONTARIO
04233000 CAYUGA INLET NEAR ITHACA, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1937 - 1997	
ANNUAL TOTAL	23380.2		17507.1			
ANNUAL MEAN	63.9		48.0		38.8	
HIGHEST ANNUAL MEAN					61.7	
LOWEST ANNUAL MEAN					15.3	
HIGHEST DAILY MEAN	1750	Jan 19	969	Nov 8	1750	Jan 19 1996
LOWEST DAILY MEAN	6.4	Sep 4	5.0	Aug 10	1.9	Jul 22 1955
ANNUAL SEVEN-DAY MINIMUM	7.0	Aug 31	6.0	Aug 6	2.2	Aug 28 1939
INSTANTANEOUS PEAK FLOW			3320	Nov 8	a4800	Jun 23 1972
INSTANTANEOUS PEAK STAGE			6.69	Nov 8	8.10	Jun 23 1972
INSTANTANEOUS LOW FLOW			4.6	b	1.7	Jul 22 1955
ANNUAL RUNOFF (CFSM)	1.81		1.36		1.10	
ANNUAL RUNOFF (INCHES)	24.71		18.50		14.98	
10 PERCENT EXCEEDS	117		91		85	
50 PERCENT EXCEEDS	36		33		20	
90 PERCENT EXCEEDS	11		7.9		5.4	

a From rating curve extended above 1,600 ft³/s on basis of slope-area measurements at gage heights 5.5 ft and 7.58 ft.
b Aug. 10, 11.



STREAMS TRIBUTARY TO LAKE ONTARIO
04233300 SIXMILE CREEK AT BETHEL GROVE, NY

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LOCATION.--Lat 42°24'11", long 76°26'07", Tompkins County, Hydrologic Unit 04140201, on left bank at bridge on German Cross road, 3.4 mi southeast of Ithaca.

DRAINAGE AREA.--39.0 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1995 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 700 ft above sea level, from topographic map.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e35	e38	307	e45	e24	125	97	e45	102	20	e8.0	10
2	e28	e35	1170	69	e23	179	116	e42	56	22	7.8	9.3
3	e25	e34	305	71	e25	123	126	e52	47	21	8.1	13
4	e22	e34	217	67	e25	103	113	e50	37	19	8.3	9.5
5	e20	e32	168	80	e150	97	92	e42	33	18	8.4	8.3
6	e18	e30	173	80	e65	240	87	e44	30	17	8.1	8.3
7	e17	e30	143	64	e40	122	77	42	31	16	7.2	8.7
8	e16	e910	120	e50	e35	101	68	35	28	17	7.1	8.5
9	e16	688	104	e46	e32	88	65	34	26	64	7.1	8.2
10	e18	211	93	e44	e30	94	e60	63	23	39	7.1	8.0
11	e20	149	94	e38	e29	86	e50	70	21	22	8.1	9.6
12	e19	123	116	e36	e28	69	e48	53	31	18	9.3	14
13	e17	103	538	e32	e26	62	61	48	47	17	11	11
14	e16	89	340	e30	e25	64	59	44	31	15	10	9.1
15	e15	76	203	e28	e24	71	e42	40	25	14	10	8.0
16	e15	67	203	e25	e24	e60	e40	37	24	13	18	7.6
17	e14	65	173	e22	e25	e50	e40	35	44	13	11	7.4
18	e14	64	138	e20	e40	e52	e40	33	63	13	11	8.8
19	e180	82	122	e19	e150	e50	e45	163	72	14	8.7	8.1
20	e200	70	103	e19	e120	e50	e42	245	39	12	8.6	8.9
21	e150	61	91	e18	e110	e50	e40	125	32	14	10	9.6
22	e100	58	81	e19	e170	72	e38	96	28	22	12	8.1
23	e110	53	77	e21	e120	e55	e35	79	23	14	10	8.2
24	e160	53	127	e25	104	e50	e32	65	28	14	9.5	8.5
25	e80	58	98	e45	81	e50	e30	62	25	13	9.2	8.3
26	e60	174	75	e32	74	87	e30	55	64	11	9.0	12
27	e50	112	72	e26	353	69	e28	44	41	12	9.0	9.7
28	e60	93	71	e24	171	74	e70	37	26	11	15	8.7
29	e55	85	72	e24	---	76	62	34	22	11	24	29
30	e48	78	67	e25	---	76	e50	34	21	e10	15	19
31	e42	---	e56	e25	---	123	---	35	---	e9.0	11	---
TOTAL	1640	3755	5717	1169	2123	2668	1783	1883	1120	545.0	316.6	305.4
MEAN	52.9	125	184	37.7	75.8	86.1	59.4	60.7	37.3	17.6	10.2	10.2
MAX	200	910	1170	80	353	240	126	245	102	64	24	29
MIN	14	30	56	18	23	50	28	33	21	9.0	7.1	7.4
CFSM	1.35	3.18	4.69	.96	1.93	2.19	1.51	1.55	.95	.45	.26	.26
IN.	1.55	3.55	5.41	1.11	2.01	2.53	1.69	1.78	1.06	.52	.30	.29

e Estimated

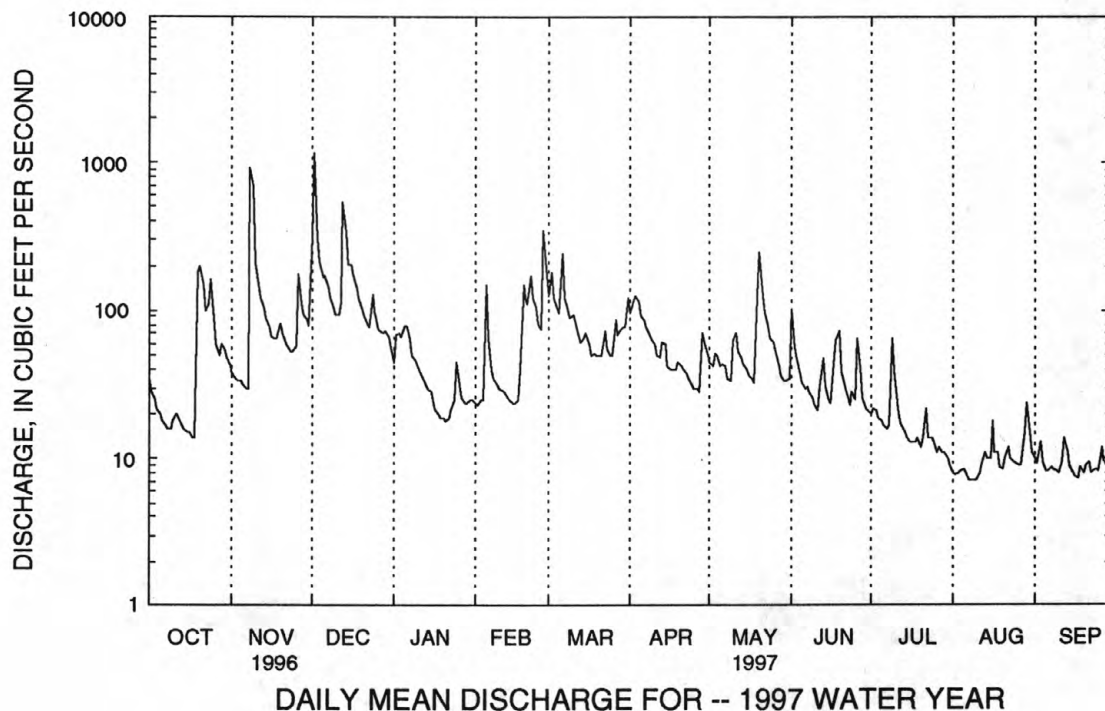
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 1997, BY WATER YEAR (WY)

MEAN	41.9	86.9	110	112	85.7	85.4	92.2	83.1	35.0	21.4	20.8	14.0
MAX	52.9	125	184	186	95.3	86.1	166	165	48.3	40.2	47.4	27.3
(WY)	1997	1997	1997	1996	1996	1997	1996	1996	1996	1996	1996	1996
MIN	30.9	48.6	36.3	37.7	75.8	84.8	51.5	23.6	19.3	6.46	4.79	4.38
(WY)	1996	1996	1996	1997	1997	1996	1995	1995	1995	1995	1995	1995

STREAMS TRIBUTARY TO LAKE ONTARIO
04233300 SIXMILE CREEK AT BETHEL GROVE, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1995 - 1997	
ANNUAL TOTAL	37322.0		23025.0		72.2	
ANNUAL MEAN	102		63.1		81.3	
HIGHEST ANNUAL MEAN					63.1	
LOWEST ANNUAL MEAN					2700	
HIGHEST DAILY MEAN	2700	Jan 19	1170	Dec 2	2700	Jan 19 1996
LOWEST DAILY MEAN	8.3	Sep 4	7.1	a	2.0	Aug 30 1995
ANNUAL SEVEN-DAY MINIMUM	9.6	Aug 31	7.6	Aug 5	2.2	Aug 24 1995
INSTANTANEOUS PEAK FLOW			3030	Dec 2	6220	Jan 19 1996
INSTANTANEOUS PEAK STAGE			6.63	Dec 2	9.78	Jan 19 1996
INSTANTANEOUS LOW FLOW			6.3	Aug 11	1.5	Aug 2 1995
ANNUAL RUNOFF (CFSM)	2.59		1.61		1.84	
ANNUAL RUNOFF (INCHES)	35.33		21.79		24.96	
10 PERCENT EXCEEDS	180		123		123	
50 PERCENT EXCEEDS	60		38		33	
90 PERCENT EXCEEDS	17		9.3		7.5	

a Aug. 8, 9, 10.



STREAMS TRIBUTARY TO LAKE ONTARIO
04233300 SIXMILE CREEK AT BETHEL GROVE, NY--Continued
WATER-QUALITY RECORDS

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PERIOD OF RECORD.--October 1996 to September 1997.

PERIOD OF DAILY RECORD.--

SUSPENDED-SOLIDS CONCENTRATION: October 1996 to September 1997.

SUSPENDED-SOLIDS DISCHARGE: October 1996 to September 1997.

INSTRUMENTATION.--Automatic water sampler since 1995.

COOPERATION.--Water-quality samples were collected and analyzed by personnel from the City of Ithaca Environmental Laboratories. Records of daily suspended solids (mg/L) furnished by the City of Ithaca Environmental Laboratories.

EXTREMES FOR CURRENT YEAR.--

SUSPENDED-SOLIDS CONCENTRATION: Maximum daily mean 1,480 mg/L on Nov. 8; minimum daily mean 2 mg/L on several days in October and September.

SUSPENDED-SOLIDS DISCHARGE: Maximum daily mean 7,050 tons on Nov. 8; minimum daily mean .04 tons on August 22, 23.

SOLIDS, SUSPENDED TOTAL, (MG/L), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e9	8	132	e7	e3	25	22	e6	79	5	e5	6
2	8	e8	1190	e15	e4	45	17	5	7	6	10	5
3	e4	e8	152	15	5	23	25	e5	3	7	9	5
4	3	e7	59	e15	e5	17	19	e5	3	7	8	3
5	e3	e6	50	e16	95	23	16	5	3	6	7	2
6	e3	e6	38	16	e15	62	13	e4	3	6	6	2
7	2	e6	29	e15	11	18	10	4	3	7	7	3
8	e2	1480	22	5	e6	13	8	3	3	12	8	3
9	e2	440	18	e5	e4	11	6	4	3	122	7	3
10	e2	43	16	e5	3	10	e6	10	4	55	7	3
11	4	29	19	e5	e3	10	5	12	4	10	6	6
12	e3	26	24	e5	e3	10	e5	9	10	7	8	9
13	e3	22	406	e5	e3	11	e5	7	14	5	7	6
14	e3	16	121	e5	3	13	6	6	5	4	6	4
15	e3	12	47	5	e3	15	e6	4	4	5	6	3
16	3	12	50	e4	e3	e10	5	3	5	5	6	3
17	e3	11	39	4	e3	4	e5	3	12	4	7	3
18	3	12	24	e4	e5	e4	6	3	14	5	7	2
19	e40	15	18	e4	8	13	e5	114	14	5	5	2
20	e70	15	14	e4	e20	e5	e5	207	7	5	4	2
21	63	24	14	e4	32	5	e4	99	6	6	5	4
22	e20	33	15	e5	e40	e10	4	34	5	6	5	2
23	32	23	17	e5	e20	e5	e4	13	4	7	5	2
24	e30	15	26	7	19	4	e3	9	5	7	6	2
25	e10	16	27	e8	12	e4	3	7	11	7	6	3
26	e9	40	22	e5	8	54	e3	5	125	7	5	4
27	e9	28	18	4	342	24	e3	4	21	7	6	12
28	28	24	14	e3	54	11	103	3	9	7	11	38
29	e20	22	10	3	---	11	e10	4	6	6	18	62
30	17	24	8	e3	---	12	6	4	4	e6	13	10
31	e10	---	e8	6	---	56	---	7	---	e5	9	---
MEAN	14	81	85	7	26	17	11	20	13	12	7	7
MAX	70	1480	1190	16	342	62	103	207	125	122	18	62
MIN	2	6	8	3	3	4	3	3	3	4	4	2

e Estimated

STREAMS TRIBUTARY TO LAKE ONTARIO
04233300 SIXMILE CREEK AT BETHEL GROVE, NY--Continued

SOLIDS, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.85	e.82	340	e.85	e.19	8.3	5.7	e.73	25	.28	e.11	.16
2	e.60	e.82	5510	e2.8	e.25	22	6.1	e.57	1.0	.36	.21	.14
3	e.27	e.73	137	e2.9	e.34	7.9	8.5	e.70	.43	.38	.19	.17
4	e.18	e.64	34	e2.7	e.34	4.7	5.9	e.68	.30	.34	.18	.08
5	e.16	e.52	23	e3.5	e38	6.4	3.9	e.57	.27	.32	.15	.05
6	e.14	e.49	18	e3.5	e2.6	44	3.1	e.48	.25	.28	.14	.05
7	e.09	e.49	11	e2.6	e1.2	6.0	2.2	.44	.25	.30	.14	.06
8	e.09	7050	7.3	e.68	e.57	3.7	1.4	.32	.23	.58	.15	.07
9	e.09	1250	5.1	e.62	e.34	2.7	1.1	.36	.22	30	.14	.07
10	e.10	25	4.1	e.59	e.24	2.6	e.97	1.8	.22	6.8	.13	.08
11	e.22	12	4.9	e.51	e.23	2.3	e.68	2.4	.23	.58	.14	.17
12	e.15	8.7	7.7	e.49	e.23	1.9	e.65	1.3	1.1	.33	.19	.33
13	e.14	6.0	836	e.43	e.21	1.9	e.82	.92	1.9	.23	.22	.18
14	e.13	3.8	124	e.40	e.20	2.3	e.96	.66	.40	.17	.18	.11
15	e.12	2.5	26	e.38	e.19	2.9	e.68	.45	.29	.17	.17	.07
16	e.12	2.1	28	e.27	e.19	e1.6	e.54	.31	.33	.17	.31	.06
17	e.11	2.0	18	e.24	e.20	e.54	e.54	.28	1.4	.15	.20	.06
18	e.11	2.1	9.1	e.22	e.54	e.56	e.65	.27	2.9	.17	.19	.06
19	e19	3.2	5.9	e.20	e3.2	e1.8	e.61	81	2.9	.18	.12	.05
20	e38	2.9	4.0	e.20	e6.5	e.68	e.57	146	.75	.17	.10	.05
21	e26	3.9	3.5	e.19	e9.5	e.68	e.43	34	.49	.22	.13	.05
22	e5.4	5.2	3.2	e.26	e18	e1.9	e.41	8.9	.35	.37	.16	.04
23	e9.5	3.3	3.5	e.28	e6.5	e.74	e.38	2.8	.26	.26	.15	.04
24	e13	2.1	9.0	e.47	5.4	e.54	e.26	1.6	.35	.26	.15	.05
25	e2.2	2.6	7.1	e.97	2.7	e.54	e.24	1.2	.69	.24	.15	.06
26	e1.5	19	4.5	e.43	1.6	13	e.24	.78	29	.22	.13	.13
27	e1.2	8.4	3.5	e.28	455	4.4	e.23	.46	2.7	.22	.14	.30
28	e4.5	6.1	2.6	e.19	27	2.3	e19	.31	.65	.21	.46	.89
29	e3.0	5.0	2.0	e.19	---	2.1	e1.7	.32	.36	.19	1.2	4.7
30	e2.2	5.1	1.5	e.20	---	2.4	e.81	.37	.25	e.16	.54	.59
31	e1.1	---	e1.2	e.40	---	19	---	.76	---	e.12	.26	---
TOTAL	130.27	8435.51	7194.7	27.94	581.46	172.38	69.27	291.74	75.47	44.43	6.83	8.92
MEAN	4.20	281	232	.90	20.8	5.56	2.31	9.41	2.52	1.43	.22	.30
MAX	38.0	7050	5510	3.50	455	44.0	19.0	146	29.0	30.0	1.20	4.70
MIN	.090	.49	1.20	.19	.19	.54	.23	.27	.22	.12	.10	.040

e Estimated

STREAMS TRIBUTARY TO LAKE ONTARIO
04233500 CAYUGA INLET (CAYUGA LAKE) AT ITHACA, NY
(Formerly published as Cayuga Lake at Ithaca)

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LOCATION.--Lat 42°26'45", long 76°30'45", Tompkins County, Hydrologic Unit 04140201, on left bank of natural channel 40 ft upstream from flood-control channel of Cayuga Inlet, at north end of Taughannock Boulevard, and 1.0 mi upstream from mouth of Inlet, at Ithaca.

DRAINAGE AREA.--Cayuga Inlet 143 mi²; Cayuga Lake at mouth 1,564 mi²; Cayuga Lake portion 785 mi².

PERIOD OF RECORD.--August 1905 to December 1909, August 1956 to current year in reports of Geological Survey. January 1910 to September 1925 in reports of State Engineer and Surveyor.

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is sea level (1.43 ft. Barge Canal datum). To convert elevations to sea level adjustment of 1988, subtract 0.62 ft. Prior to September 1925, non-recording gage at several sites within 1 mi of present site. Prior to October 1968, at datum 378.57 ft. higher. October 1968 to September 1975, at datum 376.57 ft. higher.

REMARKS.--Lake elevation regulated at Mud Lock by New York State Thruway Authority. Area of water surface, 66.9 mi². Seneca River (Cayuga and Seneca Canal) enters lake 0.5 mi upstream from Mud Lock and is included in second drainage area given above.

EXTREMES FOR PERIOD OF RECORD.--(1905-25 and since 1956): Maximum elevation, 386.46 ft., April 26, 1993; minimum daily, 377.64 ft., present datum, Mar. 28, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 384.09 ft., Nov. 12; minimum elevation, 378.80 ft., Jan. 31, Feb. 1, 2, 3, 4.

ELEVATION (FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	382.29	382.38	382.79	382.44	378.80	379.73	380.20	381.64	382.65	382.45	382.42	382.36
2	382.26	382.27	383.43	382.30	378.81	379.87	380.19	381.76	382.72	382.41	382.39	382.36
3	382.36	382.16	383.68	382.22	378.80	379.88	380.31	381.77	382.77	382.39	382.44	382.49
4	382.25	382.05	383.78	382.13	378.81	379.84	380.47	381.90	382.78	382.42	382.42	382.46
5	382.12	381.94	383.81	381.99	378.81	379.83	380.51	381.90	382.77	382.40	382.42	382.38
6	382.05	381.84	383.83	381.99	378.82	380.01	380.54	381.98	382.74	382.30	382.43	382.31
7	381.98	381.69	383.81	381.89	378.83	379.98	380.72	382.09	382.71	382.31	382.34	382.35
8	381.97	382.34	383.80	381.78	378.85	379.93	380.76	382.05	382.68	382.34	382.35	382.38
9	381.95	383.69	383.77	381.58	378.85	379.82	380.84	382.11	382.63	382.36	382.33	382.28
10	381.97	383.99	383.69	381.41	378.84	379.80	380.83	382.20	382.57	382.46	382.32	382.24
11	381.93	384.05	383.61	381.27	378.85	379.83	380.84	382.26	382.52	382.43	382.33	382.22
12	381.80	384.07	383.55	381.12	378.86	379.83	380.86	382.30	382.47	382.41	382.38	382.32
13	381.76	384.05	383.50	380.97	378.87	379.75	380.95	382.37	382.49	382.43	382.34	382.32
14	381.84	384.00	383.72	380.82	378.83	379.58	381.02	382.43	382.52	382.40	382.42	382.34
15	381.77	383.95	383.82	380.63	378.88	379.67	381.01	382.47	382.46	382.42	382.37	382.30
16	381.69	383.84	383.79	380.46	378.87	379.60	381.03	382.52	382.33	382.47	382.31	382.31
17	381.70	383.75	383.79	380.34	378.88	379.47	381.11	382.54	382.37	382.44	382.39	382.25
18	381.62	383.68	383.79	380.15	378.84	379.48	381.22	382.57	382.39	382.49	382.43	382.27
19	381.86	383.64	383.76	379.98	378.93	379.38	381.21	382.63	382.45	382.54	382.41	382.25
20	382.20	383.55	383.68	379.84	379.04	379.32	381.19	382.84	382.44	382.46	382.36	382.28
21	382.30	383.45	383.53	379.71	379.02	379.27	381.22	382.87	382.44	382.43	382.32	382.33
22	382.40	383.39	383.39	379.46	379.28	379.43	381.26	382.92	382.48	382.49	382.32	382.17
23	382.47	383.24	383.28	379.41	379.35	379.45	381.29	382.84	382.53	382.45	382.34	382.21
24	382.53	383.16	383.16	379.20	379.45	379.44	381.32	382.77	382.52	382.39	382.35	382.20
25	382.60	383.05	383.16	379.05	379.42	379.35	381.33	382.74	382.53	382.45	382.35	382.09
26	382.60	383.09	383.07	378.98	379.42	379.54	381.36	382.72	382.58	382.43	382.34	382.21
27	382.56	383.15	382.96	378.85	379.63	379.59	381.35	382.64	382.61	382.43	382.33	382.15
28	382.60	383.04	382.82	378.83	379.82	379.63	381.46	382.61	382.57	382.50	382.34	382.02
29	382.56	382.96	382.73	378.82	---	379.70	381.55	382.57	382.52	382.53	382.38	382.18
30	382.44	382.82	382.70	378.81	---	379.82	381.59	382.55	382.50	382.46	382.39	382.23
31	382.45	---	382.61	378.80	---	380.10	---	382.58	---	382.41	382.36	---
MEAN	382.16	383.14	383.45	380.49	379.02	379.67	380.98	382.39	382.56	382.43	382.37	382.28
MAX	382.60	384.07	383.83	382.44	379.82	380.10	381.59	382.92	382.78	382.54	382.44	382.49
MIN	381.62	381.69	382.61	378.80	378.80	379.27	380.19	381.64	382.33	382.30	382.31	382.02

CAL YR 1996 MEAN 382.16 MAX 384.99 MIN 378.81
WTR YR 1997 MEAN 381.76 MAX 384.07 MIN 378.80

DRAINAGE AREA.--126 mi².

PERIOD OF RECORD.--July 1908 to June 1909 (gage heights only), February 1925 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 795.13 ft above sea level. July 1908 to June 1909, nonrecording gage at bridge 1.2 mi downstream at different datum.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,900 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Nov. 9	0145	*5,160	*5.63	Dec. 2	1100	4,270	5.19

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	111	130	821	147	e95	452	422	145	266	53	25	24
2	88	118	3310	204	e95	540	425	160	233	80	25	21
3	77	116	1180	309	e95	525	514	162	176	78	26	46
4	70	115	733	359	e100	366	474	227	122	125	25	43
5	66	107	591	314	e190	314	361	156	101	92	25	31
6	60	101	522	398	226	665	310	135	87	70	23	26
7	57	105	470	278	160	438	274	140	161	55	22	26
8	53	1710	383	201	133	324	226	121	131	53	21	23
9	54	3700	324	e160	e100	272	198	119	105	118	20	21
10	56	1310	281	e155	e90	293	180	175	87	286	18	20
11	63	700	257	e150	e100	332	170	272	74	112	19	23
12	63	466	295	e130	e100	246	165	187	83	81	25	40
13	57	362	777	e120	e85	197	193	162	277	66	29	36
14	53	298	1220	e115	e80	199	198	138	173	54	35	28
15	49	254	666	e110	e80	227	168	125	102	50	34	24
16	47	221	605	e105	e90	179	147	133	81	46	48	25
17	45	209	538	e100	e90	154	145	136	128	50	37	21
18	44	207	419	e95	e105	163	152	129	186	45	29	25
19	289	241	363	e90	e200	156	157	273	234	43	28	30
20	556	240	315	e90	e380	167	166	653	137	41	24	29
21	372	205	243	e85	429	166	152	305	148	41	25	29
22	283	188	253	e90	856	387	137	227	112	52	39	25
23	217	178	243	e100	e450	263	123	183	86	46	40	27
24	630	174	410	e120	e280	183	114	155	86	42	40	26
25	303	172	464	158	e190	176	108	140	100	40	31	24
26	211	641	295	175	e200	413	103	135	107	35	27	36
27	174	488	252	108	1010	334	96	116	145	32	25	39
28	180	306	244	e100	876	357	259	107	90	42	26	31
29	196	261	254	e100	---	338	324	108	69	35	57	84
30	162	239	262	e95	---	364	187	102	56	30	38	145
31	148	---	209	e100	---	540	---	106	---	27	29	---
TOTAL	4834	13562	17199	4861	6885	9730	6648	5432	3943	2020	915	1028
MEAN	156	452	555	157	246	314	222	175	131	65.2	29.5	34.3
MAX	630	3700	3310	398	1010	665	514	653	277	286	57	145
MIN	44	101	209	85	80	154	96	102	56	27	18	20
CFSM	1.24	3.59	4.40	1.24	1.95	2.49	1.76	1.39	1.04	.52	.23	.27
IN.	1.43	4.00	5.08	1.44	2.03	2.87	1.96	1.60	1.16	.60	.27	.30

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1997, BY WATER YEAR (WY)

MEAN	105	180	210	188	215	411	413	213	117	71.6	52.1	65.3
MAX	594	497	555	543	595	1037	1313	532	615	608	269	561
(WY)	1982	1928	1997	1996	1981	1936	1993	1996	1972	1935	1994	1977
MIN	9.57	16.5	31.9	38.4	44.1	160	100	62.0	30.8	15.3	8.93	7.09
(WY)	1965	1965	1961	1961	1934	1965	1946	1934	1991	1962	1965	1964

STREAMS TRIBUTARY TO LAKE ONTARIO
04234000 FALL CREEK NEAR ITHACA, NY--Continued

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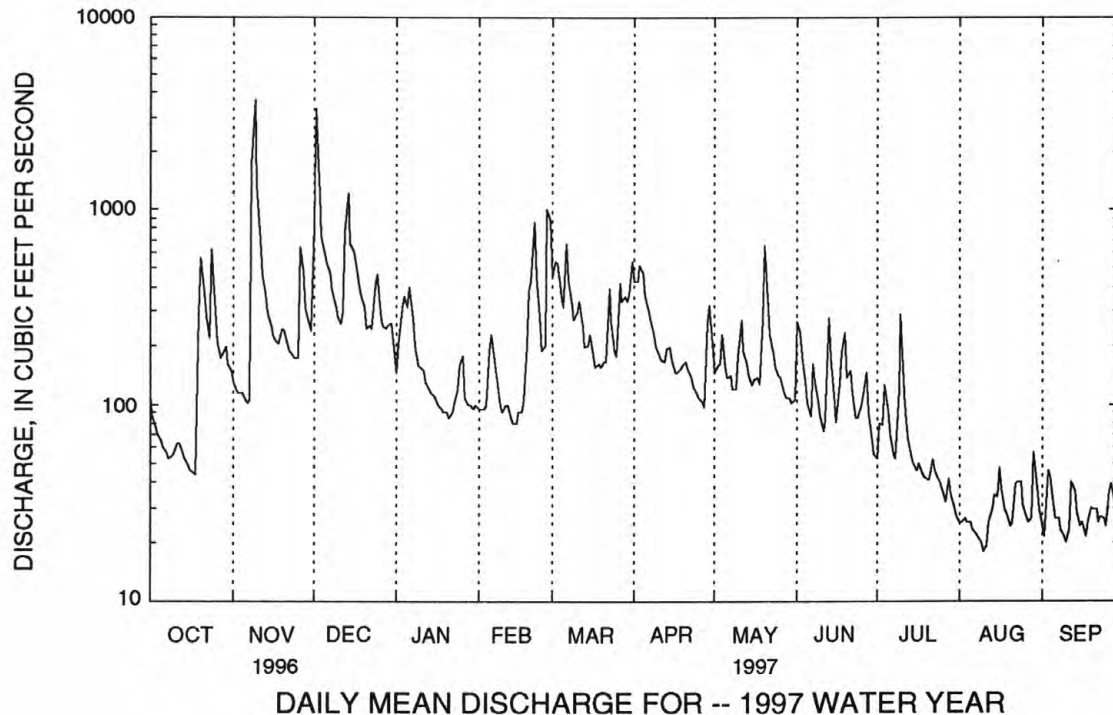
SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1925 - 1997	
ANNUAL TOTAL	112568		77057			
ANNUAL MEAN	308		211		187	
HIGHEST ANNUAL MEAN					271	1978
LOWEST ANNUAL MEAN					83.6	1965
HIGHEST DAILY MEAN	5100	Jan 19	3700	Nov 9	8280	Jul 8 1935
LOWEST DAILY MEAN	30	a	18	Aug 10	3.6	Aug 17 1965
ANNUAL SEVEN-DAY MINIMUM	33	Aug 31	21	Aug 5	5.0	Sep 20 1964
INSTANTANEOUS PEAK FLOW			5160	Nov 9	b15500	Jul 8 1935
INSTANTANEOUS PEAK STAGE			5.63	Nov 9	c11.16	Feb 21 1971
INSTANTANEOUS LOW FLOW			16	Aug 11	d3.0	Aug 25 1927
ANNUAL RUNOFF (CFSM)	2.44		1.68		1.48	
ANNUAL RUNOFF (INCHES)	33.23		22.75		20.15	
10 PERCENT EXCEEDS	611		427		417	
50 PERCENT EXCEEDS	180		135		100	
90 PERCENT EXCEEDS	59		29		23	

a Sep. 3, 4, 5.

b From average of computed flow over each of four dams.

c Ice jam.

d Approximate discharge, result of regulation.



STREAMS TRIBUTARY TO LAKE ONTARIO
04234000 FALL CREEK NEAR ITHACA, NY--Continued
WATER-QUALITY RECORDS

PERIOD OF RECORD.--1997.

PESTICIDE DATA: 1997 (d).

REMARKS.--Samples were taken as part of a state-wide pesticide sampling network in cooperation with the New York State Department of Environmental Conservation. A complete list of compounds included when pesticide analyses were performed on samples appears following the introduction to the State-wide Monitoring of Pesticides in Surface Water of New York State section on page 277. Only those compounds which were detected at or above the method detection limit (MDL) were included in the tables.

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRA- ZINE, WATER, DISS, REC, (UG/L) (39632)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)
MAY											
22...	1210	226	E0.002	0.053	<0.003	0.005	E0.009	E0.002	0.042	<0.018	<0.005
JUN											
11...	1320	73	<0.002	0.042	<0.003	0.004	E0.021	<0.002	0.020	<0.018	0.009
18...	1410	155	E0.003	0.138	<0.003	0.048	E0.026	<0.002	0.042	<0.018	0.014
19...	0830	254	0.005	0.311	<0.003	0.027	E0.075	<0.002	0.222	<0.018	0.017
26...	0810	84	<0.002	0.079	<0.003	0.006	E0.023	<0.002	0.019	<0.018	0.012
JUL											
04...	0940	143	<0.002	0.041	<0.003	0.007	E0.024	<0.002	0.011	<0.018	0.007
04...	0949	143	<0.002	0.043	<0.003	0.006	E0.023	<0.002	0.011	<0.018	0.007
04...	1610	136	<0.002	0.056	<0.003	0.010	E0.027	<0.002	0.045	<0.018	0.007
09...	2150	297	<0.002	0.071	<0.003	<0.004	E0.026	<0.002	0.015	0.020	<0.005
10...	0700	366	0.005	0.203	E0.005	0.009	E0.036	<0.002	0.081	<0.018	0.006
24...	1800	44	<0.002	0.024	<0.003	<0.004	E0.013	<0.002	0.010	<0.018	E0.005
AUG											
21...	1610	24	<0.002	0.021	<0.003	<0.004	E0.006	<0.002	E0.004	<0.018	<0.005

STREAMS TRIBUTARY TO LAKE ONTARIO
04234232 GREAT BROOK BELOW VICTOR, NY

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LOCATION.--Lat 42°58'41", long 77°23'47", Ontario County, Hydrologic Unit 04140201, on right bank 0.1 mi upstream from State Highway 96, at east boundary line of village of Victor, and 0.5 mi upstream from mouth.

DRAINAGE AREA.--16.8 mi².

PERIOD OF RECORD.--November 1993 to current year.

REVISED RECORDS.--WRD NY-96-3: 1994-95 (M).

GAGE.--Water-stage recorder. Elevation of gage is 560 ft above sea level, from topographic map.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	8.4	360	e9.0	8.6	19	34	7.8	28	3.1	1.8	2.4
2	2.7	7.4	94	15	7.7	24	38	6.8	51	3.1	1.8	2.7
3	2.9	7.6	26	33	8.8	18	29	9.2	19	5.1	1.8	3.9
4	2.9	8.3	24	20	15	15	19	9.4	11	4.7	2.4	2.5
5	2.9	7.2	22	27	91	15	16	7.1	7.6	3.5	2.6	2.0
6	3.0	6.5	20	24	16	21	18	7.4	6.4	2.8	2.1	1.9
7	3.3	8.5	17	14	9.6	17	14	6.2	5.7	2.4	1.9	1.9
8	3.1	551	16	9.9	7.9	15	10	5.9	5.3	2.6	1.8	2.1
9	3.5	292	14	e8.5	6.6	13	9.1	6.7	4.6	8.6	1.7	2.0
10	14	37	13	e7.5	5.9	27	8.9	7.3	4.1	5.3	1.7	2.0
11	11	22	12	e7.0	e5.2	39	8.8	7.6	3.6	3.3	1.7	10
12	6.4	16	13	6.3	e5.0	25	14	8.6	9.5	2.7	1.8	10
13	5.1	14	88	5.7	5.0	17	29	7.3	6.3	2.3	10	4.8
14	4.7	13	38	e5.5	e4.8	54	19	6.3	4.2	2.6	4.0	3.3
15	4.0	10	21	e5.0	e4.8	46	14	7.5	3.4	5.9	1.9	2.9
16	3.8	9.4	17	e4.8	e4.5	18	11	7.0	3.2	9.7	10	2.7
17	4.0	9.3	18	e4.5	5.3	15	11	6.4	6.9	3.7	3.7	3.0
18	3.6	9.8	15	e4.2	20	16	13	6.0	5.8	3.0	2.7	4.5
19	406	10	14	4.0	24	15	14	43	5.3	2.4	2.2	3.2
20	523	9.7	10	e4.0	16	15	17	64	18	2.2	2.2	4.8
21	69	8.7	7.8	e4.5	17	17	13	17	13	2.8	3.0	4.2
22	31	7.8	8.3	7.7	21	45	9.8	11	5.9	3.1	2.8	3.2
23	20	8.0	11	10	12	20	8.8	8.2	4.3	2.8	2.8	2.8
24	19	7.6	24	6.6	e9.0	15	8.0	7.2	14	2.3	2.5	2.8
25	13	8.2	16	12	e8.5	20	7.4	6.8	9.3	2.5	2.2	4.2
26	9.8	26	11	8.1	8.9	86	6.7	6.3	39	2.1	2.3	5.2
27	8.8	19	e10	6.0	149	27	6.3	5.5	13	2.2	2.2	4.2
28	9.3	14	e11	e5.5	30	22	18	5.0	6.5	2.6	2.5	3.6
29	8.1	14	e18	5.1	---	26	14	4.7	4.5	2.4	2.3	98
30	11	17	e17	4.6	---	26	8.9	5.3	3.6	2.0	2.1	29
31	12	---	e10	5.1	---	45	---	6.5	---	2.1	2.1	---
TOTAL	1223.9	1187.4	996.1	294.1	527.1	793	447.7	321.0	322.0	105.9	86.6	229.8
MEAN	39.5	39.6	32.1	9.49	18.8	25.6	14.9	10.4	10.7	3.42	2.79	7.66
MAX	523	551	360	33	149	86	38	64	51	9.7	10	98
MIN	2.7	6.5	7.8	4.0	4.5	13	6.3	4.7	3.2	2.0	1.7	1.9

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1997, BY WATER YEAR (WY)

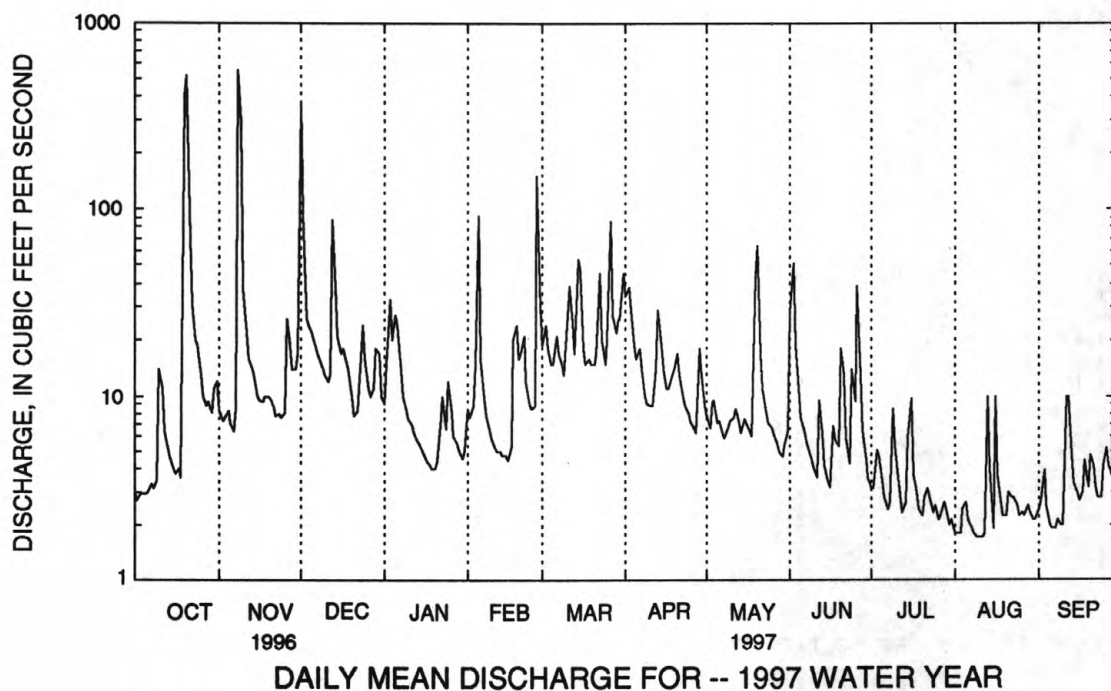
	1994	1995	1996	1997
MEAN	16.4	18.5	14.1	17.4
MAX	39.5	39.6	32.1	39.0
(WY)	1997	1997	1997	1996
MIN	2.85	5.87	6.79	8.03
(WY)	1995	1995	1996	1994

STREAMS TRIBUTARY TO LAKE ONTARIO
04234232 GREAT BROOK BELOW VICTOR, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1994 - 1997	
ANNUAL TOTAL	8537.6		6534.6		13.3	
ANNUAL MEAN	23.3		17.9		17.9	1997
HIGHEST ANNUAL MEAN					6.01	1995
LOWEST ANNUAL MEAN					760	Jan 19 1996
HIGHEST DAILY MEAN	760	Jan 19	551	Nov 8	.90	Aug 23 1995
LOWEST DAILY MEAN	1.3	a	1.7	b	.92	Aug 20 1995
ANNUAL SEVEN-DAY MINIMUM	1.4	Aug 29	1.8	Aug 6	1790	Jan 19 1996
INSTANTANEOUS PEAK FLOW			1640	Oct 20	6.21	Jan 19 1996
INSTANTANEOUS PEAK STAGE			6.09	Oct 20	21	Jan 19 1996
10 PERCENT EXCEEDS	30		26		5.6	
50 PERCENT EXCEEDS	8.4		8.0		1.7	
90 PERCENT EXCEEDS	2.6		2.4			

a Sep. 2, 3, 4.

b Aug. 9, 10, 11.



STREAMS TRIBUTARY TO LAKE ONTARIO

199

04234500 CANANDAIGUA LAKE AT CANANDAIGUA, NY

LOCATION.--Lat 42°53'30", long 77°17'22", Ontario County, Hydrologic Unit 04140201, at comfort station in middle of city pier at northern end of Canandaigua Lake, 1 mi southeast of Canandaigua.

DRAINAGE AREA.--184 mi².

PERIOD OF RECORD.--November 1939 to current year. December 1927 to November 1939, records for site on west side of E. T. Waldorf's boathouse collected by, and in files of, city of Canandaigua.

REVISED RECORDS.--WSP 2112: Drainage area. WRD NY 1971: 1970. WDR NY-86-3: 1985.

GAGE.--Water-stage recorder. Datum of gage is sea level. To convert elevations to adjustment of 1988, subtract 0.50 ft. 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 mi².

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, 688.89 ft, May 19, 20; minimum, 686.85 ft, Jan. 24.

ELEVATION (FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	688.06	688.21	688.14	687.63	686.98	688.04	688.48	688.64	688.64	---	688.11	687.69
2	688.08	688.15	688.30	687.58	686.97	688.07	688.50	688.55	688.79	---	688.09	687.69
3	687.99	688.10	688.38	687.56	686.98	688.13	688.51	688.60	688.80	---	688.05	687.70
4	687.98	688.03	688.39	687.58	687.02	688.18	688.48	688.61	688.76	---	688.05	687.67
5	687.97	687.97	688.41	687.58	687.06	688.15	688.46	688.64	688.70	---	688.00	687.65
6	687.96	687.93	688.38	687.55	687.08	688.19	688.45	688.64	688.64	---	687.99	687.65
7	687.93	687.95	688.37	687.52	687.09	688.19	688.37	688.62	688.60	---	687.97	687.61
8	687.90	688.06	688.32	687.48	687.08	688.16	688.30	688.64	688.60	---	687.95	687.60
9	687.89	688.55	688.28	687.47	687.09	688.19	688.23	688.65	688.60	---	687.94	687.60
10	687.91	688.78	688.25	687.44	687.09	688.14	688.19	688.66	688.59	---	687.93	687.61
11	687.92	688.81	688.19	687.39	687.08	688.11	688.19	688.68	688.57	---	687.91	687.61
12	687.92	688.77	688.17	687.35	687.09	688.08	688.22	688.69	688.57	688.43	687.91	687.66
13	687.90	688.74	688.18	687.32	687.08	688.06	688.28	688.69	688.56	688.43	687.93	687.64
14	687.88	688.69	688.24	687.30	687.10	688.14	688.31	688.68	688.52	688.41	687.91	687.63
15	687.86	688.64	688.27	687.29	687.08	688.08	688.34	688.69	688.51	688.40	687.92	687.62
16	687.86	688.59	688.26	687.25	687.07	688.04	688.36	688.70	688.53	688.39	687.90	687.60
17	687.84	688.53	688.22	687.19	687.08	688.01	688.38	688.70	688.53	688.39	687.87	687.62
18	687.88	688.48	688.16	687.14	687.10	687.95	688.40	688.69	688.53	688.35	687.86	687.60
19	688.00	688.43	688.12	687.11	687.16	687.92	688.44	688.74	688.52	688.31	687.84	687.60
20	688.36	688.38	688.09	687.07	687.25	687.88	688.48	688.85	688.53	688.29	687.84	687.58
21	688.56	688.32	688.05	687.03	687.35	687.86	688.50	688.84	688.55	688.28	687.84	687.56
22	688.63	688.25	687.96	687.03	687.42	687.91	688.52	688.79	688.52	688.28	687.83	687.55
23	688.65	688.21	687.92	686.97	687.47	687.95	688.53	688.74	688.50	688.28	687.80	687.51
24	688.62	688.15	687.93	686.99	687.49	687.97	688.54	688.70	688.55	688.28	687.79	687.49
25	688.55	688.13	687.86	687.00	687.51	688.05	688.57	688.65	688.59	688.24	687.78	687.49
26	688.51	688.14	687.83	686.98	687.53	688.14	688.57	688.59	688.58	688.23	687.76	687.46
27	688.46	688.14	687.77	687.01	687.69	688.21	688.59	688.59	688.58	688.21	687.76	687.46
28	688.41	688.12	687.76	687.00	687.90	688.27	688.66	688.59	688.58	688.21	687.74	687.47
29	688.36	688.09	687.71	686.99	---	688.32	688.68	688.60	688.59	688.15	687.71	687.58
30	688.36	688.09	687.67	686.98	---	688.35	688.68	688.60	---	688.15	687.71	687.62
31	688.27	---	687.63	686.98	---	688.42	---	688.58	---	688.13	687.71	---
MEAN	688.14	688.31	688.10	687.25	687.21	688.10	688.44	688.67	---	---	687.88	687.59
MAX	688.65	688.81	688.41	687.63	687.90	688.42	688.68	688.85	---	---	688.11	687.70
MIN	687.84	687.93	687.63	686.97	686.97	687.86	688.19	688.55	---	---	687.71	687.46

STREAMS TRIBUTARY TO LAKE ONTARIO
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 mi².

PERIOD OF RECORD.--November 1939 to current year. Prior to October 1964, published as "Canandaigua Lake Outlet."

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 671.44 ft above sea level. Prior to June 25, 1974, at site 0.1 mi upstream at datum 676.90 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by Canandaigua Lake (see station 04234500), from which water is diverted for municipal supply by villages of Newark, Palmyra, and Gorham. Monthly runoff adjusted for change in contents in Canandaigua Lake from October 1945 to September 1966. Telephone gage-height telemeter at station. Several measurements of water temperature were made during the year. Pesticide sample collected as part of state-wide sampling network in cooperation with the New York State Department of Environmental Conservation. Analyses published on page 277.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	377	530	318	61	126	189	364	144	66	47	36
2	50	365	466	317	62	132	372	357	218	61	47	36
3	49	356	412	327	63	130	425	104	376	67	46	40
4	49	344	411	319	66	187	429	103	499	82	46	35
5	48	333	412	321	129	375	488	99	541	81	46	35
6	48	324	407	317	74	446	494	97	500	81	44	37
7	48	323	402	306	69	452	477	96	308	75	40	38
8	48	567	393	295	67	435	454	95	119	62	40	38
9	48	633	385	285	70	428	435	96	117	71	40	37
10	57	512	397	284	65	451	332	96	118	61	39	38
11	56	505	431	273	65	448	107	98	118	48	39	44
12	52	494	424	192	65	421	73	97	118	47	39	45
13	50	484	498	104	66	407	82	96	118	46	44	38
14	48	471	500	149	65	427	71	96	115	46	40	37
15	43	456	458	e240	64	434	53	96	114	46	40	38
16	45	445	455	e230	65	399	50	97	114	46	44	39
17	45	433	445	e160	67	385	51	96	107	47	39	40
18	45	423	431	e200	98	378	51	96	65	51	39	40
19	357	412	421	e195	105	374	52	102	63	52	37	40
20	609	403	415	e190	87	367	55	158	67	52	38	40
21	506	390	403	e190	92	344	53	282	70	53	39	39
22	479	377	394	e185	98	158	52	370	63	53	38	39
23	467	369	381	e180	89	120	51	410	59	53	37	38
24	460	363	390	e140	87	113	51	418	50	53	37	38
25	444	358	378	76	88	119	51	414	37	52	37	38
26	429	379	365	e60	82	169	50	293	46	47	36	38
27	419	373	354	e75	225	135	50	108	37	47	37	36
28	414	364	347	e65	141	131	77	108	34	47	36	36
29	404	356	342	e60	---	138	147	107	33	47	36	71
30	403	355	334	e60	---	140	179	110	50	47	36	45
31	391	---	324	62	---	168	---	122	---	47	36	---
TOTAL	6661	12344	12705	6175	2375	8937	5501	5281	4418	1734	1239	1189
MEAN	215	411	410	199	84.8	288	183	170	147	55.9	40.0	39.6
MAX	609	633	530	327	225	452	494	418	541	82	47	71
MIN	43	323	324	60	61	113	50	95	33	46	36	35

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1997, BY WATER YEAR (WY)

	MEAN	75.7	98.1	133	144	158	287	403	268	148	89.7	61.5	52.0
MAX	613	419	521	420	518	748	1036	725	566	852	483	363	
(WY)	1978	1978	1973	1993	1976	1976	1993	1943	1972	1972	1992	1977	
MIN	13.0	12.9	11.1	8.38	9.47	28.9	61.4	46.7	20.7	17.3	16.2	13.3	
(WY)	1992	1964	1967	1967	1967	1967	1946	1995	1955	1963	1991	1991	

STREAMS TRIBUTARY TO LAKE ONTARIO
04235000 CANANDAIGUA OUTLET AT CHAPIN, NY--continued

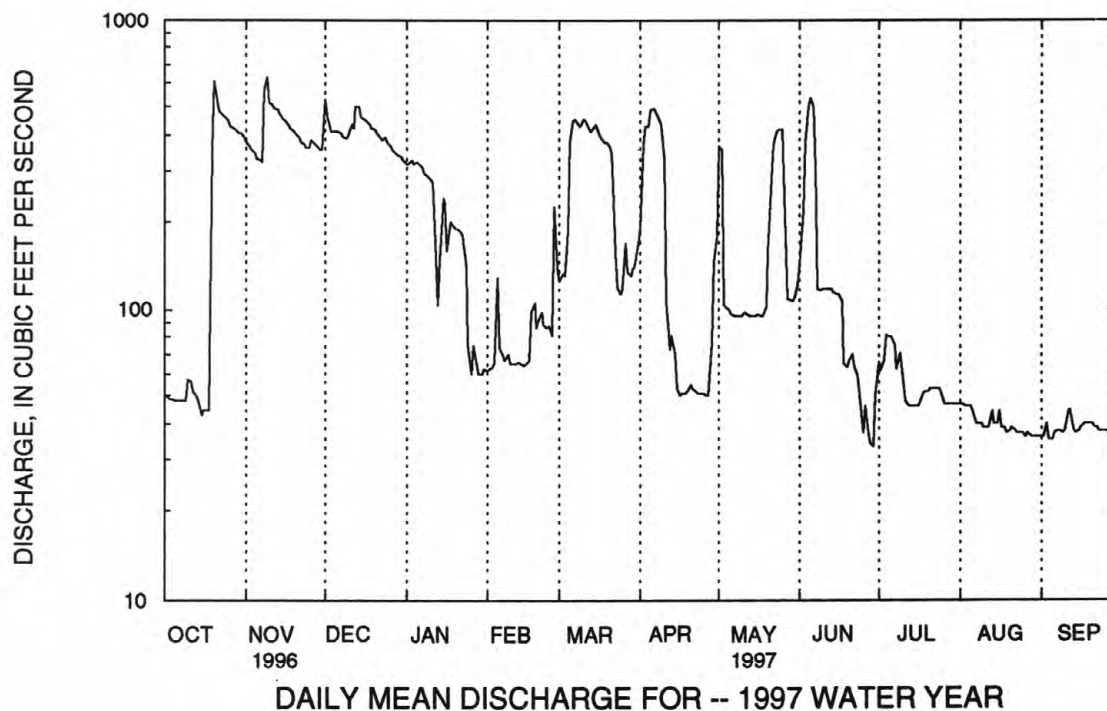
201

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1940 - 1997	
ANNUAL TOTAL	98277		68559		158	
ANNUAL MEAN	269		188		302	1993
HIGHEST ANNUAL MEAN					57.7	1965
LOWEST ANNUAL MEAN					1680	Jun 24 1972
HIGHEST DAILY MEAN	962	May 12	633	Nov 9	5.2	Sep 15 1948
LOWEST DAILY MEAN	e34	Jan 3	33	Jun 29	7.1	Feb 23 1967
ANNUAL SEVEN-DAY MINIMUM	44	Aug 1	36	Aug 26	1710	Jun 24 1972
INSTANTANEOUS PEAK FLOW			809	Nov 8	a11.08	Jun 24 1972
INSTANTANEOUS PEAK STAGE			5.73	Nov 8	4.4	Sep 24 1991
INSTANTANEOUS LOW FLOW			33	b	453	
10 PERCENT EXCEEDS	567		433		65	
50 PERCENT EXCEEDS	259		98		25	
90 PERCENT EXCEEDS	50		39			

a Present datum, at site then in use.

b Jun. 29, 30.

e Estimated



STREAMS TRIBUTARY TO LAKE ONTARIO
04235396 OWASCO LAKE NEAR AUBURN, NY

LOCATION.--Lat 42°53'56", long 76°32'17", Cayuga County, Hydrologic Unit 04140201, on east side of breakwater at city of Auburn water intake and pumping station, 1.0 mi south of city limits of Auburn, and 1.8 mi upstream from State dam.

DRAINAGE AREA.--205 mi².

PERIOD OF RECORD.--October 1967 to current year. Records since 1912 collected by, and in files of, city of Auburn.

GAGE.--Water-stage recorder. Datum of gage is sea level. To convert elevations to adjustment of 1988, subtract 0.49 ft. Prior to May 1, 1982, nonrecording gage read once daily by employees of city of Auburn Water Division at same site and datum from reference mark at elevation 718.59 ft above sea level.

REMARKS.--Lake elevation regulated by gates on outlet at State dam. Area of water surface, 10.6 mi². Records for Jan. 16-18, 20, 23, 28, 30, 31, Feb. 2, 12-27, Mar. 9, 10, 14, 25, Apr. 1 to May 3, May 5, and June 10 were estimated from once-daily gage readings.

COOPERATION.--Records furnished by city of Auburn until April 30, 1982.

EXTREMES FOR PERIOD OF RECORD.--Maximum observed elevation, 716.88 ft, June 25, 1972; minimum observed, 708.45 ft, Mar. 22, 23, 1993.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum observed elevation since 1912, 716.91 ft, Mar. 23, 1936, Apr. 9, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 714.55 ft, Nov. 10; minimum, 709.91 ft, Jan. 30, but may have been lower during periods of once daily readings.

ELEVATION (FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	712.63	712.46	712.23	711.54	709.97	711.81	712.83	712.88	712.58	712.79	712.49	711.95
2	712.63	712.38	713.27	711.56	710.00	711.89	712.69	712.76	712.71	712.80	712.46	711.94
3	712.59	712.29	713.71	711.55	710.03	712.04	712.64	712.75	712.79	712.78	712.44	711.97
4	712.58	712.25	713.64	711.55	710.07	712.07	712.73	712.62	712.83	712.81	712.42	711.94
5	712.56	712.14	713.52	711.49	710.17	712.12	712.73	712.68	712.85	712.81	712.39	711.92
6	712.56	712.06	713.34	711.64	710.24	712.24	712.71	712.58	712.78	712.80	712.36	711.89
7	712.53	711.89	713.18	711.63	710.27	712.33	712.61	712.50	712.71	712.79	712.33	711.87
8	712.49	712.36	712.98	711.58	710.30	712.26	712.64	712.47	712.64	712.78	712.30	711.85
9	712.46	713.94	712.79	711.55	710.31	712.27	712.63	712.40	712.54	712.85	712.27	711.83
10	712.45	714.41	712.60	711.54	710.31	712.22	712.61	712.45	712.51	712.92	712.25	711.79
11	712.46	714.30	712.42	711.45	710.32	712.19	712.58	712.55	712.53	712.93	712.23	711.77
12	712.47	714.05	712.26	711.36	710.44	712.15	712.57	712.62	712.52	712.92	712.21	711.79
13	712.45	713.78	712.15	711.28	710.46	712.10	712.60	712.69	712.53	712.90	712.21	711.80
14	712.42	713.53	712.26	711.21	710.47	712.12	712.62	712.74	712.52	712.88	712.23	711.78
15	712.41	713.25	712.25	711.10	710.48	712.04	712.63	712.74	712.54	712.88	712.20	711.76
16	712.42	713.07	712.07	711.08	710.50	711.99	712.62	712.73	712.49	712.88	712.21	711.75
17	712.41	712.85	712.09	710.94	710.53	711.90	712.58	712.69	712.58	712.86	712.20	711.71
18	712.35	712.61	711.98	710.86	710.56	711.86	712.58	712.61	712.64	712.83	712.17	711.73
19	712.48	712.41	711.88	710.81	710.53	711.82	712.58	712.61	712.67	712.78	712.14	711.70
20	712.69	712.27	711.86	710.68	710.58	711.74	712.60	712.70	712.71	712.75	712.12	711.69
21	712.81	712.20	711.80	710.62	710.65	711.76	712.77	712.75	712.74	712.72	712.10	711.67
22	712.90	712.14	711.80	710.59	710.85	711.85	712.83	712.71	712.74	712.70	712.10	711.63
23	712.98	712.10	711.77	710.44	711.00	711.91	712.87	712.65	712.74	712.67	712.09	711.61
24	712.94	712.04	711.73	710.36	711.17	711.91	712.90	712.61	712.77	712.64	712.06	711.60
25	712.91	712.09	711.95	710.35	711.14	711.96	712.85	712.57	712.80	712.60	712.05	711.55
26	712.84	712.27	711.96	710.26	711.13	712.05	712.80	712.52	712.81	712.58	712.03	711.56
27	712.76	712.43	711.93	710.21	711.20	712.18	712.75	712.46	712.82	712.57	712.03	711.55
28	712.66	712.46	711.80	710.08	711.64	712.28	712.70	712.43	712.82	712.57	712.02	711.50
29	712.59	712.44	711.79	710.04	---	712.35	712.83	712.44	712.81	712.54	712.00	711.62
30	712.49	712.25	711.70	709.91	---	712.50	712.77	712.44	712.79	712.53	712.00	711.65
31	712.46	---	711.66	709.94	---	712.67	---	712.51	---	712.50	711.98	---
MEAN	712.59	712.69	712.33	710.94	710.55	712.08	712.70	712.61	712.68	712.75	712.20	711.75
MAX	712.98	714.41	713.71	711.64	711.64	712.67	712.90	712.88	712.85	712.93	712.49	711.97
MIN	712.35	711.89	711.66	709.91	709.97	711.74	712.57	712.40	712.49	712.50	711.98	711.50

WTR YR 1997 MEAN 712.17 MAX 714.41 MIN 709.91

STREAMS TRIBUTARY TO LAKE ONTARIO
04235500 OWASCO OUTLET NEAR AUBURN, NY

203

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 mi².

PERIOD OF RECORD.--November 1912 to current year. Prior to October 1966, published as "Owasco Lake Outlet".

REVISED RECORDS.--WSP 824: 1913-14, 1916, 1920(M), 1922(M), 1928(M), 1929, 1932(M). WSP 2112: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 533.92 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Diurnal fluctuation caused by mills in Auburn; regulation at State Dam at outlet of lake. Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	204	1010	444	72	588	943	414	75	87	58	66
2	66	423	1310	445	67	567	e1800	472	74	80	58	68
3	65	422	1540	448	68	575	e1800	466	70	112	58	75
4	64	417	1510	446	67	581	e1800	458	69	101	69	66
5	64	418	1450	452	93	542	e1800	458	273	77	78	65
6	63	434	1390	450	72	586	e1800	459	428	77	77	66
7	62	443	1320	458	71	766	e950	451	424	70	78	66
8	39	892	1230	465	80	e900	e450	443	421	61	77	65
9	77	1620	1140	463	80	e800	e430	263	424	79	76	66
10	73	1820	1080	463	74	e700	e430	77	219	82	76	63
11	70	1750	1010	455	68	e600	e360	77	129	106	76	65
12	67	1640	965	450	83	e510	e330	77	93	130	78	66
13	66	1520	990	451	79	549	e330	75	97	129	85	64
14	66	1400	1040	452	78	573	e330	67	88	94	73	63
15	48	1240	1040	449	77	586	327	273	77	66	69	64
16	35	1120	1020	439	77	567	332	419	77	79	81	63
17	41	1040	984	436	79	560	332	414	74	109	70	65
18	43	976	946	469	247	560	221	383	81	90	69	68
19	80	922	674	431	524	560	77	414	80	125	70	67
20	69	707	437	414	527	560	77	431	84	124	68	66
21	59	462	445	424	519	560	77	427	80	128	75	66
22	44	459	451	434	484	560	77	433	80	124	70	66
23	147	457	455	427	532	552	79	428	80	119	71	66
24	361	308	467	426	560	557	290	428	88	119	69	65
25	357	62	460	417	560	552	431	427	81	91	67	65
26	460	270	459	435	564	552	426	302	82	59	68	65
27	455	481	611	425	578	552	427	419	122	59	69	62
28	447	479	709	405	573	552	431	214	110	58	66	61
29	357	476	692	436	---	552	382	68	80	57	75	91
30	441	659	549	259	---	552	372	67	81	58	67	67
31	224	---	445	74	---	559	---	67	---	57	67	---
TOTAL	4577	23521	27829	13142	6953	18330	17911	9871	4241	2807	2208	1991
MEAN	148	784	898	424	248	591	597	318	141	90.5	71.2	66.4
MAX	460	1820	1540	469	578	900	1800	472	428	130	85	91
MIN	35	62	437	74	67	510	77	67	69	57	58	61

e Estimated

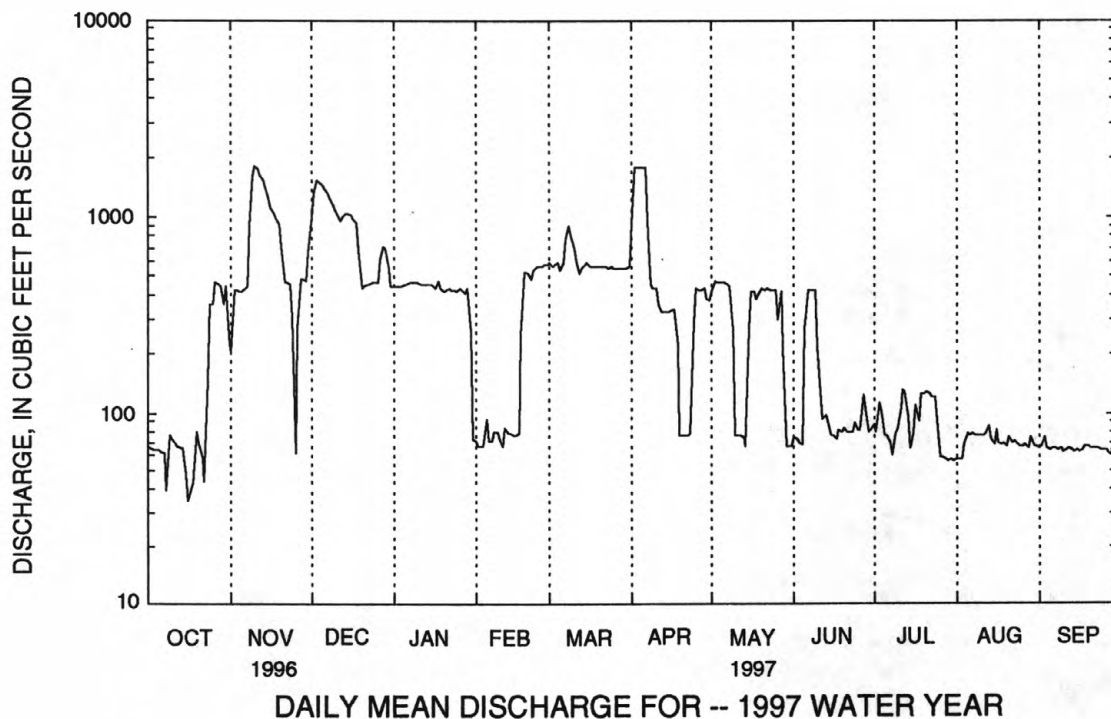
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 1997, BY WATER YEAR (WY)

MEAN	146	222	311	316	332	536	632	360	235	161	119	120
MAX	1013	784	1054	851	810	1255	1793	892	1066	620	366	597
(WY)	1978	1997	1928	1943	1990	1945	1993	1943	1972	1972	1992	1977
MIN	17.7	14.6	13.5	14.3	49.2	75.4	194	42.5	54.2	41.9	29.6	27.0
(WY)	1954	1954	1954	1961	1989	1989	1915	1985	1991	1987	1975	1983

STREAMS TRIBUTARY TO LAKE ONTARIO
04235500 OWASCO OUTLET NEAR AUBURN, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1913 - 1997	
ANNUAL TOTAL	160746		133381		291	
ANNUAL MEAN	439		365		436	1978
HIGHEST ANNUAL MEAN					122	1965
LOWEST ANNUAL MEAN					3200	Jun 24 1972
HIGHEST DAILY MEAN	1870	May 13	1820	Nov 10	5.0	Nov 11 1934
LOWEST DAILY MEAN	35	Oct 16	35	Oct 16	11	Jan 29 1961
ANNUAL SEVEN-DAY MINIMUM	52	Oct 12	52	Oct 12	3250	Jun 23 1972
INSTANTANEOUS PEAK FLOW			1880	Nov 10	6.28	Jun 23 1972
INSTANTANEOUS PEAK STAGE			4.22	Nov 10	a2.0	Dec 5 1936
INSTANTANEOUS LOW FLOW			15	Oct 8	650	
10 PERCENT EXCEEDS	1140		909		198	
50 PERCENT EXCEEDS	404		290		48	
90 PERCENT EXCEEDS	63		65			

a About.



STREAMS TRIBUTARY TO LAKE ONTARIO

205

04235820 GROUT BROOK TRIBUTARY SOUTHEAST OF FAIR HAVEN, NY

LOCATION.--Lat 42°45'28", long 76°14'14", Cortland County, Hydrologic Unit 04140201, on right bank at culvert on State Highway 41, 0.5 mi upstream from Grout Brook, 1.4 mi north of Scott, and 8.8 mi north of Homer.

DRAINAGE AREA.--0.27 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1996 to current year.

GAGE.--Water-stage recorder, V-notch sharp-crested weir, and crest-stage gage. Elevation of gage is 1600 ft above sea level, from topographic map.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	.33	.25	.17
2	---	---	---	---	---	---	---	---	---	.32	.23	.17
3	---	---	---	---	---	---	---	---	---	.42	.22	.17
4	---	---	---	---	---	---	---	---	---	.61	.23	.16
5	---	---	---	---	---	---	---	---	---	.45	.21	.15
6	---	---	---	---	---	---	---	---	---	.46	.20	.14
7	---	---	---	---	---	---	---	---	---	.47	.19	.15
8	---	---	---	---	---	---	---	---	---	.47	.58	.22
9	---	---	---	---	---	---	---	---	---	.46	.46	.18
10	---	---	---	---	---	---	---	---	---	e.45	.26	.16
11	---	---	---	---	---	---	---	---	---	.43	.23	.15
12	---	---	---	---	---	---	---	---	---	.43	.23	.14
13	---	---	---	---	---	---	---	---	---	.43	.23	.18
14	---	---	---	---	---	---	---	---	---	.42	.22	.16
15	---	---	---	---	---	---	---	---	---	.53	.25	.14
16	---	---	---	---	---	---	---	---	---	.41	.30	.13
17	---	---	---	---	---	---	---	---	---	.38	.23	.22
18	---	---	---	---	---	---	---	---	---	.36	.22	.25
19	---	---	---	---	---	---	---	---	---	.49	.21	.16
20	---	---	---	---	---	---	---	---	---	.37	.21	.14
21	---	---	---	---	---	---	---	---	---	.34	.21	.13
22	---	---	---	---	---	---	---	---	---	.32	.20	.19
23	---	---	---	---	---	---	---	---	---	.32	.21	.17
24	---	---	---	---	---	---	---	---	---	.30	.20	.16
25	---	---	---	---	---	---	---	---	---	.29	.19	.16
26	---	---	---	---	---	---	---	---	e.29	.28	.19	.14
27	---	---	---	---	---	---	---	---	.29	.27	.19	.15
28	---	---	---	---	---	---	---	---	.28	.26	.19	.25
29	---	---	---	---	---	---	---	---	.28	.25	.19	.30
30	---	---	---	---	---	---	---	---	.57	.27	.18	.24
31	---	---	---	---	---	---	---	---	---	.28	.18	---
TOTAL	---	---	---	---	---	---	---	---	---	11.87	7.29	5.23
MEAN	---	---	---	---	---	---	---	---	---	.38	.24	.17
MAX	---	---	---	---	---	---	---	---	---	.61	.58	.30
MIN	---	---	---	---	---	---	---	---	---	.25	.18	.13
CFSM	---	---	---	---	---	---	---	---	---	1.42	.87	.65

e Estimated

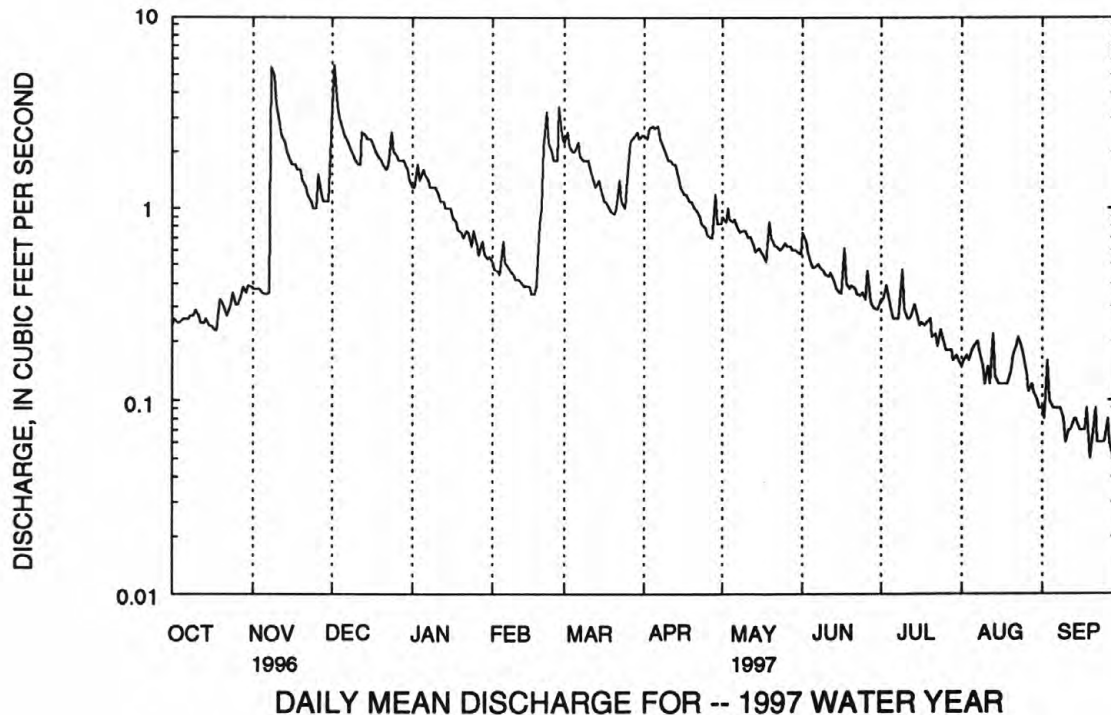
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.24	.37	3.4	1.3	.51	2.2	2.4	.90	.74	.33	.15	.09
2	.26	.37	5.5	1.3	.47	2.5	2.3	.85	.67	.33	.16	.08
3	.25	.37	3.5	1.7	.46	2.1	2.6	1.0	.57	.39	.17	.16
4	.25	.36	3.0	1.4	.44	2.0	2.7	.88	.50	.34	.16	.10
5	.26	.35	2.6	1.6	.67	2.0	2.6	.84	.48	.28	.18	.09
6	.26	.35	2.4	1.5	.52	2.2	2.7	.88	.49	.26	.19	.09
7	.26	.36	2.2	1.4	.48	1.9	2.3	.77	.50	.26	.20	.09
8	.27	5.4	2.1	1.3	.46	1.8	2.1	.74	.48	.26	.18	.09
9	.27	4.9	1.9	1.3	.44	1.8	2.0	.75	.46	.47	.15	.08
10	.29	3.5	1.8	1.3	.42	1.8	1.8	.76	.44	.29	.12	.06
11	.27	2.7	1.7	1.2	.42	1.6	1.8	.70	.43	.26	.15	.07
12	.25	2.4	1.7	1.1	.41	1.4	1.7	.71	.45	.26	.12	.08
13	.25	2.2	2.5	1.1	.38	1.3	1.7	.62	.41	.27	.22	.08
14	.26	2.0	2.4	1.0	.39	1.4	e1.4	.59	.37	.31	.13	.08
15	.24	1.8	2.3	1.0	.38	1.3	e1.3	.61	.36	.28	.12	.07
16	.24	1.7	2.3	.99	.35	1.1	1.2	.58	.35	.24	.12	.07
17	.23	1.7	2.2	.90	.35	1.1	1.2	.55	.61	.25	.12	.07
18	.23	1.6	2.0	.84	.39	.99	1.1	.52	.40	.24	.12	.09
19	.33	1.6	1.9	.78	.82	.96	1.1	.84	.37	.25	.12	.05
20	.32	1.4	1.8	.74	1.0	.93	1.0	.70	.39	.26	.14	.06
21	.28	1.3	1.7	.69	2.1	1.0	.97	.62	.37	.21	.17	.09
22	.27	1.2	1.6	.75	3.2	1.4	.89	.62	.35	.22	.19	.06
23	.31	1.1	1.7	.74	2.2	1.1	.83	.60	.34	.19	.21	.06
24	.36	1.0	2.5	.62	2.0	1.0	.79	.61	.36	.23	.19	.06
25	.31	1.0	2.0	.75	1.8	1.3	.73	.65	.33	.21	.17	.06
26	.31	1.5	1.9	.63	1.8	2.2	.69	.62	.46	.18	.13	.08
27	.34	1.2	1.8	.56	3.4	2.3	.69	.62	.32	.18	.11	.06
28	.38	1.1	1.8	.67	2.3	2.4	1.2	.60	.30	.18	.12	.05
29	.36	1.1	1.8	.57	---	2.5	.82	.60	.29	.16	.11	.12
30	.39	1.1	1.6	.54	---	2.3	.83	.58	.29	.17	.10	.10
31	.38	---	1.4	.55	---	2.4	---	.57	---	.16	.09	---
TOTAL	8.92	47.03	69.0	30.82	28.56	52.28	45.44	21.48	12.88	7.92	4.607	2.380
MEAN	.29	1.57	2.23	.99	1.02	1.69	1.51	.69	.43	.26	.15	.079
MAX	.39	5.4	5.5	1.7	3.4	2.5	2.7	1.0	.74	.47	.22	.16
MIN	.23	.35	1.4	.54	.35	.93	.69	.52	.29	.16	.09	.05
CFSM	1.07	5.81	8.24	3.68	3.78	6.25	5.61	2.57	1.59	.95	.55	.29

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 1997, BY WATER YEAR (WY)

[illegible]

SUMMARY STATISTICS	FOR 1997 WATER YEAR		WATER YEARS 1996 - 1997	
ANNUAL TOTAL	331.32			
ANNUAL MEAN	.91		.91	
HIGHEST ANNUAL MEAN			.91	1997
LOWEST ANNUAL MEAN			.91	1997
HIGHEST DAILY MEAN	5.5	Dec 2	5.5	Dec 2 1996
LOWEST DAILY MEAN	.05	a	.05	b
ANNUAL SEVEN-DAY MINIMUM	.06	Sep 22	.06	Sep 22 1997
INSTANTANEOUS PEAK FLOW	27	Nov 8	27	Nov 8 1996
INSTANTANEOUS PEAK STAGE	2.11	Nov 8	2.11	Nov 8 1996
INSTANTANEOUS LOW FLOW	.04	Sep 19	.04	Sep 19 1997
ANNUAL RUNOFF (CFSM)	3.36		3.36	
10 PERCENT EXCEEDS	2.2		2.0	
50 PERCENT EXCEEDS	.58		.41	
90 PERCENT EXCEEDS	.12		.14	

a Sep. 19, 28.
b Sep. 19, 28, 1997.



STREAMS TRIBUTARY TO LAKE ONTARIO

04235820 GROUT BROOK TRIBUTARY SOUTHEAST OF FAIR HAVEN, NY,--continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 1996 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: July 1996 to current year.

INSTRUMENTATION.--Water temperature recorder since July 1996.

EXTREMES FOR PERIOD OF RECORD.--

WATER TEMPERATURES: Maximum, 23.5°C, June 30, 1997; minimum 0.0°C, many days during winter period.

EXTREMES FOR CURRENT PERIOD.--

WATER TEMPERATURE:

July to September 1996: Maximum, 21.0°C, Aug. 6, 7; minimum 7.5°C, Sep. 24, 26.

Water year 1997: Maximum, 23.5°C, June 30; minimum 0.0°C, many days during winter period.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	---	---	---	17.5	12.5	14.5	17.0	11.0	13.5
2	---	---	---	---	---	---	19.0	11.0	14.5	17.5	11.5	14.0
3	---	---	---	---	---	---	18.0	12.5	14.5	16.5	11.5	13.5
4	---	---	---	---	---	---	19.0	12.0	15.0	16.0	12.0	14.0
5	---	---	---	---	---	---	19.5	12.5	15.5	16.0	13.0	14.5
6	---	---	---	---	---	---	21.0	12.5	16.0	18.0	12.5	15.0
7	---	---	---	---	---	---	21.0	13.0	16.5	17.0	14.5	15.5
8	---	---	---	---	---	---	17.5	14.5	16.0	15.5	14.5	15.0
9	---	---	---	---	---	---	20.0	14.0	16.5	17.0	14.0	15.0
10	---	---	---	---	---	---	18.5	12.5	14.5	16.0	12.5	14.5
11	---	---	---	---	---	---	18.0	10.5	14.0	16.5	11.5	13.5
12	---	---	---	---	---	---	15.0	11.5	13.5	16.5	12.0	14.0
13	---	---	---	---	---	---	18.5	12.0	14.5	15.0	12.0	13.5
14	---	---	---	---	---	---	19.0	12.5	15.0	14.0	10.0	12.0
15	---	---	---	---	---	---	19.0	12.5	15.5	12.5	11.0	11.5
16	---	---	---	---	---	---	16.5	13.5	15.0	14.0	11.5	12.5
17	---	---	---	---	---	---	17.5	12.0	14.5	13.0	11.5	12.5
18	---	---	---	---	---	---	18.5	11.5	14.5	15.0	11.5	13.0
19	---	---	---	---	---	---	18.5	11.5	14.5	15.0	9.5	12.0
20	---	---	---	---	---	---	18.5	12.0	15.0	15.5	9.5	12.0
21	---	---	---	---	---	---	18.5	13.5	15.5	15.0	9.5	12.0
22	---	---	---	---	---	---	18.5	11.5	14.5	12.5	10.5	11.5
23	---	---	---	---	---	---	18.0	13.0	15.0	11.5	8.5	11.0
24	---	---	---	---	---	---	18.5	13.0	15.5	11.0	7.5	9.5
25	---	---	---	---	---	---	18.5	11.5	14.5	11.5	8.5	10.5
26	---	---	---	---	---	---	18.0	12.5	15.0	12.5	7.5	9.5
27	---	---	---	---	---	---	17.0	12.5	14.5	13.5	10.5	11.5
28	---	---	---	---	---	---	16.0	12.5	14.0	14.0	12.0	13.0
29	---	---	---	---	---	---	17.0	11.5	14.0	14.0	11.0	12.0
30	---	---	---	---	---	---	17.0	11.5	13.5	14.0	9.5	11.5
31	---	---	---	18.5	13.0	15.0	17.0	10.5	13.5	---	---	---
MONTH	---	---	---	---	---	---	21.0	10.5	14.8	18.0	7.5	12.8

STREAMS TRIBUTARY TO LAKE ONTARIO

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04235820 GROUT BROOK TRIBUTARY SOUTHEAST OF FAIR HAVEN, NY,--continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	15.5	10.0	12.5	8.0	5.5	6.5	9.0	4.5	6.0	3.0	.5	1.5
2	14.5	11.5	12.5	7.0	4.0	5.5	6.0	4.0	5.0	5.0	1.0	4.0
3	12.5	8.0	10.0	6.0	4.0	5.0	7.5	4.5	5.5	5.5	5.0	5.5
4	11.0	6.5	8.5	9.0	5.0	6.5	5.5	5.0	5.5	6.5	5.0	5.5
5	11.5	6.0	8.5	7.5	6.0	7.0	6.5	4.5	5.5	8.5	5.0	7.0
6	12.0	7.0	9.0	8.5	5.5	7.0	6.5	4.0	5.5	5.0	2.0	3.5
7	13.5	8.0	10.5	12.0	8.0	10.5	6.0	4.5	5.0	2.5	1.0	2.0
8	12.0	8.5	10.0	12.5	8.0	10.0	6.5	5.0	5.5	3.5	.5	1.5
9	11.5	9.5	10.5	8.5	7.0	7.5	6.0	4.0	5.0	3.0	1.0	2.0
10	10.0	7.5	9.5	7.5	6.0	7.0	5.5	4.5	5.0	4.5	1.5	3.0
11	9.5	6.0	7.5	7.5	5.5	6.5	6.5	4.5	5.5	3.0	1.0	2.0
12	11.5	6.0	8.0	6.5	5.0	5.5	6.5	5.5	6.0	2.5	1.0	1.5
13	12.0	8.5	10.0	6.5	4.0	5.0	6.5	4.0	5.5	3.5	1.5	2.0
14	12.0	8.0	10.5	7.0	4.0	5.0	5.5	4.0	5.0	3.5	1.5	2.0
15	10.5	6.0	8.0	7.5	4.0	5.0	6.5	5.0	5.5	5.0	1.0	2.5
16	14.0	8.0	10.5	7.5	3.5	5.0	6.0	4.5	5.5	3.5	.0	1.5
17	14.5	10.0	11.5	9.0	4.5	6.5	7.5	5.5	6.5	.5	.0	.5
18	12.5	10.0	11.0	8.0	6.0	7.5	7.0	5.5	6.0	2.0	.5	1.0
19	10.5	8.5	9.5	7.0	6.0	6.5	5.5	2.0	4.0	3.0	1.0	1.5
20	10.0	8.5	9.0	6.0	4.5	5.0	3.5	1.5	2.5	3.5	1.0	2.0
21	10.0	8.0	9.0	5.0	4.0	4.5	4.0	2.0	2.5	5.0	1.5	2.5
22	10.0	7.5	8.5	5.0	4.0	4.5	4.0	1.5	3.0	4.0	1.0	3.0
23	12.0	7.0	9.5	6.5	4.0	5.0	5.5	3.5	4.5	4.5	.5	2.5
24	10.5	8.0	9.0	5.5	3.5	4.5	6.5	3.0	5.0	1.5	.0	.5
25	11.5	7.5	9.0	6.5	3.5	5.0	4.5	2.0	3.0	4.5	.5	2.5
26	12.0	6.5	9.0	5.0	3.0	4.0	3.5	2.5	3.0	2.5	.0	1.0
27	13.5	7.5	10.5	4.0	2.5	3.0	5.5	3.5	4.5	2.0	.0	.5
28	11.0	7.5	9.5	5.0	3.5	4.0	6.5	4.0	5.5	1.0	.0	.5
29	11.0	7.0	8.5	6.0	3.5	4.5	7.5	5.5	6.5	2.5	.0	1.5
30	9.5	7.5	8.5	5.0	3.0	4.0	5.5	3.0	4.0	3.0	.5	1.5
31	10.0	6.5	7.5	---	---	---	3.5	.5	2.0	3.0	.5	2.0
MONTH	15.5	6.0	9.5	12.5	2.5	5.8	9.0	.5	4.8	8.5	.0	2.3
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	3.5	2.5	3.0	5.5	3.5	4.5	4.5	.0	2.0	12.5	9.0	10.5
2	5.5	2.0	3.5	7.5	3.5	5.5	9.0	2.0	4.5	12.5	6.5	9.0
3	4.5	3.5	4.0	6.0	3.0	4.5	11.5	3.0	6.5	9.5	8.0	8.5
4	3.5	1.0	2.5	5.0	3.0	4.0	12.5	4.0	7.5	11.0	7.0	8.5
5	2.5	1.0	1.5	7.0	4.0	5.5	12.5	5.0	8.0	12.5	6.5	9.5
6	3.5	2.0	2.5	4.5	2.0	3.0	13.5	6.5	9.5	10.0	7.5	9.0
7	4.5	2.0	3.0	5.0	.5	2.5	13.0	4.0	8.5	9.5	6.0	7.5
8	5.5	1.5	3.5	4.0	2.0	3.0	9.5	2.5	5.0	11.0	6.0	8.5
9	4.5	1.0	2.5	7.0	.5	3.5	8.0	1.0	3.5	11.0	8.5	9.5
10	4.0	1.0	2.5	8.5	.5	4.0	10.0	1.5	5.0	10.0	7.5	8.5
11	5.5	2.0	3.5	5.0	2.0	4.0	12.0	3.0	6.5	11.5	7.0	9.0
12	4.0	1.5	3.0	6.0	.5	2.5	7.5	4.5	6.0	14.5	8.5	10.0
13	2.5	1.0	1.5	8.0	.5	3.5	7.0	4.0	6.0	14.0	7.5	10.0
14	1.5	1.0	1.5	3.5	.0	1.5	---	---	---	15.0	7.0	10.5
15	3.0	1.5	2.5	4.5	1.5	2.5	---	---	---	15.5	8.0	10.5
16	3.0	2.0	2.5	4.5	.5	2.0	14.5	4.5	8.5	8.5	6.0	7.0
17	3.5	1.5	2.5	4.5	1.5	3.0	8.0	5.0	7.0	8.5	6.0	7.0
18	5.0	2.0	3.5	8.5	2.5	4.5	5.0	2.0	4.0	16.0	4.5	9.5
19	4.5	4.0	4.0	10.5	1.5	5.0	6.0	2.0	4.0	14.5	9.5	11.5
20	5.0	3.0	4.0	10.0	3.5	5.5	8.0	4.5	6.0	12.5	8.0	10.0
21	5.0	4.0	4.5	7.0	3.0	5.0	14.0	5.5	8.5	11.0	6.0	7.5
22	4.5	3.5	4.0	6.0	1.5	3.5	16.0	5.0	9.0	10.0	6.0	7.5
23	4.0	3.0	3.5	6.5	.5	3.0	15.0	5.5	9.5	9.5	5.5	8.0
24	4.0	3.0	3.5	10.0	1.0	4.5	13.5	6.5	8.5	10.0	9.0	9.5
25	4.0	2.0	3.0	4.5	2.5	3.5	15.0	6.0	9.5	10.0	10.0	10.0
26	8.0	3.0	4.5	4.5	2.5	3.5	14.0	6.0	9.5	10.0	9.0	9.5
27	7.0	2.5	4.5	10.5	3.0	6.0	13.5	6.0	9.0	10.0	9.0	9.5
28	8.0	3.0	4.5	12.0	3.5	7.0	9.0	7.0	8.0	10.5	9.5	10.0
29	---	---	---	10.5	5.5	7.5	14.0	6.0	9.5	10.5	10.0	10.5
30	---	---	---	7.0	5.5	6.0	14.5	7.5	10.5	10.5	10.0	10.5
31	---	---	---	5.5	.0	2.0	---	---	---	10.5	10.0	10.0
MONTH	8.0	1.0	3.2	12.0	.0	4.0	---	---	---	16.0	4.5	9.2

STREAMS TRIBUTARY TO LAKE ONTARIO
04235820 GROUT BROOK TRIBUTARY SOUTHEAST OF FAIR HAVEN, NY,--continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	11.0	10.5	10.5	20.5	13.5	16.0	17.0	13.0	15.0	16.0	13.5	14.5
2	10.5	10.5	10.5	18.5	14.5	16.0	17.5	13.5	15.5	15.5	13.5	14.5
3	18.5	10.5	12.0	18.0	15.0	16.5	18.5	13.5	15.5	15.0	13.0	14.0
4	19.0	8.5	13.0	16.0	13.5	14.5	18.5	12.5	15.0	14.0	11.5	12.5
5	20.0	8.5	13.5	17.5	12.5	14.5	18.5	12.0	14.5	14.5	11.0	12.5
6	18.0	9.5	13.0	17.5	12.0	14.5	16.0	11.0	13.5	14.0	12.0	12.5
7	14.0	10.5	12.0	16.0	13.5	14.5	18.5	10.0	14.0	13.5	12.0	13.0
8	20.0	9.0	13.5	16.5	13.5	15.0	20.0	11.5	15.0	14.5	12.0	13.0
9	21.0	10.0	15.0	15.5	14.5	15.0	20.0	12.0	15.5	14.5	11.5	13.0
10	19.0	12.0	15.5	15.5	13.0	14.0	19.5	12.0	15.5	14.0	12.5	13.0
11	18.0	13.0	15.5	17.0	14.0	15.0	17.5	13.5	15.5	14.0	13.0	13.5
12	16.5	14.0	15.5	17.0	12.5	14.5	20.0	13.0	15.5	17.0	12.0	14.0
13	19.5	13.0	15.5	18.5	14.5	16.0	18.0	14.0	16.0	13.5	12.5	13.0
14	21.0	10.0	14.5	18.0	15.0	16.5	19.0	14.0	16.0	17.5	12.0	14.0
15	21.5	9.0	14.5	18.5	16.0	17.5	15.5	12.5	14.0	16.0	11.0	13.5
16	22.5	10.5	15.5	19.0	16.0	17.5	19.0	14.5	16.5	17.0	13.0	14.0
17	21.5	13.0	15.5	19.0	15.5	17.0	16.5	14.5	15.5	15.0	11.0	13.0
18	15.5	12.5	13.5	19.0	16.0	17.5	17.5	13.0	15.0	16.0	12.0	14.0
19	19.0	12.0	14.5	17.5	15.0	16.0	16.5	12.0	14.0	14.5	11.5	13.0
20	19.5	11.5	14.5	17.0	13.0	15.0	15.0	12.5	14.0	13.5	12.0	13.0
21	23.0	13.0	17.0	16.0	14.0	14.5	15.0	13.0	13.5	13.0	10.0	11.0
22	22.0	14.0	16.5	18.0	13.5	15.5	15.5	13.0	14.0	13.5	9.0	10.5
23	21.5	12.0	16.0	18.0	13.5	15.5	14.5	13.0	14.0	12.5	10.5	11.0
24	20.5	13.0	16.0	16.5	14.5	15.5	15.5	13.0	14.0	12.5	9.0	10.5
25	21.5	14.0	17.0	22.0	13.5	16.0	15.0	13.5	14.0	13.5	8.0	10.5
26	17.5	15.0	16.5	22.0	11.5	16.0	15.0	13.0	14.0	12.0	9.5	11.0
27	22.0	12.5	16.0	19.5	14.0	16.5	15.0	13.5	14.5	14.0	7.5	10.0
28	23.0	11.5	16.0	19.0	14.5	16.0	15.0	13.5	14.5	14.5	9.0	11.0
29	23.0	12.0	16.5	19.5	13.0	15.5	15.0	13.5	14.0	13.0	11.5	12.0
30	23.5	12.5	17.0	19.0	11.5	15.0	15.0	13.5	14.0	12.0	11.0	11.5
31	---	---	---	18.5	12.5	15.5	15.0	13.0	14.0	---	---	---
MONTH	23.5	8.5	14.7	22.0	11.5	15.6	20.0	10.0	14.7	17.5	7.5	12.6

REMARKS.--Samples were taken as part of a state-wide pesticide sampling network in cooperation with the New York State Department of Environmental Conservation. A complete list of compounds included when pesticide analyses were performed on samples appears following the introduction to the State-wide Monitoring of Pesticides in Surface Water of New York State section on page _____. Only those compounds which were detected at or above the method detection limit (MDL) were included in the tables.

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)
APR						
24...	1430	--	0.022	<0.004	E0.020	E0.004
MAY						
22...	1030	--	0.019	<0.004	E0.010	0.007
JUN						
17...	0830	2.0	0.222	0.011	E0.035	0.380

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PERIOD OF RECORD.--July 1996 to current year.

PERIOD OF DAILY RECORD.--July 1996 to current year.

INSTRUMENTATION.--Tipping bucket rain gage since July 1996. Receiving funnel is heated to facilitate melting of snow. Tips of the rain gage bucket are recorded and accumulated at 15 minute intervals on an electronic data logger.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily precipitation 4.07 inches, Nov. 8, 1996.

EXTREMES FOR CURRENT YEAR.-- Maximum daily precipitation 4.07 inches, Nov. 8.

[illegible]

STREAMS TRIBUTARY TO LAKE ONTARIO
04235820 GROUT BROOK TRIBUTARY SOUTHEAST OF FAIR HAVEN, NY,--continued

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	1.65	.06	.07	.00	.00	.02	.61	.46	.00	.00
2	.04	.00	.34	.09	.00	.40	.00	.00	.19	.05	.00	.07
3	.01	.04	.09	.14	.07	.00	.00	.36	.00	.37	.01	.92
4	.00	.02	.09	.00	.21	.00	.00	.01	.00	.09	.00	.00
5	.00	.00	.04	.36	.33	.30	.04	.00	.00	.00	.00	.00
6	.00	.00	.14	.00	.00	.13	.08	.20	.16	.00	.01	.06
7	.00	.11	.00	.00	.00	.00	.02	.00	.00	.00	.00	.06
8	.01	4.07	.00	.00	.02	.11	.00	.01	.00	.06	.00	.00
9	.00	.19	.00	.02	.00	.01	.00	.13	.00	1.02	.00	.00
10	.33	.12	.00	.01	.00	.05	.00	.23	.00	.01	.12	.00
11	.00	.00	.09	.00	.00	.03	.00	.02	.00	.00	.52	.41
12	.00	.02	.01	.00	.04	.00	.23	.22	.38	.00	.00	.13
13	.00	.01	1.14	.01	.00	.00	.11	.00	.02	.00	.98	.04
14	.09	.00	.24	.00	.03	.37	.00	.04	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.15	.00	.09	.05	.00
16	.00	.00	.00	.03	.03	.00	.11	.11	.00	.00	.09	.00
17	.00	.00	.00	.00	.03	.00	.03	.04	1.17	.00	.06	.27
18	.00	.03	.00	.00	.00	.00	.02	.00	.18	.00	.03	.01
19	1.03	.10	.04	.00	.08	.00	.01	1.03	.02	.00	.00	.06
20	.19	.02	.00	.02	.01	.00	.00	.01	.48	.01	.10	.22
21	.02	.00	.00	.00	.00	.53	.00	.03	.00	.27	.27	.00
22	.04	.05	.15	.04	.00	.08	.00	.00	.00	.00	.17	.01
23	.42	.03	.37	.00	.01	.00	.00	.00	.00	.00	.17	.21
24	.00	.04	.36	.00	.00	.00	.00	.00	.31	.10	.00	.00
25	.00	.54	.00	.00	.00	.51	.01	.03	.00	.00	.00	.31
26	.00	.42	.00	.00	.08	.27	.00	.00	.70	.00	.00	.08
27	.00	.00	.00	.03	.95	.00	.09	.00	.00	.00	.21	.01
28	.22	.00	.00	.07	.00	.00	1.02	.00	.00	.02	.00	.00
29	.00	.00	.07	.00	---	.19	.00	.00	.00	.00	.05	1.01
30	.21	.01	.00	.00	---	.26	.00	.06	.00	.00	.00	.47
31	.00	---	.10	.18	---	.10	---	.17	---	.00	.02	---
TOTAL	2.61	5.82	4.92	1.06	1.96	3.34	1.77	2.87	4.22	2.55	2.86	4.35
MAX	1.03	4.07	1.65	.36	.95	.53	1.02	1.03	1.17	1.02	.98	1.01

STREAMS TRIBUTARY TO LAKE ONTARIO

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04237411 SENECA RIVER, MOUTH AT STATE DITCH, NEAR JORDAN, NY

LOCATION.--Lat 43°06'54", long 76°26'21", Onondaga County, Hydrologic Unit 04140201, on right bank 700 ft. downstream from Bridge on Plainville Road, 1.2 mi north of Jack's Reef.

DRAINAGE AREA.-- 3,093 mi².

PERIOD OF RECORD.--April 1996 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 380 ft above sea level, from topographic map.

REMARKS.--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. Seneca River basin receives water from Erie (Barge) Canal through Lock 32 near Pittsford. During part of year, entire flow from 45.5 mi² of Mud Creek drainage area may be diverted from Chemung River basin into Keuka Lake in Oswego River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 6.26 ft., Nov. 12, 1996; minimum, 0.34 ft., Feb. 17, 1997.

EXTREMES FOR CURRENT YEAR.--April to September 1996: Maximum gage height, 6.25 ft., May 15, 16; minimum, 0.71 ft., Sep. 8.

Water year 1997: Maximum gage height, 6.26 ft., Nov 12; minimum, 0.34 ft., Feb.17.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	4.37	3.33	1.64	1.14	1.04
2	---	---	---	---	---	---	---	4.70	2.78	1.67	1.16	1.05
3	---	---	---	---	---	---	---	4.84	2.39	1.59	1.12	1.06
4	---	---	---	---	---	---	---	4.70	2.05	1.52	1.07	1.07
5	---	---	---	---	---	---	---	4.50	1.88	1.36	.99	1.08
6	---	---	---	---	---	---	---	4.35	1.95	1.40	1.13	1.12
7	---	---	---	---	---	---	---	4.27	2.08	1.41	1.28	.91
8	---	---	---	---	---	---	---	4.17	2.15	1.41	1.41	.75
9	---	---	---	---	---	---	---	4.03	2.21	1.37	1.62	.85
10	---	---	---	---	---	---	.90	3.75	2.21	1.21	1.66	.90
11	---	---	---	---	---	---	1.11	3.93	2.13	1.15	1.56	.85
12	---	---	---	---	---	---	1.58	4.71	1.78	.99	1.45	.80
13	---	---	---	---	---	---	1.94	5.45	1.66	1.02	1.55	.96
14	---	---	---	---	---	---	2.51	5.92	1.77	1.11	1.60	1.46
15	---	---	---	---	---	---	2.84	6.20	1.68	1.35	1.64	1.64
16	---	---	---	---	---	---	3.29	6.21	1.41	1.57	1.73	1.56
17	---	---	---	---	---	---	3.59	6.05	1.23	1.37	1.72	1.33
18	---	---	---	---	---	---	3.79	5.86	1.18	1.25	1.57	1.19
19	---	---	---	---	---	---	3.87	5.71	1.37	1.27	1.43	1.41
20	---	---	---	---	---	---	3.80	5.53	1.64	1.31	1.06	1.38
21	---	---	---	---	---	---	3.76	5.41	1.56	1.28	.79	1.08
22	---	---	---	---	---	---	3.74	5.36	1.56	1.25	.84	1.13
23	---	---	---	---	---	---	3.79	5.31	1.77	1.33	.99	1.20
24	---	---	---	---	---	---	3.95	5.29	1.77	1.39	1.11	1.37
25	---	---	---	---	---	---	4.20	5.21	1.74	1.35	1.14	1.50
26	---	---	---	---	---	---	4.38	5.12	1.64	1.01	1.14	1.36
27	---	---	---	---	---	---	4.37	5.01	1.52	.88	1.16	1.29
28	---	---	---	---	---	---	4.21	4.87	1.37	.84	1.17	1.31
29	---	---	---	---	---	---	4.04	4.73	1.39	.82	1.09	1.57
30	---	---	---	---	---	---	4.03	4.43	1.53	.83	1.02	1.67
31	---	---	---	---	---	---	---	3.95	---	.87	1.04	---
MEAN	---	---	---	---	---	---	---	4.97	1.82	1.25	1.27	1.20
MAX	---	---	---	---	---	---	---	6.21	3.33	1.67	1.73	1.67
MIN	---	---	---	---	---	---	---	3.75	1.18	.82	.79	.75

STREAMS TRIBUTARY TO LAKE ONTARIO
04237411 SENECA RIVER, MOUTH AT STATE DITCH, NEAR JORDAN, NY

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.69	2.42	4.17	3.63	.76	3.01	1.93	1.42	1.36	1.33	1.07	1.06
2	1.64	2.35	4.77	3.57	.76	3.15	2.00	1.33	1.57	1.23	1.11	1.11
3	1.55	2.33	5.16	3.58	.77	3.12	2.33	1.33	1.84	1.19	1.12	1.14
4	1.41	2.29	5.38	3.66	.86	2.95	2.36	1.50	1.71	1.15	1.01	1.01
5	1.32	2.27	5.41	3.75	1.18	2.78	2.16	1.42	1.53	1.14	1.08	.90
6	1.26	2.23	5.35	3.83	1.58	2.83	2.00	1.13	1.55	1.28	1.15	.99
7	1.26	2.22	5.20	3.80	1.42	3.06	1.72	.98	1.79	1.19	1.19	1.10
8	1.39	2.86	5.03	3.70	1.19	3.27	1.55	1.03	1.74	1.05	1.20	1.19
9	1.47	4.63	4.86	3.59	.84	3.32	1.38	1.10	1.63	1.11	1.09	1.14
10	1.44	5.55	4.70	3.50	.62	3.36	1.30	1.15	1.58	1.12	.97	1.06
11	1.41	6.00	4.57	3.41	.55	3.34	1.16	1.45	1.52	1.10	.99	1.04
12	1.36	6.21	4.49	3.26	.59	3.31	.98	1.31	1.52	1.07	1.03	1.16
13	1.39	6.19	4.58	3.33	.52	3.23	1.07	1.18	1.36	1.01	1.13	1.19
14	1.44	5.96	4.85	3.29	.42	3.19	1.30	1.17	1.33	.97	1.11	1.17
15	1.42	5.67	5.04	3.15	.41	3.21	1.46	1.09	1.34	1.08	1.04	1.18
16	1.30	5.37	5.10	3.05	.37	3.14	1.35	1.14	1.46	1.18	1.16	1.15
17	1.17	5.08	5.04	3.04	.37	3.09	1.11	1.20	1.40	1.11	1.10	1.13
18	1.02	4.83	4.92	3.09	.60	3.03	.93	1.22	1.34	1.01	1.01	1.11
19	1.16	4.66	4.77	2.92	1.14	2.91	.99	1.29	1.22	.91	1.04	1.06
20	1.88	4.51	4.54	2.91	1.69	2.66	1.04	1.73	1.22	.98	1.10	1.01
21	2.33	4.35	4.29	2.86	1.96	2.23	1.10	1.80	1.13	1.10	1.16	.98
22	2.71	4.21	4.13	2.82	2.18	1.74	1.14	1.68	1.09	1.20	1.23	1.07
23	2.92	4.09	4.00	2.77	1.94	1.47	1.04	1.54	.98	1.14	1.13	1.15
24	2.95	3.98	4.00	2.82	1.57	1.42	.95	1.59	1.00	1.06	1.04	1.17
25	2.80	3.88	4.03	2.80	1.31	1.44	1.01	1.61	1.08	.99	1.08	1.19
26	2.65	3.85	3.98	2.71	1.13	1.72	1.02	1.61	1.30	1.01	1.10	1.19
27	2.45	3.93	3.91	2.50	1.68	2.07	1.21	1.53	1.41	1.08	1.00	1.03
28	2.37	3.99	3.87	2.12	2.53	2.13	1.34	1.33	1.26	1.14	1.02	1.02
29	2.33	3.99	3.86	1.73	---	1.88	1.53	1.22	1.21	1.04	1.05	1.26
30	2.34	3.98	3.84	1.40	---	1.65	1.32	1.27	1.23	.97	.98	1.31
31	2.46	---	3.75	.99	---	1.77	---	1.29	---	1.01	1.00	---
MEAN	1.82	4.13	4.57	3.02	1.11	2.63	1.39	1.34	1.39	1.10	1.08	1.11
MAX	2.95	6.21	5.41	3.83	2.53	3.36	2.36	1.80	1.84	1.33	1.23	1.31
MIN	1.02	2.22	3.75	.99	.37	1.42	.93	.98	.98	.91	.97	.90

WTR YR 1997 MEAN 2.06 MAX 6.21 MIN .37

STREAMS TRIBUTARY TO LAKE ONTARIO
04237500 SENECA RIVER AT BALDWINVILLE, NY

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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 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1949 to current year in reports of Geological Survey. November 1898 to December 1908, prior to construction of Erie (Barge) Canal, not equivalent to later records at same site because of extensive development of Erie (Barge) Canal system. January 1909 to September 1925 (gage heights only) in reports of State Engineer and Surveyor.

REVISED RECORDS.--WDR NY-78-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 361.38 ft above sea level (362.60 ft Erie (Barge) Canal Datum). Prior to Dec. 31, 1908, nonrecording gage at same site at different datum. Auxiliary water-stage recorder 1,500 ft downstream from base gage at same datum. Telephone gage-height telemeter at base and auxiliary gages.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. 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 mi² of Mud Creek drainage area may be diverted from Chemung River basin into Keuka Lake in Oswego River basin. Several measurements of water temperature were made during the year.

COOPERATION.--Records of lockages at Lock 24 furnished by New York State Department Thruway Authority, Office of Canals.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2570	5750	8000	7730	1200	6270	4890	1550	2170	e1300	644	485
2	2510	5730	9230	7660	1000	6610	5140	2020	2660	e1500	630	431
3	2440	5670	10100	7650	1110	6400	5550	1540	4160	e2100	e750	717
4	2340	5690	10500	7740	1130	6350	5870	1590	4510	e1800	e750	1020
5	2190	5670	10500	7880	1360	6110	5370	2220	3600	e1500	600	536
6	2070	5760	10400	8030	3060	6300	5260	2150	3500	e1300	568	378
7	1720	5720	10100	7990	3190	6490	4630	e1500	4200	e1200	564	388
8	1510	7250	9780	7830	2660	6760	4000	e1300	4410	e1200	e650	681
9	1670	10300	9400	7580	2290	6970	3160	e1300	4060	1140	e800	881
10	1630	11300	9080	7620	2010	7130	2780	e920	3760	1120	e700	764
11	1700	12000	8820	7580	1380	7090	2740	e1120	3640	1060	609	567
12	1670	12400	8630	7350	1250	7060	2260	e1820	3260	e1100	582	620
13	1470	12600	8920	6670	1410	6880	2060	e1310	2780	1580	e800	923
14	e1470	12300	9520	6750	e1200	7020	2200	1310	2500	950	1150	771
15	e1410	11700	9790	6790	e1000	7210	2490	1230	2150	566	e750	785
16	1280	11000	9850	e6550	e1100	7050	2740	1270	2000	1120	858	753
17	1190	10300	9700	e5150	e1200	6950	2180	e1320	2080	1420	e750	594
18	1090	9690	9440	e5650	e1200	6860	e1500	1340	1810	e800	e630	622
19	1180	9270	9270	e5650	e1750	6700	e1400	1380	1530	e900	544	613
20	2860	8990	9100	e5650	3360	6390	e1900	2930	1350	601	524	594
21	5380	8670	8720	e5750	4170	5740	e1800	4530	1330	757	553	440
22	e5610	8370	8440	e5650	4780	4760	e1500	4970	1270	1220	995	351
23	e5810	8130	8200	e6550	4620	4100	e1400	4350	1050	e800	965	603
24	e6410	7900	8300	6690	3610	3530	e760	4210	677	e950	e700	649
25	e6020	7720	8430	6540	3150	3300	e590	4240	626	e800	485	591
26	e5820	7690	8340	5950	2990	4070	e660	4240	1040	570	822	1060
27	e5410	7780	8220	e5600	4170	4730	e760	3890	1850	571	796	1060
28	e5210	7820	8120	e4200	5400	4900	1430	3010	2100	e700	490	552
29	e5210	7790	8080	e5000	---	4700	2230	2250	2150	e950	621	796
30	e5510	7740	7990	e3200	---	4110	1680	2130	1610	e750	713	1660
31	5650	---	7880	e2200	---	4100	---	2170	---	700	407	---
TOTAL	98010	258700	280850	198830	66750	182640	80930	71110	73833	33025	21400	20885
MEAN	3162	8623	9060	6414	2384	5892	2698	2294	2461	1065	690	696
MAX	6410	12600	10500	8030	5400	7210	5870	4970	4510	2100	1150	1660
MIN	1090	5670	7880	2200	1000	3300	590	920	626	566	407	351

e Estimated

STREAMS TRIBUTARY TO LAKE ONTARIO
04237500 SENECA RIVER AT BALDWINVILLE, NY--continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1997, BY WATER YEAR (WY)

MEAN	2221	3433	4486	3968	3839	5820	6030	4022	2625	1937	1554	1464
MAX	11020	9491	10330	8807	8313	11650	15610	9778	6456	12100	6214	4760
(WY)	1978	1978	1978	1978	1976	1956	1993	1996	1972	1972	1992	1977
MIN	572	675	778	805	965	1606	1317	719	592	621	588	421
(WY)	1986	1958	1961	1954	1980	1965	1981	1995	1995	1985	1985	1995

SUMMARY STATISTICS

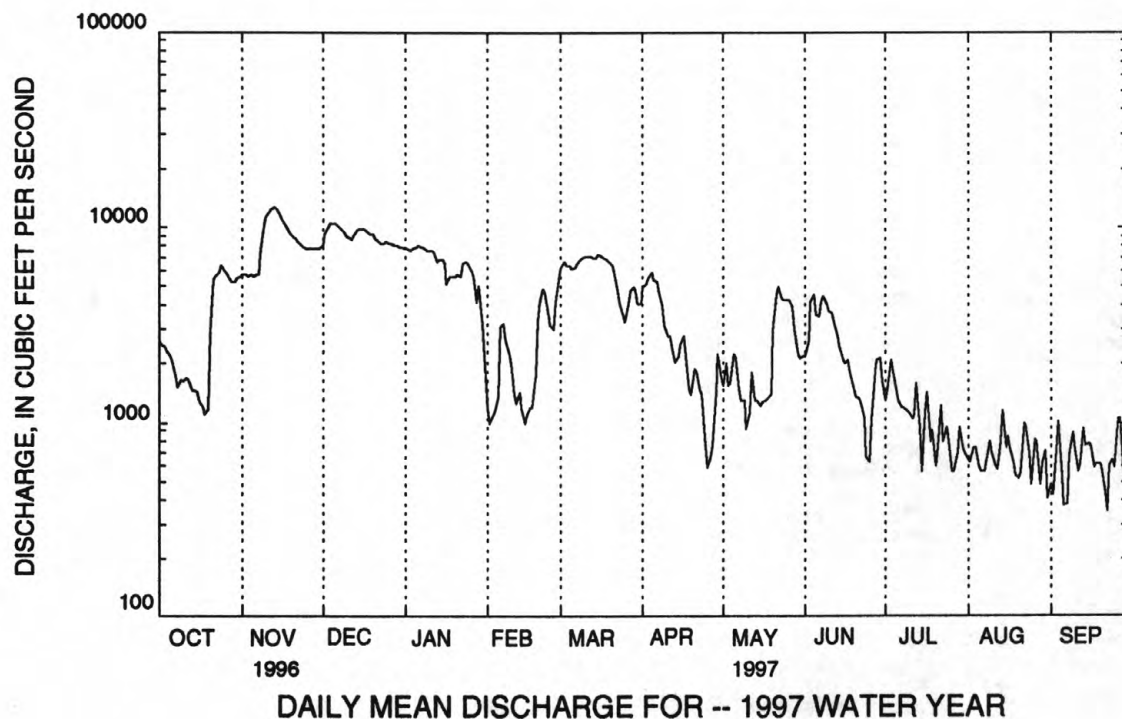
FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1950 - 1997

ANNUAL TOTAL	1838437		1386963									
ANNUAL MEAN	5023		3800							3444		
HIGHEST ANNUAL MEAN										5998		1978
LOWEST ANNUAL MEAN										1357		1965
HIGHEST DAILY MEAN	12600	May 16	12600	Nov 13						18100	Apr 27	1993
LOWEST DAILY MEAN	352	Aug 23	351	Sep 22						a34	Sep 17	1985
ANNUAL SEVEN-DAY MINIMUM	511	Aug 30	545	Sep 17						283	Sep 23	1988
10 PERCENT EXCEEDS	9540		8350							7660		
50 PERCENT EXCEEDS	4900		2490							2350		
90 PERCENT EXCEEDS	1070		638							882		

a Result of extreme regulation.



STREAMS TRIBUTARY TO LAKE ONTARIO
04237500 SENECA RIVER AT BALDWINVILLE, NY--continued
WATER-QUALITY RECORDS

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PERIOD OF RECORD.--1958-1975, 1997.

CHEMICAL DATA: 1958 (e), 1997 (c).

PESTICIDE DATA: 1997 (c).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1957 to September 1975.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 28.0°C, July 24, 1964; minimum, 0.0°C, on many days during winter period.

REMARKS.--Samples were taken as part of a state-wide pesticide sampling network in cooperation with the New York State Department of Environmental Conservation. A complete list of compounds included when pesticide analyses were performed on samples appears following the introduction to the State-wide Monitoring of Pesticides in Surface Water of New York State section on page 277. Only those compounds which were detected at or above the method detection limit (MDL) were included in the tables.

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)
APR										
24...	1300	679	<0.002	0.046	0.007	E0.017	<0.002	<0.002	0.037	0.007
MAY										
22...	0910	4690	0.006	0.068	0.014	E0.013	0.016	E0.002	0.085	0.014
JUN										
11...	1120	3740	0.084	0.286	0.068	E0.068	<0.002	<0.002	0.141	0.038
18...	1150	1030	0.039	0.216	0.057	E0.065	E0.003	<0.002	0.097	0.030
26...	0930	732	0.034	0.212	0.048	E0.062	<0.002	<0.002	0.094	0.026
JUL										
05...	1400	1810	0.033	0.261	0.077	E0.089	<0.002	0.005	0.105	0.030
05...	1409	1810	0.030	0.248	0.073	E0.083	<0.002	0.006	0.095	0.028
11...	0910	1020	0.024	0.265	0.069	E0.079	<0.002	0.004	0.102	0.027
24...	1530	1680	0.021	0.236	0.053	E0.038	<0.002	0.004	0.080	0.027
AUG										
21...	1340	550	0.008	0.184	0.030	E0.020	<0.002	<0.002	0.049	0.024

STREAMS TRIBUTARY TO LAKE ONTARIO

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

LOCATION.--Lat 42°51'18", long 76°08'24", Onondaga County, Hydrologic Unit 04140201, on right side of 9-in flume, 250 ft downstream from main depression area, about 2,100 ft east of Tully Farms Road, 1,500 ft south of Otisco Road, 400 ft upstream from mouth and 4.2 mi northwest of Tully.

DRAINAGE AREA.--0.32 mi² (0.70 mi² diverted to Trib. No. 5 on June 12, 1992).

WATER-DISCHARGE RECORDS

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

REVISED RECORD.--WDR NY-93-3: 1992 (M).

GAGE.--Electronic data logger with pressure transducer in flume stilling well.

REMARKS.--Records fair. Flow may include inflow from depressurizing wells, some originating outside the basin.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.86	.62	2.0	1.4	1.1	1.7	1.7	.96	1.1	.66	.43	.27
2	1.6	.62	4.1	1.4	1.1	1.8	1.9	1.0	1.0	.67	.41	.27
3	1.3	.67	2.6	1.6	1.0	1.7	2.1	1.1	.87	.65	.41	.40
4	.47	.65	2.2	1.5	.59	1.5	1.9	1.0	.80	.68	.42	.32
5	.41	.63	1.9	1.4	1.9	1.4	1.7	.94	.75	.66	.41	.31
6	e.40	.61	2.0	1.5	1.6	1.8	1.6	.96	.73	.63	.42	.32
7	e.40	.60	1.8	1.4	1.3	1.6	1.4	.94	.72	.61	.43	.31
8	e.40	3.0	1.6	1.4	1.2	1.6	1.4	.92	.69	.64	.40	.31
9	e.42	3.0	1.5	1.4	1.1	1.5	1.3	.92	.63	.83	.39	.30
10	e.44	1.8	1.5	1.3	1.1	1.6	1.3	.95	.56	.70	.38	.31
11	e.50	1.5	1.4	1.3	1.1	1.6	1.2	.91	.52	.63	.41	.40
12	e.52	1.4	1.3	1.3	1.1	1.5	1.2	.93	.52	.60	.41	.42
13	e.44	1.3	2.6	1.2	1.0	1.3	1.2	.88	.60	.57	.58	.38
14	e.40	1.2	2.8	1.2	1.0	1.4	1.1	.87	.59	.54	.38	.33
15	e.40	1.1	2.3	1.2	1.0	1.5	1.1	.90	.56	.50	.36	.32
16	e.50	1.1	2.0	1.2	1.0	1.4	1.1	.93	.53	.49	.37	.31
17	e.40	1.1	1.8	1.1	1.0	1.3	1.1	.94	1.0	.51	.35	.35
18	.48	1.1	1.6	1.1	1.1	1.3	1.1	.90	.90	.48	.35	.34
19	.57	1.1	1.6	1.1	1.8	1.3	1.2	1.0	.86	.51	.36	.32
20	.59	1.1	1.5	1.1	1.9	1.2	1.1	1.1	.83	.54	.35	.38
21	.54	1.1	1.4	1.0	2.0	1.3	1.1	.95	.75	.58	.39	.36
22	.54	1.1	1.3	1.1	2.0	1.6	1.0	.93	.70	.53	.36	.39
23	.55	1.1	1.4	1.2	1.8	1.4	1.0	.89	.69	.51	.36	.44
24	.61	1.0	2.1	1.1	1.7	1.3	.97	.86	.74	.50	.34	.44
25	.55	1.1	1.9	1.1	1.6	1.4	.95	.86	.67	.51	.32	.45
26	.53	2.0	1.7	1.1	1.4	1.9	.93	.85	.78	.51	.32	.45
27	.52	1.5	1.6	1.1	2.3	1.6	.94	.83	.70	.48	.35	.44
28	.56	1.4	1.5	1.1	2.0	1.5	1.5	.83	.68	.47	.32	.46
29	.54	1.3	1.4	1.0	---	1.5	1.1	.81	.65	.45	.29	.59
30	.67	1.3	1.3	1.1	---	1.4	1.0	.85	.63	.49	.28	.50
31	.64	---	1.3	1.0	---	1.7	---	.84	---	.46	.29	---
TOTAL	17.75	37.10	57.0	38.0	38.79	46.6	38.19	28.55	21.75	17.59	11.64	11.19
MEAN	.57	1.24	1.84	1.23	1.39	1.50	1.27	.92	.73	.57	.38	.37
MAX	1.6	3.0	4.1	1.6	2.3	1.9	2.1	1.1	1.1	.83	.58	.59
MIN	.40	.60	1.3	1.0	.59	1.2	.93	.81	.52	.45	.28	.27
CFSM	1.79	3.86	5.75	3.83	4.33	4.70	3.98	2.88	2.27	1.77	1.17	1.17
IN.	2.06	4.31	6.63	4.42	4.51	5.42	4.44	3.32	2.53	2.04	1.35	1.30

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1997, BY WATER YEAR (WY)

	1992	1993	1994	1995	1996	1997
MEAN	.50	.88	1.22	1.47	1.36	2.26
MAX	.78	1.24	1.90	2.82	3.05	5.20
(WY)	1993	1997	1992	1992	1992	1992
MIN	.29	.51	.76	.67	.66	.93
(WY)	1994	1994	1994	1994	1995	1995

STREAMS TRIBUTARY TO LAKE ONTARIO

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

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1992 - 1997
ANNUAL TOTAL	361.52	364.15	
ANNUAL MEAN	.99	1.00	1.14
HIGHEST ANNUAL MEAN			2.20 1992
LOWEST ANNUAL MEAN			.71 1995
HIGHEST DAILY MEAN	6.2 Jan 19	4.1 Dec 2	23 Mar 27 1992
LOWEST DAILY MEAN	.03 Sep 27	.27 a	b.03 c
ANNUAL SEVEN-DAY MINIMUM	.07 Sep 24	.30 Aug 27	.07 Sep 24 1996
INSTANTANEOUS PEAK FLOW		5.8 d	45 Mar 27 1992
INSTANTANEOUS PEAK STAGE		2.60 d	2.90 Jan 19 1996
INSTANTANEOUS LOW FLOW		b.03 Oct 1	f.00 g
ANNUAL RUNOFF (CFSM)	3.09	3.12	3.56
ANNUAL RUNOFF (INCHES)	42.03	42.33	48.33
10 PERCENT EXCEEDS	1.8	1.7	2.1
50 PERCENT EXCEEDS	.89	.95	.83
90 PERCENT EXCEEDS	.30	.39	.34

a Sep. 1, 2.

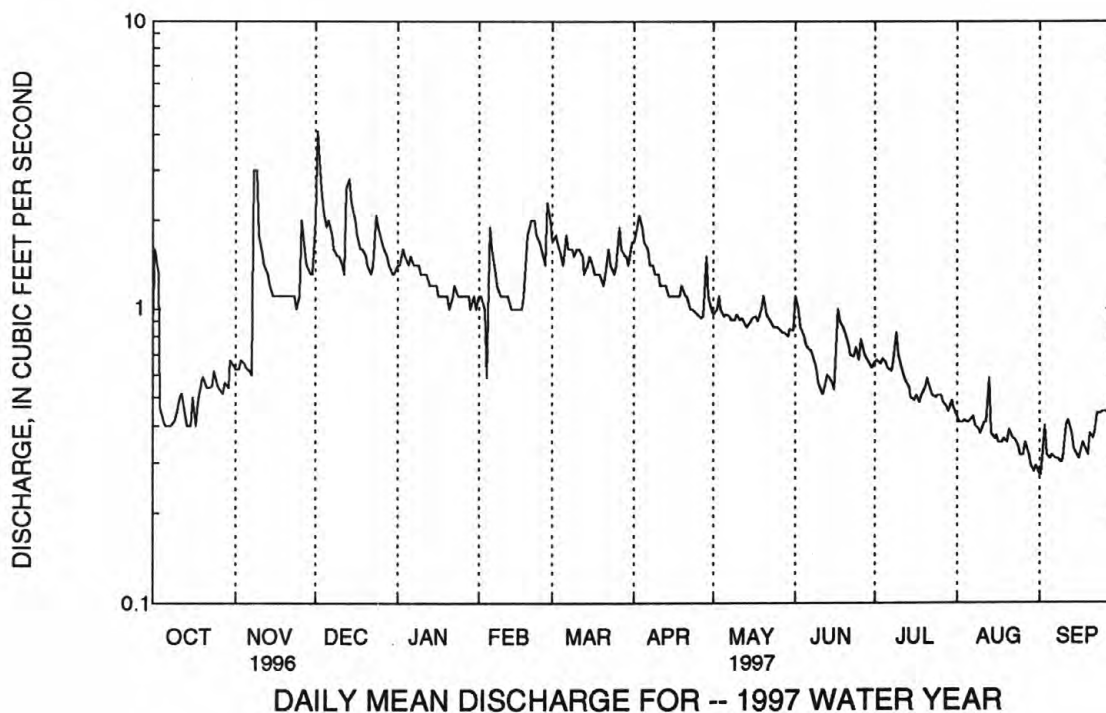
b Result of dam reconstruction.

c Sep. 27, 30, 1996.

d Nov. 8, Dec. 2.

f Result of dam construction.

g July 29, 1993, June 20, 1994.



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

WATER-QUALITY RECORDS

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

CHEMICAL DATA: 1992-97 (b).

SEDIMENT DATA: 1992-97 (e).

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT CONCENTRATION: October 1991 to current year.

SUSPENDED-SEDIMENT DISCHARGE: October 1991 to current year.

EXTREMES FOR PERIOD OF RECORD.--

SUSPENDED-SEDIMENT CONCENTRATION: Maximum daily mean 27,200 mg/L, Oct. 1, 1991; minimum daily mean 22 mg/L, Aug. 19, 1993.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily mean 148 tons, Mar. 11, 1992; minimum daily mean 0.02 tons, on many days during August and September 1993.

EXTREMES FOR CURRENT YEAR.--

SUSPENDED-SEDIMENT CONCENTRATION: Maximum daily mean 1,150 mg/L, Oct. 1; minimum daily mean 92 mg/L, Mar. 15.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily mean 4.8 tons, Oct. 2; minimum daily mean 0.22 tons, Sept. 1, 2.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	
NOV 19...	0900	1.1	5300	7.7	6.5	--	11.4	--	610	140	63	870	
FEB 26...	0930	1.4	3870	8.0	3.5	--	17.0	--	500	120	49	610	
MAY 28...	0800	0.91	6200	7.7	11.0	752	10.0	93	650	150	68	934	
AUG 05...	0900	0.42	9260	7.4	18.5	--	6.6	81	870	190	95	1530	
DATE		POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
NOV 19...	3.8	1500	180	200	244	8.0	3060	27	150	2.5	377	1.1	
FEB 26...	2.7	1100	140	192	234	6.4	2280	<9.0	100	1.7	166	0.63	
MAY 28...	3.3	1700	210	168	205	6.0	3430	61	136	2.6	184	0.45	
AUG 05...	4.5	2900	320	156	190	8.8	5720	69	153	4.3	215	0.24	

STREAMS TRIBUTARY TO LAKE ONTARIO

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

SEDIMENT, SUSPENDED CONCENTRATION (MG/L), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e1150	570	154	238	385	182	180	212	207	203	261	302
2	e1100	560	154	238	353	187	186	211	212	207	248	299
3	e1040	551	160	239	327	193	191	209	218	211	236	296
4	e987	541	167	242	314	199	195	208	222	215	224	293
5	e931	532	174	259	302	204	186	207	226	218	218	280
6	e875	523	181	280	291	204	177	206	230	220	227	287
7	819	505	188	303	281	202	167	207	235	221	237	303
8	814	450	196	328	270	200	159	215	239	222	248	321
9	808	397	204	354	260	199	151	225	238	224	259	339
10	801	350	212	383	251	197	143	236	214	225	271	358
11	795	313	221	414	242	195	135	247	193	227	284	378
12	789	314	228	447	233	194	128	259	191	228	295	400
13	783	322	230	482	224	187	122	268	191	230	305	422
14	777	331	230	518	211	135	117	261	191	231	316	436
15	771	340	230	556	198	92	125	252	190	232	327	447
16	765	349	231	598	185	95	136	243	190	234	338	459
17	749	359	231	642	173	113	148	235	189	235	349	470
18	690	368	232	689	162	135	161	226	189	237	350	482
19	638	373	232	740	151	160	176	218	189	238	346	494
20	636	356	233	794	142	187	191	213	189	240	342	506
21	641	339	233	853	132	193	206	230	189	241	338	520
22	646	323	233	894	124	193	204	253	189	243	335	539
23	642	307	234	833	116	193	199	279	188	240	331	559
24	634	292	234	764	112	194	195	308	188	243	327	581
25	627	278	235	701	135	194	190	336	188	249	323	603
26	619	264	235	643	164	194	186	291	188	255	320	626
27	612	249	236	590	172	194	181	227	189	262	316	645
28	605	222	236	542	177	190	177	188	192	268	313	e640
29	597	196	236	497	---	168	194	190	195	275	310	e640
30	590	173	237	456	---	169	213	195	199	281	307	e640
31	580	---	237	419	---	174	---	201	---	275	305	---
MEAN	758	368	215	514	217	178	171	234	202	236	297	452
MAX	1150	570	237	894	385	204	213	336	239	281	350	645
MIN	580	173	154	238	112	92	117	188	188	203	218	280

e Estimated

STREAMS TRIBUTARY TO LAKE ONTARIO

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

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e2.7	.96	.85	.91	1.1	.86	.84	.55	.63	.36	.30	.22
2	e4.8	.94	1.7	.88	1.0	.92	.96	.57	.58	.37	.28	.22
3	e3.6	1.0	1.1	1.0	.92	.88	1.1	.61	.51	.37	.26	.32
4	e1.3	.95	.99	.95	.50	.83	1.0	.56	.48	.39	.25	.25
5	e1.0	.91	.91	1.0	1.5	.80	.88	.53	.46	.39	.24	.23
6	e.94	.87	.96	1.2	1.2	.98	.76	.54	.45	.37	.26	.25
7	.94	.83	.90	1.2	.97	.89	.63	.52	.46	.37	.27	.25
8	.94	3.6	.86	1.2	.85	.84	.58	.54	.44	.39	.27	.26
9	1.0	3.2	.83	1.3	.79	.80	.54	.56	.41	.50	.27	.28
10	1.2	1.7	.83	1.4	.73	.86	.49	.60	.32	.42	.28	.30
11	1.4	1.3	.82	1.4	.69	.86	.45	.61	.27	.38	.32	.41
12	1.5	1.2	.82	1.5	.67	.77	.43	.65	.27	.37	.32	.45
13	1.3	1.1	1.6	1.6	.63	.68	.40	.64	.31	.35	.48	.43
14	1.5	1.1	1.7	1.7	.58	.52	.36	.62	.30	.33	.32	.39
15	1.5	1.1	1.4	1.8	.54	.38	.37	.61	.29	.32	.32	.38
16	1.5	1.1	1.3	1.9	.50	.35	.39	.61	.27	.31	.34	.38
17	1.4	1.1	1.1	2.0	.48	.40	.43	.59	.52	.32	.33	.44
18	.90	1.1	1.0	2.1	.50	.46	.48	.55	.46	.31	.33	.44
19	.99	1.1	1.0	2.2	.74	.54	.57	.62	.44	.33	.33	.43
20	1.0	1.0	.93	2.3	.72	.63	.57	.61	.42	.35	.33	.52
21	.94	.97	.87	2.4	.71	.65	.59	.59	.38	.38	.36	.51
22	.94	.93	.84	2.7	.67	.84	.56	.63	.36	.35	.32	.56
23	.96	.88	.88	2.8	.57	.72	.54	.67	.35	.33	.32	.66
24	1.0	.82	1.3	2.3	.51	.68	.51	.71	.37	.33	.30	.68
25	.93	.82	1.2	2.1	.56	.71	.49	.78	.34	.34	.28	.73
26	.88	1.4	1.1	1.9	.64	1.0	.47	.67	.40	.35	.27	.75
27	.86	1.0	.99	1.7	1.1	.83	.46	.51	.35	.34	.30	.77
28	.92	.81	.94	1.6	.93	.77	.69	.42	.35	.34	.27	e.79
29	.88	.68	.90	1.4	---	.66	.58	.41	.34	.34	.25	e1.0
30	1.1	.59	.85	1.3	---	.65	.58	.45	.34	.37	.24	e.86
31	1.0	---	.84	1.2	---	.81	---	.45	---	.34	.24	---
TOTAL	41.82	35.06	32.31	50.94	21.30	22.57	17.70	17.98	11.87	11.11	9.25	14.16
MEAN	1.3	1.2	1.0	1.6	.76	.73	.59	.58	.40	.36	.30	.47
MAX	4.8	3.6	1.7	2.8	1.5	1.0	1.1	.78	.63	.50	.48	1.0
MIN	.86	.59	.82	.88	.48	.35	.36	.41	.27	.31	.24	.22

e Estimated

STREAMS TRIBUTARY TO LAKE ONTARIO

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

PARTICLE-DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
WATER QUALITY DATA

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SEDI- MENT, DIS- CHARGE, SUS- PENDEDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDEDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)
NOV								
11...	1340	1.5	306	1.2	99	--	--	--
19...	0900	1.1	377	1.1	100	100	100	100
JAN								
28...	1350	1.1	538	1.6	99	--	--	--
MAR								
29...	1250	1.5	164	0.66	99	--	--	--
JUN								
17...	1350	1.2	189	0.61	99	--	--	--
AUG								
27...	1800	0.37	315	0.31	100	--	--	--

STREAMS TRIBUTARY TO LAKE ONTARIO
04238500 ONONDAGA RESERVOIR NEAR NEDROW, NY

LOCATION.--Lat 42°55'51", long 76°10'24", Onondaga County, Hydrologic Unit 04140201, at Onondaga Dam on Onondaga Creek, 3.5 mi southwest of Nedrow, 4.0 mi south of Syracuse, and 10.5 mi upstream from Onondaga Lake.

DRAINAGE AREA.--67.7 mi².

PERIOD OF RECORD.--June 1949 to September 1952 (monthly elevations and contents), October 1952 to current year.

GAGE.--Water-stage recorder. Datum of gage is sea level (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by a rolled earthfill dam, completed by Corps of Engineers in August 1949 for flood control; first used for flood regulation about a year prior to completion. Usable capacity, 18,200 acre-ft between elevations 457.0 ft, conduit invert at intake, and 504.5 ft crest of spillway. No dead storage. The flood-control works consist of a pressure conduit and a side-channel spillway and are not provided with gates. Water is stored during high flows and released gradually. Storage includes minor diversion from Gate House Pond in headwaters of West Branch Tioughnioga River basin.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 485.9 ft, Apr. 1, 1960, contents, 5,960 acre-ft; no contents many days.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 476.25 ft, Nov. 9, contents, 2,340 acre-ft; minimum elevation, 459.20 ft, Aug. 11-13, no contents many days.

Capacity table (elevation, in feet, and contents, in acre-feet)

460.00	0	470.00	700
461.00	5	473.00	1,420
462.00	15	478.00	2,880
464.00	50	482.00	4,230
467.00	225	486.00	6,010

ELEVATION (FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	459.96	459.91	462.97	461.81	460.42	464.39	463.80	461.39	461.37	459.72	459.31	459.37
2	459.84	459.88	470.06	461.41	460.45	463.71	463.84	461.11	461.98	459.71	459.30	459.35
3	459.78	459.86	472.61	462.31	460.39	463.85	464.89	461.12	461.23	459.71	459.30	459.38
4	459.74	459.87	469.89	462.67	460.35	462.86	466.37	461.51	460.68	459.71	459.29	459.42
5	459.70	459.88	465.35	462.30	461.36	462.45	465.33	461.04	460.45	459.70	459.28	459.42
6	459.68	459.88	463.26	462.47	461.86	463.79	463.69	460.95	460.32	459.68	459.28	459.41
7	459.65	459.88	463.05	461.94	461.25	463.54	462.99	460.94	460.35	459.65	459.26	459.40
8	459.63	462.86	462.63	461.42	460.89	462.72	462.45	460.73	460.29	459.62	459.24	459.39
9	459.62	474.76	462.26	461.40	460.61	462.22	462.30	460.68	460.20	459.70	459.23	459.38
10	459.62	475.41	461.98	461.40	460.71	462.46	462.03	460.79	460.11	459.98	459.21	459.37
11	459.66	472.47	461.76	461.17	460.54	462.74	461.84	460.83	460.05	459.87	459.20	459.36
12	459.69	467.89	461.67	460.92	460.41	462.22	461.70	460.77	460.01	459.78	459.20	459.37
13	459.68	462.57	463.05	460.82	460.34	461.62	462.20	460.76	459.98	459.71	459.23	459.40
14	459.68	461.75	467.11	460.72	460.51	461.60	461.96	460.61	460.10	459.66	459.33	459.42
15	459.69	461.37	466.20	460.66	460.41	462.37	461.49	460.56	460.05	459.61	459.34	459.42
16	459.68	461.08	464.30	460.68	460.31	461.69	461.24	460.63	459.98	459.58	459.35	459.42
17	459.67	460.97	463.47	460.55	460.26	461.45	461.19	460.63	460.35	459.55	459.37	459.41
18	459.66	460.95	462.89	460.87	460.30	461.46	461.11	460.57	460.50	459.51	459.38	459.39
19	459.66	460.94	462.53	460.78	461.44	461.30	461.42	460.65	460.39	459.47	459.37	459.39
20	459.77	460.95	462.21	460.50	464.14	461.31	461.48	462.62	460.21	459.45	459.35	459.38
21	459.89	460.81	461.74	460.41	463.99	461.25	461.34	461.66	460.12	459.43	459.34	459.38
22	459.90	460.73	461.55	460.43	466.91	462.84	461.09	461.07	460.01	459.46	459.36	459.38
23	459.87	460.68	461.62	461.14	465.56	462.32	460.92	460.80	459.93	459.47	459.37	459.38
24	459.96	460.60	463.70	461.13	462.88	461.57	460.79	460.64	459.89	459.45	459.38	459.38
25	460.01	460.53	464.86	460.87	462.02	461.49	460.69	460.58	459.89	459.43	459.39	459.38
26	459.96	462.27	463.08	460.78	462.02	463.73	460.59	460.54	459.91	459.41	459.38	459.38
27	459.90	462.85	462.44	460.78	464.23	463.58	460.52	460.44	459.97	459.39	459.38	459.38
28	459.86	461.91	462.24	460.75	467.11	463.37	462.36	460.35	459.90	459.38	459.40	459.38
29	459.88	461.40	462.21	460.50	---	463.12	463.07	460.29	459.82	459.37	459.40	459.41
30	459.88	461.19	462.03	460.38	---	463.25	461.95	460.28	459.77	459.35	459.40	459.50
31	459.91	---	461.57	460.36	---	463.88	---	460.32	---	459.33	459.39	---
MEAN	459.78	462.54	463.75	461.11	461.85	462.59	462.22	460.83	460.26	459.58	459.32	459.39
MAX	460.01	475.41	472.61	462.67	467.11	464.39	466.37	462.62	461.98	459.98	459.40	459.50
MIN	459.62	459.86	461.55	460.36	460.26	461.25	460.52	460.28	459.77	459.33	459.20	459.35
†	0	7.00	7.70	1.85	148	53.6	10.8	1.65	0	0	0	0
††	0	+0.12	+0.01	-0.10	+2.64	-1.54	-0.72	-0.15	-0.03	0	0	0

CAL YR 1996 MEAN 462.10 MAX 481.21 MIN 459.43
WTR YR 1997 MEAN 461.09 MAX 475.41 MIN 459.20

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

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

STREAMS TRIBUTARY TO LAKE ONTARIO

04239000 ONONDAGA CREEK AT DORWIN AVENUE, SYRACUSE, NY

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LOCATION.--Lat 42°59'00", long 76°09'04", Onondaga County, Hydrologic Unit 04140201, on left bank 550 ft upstream from bridge on Dorwin Avenue, at Syracuse, and 4.0 mi downstream from Onondaga Reservoir.

DRAINAGE AREA.--88.5 mi².

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

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 414.19 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are fair. High flows regulated by Onondaga Reservoir (see station 04238500). Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	47	377	e140	101	363	319	153	175	40	22	20
2	38	44	972	e160	97	337	333	139	183	49	22	19
3	38	45	839	246	93	329	426	146	137	46	24	40
4	35	47	732	250	90	261	501	164	106	47	23	29
5	34	48	458	219	190	232	412	136	96	47	22	24
6	33	46	300	234	176	361	311	135	86	41	21	21
7	31	45	281	188	137	308	265	131	92	39	20	21
8	30	507	242	e160	120	251	230	118	81	37	19	21
9	31	1000	210	e150	e105	217	219	118	74	73	18	20
10	35	913	191	161	e100	240	202	126	68	70	18	19
11	45	805	177	e140	e95	258	191	125	63	49	18	19
12	38	608	173	e130	93	214	186	122	59	41	20	27
13	34	224	391	e120	e90	175	217	120	61	38	38	29
14	38	170	636	e115	e90	180	196	109	76	35	38	26
15	37	149	524	e110	93	233	168	108	64	34	25	23
16	35	132	379	e105	87	177	155	112	56	35	34	21
17	34	129	309	e95	84	176	153	110	100	32	30	20
18	31	129	262	e95	95	167	150	105	92	31	26	22
19	34	132	237	e90	218	158	170	122	91	29	23	20
20	63	129	206	e95	382	160	171	243	75	29	21	20
21	57	120	176	e100	399	158	162	162	69	32	24	22
22	48	117	167	e105	601	287	147	134	60	40	28	20
23	43	113	177	e150	425	215	136	118	53	33	27	20
24	67	107	379	e110	249	170	128	108	55	30	27	21
25	55	105	414	e120	194	173	120	104	55	28	24	20
26	48	283	263	e115	201	349	113	101	64	27	23	21
27	43	245	223	e90	473	300	109	93	60	26	24	22
28	45	175	210	e110	567	288	274	86	49	27	29	20
29	50	153	208	e100	---	273	253	81	45	26	24	43
30	46	143	194	e90	---	282	180	82	41	24	23	51
31	51	---	e160	e90	---	337	---	86	---	23	22	---
TOTAL	1292	6910	10467	4183	5645	7629	6597	3797	2386	1158	757	721
MEAN	41.7	230	338	135	202	246	220	122	79.5	37.4	24.4	24.0
MAX	67	1000	972	250	601	363	501	243	183	73	38	51
MIN	30	44	160	90	84	158	109	81	41	23	18	19

e Estimated

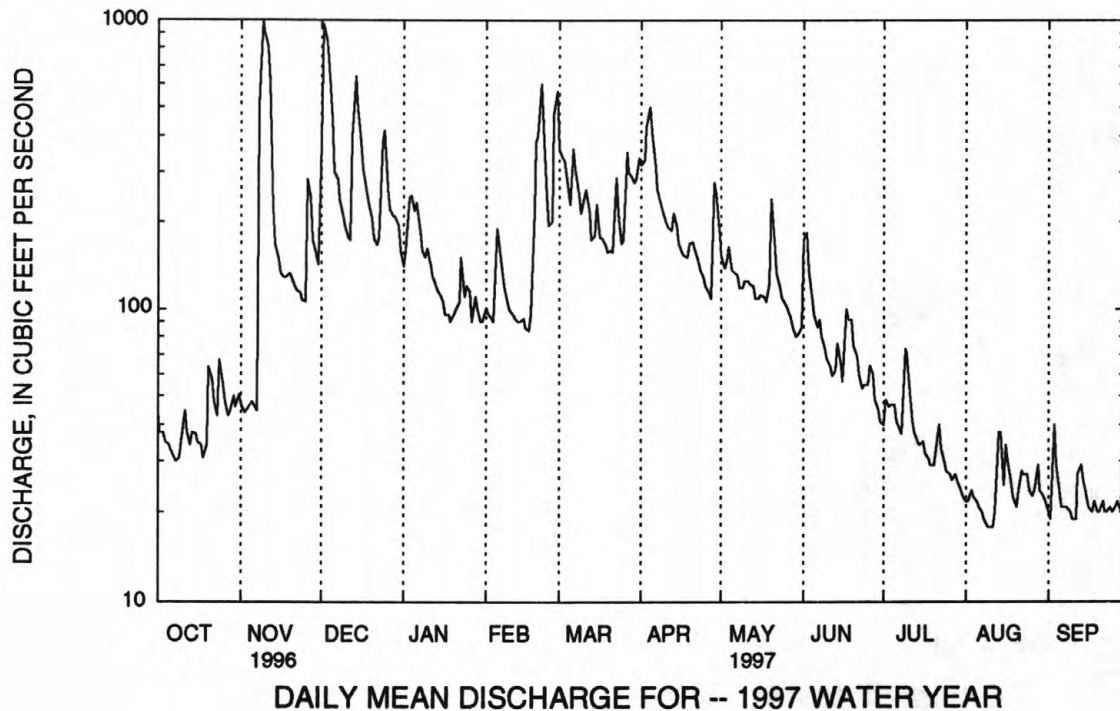
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1997, BY WATER YEAR (WY)

	65.0	108	144	135	165	261	266	141	92.7	58.2	41.1	44.2
MEAN	65.0	108	144	135	165	261	266	141	92.7	58.2	41.1	44.2
MAX	328	312	365	313	390	535	758	301	563	166	125	216
(WY)	1978	1969	1973	1996	1990	1979	1993	1901	1972	1992	1992	1975
MIN	15.3	19.3	31.7	33.7	40.8	93.3	112	58.1	32.2	19.5	10.7	13.2
(WY)	1965	1965	1961	1961	1963	1983	1981	1995	1995	1962	1965	1964

STREAMS TRIBUTARY TO LAKE ONTARIO
04239000 ONONDAGA CREEK AT DORWIN AVENUE, SYRACUSE, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1951 - 1997	
ANNUAL TOTAL	60808		51542		126	
ANNUAL MEAN	166		141		198	1978
HIGHEST ANNUAL MEAN					58.8	1965
LOWEST ANNUAL MEAN					1710	Mar 31 1960
HIGHEST DAILY MEAN	1310	Jan 19	1000	Nov 9	5.5	Aug 17 1965
LOWEST DAILY MEAN	21	Sep 4	18	a	7.4	Aug 11 1965
ANNUAL SEVEN-DAY MINIMUM	23	Sep 1	19	Aug 6	3260	Jul 3 1974
INSTANTANEOUS PEAK FLOW			1240	Dec 2	6.48	Jul 3 1974
INSTANTANEOUS PEAK STAGE			4.59	Dec 2	259	
10 PERCENT EXCEEDS	378		303		80	
50 PERCENT EXCEEDS	105		101		25	
90 PERCENT EXCEEDS	34		23			

a Aug. 9, 10, 11.



227

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.

REVISED RECORDS.--WRD NY 1972: 1971(M). WRD NY 1975: 1972(M), 1974(M). WDR NY-81-3: Drainage area. WRD NY-89-3: 1971-72(M), 1974-80(M), 1982-84(M), 1986(M), 1988(M).

REMARKS:--Records good except those for estimated daily discharges, which are fair. High flows regulated by Onondaga Reservoir (see station 04238500). Flow may be affected by backwater from Onondaga Lake at times when the lake elevation exceeds 365.00 ft. Several measurements of water temperature were made during the year.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	66	440	172	140	419	361	193	223	68	43	41
2	59	63	1040	207	134	381	370	178	227	74	43	44
3	55	65	837	294	129	378	464	191	181	94	42	66
4	51	67	744	300	132	304	529	204	149	76	42	50
5	50	67	529	271	237	281	452	174	138	73	42	44
6	49	66	e370	283	219	421	355	172	128	68	41	41
7	48	65	351	239	180	363	306	169	133	65	40	41
8	47	865	296	209	161	298	268	155	123	64	39	42
9	47	1040	253	191	141	262	257	156	111	163	39	41
10	52	906	231	e200	140	286	239	163	101	97	39	40
11	61	820	217	e180	139	304	226	160	95	75	40	45
12	54	695	213	167	137	260	231	159	91	65	40	50
13	50	e280	506	164	129	220	256	155	117	62	82	50
14	55	e210	679	161	128	226	230	145	106	61	60	47
15	52	e190	575	e150	131	273	203	145	94	58	46	44
16	51	e165	440	e140	127	218	189	150	87	59	83	42
17	50	e160	366	e130	123	202	186	146	127	56	50	42
18	48	e160	312	127	136	209	183	142	128	53	46	43
19	55	163	283	e120	254	199	203	197	123	51	43	42
20	83	160	255	e130	426	199	202	281	107	51	41	41
21	75	152	222	134	449	197	193	206	100	56	63	43
22	68	149	215	144	624	326	179	176	90	61	48	41
23	67	144	228	198	473	254	167	159	84	55	47	44
24	84	139	420	145	297	208	159	147	89	52	47	43
25	74	140	456	160	239	220	153	142	86	51	45	42
26	67	331	312	152	292	389	145	140	95	49	44	42
27	62	282	270	122	592	341	140	133	90	48	47	44
28	67	212	259	143	597	325	333	128	78	49	49	43
29	68	188	255	130	---	314	295	123	72	47	51	70
30	66	179	238	125	---	320	223	125	69	45	43	77
31	69	---	210	130	---	378	---	127	---	44	42	---
TOTAL	1847	8189	12022	5418	6906	8975	7697	5041	3442	1990	1467	1385
MEAN	59.6	273	388	175	247	290	257	163	115	64.2	47.3	46.2
MAX	84	1040	1040	300	624	421	529	281	227	163	83	77
MIN	47	63	210	120	123	197	140	123	69	44	39	40

MEAN	116	165	208	184	214	324	358	205	145	103	78.4	87.4
MAX	424	324	452	381	457	653	935	379	617	237	171	275
(WY)	1978	1978	1973	1979	1976	1979	1993	1976	1972	1974	1992	1975
MIN	39.2	60.3	102	73.6	70.4	123	153	78.8	49.3	39.6	37.0	36.2
(WY)	1984	1972	1989	1981	1980	1983	1995	1995	1995	1995	1987	1995

STREAMS TRIBUTARY TO LAKE ONTARIO

04240010 ONONDAGA CREEK AT SPENCER STREET, SYRACUSE, NY--Continued

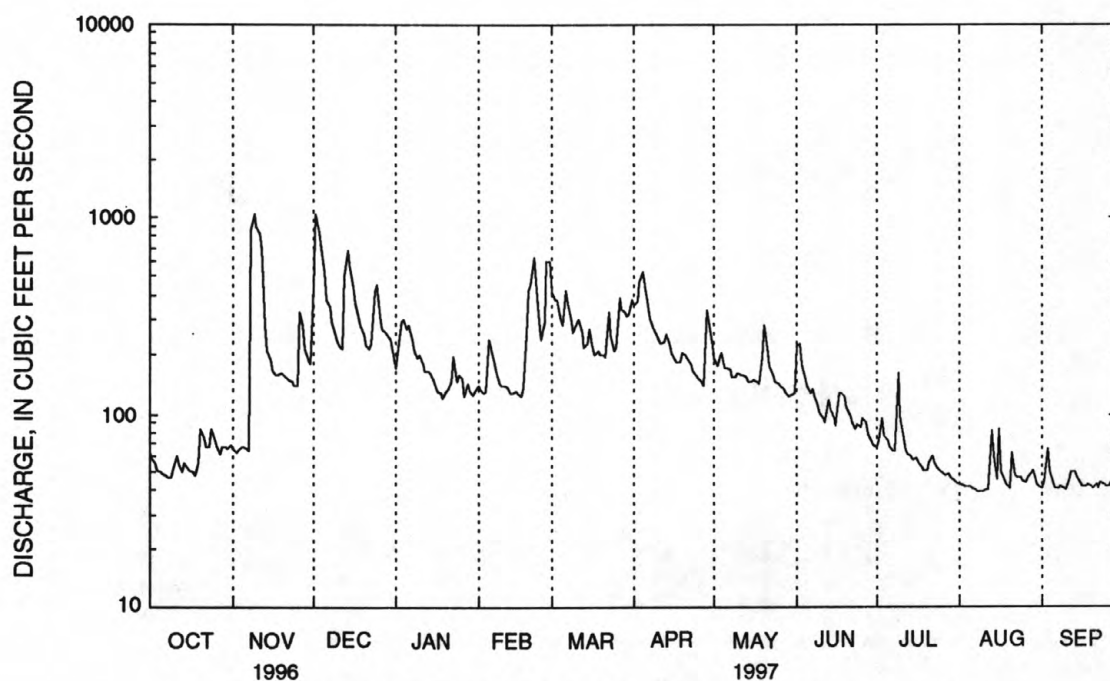
SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1970 - 1997	
ANNUAL TOTAL	75161		64379			
ANNUAL MEAN	205		176		182	
HIGHEST ANNUAL MEAN					273	
LOWEST ANNUAL MEAN					100	
HIGHEST DAILY MEAN	1500	Jan 19	1040	a	2040	Mar 5 1979
LOWEST DAILY MEAN	39	Sep 4	39	b	23	Sep 26 1985
ANNUAL SEVEN-DAY MINIMUM	42	Aug 29	40	Aug 6	27	Aug 26 1981
INSTANTANEOUS PEAK FLOW			1370	Nov 8	c4050	Jul 3 1974
INSTANTANEOUS PEAK STAGE			6.19	Nov 8	8.73	Jul 3 1974
INSTANTANEOUS LOW FLOW			37	d	20	Sep 26 1985
10 PERCENT EXCEEDS	440		357		360	
50 PERCENT EXCEEDS	147		140		127	
90 PERCENT EXCEEDS	52		44		50	

a Nov. 9, Dec. 2.

b Aug. 8, 9, 10.

c From rating curve extended above 1,600 ft³/s on basis of runoff comparisons with nearby stations.

d Aug. 9, 11.



DAILY MEAN DISCHARGE FOR -- 1997 WATER YEAR

STREAMS TRIBUTARY TO LAKE ONTARIO
04240100 HARBOR BROOK AT SYRACUSE, NY

229

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 mi².

PERIOD OF RECORD.--June 1959 to current year.

REVISED RECORDS.--WSP 2112: Drainage area. WDR NY-82-3: 1981 (M), WDR-NY-88-3: 1986-87 (M).

GAGE.--Water-stage recorder. Datum of gage is 391.16 ft above sea level. Prior to Sept. 30, 1978, at site 1,660 ft upstream and Oct. 1, 1978 to May 31, 1980, at site 1,800 ft upstream at datum 3.63 ft higher.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Flow includes some sewage and storm sewer inflow, some originating outside the basin. Flows can be regulated at detention basin by Onondaga County. Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e3.3	3.7	47	8.4	7.4	13	17	8.6	11	4.1	e3.8	e3.2
2	e3.7	3.7	78	8.4	6.1	17	21	8.2	8.8	3.8	e3.9	e3.5
3	e3.5	3.8	23	18	6.2	13	27	10	6.9	5.7	e3.9	8.2
4	e3.3	3.7	16	11	6.5	11	21	8.7	6.8	4.7	e3.8	e3.5
5	e3.2	3.5	13	11	13	11	15	8.2	6.8	3.8	e3.6	e3.0
6	e3.2	3.5	14	11	8.2	26	14	7.9	6.9	3.9	e3.5	e3.0
7	e3.1	3.5	12	9.5	7.0	14	12	7.4	6.6	4.3	e3.5	3.5
8	e3.1	114	10	8.9	6.7	12	12	7.4	6.5	5.6	e3.4	3.6
9	e3.0	59	9.5	8.3	6.5	11	12	7.5	6.5	22	e3.4	3.6
10	e3.7	16	8.4	8.0	6.2	14	11	7.2	6.5	4.3	e3.4	3.3
11	e3.2	9.8	8.1	7.5	5.8	14	11	6.9	6.8	4.3	e3.5	4.1
12	e3.1	7.9	7.5	7.3	5.8	11	14	7.0	7.0	4.3	e3.5	3.8
13	e3.0	7.1	52	7.4	5.7	9.7	14	6.6	11	4.5	e11	3.1
14	e3.6	5.9	37	7.3	5.7	11	11	6.6	6.3	e4.2	e3.0	3.0
15	e3.0	5.3	24	7.2	5.6	13	10	6.6	6.0	e4.5	e3.0	3.1
16	e3.0	5.1	19	7.3	5.5	9.2	9.5	6.4	5.9	e4.5	e10	3.1
17	e3.0	5.0	15	7.2	5.6	8.7	9.3	6.3	7.7	e4.5	e3.0	3.3
18	e2.9	5.3	13	7.1	6.8	8.7	9.3	6.1	6.4	e4.4	e2.9	3.4
19	e4.0	5.3	12	6.8	18	9.2	9.4	13	5.6	4.3	e2.9	3.3
20	e5.0	4.9	11	6.8	20	9.2	9.2	11	5.5	4.3	3.5	3.2
21	4.3	4.7	9.7	6.8	28	9.9	8.8	5.9	5.3	5.8	13	3.0
22	4.1	4.9	9.1	7.9	18	20	8.6	5.7	5.0	4.1	7.4	3.1
23	4.5	4.5	11	11	8.9	10	8.5	5.7	4.9	3.8	4.0	3.4
24	4.7	4.4	30	6.8	8.4	9.0	8.3	5.7	6.3	3.8	3.4	3.1
25	4.1	4.8	16	6.8	8.0	12	8.2	5.7	4.5	4.0	3.5	3.0
26	4.0	23	11	6.3	8.1	26	7.8	5.6	5.8	4.3	3.5	2.9
27	4.0	8.1	10	6.3	44	15	7.8	5.6	4.1	4.2	4.9	3.0
28	4.7	6.1	11	6.4	19	13	26	5.9	3.9	4.1	3.7	3.1
29	4.0	5.8	10	6.1	---	14	11	5.7	3.8	e3.9	e3.0	11
30	4.2	6.0	9.2	6.0	---	14	8.9	6.1	3.7	e4.1	e3.0	4.1
31	3.8	---	8.7	6.2	---	20	---	6.0	---	e3.9	e3.0	---
TOTAL	113.3	348.3	565.2	251.0	300.7	408.6	372.6	221.2	188.8	152.0	134.9	111.5
MEAN	3.65	11.6	18.2	8.10	10.7	13.2	12.4	7.14	6.29	4.90	4.35	3.72
MAX	5.0	114	78	18	44	26	27	13	11	22	13	11
MIN	2.9	3.5	7.5	6.0	5.5	8.7	7.8	5.6	3.7	3.8	2.9	2.9
CFSM	.37	1.16	1.82	.81	1.07	1.32	1.24	.71	.63	.49	.44	.37
IN.	.42	1.30	2.10	.93	1.12	1.52	1.39	.82	.70	.57	.50	.41

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1997, BY WATER YEAR (WY)

MEAN	5.73	6.83	8.46	8.27	10.4	17.1	17.7	9.80	7.11	5.86	4.74	4.96
MAX	21.7	21.6	26.0	20.0	33.5	39.6	59.4	22.6	32.2	13.5	11.4	20.7
(WY)	1978	1969	1978	1996	1976	1979	1993	1972	1972	1974	1990	1975
MIN	2.24	2.74	2.76	3.07	3.48	5.14	5.07	4.35	3.55	2.81	2.55	2.35
(WY)	1967	1967	1962	1961	1963	1983	1967	1995	1995	1965	1965	1959

STREAMS TRIBUTARY TO LAKE ONTARIO
04240100 HARBOR BROOK AT SYRACUSE, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1959 - 1997	
ANNUAL TOTAL	3748.2		3168.1			
ANNUAL MEAN	10.2		8.68		8.90	
HIGHEST ANNUAL MEAN					15.7	
LOWEST ANNUAL MEAN					4.53	
HIGHEST DAILY MEAN	177	Jan 19	114	Nov 8	248	Mar 30 1960
LOWEST DAILY MEAN	2.8	a	e2.9	b	.51	Jun 15 1984
ANNUAL SEVEN-DAY MINIMUM	3.1	Oct 12	3.1	Sep 21	1.6	Nov 10 1988
INSTANTANEOUS PEAK FLOW			234	Nov 8	c726	Jul 3 1974
INSTANTANEOUS PEAK STAGE			4.84	Nov 8	d8.34	Jul 3 1974
INSTANTANEOUS LOW FLOW			f.00	g	f.00	g
ANNUAL RUNOFF (CFSM)	1.02		.87		.89	
ANNUAL RUNOFF (INCHES)	13.94		11.79		12.10	
10 PERCENT EXCEEDS	17		14		16	
50 PERCENT EXCEEDS	7.0		6.4		5.6	
90 PERCENT EXCEEDS	3.3		3.3		3.1	

a Sep. 11, 16.

b Oct. 18, Aug. 18, 19, Sep. 26.

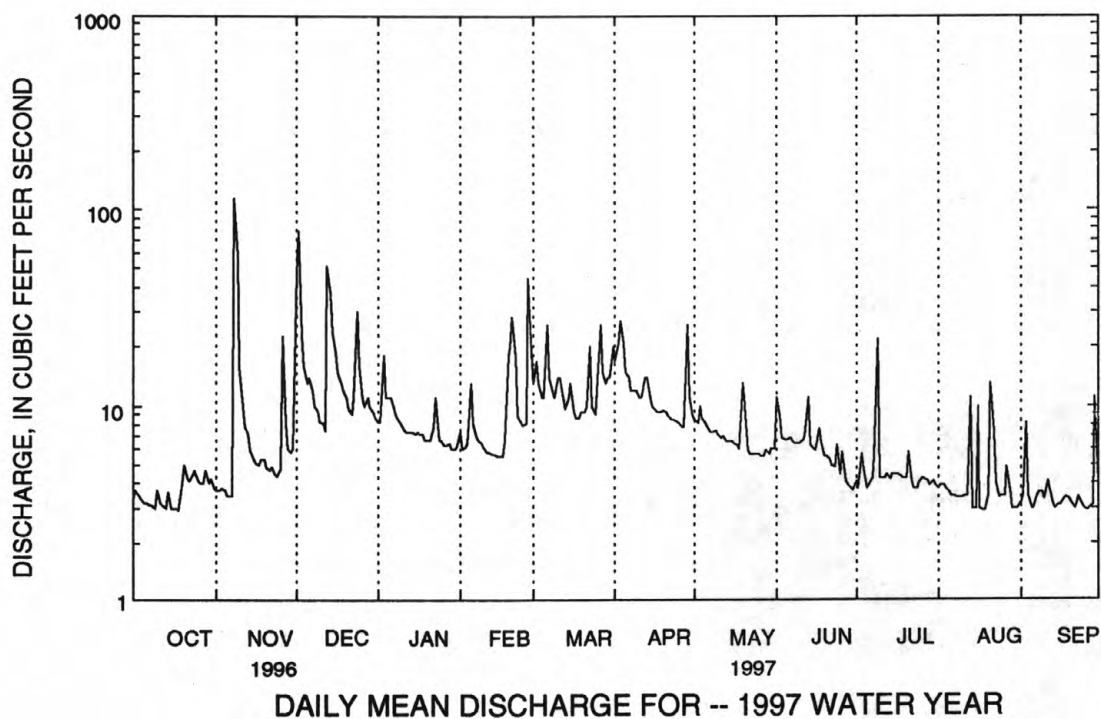
c From rating curve extended above 180 ft³/s on basis of slope-area measurements of peak flow.

d Datum then in use.

e Estimated.

f Result of regulation.

g Jul. 14, 16, 18, 1997.



STREAMS TRIBUTARY TO LAKE ONTARIO

231

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 mi².

PERIOD OF RECORD.--Occasional discharge measurements, water years 1958-70. October 1970 to current year.

REVISED RECORDS.--WDR NY-76-1: 1971-75 (P).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 365.86 ft above sea level.

REMARKS.--No estimated daily discharges. Records good. Flow includes some sewage and storm sewer inflow, some originating outside the basin. Flow can be regulated at Velasko Road Detention Basin 2.1 mi upstream. Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.9	3.7	51	9.1	8.5	14	17	8.7	13	4.6	4.0	3.2
2	4.5	3.8	96	9.2	6.9	18	20	8.2	9.9	4.6	4.1	4.1
3	4.1	4.1	19	17	6.9	14	26	11	7.6	8.5	4.1	5.4
4	4.0	3.8	15	12	7.1	12	21	9.1	7.3	5.5	4.0	3.0
5	3.9	3.6	13	12	14	12	15	8.3	7.2	4.5	3.8	3.0
6	3.8	3.6	13	12	8.2	27	14	8.5	7.2	4.1	3.8	3.3
7	3.7	3.6	12	10	7.2	15	13	7.9	6.9	4.2	3.7	3.7
8	3.7	226	10	9.4	6.9	12	12	7.7	6.6	4.4	3.6	3.6
9	3.7	72	9.5	8.9	6.7	12	12	8.2	6.6	27	3.6	3.5
10	4.6	16	9.1	8.7	6.6	15	11	8.1	6.6	4.9	3.6	3.5
11	4.0	10	9.0	8.2	6.6	15	11	7.5	6.7	4.4	3.7	4.4
12	3.9	8.5	8.4	8.0	6.6	12	13	8.0	6.9	4.2	3.7	4.0
13	3.9	7.7	69	7.8	6.5	11	13	7.4	17	4.2	12	3.6
14	4.5	6.8	39	7.6	6.5	12	11	7.2	6.5	4.5	3.4	3.4
15	3.8	6.3	22	7.5	6.5	14	10	7.6	5.7	4.9	3.4	3.3
16	3.9	6.2	19	7.6	6.4	11	9.7	7.4	5.2	4.7	12	3.3
17	3.9	6.0	15	7.3	6.4	10	9.4	7.4	7.4	4.7	3.4	3.6
18	3.8	6.4	13	7.1	7.9	10	9.3	7.7	6.1	4.7	3.0	3.7
19	5.6	6.5	13	7.0	17	11	9.6	21	5.0	4.6	2.9	3.4
20	6.4	6.0	11	7.1	21	10	9.2	12	5.0	4.6	3.0	3.4
21	4.0	5.8	10	7.0	28	11	8.8	7.3	4.7	5.5	13	3.2
22	3.9	6.1	9.9	8.4	19	21	8.8	7.1	4.6	4.6	5.6	3.2
23	4.4	5.8	11	11	9.4	12	8.6	6.7	4.5	4.5	3.7	4.1
24	4.6	5.6	28	7.2	8.9	10	8.5	6.8	6.4	4.4	3.1	2.9
25	3.9	6.1	17	7.5	8.4	13	8.2	6.9	4.8	4.4	3.5	3.0
26	3.6	22	11	6.9	8.7	27	7.9	6.9	5.7	4.4	3.2	3.0
27	3.6	8.2	11	6.8	51	15	7.9	6.7	4.7	4.4	4.5	2.9
28	4.6	6.5	11	7.1	21	14	30	6.9	4.5	4.2	3.3	3.0
29	3.8	6.2	11	6.6	---	15	12	6.6	4.5	4.1	3.2	9.3
30	4.2	6.3	10	6.6	---	14	9.2	7.1	4.4	4.1	3.1	4.0
31	3.8	---	9.6	6.9	---	20	---	6.8	---	4.1	3.1	---
TOTAL	128.0	489.2	605.5	265.5	324.8	439	376.1	254.7	199.2	166.5	138.1	111.0
MEAN	4.13	16.3	19.5	8.56	11.6	14.2	12.5	8.22	6.64	5.37	4.45	3.70
MAX	6.4	226	96	17	51	27	30	21	17	27	13	9.3
MIN	3.6	3.6	8.4	6.6	6.4	10	7.9	6.6	4.4	4.1	2.9	2.9
CFSM	.37	1.44	1.73	.76	1.03	1.25	1.11	.73	.59	.48	.39	.33
IN.	.42	1.61	1.99	.87	1.07	1.45	1.24	.84	.66	.55	.45	.37

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1997, BY WATER YEAR (WY)

MEAN	8.81	9.64	12.1	11.6	13.2	22.5	23.5	13.3	10.6	9.31	7.00	8.00
MAX	34.0	26.6	35.8	31.0	38.4	68.8	68.8	27.9	51.9	25.4	12.0	28.7
(WY)	1978	1978	1978	1973	1976	1979	1993	1976	1972	1974	1972	1975
MIN	3.77	3.78	5.13	4.43	4.99	6.04	6.09	4.80	3.79	3.44	3.50	3.70
(WY)	1983	1979	1989	1983	1995	1983	1981	1981	1995	1995	1982	1997

STREAMS TRIBUTARY TO LAKE ONTARIO

04240105 HARBOR BROOK AT HIAWATHA BOULEVARD, SYRACUSE, NY--continued

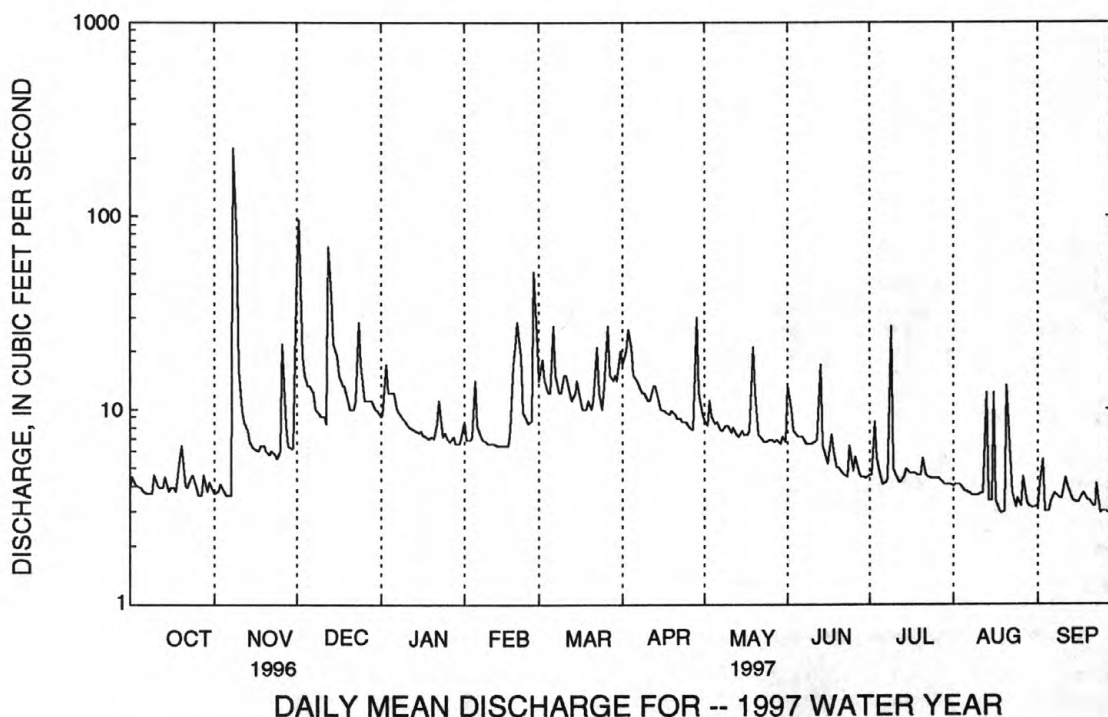
SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1971 - 1997	
ANNUAL TOTAL	4391.4		3497.6		12.5	
ANNUAL MEAN	12.0		9.58		21.3	
HIGHEST ANNUAL MEAN					5.54	
LOWEST ANNUAL MEAN					1.3	
HIGHEST DAILY MEAN	277	Jan 19	226	Nov 8	567	Mar 5 1979
LOWEST DAILY MEAN	2.9	Sep 11	2.9	a	1.3	Nov 4 1988
ANNUAL SEVEN-DAY MINIMUM	3.7	Sep 15	3.2	Sep 22	1.8	Nov 10 1988
INSTANTANEOUS PEAK FLOW			446	Nov 8	b824	Jul 3 1974
INSTANTANEOUS PEAK STAGE			6.00	Nov 8	c8.15	Sep 26 1975
INSTANTANEOUS LOW FLOW			1.2	Jul 14	.00	d
ANNUAL RUNOFF (CFSM)	1.06		.85		1.10	
ANNUAL RUNOFF (INCHES)	14.46		11.51		14.98	
10 PERCENT EXCEEDS	19		15		23	
50 PERCENT EXCEEDS	7.6		6.9		7.8	
90 PERCENT EXCEEDS	3.8		3.6		4.1	

a Aug. 19, Sep. 24, 27.

b From rating curve extended above 76 ft³/s on basis of step-backwater computations.

c Backwater from debris jam.

d Oct. 26, 27, 1987, result of regulation for maintenance work in the channel.



STREAMS TRIBUTARY TO LAKE ONTARIO

233

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 mi².

PERIOD OF RECORD.--Occasional discharge measurements water years 1959-72. December 1972 to current year.

REVISED RECORDS.--WDR NY 76-1: 1975 (M).

GAGE.--Water-stage recorder, crest-stage gage, and, since July 9, 1984, steel "I" beam control. Datum of gage is 362.76 ft above sea level. Prior to Oct. 1, 1978, at same site at datum 0.08 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow may be affected by backwater from Onondaga Lake at times when the lake elevation exceeds 364.5 ft. Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	15	136	23	38	74	102	37	79	14	8.2	7.9
2	15	15	410	24	27	88	89	29	66	15	8.1	7.9
3	12	17	e200	70	26	71	74	54	37	85	8.0	31
4	10	16	e120	59	26	56	56	50	28	30	8.1	11
5	9.0	14	e75	58	122	49	45	34	22	24	8.5	8.1
6	8.2	13	e55	57	58	165	39	31	19	14	8.2	7.2
7	8.1	12	e45	37	42	e75	35	27	18	12	7.8	7.0
8	7.8	492	e40	29	34	e60	31	24	18	13	7.7	8.0
9	7.9	e250	e36	24	27	50	28	30	17	121	7.6	8.3
10	16	e150	e32	25	23	72	26	29	17	33	7.6	8.3
11	12	e100	e30	22	20	75	25	25	16	17	7.4	19
12	8.7	e70	e30	21	20	56	45	29	15	14	6.8	27
13	8.5	e48	e300	19	19	39	55	26	23	13	62	26
14	18	e38	e150	18	18	33	40	24	20	12	14	9.3
15	9.6	e35	e90	18	18	47	33	25	15	22	7.9	8.0
16	10	e30	e65	20	17	34	29	30	14	12	68	7.4
17	14	e28	e50	e18	18	30	30	26	34	11	17	7.1
18	9.5	e28	e45	e17	39	39	30	24	25	9.8	9.4	9.6
19	22	e34	e40	16	76	39	32	77	21	9.8	8.0	7.1
20	52	e38	e36	16	91	44	25	137	17	9.5	7.6	8.4
21	17	e32	e32	16	96	53	25	58	17	17	47	7.6
22	15	e30	e30	34	119	93	24	38	15	12	47	6.9
23	15	29	36	57	61	61	23	29	15	9.9	14	12
24	27	25	127	29	40	44	22	25	27	9.7	14	17
25	15	26	92	29	29	55	21	24	15	9.4	9.7	8.9
26	13	177	55	23	32	130	20	23	18	9.3	9.4	14
27	11	82	43	19	225	82	19	21	14	9.0	34	8.3
28	19	45	40	19	142	65	164	20	13	9.1	20	7.2
29	15	33	41	18	---	67	83	19	13	9.6	31	55
30	17	31	34	17	---	64	49	25	13	9.9	11	25
31	16	---	26	18	---	115	---	23	---	8.4	8.3	---
TOTAL	451.3	1953	2541	870	1503	2025	1319	1073	681	604.4	533.3	395.5
MEAN	14.6	65.1	82.0	28.1	53.7	65.3	44.0	34.6	22.7	19.5	17.2	13.2
MAX	52	492	410	70	225	165	164	137	79	121	68	55
MIN	7.8	12	26	16	17	30	19	19	13	8.4	6.8	6.9
CFSM	.49	2.18	2.74	.94	1.80	2.18	1.47	1.16	.76	.65	.58	.44
IN.	.56	2.43	3.16	1.08	1.87	2.52	1.64	1.33	.85	.75	.66	.49

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1997, BY WATER YEAR (WY)

	MEAN	36.8	49.9	55.7	40.3	50.4	73.8	75.3	41.1	30.5	27.8	23.3	30.3
MAX	129	102	145	102	125	154	334	94.8	71.4	61.6	46.7	99.1	
(WY)	1978	1978	1978	1996	1976	1978	1993	1996	1973	1992	1976	1975	
MIN	7.01	17.3	18.5	11.0	16.1	25.0	22.5	12.7	11.8	10.6	8.22	9.07	
(WY)	1983	1979	1989	1977	1993	1981	1981	1987	1995	1995	1987	1994	

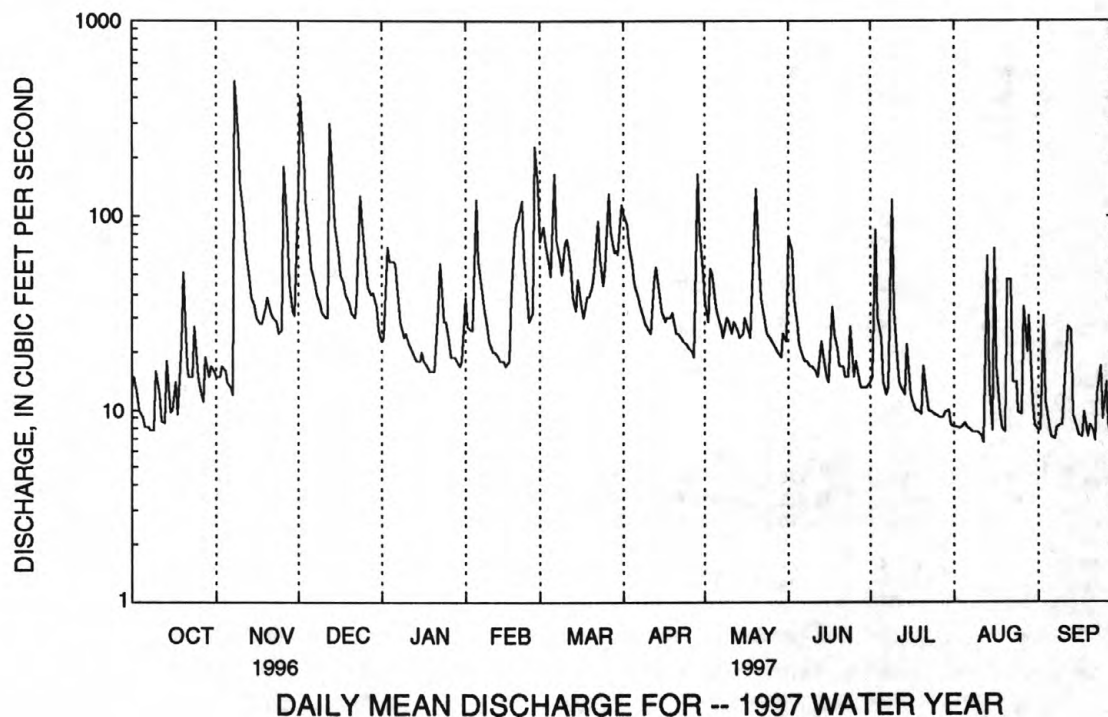
STREAMS TRIBUTARY TO LAKE ONTARIO
04240120 LEY CREEK AT PARK STREET, SYRACUSE, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1973 - 1997
ANNUAL TOTAL	18016.7	13949.5	
ANNUAL MEAN	49.2	38.2	43.9
HIGHEST ANNUAL MEAN			69.8 1978
LOWEST ANNUAL MEAN			24.8 1995
HIGHEST DAILY MEAN	558 Jan 19	492 Nov 8	831 Sep 26 1975
LOWEST DAILY MEAN	6.0 Sep 3	6.8 Aug 12	1.9 a
ANNUAL SEVEN-DAY MINIMUM	6.3 Aug 29	7.6 Aug 6	2.3 Feb 2 1977
INSTANTANEOUS PEAK FLOW		924 Nov 8	b1310 Sep 26 1975
INSTANTANEOUS PEAK STAGE		4.92 Nov 8	c7.02 Apr 26 1993
ANNUAL RUNOFF (CFSM)	1.65	1.28	1.47
ANNUAL RUNOFF (INCHES)	22.42	17.36	19.97
10 PERCENT EXCEEDS	110	76	97
50 PERCENT EXCEEDS	26	25	25
90 PERCENT EXCEEDS	8.9	8.4	10

a Feb. 6, 7, 1977, Aug. 19, 1987.

b From rating curve extended above 530 ft³/s.

c Backwater from Onondaga Lake.



STREAMS TRIBUTARY TO LAKE ONTARIO
04240180 NINEMILE CREEK NEAR MARIETTA, NY

235

LOCATION.--Lat 42°55'15", long 76°19'47", Onondaga County, Hydrologic Unit 04140201, on right bank 25 ft upstream from bridge on Schuyler Road, 0.9 mi north of Marietta, and 1.8 mi downstream from Otisco Lake.

DRAINAGE AREA.--45.1 mi².

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1955, 1963. June 1964 to current year.

REVISED RECORDS.--WRD NY 1971: 1966(M), 1968, 1969. WDR NY-82-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 748.25 ft above sea level.

REMARKS.--Records fair. Flow regulated by Otisco Lake from which water is diverted by the Onondaga County Water Authority for water supply. Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.4	8.4	106	114	42	67	90	59	28	8.4	5.4	5.7
2	7.3	8.4	253	115	41	72	140	52	34	7.9	5.3	5.7
3	7.5	8.4	257	122	41	67	156	55	32	6.9	5.5	6.5
4	7.5	8.4	271	117	41	82	170	53	28	6.5	5.7	6.1
5	7.5	8.4	270	119	46	114	167	51	25	6.5	5.8	6.1
6	7.4	8.3	247	119	42	127	169	50	22	6.3	5.8	6.1
7	7.3	8.2	228	115	41	117	126	45	20	6.2	5.8	6.2
8	7.3	160	199	114	40	116	56	44	17	6.1	5.8	6.1
9	7.5	79	178	113	e40	115	56	44	15	7.2	5.8	6.0
10	7.7	52	162	113	39	119	56	44	13	6.5	5.8	5.9
11	7.8	60	144	112	39	118	56	43	11	6.4	5.9	6.0
12	7.7	61	135	111	39	116	56	43	11	6.3	5.9	6.1
13	7.7	81	148	111	e39	114	56	41	11	6.2	7.1	6.2
14	7.8	117	166	111	39	117	56	38	11	6.2	6.0	6.0
15	7.8	105	162	111	39	117	56	33	10	6.2	5.9	6.0
16	7.8	95	161	110	39	115	55	24	11	6.5	6.3	6.0
17	7.8	86	152	e110	e39	115	53	23	12	6.6	6.0	6.1
18	7.9	76	142	e110	40	114	51	21	12	6.6	6.0	6.2
19	8.8	70	134	e110	50	99	54	28	12	6.5	5.8	6.1
20	11	66	126	113	48	69	55	36	11	6.6	5.8	6.2
21	8.2	61	121	99	63	69	54	34	11	6.8	6.0	6.1
22	8.2	57	119	63	55	73	52	32	10	6.6	6.3	6.0
23	8.2	55	119	51	44	69	50	31	9.0	6.4	6.0	6.1
24	8.4	51	140	e48	43	62	49	29	9.4	6.2	5.9	6.1
25	8.4	51	126	46	42	50	47	28	9.4	6.0	5.7	6.0
26	8.4	69	123	45	43	56	45	25	9.2	6.0	5.8	6.0
27	8.4	62	118	e44	70	51	43	23	8.3	5.9	5.9	6.0
28	8.8	60	119	43	59	51	61	21	8.2	5.9	5.8	5.9
29	8.4	57	117	e43	---	51	58	20	8.2	5.7	5.7	6.0
30	8.8	57	116	43	---	51	58	19	8.1	5.6	5.7	5.9
31	8.4	---	114	42	---	54	---	17	---	5.5	5.6	---
TOTAL	249.1	1746.5	4973	2837	1243	2727	2251	1106	436.8	199.2	181.8	181.4
MEAN	8.04	58.2	160	91.5	44.4	88.0	75.0	35.7	14.6	6.43	5.86	6.05
MAX	11	160	271	122	70	127	170	59	34	8.4	7.1	6.5
MIN	7.3	8.2	106	42	39	50	43	17	8.1	5.5	5.3	5.7

e Estimated

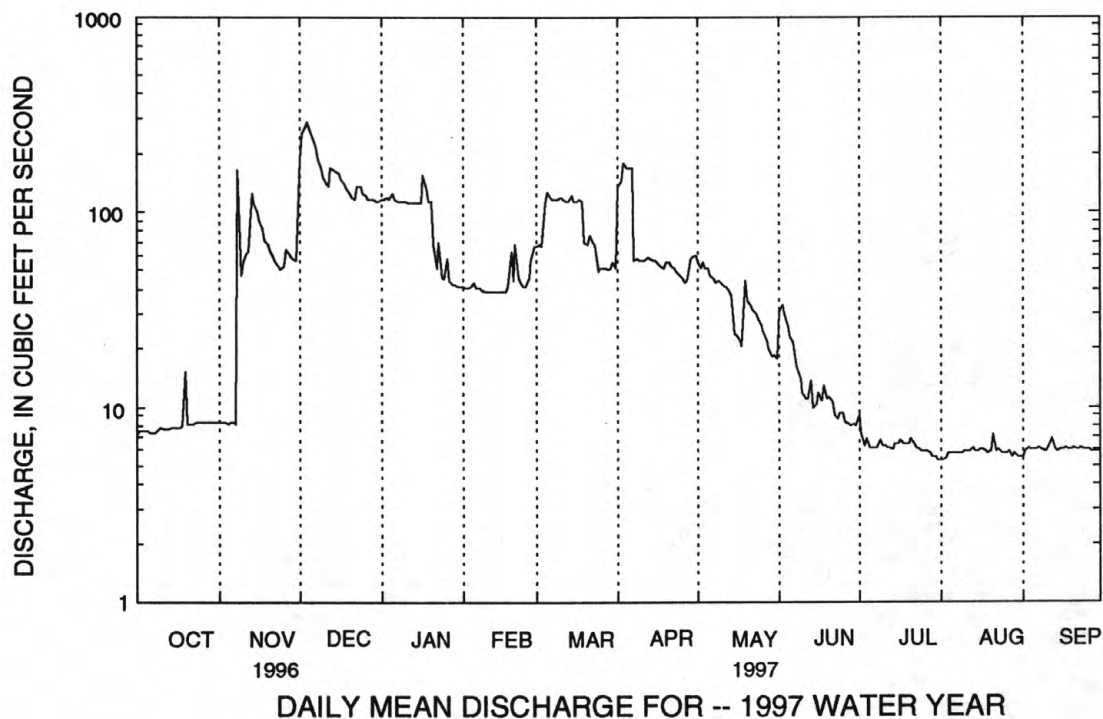
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1997, BY WATER YEAR (WY)

	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975
MEAN	22.8	32.1	46.4	51.5	53.6	60.9	99.4	49.6	28.8	16.9	11.4	11.7
MAX	147	125	160	157	143	159	352	138	278	74.0	76.2	36.2
(WY)	1978	1978	1997	1973	1990	1976	1993	1996	1972	1972	1992	1989
MIN	1.52	2.47	3.42	2.75	3.10	5.23	5.80	3.24	2.17	1.65	1.28	1.16
(WY)	1967	1967	1966	1981	1967	1965	1965	1965	1965	1981	1966	1966

STREAMS TRIBUTARY TO LAKE ONTARIO
04240180 NINEMILE CREEK NEAR MARIETTA, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1964 - 1997	
ANNUAL TOTAL	21566.3		18131.8			
ANNUAL MEAN	58.9		49.7		40.4	
HIGHEST ANNUAL MEAN					76.3	
LOWEST ANNUAL MEAN					3.95	
HIGHEST DAILY MEAN	271	Dec 4	271	Dec 4	931	Jun 23 1972
LOWEST DAILY MEAN	e6.3	a	5.3	Aug 2	.80	Sep 13 1966
ANNUAL SEVEN-DAY MINIMUM	6.4	Aug 28	5.5	Jul 29	.89	Sep 13 1966
INSTANTANEOUS PEAK FLOW			358	Nov 8	1030	Jun 23 1972
INSTANTANEOUS PEAK STAGE			5.46	Nov 8	8.65	Jun 23 1972
10 PERCENT EXCEEDS	165		119		106	
50 PERCENT EXCEEDS	37		39		16	
90 PERCENT EXCEEDS	7.8		6.0		3.3	

a Aug. 30, 31, Sep. 1, 2, 3.
e Estimated.



STREAMS TRIBUTARY TO LAKE ONTARIO
04240200 NINEMILE CREEK AT CAMILLUS, NY

237

LOCATION.--Lat 43°02'20", long 76°18'30", Onondaga County, Hydrologic Unit 04140201, on right bank 150 ft downstream from highway bridge on State Highway 5 (Main Street) in Camillus, 7.2 mi upstream from Onondaga Lake.

DRAINAGE AREA.--84.3 mi².

PERIOD OF RECORD.--July 1958 to September 1982, June 1988 to current year.

GAGE.--Water-stage recorder. Datum of gage is 398.56 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by Otisco Lake from which water is diverted by the Onondaga County Water Authority for water supply. Telephone gage-height telemeter at station. Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	48	340	185	112	188	202	145	111	44	34	29
2	42	46	742	191	109	209	295	135	118	47	34	29
3	46	46	475	242	109	191	360	141	100	45	35	34
4	45	47	412	231	108	167	421	144	90	45	35	31
5	44	48	400	219	139	211	310	132	84	44	35	28
6	44	46	370	227	132	310	288	131	80	42	34	28
7	43	46	337	203	120	253	259	125	78	41	32	28
8	42	609	293	193	114	228	157	120	75	40	31	28
9	43	1010	263	189	110	216	149	121	70	58	31	28
10	46	271	243	192	109	231	145	125	69	45	30	28
11	49	190	224	187	107	241	141	124	65	40	31	28
12	45	163	212	e175	107	217	147	120	63	39	32	31
13	44	152	337	e175	105	204	163	116	66	39	41	34
14	47	199	435	e175	106	214	150	111	70	38	37	31
15	45	188	336	177	107	237	141	111	61	37	33	30
16	44	175	289	181	106	208	137	103	58	37	39	30
17	43	164	262	161	103	202	136	101	64	37	33	30
18	42	156	242	157	107	204	133	98	58	36	31	33
19	53	150	229	159	160	200	142	111	59	37	30	32
20	108	145	212	169	222	152	143	155	56	36	30	32
21	76	140	199	172	245	152	138	118	54	38	33	32
22	61	137	197	e135	269	213	134	108	52	38	36	29
23	54	135	200	e120	156	170	133	101	49	36	32	29
24	55	132	329	110	133	151	128	97	49	36	31	30
25	50	131	293	e110	123	139	125	96	48	35	30	30
26	48	233	223	e110	124	221	122	94	50	35	29	31
27	46	198	211	107	342	181	120	91	48	35	29	30
28	47	167	209	e110	266	162	212	87	46	35	30	29
29	47	153	210	108	---	157	179	84	45	34	29	46
30	47	151	202	109	---	160	152	84	44	35	29	38
31	50	---	191	110	---	198	---	84	---	34	29	---
TOTAL	1538	5476	9117	5089	4050	6187	5462	3513	1980	1218	1005	926
MEAN	49.6	183	294	164	145	200	182	113	66.0	39.3	32.4	30.9
MAX	108	1010	742	242	342	310	421	155	118	58	41	46
MIN	42	46	191	107	103	139	120	84	44	34	29	28

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1997, BY WATER YEAR (WY)

	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969
MEAN	65.4	99.3	122	129	142	201	241	131	91.2	65.4	48.2	48.2
MAX	263	259	320	331	361	398	655	273	503	190	162	136
(WY)	1978	1978	1973	1973	1990	1979	1993	1976	1972	1972	1992	1975
MIN	20.0	22.2	25.0	23.8	28.3	63.3	82.4	51.0	36.6	30.5	24.3	21.0
(WY)	1967	1965	1963	1963	1963	1965	1965	1965	1962	1981	1966	1962

STREAMS TRIBUTARY TO LAKE ONTARIO
04240200 NINEMILE CREEK AT CAMILLUS, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1958 - 1982 1988 - 1997	
ANNUAL TOTAL	52551		45561		115	
ANNUAL MEAN	144		125		182	1976
HIGHEST ANNUAL MEAN					41.9	1965
LOWEST ANNUAL MEAN					1690	Jan 19 1996
HIGHEST DAILY MEAN	1690	Jan 19	1010	Nov 9	16	Oct 1 1961
LOWEST DAILY MEAN	30	a	28	b	17	Oct 15 1988
ANNUAL SEVEN-DAY MINIMUM	30	Aug 29	28	Sep 5	2760	Mar 30 1960
INSTANTANEOUS PEAK FLOW			2010	Nov 8	c10.83	Sep 26 1975
INSTANTANEOUS PEAK STAGE			8.25	Nov 8	16	f
INSTANTANEOUS LOW FLOW			28	d	240	
10 PERCENT EXCEEDS	288		235		72	
50 PERCENT EXCEEDS	110		109		30	
90 PERCENT EXCEEDS	37		31			

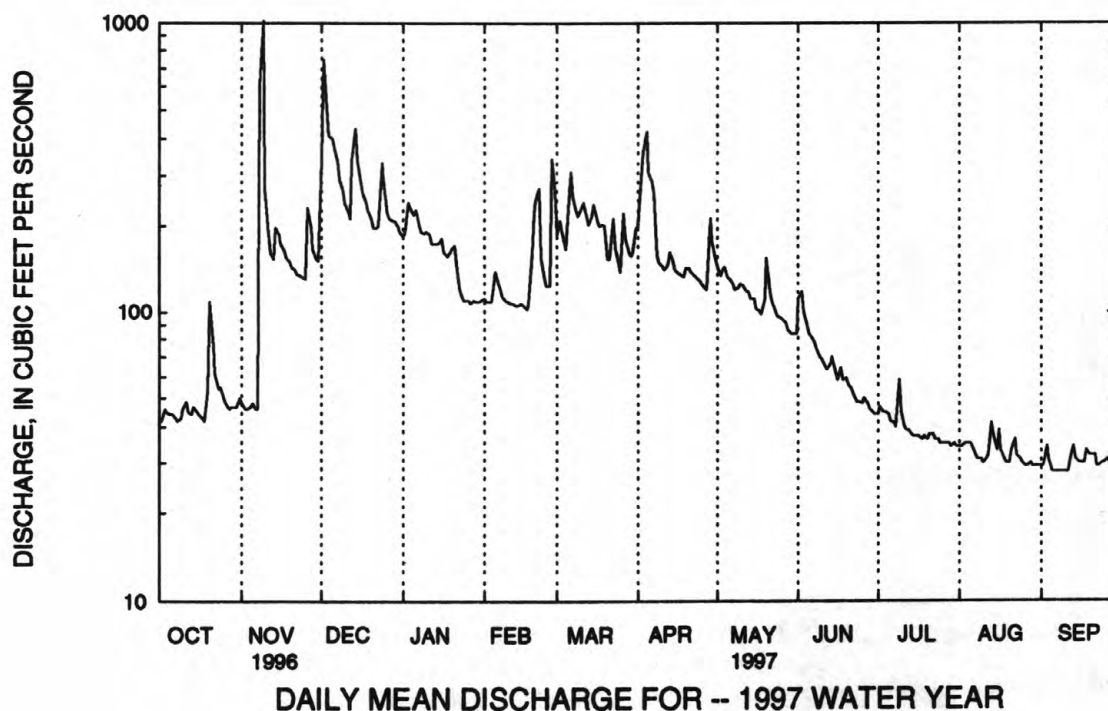
a Aug. 30, 31, Sep. 1-4.

b Sep. 5-11.

c Backwater from construction activities.

d Part or all of each day Aug. 30, Sep. 4-11.

f Sep. 30, Oct. 1, 2, 1961.



STREAMS TRIBUTARY TO LAKE ONTARIO
04240300 NINEMILE CREEK AT LAKELAND, NY

239

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 mi².

PERIOD OF RECORD.--Occasional measurements, water years 1959-70. November 1970 to September 1973, July 1975 to current year.

REVISED RECORDS.--WDR NY-83-3: 1972 (M), 1976 (M), 1979 (M), 1982 (M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 360.67 ft above sea level.

REMARKS.--Records poor. Flow regulated by Otisco Lake from which water is diverted by Onondaga County Water Authority for water supply. Flow affected by backwater from Onondaga Lake whenever lake level exceeds about 362 ft msl. High lake levels affected the entire 1997 water year. Estimated water-discharge data is based on records for Ninemile Creek at Camillus (04240200) and Onondaga Lake at Liverpool (04240495). Several measurements of water temperature were made during the year.

REVISIONS.--Revised daily discharges, in cubic feet per second, for high water periods during the 1976, 1978, 1979, 1980, and 1982 water years, revised monthly, and revised yearly discharges are given below. These figures supersede those published in corresponding annual reports.

Daily discharges:

Apr. 17, 1976	700	Dec. 15, 1977	1,300	Mar. 6, 1979	1,500	Oct. 29, 1981	850
Apr. 18, 1976	500	Mar. 22, 1978	1,300	Mar. 7, 1979	1,000	Oct. 30, 1981	700
Oct. 18, 1977	1,000	Mar. 23, 1978	1,000	Mar. 22, 1980	1,100		

MONTH	TOTAL	MEAN	MAX	MIN
April 1976	13729	458	1240	175
October 1977	15682	506	1350	152
December 1977	13256	428	1300	284
March 1978	14148	456	1300	193
March 1979	18151	586	1900	232
March 1980	10861	350	1100	110
October 1981	7792	251	1650	83
Wtr Year 1976	101795	278	1240	88
Cal Year 1976	98293	269	1240	88
Cal Year 1977	99538	273	1350	82
Wtr Year 1978	110648	303	1350	100
Cal Year 1978	83550	229	1300	100
Wtr Year 1979	84866	233	1900	90
Cal Year 1979	86488	237	1900	90
Wtr Year 1980	61668	168	1100	45
Cal Year 1980	54286	148	1100	45
Cal Year 1981	58325	160	1650	28
Wtr Year 1982	72034	197	1650	73

STREAMS TRIBUTARY TO LAKE ONTARIO
04240300 NINEMILE CREEK AT LAKELAND, NY--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e50	e59	e320	e210	e140	e220	e230	e180	e130	e54	e40	e35
2	e50	e58	e850	e220	e130	e240	e320	e170	e140	e58	e40	e35
3	e54	e58	e550	e270	e130	e225	e400	e175	e120	e55	e40	e40
4	e55	e59	e440	e260	e130	e210	e470	e180	e110	e54	e40	e36
5	e54	e59	e420	e250	e165	e230	e350	e160	e100	e52	e40	e34
6	e54	e59	e410	e260	e150	e350	e330	e160	e98	e50	e40	e34
7	e52	e58	e410	e240	e140	e300	e300	e155	e94	e50	e38	e34
8	e52	e400	e370	e230	e135	e260	e205	e145	e90	e48	e38	e34
9	e55	e1200	e310	e220	e130	e250	e195	e140	e85	e70	e38	e34
10	e56	e320	e280	e230	e130	e270	e185	e140	e80	e55	e36	e34
11	e58	e210	e260	e220	e125	e280	e180	e140	e78	e48	e36	e34
12	e57	e185	e240	e205	e125	e260	e185	e140	e76	e48	e38	e36
13	e55	e175	e360	e200	e120	e240	e205	e135	e78	e48	e50	e40
14	e57	e230	e490	e195	e120	e245	e190	e130	e84	e46	e44	e38
15	e56	e220	e380	e195	e115	e260	e180	e130	e74	e46	e40	e36
16	e54	e210	e340	e200	e115	e240	e175	e125	e70	e45	e48	e36
17	e54	e190	e320	e185	e115	e230	e170	e125	e76	e45	e40	e36
18	e51	e180	e300	e180	e120	e230	e165	e120	e72	e45	e38	e39
19	e58	e170	e280	e185	e160	e225	e170	e135	e72	e45	e36	e38
20	e110	e165	e250	e190	e230	e190	e175	e190	e72	e44	e36	e38
21	e86	e160	e225	e190	e270	e180	e170	e145	e68	e46	e40	e38
22	e68	e155	e220	e170	e310	e240	e165	e130	e62	e46	e44	e35
23	e64	e150	e225	e150	e180	e200	e165	e125	e60	e44	e40	e35
24	e64	e145	e320	e135	e150	e180	e160	e120	e60	e44	e38	e36
25	e61	e145	e350	e130	e140	e170	e150	e115	e58	e42	e36	e36
26	e60	e270	e260	e130	e140	e250	e150	e115	e60	e42	e35	e37
27	e58	e230	e250	e125	e340	e220	e145	e110	e58	e42	e35	e36
28	e60	e195	e240	e130	e370	e200	e260	e105	e58	e42	e38	e35
29	e58	e190	e240	e130	---	e190	e220	e100	e56	e41	e35	e55
30	e56	e190	e230	e130	---	e200	e195	e100	e54	e42	e35	e48
31	e60	---	e215	e130	---	e230	---	e100	---	e40	e35	---
TOTAL	1837	6095	10355	5895	4625	7215	6560	4240	2393	1477	1207	1112
MEAN	59.3	203	334	190	165	233	219	137	79.8	47.6	38.9	37.1
MAX	110	1200	850	270	370	350	470	190	140	70	50	55
MIN	50	58	215	125	115	170	145	100	54	40	35	34

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1973, 1975 - 1997 BY WATER YEAR (WY)

MEAN	131	178	224	207	227	310	346	212	149	104	91.0	95.8
MAX	506	439	623	492	549	586	807	385	676	289	216	308
(WY)	1978	1978	1973	1973	1990	1979	1993	1983	1972	1972	1992	1975
MIN	43.6	56.0	96.7	81.8	86.0	112	100	69.1	52.6	44.2	28.6	33.0
(WY)	1986	1992	1996	1984	1989	1983	1995	1995	1981	1981	1985	1985

STREAMS TRIBUTARY TO LAKE ONTARIO
04240300 NINEMILE CREEK AT LAKELAND, NY--Continued

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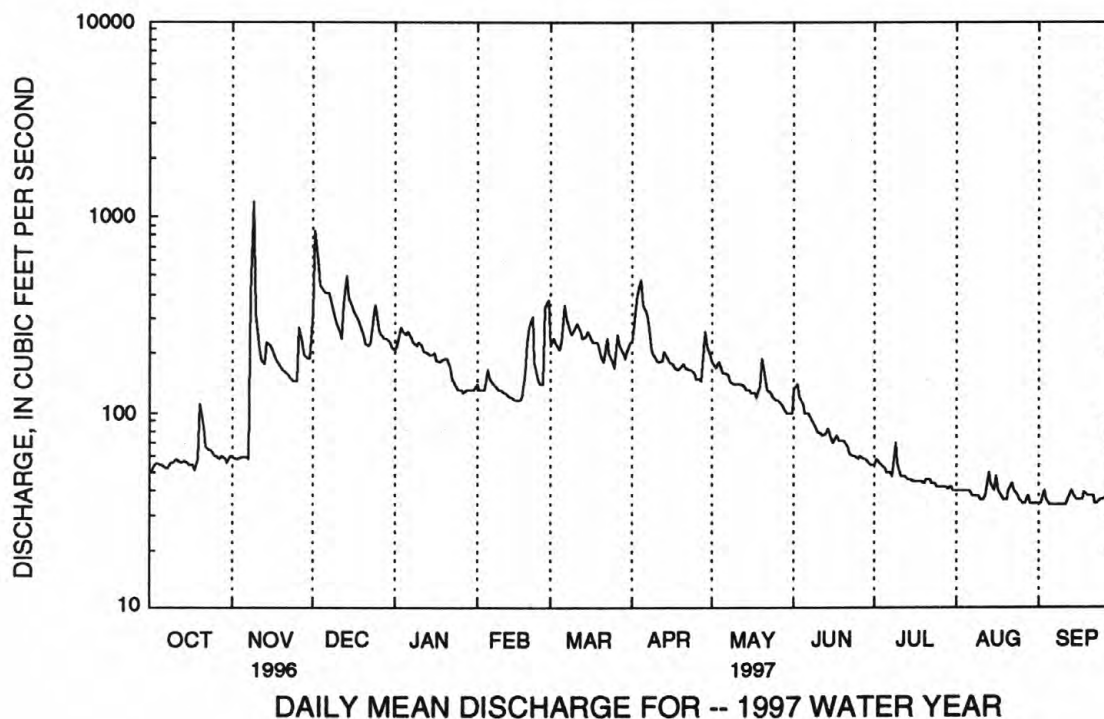
SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1971 - 1973 1975 - 1997	
ANNUAL TOTAL	68784		53011			
ANNUAL MEAN	188		145		185	
HIGHEST ANNUAL MEAN					310	
LOWEST ANNUAL MEAN					91.2	
HIGHEST DAILY MEAN	e1300	Jan 19	e1200	Nov 9	2110	Jun 23 1972
LOWEST DAILY MEAN	e50	a	e34	b	e13	Aug 18 1985
ANNUAL SEVEN-DAY MINIMUM	50	Aug 28	34	Sep 5	16	Sep 20 1985
INSTANTANEOUS PEAK STAGE			c7.14	Nov 9	c9.63	Apr 27 1993
10 PERCENT EXCEEDS	380		270		378	
50 PERCENT EXCEEDS	153		130		138	
90 PERCENT EXCEEDS	54		38		54	

a Aug 13, 14, 30, 31, Sep 1, 2, 3, 11, 12, 27.

b Sep 5-11.

c Backwater from Onondaga Lake.

e Estimated.



DRAINAGE AREA.--285 mi².

GAGE.--Water-stage recorder. Datum of gage is sea level. To convert elevations to adjustment of 1988, subtract 0.59 ft.

REMARKS.--Lake elevation regulated by operation of Erie (Barge) Canal. Area of water surface, 4.60 mi².

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 369.78 ft, Apr. 26, 27, 1993; minimum, 361.54 ft, Mar. 13, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 366.41 ft, Nov. 13; minimum, 362.54 ft, July 26.

ELEVATION (FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	363.28	363.98	363.42	363.44	363.20	364.18	363.98	363.30	363.25	363.01	362.83	362.89
2	363.24	364.00	364.60	363.33	363.10	364.28	363.98	363.37	363.28	363.14	362.78	362.87
3	363.29	363.96	365.26	363.31	363.11	364.32	363.97	363.37	363.47	363.17	362.77	362.84
4	363.26	363.93	365.52	363.41	363.12	364.27	364.11	363.31	363.73	363.22	362.85	362.97
5	363.21	363.93	365.61	363.48	363.26	364.20	364.10	363.40	363.58	363.18	362.83	362.75
6	363.19	363.91	365.60	363.60	363.39	364.39	363.95	363.40	363.45	363.13	362.79	362.74
7	363.21	363.87	365.52	363.58	363.57	364.46	363.81	363.35	363.51	363.10	362.74	362.80
8	363.12	364.45	365.34	363.44	363.45	364.27	363.61	363.25	363.61	362.98	362.74	362.86
9	363.18	365.46	365.08	363.31	363.38	364.15	363.43	363.18	363.55	362.95	362.85	362.90
10	363.16	365.70	364.82	363.47	363.31	364.10	363.27	363.16	363.49	362.90	362.94	362.71
11	363.17	365.93	364.56	363.55	363.25	364.11	363.24	363.04	363.46	362.74	362.90	362.84
12	363.12	366.17	364.34	363.48	363.17	364.01	363.17	363.16	363.40	362.78	362.86	362.89
13	363.08	366.37	364.58	363.20	363.22	363.86	363.14	363.16	363.36	363.05	362.89	363.01
14	363.12	366.33	365.24	363.35	363.19	363.76	363.16	363.16	363.30	362.86	362.74	362.87
15	363.08	366.11	365.36	363.51	363.11	363.81	363.26	363.16	363.22	362.71	362.80	362.96
16	362.98	365.80	365.32	363.65	363.11	363.75	363.37	363.14	363.14	362.95	362.84	362.90
17	362.91	365.44	365.22	363.94	363.20	363.62	363.46	363.11	363.21	362.78	362.70	362.81
18	362.79	365.08	365.07	363.80	363.13	363.50	363.37	363.10	363.18	362.76	362.86	362.75
19	362.88	364.75	364.86	363.61	363.22	363.38	363.33	363.15	363.16	362.96	362.87	362.72
20	363.22	364.49	364.64	363.55	363.65	363.49	363.30	363.38	363.13	362.73	362.84	362.72
21	363.70	364.24	364.37	363.50	363.74	363.70	363.28	363.57	363.07	362.93	362.89	362.71
22	363.87	363.99	364.13	363.55	364.03	363.84	363.23	363.75	362.97	362.88	362.91	362.86
23	363.93	363.76	363.93	363.54	364.06	363.74	363.22	363.72	362.87	362.88	362.70	362.97
24	363.95	363.54	363.99	363.38	363.84	363.58	363.14	363.60	362.72	362.86	362.84	362.85
25	363.83	363.35	364.16	363.14	363.61	363.59	363.00	363.61	362.75	362.87	362.87	362.77
26	363.84	363.40	364.09	362.99	363.53	363.79	362.97	363.58	363.07	362.59	362.92	363.00
27	363.79	363.46	363.97	363.02	363.85	363.94	362.88	363.55	363.17	362.64	362.83	362.97
28	363.78	363.39	363.86	363.42	364.25	363.99	363.19	363.36	363.17	362.70	362.93	362.80
29	363.88	363.32	363.81	363.40	---	363.98	363.39	363.22	363.18	362.85	362.82	362.78
30	363.85	363.24	363.73	363.34	---	363.91	363.46	363.16	363.08	362.94	362.92	363.00
31	363.96	---	363.63	363.26	---	363.96	---	363.17	---	362.88	362.75	---
MEAN	363.38	364.51	364.63	363.44	363.43	363.93	363.43	363.32	363.25	362.90	362.83	362.85
MAX	363.96	366.37	365.61	363.94	364.25	364.46	364.11	363.75	363.73	363.22	362.94	363.01
MIN	362.79	363.24	363.42	362.99	363.10	363.38	362.88	363.04	362.72	362.59	362.70	362.71

CAL YR 1996	MEAN 363.80	MAX 366.52	MIN 362.57
WTR YR 1997	MEAN 363.49	MAX 366.37	MIN 362.59

STREAMS TRIBUTARY TO LAKE ONTARIO
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 mi².

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

REVISED RECORDS.--WSP 2112: Drainage area. WDR NY-78-1: 1951, 1956, 1958, 1961, 1963, 1964, 1972, 1976 (P). WDR NY-83-3: 1950 (M), 1977 (M), 1979 (M).

GAGE.--Water-stage recorder. Datum of gage is 409.33 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Occasional regulation by small mills upstream from station. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,900 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Nov. 9	0500	2,020	8.381	Dec. 2	1135	*3,580	*11.26

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	39	423	e145	e150	423	446	197	176	40	26	27
2	35	36	2410	e150	e150	537	519	252	187	46	25	25
3	33	34	776	301	e140	430	549	272	135	52	25	53
4	31	36	465	286	132	322	537	261	108	55	27	35
5	29	35	350	250	267	279	389	188	94	55	25	28
6	28	34	323	319	260	600	342	186	84	44	26	26
7	27	34	306	e210	173	384	291	186	77	40	25	26
8	27	435	266	e185	e130	304	251	154	76	40	24	26
9	27	1470	221	e175	e120	258	233	164	73	104	23	25
10	29	455	198	e155	e110	309	206	214	67	99	23	24
11	30	259	182	e130	e100	337	191	196	62	55	23	27
12	28	200	175	e110	e96	269	186	170	59	45	35	33
13	27	169	447	e100	e92	209	223	158	58	42	41	33
14	33	146	791	e94	e90	192	197	138	57	39	43	28
15	32	127	538	e86	e88	262	166	136	53	45	29	25
16	29	113	490	e80	e86	206	152	155	51	61	42	24
17	33	109	411	e76	e84	183	148	150	97	45	34	23
18	28	130	324	e72	e96	182	147	144	90	44	30	25
19	27	239	280	e70	295	181	189	171	99	37	27	24
20	35	239	232	e66	526	186	191	422	76	36	26	25
21	33	187	218	e120	731	184	176	222	69	40	33	25
22	31	152	200	e150	1330	411	161	181	60	43	33	23
23	35	132	183	336	657	251	146	152	55	36	30	28
24	83	126	475	227	399	192	135	133	54	33	30	32
25	53	116	436	e220	308	207	125	124	57	33	28	28
26	40	510	269	e200	318	621	117	117	65	31	27	28
27	36	325	230	e180	1150	419	110	107	60	30	36	28
28	38	201	222	e170	749	433	386	98	50	32	43	25
29	42	167	238	e155	---	418	295	92	45	30	35	36
30	41	152	215	e150	---	425	199	92	42	28	30	39
31	45	---	e165	e140	---	515	---	93	---	27	28	---
TOTAL	1086	6407	12459	5108	8827	10129	7403	5325	2336	1387	932	854
MEAN	35.0	214	402	165	315	327	247	172	77.9	44.7	30.1	28.5
MAX	83	1470	2410	336	1330	621	549	422	187	104	43	53
MIN	27	34	165	66	84	181	110	92	42	27	23	23
CFSM	.31	1.89	3.56	1.46	2.79	2.89	2.18	1.52	.69	.40	.27	.25
IN.	.36	2.11	4.10	1.68	2.91	3.33	2.44	1.75	.77	.46	.31	.28

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1997, BY WATER YEAR (WY)

MEAN	88.1	154	195	190	218	367	344	165	100	65.9	53.0	61.1
MAX	472	382	481	443	589	781	915	413	539	225	253	297
(WY)	1978	1973	1974	1979	1976	1977	1993	1996	1972	1951	1976	1977
MIN	21.5	30.5	39.6	38.9	50.5	131	109	61.0	32.6	23.2	18.8	18.0
(WY)	1964	1965	1961	1981	1980	1981	1981	1995	1995	1962	1995	1964

STREAMS TRIBUTARY TO LAKE ONTARIO
04243500 ONEIDA CREEK AT ONEIDA, NY--Continued

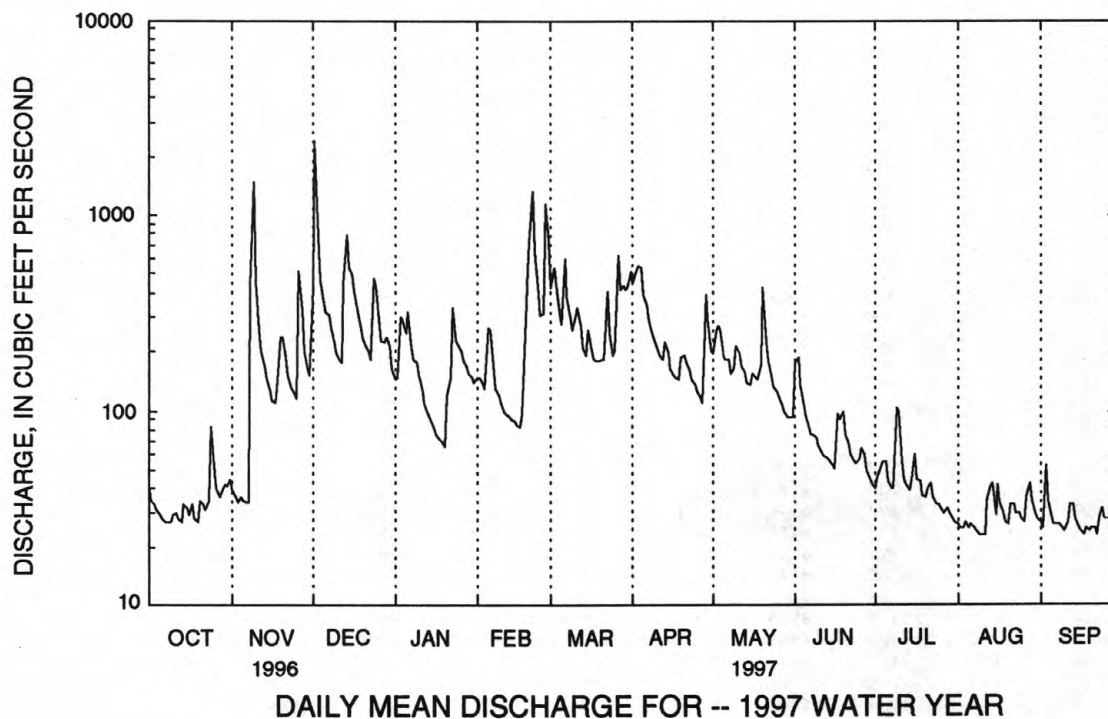
SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1950 - 1997	
ANNUAL TOTAL	78564		62253		166	
ANNUAL MEAN	215		171		284	
HIGHEST ANNUAL MEAN					89.7	
LOWEST ANNUAL MEAN					13	
HIGHEST DAILY MEAN	4220	Jan 19	2410	Dec 2	5210	Mar 5 1979
LOWEST DAILY MEAN	25	a	23	b	14	Oct 28 1964
ANNUAL SEVEN-DAY MINIMUM	26	Sep 1	24	Aug 5	14	Aug 20 1995
INSTANTANEOUS PEAK FLOW			3580	Dec 2	9110	Oct 9 1976
INSTANTANEOUS PEAK STAGE			11.26	Dec 2	15.01	Oct 9 1976
INSTANTANEOUS LOW FLOW			22	c	12	d
ANNUAL RUNOFF (CFSM)	1.90		1.51		1.47	
ANNUAL RUNOFF (INCHES)	25.86		20.49		20.02	
10 PERCENT EXCEEDS	472		411		359	
50 PERCENT EXCEEDS	118		113		96	
90 PERCENT EXCEEDS	31		27		30	

a Sep. 2-4.

b Aug. 9-11, Sep. 17, 22.

c Aug. 10, 11, Sep. 11.

d Aug. 5, 6, 1962, Oct. 28, 1964.



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DRAINAGE AREA.--32.2 mi².

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 717.93 ft above sea level.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

e Estimated

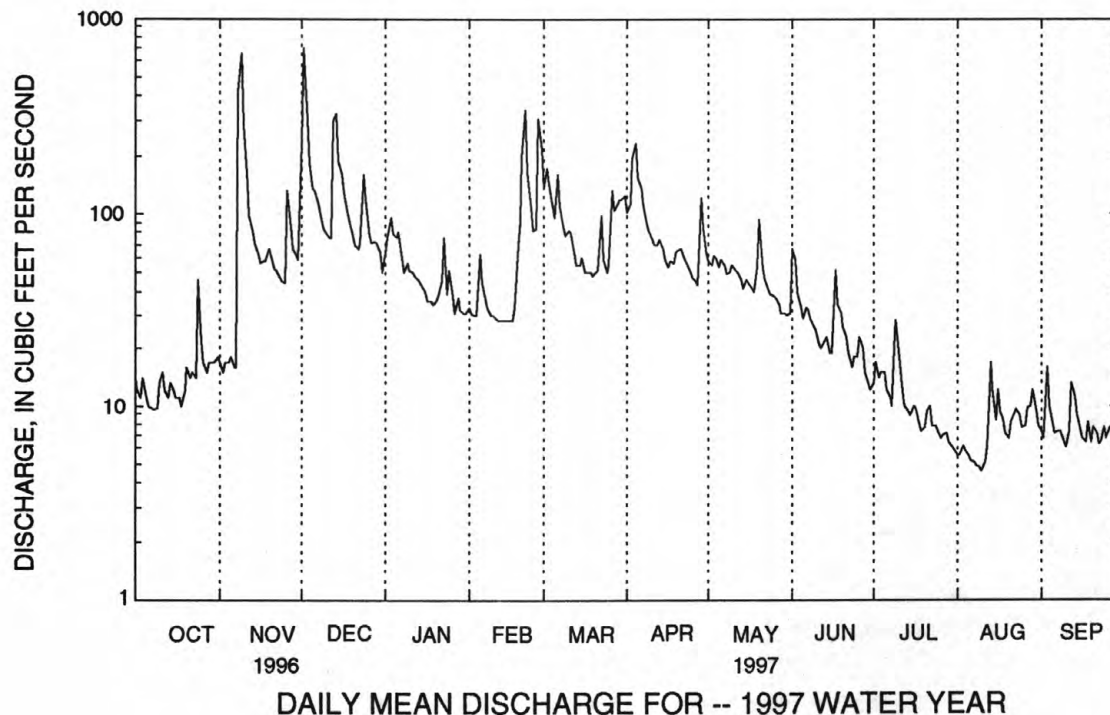
MEAN	28.4	46.6	57.7	55.5	66.5	101	111	53.9	31.7	20.2	13.7	16.7
MAX	138	124	145	161	191	198	377	141	200	71.6	45.7	66.6
(WY)	1978	1973	1973	1996	1976	1977	1993	1996	1972	1974	1992	1975
MIN	5.30	7.49	11.1	13.5	18.5	37.2	48.3	22.8	10.5	5.89	4.84	3.85
(WY)	1965	1965	1961	1961	1963	1983	1981	1995	1995	1964	1965	1964

STREAMS TRIBUTARY TO LAKE ONTARIO
04245200 BUTTERNUT CREEK NEAR JAMESVILLE, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1958 - 1997	
ANNUAL TOTAL	26117.9		20029.0		50.0	
ANNUAL MEAN	71.4		54.9		24.2	
HIGHEST ANNUAL MEAN					82.6	
LOWEST ANNUAL MEAN					24.2	
HIGHEST DAILY MEAN	1200	Jan 19	702	Dec 2	1260	Oct 28 1981
LOWEST DAILY MEAN	5.9	Sep 4	4.6	Aug 10	3.0	Sep 27 1959
ANNUAL SEVEN-DAY MINIMUM	6.2	Sep 1	5.0	Aug 5	3.4	Sep 17 1964
INSTANTANEOUS PEAK FLOW			871	Nov 8	2820	Jul 3 1974
INSTANTANEOUS PEAK STAGE			8.47	Nov 8	a9.20	Jan 19 1996
INSTANTANEOUS LOW FLOW			4.5	b	2.0	Sep 27 1959
ANNUAL RUNOFF (CFSM)	2.22		1.70		1.55	
ANNUAL RUNOFF (INCHES)	30.17		23.14		21.12	
10 PERCENT EXCEEDS	139		116		103	
50 PERCENT EXCEEDS	38		36		30	
90 PERCENT EXCEEDS	10		7.4		7.6	

a Ice jam.

b Aug. 10, 11.



STREAMS TRIBUTARY TO LAKE ONTARIO

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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 mi².

PERIOD OF RECORD.--December 1970 to March 1973, April 1973 to September 1978 (annual maximum only), October 1978 to current year.

REVISED RECORDS.--WDR NY-75-1: 1974 (M). WDR NY-78-1: 1977 (M). WDR-NY-90-3: 1971-89 (P).

GAGE.--Water-stage recorder, crest-stage gage, and artificial control. Datum of gage is 511.50 ft above sea level.

REMARKS.--Records fair. Flow includes storm sewer inflow, some originating outside the basin. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 418 ft³/s, July 3, 1974, gage height 6.51 ft, from rating curve extended above 47 ft³/s on basis of computation of peak flow through culvert at gage heights 5.31 ft and 6.51 ft.

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

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Nov. 8	1130	102	3.00	Aug. 29	0430	*128	*3.35

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.93	1.2	14	2.0	3.6	2.6	5.1	1.5	7.1	e1.2	.93	.68
2	1.6	1.3	21	2.3	2.2	3.9	5.3	1.5	3.4	e1.3	.92	.94
3	.98	1.7	3.3	4.3	2.3	2.3	3.8	3.7	2.1	3.3	.89	3.4
4	.93	1.4	2.6	2.5	2.4	2.1	2.9	1.8	1.9	e2.0	.85	.76
5	.94	1.2	2.2	2.9	8.0	2.9	2.6	1.5	1.8	e1.3	.85	.76
6	.99	1.2	3.3	2.7	2.7	7.1	2.6	1.7	1.9	e1.0	.97	.79
7	.99	1.4	2.3	2.2	2.3	3.1	2.3	1.4	1.8	e1.0	.95	.92
8	1.0	56	2.0	2.3	2.1	2.6	2.6	1.4	1.7	e1.2	.78	.85
9	1.0	20	1.9	2.1	2.0	2.4	2.5	1.9	1.6	13	.80	.84
10	1.5	3.3	1.9	2.4	2.0	3.6	2.3	1.8	1.6	1.1	.79	.81
11	1.1	1.9	1.8	2.0	2.0	2.8	2.2	1.5	1.5	.96	.95	2.7
12	1.0	2.3	1.8	1.9	2.0	2.3	4.3	1.9	1.4	.94	.76	1.9
13	1.0	2.2	20	1.9	1.9	2.1	2.9	1.5	2.9	.93	4.9	.96
14	1.7	1.7	8.0	1.9	2.0	3.4	2.2	1.5	1.7	1.1	.73	.79
15	1.0	1.6	3.7	1.9	1.9	3.1	2.1	1.9	1.2	1.1	.62	.81
16	1.1	1.5	2.8	2.1	1.9	2.3	2.1	1.9	1.2	.95	4.9	.84
17	1.1	1.5	2.5	e2.0	2.0	2.1	2.1	1.6	3.3	.98	.83	1.1
18	1.1	1.6	2.3	e1.9	3.8	2.3	2.2	1.5	2.6	.89	.67	1.0
19	2.6	1.9	2.5	e1.9	4.5	2.3	2.6	7.2	1.5	.86	.65	.85
20	2.7	1.6	2.1	1.9	3.2	2.3	2.1	3.8	1.3	.91	.83	.88
21	1.2	1.6	1.9	1.9	3.2	3.0	2.1	1.6	1.3	1.6	1.8	.86
22	1.1	1.7	2.0	3.9	2.6	4.6	2.1	1.6	1.2	1.0	1.0	.87
23	1.7	1.5	3.4	3.0	2.1	2.2	2.0	1.5	1.2	.95	.75	1.5
24	1.9	1.5	6.1	2.0	2.1	2.1	2.0	1.6	2.2	.95	.69	.95
25	1.1	2.1	3.0	2.3	2.3	4.4	1.9	1.6	1.2	.95	.68	.89
26	1.1	11	2.3	2.0	2.2	6.2	1.9	1.6	2.4	.91	.68	.89
27	1.1	2.4	2.3	2.0	13	2.7	1.9	1.7	1.2	.87	.78	.75
28	1.9	1.9	2.4	e2.0	3.2	2.4	10	1.7	e1.2	.89	.69	.75
29	1.1	1.8	2.3	2.2	---	4.0	1.9	1.6	e1.2	.86	7.6	4.2
30	1.6	1.8	2.1	1.8	---	3.4	1.6	1.9	e1.1	.87	.73	2.0
31	1.2	---	2.0	2.0	---	5.7	---	1.8	---	.88	.68	---
TOTAL	40.26	133.8	131.8	70.2	85.5	98.3	84.2	60.7	57.7	46.75	40.65	36.24
MEAN	1.30	4.46	4.25	2.26	3.05	3.17	2.81	1.96	1.92	1.51	1.31	1.21
MAX	2.7	56	21	4.3	13	7.1	10	7.2	7.1	13	7.6	4.2
MIN	.93	1.2	1.8	1.8	1.9	2.1	1.6	1.4	1.1	.86	.62	.68
CFSM	.45	1.54	1.47	.78	1.05	1.09	.97	.68	.66	.52	.45	.42
IN.	.52	1.72	1.69	.90	1.10	1.26	1.08	.78	.74	.60	.52	.46

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971-73, 1979-97 BY WATER YEAR (WY)

MEAN	1.65	2.08	2.23	2.01	2.44	3.77	3.19	2.54	2.21	1.81	1.39	1.57
MAX	4.73	4.46	4.66	4.26	4.38	6.93	7.51	5.21	6.12	5.04	5.16	3.03
(WY)	1982	1997	1991	1979	1990	1972	1993	1990	1972	1988	1990	1989
MIN	.19	.71	1.04	.67	1.12	1.38	1.34	1.08	.86	.48	.32	.31
(WY)	1972	1979	1971	1981	1993	1981	1981	1971	1981	1980	1971	1971

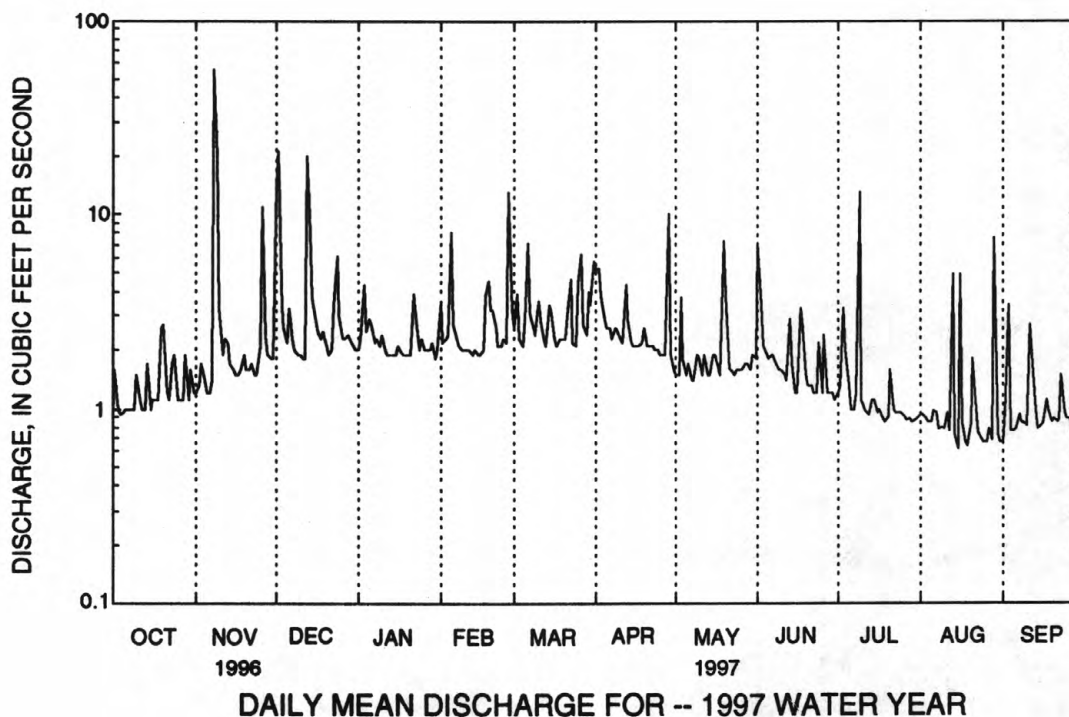
STREAMS TRIBUTARY TO LAKE ONTARIO
04245236 MEADOW BROOK AT HURLBURT ROAD, SYRACUSE, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1971 - 1973 1979 - 1997
ANNUAL TOTAL	995.60	886.10	
ANNUAL MEAN	2.72	2.43	2.26
HIGHEST ANNUAL MEAN			3.27
LOWEST ANNUAL MEAN			1.27
HIGHEST DAILY MEAN	56 Nov 8	56 Nov 8	84 Oct 28 1981
LOWEST DAILY MEAN	.62 Jun 18	.62 Aug 15	a
ANNUAL SEVEN-DAY MINIMUM	.86 Aug 29	.75 Aug 22	.04 Oct 13 1971
INSTANTANEOUS PEAK FLOW		128 Aug 29	b402 Aug 28 1990
INSTANTANEOUS PEAK STAGE		3.35 Aug 29	6.36 Aug 28 1990
INSTANTANEOUS LOW FLOW		.53 Aug 15	.02 c
ANNUAL RUNOFF (CFSM)	.94	.84	.78
ANNUAL RUNOFF (INCHES)	12.77	11.38	10.61
10 PERCENT EXCEEDS	4.8	3.6	4.1
50 PERCENT EXCEEDS	1.8	1.9	1.4
90 PERCENT EXCEEDS	.98	.87	.48

a Oct. 13-21, 1971.

b From rating curve extended above 47 ft³/s on basis of computation of peak flow through culvert at gage heights 5.31 ft and 6.51 ft.

c Sep. 11, 1972, Aug. 24, 1990.



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EXTREMES FOR CURRENT YEAR.--Maximum elevation, 371.06 ft, Nov. 11; minimum, 367.56 ft, Feb. 19.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	369.86	369.22	369.35	369.39	368.07	369.06	369.55	369.85	369.83	369.82	369.57	369.67
2	369.81	369.13	369.54	369.29	368.04	369.18	369.62	369.73	369.88	369.84	369.55	369.66
3	369.66	369.06	370.04	369.22	368.00	369.37	369.67	369.95	369.85	369.76	369.53	369.64
4	369.69	369.06	370.18	369.22	368.00	369.50	369.70	369.70	369.80	369.66	369.57	369.60
5	369.69	369.07	370.31	369.22	368.01	369.53	369.81	369.83	369.78	369.74	369.53	369.59
6	369.62	369.11	370.29	369.11	368.00	369.58	369.88	369.62	369.78	369.77	369.54	369.62
7	369.56	369.15	370.21	369.06	368.00	369.66	369.81	369.56	369.75	369.72	369.53	369.61
8	369.54	369.26	370.08	369.14	367.98	369.69	369.93	369.64	369.74	369.77	369.52	369.61
9	369.46	369.95	369.98	369.20	367.95	369.68	370.03	369.63	369.74	369.75	369.53	369.68
10	369.44	370.58	369.93	369.13	367.92	369.60	370.04	369.63	369.71	369.79	369.54	369.76
11	369.45	370.80	369.84	369.06	367.88	369.56	369.99	369.63	369.71	369.81	369.49	369.82
12	369.49	370.87	369.90	368.97	367.84	369.51	370.01	369.74	369.71	369.81	369.53	369.65
13	369.49	370.88	369.79	368.90	367.82	369.46	369.81	369.77	369.70	369.80	369.55	369.67
14	369.39	370.80	369.80	368.83	367.79	369.49	369.79	369.79	369.66	369.81	369.60	369.70
15	369.49	370.68	369.95	368.77	367.74	369.34	369.78	369.80	369.72	369.79	369.68	369.70
16	369.49	370.62	369.99	368.69	367.71	369.29	369.71	369.64	369.72	369.76	369.64	369.66
17	369.57	370.43	370.00	368.67	367.68	369.23	369.63	369.79	369.75	369.75	369.66	369.70
18	369.78	370.22	369.90	368.59	367.64	369.13	369.52	369.84	369.84	369.70	369.67	369.63
19	369.67	370.07	369.78	368.53	367.61	369.06	369.50	369.88	369.78	369.67	369.68	369.63
20	369.63	369.97	369.57	368.45	367.66	368.98	369.49	369.79	369.88	369.66	369.74	369.54
21	369.67	369.89	369.68	368.39	367.76	368.93	369.45	369.84	369.88	369.69	369.91	369.52
22	369.62	369.82	369.62	368.35	367.93	368.86	369.40	369.84	369.82	369.68	369.71	369.52
23	369.76	369.73	369.58	368.29	368.17	368.83	369.42	369.95	369.85	369.74	369.64	369.49
24	369.67	369.63	369.44	368.33	368.32	368.79	369.44	369.96	369.92	369.77	369.69	369.52
25	369.66	369.56	369.44	368.27	368.41	368.78	369.50	369.90	369.89	369.66	369.73	369.52
26	369.69	369.47	369.64	368.25	368.44	368.76	369.55	369.84	369.86	369.65	369.75	369.48
27	369.65	369.49	369.62	368.25	368.57	368.84	369.67	369.81	369.85	369.64	369.76	369.53
28	369.46	369.46	369.62	368.21	368.84	368.93	369.82	369.80	369.86	369.59	369.74	369.59
29	369.51	369.40	369.50	368.19	---	369.04	369.91	369.81	369.85	369.58	369.69	369.51
30	369.48	369.41	369.43	368.16	---	369.21	369.97	369.82	369.83	369.60	369.68	369.45
31	369.25	---	369.44	368.11	---	369.40	---	369.79	---	369.57	369.70	---
MEAN	369.59	369.83	369.79	368.72	367.99	369.23	369.71	369.78	369.80	369.72	369.63	369.61
MAX	369.86	370.88	370.31	369.39	368.84	369.69	370.04	369.96	369.92	369.84	369.91	369.82
MIN	369.25	369.06	369.35	368.11	367.61	368.76	369.40	369.56	369.66	369.57	369.49	369.45
CAL YR 1996	MEAN 369.43		MAX 370.88		MIN 367.01							
WTR YR 1997	MEAN 369.46		MAX 370.88		MIN 367.61							

STREAMS TRIBUTARY TO LAKE ONTARIO
04246500 ONEIDA RIVER AT CAUGHDENY, 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 Caughdeny.

DRAINAGE AREA.--1,382 mi²; 1902-9, 1,439 mi².

PERIOD OF RECORD.--September 1902 to December 1909 (published as "near Euclid"), January 1910 to December 1912, and October 1947 to current year in reports of Geological Survey. September 1902 to December 1909 and January 1910 to September 1925 in reports of State Engineer and Surveyor.

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Base gage: Water-stage recorder. Datum of gage is 360.98 ft above sea level (362.00 ft Barge Canal datum). Prior to June 5, 1907, headwater readings, and June 5, 1907 to Dec. 31, 1909, nonrecording gage readings at former Oak Orchard State Dam 5.5 mi downstream at different datum. Jan. 1, 1910 to Dec. 31, 1912, nonrecording gage at site 2.5 mi downstream from present site at different datum. From Oct. 9, 1947 to Nov. 7, 1951, water-stage recorder at site 2.5 mi downstream at present datum.

Auxiliary gage: Water-stage recorder at site 2.5 mi downstream, 350 ft upstream from navigation dam at present datum (base gage site 1947-51).

Supplementary gage: Water-stage recorder at site 2.6 mi downstream, 180 ft downstream from navigation dam at present datum.

REMARKS.--No estimated daily discharges. Records good. 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 Caughdeny, 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 mi² of Tioughnioga River basin may be diverted into De Ruyter Reservoir, in Oswego River basin. Several measurements of water temperature were made during the year.

COOPERATION.--Records of gate openings, lockages, and elevations of water surface in Erie (Barge) Canal above and below Lock 23, furnished by New York State Department of Transportation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2350	3150	4320	4940	3010	4420	5220	5060	1650	830	286	668
2	2320	3110	4700	4770	2980	4580	5340	4800	1910	850	277	386
3	2290	3070	5690	4670	2930	4910	5450	5250	2080	1060	267	499
4	2290	2530	6040	4700	2920	5150	5490	4780	2040	1180	272	660
5	2310	1570	6340	4700	2920	5190	5700	5020	2000	1190	262	506
6	2290	1080	6160	4510	2900	5260	5860	4670	1570	1200	259	396
7	1790	959	6500	4410	2900	5400	5690	4560	1280	991	258	395
8	1290	1680	6250	4440	2880	5500	5910	3710	1300	883	266	294
9	1120	2890	6060	4590	2820	5510	6120	2100	1280	874	285	228
10	858	3710	5960	4470	2780	5490	6140	1770	1260	877	306	205
11	655	4560	5790	4370	2740	5440	6050	1790	1240	891	278	223
12	669	6410	5920	4250	2680	5320	6120	1790	995	891	272	309
13	663	7850	5710	4140	2630	5220	5700	1800	763	913	271	430
14	659	7630	5710	4030	2610	5190	5660	1800	702	894	252	391
15	527	7220	6000	3970	2520	4870	5650	1820	704	1100	267	728
16	402	7010	6080	3840	2480	4800	5530	1800	682	1270	280	1000
17	398	6440	6100	3770	2450	4720	5290	1830	673	861	250	991
18	546	5890	5880	3670	2410	4550	5030	1850	669	868	262	982
19	749	5600	5680	3590	2360	4460	5000	1840	674	869	266	983
20	776	5440	5260	3500	2400	4330	4990	1840	681	870	261	959
21	795	5250	5500	3440	2540	4240	4150	1860	681	618	307	971
22	946	5100	5390	3380	2730	4120	3400	2140	666	294	266	966
23	1060	4920	5320	3300	3020	4070	2340	2340	772	273	233	893
24	1280	4740	5070	3360	3240	4010	2040	2360	870	282	264	612
25	1950	4620	5060	3260	3390	3980	1340	2350	873	296	376	526
26	2270	4460	5430	3230	3470	3930	1070	2370	1040	265	613	545
27	2290	4480	5390	3260	3590	4060	1070	2180	1160	270	670	557
28	2490	4440	5390	3180	4040	4210	1920	1780	1170	262	944	541
29	2680	4330	5180	3150	---	4380	4280	1570	1170	280	1090	767
30	3020	4370	5050	3130	---	4640	5270	1610	969	301	871	955
31	3170	---	5060	3060	---	4960	---	1640	---	290	657	---
TOTAL	46903	134509	173990	121080	80340	146910	138820	82080	33524	22793	11688	18566
MEAN	1513	4484	5613	3906	2869	4739	4627	2648	1117	735	377	619
MAX	3170	7850	6500	4940	4040	5510	6140	5250	2080	1270	1090	1000
MIN	398	959	4320	3060	2360	3930	1070	1570	666	262	233	205

STREAMS TRIBUTARY TO LAKE ONTARIO
04246500 ONEIDA RIVER AT CAUGHDENYOY, NY--Continued

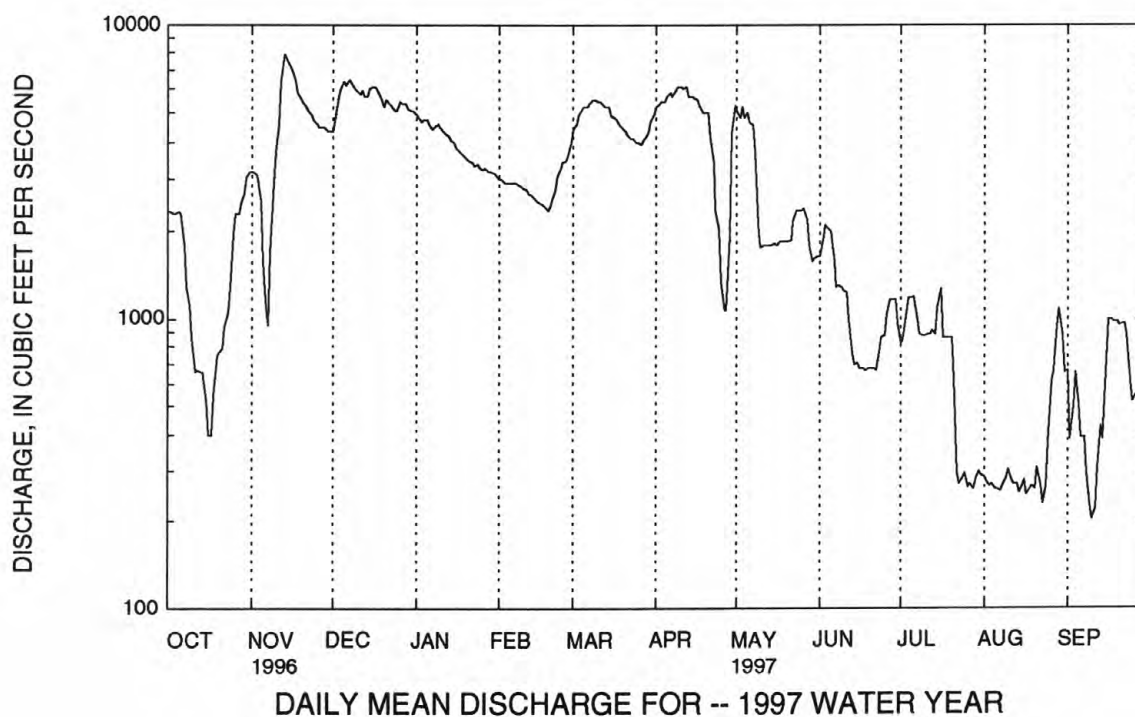
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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 1997, BY WATER YEAR (WY)

MEAN	1573	2668	3766	2950	2675	3623	5192	3022	1548	1103	778	1087
MAX	5591	5635	5686	5206	4443	6325	9264	7427	5710	5151	2066	3524
(WY)	1978	1982	1978	1950	1951	1979	1993	1972	1972	1972	1986	1977
MIN	113	260	2093	1397	1048	1122	905	815	366	281	133	129
(WY)	1965	1965	1961	1963	1963	1983	1995	1987	1988	1979	1965	1964

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1948 - 1997	
ANNUAL TOTAL	1144087		1011203			
ANNUAL MEAN	3126		2770		2496	
HIGHEST ANNUAL MEAN					3777	
LOWEST ANNUAL MEAN					1562	
HIGHEST DAILY MEAN (1903-1912)					13800	
HIGHEST DAILY MEAN (1948-1997)	7850	Nov 13	7850	Nov 13	11300	a Apr 24 1993
LOWEST DAILY MEAN (1903-1912)					52	
LOWEST DAILY MEAN (1948-1997)	241	Aug 22	205	Sep 10	62	Jul 29 1950
ANNUAL SEVEN-DAY MINIMUM	296	Aug 16	263	Aug 14	72	Jul 28 1950
10 PERCENT EXCEEDS	6160		5560		5280	
50 PERCENT EXCEEDS	3160		2370		2090	
90 PERCENT EXCEEDS	533		304		306	

a Mar. 25, 26, 27, 1903.



STREAMS TRIBUTARY TO LAKE ONTARIO

04249000 OSWEGO RIVER AT LOCK 7, OSWEGO, NY

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 mi².

PERIOD OF RECORD.--October 1900 to April 1906, October 1933 to current year. Monthly discharge only for some periods, published in WSP 1307. Prior to January 1904, published as "above Minetto" or "near Minetto." January 1904 to April 1906, published as "at Battle Island." Records for April 1897 to September 1900, published in WSP 65 and for October 1927 to September 1928, published in WSP 644, have been found to be unreliable and should not be used.

REVISED RECORDS.--WDR NY 78-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 245.12 ft above sea level. Prior to 1933, nonrecording gage at site about 6 mi upstream at different datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Prior to 1933 and subsequent to 1972, flow in Oswego (Barge) Canal not included. A large amount of natural storage and some artificial regulation is afforded by the many large lakes and the Erie (Barge) and Oswego (Barge) Canal systems in the river basin. Large diurnal fluctuations at low and medium flow caused by powerplants upstream from station. Oswego River basin receives water from Erie (Barge) Canal through Lock 32 near Pittsford. Water may be diverted into or received from Mohawk River basin through Erie (Barge) Canal between New London and Utica. During part of year, entire flow from 45.5 mi² of Mud Creek drainage area may be diverted from Chemung River basin into Keuka Lake in Oswego River basin. Nearly all of the flow from 14 mi² of the Tioughnioga River basin may be diverted into De Ruyter Reservoir, in Oswego River basin. Telephone gage-height telemeter at station. Pesticide sample collected as part of state-wide sampling network in cooperation with the New York State Department of Environmental Conservation. Analyses published on page 277.

COOPERATION.--Records of lockages at Lock 7 furnished by New York State Thruway Authority, record of elevations of Lake Ontario by U.S. Army Corps of Engineers, daily discharge records for Oswego River High Dam upstream by Niagara Mohawk Power Corp.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5220	9500	14600	14500	6050	13800	12900	8000	e4580	e2390	e1070	e890
2	4660	9540	17500	14200	5130	14100	13200	7930	e5660	e2460	e1000	e1340
3	4770	9480	19000	14000	4920	14400	13200	8270	e6640	e3090	e960	e1020
4	5140	9170	19600	14500	5120	14300	13300	7910	e8430	e3530	e950	e1700
5	4730	8160	19700	14800	5580	13800	13600	8090	e7750	e3190	e1040	e1660
6	4420	7720	19900	14800	6750	14600	13200	8350	e5980	e2660	e920	e840
7	4470	7650	19800	14700	7650	15000	12600	e7490	e6430	e2520	e990	e730
8	2730	11700	19300	14100	7290	15200	11400	e6690	e6300	e2450	e960	e900
9	3280	19600	18700	13600	6870	14800	11000	e4520	e6390	e2410	e890	1510
10	2520	20200	18000	13200	6200	14700	9930	e4110	e5920	e2400	e1000	1440
11	2690	20400	17400	13200	5630	14800	9710	e3340	e5820	e2300	e1040	942
12	2740	21000	16800	13100	5240	14700	9420	e4360	e5020	e1410	e970	874
13	2440	22300	17300	12300	5030	14200	9540	e4330	e3750	e2150	e1270	1680
14	2430	22200	19500	11300	5140	14100	8820	e3710	e3930	e2430	e1910	1410
15	2630	21500	19500	11500	4650	13800	8790	e4000	e3560	e2000	e680	1740
16	2320	20700	19200	10900	4290	13700	8450	e3790	e2850	e1720	e1840	2060
17	2530	19700	19000	9610	4340	13500	8880	e4330	e3070	e2380	e1200	2250
18	2300	18600	18400	10100	4450	13200	8140	e4380	e3070	e1690	e780	2090
19	2480	17800	17800	9990	4520	12900	7500	e4320	e2500	e1870	e790	1910
20	3840	17400	17100	9850	7520	11600	7580	e5980	e2500	e1560	e1050	1970
21	6270	16700	16700	10000	9280	10800	7460	e7290	e2460	e760	e900	1640
22	7190	16100	16100	9810	12400	10800	6610	e8140	e2580	e1810	e1780	1140
23	7720	15500	15600	10700	11900	10100	e4990	e8630	e2310	e1340	e1390	1870
24	8510	14900	16100	11000	10600	9140	e4640	e8210	e2580	e810	e970	1900
25	8690	14400	16200	10300	9170	8780	e2610	e8000	e1640	e1560	e940	1370
26	8910	14300	16300	10100	8550	10000	e2560	e8000	e2430	e1210	e1190	1720
27	8510	14500	16000	9210	10500	11000	e2080	e7710	e2890	e910	e1900	1910
28	8470	14400	15800	7820	13800	11600	e4140	e6320	e3490	e1010	e1250	2030
29	8760	14000	15600	8820	---	11700	7810	e4910	e3040	e940	e1930	2350
30	9100	14000	15200	7590	---	11700	9090	e4280	e3070	e1040	e1640	2570
31	9180	---	15000	6570	---	11500	---	e4210	---	e1210	e1380	---
TOTAL	159650	463120	542700	356170	198570	398320	263150	189600	126640	59210	36580	47456
MEAN	5150	15440	17510	11490	7092	12850	8772	6116	4221	1910	1180	1582
MAX	9180	22300	19900	14800	13800	15200	13600	8630	8430	3530	1930	2570
MIN	2300	7650	14600	6570	4290	8780	2080	3340	1640	760	680	730

e Estimated

STREAMS TRIBUTARY TO LAKE ONTARIO
04249000 OSWEGO RIVER AT LOCK 7, OSWEGO, NY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 1997, BY WATER YEAR (WY)

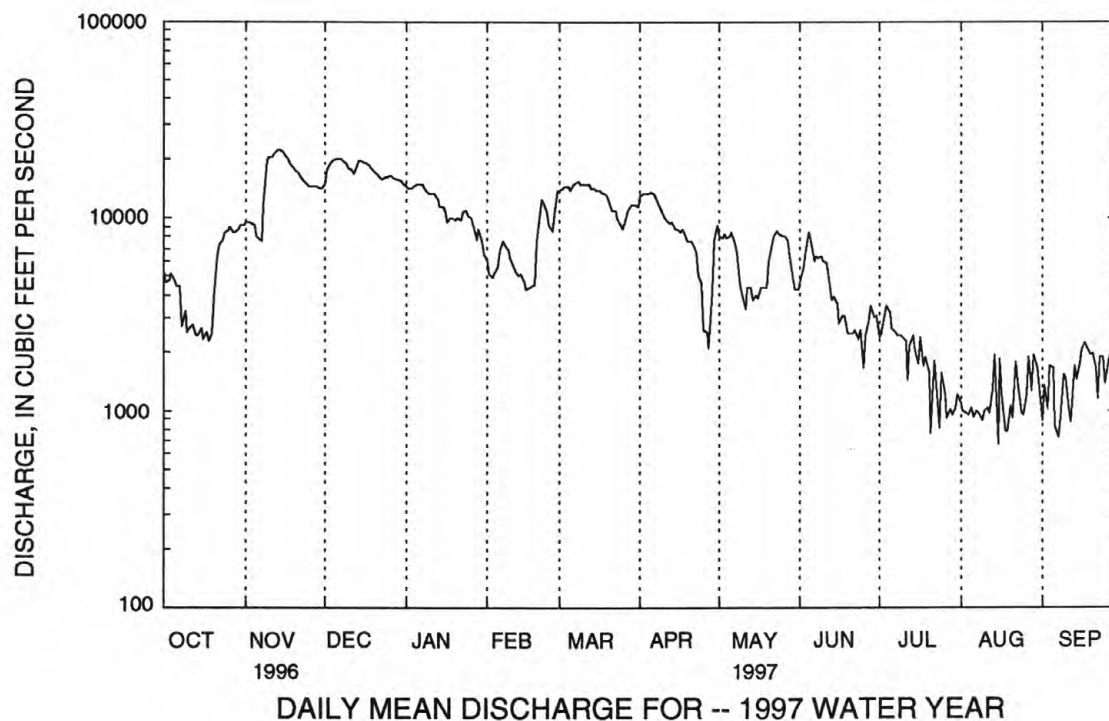
MEAN	3884	6190	8502	7887	7771	11580	13200	8280	5027	3428	2515	2694
MAX	17950	16070	17920	16370	15130	21720	30250	20350	17000	19660	8951	8702
(WY)	1978	1978	1978	1943	1976	1979	1993	1943	1947	1972	1992	1977
MIN	1173	1167	2917	2610	2547	3914	2757	1993	1383	1113	836	760
(WY)	1940	1965	1940	1963	1963	1983	1995	1995	1995	1995	1934	1995

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1934 - 1997	
ANNUAL TOTAL	3508429		2841166			
ANNUAL MEAN	9586		7784		6733	
HIGHEST ANNUAL MEAN					11030	
LOWEST ANNUAL MEAN					3433	
HIGHEST DAILY MEAN	22300	Nov 13	22300	Nov 13	37000	Mar 28 1936
LOWEST DAILY MEAN	799	Sep 4	e680	Aug 15	261	Sep 18 1985
ANNUAL SEVEN-DAY MINIMUM	1310	Aug 31	959	Aug 3	697	Sep 4 1995
INSTANTANEOUS PEAK FLOW			22800	Nov 14	a37500	Mar 28 1936
INSTANTANEOUS PEAK STAGE			10.06	Nov 14	13.46	Apr 10 1940
INSTANTANEOUS LOW FLOW			258	Oct 16	b30	Nov 6 1944
10 PERCENT EXCEEDS	18700		16100		14300	
50 PERCENT EXCEEDS	8350		6870		5100	
90 PERCENT EXCEEDS	2470		1210		1610	

a Includes daily mean discharge of canals.

b River only.

e Estimated.



STREAMS TRIBUTARY TO LAKE ONTARIO
LAKES AND RESERVOIRS IN STREAMS TRIBUTARY TO LAKE ONTARIO

04224000	MOUNT MORRIS LAKE NEAR MOUNT MORRIS, NY (see station for daily mean elevation, skeleton capacity table, monthly contents, and change in contents).
04227980	CONESUS LAKE NEAR LAKEVILLE, NY (see station for daily mean elevation).
04232400	SENECA LAKE AT WATKINS GLEN, 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).
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).

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at crest-stage partial-record stations are presented in the following table. Discharge measurements made at low-flow partial-record sites and at miscellaneous sites and for special studies are given in separate tables.

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device that will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain, but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained, but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1997 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
SUSQUEHANNA RIVER BASIN								
Little Elk Creek near Westford, NY (01497805)	Lat 42°38'01", long 74°47'45", Otsego County, Hydrologic Unit 02050101, at culvert on Green- bush Road, 1.2 mi south of Westford, and 2.2 mi upstream from mouth. Drainage area is 3.73 mi ² .	1978-97	12- 2-96	17.09	128	1-19-96	19.92	278
Susquehanna River at Unadilla, NY (01500500)	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 is 982 mi ² .	1938-95‡ 1996-97	11-10-96	11.68	14,800	3-18-36 3-14-77	16.6 14.64	j31,300 23,500
Unadilla River at Rockdale, NY (01502500)	Lat 42°22'40", long 75°24'23", Chenango County, Hydrologic Unit 02050101, on right bank 400 ft downstream from Chenango- Otsego County highway bridge at Rockdale, and 0.7 mi downstream from Kent Brook. Drainage area is 520 mi ² .	1930-33‡, 1937-95‡ 1996-97	12- 3-96	10.84	11,100	12-31-42	12.98	17,400
Susquehanna River at Bainbridge, NY (01502632)	Lat 42°17'29", long 75°28'36", Chenango County, Hydrologic Unit 02050101, on right bank at the downstream side of bridge on State Highway 206 over the Susquehanna River, at Bainbridge. Drainage area is 1,610 mi ² .	1988-97	12- 3-96	16.92	27,300	3-31-93 1-20-96	20.17 21.04	36,600 a
Susquehanna River at Windsor, NY (01502731)	Lat 42°04'28", long 75°38'17", Broome County, Hydrologic Unit 02050101, on right bank at downstream side of bridge on County Highway 315 over the Susquehanna River, at Windsor. Drainage area is 1,820 mi ² .	1988-97	12- 2-96	16.18	27,400	1-20-96	a21.22	e40,000

‡ Operated as a continuous-record gaging station.

a Ice jam.

e Estimated.

j From U. S. Army Corps of Engineers..

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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

Station name and number	Location and drainage area	Period of record	Water year 1997 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
SUSQUEHANNA RIVER BASIN--Continued								
Chenango River at Eaton, NY (01503980)	Lat 42°51'02", long 75°36'21", Madison County, Hydrologic Unit 02050102, at bridge on Landon Road at Eaton, 0.1 mi upstream from Eaton Brook, and 0.1 mi downstream from State Highway 26. Drainage area is 24.3 mi ² .	1964-65, 1967-97	12- 2-96	7.37	870	3- 6-64	8.12	2,350
			2-17-90	7.12	R685	1-19-96	8.51	a
			10-24-90	6.93	R574			
			7-23-92	6.64	R441			
			3- 8-95	6.28	R324			
Chenango River at Sherburne, NY (01505000)	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 is 263 mi ² .	1938-95‡ 1996-97	12- 2-96	8.99	4,680	3-18-36	k10.60	e12,500
						3- 6-79	9.94	10,400
						1-19-96	10.47	a
Chenango River at Greene, NY (01507000)	Lat 42°19'28", long 75°46'18", Chenango County, Hydrologic Unit 02050102, on left bank 0.3 mi downstream from bridge on State Highway 206 at Greene, and 0.6 mi downstream from Birdsall Brook. Drainage area is 593 mi ² .	1937-70‡, 1971-97	12- 2-96	14.24	11,600	12-31-42	18.33	18,900
Tioughnioga River at Lisle, NY (01509520)	Lat 42°20'58", long 75°59'58", Broome County, Hydrologic Unit 02050102, on left bank 50 ft downstream from bridge on State Highway 79, at Lisle, and 2.3 mi upstream from Otselic River. Drainage area is 453 mi ² .	1988-97	12- 2-96	8.19	10,700	1-19-96	10.50	a
						1-20-96	--	e12,900
Merrill Creek tributary near Texas Valley, NY (01510610)	Lat 42°28'03", long 75°59'19", Cortland County, Hydrologic Unit 02050102, at bridge on town road, 0.3 mi upstream from mouth, and 1.4 mi southwest of Texas Valley. Drainage area is 5.32 mi ² .	1976-81, 1983-97	12- 2-96	2.40	488	1-19-96	a6.64	e1,150
Tioughnioga River at Itaska, NY (01511500)	Lat 42°17'53", long 75°54'33", Broome County, Hydrologic Unit 02050102, on right bank at Itaska, 3.8 mi downstream from Otselic River and village of Whitney Point, and 6.0 mi up- stream from mouth. Drainage area is 730 mi ² .	1930-67‡, 1968-97	12- 2-96	8.10	10,800	7- 8-35	i16.61	m61,100
						2-26-61	11.15	22,600
Susquehanna River at Vestal, NY (01513500)	Lat 42°05'27", long 76°03'23", Broome County, Hydrologic Unit 02050103, on left bank 400 ft downstream from highway bridge, at Vestal, and 800 ft upstream from Choconut Creek. Drainage area is 3,941 mi ² .	1936, 1937-67‡, 1968-72, 1974-97	12- 2-96	22.51	58,800	e3-18-36	e30.50	107,000

‡ Operated as a continuous-record gaging station.

a Ice jam.

e Estimated.

i From floodmark.

k From National Weather Service.

m Prior to current degree of regulation.

R Revised.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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

Station name and number	Location and drainage area	Period of record	Water year 1997 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
SUSQUEHANNA RIVER BASIN--Continued								
Owego Creek near Owego, NY (01514000)	Lat 42°07'45", long 76°16'15", Tioga County, Hydrologic Unit 02050103, on right bank of right channel 300 ft upstream from bridge on State Highway 96, 0.5 mi upstream from Catatonk Creek, and 1.5 mi north of Owego. Drainage area is 185 mi ² .	1930-78‡, 12- 1979-97	2-96	9.69	9,270	7- 8-35 1-19-96	i11.50 11.66	23,500 a
Catatonk Creek near Owego, NY (01514801)	Lat 42°08'18", long 76°17'23", Tioga County, Hydrologic Unit 02050103, on right bank 0.4 mi downstream from bridge on County Highway 23, 1.4 mi north of Owego, and 1.2 mi upstream from mouth. Drainage area is 151 mi ² .	1988-97	12- 2-96	10.89	4,630	1-20-96	14.83	9,740
Susquehanna River near Waverly, NY (01515000)	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., 1.0 mi downstream from New York- Pennsylvania State line, and 2.0 mi southeast of Waverly. Drainage area is 4,773 mi ² .	1937-95‡, 12- 1996-97	2-96	16.54	75,300	6-23-72	21.24	121,000
Tioga River near Lindley, NY (01520500)	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 is 771 mi ² .	1930-95‡, 11- 1996-97	8-96	13.26	13,600	6-23-72 10-23-90 8-18-94	i26.27 m 13.37 13.38	128,000 13,900 13,900
Big Creek near Howard, NY (01521596)	Lat 42°22'01", long 77°34'33", Steuben County, Hydrologic Unit 02050104, at culvert on town road, 0.1 mi south of State Highway 70, 1.3 mi north of Butch Corner, 3.4 mi west of Howard, and 6.2 mi upstream from mouth. Drainage area is 6.32 mi ² .	1977-97	11- 8-96	13.16	c	9-13-87 1-19-96	16.04 i16.23	580 c
Canisteo River at West Cameron, NY (01525500)	Lat 42°13'20", long 77°25'05", Steuben County, Hydrologic Unit 02050104, on right bank 250 ft downstream from bridge on County Highway 119, 0.3 mi southeast of West Cameron, and 1.7 mi north of Cameron. Drainage area is 340 mi ² .	1930-31‡, 11- 1937-70‡, 9-96 1971-72, 1974-97		12.88	8,070	6-23-72	23.48	43,000
Tuscarora Creek above South Addison, NY (01525981)	Lat 42°04'20", long 77°17'57", Steuben County, Hydrologic Unit 02050104, on right bank 500 ft downstream from bridge on State Highway 417, 200 ft upstream from Elk Creek, and 1.7 mi southwest of South Addison. Drainage area is 102 mi ² .	1989-97	11- 8-96	10.85	11,500	10-23-91 1-19-96	10.96 a13.49	11,800 e8,700

‡ Operated as a continuous-record gaging station.

a Ice jam.

c Discharge not determined.

e Estimated.

i From floodmark.

m Prior to current degree of regulation.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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

Station name and number	Location and drainage area	Period of record	Water year 1997 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
SUSQUEHANNA RIVER BASIN--Continued								
Cohocton River at Cohocton, NY (01527000)	Lat 42°30'00", long 77°30'02", Steuben County, Hydrologic Unit 02050105, on left bank 450 ft downstream from bridge on State Highway 415 at Cohocton, 800 ft downstream from small tributary, and 1.4 mi upstream from Reynolds Creek. Drainage area is 52.2 mi ² .	1951-81‡, 1982-97	11- 9-96	4.86	285	6-23-72	9.82	2,260
Cuthrie Run near Big Flats, NY (01530301)	Lat 42°10'43", long 75°55'32", Chemung County, Hydrologic Unit 02050105, at culvert on Breed Hollow Road, 0.9 mi north of intersection of Eachers Hollow Road and Breed Hollow Road, 2.3 mi north of State Highway 17, and 3.0 mi north of Big Flats. Drainage area is 5.39 mi ² .	1976, 1979-81, 1983-97	11- 8-96	17.19	616	6-19-76	18.52	800
Chemung River at Elmira, NY (01530332)	Lat 42°05'11", long 76°48'05", Chemung County, Hydrologic Unit 02050105, on right bank 350 ft upstream from bridge on Pennsylvania Avenue at the north end of George Place, 1.0 mi downstream from Hoffman Brook, at Elmira. Drainage area is 2,162 mi ² .	1988-97	11- 8-96	15.90	52,800	1-20-96	118.51	671,000
ALLEGHENY RIVER BASIN								
Ischua Creek tributary near Machias, NY (03010734)	Lat 42°24'28", long 78°31'33", Cattaraugus County, Hydrologic Unit 05010001, at culvert on Very Road, 0.2 mi upstream from mouth, 0.7 mi north of State Highway 242, and 1.5 mi west of Machias. Drainage area is 5.12 mi ² .	1978-81, 1983-97	2-27-97	8.93	118	9-14-79	10.59	570
Ball Creek at Stow, NY (03013800)	Lat 42°09'13", long 79°24'27", Chautauqua County, Hydrologic Unit 05010002, on left bank 75 ft upstream from bridge on State Highway 394 at Stow, and 0.4 mi upstream from mouth. Drainage area is 9.06 mi ² .	1955-64§, 1965, 1967-68b, 1974‡, 1975-97	5-19-97 7-17-92 12-31-92 8-14-94 1-20-95 1-19-96	15.77 15.02 14.13 16.86 14.75 15.80	1,220 916 619 1,760 818 1,240	9-14-79	21.88	2,000

‡ Operated as a continuous-record gaging station.

§ Operated as a low-flow partial-record station.

b Miscellaneous measurements made.

e Estimated.

i From floodmark.

R Revised.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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

Station name and number	Location and drainage area	Period of record	Water year 1997 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis-charge (ft ³ /s)	Date	Gage height (ft)	Dis-charge (ft ³ /s)
STREAMS TRIBUTARY TO LAKE ERIE								
Canadaway Creek at Fredonia, NY (04213376)	Lat 42°27'02", long 79°21'03", Chautauqua County, Hydrologic Unit 04120102, at bridge on Van Buren Road (Matteson Street), 0.8 mi northwest of Fredonia corporate boundary, and 1.2 mi upstream from Beaver Creek. Drainage area is 32.9 mi ² .	1962-63b, 1987-97	5-19-97	9.50	6,690	5-19-97	9.50	6,690
South Branch Cattaraugus Creek near Otto, NY (04213490)	Lat 42°21'54", long 78°48'04", Cattaraugus County, Hydrologic Unit 04120102, at highway bridge, 0.2 mi upstream from Mansfield Creek, 1.7 mi northeast of Otto, and 5.5 mi upstream from mouth. Drainage area is 25.1 mi ² .	1963-97	5-19-97	7.55	c	9-14-79	11.18	4,350
STREAMS TRIBUTARY TO NIAGARA RIVER								
Delaware Park Lake at Buffalo, NY (04216212)	Lat 42°56'03", long 78°52'28", Erie County, Hydrologic Unit 04120104, on north shore of Delaware Park Lake at downstream side of bridge on Scajaquada Expressway (SH 198), and 1.7 mi upstream from mouth of Scajaquada Creek. Drainage area is 1.14 mi ² .	1985-97	10-19-96	7.03	d	6-22-87	12.48	d
Scajaquada Creek below Delaware Park Lake at Buffalo, NY (04216214)	Lat 42°56'15", long 78°53'07", Erie County, Hydrologic Unit 04120104, on left bank, 400 ft east of Grant Street (North) exit from Scajaquada Expressway (SH 198), at Buffalo. Drainage area is 25.7 mi ² .	1985-97	10-19-96	6.85	d	6-22-87	11.20	d
Little Tonawanda Creek at Linden, NY (04216500)	Lat 42°52'37", long 78°09'48", Genesee County, Hydrologic Unit 041201041, on right bank at upstream side of bridge on, County Highway 13A (Depot Road) in Linden and 9.3 mi upstream from mouth. Drainage area is 22.1 mi ² .	1913-68‡, 1970-72‡, 1977-92‡, 1993-97	2-27-97	7.02	848	6-23-89	116.99	2,900
STREAMS TRIBUTARY TO LAKE ONTARIO								
Johnson Creek near Lyndonville, NY (04219900)	Lat 43°20'21", long 78°20'55", Orleans County, Hydrologic Unit 04130001, at bridge on Woodworth Road, 3.3 mi downstream from dam at Lyndonville, and 4.4 mi upstream from mouth. Drainage area is 87.7 mi ² .	1962-70, 1972-73, 1976-97	1-25-97 2-27-97	5.64 --	a 965	2-17-54 3-12-62	g 10.29	5,430 3,540
West Creek near Hilton, NY (04220250)	Lat 43°18'10", long 77°48'50", Monroe County, Hydrologic Unit 04130001, on right bank just downstream from bridge on Collamer Road, 0.5 mi north of Collamer, and 1.5 mi northwest of Hilton. Drainage area is 31.0 mi ² .	1958-64‡, 1971-72, 1986-97	10-20-96	8.94	1,070	3-30-60	10.67	1,480

‡ Operated as a continuous-record gaging station.

a Ice jam.

b Miscellaneous measurements made.

c Discharge not determined.

d No stage-discharge relationship defined at this site.

g None available.

i From floodmark.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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

Station name and number	Location and drainage area	Period of record	Water year 1997 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
STREAMS TRIBUTARY TO LAKE ONTARIO--Continued								
Slater Creek near Greece, NY (0422028490)	Lat 43°15'10", long 77°38'54", Monroe County, Hydrologic Unit, 04130001, on left bank about 25 ft upstream from bridge on Latta Road near Mt. Read Blvd., 4.3 mi east of North Greece, and 1.7 mi above mouth. Drainage area is 1.52 mi ² .	1989-97	10-20-96	4.80	219	10-20-96	4.80	219
Stony Brook tributary at South Dansville, NY (04224807)	Lat 42°28'16", long 77°40'21" Steuben County, Hydrologic Unit 04130002, at culvert on Willey Road, 0.6 mi upstream from mouth, and 0.9 mi west of South Dansville. Drainage area is 3.15 mi ² .	1977-82, 1984-91, 1996-97	2-27-97	<8.54	<48	8- 3-81	15.89	790
Bear Creek at Ontario, NY (042320578)	Lat 43°13'30", long 77°17'00", Wayne County, Hydrologic Unit 04140101, at culvert on New Street in Ontario, 100 ft west of Furnaceville Road, and 4.0 mi upstream from mouth. Drainage area is 6.74 mi ² .	1971-73, 1975-97	10-20-96	12.26	90	4- 2-93 12-29-84	12.97 13.33	194 a
Catharine Creek at Montour Falls, NY (04232200)	Lat 42°19'42", long 76°50'39", Schuyler County, Hydrologic Unit 04140201, on left bank 12 ft downstream from bridge on Town Road, 0.4 mi south of village line of Montour Falls, and 0.6 mi upstream from diversion channel. Drainage area is 41.1 mi ² .	1957-62§, 1964-66§, 1970§, 1976-77‡, 1987-97	11- 8-96 4-17-93 1-21-95 1-19-96	8.48 5.73 5.40 7.66	e4,700 R780 R585 Re3,000	11- 8-96	8.48	e4,700
Sugar Creek at Guyanoga, NY (04232460)	Lat 42°37'23", long 77°09'30", Yates County, Hydrologic Unit 04140201, at bridge on Sid White Road, 0.4 mi east of Guyanoga, and 2.3 mi upstream from mouth. Drainage area is 28.9 mi ² .	1966-97	11- 8-96 3-16-71 12- 6-72 4- 4-74 2-24-75 2-17-76 9-25-77 4- 2-78 3- 5-79 3-21-80 2-20-81 6-17-82 4-16-83 8-16-84 6-17-85 1-20-86 4- 5-87 3-26-88 5-11-89 2-17-90 4-21-91 7-31-92 3-30-93 3-23-94 1-21-95 1-19-96	4.65 3.70 2.30 2.38 3.28 4.11 4.09 R3.82 4.20 4.14 3.09 4.59 3.41 4.36 3.92 4.74 4.63 2.91 4.04 4.32 4.04 4.97 R4.80 4.75 3.55 a5.88	949 R540 R87.3 R94.9 R218 R519 R506 R362 R577 R537 R183 R890 R244 R692 R411 R1,040 R929 R338 R678 R807 R678 R1,270 R1,120 R1,050 R269 Re1,800	1-19-96	a5.88	e1,800

‡ Operated as a continuous-record gaging station.

§ Operated as a low-flow partial-record station.

a Ice jam.

e Estimated.

< Less than.

R Revised.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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

Station name and number	Location and drainage area	Period of record	Water year 1997 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
STREAMS TRIBUTARY TO LAKE ONTARIO--Continued								
Cayuga Inlet at Ithaca, NY (04233255)	Lat 42°25'38", long 76°31'19", Tompkins County, Hydrologic Unit 04140201, on upstream abutment face of flood-control weir, at east end of Burtt Place, south of Ithaca city line, 0.3 mi east of State Highway 13a, 0.9 mi downstream from Buttermilk Creek, and 2.4 mi upstream from mouth. Drainage area is 86.7 mi ² .	1971-72, 1975-97	11- 8-96	13.81	10,600	1-19-96	14.67	12,500
Coy Glen Creek at Ithaca, NY (04233258)	Lat 42°25'45", long 76°31'18", Tompkins County, Hydrologic Unit 04140201, on right bank at double drop structure 200 ft upstream from mouth at Ithaca. Drainage area is 3.56 mi ² .	1983-97	11- 8-96	21.25	609	1-19-96	22.23	820
Schaeffer Creek near Canandaigua, NY (04234138)	Lat 42°54'25", long 77°22'14", Ontario County, Hydrologic Unit 04140201, at culvert on McCann Road, 0.8 mi upstream from Mud Creek, 1.7 mi north of U.S. Highway 20, and 3.2 mi west of Canandaigua. Drainage area is 7.84 mi ² .	1980-97	11- 8-96	11.49	226	3- 5-79 3-30-93	g 12.84	520 332
Mud Creek at East Victor, NY (04234200)	Lat 42°58'28", long 77°22'58", Ontario County, Hydrologic Unit 04140201, on left bank, 25 ft down- stream from bridge on State Highway 96 at East Victor, 0.3 mi upstream from Fish Creek, and 0.5 mi upstream from mouth. Drainage area is 64.2 mi ² .	1958-68‡, 1972, 1976-97	11- 8-96	6.12	1,300	6-22-72 4-21-91	7.85 7.22	1,800 1,880
Canandaigua Outlet tributary near Alloway, NY (04235255)	Lat 43°00'21", long 77°00'54", Ontario County, Hydrologic Unit 04140201, at bridge on Pre- Emption Road, 0.5 mi south of Wayne-Ontario County line, 1.8 mi southwest of Alloway, and 2.9 mi upstream from mouth. Drainage area is 2.94 mi ² .	1978-97	11- 8-96	6.46	66	1-19-96	7.34	102
Scriba Creek near Constantia, NY (04245840)	Lat 43°15'35" long 76°00'11", Oswego County, Hydrologic Unit 04140202, on right bank, 8 ft upstream from bridge on Cemetery Road, and about 0.8 mi north of village of Constantia. Drainage area is 38.4 mi ² .	1966-68‡, 1969, 1971-97	11- 9-96	6.50	980	9-26-75 6-22-72	7.33 7.42	1,310 1,200
Catfish Creek at New Haven, NY (04249050)	Lat 43°29'00", long 76°19'34", Oswego County, Hydrologic Unit 04140102, at bridge on State Highway 104B, at New Haven, and 1.4 mi upstream from mouth. Drainage area is 31.7 mi ² .	1962-66, 1968-97	11- 9-96 1-20-97	5.08 5.08	422 a	3-18-73	7.85	1,350

‡ Operated as a continuous-record gaging station.

a Ice jam.

g None available.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during water year 1997

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
SUSQUEHANNA RIVER BASIN						
01509220	Chenango River Tioughnioga River	Lat 42°27'03", long 76°02'26", Cortland County, Hydrologic Unit 02050102, just off Route 11, at the northern boundary of the Marathon village limits, and 0.8 mi north of Marathon.	382	---	6-12-97	263
01509240	Tioughnioga River Tioughnioga River Tributary No. 1	Lat 42°26'36", long 76°02'28", Cortland County, Hydrologic Unit 02050102, at the intersection of Tannery and Mill Street, 0.4 mi northwest of Marathon, and 0.2 mi upstream from mouth.	1.64	---	6-11-97	0.86
01509248	Tioughnioga River Tioughnioga River Tributary No. 1	Lat 42°26'39", long 76°02'16", Cortland County, Hydrologic Unit 02050102, at left bend on Mill Street, 0.3 mi north of Marathon, and about 250 ft upstream from mouth.	1.67	---	6-11-97	0.89
01509250	Chenango River Tioughnioga River	Lat 42°26'29", long 76°02'10", Cortland County, Hydrologic Unit 02050102, behind Marathon elementary school, just above confluence with Hunt's Creek, at Marathon.	384	---	6-12-97	257
01509301	Tioughnioga River Hunts Creek	Lat 42°26'34", long 76°01'54", Cortland County, Hydrologic Unit 02050102, 200 ft west of Route 81 ramp, 0.2 mi northeast of Marathon, and 0.3 mi upstream from mouth.	11.8	---	6-11-97	3.86
0150930105	Tioughnioga River Hunts Creek	Lat 42°26'28", long 76°02'08", Cortland County, Hydrologic Unit 02050102, behind Marathon elementary school, in Marathon, and 0.2 mi upstream from mouth.	11.8	---	6-11-97	3.71
01509310	Chenango River Tioughnioga River	Lat 42°25'54", long 76°01'54", Cortland County, Hydrologic Unit 02050102, on unnamed dirt road, 0.3 mi west of Route 11, 0.6 mi south of Marathon, and about 100 ft upstream from sewage treatment plant.	397	---	6-12-97	265
01509314	Tioughnioga River Tioughnioga River Tributary No. 2	Lat 42°26'03", long 76°01'39", Cortland County, Hydrologic Unit 02050102, 50 ft above Route 11, 0.6 mi southeast of Marathon, and 0.3 mi upstream from mouth.	0.66	---	6-11-97	0.27
01509315	Tioughnioga River Tioughnioga River Tributary No. 2	Lat 42°25'55", long 76°01'51", Cortland County, Hydrologic Unit 02050102, on unnamed dirt road 0.2 mi west of Route 11, 0.6 mi south of Marathon, and about 280 ft upstream from mouth.	0.77	---	6-11-97	0.20

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during water year 1997--Continued

Discharge measurements made at intermittent sites during water year 1997. Continued						
Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
ALLEGHENY RIVER BASIN						
03010820	Ohio River	Lat 42°04'19", long 78°27'10", Cattaraugus County, Hydrologic Unit 05010001, on right bank at sewage treatment plant , 1.3 mi upstream of Two Mile Creek and 1.7 mi downstream of Olean Creek.	1,192	1967-69, 1971, 1975, 1983	6- 5-97 7-21-97 8-14-97	3,190 541 390
STREAMS TRIBUTARY TO LAKE ONTARIO						
0423205023	Lake Ontario	Lat 43°09'58", long 77°31'56", Monroe County, Hydrologic Unit 04140101, at landfill Narrows, 400 ft east of City of Rochester corporate boundary, 0.7 mi north of bridge on Browncroft Blvd, and 1.1 mi upstream from mouth.	1/144	1980, 1981-82‡, 1983-84	9-25-97	43.5
04237936	Onondaga Lake	Lat 42°51'18", long 76°08'15", Onondaga County, Hydrologic Unit 04140201, 1600 ft upstream of the collapsed Otisco Road bridge, 860 ft east of the main depression area, 1100 ft west of State Route 11A, and 0.3 mi southwest of Tully Valley.	14.2	1992-96	10- 7-96	7.40
0423794605	Onondaga Creek	Lat 42°51'22", long 76°08'20", Onondaga County, Hydrologic Unit 04140201, at mouth of Onondaga Creek Tributary No. 6, 860 ft east of main depression area, 1100 ft west of State Route 11A, and 1500 ft upstream of the collapsed Otisco Road bridge.	0.33	1992-95	10- 7-96	0.369
0423794905	Onondaga Creek	Lat 42°51'27", long 76°08'19", Onondaga County, Hydrologic Unit 04140201, 375 ft upstream of the collapsed Otisco Road bridge, 1150 west of State Route 11A, 325 ft west-southwest of the Bailey Cemetery, at Tully Valley.	1.04	1992-95	10- 7-96	0.089
04237950	Onondaga Lake	Lat 42°51'31", long 76°08'19", Onondaga County, Hydrologic Unit 04140201, 25 ft north (downstream) of the collapsed Otisco Road bridge, 1100 ft west of State Route 11A, and 450 ft west-northwest of the Bailey Cemetery, at Tully Valley.	16.4	1992-95	10- 7-96	7.66
04237944	Onondaga Creek	Lat 42°51'13", long 76°08'34", Onondaga County, Hydrologic Unit 04140201, about 450 ft upstream of the main mudboil Depression area, 1,325 ft east of Tully Frams road, 2,000 ft south of Otisco road, and 4.2 mi northwest of Tully.	0.26	1992-94‡	10- 7-96 12-12-96 1-22-97 2- 4-97 2-26-97 4-29-97 6-11-97 7-31-97 8-28-97	0.077 0.623 0.541 0.414 0.853 0.773 0.518 0.260 0.122

‡ Operated as a continuous-record gaging station.

1/ Flow from 8.45 mi² contributing to Erie (Barge) Canal.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

STREAMS TRIBUTARY TO LAKE ONTARIO

430449077294201 CARTERSVILLE WASTE CHANNEL AT PITTSFORD, NY

LOCATION.--Lat 43°04'49", long 77°29'42", Hydrologic Unit 04140101, at Marsh road, 0.1 mi south of New York State Highway 31 and 0.25 mi north of Erie canal.

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

CHEMICAL DATA: 1988-91 (d), 1992 (c) 1993 (b), 1994 (d), 1995 (b), 1996-97 (a).

NUTRIENT DATA: 1988-91 (d), 1992 (c) 1993 (b), 1994 (d), 1995 (b), 1996-97 (a).

COOPERATION.--Water-quality samples were collected and analyzed by the Monroe County Environmental Health Laboratory at Rochester, N.Y.

REMARKS.--Prior to 1994 water year, data published in "Water Resources of Monroe County New York, Water Years 1989-93", U. S. Geological Survey open-file report 97-587.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	RESIDUE VOLA- TILE, SUS- PENDED (MG/L) (00535)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L) AS N) (00608)
MAY 1997							
07...	1000	3.0	7.0	11.4	11	<2	0.020

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L) AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L) AS N) (00630)	PHOS- PHORUS TOTAL (MG/L) AS P) (00665)	PHOS- ORTHOPHOS- PHORUS DIS- SOLVED (MG/L) AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L) AS CL) (00940)	SULFATE DIS- SOLVED (MG/L) AS SO4) (00945)
MAY 1997						
07...	0.32	0.70	0.043	0.008	48	79

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

STREAMS TRIBUTARY TO LAKE ONTARIO

430557077344401 ALLEN CREEK ABOVE ERIE CANAL SIPHON NEAR ROCHESTER, NY

LOCATION.--Lat 43°05'57", long 77°34'44", Hydrologic Unit 04140101, at north bank of Erie Canal, 0.01 mi east of Winton Road.

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

CHEMICAL DATA: 1986-87 (a), 1988 (d), 1989 (c), 1990 (d), 1991-92 (c), 1993 (b), 1994 (d), 1995 (a), 1996-97 (a).

NUTRIENT DATA: 1986-87 (a), 1988 (d), 1989 (c), 1990 (d), 1991-92 (c), 1993 (b), 1994 (d), 1995 (a), 1996-97 (a).

COOPERATION.--Water-quality samples were collected and analyzed by the Monroe County Environmental Health Laboratory at Rochester, N.Y.

REMARKS.--Prior to 1994 water year, data published in "Water Resources of Monroe County New York, Water Years 1989-93", U. S. Geological Survey open-file report 97-587.

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	RESIDUE VOLA- TILE, SUS- PENDE (MG/L) (00535)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
MAY 1997 07...	1115	1.6	3.6	13.2	3	<2	0.010

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
MAY 1997 07...	0.54	0.79	0.025	0.003	360	62

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

STREAMS TRIBUTARY TO LAKE ONTARIO

430557077344402 ALLEN CREEK BELOW ERIE CANAL SIPHON NEAR ROCHESTER, NY

LOCATION.--Lat 43°05'57", long 77°34'44", Hydrologic Unit 04140101, at north bank of Erie Canal, 0.01 mi east of Winton Road.

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

CHEMICAL DATA: 1985 (a), 1986 (b), 1987 (a), 1988 (d), 1989 (c), 1990 (d), 1991-93 (c), 1994 (d), 1995 (c), 1996-97 (a).

NUTRIENT DATA: 1985 (a), 1986 (b), 1987 (a), 1988 (d), 1989 (c), 1990 (d), 1991-93 (c), 1994 (d), 1995 (c), 1996-97 (a).

COOPERATION.--Water-quality samples were collected and analyzed by the Monroe County Environmental Health Laboratory at Rochester, N.Y.

REMARKS.--Prior to 1994 water year, data published in "Water Resources of Monroe County New York, Water Years 1984-88 with Emphasis on Water Quality in the Irondequoit Creek basin", U. S. Geological Survey open-file report 96-4054 and in "Water Resources of Monroe County New York, Water Years 1989-93", U. S. Geological Survey open-file report 97-587.

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	RESIDUE VOLATILE, TILE, SUS- PENDED (MG/L) (00535)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
MAY 1997 07...	1105	2.7	4.3	13.5	6	<2	0.020

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
MAY 1997 07...	0.42	0.20	0.025	0.003	250	64

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

STREAMS TRIBUTARY TO LAKE ONTARIO

430557077344403 ALLEN CREEK AT ERIE CANAL SIPHON NEAR ROCHESTER, NY

LOCATION.--Lat 43°05'57", long 77°34'44", Hydrologic Unit 04140101, at north bank of Erie Canal, 0.01 mi east of Winton Road.

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

CHEMICAL DATA: 1989 (a), 1987 (b), 1988 (d), 1989 (c), 1990 (d), 1991-93 (c), 1994 (d), 1995 (c), 1996 (b), 1997 (a).

NUTRIENT DATA: 1989 (a), 1987 (b), 1988 (d), 1989 (c), 1990 (d), 1991-93 (c), 1994 (d), 1995 (c), 1996 (b), 1997 (a).

COOPERATION.--Water-quality samples were collected and analyzed by the Monroe County Environmental Health Laboratory at Rochester, N.Y.

REMARKS.--Prior to 1994 water year, data published in "Water Resources of Monroe County New York, Water Years 1984-88 with Emphasis on Water Quality in the Irondequoit Creek basin", U. S. Geological Survey open-file report 96-4054 and in "Water Resources of Monroe County New York, Water Years 1989-93", U. S. Geological Survey open-file report 97-587.

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	RESIDUE VOLA- TILE, SUS- PENDED (MG/L) (00535)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L) AS N) (00608)
MAY 1997 07...	1120	1.1	7.8	10.4	8	<2	0.050

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L) AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L) AS N) (00630)	PHOS- PHORUS TOTAL (MG/L) AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L) AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L) AS CL) (00940)	SULFATE DIS- SOLVED (MG/L) AS SO4) (00945)
MAY 1997 07...	0.46	0.69	0.040	0.007	64	75

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD AND MISCELLANEOUS SITES

STREAMS TRIBUTARY TO LAKE ONTARIO

430605077262201 FAIRPORT WASTE CHANNEL AT FAIRPORT, NY

LOCATION.--Lat 43°06'05", long 77°26'22", Hydrologic Unit 04140101, at State Street, 0.15 mi east of New York State Highway 250, and 0.05 mi north of Erie canal.

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

CHEMICAL DATA: 1988-89 (d), 1990 (c), 1991 (a), 1992-95 (c), 1996-97 (a).

NUTRIENT DATA: 1988-89 (d), 1990 (c), 1991 (a), 1992-95 (c), 1996-97 (a).

COOPERATION.--Water-quality samples were collected and analyzed by the Monroe County Environmental Health Laboratory at Rochester, N.Y..

REMARKS.--Prior to 1994 water year, data published in "Water Resources of Monroe County New York, Water Years 1989-93", U. S. Geological Survey open-file report 97-587.

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	RESIDUE VOLATILE, SUS- PENDED (MG/L) (00535)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
MAY 1997 07...	0920	0.15	4.4	9.1	5	<2	0.040

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHOPHOS- PHATE TOTAL (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
MAY 1997 07...	0.40	0.930	0.035	0.014	57	78

STREAMS TRIBUTARY TO LAKE ONTARIO

431510077363501 GENESEE RIVER AT CHARLOTTE PUMP STATION, NEAR ROCHESTER, NY

LOCATION.--Lat 43°15'10", long 77°36'35", Monroe County, Hydrologic Unit 04130003, at Charlotte, in Rochester, on west bank of the Genesee River, 1300 ft downstream of Stutson Street Bridge, 0.5 mi upstream of mouth, and 5.0 mi downstream from gaging station (04232000) at Rochester.

DRAINAGE AREA.--2,467 mi² at station 04232000.

PERIOD OF RECORD.--Water years 1990 to current year.

CHEMICAL DATA: 1990-97 (e).

NUTRIENT DATA: 1990-97 (e).

COOPERATION.--Water-quality samples were collected and analyzed by the Monroe County Environmental Health Laboratory at Rochester, NY.

REMARKS.--Prior to 1994 water year, data published in "Water Resources of Monroe County New York, Water Years 1989-93", U. S. Geological Survey open-file report 97-587.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	TUR- BID- ITY (NTU) (00076)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	RESIDUE VOLATILE TILE, SUS- PENDE (MG/L) (00535)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
OCT							
01-03	2225	0925	1750	16	--	--	0.03
03-05	1020	0920	1080	18	--	--	0.11
05-07	1020	0920	793	8.0	--	--	0.21
07-09	0955	0855	809	7.2	--	--	0.17
09-11	0955	0855	887	7.6	--	--	0.14
11-13	1010	0910	1080	4.0	--	--	0.18
13-15	1010	0910	995	5.8	--	--	0.20
15-17	1025	0625	1000	4.6	--	--	0.19
17-18	0945	2045	843	7.2	--	--	0.15
18-20	2145	0745	1890	22	--	--	0.15
21-21	1010	2010	9730	270	397	33	0.02
24...	0830	--	7300	80	104	9	0.05
24-25	1050	1750	7670	140	224	16	0.05
25-27	1850	0150	7830	170	226	16	0.04
27-28	0250	0950	6970	100	169	12	0.04
28-30	0955	0055	6300	75	--	--	0.04
OCT 31-							
NOV 01	1005	1705	4840	35	60	<5	0.04
01-03	1805	0105	3370	26	--	--	0.05
03-04	0205	0905	2490	26	--	--	0.06
04-06	0950	0850	1990	15	--	--	0.13
06-08	0950	0850	1960	14	--	--	0.13
08-10	0945	0845	6570	70	132	9	0.07
10-12	0945	0845	7930	180	199	13	0.04
12-13	1020	0920	7180	190	293	20	0.04
13-14	1020	0920	6890	250	301	32	0.04
14-15	0950	1650	7100	280	326	21	0.05
15-17	1750	0050	7330	250	278	17	0.03
17-18	0150	0850	6890	170	--	--	0.04
18-20	0945	0045	6480	85	113	8	0.05
20-21	0145	0945	5870	50	73	6	0.06
21-23	1000	0900	5060	37	49	6	0.07
23-25	1000	0900	2850	33	--	--	0.08
25-27	1000	0900	2400	40	89	<5	0.13
27-28	0955	1955	4200	35	68	<5	0.10
28-30	2055	0655	4210	160	217	10	0.07
NOV 30-							
DEC 01	0755	1755	4580	50	83	5	0.06
02-03	0955	2055	9290	95	196	16	0.06
03-05	2155	0855	7310	90	170	12	0.06
05-07	0945	0845	7380	100	136	9	0.06
07-09	0945	0845	6700	50	80	5	0.05
09-10	0950	1450	4840	31	50	<5	0.07
10-11	1550	1750	3770	25	--	--	0.09
12-14	0955	0855	3430	16	--	--	0.10
14-16	0955	0855	5450	42	64	<5	0.08
16-17	0950	2050	4820	70	--	--	0.06
17-19	2150	0850	4400	32	--	--	0.08
19-21	0940	0840	3550	17	--	--	0.12
21-23	0940	0840	2290	14	--	--	0.12

STREAMS TRIBUTARY TO LAKE ONTARIO

431510077363501 GENESEE RIVER AT CHARLOTTE PUMP STATION, NEAR ROCHESTER, NY--continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
OCT						
01-03	0.31	0.64	0.055	0.026	31	59
03-05	0.55	0.67	0.075	0.028	52	68
05-07	0.76	0.71	0.060	0.035	85	72
07-09	0.45	0.72	0.060	0.032	88	76
09-11	0.31	0.80	0.065	0.029	87	130
11-13	0.60	0.92	0.065	0.033	56	94
13-15	0.55	0.95	0.060	0.036	67	110
15-17	0.70	0.87	0.060	0.038	66	110
17-18	0.50	0.70	0.060	0.032	56	100
18-20	0.54	0.79	0.110	0.038	51	87
21-21	1.7	1.3	0.450	0.030	32	46
24...	0.84	1.2	0.160	0.033	57	54
24-25	0.88	0.88	0.260	0.024	35	47
25-27	0.85	0.76	0.250	0.019	27	40
27-28	0.49	0.70	0.190	0.019	26	38
28-30	0.45	0.70	0.140	0.018	25	40
OCT 31-						
NOV 01						
01-03	0.66	0.86	0.085	0.019	29	48
03-04	0.56	0.90	0.055	0.020	31	52
04-06	0.55	0.83	0.055	0.025	34	57
06-08	0.62	0.87	0.055	0.020	41	66
08-10	0.58	0.91	0.050	0.017	47	70
10-12	0.52	0.81	0.170	0.029	38	49
12-13	0.84	0.95	<0.005	0.034	34	45
13-14	0.88	0.84	0.670	0.023	37	42
14-15	0.78	0.77	0.690	0.018	35	39
15-17	0.48	0.66	0.240	0.017	30	35
17-18	0.29	0.63	0.280	0.014	28	32
18-20	0.35	0.67	0.220	0.016	26	31
20-21	0.56	0.80	0.130	0.025	27	34
21-23	0.53	0.94	0.085	0.013	26	36
23-25	0.30	1.0	0.065	0.015	27	41
25-27	0.31	1.0	0.065	0.012	30	49
27-28	0.46	1.1	0.090	0.014	48	68
28-30	0.43	1.2	0.075	0.012	56	59
NOV 30-						
DEC 01						
01-03	0.41	0.85	0.085	0.014	47	46
03-05	0.46	1.4	0.250	0.036	41	42
05-07	0.40	1.2	0.170	0.026	35	42
07-09	0.61	1.1	0.150	0.019	35	40
09-10	0.52	1.0	0.095	0.016	30	38
10-11	0.46	1.1	0.065	0.016	31	42
12-14	0.47	1.3	0.065	0.016	34	50
14-16	0.45	1.3	0.050	0.016	42	58
16-17	0.45	1.3	0.100	0.020	40	49
17-19	0.58	1.0	0.100	0.015	34	44
19-21	0.37	1.1	0.055	0.016	34	47
21-23	0.46	1.2	0.045	0.015	34	50
	0.42	1.3	0.040	0.014	37	56

STREAMS TRIBUTARY TO LAKE ONTARIO

431510077363501 GENESEE RIVER AT CHARLOTTE PUMP STATION, NEAR ROCHESTER, NY--continued

WATER YEAR-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	TUR- BID- ITY (NTU) (00076)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	RESIDUE VOLATILE, TILE, SUS- PENDE (MG/L) (00535)	NITRO- GEN, DIS- SOLVED (MG/L AS N) (00608)
DEC-continued							
23-24	0940	1440	2430	15	--	--	0.11
24-26	1540	2340	3990	16	--	--	0.10
26-28	1000	0900	4300	50	--	--	0.06
28-30	1000	0900	4160	34	--	--	0.06
30-31	1005	2105	4020	26	--	--	0.06
JAN							
01-02	2205	0905	2410	13	--	--	0.06
02-04	0955	0855	2750	10	--	--	0.07
04-06	0955	0855	3620	18	--	--	0.06
06-07	1000	2100	4050	27	--	--	0.09
08-09	2200	0900	2600	45	59	<5	0.08
09-11	0945	0845	1980	24	--	--	0.13
11-13	0945	0845	1870	10	--	--	0.15
13-15	0950	0850	1470	5.9	--	--	0.14
15-17	0950	0850	1440	6.6	--	--	0.21
17-19	1010	0910	1170	4.4	--	--	0.23
19-21	1010	0910	1100	4.4	--	--	0.22
21-23	1020	0920	1430	4.9	--	--	0.27
23-25	0945	0845	2130	4.0	--	--	0.19
25-27	0945	0845	2890	16	--	--	0.15
27-28	1000	2100	2630	35	40	<5	0.15
28-30	2200	0900	2530	16	--	--	0.16
JAN 30-							
FEB 01	1000	0900	2010	9.5	--	--	0.16
01-03	1000	0900	1680	6.0	--	--	0.15
03-04	0940	2340	1830	6.4	--	--	0.13
06-08	0950	0850	3980	70	90	10	0.17
08-10	0950	0850	2970	30	35	<5	0.12
10-12	0940	0840	2160	15	--	--	0.12
12-14	0940	0840	1760	8.6	--	--	0.16
14-16	0940	0840	1510	--	--	--	0.21
16-18	0940	0840	1520	13	--	--	0.25
18-20	0950	0850	2060	5.3	--	--	0.22
20-22	0955	0855	4870	36	60	5	0.18
22-24	0955	0855	7330	150	297	18	0.12
24-25	1000	1800	5400	140	--	--	0.08
25-27	1900	0400	2470	170	--	--	0.09
FEB 27-							
MAR 01	1000	0900	7860	280	--	--	0.12
01-03	1000	0900	9220	130	--	--	0.07
03-04	1020	2120	9000	110	242	12	0.09
04-06	2220	0920	8240	160	236	<10	0.08
06-07	1025	2125	8730	130	215	<11	0.06
08-09	2225	0625	8350	120	184	9	0.07
10-12	0950	1550	9480	110	196	8	0.07
13-15	0945	0745	8640	67	124	8	0.07
17-18	1005	2105	8000	48	89	6	0.08
19-20	2205	0905	5300	45	70	5	0.09
20-22	0945	0845	4560	39	69	5	0.12
22-24	0945	0845	4620	68	133	8	0.10
24-25	0945	2045	4500	60	117	8	0.06
25-27	2145	0845	5850	45	81	6	0.08
27-29	0950	0850	7800	220	415	28	0.07
29-31	0950	0850	6680	100	168	12	0.05
MAR 31-							
APR 01	0955	2055	7820	60	106	8	0.06
01-03	2155	0655	7770	50	83	6	0.05
03-04	1000	0900	6240	50	83	6	0.06
07-08	1000	2100	3170	31	67	6	0.10
08-10	2200	0900	2920	28	--	--	0.10
10-12	0935	0835	2250	8.0	--	--	0.14

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

STREAMS TRIBUTARY TO LAKE ONTARIO

431510077363501 GENESEE RIVER AT CHARLOTTE PUMP STATION, NEAR ROCHESTER, NY--continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
DEC-continued						
23-24	0.53	1.3	0.050	0.020	48	69
24-26	0.41	1.4	0.045	0.013	49	67
26-28	0.51	1.2	0.065	0.014	35	47
28-30	0.40	1.0	0.065	0.013	34	46
30-31	0.35	1.2	0.055	0.015	35	50
JAN						
01-02	0.32	1.4	0.040	0.016	38	54
02-04	0.38	1.4	0.035	0.014	58	63
04-06	0.40	1.6	0.095	0.017	100	130
06-07	0.41	1.5	0.065	0.019	44	59
08-09	0.40	1.4	0.090	0.018	41	55
09-11	0.63	1.2	0.080	0.016	46	59
11-13	0.55	1.4	0.030	0.015	53	53
13-15	0.53	1.6	0.030	0.012	54	83
15-17	0.50	1.8	0.045	0.021	59	97
17-19	0.62	1.7	0.030	0.015	60	95
19-21	0.49	1.7	0.025	0.013	59	96
21-23	0.73	1.8	0.040	0.017	74	100
23-25	0.67	1.8	0.045	0.020	74	100
25-27	0.50	1.7	0.055	0.017	73	69
27-28	0.64	1.5	0.070	0.015	60	57
28-30	0.53	1.5	0.055	0.018	58	62
JAN 30-						
FEB 01	0.65	1.4	0.040	0.017	55	66
01-03	0.62	1.5	0.035	0.016	55	73
03-04	0.57	1.6	0.040	0.010	58	80
06-08	1.3	1.4	0.200	0.049	56	54
08-10	0.76	1.3	0.080	0.022	48	58
10-12	0.78	1.3	0.050	0.018	49	49
12-14	0.49	1.4	0.045	0.017	51	75
14-16	0.52	1.6	0.035	0.017	56	82
16-18	0.55	1.6	0.055	0.017	56	89
18-20	0.69	1.6	0.040	0.016	64	91
20-22	0.96	1.5	0.080	0.022	58	62
22-24	0.53	1.1	0.520	0.016	36	38
24-25	0.78	1.0	0.190	0.012	28	34
25-27	0.48	1.0	0.100	0.012	32	42
FEB 27-						
MAR 01	1.3	1.3	0.330	0.027	51	47
01-03	0.42	1.2	0.220	0.025	33	35
03-04	0.79	1.1	0.190	0.030	28	32
04-06	0.62	1.1	0.190	0.015	28	32
06-07	0.88	0.99	0.170	0.013	34	34
08-09	0.70	1.0	0.150	0.014	35	30
10-12	0.87	1.1	0.070	0.018	41	33
13-15	0.53	1.2	0.130	0.018	43	34
17-18	0.63	1.2	0.100	0.017	39	39
19-20	0.46	1.2	0.080	0.029	39	42
20-22	0.48	1.3	0.090	0.014	42	49
22-24	0.62	1.4	0.120	0.013	48	54
24-25	0.75	1.2	0.110	0.016	39	46
25-27	0.71	1.2	0.110	0.017	43	47
27-29	0.76	1.2	0.310	0.015	35	39
29-31	0.41	1.0	0.160	0.012	31	38
MAR 31-						
APR 01	0.54	1.1	0.120	0.012	35	37
01-03	0.58	1.1	0.085	0.013	34	39
03-04	0.42	1.0	0.095	0.012	32	40
07-08	0.53	1.1	0.085	0.014	39	56
08-10	0.45	1.1	0.055	0.014	41	59
10-12	0.76	1.2	0.040	0.013	42	64

STREAMS TRIBUTARY TO LAKE ONTARIO

431510077363501 GENESEE RIVER AT CHARLOTTE PUMP STATION, NEAR ROCHESTER, NY--continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	TUR- BID- ITY (NTU) (00076)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	RESIDUE VOLATILE, TILE, SUS- PENDED (MG/L) (00535)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
APR - continued							
12-14	0935	0835	2680	8.4	--	--	0.12
14-15	0940	2040	3890	9.0	--	--	0.09
15-17	2140	0840	2820	18	--	--	0.09
17-19	0945	0845	2730	15	--	--	0.12
19-21	0945	0845	3330	8.8	--	--	0.10
21-22	0955	2055	3160	7.8	--	--	0.08
22-24	2155	0855	2630	7.9	--	--	0.07
24-26	0945	0845	2400	7.9	--	--	0.10
26-28	0945	0845	1990	12	--	--	0.14
28-29	1000	2100	956	12	--	--	0.11
APR 29-							
MAY 01	2200	0900	1240	16	--	--	0.13
01-03	0950	0850	2030	13	--	--	0.13
03-05	0950	0850	2080	10	--	--	0.15
06-08	1240	0840	2240	7.8	--	--	0.10
08-10	0935	0835	2240	8.7	--	--	0.12
10-12	0935	0835	1860	8.5	--	--	0.12
12-13	1000	2100	2110	9.0	--	--	0.10
14-15	2200	0900	1850	11	--	--	0.09
15-17	0945	0845	1810	8.3	--	--	0.10
17-19	0945	0845	2020	7.3	--	--	0.13
19-20	1000	2100	3930	12	--	--	0.06
20-22	2200	0900	7250	300	--	--	0.09
23-25	1000	0900	6000	160	192	14	0.05
25-27	1000	0900	3790	50	70	7	0.04
27-28	1000	0900	2180	25	--	--	0.07
28-29	1000	0900	1930	24	--	--	0.04
29-31	1000	0900	1750	27	--	--	0.09
MAY 31-							
JUN 02	1000	0900	2520	22	--	--	0.28
02-03	1010	2110	7230	70	132	12	0.06
03-05	2210	0910	7550	80	180	16	0.05
05-07	0950	0850	4770	100	127	<8	0.05
07-09	0950	0850	2430	40	47	<8	0.08
09-10	0955	2055	4230	34	72	<6	0.08
10-12	2155	0855	4340	29	--	--	0.07
12-14	0955	0855	2120	25	--	--	0.07
14-16	0955	0855	1400	15	--	--	0.13
16-17	1005	2105	1220	11	--	--	0.13
17-19	2205	0905	2170	11	--	--	0.12
19-21	1000	0900	3780	34	39	<6	0.08
21-23	1000	0900	3980	290	304	26	0.11
23-24	1000	2100	2320	50	--	--	0.11
24-26	2200	0900	1880	32	--	--	0.16
26-28	1015	0915	2850	21	--	--	0.11
28-30	1015	0815	2210	27	--	--	0.08
JUN 30-							
JUL 01	0915	0515	1300	16	--	--	0.11
03-04	1035	2135	951	12	--	--	0.13
07-08	1040	0940	779	17	--	--	0.12
10-12	1020	0920	2210	8.8	--	--	0.16
12-14	1020	0920	1860	25	--	--	0.11
14-15	1005	2105	808	36	66	<5	0.15
15-17	2205	0905	985	20	--	--	0.19
17-19	0950	0850	804	15	--	--	0.18
19-21	0950	0850	599	13	--	--	0.18
21-22	0945	2045	784	14	--	--	0.22
22-24	2145	0845	883	16	--	--	0.20
24-26	0935	0835	577	15	--	--	0.19
26-28	0935	0835	458	14	--	--	0.22
28-29	1010	2110	728	15	--	--	0.25
30-31	2210	0910	249	9.7	--	--	0.28

STREAMS TRIBUTARY TO LAKE ONTARIO

431510077363501 GENESEE RIVER AT CHARLOTTE PUMP STATION, NEAR ROCHESTER, NY--continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
APR - continued						
12-14	0.54	1.2	0.050	0.013	47	74
14-15	0.41	1.2	0.055	0.011	47	63
15-17	0.44	1.0	0.055	0.011	40	56
17-19	0.51	1.0	0.045	0.011	47	65
19-21	0.54	1.0	0.035	0.010	45	61
21-22	0.42	0.94	0.035	0.010	40	58
22-24	0.42	0.94	0.040	0.015	40	61
24-26	0.46	0.87	0.075	0.006	44	62
26-28	0.50	0.89	0.045	0.011	47	69
28-29	0.46	0.96	0.045	0.012	40	68
APR 29-						
MAY 01						
01-03	0.52	0.95	0.045	0.014	40	69
03-05	0.45	0.87	0.045	0.015	44	74
06-08	0.56	0.88	0.060	0.015	49	73
08-10	0.39	0.79	0.045	0.014	42	71
10-12	0.64	0.86	0.055	0.027	45	77
12-13	<0.01	1.0	0.060	0.025	45	78
14-15	<0.01	0.98	0.055	0.022	46	88
15-17	0.33	0.91	0.050	0.015	50	84
17-19	0.43	0.91	0.045	0.017	56	84
19-20	0.44	0.87	0.055	0.017	44	71
20-22	0.42	0.73	0.170	0.012	34	44
23-25	0.35	0.61	0.200	0.014	24	34
25-27	0.35	0.67	0.095	0.014	28	42
27-28	0.52	0.70	0.065	0.017	32	49
28-29	0.45	0.72	0.060	0.016	36	59
29-31	0.57	0.66	0.070	0.015	36	62
MAY 31-						
JUN 02						
02-03	0.61	1.1	0.290	0.024	39	52
03-05	0.74	1.2	0.360	0.020	30	38
05-07	0.48	0.74	0.095	0.016	25	34
07-09	0.48	0.89	0.100	0.021	33	49
09-10	0.42	0.89	0.100	0.024	40	51
10-12	0.36	0.66	0.080	0.016	26	37
12-14	0.38	0.66	0.070	0.017	29	41
14-16	0.47	0.77	0.060	0.020	34	53
16-17	0.41	0.83	0.090	0.026	39	63
17-19	0.55	1.0	0.085	0.025	48	71
19-21	0.40	0.81	0.095	0.021	31	52
21-23	0.37	0.53	0.120	0.018	21	34
23-24	0.52	0.71	0.130	0.032	26	39
24-26	0.69	0.86	0.120	0.038	32	52
26-28	0.52	1.0	0.090	0.031	37	65
28-30	0.62	0.94	0.085	0.026	32	46
JUN 30-						
JUL 01						
03-04	0.46	0.90	0.065	0.033	44	68
07-08	0.76	<0.05	0.075	0.033	49	78
10-12	0.86	0.95	0.060	0.038	45	88
12-14	0.63	0.77	0.060	0.024	30	51
14-15	0.41	0.64	0.120	0.034	31	45
15-17	0.33	0.67	0.100	0.034	33	52
17-19	0.37	0.69	0.070	0.028	42	67
19-21	0.55	0.60	0.070	0.024	47	72
21-22	0.73	0.63	0.065	0.026	55	79
22-24	0.69	0.65	0.080	0.024	54	91
24-26	0.60	0.65	0.060	0.016	59	90
26-28	0.56	0.58	0.055	0.013	52	71
28-29	0.56	0.74	0.070	0.022	56	75
30-31	0.63	0.82	0.060	0.025	56	79

STREAMS TRIBUTARY TO LAKE ONTARIO

431510077363501 GENESEE RIVER AT CHARLOTTE PUMP STATION, NEAR ROCHESTER, NY--continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	TUR- BID- ITY (NTU) (00076)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	RESIDUE VOLA- TILE, SUS- PENDE (MG/L) (00535)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
JUL 31-							
AUG 02	1005	0905	247	8.3	--	--	0.33
02-04	1005	0905	288	5.7	--	--	0.34
04-05	1015	2115	358	6.8	--	--	0.19
05-07	2215	0915	601	9.4	--	--	0.23
07-09	0945	0845	517	5.8	--	--	0.19
09-11	0945	0845	360	4.9	--	--	0.23
11-12	0920	2020	321	4.8	--	--	0.29
12-14	2120	0820	479	7.4	--	--	0.25
14-16	0950	0850	411	6.1	--	--	0.27
16-18	0950	0850	645	9.4	--	--	0.27
18-19	0940	1440	444	12	--	--	0.24
21-22	1005	2105	581	13	--	--	0.21
22-24	2205	0505	173	8.9	--	--	0.20
25-26	0935	1635	760	14	--	--	0.16
26-28	1735	0035	489	10	--	--	0.12
29-30	0940	0040	324	6.9	--	--	0.18
SEP							
02-04	0950	0850	427	7.8	--	--	0.15
04-06	1010	0910	707	3.2	--	--	0.17
06-08	1010	0910	575	4.3	--	--	0.20
08-09	1010	2110	327	5.6	--	--	0.14
09-11	2210	0910	626	6.7	--	--	0.14
11-13	0955	0855	916	9.8	--	--	0.17
13-15	0955	0855	1110	5.7	--	--	0.15
15-16	0955	2055	919	5.6	--	--	0.07
16-18	2155	0855	626	5.0	--	--	0.11
18-20	0955	0855	843	5.1	--	--	0.19
20-22	0955	0855	843	11	--	--	0.17
22-23	0950	2050	780	6.8	--	--	0.17
23-25	2150	1050	705	7.6	--	--	0.14
25-27	1000	0900	752	5.6	--	--	0.18
27-29	1000	0500	717	6.5	--	--	0.16
29-30	1025	2125	1480	38	16	<6	0.12
SEP 30-							
OCT 02	2225	0925	4150	5.3	--	--	0.07

STREAMS TRIBUTARY TO LAKE ONTARIO

431510077363501 GENESEE RIVER AT CHARLOTTE PUMP STATION, NEAR ROCHESTER, NY--continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
JUL 31-						
AUG 02	0.69	0.81	0.060	0.025	53	80
02-04	0.71	0.77	0.075	0.033	55	86
04-05	0.67	0.79	0.075	0.044	63	89
05-07	0.80	0.75	0.085	0.041	61	88
07-09	0.67	0.73	0.075	0.030	62	91
09-11	0.62	0.72	0.065	0.028	53	97
11-12	0.73	0.70	0.060	<0.002	49	88
12-14	0.71	0.67	0.080	<0.002	48	82
14-16	0.77	0.69	0.080	0.045	43	78
16-18	0.66	0.78	0.075	0.036	46	88
18-19	0.70	0.80	0.055	0.034	54	99
21-22	0.61	0.77	0.080	0.026	64	110
22-24	0.51	0.77	0.075	0.028	61	91
25-26	0.39	0.86	0.060	0.033	60	94
26-28	0.43	0.82	0.060	0.031	59	110
29-30	0.57	0.84	0.080	0.039	61	110
SEP						
02-04	0.56	0.81	0.080	0.050	58	100
04-06	0.52	0.91	0.070	0.043	66	110
06-08	0.57	0.87	0.060	0.043	62	100
08-09	0.31	0.86	0.060	0.038	61	100
09-11	0.29	0.78	0.065	0.040	56	92
11-13	0.55	0.84	0.075	0.037	48	76
13-15	0.51	0.92	0.060	0.037	50	78
15-16	0.45	0.77	0.070	0.039	51	110
16-18	0.48	0.76	0.070	0.041	65	97
18-20	0.49	0.83	0.070	0.046	52	87
20-22	0.44	0.86	0.085	0.043	46	79
22-23	0.48	0.97	0.075	0.048	57	100
23-25	0.48	0.81	0.085	0.049	59	100
25-27	0.74	0.85	0.090	0.053	69	110
27-29	0.48	0.82	0.100	0.067	61	88
29-30	0.50	0.89	0.090	0.048	60	110
SEP 30-						
OCT 02	0.37	0.80	0.120	0.046	43	77

PESTICIDE ANALYSES, WATER YEAR, OCTOBER 1996 TO SEPTEMBER 1997

In June, 1997, New York State and the U. S. Geological Survey began a cooperative effort to monitor pesticides in order to assess the presence and distribution of pesticides and their residues in waters of the State. The initial monitoring effort included a statewide survey of pesticide concentrations in surface waters of the State, particularly in areas where pesticides are used and areas where surface water provides water supply. Water samples collected from 64 streams and rivers across New York State were analyzed for 47 pesticides or pesticide degradates.

The following sites were sampled as part of the state-wide sampling network in cooperation with the New York State Department of Environmental Conservation. The sampling network includes sites in eastern New York excluding Long Island (vol. 1), Long Island (vol. 2), and western New York (vol. 3). The sites located in eastern New York and Long Island are published in their respective volumes.

Method Detection Limits

REMARKS.--The table below lists the 47 pesticides on this schedule, the unit of measure (micrograms per liter, ug/L), the U.S. Geological Survey National Water Information System parameter code, and the method detection limit (MDL). This pesticide schedule includes selected pesticides and metabolites that are efficiently partitioned from a water sample by solid-phase extraction and are sufficiently volatile and thermally stable for analysis by gas chromatography. Samples are filtered through a glass-fiber membrane filter with openings that are 0.7 microns in size to remove sediment and microorganisms. Therefore, this schedule is suitable for compounds dissolved in water. Each sample was analyzed for all of the compounds in this schedule. Pesticide compounds measured at or above the MDL in one or more samples are listed in the water-quality table following the MDL table. The MDL provides an index to indicate where measurement uncertainty is increased. When an analyte is detected and all criteria for a positive result are met, the concentration is reported. If the concentration is less than the MDL, an 'E' code will be reported with the value. If the analyte is qualitatively identified as present, but the quantitative determination is substantially more uncertain, the NWQL will identify the result with an 'E' code even though the measured value is greater than the MDL. A value reported with an 'E' code should be used with caution. When no analyte is detected in a sample, the default reporting value is the MDL preceded by a less-than sign (<).

Parameter Code	Compound Name	MDL	Unit	Parameter Code	Compound Name	MDL	Unit
49260	ACETOCHLOR	0.002	ug/L	82667	METHYL PARATHION	0.006	ug/L
46342	ALACHLOR	0.002	ug/L	39415	METOLACHLOR	0.002	ug/L
34253	ALPHA HCH	0.002	ug/L	82630	METRIBUZIN	0.004	ug/L
39632	ATRAZINE	0.001	ug/L	82671	MOLINATE	0.004	ug/L
82673	BENFLURALIN	0.002	ug/L	82684	NAPROPAMIDE	0.003	ug/L
04028	BUTYLATE	0.002	ug/L	34653	P, P'-DDE	0.006	ug/L
82680	CARBARYL	0.003	ug/L	39542	ETHYL PARATHION	0.004	ug/L
82674	CARBOFURAN	0.003	ug/L	82669	PEBULATE	0.004	ug/L
38933	CHLORPYRIFOS	0.004	ug/L	82683	PENDIMETHALIN	0.004	ug/L
04041	CYANAZINE	0.004	ug/L	82687	CIS-PERMETHRIN	0.005	ug/L
82682	DCPA	0.002	ug/L	82664	PHORATE	0.002	ug/L
04040	DESETHYL ATRAZINE	0.002	ug/L	04037	PROMETON	0.018	ug/L
39572	DIAZINON	0.002	ug/L	82676	PRONAMIDE	0.003	ug/L
39381	DIELDRIN	0.001	ug/L	04024	PROPACHLOR	0.007	ug/L
82660	2, 6-DIETHYLANILINE	0.003	ug/L	82679	PROPANIL	0.004	ug/L
82677	DISULFOTON	0.017	ug/L	82685	PROPARGITE	0.013	ug/L
82668	EPTC	0.002	ug/L	04035	SIMAZINE	0.005	ug/L
82663	ETHALFLURALIN	0.004	ug/L	82670	TEBUTHIURON	0.010	ug/L
82672	ETHOPROP	0.003	ug/L	82665	TERBACIL	0.007	ug/L
04095	FONOFOS	0.003	ug/L	82675	TERBUFOS	0.013	ug/L
39341	LINDANE	0.004	ug/L	82681	THIOBENCARB	0.002	ug/L
82666	LINURON	0.002	ug/L	82678	TRIALATE	0.001	ug/L
39532	MALATHION	0.005	ug/L	82661	TRIFLURALIN	0.002	ug/L
82686	METHYL AZINPHOS	0.001	ug/L				

ANALYSES OF SAMPLES AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

PESTICIDE ANALYSES, WATER YEAR, OCTOBER 1996 TO SEPTEMBER 1997

MULTIPLE STATION ANALYSES

STATION NUMBER	STATION NAME	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)
01510000	OTSELIC RIVER AT CININNATUS, NY	06-17-97	0950	71	--
01513831	SUSQUEHANNA RIVER AT OWEGO, NY	06-10-97	1130	2.5	--
01529500	COHOCTON RIVER NEAR CAMPBELL, NY	06-10-97	1420	337	--
03011020	ALLEGHENY RIVER AT SALAMANCA, NY	06-18-97	1520	4480	--
03011505	RED HOUSE BROOK SOUTH OF RED HOUSE LAKE, NY	06-17-97	2000	3.0	--
0421332805	SPRING CREEK AT MOUTH NEAR WESTFIELD, NY	06-17-97	1510	1.1	--
0421337640	BEAVER CREEK NEAR CORDOVA, NY	06-17-97	1340	1.2	--
04213500	CATTARAUGUS CREEK AT GOWANDA, NY	06-18-97	1050	379	350
04216418	TONAWANDA CREEK AT ATTICA, NY	06-10-97	1150	60	--
04218000	TONAWANDA CREEK AT RAPIDS, NY	06-10-97	0840	252	--
04219650	FOURMILE CREEK NEAR YOUNGSTOWN, NY	06-17-97	0720	56	--
04219726	LAKE ONTARIO TRIB. NO. 150 NEAR WILSON, NY	06-17-97	0630	1.2	--
04227000	CANASERAGA CREEK AT SHAKERS CROSSING, NY	06-10-97	1440	170	--
04228500	GENESEE RIVER AT AVON, NY	06-10-97	1530	4120	--
04229500	HONEOYE CREEK AT HONEOYE FALLS, NY	06-11-97	0910	82	--
04230500	OATKA CREEK AT GARBUTT, NY	06-16-97	1110	97	--
04231000	BLACK CREEK AT CHURCHVILLE, NY	06-16-97	1010	29	--
04232060	SALMON CREEK AT PULTNEYVILLE, NY	06-16-97	1240	1.8	--
04232070	SALMON CREEK NEAR SODUS, NY	06-16-97	1050	7.9	--
04232100	STERLING CREEK AT STERLING, NY	06-09-97	1250	19	--
0423241755	BULLHORN CREEK AT MCGRATH POINT	06-09-97	1350	.07	--
04234000	FALL CREEK NEAR ITHACA, NY	06-11-97	1320	73	--
04235000	CANANDAIGUA OUTLET AT CHAPIN, NY	06-16-97	1230	114	--
04235250	FLINT CREEK AT PHELPS, NY	06-11-97	1140	34	--
04235276	BLACK BROOK AT TYRE, NY	06-16-97	1400	1.9	--
04235820	GROUT BROOK TRIB SOUTHEAST OF FAIR HAVEN, NY	06-17-97	0830	2.0	--
04237500	SENECA RIVER AT BALDWINVILLE, NY	06-11-97	1120	3740	--
04245200	BUTTERNUT CREEK NEAR JAMESVILLE, NY	06-17-97	1130	77	--
04247000	ONEIDA RIVER NEAR EUCLID, NY	06-09-97	0940	1240	--
04249000	OSWEGO RIVER AT LOCK 7, OSWEGO, NY	06-09-97	1120	6480	--
422950076305901	CAYUGA LAKE NEAR BOLTON POINT, NY	07-02-97	0910	--	--
423034077092601	KEUKA LAKE VINEYARD BASIN	06-09-97	1200	.20	--
423939077465201	SMALL AGRICULTURAL BASIN NR. SHAKERS CROSSING, NY	06-10-97	1350	9.8	--
423949077343501	REYNOLDS GULLY AT CANANDICE LAKE RD.	06-12-97	1300	3.1	--
424104077180001	CANADAIGUA LAKE VINEYARD BASIN	06-09-97	1030	.16	--
424618077364701	HEMLOCK LAKE NEAR HEMLOCK LAKE, NY	07-02-97	0850	--	--
425540078140101	SMALL AGRICULTURAL BASIN NR. ALEXANDER	06-10-97	1100	.09	--
425549076250201	SKANEATELES LAKE NEAR SKANEATELES, NY	07-02-97	1400	--	--

ANALYSES OF SAMPLES AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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PESTICIDE ANALYSES, WATER YEAR, OCTOBER 1996 TO SEPTEMBER 1997

STATION NUMBER	DATE	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRA- ZINE, WATER, DISS, REC, (UG/L) (39632)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)
01510000	06-17-97	--	E.002	.019	<.0020	<.0030	<.0030	<.0040	<.0040
01513831	06-10-97	--	E.002	.078	<.0020	E.0048	<.0030	<.0040	.0092
01529500	06-10-97	--	E.002	.064	<.0020	<.0030	<.0030	<.0040	<.0040
03011020	06-18-97	--	.006	.085	<.0020	<.0030	<.0030	<.0040	<.0040
03011505	06-17-97	--	<.002	E.002	<.0020	<.0030	<.0030	<.0040	<.0040
0421332805	06-17-97	--	<.002	.020	<.0020	<.0030	<.0030	<.0040	<.0040
0421337640	06-17-97	--	E.003	.015	<.0020	E.0145	<.0030	<.0040	E.0032
04213500	06-18-97	8.3	.009	.040	<.0020	<.0030	<.0030	<.0040	<.0040
04216418	06-10-97	--	.012	.072	<.0020	<.0030	<.0030	<.0040	<.0040
04218000	06-10-97	--	.019	.311	<.0020	<.0030	<.0030	<.0040	.0877
04219650	06-17-97	--	.069	.336	<.0020	E.434	<.0030	E.0025	E.0090
04219726	06-17-97	--	.014	.051	<.0020	E.0106	<.0030	.0065	.0052
04227000	06-10-97	--	.005	.140	<.0020	<.0030	<.0030	<.0040	.0082
04228500	06-10-97	--	.007	.119	<.0020	<.0030	<.0030	<.0040	.0166
04229500	06-11-97	--	.007	.104	<.0020	<.0030	<.0030	<.0040	.0476
04230500	06-16-97	--	<.002	.103	<.0020	<.0030	<.0030	<.0040	.0118
04231000	06-16-97	--	.007	.227	<.0020	<.0030	<.0030	<.0040	.0515
04232060	06-16-97	--	<.002	.046	<.0020	E.105	<.0030	.0084	.0128
04232070	06-16-97	--	E.002	.048	<.0020	E.0147	<.0030	E.0028	.0105
04232100	06-09-97	--	.004	.021	<.0020	<.0030	<.0030	<.0040	<.0040
0423241755	06-09-97	--	<.002	.010	<.0020	<.0030	<.0030	<.0040	<.0040
04234000	06-11-97	--	<.002	.042	<.0020	<.0030	<.0030	<.0040	.0044
04235000	06-16-97	--	.017	.125	<.0020	<.0030	<.0030	<.0040	.0442
04235250	06-11-97	--	.004	.071	<.0020	<.0030	<.0030	.0107	.0293
04235276	06-16-97	--	E.002	.156	<.0020	<.0030	<.0030	<.0040	.0916
04235820	06-17-97	--	<.002	.222	<.0020	<.0030	<.0030	<.0040	.0113
04237500	06-11-97	--	.084	.286	<.0020	<.0030	<.0030	<.0040	.0683
04245200	06-17-97	--	E.002	.040	<.0020	<.0030	<.0030	<.0040	<.0040
04247000	06-09-97	--	E.003	.019	<.0020	<.0030	<.0030	<.0040	<.0040
04249000	06-09-97	--	.143	.308	<.0020	<.0030	<.0030	<.0040	.0523
422950076305901	07-02-97	--	<.002	.176	<.0020	<.0030	<.0030	<.0040	.0203
423034077092601	06-09-97	--	<.002	.008	<.0020	<.0030	<.0030	<.0040	<.0040
423939077465201	06-10-97	--	E.003	.760	<.0020	<.0030	<.0030	<.0040	.0499
423949077343501	06-12-97	--	<.002	E.001	<.0020	<.0030	<.0030	<.0040	<.0040
424104077180001	06-09-97	--	<.002	.005	<.0020	E.0060	<.0030	<.0040	<.0040
424618077364701	07-02-97	--	<.002	.013	<.0020	<.0030	<.0030	<.0040	E.0032
425540078140101	06-10-97	--	.010	.847	<.0020	<.0030	<.0030	<.0040	<.0040
425549076250201	07-02-97	--	<.002	.044	<.0020	<.0030	<.0030	<.0040	<.0040

ANALYSES OF SAMPLES AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

PESTICIDE ANALYSES, WATER YEAR, OCTOBER 1996 TO SEPTEMBER 1997

STATION	NUMBER	DATE	DCPA	DEETHYL	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	EPTC	LIN- URON	METHYL	METO- LACHLOR DISSOLV (UG/L) (39415)
			WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)			WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	
01510000		06-17-97	<.0020	E.0124	<.002	<.001	<.0020	<.0020	<.0010	.015
01513831		06-10-97	<.0020	E.0134	<.002	<.001	<.0020	<.0020	<.0010	.061
01529500		06-10-97	<.0020	E.0169	<.002	<.001	<.0020	<.0020	<.0010	.036
03011020		06-18-97	<.0020	E.0130	<.002	<.001	<.0020	<.0020	<.0010	.034
03011505		06-17-97	<.0020	E.0031	<.002	<.001	<.0020	<.0020	<.0010	E.001
0421332805		06-17-97	<.0020	E.0120	<.002	<.001	<.0020	<.0020	<.0010	.023
0421337640		06-17-97	<.0020	E.0042	<.002	<.001	<.0020	<.0020	<.0010	.012
04213500		06-18-97	<.0020	E.0083	<.002	<.001	<.0020	<.0020	<.0010	.015
04216418		06-10-97	<.0020	E.0147	<.002	<.001	<.0020	<.0020	<.0010	.029
04218000		06-10-97	<.0020	E.0276	<.002	<.001	.0052	<.0020	<.0010	.204
04219650		06-17-97	E.0019	E.0460	.123	<.001	<.0020	<.0020	E.118	.092
04219726		06-17-97	E.0010	E.0183	<.002	E.003	<.0020	<.0020	E.330	.016
04227000		06-10-97	<.0020	E.0163	<.002	<.001	.0320	<.0020	<.0010	.142
04228500		06-10-97	<.0020	E.0162	<.002	<.001	.0054	<.0020	<.0010	.102
04229500		06-11-97	<.0020	E.0106	<.002	<.001	E.0036	<.0020	<.0010	.059
04230500		06-16-97	<.0020	E.0346	<.002	<.001	.0058	<.0020	<.0010	.044
04231000		06-16-97	<.0020	E.0348	<.002	<.001	.0165	<.0020	<.0010	.119
04232060		06-16-97	E.0007	E.0244	<.002	<.001	E.0019	<.0020	E.0278	.028
04232070		06-16-97	<.0020	E.0106	<.002	<.001	<.0020	.0389	E.0148	.145
04232100		06-09-97	<.0020	E.0049	<.002	<.001	<.0020	<.0020	<.0010	.037
0423241755		06-09-97	<.0020	E.0045	<.002	<.001	<.0020	<.0020	<.0010	.005
04234000		06-11-97	<.0020	E.0209	<.002	<.001	<.0020	<.0020	<.0010	.020
04235000		06-16-97	E.0010	E.0607	<.002	<.001	<.0020	<.0020	<.0010	.011
04235250		06-11-97	<.0020	E.0172	<.002	<.001	E.0036	.0109	<.0010	.328
04235276		06-16-97	<.0020	E.0157	<.002	<.001	<.0020	<.0020	<.0010	.091
04235820		06-17-97	<.0020	E.0346	<.002	<.001	<.0020	<.0020	<.0010	.380
04237500		06-11-97	E.0009	E.0678	<.002	<.001	<.0020	<.0020	<.0010	.141
04245200		06-17-97	<.0020	E.0146	<.002	<.001	<.0020	<.0020	<.0010	.025
04247000		06-09-97	<.0020	E.0101	<.002	<.001	<.0020	<.0020	<.0010	.011
04249000		06-09-97	<.0020	E.0231	.005	<.001	<.0020	<.0020	<.0010	.163
422950076305901		07-02-97	E.0009	E.104	<.002	<.001	<.0020	<.0020	<.0010	.058
423034077092601		06-09-97	<.0020	E.0038	<.002	<.001	<.0020	<.0020	<.0010	E.004
423939077465201		06-10-97	<.0020	E.0291	<.002	<.001	.0044	<.0020	<.0010	1.23
423949077343501		06-12-97	<.0020	E.0019	<.002	<.001	<.0020	<.0020	<.0010	E.000
424104077180001		06-09-97	<.0020	E.0026	<.002	<.001	<.0020	<.0020	<.0010	E.003
424618077364701		07-02-97	E.0008	E.0056	<.002	<.001	<.0020	<.0020	<.0010	.013
425540078140101		06-10-97	<.0020	E.0791	<.002	<.001	<.0020	<.0020	<.0010	.421
425549076250201		07-02-97	E.0016	E.0465	<.002	<.001	<.0020	<.0020	<.0010	.010

PESTICIDE ANALYSES, WATER YEAR, OCTOBER 1996 TO SEPTEMBER 1997

STATION	NUMBER	DATE	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)
01510000		06-17-97	<.004	<.0030	<.0040	<.0180	<.0050	<.0100	<.0070	<.0020
01513831		06-10-97	<.004	<.0030	<.0040	<.0180	.0052	<.0100	<.0070	<.0020
01529500		06-10-97	<.004	<.0030	<.0040	E.0043	.0431	<.0100	<.0070	<.0020
03011020		06-18-97	<.004	<.0030	<.0040	E.0036	E.0034	<.0100	<.0070	<.0020
03011505		06-17-97	<.004	<.0030	<.0040	<.0180	<.0050	<.0100	<.0070	<.0020
0421332805		06-17-97	.010	<.0030	<.0040	E.0036	.375	<.0100	<.0070	<.0020
0421337640		06-17-97	<.004	<.0030	<.0040	<.0180	.426	<.0100	<.0070	<.0020
04213500		06-18-97	<.004	<.0030	<.0040	<.0180	.227	<.0100	<.0070	<.0020
04216418		06-10-97	<.004	<.0030	<.0040	<.0180	<.0050	<.0100	<.0070	<.0020
04218000		06-10-97	<.004	<.0030	<.0040	E.0108	.0088	<.0100	<.0070	<.0020
04219650		06-17-97	<.004	.0470	<.0040	E.0062	.139	<.0100	<.0070	<.0020
04219726		06-17-97	<.004	<.0030	<.0040	<.0180	.0562	<.0100	E.0118	<.0020
04227000		06-10-97	<.004	<.0030	<.0040	<.0180	E.0034	<.0100	<.0070	<.0020
04228500		06-10-97	<.004	<.0030	<.0040	<.0180	.0150	<.0100	<.0070	<.0020
04229500		06-11-97	<.004	<.0030	<.0040	<.0180	.0054	<.0100	<.0070	<.0020
04230500		06-16-97	<.004	<.0030	<.0040	E.0049	E.0047	<.0100	<.0070	<.0020
04231000		06-16-97	<.004	<.0030	<.0040	E.0043	E.0031	<.0100	<.0070	<.0020
04232060		06-16-97	<.004	<.0030	<.0040	E.0049	.0150	<.0100	E.0070	<.0020
04232070		06-16-97	<.004	<.0030	<.0040	E.0038	.0485	<.0100	E.0044	<.0020
04232100		06-09-97	<.004	<.0030	<.0040	<.0180	<.0050	.0112	<.0070	<.0020
0423241755		06-09-97	<.004	<.0030	<.0040	<.0180	.566	<.0100	<.0070	<.0020
04234000		06-11-97	<.004	<.0030	<.0040	E.0020	.0087	<.0100	<.0070	<.0020
04235000		06-16-97	<.004	<.0030	<.0040	E.0031	.0218	<.0100	<.0070	<.0020
04235250		06-11-97	<.004	<.0030	<.0040	<.0180	.0100	<.0100	<.0070	<.0020
04235276		06-16-97	<.004	<.0030	<.0040	<.0180	<.0050	<.0100	<.0070	<.0020
04235820		06-17-97	<.004	<.0030	<.0040	<.0180	<.0050	<.0100	<.0070	<.0020
04237500		06-11-97	<.004	<.0030	<.0040	E.0049	.0379	<.0100	<.0070	<.0020
04245200		06-17-97	<.004	<.0030	<.0040	<.0180	.349	<.0100	<.0070	<.0020
04247000		06-09-97	<.004	<.0030	<.0040	<.0180	<.0050	<.0100	<.0070	<.0020
04249000		06-09-97	<.004	<.0030	<.0040	E.0077	.0257	<.0100	<.0070	<.0020
422950076305901		07-02-97	<.004	<.0030	<.0040	E.0034	.0171	<.0100	<.0070	<.0020
423034077092601		06-09-97	<.004	<.0030	<.0040	<.0180	.305	<.0100	<.0070	<.0020
423939077465201		06-10-97	.020	<.0030	<.0040	<.0180	.0073	<.0100	<.0070	<.0020
423949077343501		06-12-97	<.004	<.0030	<.0040	<.0180	<.0050	<.0100	<.0070	<.0020
424104077180001		06-09-97	<.004	<.0030	<.0040	<.0180	.0523	<.0100	<.0070	<.0020
424618077364701		07-02-97	<.004	<.0030	<.0040	<.0180	.0097	<.0100	<.0070	<.0020
425540078140101		06-10-97	<.004	<.0030	<.0040	<.0180	<.0050	<.0100	<.0070	<.0020
425549076250201		07-02-97	<.004	<.0030	<.0040	<.0180	<.0050	<.0100	<.0070	<.0020

GROUND-WATER LEVELS
BROOME COUNTY

420657075583501. Local number, Bm 121.

LOCATION.--Lat 42°06'57", long 75°58'35", Hydrologic Unit 02050103, at Camden and Main Streets, Johnson City. Owner: U.S. Geological Survey.

AQUIFER.--Unconfined aquifer in sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 53 ft, cased to 53 ft, open end.

INSTRUMENTATION.--Electronic data recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 833.62 ft above sea level. Measuring point: Top of shelter base, 3.42 ft above land-surface datum.

REMARKS.--Well cleaned from 46 ft to original depth on Oct. 19, 1970. Water level affected by floods of Susquehanna River and by pumping from municipal well field 1,100 ft south.

PERIOD OF RECORD.--March 1947 to August 1995, December 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.69 ft below land-surface datum, Apr. 12, 1993; lowest, 33.47 ft below land-surface datum, Sept. 23, 1965.

EXTREMES FOR CURRENT PERIOD.--December 1996 to September 1997: Highest water level recorded, 17.42 ft below land-surface datum, Dec. 16; lowest recorded, 25.92 ft below land-surface datum, Aug 13 and Sep. 29.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

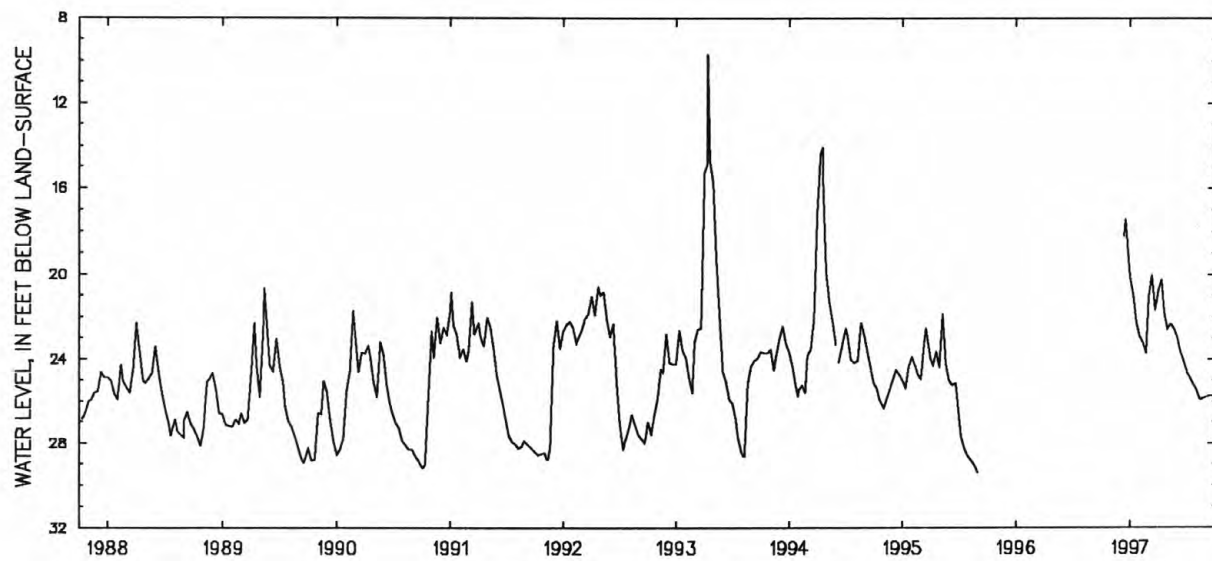
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	20.22	22.99	20.48	20.44	22.52	23.00	24.72	25.42	25.75
2	---	---	---	20.37	23.05	20.27	20.20	22.60	23.05	24.78	25.47	25.71
3	---	---	---	20.53	23.10	20.12	20.09	22.63	23.06	24.80	25.52	25.68
4	---	---	---	20.63	23.17	19.99	20.00	22.52	23.08	24.83	25.56	25.67
5	---	---	---	20.63	23.20	20.07	19.87	22.32	23.15	24.86	25.61	25.66
6	---	---	---	20.64	23.21	19.97	---	22.22	23.24	24.88	25.66	25.68
7	---	---	---	20.68	23.19	19.70	19.78	22.22	23.33	24.90	25.70	25.70
8	---	---	---	20.75	23.15	19.65	19.89	22.22	23.40	24.93	25.74	25.73
9	---	---	---	20.85	23.16	19.87	20.07	22.24	23.49	24.95	25.78	25.75
10	---	---	---	20.94	23.19	20.05	20.25	22.29	23.57	24.94	25.82	25.76
11	---	---	---	21.08	23.24	20.22	20.13	22.27	23.65	24.93	25.86	25.78
12	---	---	---	21.22	23.30	20.40	20.25	22.23	23.73	24.92	25.89	25.77
13	---	---	---	21.38	23.39	20.59	20.46	22.27	23.80	24.92	25.91	25.76
14	---	---	18.21	21.51	23.45	20.75	20.67	22.32	23.80	24.94	25.89	25.75
15	---	---	17.57	21.64	23.51	20.93	20.86	22.40	23.76	24.97	25.88	25.76
16	---	---	17.43	21.72	23.56	21.11	21.05	22.50	23.84	25.01	25.88	25.76
17	---	---	17.48	21.85	23.59	21.23	21.24	22.60	23.93	25.04	25.89	25.76
18	---	---	17.68	21.98	23.63	21.39	21.41	22.69	24.02	25.08	25.87	25.77
19	---	---	17.87	22.14	23.68	21.52	21.57	22.70	24.10	25.12	25.86	25.78
20	---	---	18.15	22.28	23.68	21.63	21.72	22.49	24.16	25.15	25.87	25.77
21	---	---	18.47	22.42	23.51	21.74	21.85	22.21	24.20	24.97	25.87	25.77
22	---	---	18.78	22.46	23.15	21.83	21.99	22.11	24.24	24.89	25.87	25.77
23	---	---	19.07	22.52	22.48	21.82	22.12	22.15	24.30	24.95	25.86	25.78
24	---	---	19.28	22.59	21.82	21.80	22.24	22.21	24.37	25.02	25.87	25.79
25	---	---	19.40	22.62	21.52	21.86	22.37	22.29	24.42	25.10	25.87	25.80
26	---	---	19.41	22.68	21.51	21.87	22.50	22.39	24.48	25.16	25.88	25.83
27	---	---	19.52	22.69	21.50	21.66	22.62	22.48	24.52	25.21	25.89	25.86
28	---	---	19.70	22.73	21.01	21.48	22.70	22.59	24.55	25.26	25.88	25.88
29	---	---	19.87	22.80	---	21.29	22.68	22.71	24.59	25.30	25.85	25.90
30	---	---	20.00	22.86	---	21.09	22.57	22.82	24.66	25.33	25.81	25.89
31	---	---	20.08	22.91	---	20.79	---	22.93	---	25.37	25.79	---
MEAN	---	---	---	21.69	22.96	20.88	---	22.42	23.85	25.01	25.79	25.77
MAX	---	---	---	22.91	23.68	21.87	---	22.93	24.66	25.37	25.91	25.90
MIN	---	---	---	20.22	21.01	19.65	---	22.11	23.00	24.72	25.42	25.66

GROUND-WATER LEVELS

283

BROOME COUNTY

420657075583501. Local number, Bm 121.--continued



GROUND-WATER LEVELS
CATTARAUGUS COUNTY

420530078445201. Local number, Ct 121.

LOCATION.--Lat 42°05'30", long 78°44'52", Hydrologic Unit 05010001, near Red House. Owner: New York State Department of Environmental Conservation.

AQUIFER.--Confined aquifer in sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled unused well, diameter 6 in, depth 53 ft, cased to 53 ft, open end.

INSTRUMENTATION.--Electronic data recorder--60-minute average. Prior to Mar. 5, 1990, weekly float tape readings by observer; periodic measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 1,467.08 ft above sea level. Measuring point: Top of casing, 0.28 ft above land-surface datum, reset to 2.30 ft above land-surface datum, Apr. 3, 1997.

REMARKS.--Well is in a New York State owned and operated campground area. Extreme low water levels occurred from 1969 to 1979 due to the effect of pumping at the campground area. A central water system for the campground, utilizing a well about 1.5 mi from the observation well was put in operation in 1980.

PERIOD OF RECORD.--September 1950 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.97 ft below land-surface datum, June 26, 1989; lowest measured, 34.87 ft below land-surface datum, Nov. 21, 1972.

EXTREMES FOR CURRENT YEAR.--Highest water level recorded, 2.61 ft below land-surface datum, May 25; lowest recorded, 5.94 ft below land-surface datum, Oct. 1.

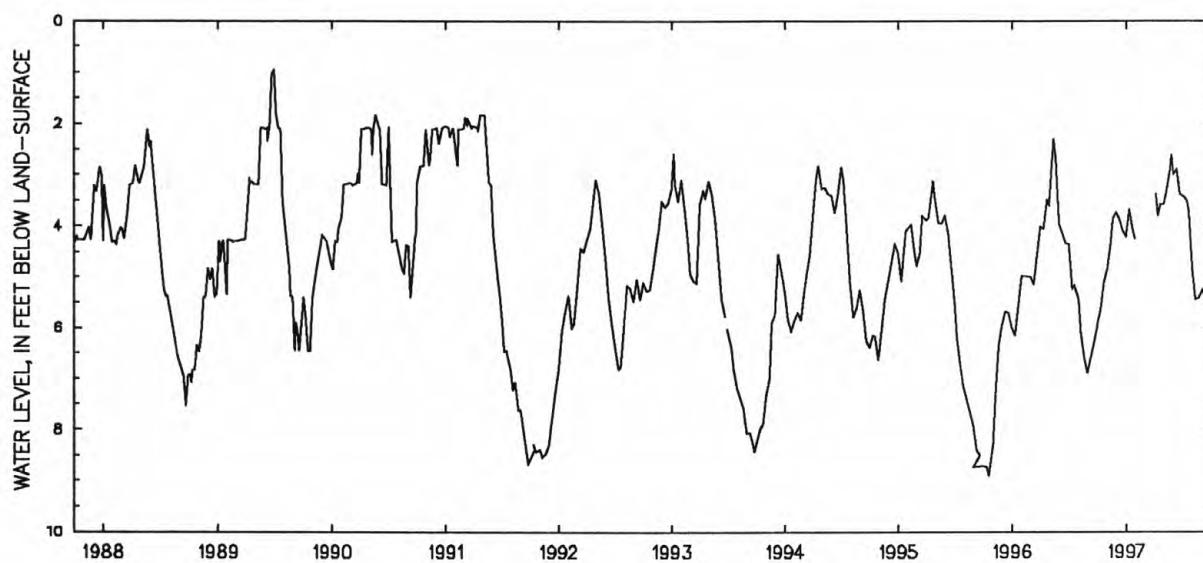
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.85	4.77	---	4.11	---	---	---	3.40	2.96	3.38	4.82	5.35
2	5.69	4.75	---	3.89	---	---	---	3.72	2.92	3.32	4.82	5.35
3	5.82	4.91	3.71	3.94	---	---	3.37	3.41	2.87	3.24	4.88	5.35
4	5.87	4.98	3.77	4.05	---	---	3.42	3.62	2.73	3.32	4.93	5.37
5	5.81	4.93	3.69	---	---	---	3.44	3.61	2.67	3.50	5.03	5.36
6	5.69	4.88	3.56	---	---	---	3.30	3.44	2.72	3.57	5.18	5.34
7	5.57	4.66	3.58	4.14	---	---	3.43	3.60	2.78	3.61	5.31	5.36
8	5.48	---	3.58	4.24	---	---	3.58	3.46	2.80	3.64	5.37	5.41
9	5.49	---	3.82	3.85	---	---	3.71	3.23	2.85	3.49	5.41	5.43
10	5.64	---	3.86	3.67	---	---	3.80	3.26	2.90	3.50	5.45	5.43
11	5.83	---	3.84	4.00	---	---	3.79	3.27	2.87	3.48	5.52	5.48
12	5.76	---	3.94	4.26	---	---	3.56	3.05	2.81	3.43	5.56	5.55
13	5.67	4.36	4.03	4.37	---	---	3.49	3.08	2.81	3.38	5.46	5.58
14	5.70	4.29	4.16	4.38	---	---	3.79	3.09	3.02	3.37	5.55	5.57
15	5.74	4.34	4.13	4.13	---	---	3.84	3.03	3.21	3.43	5.52	5.54
16	5.66	4.19	3.95	3.86	---	---	3.67	3.13	3.19	3.49	5.55	5.52
17	5.71	4.05	3.77	4.26	---	---	3.53	3.08	3.31	3.45	5.57	5.45
18	5.57	3.76	3.96	4.24	---	---	3.47	3.11	3.37	3.47	5.55	5.56
19	---	3.81	3.97	4.03	---	---	3.48	2.90	3.41	3.60	5.55	5.52
20	---	3.86	4.10	4.06	---	---	3.57	2.89	3.38	3.73	5.42	5.47
21	---	3.91	4.25	4.37	---	---	3.58	2.84	3.35	3.76	5.33	5.68
22	5.10	4.04	4.19	3.99	---	---	3.56	2.82	3.42	3.88	5.36	5.65
23	4.85	4.00	4.13	4.37	---	---	3.57	2.82	3.60	3.98	5.45	5.56
24	4.91	4.07	---	4.32	---	---	3.60	2.73	3.60	4.07	5.43	5.63
25	5.04	---	4.12	4.07	---	---	3.79	2.63	3.58	4.16	5.34	5.44
26	5.12	---	4.26	4.55	---	---	3.93	2.77	3.53	4.22	5.27	5.64
27	5.03	---	4.17	4.36	---	---	3.80	2.98	3.51	4.29	5.18	5.75
28	4.90	3.88	4.02	4.26	---	---	3.56	3.06	3.47	4.40	5.13	5.66
29	4.90	3.88	4.03	---	---	---	3.66	3.01	3.44	4.57	5.18	5.40
30	---	3.74	4.25	---	---	---	3.57	2.99	3.43	4.72	5.24	5.36
31	4.86	---	4.21	---	---	---	---	3.00	---	4.80	5.25	---
MEAN	---	---	---	---	---	---	---	3.13	3.15	3.75	5.31	5.49
MAX	---	---	---	---	---	---	---	3.72	3.60	4.80	5.57	5.75
MIN	---	---	---	---	---	---	---	2.63	2.67	3.24	4.82	5.34

GROUND-WATER LEVELS
CATTARAUGUS COUNTY

285

420530078445201. Local number, Ct 121--Continued.



GROUND-WATER LEVELS
CHAUTAUQUA COUNTY

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 inch to 10 inch, depth 232 ft, filled in from original depth of 240 ft, diameter 12 inch from 0 ft to 130 ft, diameter 10 inch from 130 ft to 240 ft, slotted 130 ft to 144 ft, open end.

INSTRUMENTATION.--Weekly measurements by City of Jamestown personnel. Prior to Dec. 14, 1978, Type F graphic recorder at same site and datum. Dec. 14, 1978 to Sept. 16, 1982, digital recorder every fifth day high water-level published. Sept. 1982 to Sept. 1987, twice-daily readings by City of Jamestown personnel, every fifth day high water-level published. Periodic measurements by USGS personnel

DATUM.--Elevation of land-surface datum is 1,252.52 ft above sea level. Measuring point: Top of well casing, 5.48 ft above land-surface datum.

REMARKS.--Water level affected by pumping from municipal well field.

PERIOD OF RECORD.--November 1939 to September 1943, August 1946 to August 1995, October 1996 to current. Records for November 1939 to September 1943, August 1946 to September 1976 are unpublished and available in files of the Geological Survey.

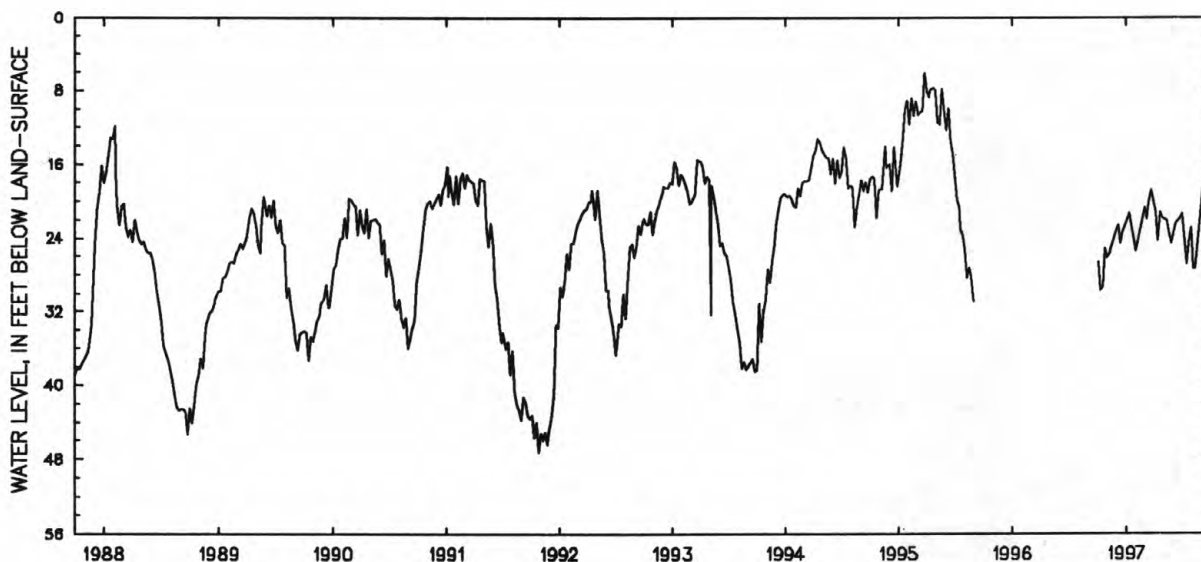
REVISED RECORD.--WDR NY-87-3: 1983-86. WDR NY-91-3: 1988-90.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.2 ft above land-surface datum, Mar. 14, 1942; lowest measured, 66.6 ft below land-surface datum, Nov. 3, 1971.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 17.77 ft below land-surface datum, Sep. 5; lowest measured, 31.35 ft below land-surface datum, Sep. 19.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04	26.57	NOV 22	24.02	FEB 28	20.75	APR 25	21.76	JUL 11	26.83	SEP 12	28.19
11	29.70	27	23.74	MAR 07	21.87	MAY 09	21.99	18	24.49	19	31.35
18	29.33	DEC 06	22.65	13	20.14	16	23.17	25	22.82	26	30.89
25	25.09	13	24.52	21	18.77	23	24.55	AUG 01	27.34		
NOV 01	26.13	19	23.47	APR 04	21.22	JUN 06	22.41	08	27.32		
08	25.75	JAN 10	21.28	11	24.35	20	21.87	29	19.25		
15	24.87	31	25.36	18	21.22	27	21.37	SEP 05	17.77		



GROUND-WATER LEVELS
CHEMUNG COUNTY

287

420829076484801. Local number, Cm 46.

LOCATION.--Lat 42°08'29", long 76°48'48", Hydrologic Unit 02050105, near Horseheads. Owner: Unknown.

AQUIFER.--Unconfined aquifer in sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled unused well, diameter 6 inch, depth 34 ft, cased to 34 ft, open end.

INSTRUMENTATION.--Electronic data recorder--60-minute average.

DATUM.--Elevation of land-surface datum is 885.69 ft above sea level. Measuring point: Top of pipe flange, 3.44 ft above land-surface datum.

REMARKS.--Water level affected by stage of Newtown Creek.

PERIOD OF RECORD.--October 1955 to current year. Records for October 1955 to September 1976 are unpublished and available in files of the Geological Survey.

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

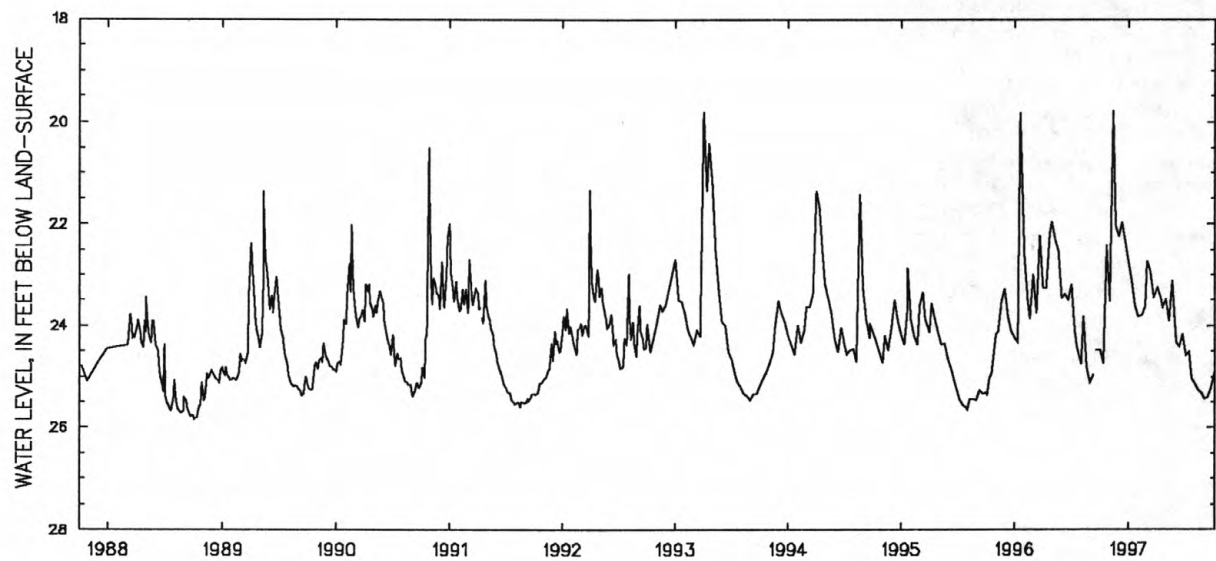
EXTREMES FOR CURRENT YEAR.--Highest water level recorded was less than 19.78 ft below land-surface datum, Nov. 8, 9, 10, 11, Dec. 2, 3; lowest water level recorded, 25.46 ft below land-surface datum, Sep. 2, 3.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.56	23.55	22.04	---	23.83	23.05	23.17	23.58	24.23	24.64	25.15	25.45
2	24.63	23.58	20.01	---	23.86	22.97	23.14	23.64	24.16	24.66	25.16	25.45
3	24.62	23.61	20.05	---	23.88	22.80	22.93	23.66	23.95	24.69	25.17	25.44
4	24.65	23.64	20.75	---	23.89	23.02	22.96	23.60	24.02	24.72	25.18	25.42
5	24.69	23.67	21.15	---	23.73	23.11	23.07	23.65	24.13	24.75	25.20	25.43
6	24.72	23.70	21.37	---	23.54	22.17	23.13	23.71	24.22	24.78	25.21	25.43
7	24.74	23.72	21.53	---	23.58	22.40	23.20	23.76	24.28	24.82	25.21	25.42
8	24.75	22.23	21.67	---	23.67	22.68	23.29	23.82	24.33	24.85	25.22	25.42
9	24.75	19.78	21.82	---	23.74	22.86	23.38	23.86	24.37	24.78	25.24	25.41
10	24.74	19.78	21.98	23.13	23.80	22.93	23.45	23.90	24.41	24.52	25.26	25.39
11	24.72	19.78	22.10	23.19	23.82	22.98	23.50	23.92	24.45	24.63	25.27	25.38
12	24.72	20.15	22.01	23.27	23.85	23.08	23.53	23.94	24.49	24.72	25.27	25.31
13	24.72	20.71	21.80	23.32	23.90	23.19	23.51	23.99	24.40	24.78	25.28	25.26
14	24.71	21.08	20.84	23.36	23.92	23.24	23.53	24.04	24.41	24.84	25.28	25.25
15	24.68	21.36	21.13	23.41	23.93	23.24	23.56	24.09	24.48	24.87	25.28	25.24
16	24.69	21.59	---	23.42	23.96	23.29	23.60	24.14	24.52	24.91	25.28	25.23
17	24.68	21.77	---	23.47	23.98	23.36	23.62	24.18	24.53	24.94	25.28	25.23
18	24.66	21.93	---	23.51	23.99	23.40	23.63	24.22	24.47	24.97	25.29	25.23
19	23.91	21.99	---	23.56	23.86	23.43	23.65	23.70	24.09	25.00	25.30	25.24
20	22.43	22.05	---	23.59	23.63	23.45	23.65	23.12	24.18	25.02	25.31	25.23
21	22.63	22.16	---	23.63	23.60	23.45	23.66	23.41	24.31	25.04	25.33	25.23
22	22.65	22.27	---	23.64	23.32	23.44	23.69	23.62	24.40	25.00	25.34	25.23
23	22.96	22.34	---	23.66	23.37	23.44	23.72	23.77	24.48	25.02	25.36	25.22
24	22.96	22.43	---	23.70	23.52	23.50	23.75	23.89	24.46	25.04	25.39	25.22
25	23.10	22.48	---	23.69	23.64	23.53	23.79	23.98	24.27	25.05	25.40	25.21
26	23.25	21.89	---	23.68	23.69	23.44	23.81	24.04	24.37	25.07	25.41	25.18
27	23.37	21.75	---	23.72	23.14	23.35	23.84	24.11	24.42	25.09	25.42	25.17
28	23.43	21.98	---	23.73	22.75	23.37	23.62	24.19	24.49	25.10	25.41	25.16
29	23.44	22.14	---	23.78	---	23.39	23.39	24.25	24.55	25.11	25.43	24.97
30	23.48	22.25	---	23.80	---	23.38	23.50	24.29	24.59	25.13	25.44	24.90
31	23.51	---	---	23.81	---	23.25	---	24.33	---	25.14	25.44	---
MEAN	24.05	22.05	---	---	23.69	23.17	23.48	23.88	24.35	24.89	25.30	25.28
MAX	24.75	23.72	---	---	23.99	23.53	23.84	24.33	24.59	25.14	25.44	25.45
MIN	22.43	19.78	---	---	22.75	22.17	22.93	23.12	23.95	24.52	25.15	24.90

GROUND-WATER LEVELS
CHEMUNG COUNTY

420829076484801. Local number, Cm 46--Continued.



GROUND-WATER LEVELS

289

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.--Unconfined aquifer in gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 inch, depth 13 ft, cased to 13 ft, open end.

INSTRUMENTATION.--Electronic data recorder--60-minute average.

DATUM.--Elevation of land-surface datum is 979.28 ft above sea level. Measuring point: File mark at top of shelter base, 1.37 ft above land-surface datum.

REMARKS.--This well drilled April 1974 as a replacement for 421556075281601 (local number Cn 11), located 90 ft north, which has a period of record from October 1965 to September 1972 (unpublished).

PERIOD OF RECORD.--April 1975 to current year. Records for April 1975 to September 1976 are unpublished and available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.45 ft below land-surface datum, Apr. 3-4, 1993; lowest, 11.81 ft below land-surface datum, Sept. 26-29, 1982.

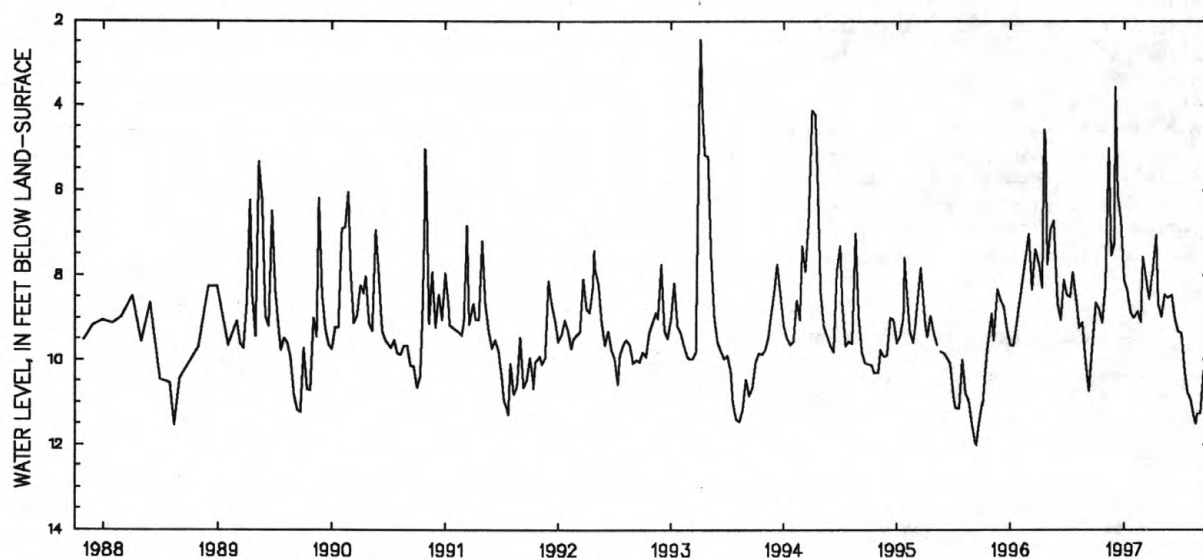
EXTREMES FOR CURRENT YEAR.--Highest water level recorded, 3.56 ft below land-surface datum, Dec. 4; lowest, 11.51 ft below land-surface datum, Aug. 17.

WATER LEVEL IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.50	8.31	7.29	8.15	9.05	---	7.60	8.95	8.55	9.31	11.00	11.30
2	8.39	8.36	5.92	8.19	9.08	---	7.29	8.92	8.64	9.34	11.05	11.30
3	8.34	8.43	4.06	8.26	9.11	---	6.98	8.90	8.72	9.44	11.08	11.18
4	8.35	8.49	3.59	8.32	9.14	---	6.75	8.88	8.78	9.57	11.13	10.58
5	8.41	8.56	3.65	8.35	9.16	---	6.60	8.82	8.83	9.71	11.17	10.19
6	8.48	8.62	3.93	8.36	9.10	---	6.53	8.72	8.88	9.85	11.21	10.04
7	8.56	8.69	4.38	8.34	9.00	---	6.54	8.62	8.93	9.97	11.26	10.00
8	8.64	8.74	4.97	8.32	8.92	---	6.64	8.54	8.97	10.09	11.29	10.04
9	8.73	7.36	5.58	8.32	8.88	---	6.81	8.49	9.01	10.20	11.33	10.14
10	8.80	5.02	6.12	8.35	8.88	---	7.04	8.47	9.04	10.31	11.36	10.29
11	8.87	4.09	6.60	8.40	8.92	---	7.30	8.45	9.08	10.41	11.39	10.44
12	8.90	3.97	7.01	8.47	8.97	---	7.56	8.42	9.12	10.48	11.41	10.58
13	8.91	4.17	7.36	8.54	9.03	---	7.81	8.39	9.17	10.47	11.44	10.70
14	8.93	4.61	7.56	8.61	9.09	---	8.02	8.38	9.21	10.44	11.45	10.81
15	8.96	5.20	7.54	8.67	9.14	---	8.20	8.39	9.22	10.43	11.47	10.87
16	9.00	5.83	7.35	8.71	9.19	---	8.33	8.41	9.20	10.48	11.49	10.89
17	9.03	6.40	7.06	8.76	9.22	---	8.44	8.45	9.18	10.56	11.50	10.87
18	9.07	6.88	6.83	8.80	9.25	---	8.53	8.50	9.21	10.64	11.47	10.84
19	9.11	7.28	6.69	8.84	9.26	---	8.61	8.54	9.27	10.71	11.38	10.83
20	9.14	7.54	6.67	8.86	9.10	---	8.69	8.55	9.33	10.76	11.28	10.85
21	9.07	7.65	6.75	8.89	8.73	8.57	8.74	8.40	9.37	10.80	11.20	10.89
22	8.81	7.69	6.92	8.91	8.40	8.66	8.79	8.12	9.39	10.83	11.15	10.94
23	8.47	7.73	7.16	8.94	8.06	8.71	8.82	7.94	9.37	10.86	11.14	11.01
24	8.24	7.79	7.42	8.96	7.74	8.74	8.86	7.86	9.34	10.89	11.15	11.06
25	8.12	7.89	7.64	8.97	7.57	8.75	8.89	7.85	9.34	10.92	11.18	11.11
26	8.08	7.97	7.78	8.96	7.53	8.76	8.92	7.91	9.41	10.89	11.20	11.16
27	8.09	7.88	7.85	8.95	7.56	8.68	8.95	8.00	9.48	10.85	11.21	11.19
28	8.12	7.53	7.90	8.94	---	8.47	8.98	8.11	9.50	10.82	11.22	11.23
29	8.18	7.29	7.97	8.95	---	8.17	9.00	8.23	9.43	10.84	11.23	---
30	8.23	7.23	8.05	8.98	---	7.96	8.98	8.34	9.35	10.88	11.25	---
31	8.27	---	8.11	9.01	---	7.81	---	8.45	---	10.94	11.28	---
MEAN	8.61	7.11	6.57	8.65	---	---	7.97	8.42	9.14	10.41	11.27	---
MAX	9.14	8.74	8.11	9.01	---	---	9.00	8.95	9.50	10.94	11.50	---
MIN	8.08	3.97	3.59	8.15	---	---	6.53	7.85	8.55	9.31	11.00	---

GROUND-WATER LEVELS
CHENANGO COUNTY

421556075281602. Local number, Cn 12--Continued.



GROUND-WATER LEVELS
CORTLAND COUNTY

291

423541076114701. Local number, C 102.

LOCATION.--Lat 42°35'41", long 76°11'47", Hydrologic Unit 02050102, at Municipal Water Works, Cortland. Owner: City of Cortland.

AQUIFER.--Unconfined aquifer in gravel of Pleistocene age.

WELL CHARACTERISTICS.--Driven observation well, diameter 1.25 inch, depth 45 ft, 1.25 inch well point.

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

DATUM.--Elevation of land-surface datum is 1136.59 ft above sea level. Measuring point: Top of coupling, 1.99 ft above land-surface datum.

REMARKS.--Water level is affected by pumping from nearby municipal supply wells. This well is a replacement for 423539076114801 (local number C 19), located 80 ft southwest, which had a period of record from February 1947 to May 1976.

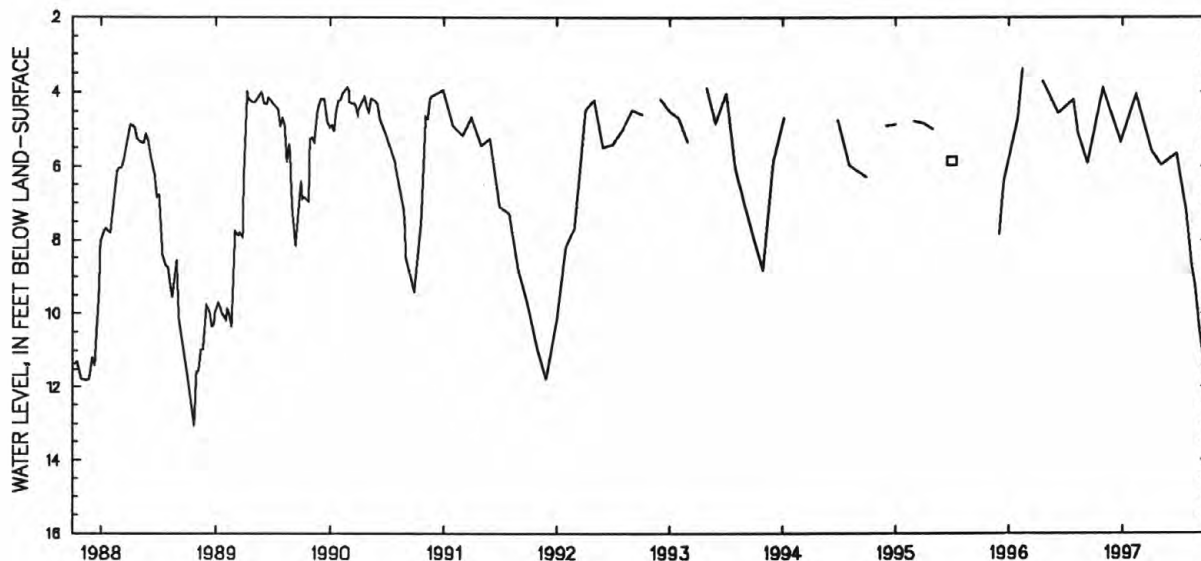
PERIOD OF RECORD.--October 1975 to current year. Records for October 1975 to September 1977 are unpublished and available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.07 ft below land-surface datum, Sept. 25, 1977; lowest measured, 14.50 ft below land-surface datum, Dec. 14, 1978.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 3.88 ft below land-surface datum, Oct. 29; lowest measured, 12.60 ft below land-surface datum, Sep. 29.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29	3.88	FEB 10	4.07	MAY 02	5.97	JUL 22	7.25	AUG 21	9.24	SEP 15	11.39
DEC 23	5.36	MAR 31	5.59	JUN 20	5.66	AUG 08	8.74	SEP 03	10.46	29	12.60



GROUND-WATER LEVELS
MADISON COUNTY

430056075354102. Local number, M 178.

LOCATION.--Lat 43°00'56", long 75°35'41", Hydrologic Unit 04140202, at Valley Mills. Owner: Donald L. Greene.

AQUIFER.--Unconfined aquifer in gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 inch, depth 15.3 ft, cased to 16 ft, open end.

INSTRUMENTATION.--Periodic measurement with chalked tape by USGS personnel Oct. 1 to Feb. 19; electronic data recorder Feb. 20 to Sept. 30. April 1975 to May 1986, digital recorder at same site and datum. Weekly observer readings May 1986 to Dec. 1988. Dec. 1988 to Feb. 1991, electronic data recorder at same site and datum.

DATUM.--Elevation of land-surface datum is 573.76 ft above sea level. Measuring point: Top of flange, 3.07 ft above land-surface datum.

REMARKS.--Well drilled April 1974 as a replacement for 430056075354101 (local number M 177), located 10 ft west, which has a period of record from October 1965 to September 1973 (unpublished).

PERIOD OF RECORD.--April 1975 to August 1995, December 1996 to current year. Records for April 1975 to September 1976 are unpublished and available in files of the Geological Survey.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.60 ft below land-surface datum, Mar. 5, 1979; lowest, 10.97 ft below land-surface datum, Oct. 24, 25, 1980.

EXTREMES FOR CURRENT PERIOD.--Highest water level recorded, 5.10 ft below land-surface datum, Mar. 6, 7; lowest measured, 10.40 ft below land-surface datum, Sep. 29, 30.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 06	5.42	JAN 17	7.00	FEB 14	7.09

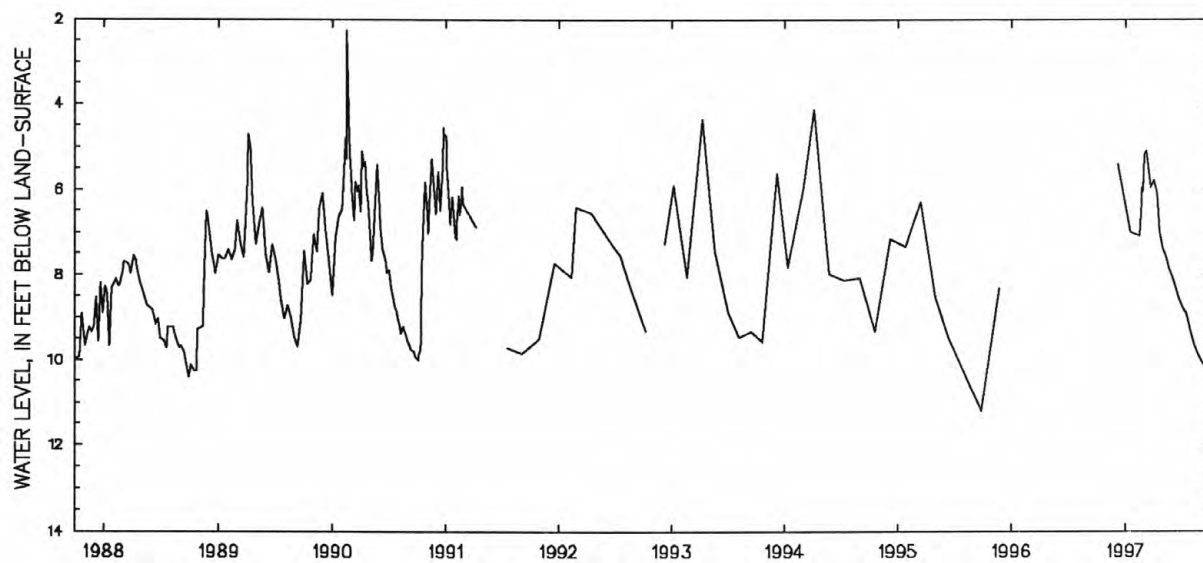
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	5.20	5.69	7.39	8.12	8.81	9.43	10.08
2	---	---	---	---	---	5.22	5.55	7.42	8.14	8.84	9.45	10.10
3	---	---	---	---	---	5.21	5.26	7.43	8.13	8.87	9.48	10.10
4	---	---	---	---	---	5.28	5.29	7.43	8.13	8.90	9.51	10.10
5	---	---	---	---	---	5.39	5.42	7.44	8.15	8.93	9.53	10.10
6	---	---	---	---	---	5.22	5.52	7.44	8.18	8.96	9.56	10.10
7	---	---	---	---	---	5.12	5.64	7.49	8.21	8.98	9.59	10.11
8	---	---	---	---	---	5.17	5.80	7.52	8.24	9.01	9.62	10.12
9	---	---	---	---	---	5.32	5.93	7.55	8.28	9.01	9.65	10.13
10	---	---	---	---	---	5.34	6.07	7.59	8.31	8.91	9.68	10.15
11	---	---	---	---	---	5.25	6.19	7.63	8.34	8.87	9.71	10.17
12	---	---	---	---	---	5.28	6.29	7.65	8.38	8.86	9.74	10.18
13	---	---	---	---	---	5.42	6.37	7.70	8.41	8.87	9.76	10.19
14	---	---	---	---	---	5.51	6.48	7.73	8.45	8.90	9.78	10.21
15	---	---	---	---	---	5.53	6.58	7.77	8.49	8.93	9.80	10.22
16	---	---	---	---	---	5.61	6.66	7.80	8.52	8.97	9.81	10.23
17	---	---	---	---	---	5.71	6.74	7.84	8.54	9.00	9.83	10.24
18	---	---	---	---	---	5.84	6.82	7.88	8.55	9.03	9.84	10.26
19	---	---	---	---	---	5.91	6.91	7.90	8.56	9.06	9.86	10.27
20	---	---	---	---	---	5.96	6.99	7.88	8.56	9.09	9.88	10.28
21	---	---	---	---	6.31	6.03	7.05	7.81	8.56	9.12	9.90	10.30
22	---	---	---	---	6.03	5.99	7.11	7.76	8.58	9.14	9.91	10.31
23	---	---	---	---	5.98	5.95	7.19	7.77	8.61	9.17	9.93	10.33
24	---	---	---	---	5.99	6.04	7.26	7.80	8.64	9.19	9.95	10.34
25	---	---	---	---	6.02	6.12	7.34	7.83	8.67	9.22	9.97	10.35
26	---	---	---	---	6.06	5.94	7.42	7.89	8.69	9.25	9.99	10.36
27	---	---	---	---	5.73	5.69	7.48	7.94	8.72	9.28	10.00	10.38
28	---	---	---	---	5.19	5.68	7.48	7.98	8.74	9.31	10.02	10.39
29	---	---	---	---	---	5.72	7.41	8.01	8.76	9.34	10.04	10.40
30	---	---	---	---	---	5.82	7.39	8.05	8.79	9.37	10.05	10.40
31	---	---	---	---	---	5.80	---	8.08	---	9.40	10.06	---
MEAN	---	---	---	---	---	5.59	6.51	7.72	8.45	9.05	9.78	10.23
MAX	---	---	---	---	---	6.12	7.48	8.08	8.79	9.40	10.06	10.40
MIN	---	---	---	---	---	5.12	5.26	7.39	8.12	8.81	9.43	10.08

GROUND-WATER LEVELS
MADISON COUNTY

293

430056075354102. Local number, M 178--Continued.



GROUND-WATER LEVELS
MONROE COUNTY

430855077304202. Local number Mo 2

LOCATION.--Lat 43°08'55", long 77°30'42", Hydrologic Unit 04140101, near east valley wall, north of Blossom Road, in Ellison Park. Owner: U.S. Geological Survey.

AQUIFER.--Unconfined aquifer in coarse sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 2 inch, depth 45 ft, cased to 41 ft, screened 41 to 45 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by Monroe County Environmental Health Laboratory personnel.

DATUM.--Elevation of land-surface datum is 252.60 ft above sea level. Measuring point: arrow at top of casing, 4.08 ft above land-surface datum.

REMARKS.--Well also sampled for water-quality.

COOPERATION.--Water-quality samples were collected and analyzed by the Monroe County Environmental Health Laboratory at Rochester, NY.

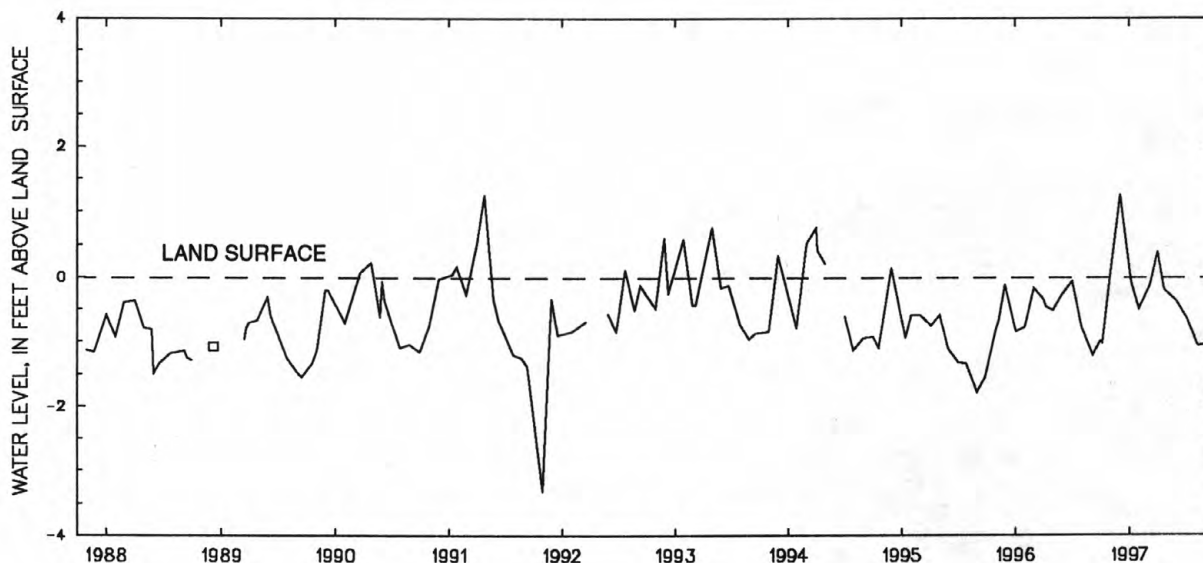
PERIOD OF RECORD.--September 1984 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.25 ft above land-surface datum, Dec. 3, 1996; lowest measured, 3.32 ft below land-surface datum, Oct. 29, 1991.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 1.25 ft above land-surface datum, Dec. 3; lowest measured, 1.06 ft below land-surface datum, Aug. 5.

WATER LEVEL, IN FEET ABOVE (+) OR BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 08	1.02	DEC 03	+1.25	JAN 31	.50	APR 01	+.38	MAY 30	.37	AUG 05	1.06
29	.08	JAN 07	.08	MAR 07	.13	22	.19	JUL 01	.64	SEP 02	1.05



GROUND-WATER LEVELS

295

MONROE COUNTY

430854077304601. Local number Mo 3

LOCATION.--Lat 43°08'54", long 77°30'46", Hydrologic Unit 04140101, on right bank of Irondequoit Creek, north of Blossom Road, in Ellison Park. Owner: U.S. Geological Survey.

AQUIFER.--Unconfined aquifer in alluvium of Holocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 2 inch, depth 16 ft, cased to 13.5 ft, screened 13.5 ft to 16 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by Monroe County Environmental Health Laboratory personnel.

DATUM.--Elevation of land-surface datum is 253.2 ft above sea level. Measuring point: arrow at top of casing, 3.74 ft above land-surface datum.

REMARKS.--Well also sampled for water quality.

COOPERATION.--Water-quality samples were collected and analyzed by the Monroe County Environmental Health Laboratory at Rochester, NY.

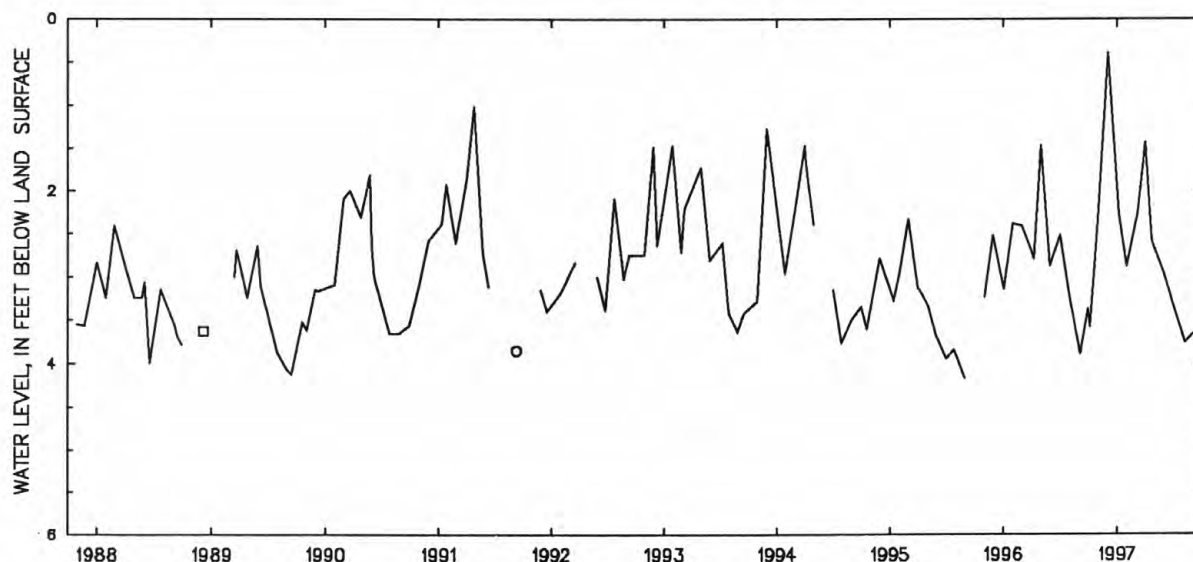
PERIOD OF RECORD.--September 1984 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.03 ft above land-surface datum, Feb. 27, 1985; lowest measured, 4.17 ft below land-surface datum, Aug.31, 1995.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 0.40 ft feet below land-surface datum, Dec. 3; lowest measured, 3.76 ft below land-surface datum, Aug. 5.

WATER LEVEL, IN FEET ABOVE (+) OR BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 08	3.58	DEC 03	.40	JAN 31	2.88	APR 01	1.44	MAY 30	2.96	AUG 05	3.76
29	2.46	JAN 07	2.28	MAR 07	2.27	22	2.59	JUL 01	3.36	SEP 02	3.66



GROUND-WATER LEVELS

MONROE COUNTY

430932077311501. Local number Mo 659

LOCATION.--Lat 43°09'32", long 77°31'15", Hydrologic Unit 04140101, at top of right bank about 400 ft north east of bridge over Irondequoit Creek overflow channel at Old Browncroft Boulevard. Owner: U.S. Geological Survey.

AQUIFER.--Confined aquifer in sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 inch, depth 215 ft, cased to 215 ft, perforated 80 to 90 ft and 160 to 170 ft, open-ended at 215 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by Monroe County Environmental Health Laboratory personnel; periodic measurement by USGS personnel.

DATUM.--Elevation of land-surface datum is 266.58 ft above sea level. Measuring point: arrow at top of casing, 1.80 ft above land-surface datum.

REMARKS.--Well also sampled for water quality.

COOPERATION.--Water-quality samples were collected and analyzed by the Monroe County Environmental Health Laboratory at Rochester, NY.

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

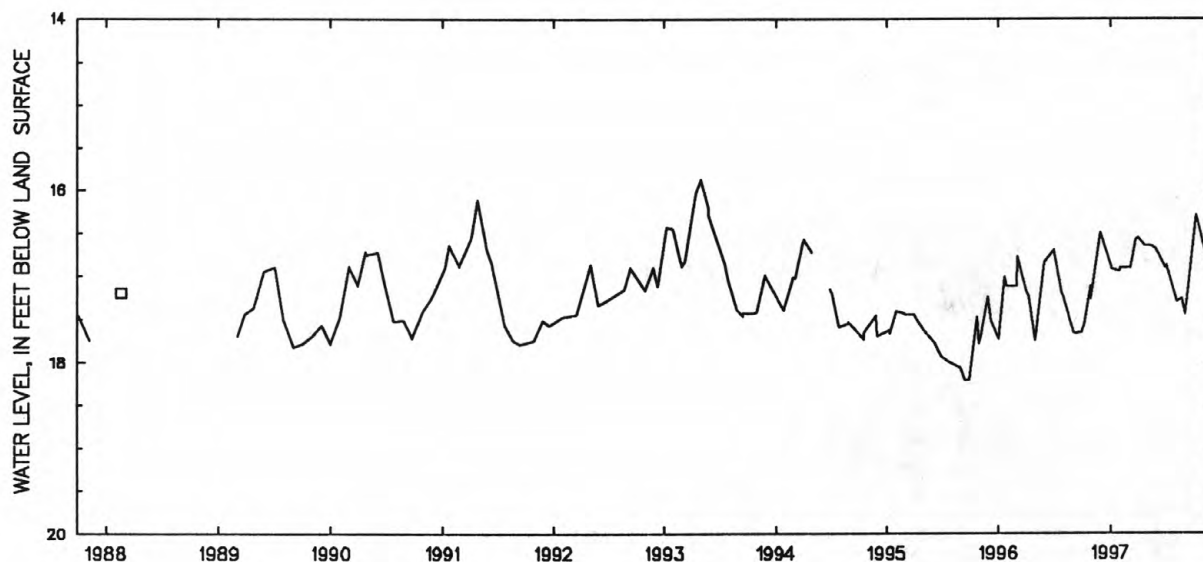
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.89 ft below land-surface datum, Apr. 30, 1993; lowest measured, 18.21 ft below land-surface datum, Sep. 29, 1995.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 16.50 ft below land-surface datum, Dec. 3; lowest measured, 17.57 ft below land-surface datum, Oct. 8.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL	
OCT 08	17.57	DEC 03	16.50	FEB 05	z16.91	APR 01	16.57	MAY 30	16.69
29	17.11	JAN 07	16.93	MAR 07	16.91	22	16.65	JUL 01	16.91
30	17.27	31	16.95	25	z16.59	MAY 13	z16.66	03	z16.88
								SEP 02	17.45

z Measured by USGS personnel.



GROUND-WATER LEVELS

297

MONROE COUNTY

430912077313301. Local number Mo 663

LOCATION.--Lat 43°09'12", long 77°31'33", Hydrologic Unit 04140101, on east bank of Irondequoit Creek about 1200 ft. south of Browncroft Boulevard. Owner: U.S. Geological Survey.

AQUIFER.--Unconfined aquifer in alluvium of Holocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 2 in, depth 10 ft, cased to 7.5 ft, screened 7.5 ft to 10 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by Monroe County Environmental Health Laboratory personnel.

DATUM.--Elevation of land-surface datum is 251.16 ft above sea level. Measuring point: arrow at top of casing, 3.60 ft above land-surface datum.

REMARKS.--Well also sampled for water quality.

COOPERATION.--Water-quality samples were collected and analyzed by the Monroe County Environmental Health Laboratory at Rochester, NY.

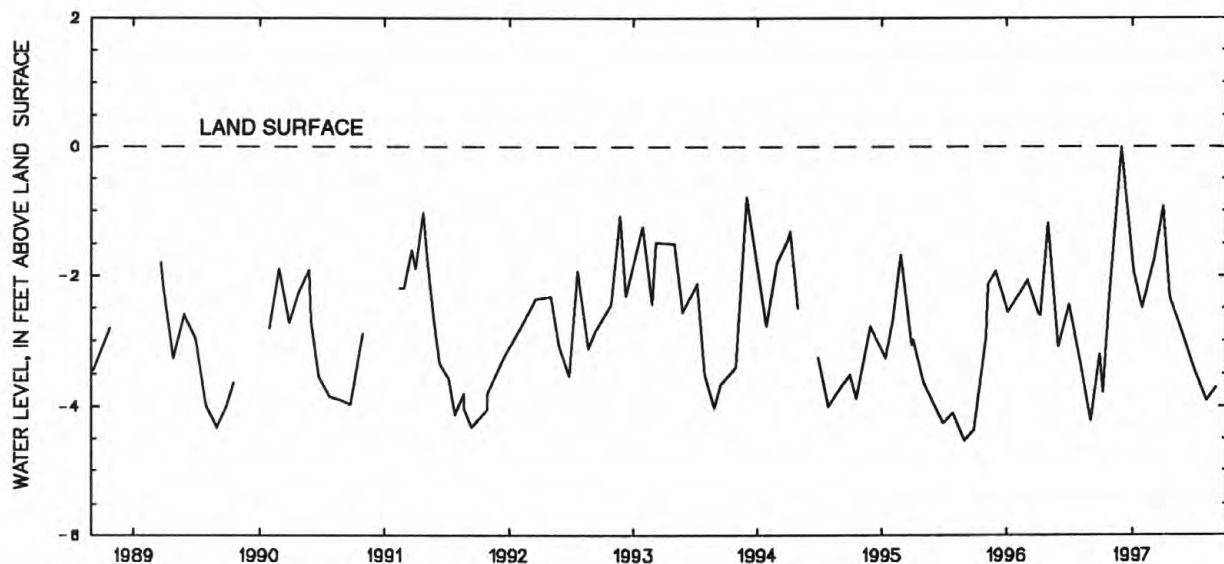
PERIOD OF RECORD.--September 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.00 ft, land-surface datum, Dec. 3, 1996; lowest measured, 4.53 ft below land-surface datum, Aug. 31, 1995.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 0.00 ft, land-surface datum, Dec. 3; lowest measured, 3.92 ft below land-surface datum, Aug. 5.

WATER LEVEL, IN FEET ABOVE (+) OR BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 09	3.78	DEC 03	.00	JAN 31	2.49	APR 01	.92	MAY 30	2.93	AUG 05	3.92
29	2.32	JAN 07	1.93	MAR 07	1.75	22	2.32	JUL 01	3.44	SEP 02	3.71



GROUND-WATER LEVELS

MONROE COUNTY

430912077313302. Local number Mo 664

LOCATION.--Lat 43°09'12", long 77°31'33", Hydrologic Unit 04140101, on east bank of Irondequoit Creek about 1200 ft south of Browncroft Boulevard. Owner: U.S. Geological Survey.

AQUIFER.--Unconfined aquifer in alluvium of Holocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 2 inch, depth 27 ft, cased to 22 ft, screened 22 ft to 27 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by Monroe County Environmental Health Laboratory personnel.

DATUM.--Elevation of land-surface datum is 251.18 ft above sea level. Measuring point: arrow at top of casing, 3.20 ft above land-surface datum.

REMARKS.--Well also sampled for water quality.

COOPERATION.--Water-quality samples were collected and analyzed by the Monroe County Environmental Health Laboratory at Rochester, NY.

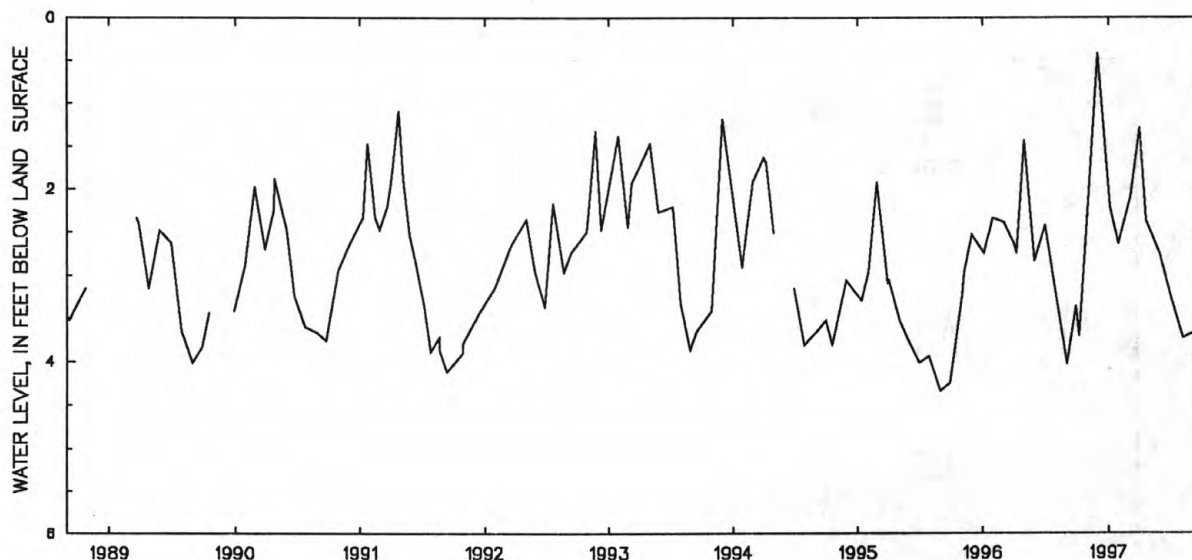
PERIOD OF RECORD.--September 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.42 ft below land-surface datum, Dec. 3, 1996; lowest measured, 4.35 ft below land-surface datum, Aug. 31, 1995.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 0.42 ft below land-surface datum, Dec. 3; lowest measured, 3.73 ft below land-surface datum, Aug. 5.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 09	3.71	DEC 03	.42	JAN 31	2.64	APR 01	1.29	MAY 30	2.76	AUG 05	3.73
29	2.60	JAN 07	2.21	MAR 07	2.09	22	2.37	JUL 01	3.24	SEP 02	3.68



GROUND-WATER LEVELS

299

MONROE COUNTY

430928077313802. Local number Mo 665

LOCATION.--Lat 43°09'28", long 77°31'38", Hydrologic Unit 04140101, on east bank of Irondequoit Creek about 100 ft north of Browncroft Boulevard. Owner: U.S. Geological Survey.

AQUIFER.--Unconfined aquifer in alluvium of Holocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 2 inch, depth 17 ft, cased to 12 ft, screened 12 ft to 17 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by Monroe County Environmental Health Laboratory personnel.

DATUM.--Elevation of land-surface datum is 254.14 ft sea level. Measuring point: arrow at top of casing, 2.45 ft above land-surface datum.

REMARKS.--Well also sampled for water quality.

COOPERATION.--Water-quality samples were collected and analyzed by the Monroe County Environmental Health Laboratory at Rochester, NY.

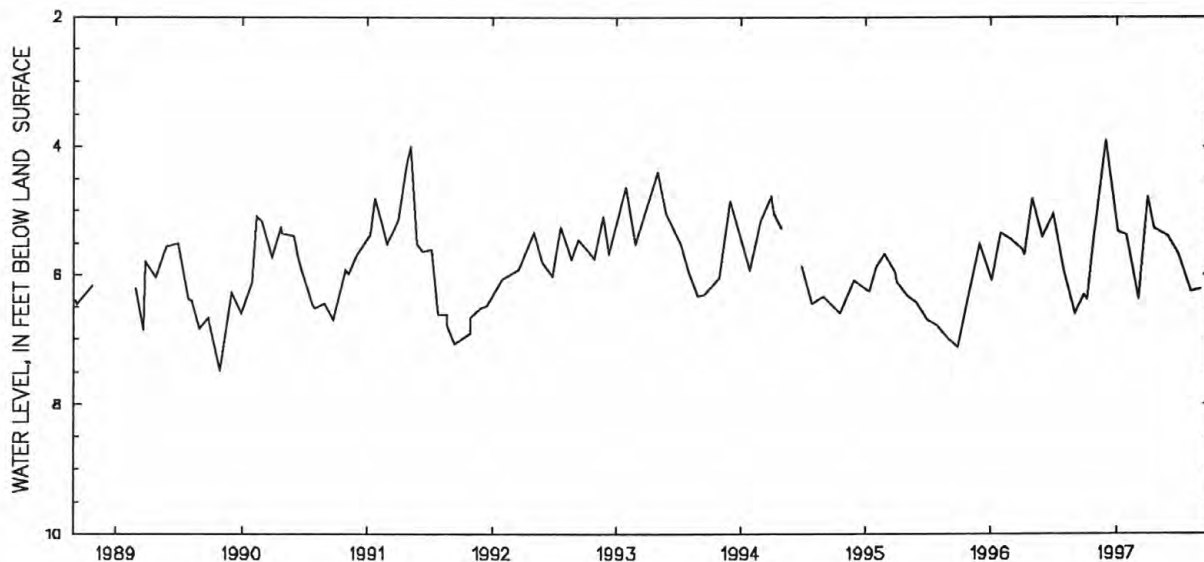
PERIOD OF RECORD.--September 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.90 ft below land-surface datum, Dec. 3, 1996; lowest measured, 7.48 ft below land-surface datum, Oct. 31, 1989.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 3.90 ft below land-surface datum, Dec. 3; lowest measured, 6.37 ft below land-surface datum, Oct. 8 and Mar. 7.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 08	6.37	DEC 03	3.90	JAN 31	5.37	APR 01	4.77	MAY 30	5.39	AUG 05	6.26
29	5.45	JAN 07	5.31	MAR 07	6.37	22	5.27	JUL 01	5.69	SEP 02	6.22



GROUND-WATER LEVELS
MONROE COUNTY

430928077313803. Local number Mo 666

LOCATION.--Lat 43°09'28", long 77°31'38", Hydrologic Unit 04140101, on east bank of Irondequoit Creek about 100 ft north of Browncroft Boulevard. Owner: U.S. Geological Survey.

AQUIFER.--Unconfined aquifer in alluvium of Holocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 2 inch, depth 27 ft, cased to 22 ft, screened 22 ft to 27 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by Monroe County Environmental Health Laboratory personnel; periodic measurement by USGS personnel.

DATUM.--Elevation of land-surface datum is 254.14 ft above sea level. Measuring point: arrow at top of casing, 3.65 ft above land-surface datum.

REMARKS.--Well also sampled for water quality.

COOPERATION.--Water-quality samples were collected and analyzed by the Monroe County Environmental Health Laboratory at Rochester, NY.

PERIOD OF RECORD.--September 1988 to current year.

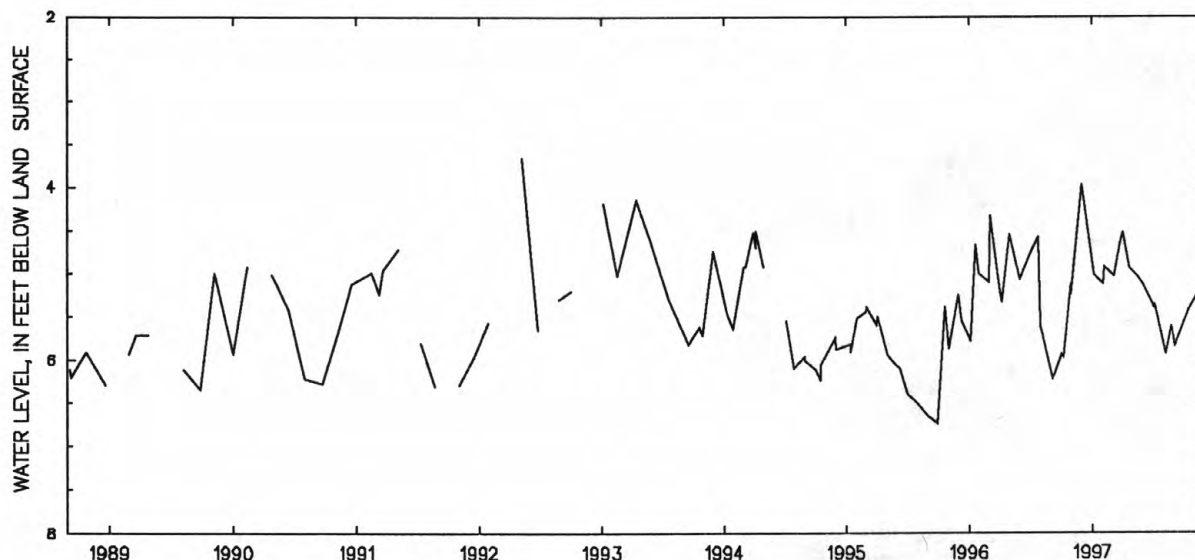
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.66 ft below land-surface datum, May 6, 1992; lowest measured, 6.75 ft below land-surface datum, Sept. 29, 1995.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 3.97 ft below land-surface datum, Dec. 3; lowest measured, 5.97 ft below land-surface datum, Oct. 8.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 08	5.97	DEC 03	3.97	FEB 05	z4.92	APR 01	4.52	MAY 30	5.11	AUG 05	5.93
29	5.13	JAN 07	5.01	MAR 07	5.03	22	4.94	JUL 01	5.40	21	z5.61
30	5.24	31	5.13	25	z4.63	MAY 13	z5.02	03	z5.36	SEP 02	5.85

z Measured by USGS personnel.



GROUND-WATER LEVELS

301

MONROE COUNTY

430928077314001. Local number Mo 667

LOCATION.--Lat 43°09'28", long 77°31'40", Hydrologic Unit 04140101, on west bank of Irondequoit Creek about 300 ft. north of Browncroft Boulevard and 100 ft west of Irondequoit Creek. Owner: U.S. Geological Survey.

AQUIFER.--Unconfined aquifer in alluvium of Holocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 2 inch, depth 15 ft, cased to 10 ft, screened 10 ft to 15 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by Monroe County Environmental Health Laboratory personnel.

DATUM.--Elevation of land-surface datum is 255.38 ft above sea level. Measuring point: arrow at top of casing, 2.05 ft above land-surface datum.

REMARKS.--Well also sampled for water quality.

COOPERATION.--Water-quality samples were collected and analyzed by the Monroe County Environmental Health Laboratory at Rochester, NY.

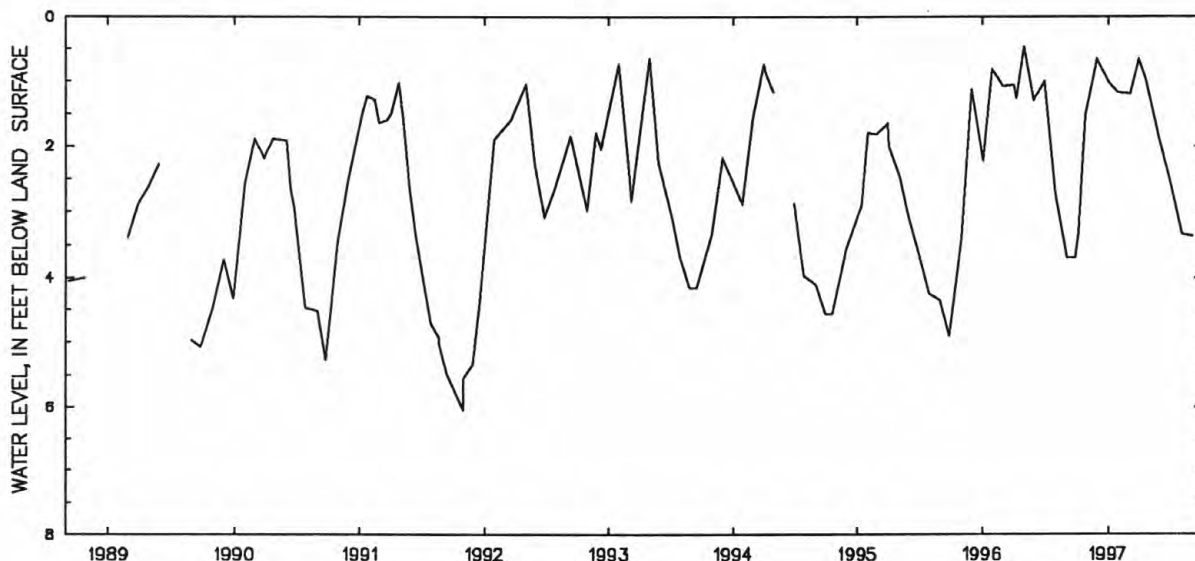
PERIOD OF RECORD.--September 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.47 ft below land-surface datum, May 1, 1996; lowest measured, 6.06 ft below land-surface datum, Oct. 29, 1991.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 0.66 ft below land-surface datum, Apr. 1; lowest measured, 3.36 ft below land-surface datum, Sept. 2.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 08	3.31	DEC 03	.67	JAN 31	1.18	APR 01	.66	MAY 30	1.87	AUG 05	3.33
29	1.54	JAN 07	1.02	MAR 07	1.20	22	.97	JUL 01	2.52	SEP 02	3.36



GROUND-WATER LEVELS

MONROE COUNTY

430928077314002. Local number Mo 668

LOCATION.--Lat 43°09'28", long 77°31'40", Hydrologic Unit 04140101, on west bank of Irondequoit Creek about 300 ft north of Browncroft Boulevard and 100 ft west of Irondequoit Creek. Owner: U.S. Geological Survey.

AQUIFER.--Unconfined aquifer in alluvium of Holocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 2 inch, depth 36 ft, cased to 31 ft, screened 31 ft to 36 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by Monroe County Environmental Health Laboratory personnel.

DATUM.--Elevation of land-surface datum is 255.32 ft above sea level. Measuring point: arrow at top of casing, 1.40 ft above land-surface datum.

REMARKS.--Well also sampled for water quality.

COOPERATION.--Water-quality samples were collected and analyzed by the Monroe County Environmental Health Laboratory at Rochester, NY.

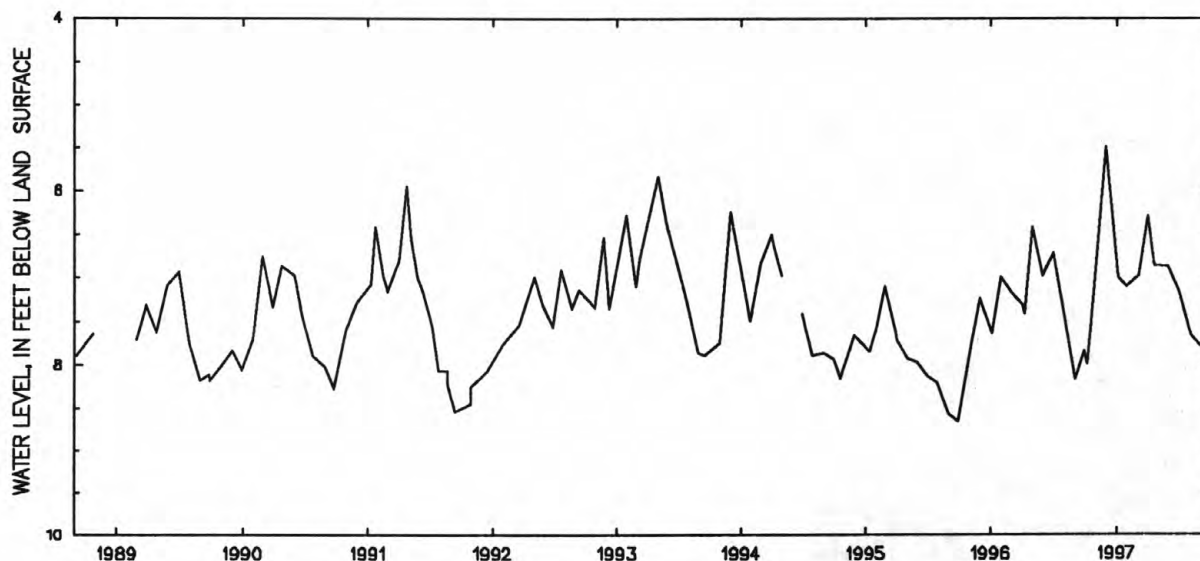
PERIOD OF RECORD.--September 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.49 ft below land-surface datum, Dec. 3, 1996; lowest measured, 8.65 ft below land-surface datum, Sept. 29, 1995.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 5.49 ft below land-surface datum, Dec. 3; lowest measured, 7.99 ft below land-surface datum, Oct. 8.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 08	7.99	DEC 03	5.49	JAN 31	7.10	APR 01	6.30	MAY 30	6.87	AUG 05	7.66
29	7.17	JAN 07	7.00	MAR 07	6.97	22	6.86	JUL 01	7.15	SEP 02	7.78



GROUND-WATER LEVELS
 NIAGARA COUNTY

303

431308078544501. Local number, Ni 70.

LOCATION.--Lat 43°13'08", long 78°54'45", Hydrologic Unit 04130001, near Ransomville. Owner: Calvin C. Schultz.

AQUIFER.--Unconfined aquifer in sand of Pleistocene age.

WELL CHARACTERISTICS.--Dug unused well, diameter 4 ft to 5 ft (reported), stone-lined, depth 24 ft.

INSTRUMENTATION.--Weekly measurement with chalked tape by observer; periodic measurement by USGS personnel.

DATUM.--Elevation of land-surface datum is 335.95 ft above sea level. Measuring point: Top of 1 inch hole in steel cover, 0.70 ft above land-surface datum.

PERIOD OF RECORD.--August 1972 to September 1997 (discontinued). Records for August 1972 to September 1976 are unpublished and available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.90 ft below land-surface datum, Mar. 12, 1985; lowest measured, 13.88 ft below land-surface datum, Dec. 21, 1991.

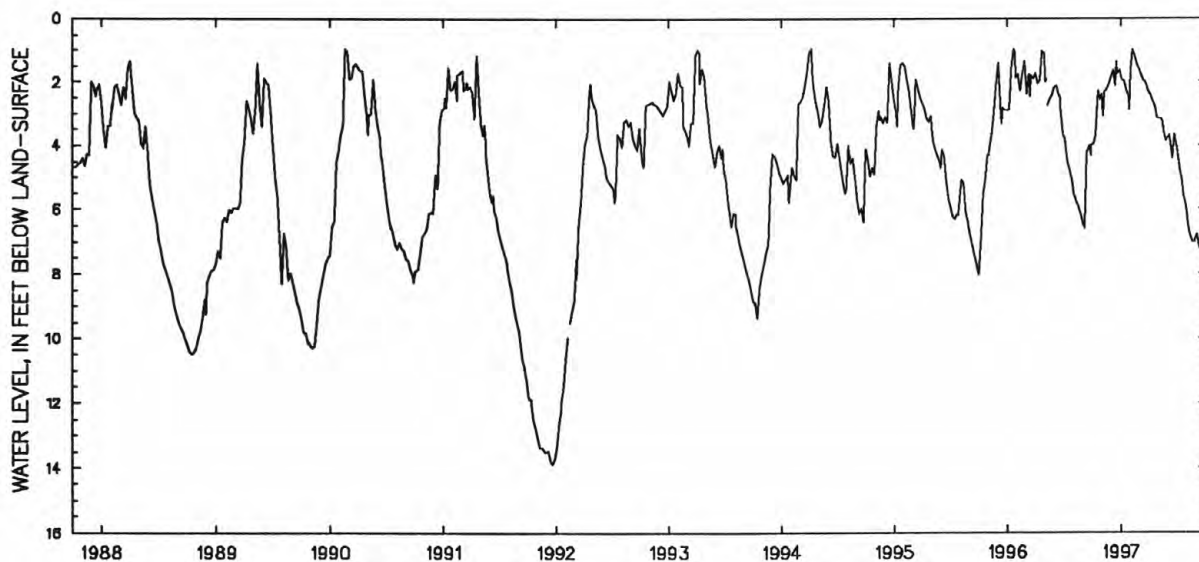
EXTREMES FOR CURRENT YEAR.--Highest water level measured, 1.00 ft below land-surface datum, Feb. 8; lowest measured, 7.28 ft below land-surface datum, Sep. 13.

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

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05	3.96	DEC 07	1.65	FEB 01	1.65	APR 12	2.60	JUN 21	3.67	AUG 23	7.02
12	3.68	14	2.12	08	1.00	19	2.81	28	4.11	30	6.77
19	2.30	18	1.37	15	1.25	26	3.16	JUL 05	4.55	SEP 06	7.10
26	2.56	21	1.75	22	1.48	MAY 10	3.19	09	z4.85	13	7.28
NOV 02	2.40	28	1.65	MAR 01	1.65	14	z3.30	12	5.01	20	7.19
06	z3.09	JAN 04	1.90	15	2.00	17	3.55	19	5.59	27	7.04
09	2.32	11	1.98	19	z1.98	24	3.87	26	5.93		
16	2.25	18	2.25	22	2.10	JUN 02	3.68	AUG 02	6.47		
23	2.10	25	2.45	29	2.29	07	3.92	09	6.78		
30	1.88	29	z2.87	APR 05	2.42	14	4.40	16	7.01		

z Measured by USGS personnel.



GROUND-WATER LEVELS
OTSEGO COUNTY

424136075025101. Local number, Og 23.

LOCATION.--Lat 42°41'36", long 75°02'51", Hydrologic Unit 02050101, at "Wild Creek Farm", 0.6 mi northeast of intersection of State Highway 205 and Kallan Road, 2.2 mi north of Hartwick, and 3.2 mi southeast of Oaksville. Owner: Thomas Kallan.

AQUIFER.--Till of Pleistocene age.

WELL CHARACTERISTICS.--Dug unused well, diameter 36 inch, depth 15 ft, stone-lined.

INSTRUMENTATION.--Weekly measurement with chalked tape by observer; periodic measurement by USGS personnel.

DATUM.--Elevation of land-surface datum is 1,432.44 ft above sea level. Measuring point: Top edge of hole drilled through concrete well cover, at land-surface datum.

PERIOD OF RECORD.--May 1953 to August 1995 (discontinued). Records for May 1953 to September 1976 are unpublished and available in files of the Geological Survey.

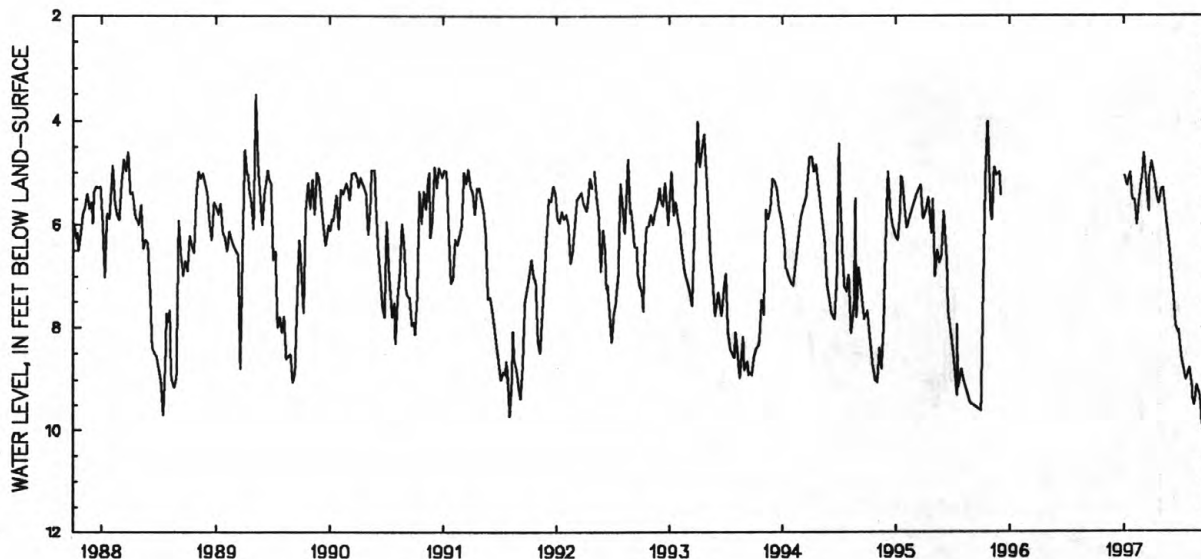
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.98 ft below land-surface datum, Apr. 2, 1960, Sept. 19, 1977; lowest measured, 12.66 ft below land-surface datum, Nov. 14, 1964.

EXTREMES FOR CURRENT PERIOD.--Highest water level measured, 4.64 ft below land-surface datum, Mar. 5; lowest measured, 9.90 ft below land-surface datum, Sep. 29.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 04	5.05	MAR 05	4.64	APR 28	5.32	JUN 23	z8.04	AUG 20	9.12
11	5.25	13	5.38	MAY 05	z5.30	30	8.56	30	9.34
19	5.00	20	z5.74	09	5.56	JUL 09	8.76	SEP 06	9.88
28	5.50	22	5.09	16	5.93	16	9.00	18	9.18
FEB 04	5.52	30	4.80	23	6.39	31	8.78	29	9.90
11	6.00	APR 07	5.15	JUN 06	7.39	AUG 06	z9.19		
18	5.46	14	5.45	14	7.96	07	9.36		
28	5.00	21	5.60	20	8.10	13	9.50		

z Measured by USGS personnel.



GROUND-WATER LEVELS
STEUBEN COUNTY

305

422445077203301. Local number, Sb 472.

LOCATION.--Lat 42°24'45", long 77°20'33", Hydrologic Unit 02050105, near Kanona. Owner: David Owens.

AQUIFER.--Unconfined aquifer in gravel of Pleistocene age.

WELL CHARACTERISTICS.--Driven observation well, diameter 2.5 inch, depth 17 ft, filled in from original depth of 18 ft, cased to 16 ft, 1.25 inch well point (60-gauze screen 16 ft to 18 ft, damaged during well installation).

INSTRUMENTATION.--Weekly measurement with chalked tape by observer; periodic measurement by USGS personnel.

DATUM.--Elevation of land-surface datum is 1,209.78 ft above sea level. Measuring point: Top of casing, 2.99 ft above land-surface datum.

PERIOD OF RECORD.--November 1965 to current year. Records for November 1965 to September 1976 are unpublished and available in files of the Geological Survey.

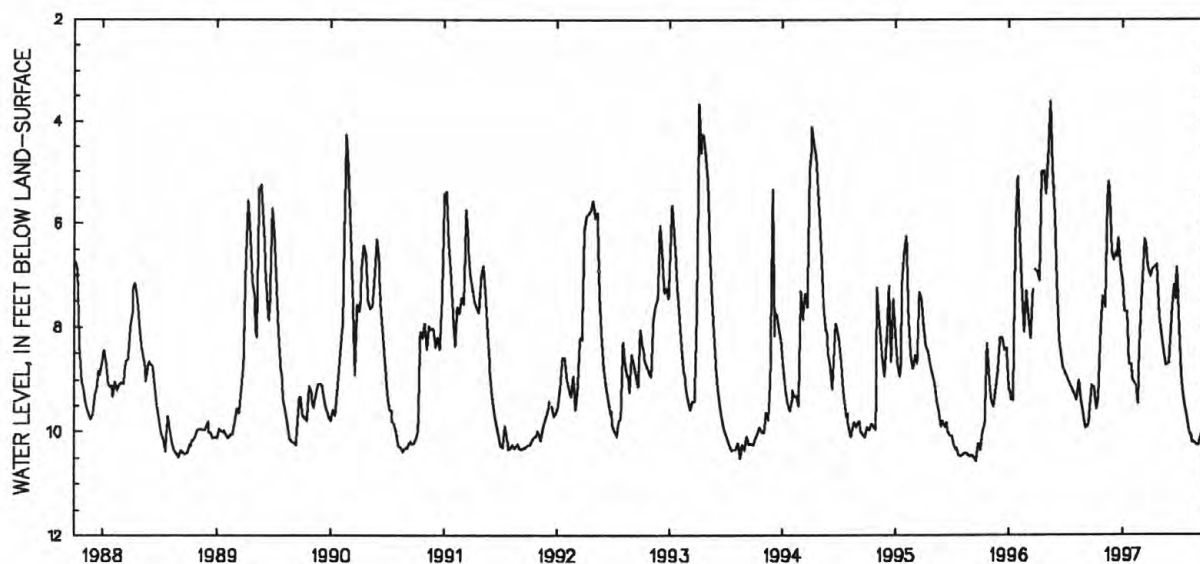
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.61 ft below land-surface datum, May 12, 1996; lowest measured, 10.84 ft below land-surface datum, Sept. 22, 1966.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 5.21 ft below land-surface datum, Nov. 14; lowest measured, 10.25 ft below land-surface datum, Aug. 31.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06	9.56	DEC 08	6.55	FEB 02	9.02	APR 06	6.90	JUN 18	z7.46	AUG 13	z10.18
13	9.36	12	z6.66	09	9.12	20	6.81	22	6.86	17	10.21
20	8.00	15	6.29	16	9.46	27	7.79	30	8.31	24	10.24
29	7.40	24	6.90	23	8.40	30	z7.90	JUL 06	8.90	31	10.25
NOV 03	7.63	29	7.12	MAR 02	7.54	MAY 04	8.10	13	9.29	SEP 07	10.05
10	5.55	JAN 06	7.71	09	6.60	11	8.40	20	9.60	17	10.10
14	z5.21	12	7.71	11	z6.31	18	8.74	22	z9.64	21	10.12
17	5.55	19	8.72	16	6.40	26	8.69	AUG 03	10.05	28	10.19
24	6.55	26	8.70	23	6.86	JUN 08	7.59	05	z10.05		
DEC 01	6.70	30	z8.99	30	7.02	15	7.19	10	10.20		

z Measured by USGS personnel.



GROUND-WATER LEVELS
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.--Unconfined aquifer in sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 inch, depth 20 ft, cased to 20 ft, open end.

INSTRUMENTATION.--Electronic data recorder--60-minute punch; periodic measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 1,606.76 ft above sea level. Measuring point: Top of casing 2.64 ft above land-surface datum.

REMARKS.--Well drilled May 1974 as a replacement for 423743078070801 (local number Wo 2), located 25 ft southeast, which has a period of record from November 1965 to May 1974 (unpublished). Water level may be affected by periodic water-quality sampling by county health department.

PERIOD OF RECORD.--May 1974 to current year. Records for May 1974 to September 1976 are unpublished and available in files of the Geological Survey.

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

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

EXTREMES FOR CURRENT YEAR.--Highest water level recorded, 10.44 ft, below land-surface datum, Mar. 3, 4; lowest recorded, 13.35 ft, below land-surface datum, Sep. 2.

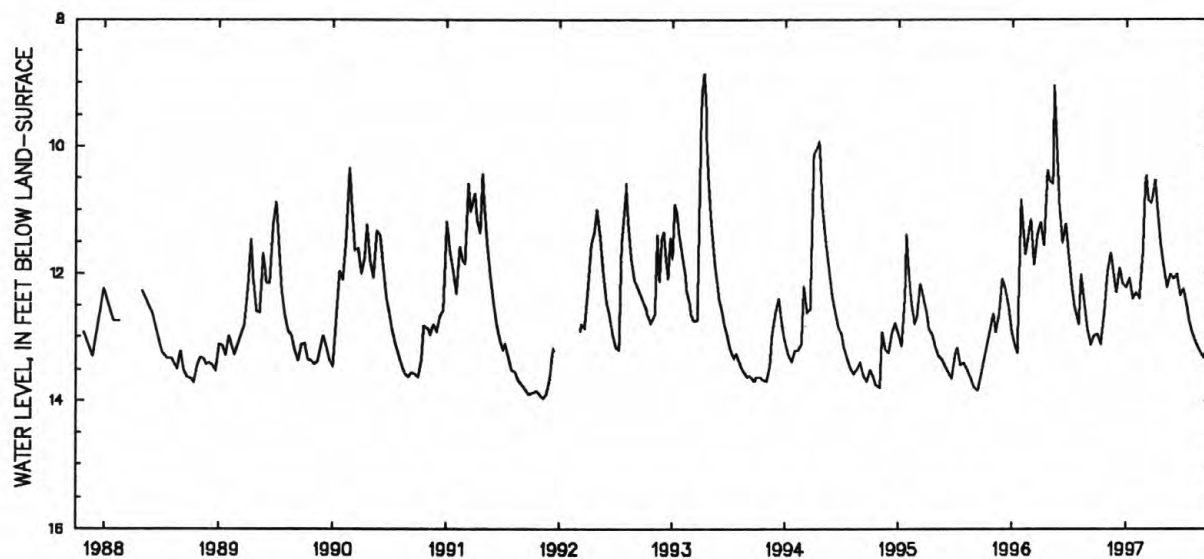
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.95	12.02	12.28	12.22	12.35	10.51	10.59	11.94	12.09	12.29	12.95	13.31
2	12.95	12.07	12.01	12.23	12.38	10.51	10.64	11.99	12.02	12.33	12.98	13.34
3	12.97	12.13	11.79	12.24	12.41	10.47	10.69	12.03	11.92	12.36	13.00	13.22
4	12.99	12.20	11.71	12.22	12.43	10.46	10.74	12.07	11.86	12.39	13.00	13.19
5	13.02	12.23	11.70	12.20	12.36	10.52	10.81	12.10	11.85	12.43	12.98	13.19
6	13.05	12.27	11.71	12.16	12.30	10.59	10.87	12.12	11.86	12.45	13.00	13.19
7	13.08	12.29	11.75	12.13	12.29	10.68	10.94	12.15	11.91	12.50	13.03	13.19
8	13.10	12.26	11.80	12.12	12.31	10.74	11.01	12.17	11.94	12.53	13.06	13.20
9	13.12	11.94	11.86	12.10	12.35	10.81	11.07	12.19	11.98	12.53	13.06	13.23
10	13.11	11.68	11.91	12.09	12.39	10.85	11.15	12.22	12.01	12.52	13.07	13.26
11	13.08	11.58	11.95	12.12	12.42	10.85	11.21	12.25	12.06	12.54	13.11	13.26
12	13.08	11.57	12.00	12.17	12.45	10.87	11.25	12.27	12.09	12.56	13.12	13.23
13	13.09	11.58	12.03	12.22	12.48	10.89	11.27	12.28	12.13	12.58	13.14	13.21
14	13.12	11.63	12.03	12.25	---	10.87	11.31	12.29	12.18	12.63	13.14	13.20
15	13.14	11.70	12.04	12.27	---	10.77	11.35	12.32	12.22	12.66	13.14	13.20
16	13.15	11.75	12.05	12.29	---	10.72	11.39	12.34	12.26	12.63	13.15	13.21
17	13.17	11.81	12.07	12.32	---	10.73	11.43	12.33	12.28	12.65	13.15	13.22
18	13.18	11.85	12.11	12.34	12.55	10.80	11.46	12.32	12.30	12.68	13.15	13.24
19	13.07	11.89	12.14	12.36	12.19	10.86	11.48	12.27	12.32	12.71	13.17	13.25
20	12.65	11.93	12.18	12.39	11.69	10.89	11.52	12.02	12.35	12.74	13.19	13.25
21	12.15	11.98	12.23	12.42	11.33	10.94	11.56	11.85	12.38	12.76	13.20	13.24
22	11.80	12.04	12.26	12.43	11.02	10.93	11.60	11.78	12.41	12.75	13.20	13.24
23	11.65	12.09	12.29	12.36	10.99	10.90	11.64	11.78	12.44	12.77	13.20	13.26
24	11.63	12.15	12.29	12.30	11.06	10.94	11.69	11.78	12.36	12.79	13.20	13.26
25	11.66	12.20	12.25	12.26	11.15	10.94	11.73	11.80	12.16	12.81	13.21	13.28
26	11.72	12.23	12.23	12.24	11.22	10.71	11.79	11.86	12.15	12.84	13.22	13.27
27	11.78	12.24	12.22	12.24	11.06	10.54	11.83	11.91	12.15	12.87	13.23	13.27
28	11.84	12.27	12.22	12.24	10.62	10.51	11.86	11.96	12.17	12.90	13.25	13.27
29	11.89	12.29	12.22	12.27	---	10.51	11.88	12.00	12.21	12.92	13.26	12.94
30	11.93	12.31	12.22	12.29	---	10.52	11.89	12.05	12.25	12.93	13.28	12.51
31	11.98	---	12.22	12.31	---	10.53	---	12.09	---	12.94	13.30	---
MEAN	12.62	12.01	12.06	12.25	---	10.72	11.32	12.08	12.14	12.64	13.13	13.20
MAX	13.18	12.31	12.29	12.43	---	10.94	11.89	12.34	12.44	12.94	13.30	13.34
MIN	11.63	11.57	11.70	12.09	---	10.46	10.59	11.78	11.85	12.29	12.95	12.51

GROUND-WATER LEVELS
WYOMING COUNTY

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423743078070802. Local number, Wo 4--Continued.



QUALITY OF GROUND WATER

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WATER-QUALITY DATA, WATER YEAR, OCTOBER 1996 TO SEPTEMBER 1997

STATION	NUMBER	LOCAL IDENT- I- PIER	DATE	TUR- BID- ITY (NTU)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH WATER WHOLE LAB (STAND- ARD UNITS)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)
MONROE COUNTY													
430854077304601	Mo 3		10-09-96 04-22-97	0.80 0.60	1340 1350	1.0 1.8	7.6 7.7	15 13	0.01 <0.01	0.18 0.17	0.71 0.57	0.020 <0.005	0.007 0.003
430855077304202	Mo 2		10-09-96 04-22-97	160 68	941 978	0.3 1.0	7.5 7.8	11 6.6	0.03 0.01	<0.10 0.20	<0.05 <0.05	0.180 0.075	0.002 0.002
430912077313301	Mo 663		10-09-96 04-22-97	14 1.9	1580 1240	<0.1 0.8	7.1 7.3	88 65	0.32 2.3	1.1 0.71	<0.05 <0.05	0.090 0.030	0.003 0.011
430912077313302	Mo 664		10-09-96 04-22-97	10 17	21500 20000	<0.1 <0.1	7.0 7.0	89 180	0.29 8.8	0.89 5.5	<0.05 <0.05	0.350 0.490	0.043 0.010
430928077313802	Mo 665		10-08-96 04-22-97	85 70	2100 2170	0.3 0.2	7.0 7.0	155 177	2.3 7.8	1.7 3.6	<0.05 <0.05	0.400 0.570	0.002 0.003
430928077313803	Mo 666		10-08-96 04-22-97	100 85	1670 1600	<0.1 <0.1	7.0 7.0	217 234	8.8 0.06	7.5 11	<0.05 <0.05	0.330 0.500	0.007 0.004
430928077314001	Mo 667		10-08-96 04-22-97	220 180	2720 2180	0.8 0.8	7.1 7.6	135 149	11.0 4.9	8.7 12	<0.05 <0.05	2.45 3.00	0.003 0.003
430928077314002	Mo 668		10-08-96 04-22-97	100 60	2830 2820	<0.1 <0.1	7.0 7.1	172 92	4.3 0.13	4.0 6.5	<0.05 <0.05	0.640 0.660	0.002 0.005
430932077311501	Mo 659		10-08-96 10-08-96 04-22-97 04-22-97	21 50 50 16	845 855 811 802	<0.1 <0.1 <0.1 <0.1	7.9 7.6 7.8 8.4	3.0 6.7 6.6 <0.2	0.03 0.05 1.9 0.02	<0.10 0.70 0.13 <0.10	<0.05 <0.05 <0.05 <0.05	0.010 0.020 <0.005 <0.005	<0.002 <0.002 <0.002 <0.002

STATION	NUMBER	DATE	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA) (00916)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)
MONROE COUNTY												
430854077304601		10-09-96 04-22-97	1.8 1.5	360 360	100 100	26 25	127 120	2.7 2.2	220 220	90 94	160 110	725 746
430855077304202		10-09-96 04-22-97	1.6 2.6	310 310	89 89	20 22	73 62	2.1 1.4	150 150	85 87	9000 3000	552 555
430912077313301		10-09-96 04-22-97	16 9.0	700 590	230 190	32 25	62 35	0.70 0.78	140 110	110 53	26000 150	907 715
430912077313302		10-09-96 04-22-97	0.50 1.3	5500 4900	1400 1300	390 400	2600 2300	22 21	7200 6700	660 650	23000 22000	-- 1470
430928077313802		10-08-96 04-22-97	23 29	640 720	190 200	37 40	226 210	0.60 0.41	240 240	0.60 1.6	13000 15000	1240 1240
430928077313803		10-08-96 04-22-97	18 18	810 N930	190 200	48 50	93 83	8.6 7.4	N93 79	4.2 0.80	2600 27000	919 940
430928077314001		10-08-96 04-22-97	25 1.9	760 790	210 200	48 56	263 160	24 19	440 250	0.90 1.3	27000 27000	1490 1200
430928077314002		10-08-96 04-22-97	14 15	1100 1000	200 200	64 64	260 270	5.0 5.8	530 600	2.4 7.9	26000 26000	1450 1460
430932077311501		10-08-96 10-08-96 04-22-97 04-22-97	1.2 2.5 3.3 1.1	260 280 300 230	28 38 36 17	46 47 47 44	55 45 38 N50	2.7 2.5 2.4 3.0	200 180 160 200	4.5 11 16 2.1	4000 6500 7300 6200	356 382 348 352

QUALITY OF GROUND WATER

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GROUND-WATER DATA COLLECTED AT SPECIAL-STUDY SITES
ALLEGHENY AND MONONGAHELA RIVER BASIN NAWQA PROJECT

SUBUNIT OF GLACIOFLUVIAL SEDIMENTS OF THE APPALACHIAN PLATEAU PHYSIOGRAPHIC PROVINCE

This table contains water level records and well characteristics for a network of fourteen privately-owned wells used to supply water for domestic use. The network of wells was established as part of the National Water-Quality Assessment (NAWQA) project in the Allegheny and Monongahela River Basin.

The wells were sampled to assess the status of ground-water quality in areas underlain by a subarea of the Appalachian Plateau Physiographic Province limited to the glaciofluvial sediments. This sampling is termed a Subunit Survey for the NAWQA program.

Explanation of column headings- SITE IDENTIFIER: 15 digit unique identifier based on site latitude (first six digits), longitude (digits 7-13), and a two digit sequence number suffix. LOCATION: Name of 1:24000 U.S.Geological Survey topographic quadrangle. ELEVATION OF LAND SURFACE: Land-surface at well site, in feet above sea level. SOURCE OF DEPTH DATA: D, Driller; O, Owner; M, Measured. WATER LEVEL METHOD: T, electric tape.

SITE IDENTIFIER	LOCAL ID	LOCATION	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	DEPTH OF WELL, TOTAL (FEET) (72008)	SOURCE OF DEPTH DATA	DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL FEET) (72019)	WATER-LEVEL METHOD
ALLEGANY COUNTY								
420015078143201	Ag 261	Bolivar	1490	86.0	O	09-17-96	25.2	T
CATTARAUGUS COUNTY								
422404078594901	Ct 632	Gowanda	1320	24.0	M	09-15-96	11.4	T
421623079015001	Ct 633	Cherry Creek	1345	38.0	O	--	--	-
420631078245701	Ct 634	Olean	1460	114.0	O	09-01-96	34.4	T
420937078464601	Ct 635	Little Valley	1410	24.0	O	--	--	-
421202078352101	Ct 636	Humphrey	1520	77.5	D	09-05-96	13.1	T
421728078382301	Ct 637	Ellicottville	1570	47.0	O	--	--	-
422101078325501	Ct 638	Ashford	1730	28.0	O	--	--	-
CHAUTAUQUA COUNTY								
420310079432301	Cu 860	Clymer	1390	12.0	O	--	--	-
420253079283801	Cu 861	Panama	1510	53.0	O	--	--	-
421604079284001	Cu 862	Hartfield	1325	71.0	D	--	--	-
422139079111001	Cu 863	Hamlet	1490	53.0	O	--	--	-
420819079055901	Cu 864	Kennedy	1325	93.0	O	09-17-96	72.9	T
420418079070601	Cu 865	Ivory	1300	110.0	D	--	--	-

QUALITY OF GROUND WATER

ALLEGHENY AND MONONGAHELA RIVER BASIN NAWQA PROJECT

SUBUNIT OF GLACIOFLUVIAL SEDIMENTS OF THE APPALACHIAN PLATEAU PHYSIOGRAPHIC PROVINCE--Continued

PESTICIDES ANALYZED IN GROUNDWATER

Method Detection Limits

REMARKS.--Water from each of the 14 wells in this study was tested for pesticides. The table below lists the 47 pesticides on this schedule, the unit of measure (micrograms per liter, ug/L) the U.S. Geological Survey National Water Information System parameter code, and the method detection limit (MDL). This pesticide schedule includes selected pesticides and metabolites that are efficiently partitioned from a water sample by solid-phase extraction and are sufficiently volatile and thermally stable for analysis by gas chromatography. Samples are filtered through a glass-fiber membrane filter with openings that are 0.7 microns in size to remove sediment and microorganisms. Therefore, this schedule is suitable for compounds dissolved in water. Each sample was analyzed for all of the compounds in this schedule. Pesticide compounds measured at or above the MDL in one or more samples are listed in the water-quality table following the MDL table. The MDL provides an index to indicate where measurement uncertainty is increased. When an analyte is detected and all criteria for a positive result are met, the concentration is reported. If the concentration is less than the MDL, an 'E' code will be reported with the value. If the analyte is qualitatively identified as present, but the quantitative determination is substantially more uncertain, the NWQL will identify the result with an 'E' code even though the measured value is greater than the MDL. A value reported with an 'E' code should be used with caution. When no analyte is detected in a sample, the default reporting value is the MDL preceded by a less-than sign (<).

Parameter Code	Compound Name	MDL	Unit	Parameter Code	Compound Name	MDL	Unit
49260	ACETOCHLOR	0.002	ug/L	82667	METHYL PARATHION	0.006	ug/L
46342	ALACHLOR	0.002	ug/L	39415	METOLACHLOR	0.002	ug/L
34253	ALPHA HCH	0.002	ug/L	82630	METRIBUZIN	0.004	ug/L
39632	ATRAZINE	0.001	ug/L	82671	MOLINATE	0.004	ug/L
82673	BENFLURALIN	0.002	ug/L	82684	NAPROPAMIDE	0.003	ug/L
04028	BUTYLATE	0.002	ug/L	34653	P, P'-DDE	0.006	ug/L
82680	CARBARYL	0.003	ug/L	39542	ETHYL PARATHION	0.004	ug/L
82674	CARBOFURAN	0.003	ug/L	82669	PEBULATE	0.004	ug/L
38933	CHLORPYRIFOS	0.004	ug/L	82683	PENDIMETHALIN	0.004	ug/L
04041	CYANAZINE	0.004	ug/L	82687	CIS-PERMETHRIN	0.005	ug/L
82682	DCPA	0.002	ug/L	82664	PHORATE	0.002	ug/L
04040	DESETHYL ATRAZINE	0.002	ug/L	04037	PROMETON	0.018	ug/L
39572	DIAZINON	0.002	ug/L	82676	PRONAMIDE	0.003	ug/L
39381	DIELDRIN	0.001	ug/L	04024	PROPACHLOR	0.007	ug/L
82660	2, 6-DIETHYLANILINE	0.003	ug/L	82679	PROPANIL	0.004	ug/L
82677	DISULFOTON	0.017	ug/L	82685	PROPARGITE	0.013	ug/L
82668	EPTC	0.002	ug/L	04035	SIMAZINE	0.005	ug/L
82663	ETHALFLURALIN	0.004	ug/L	82670	TEBUTHIURON	0.010	ug/L
82672	ETHOPROP	0.003	ug/L	82665	TERBACIL	0.007	ug/L
04095	FONOFOS	0.003	ug/L	82675	TERBUFOS	0.013	ug/L
39341	LINDANE	0.004	ug/L	82681	THIOBENCARB	0.002	ug/L
82666	LINURON	0.002	ug/L	82678	TRIALATE	0.001	ug/L
39532	MALATHION	0.005	ug/L	82661	TRIFLURALIN	0.002	ug/L
82686	METHYL AZINPHOS	0.001	ug/L				

ALLEGHENY AND MONONGAHELA RIVER BASIN NAWQA PROJECT

SUBUNIT OF GLACIOFLUVIAL SEDIMENTS OF THE APPALACHIAN PLATEAU PHYSIOGRAPHIC PROVINCE--Continued

VOLATILE ORGANIC COMPOUNDS ANALYZED IN GROUNDWATER.

Method Detection Limits

REMARKS.-- Water from each of the 14 wells in this study was tested for volatile organic compounds (VOC's). The table below lists the compounds on the schedule, the unit of measure (micrograms per liter, ug/L), the U.S. Geological Survey National Water Information System parameter code, and the method detection limit (MDL). The volatile organic compounds in this schedule included selected (VOC's) that are desorbed from a water sample by the purge and trap method and then analyzed by gas chromatography. Each sample was analyzed for all of the compounds in this schedule. Volatile organic compounds measured at or above the MDL for one or more wells are listed in the water-quality table following the MDL table. The MDL provides an index to indicate where measurement uncertainty is increased. When an analyte is detected and all criteria for a positive result are met, the concentration is reported. If the concentration is less than the MDL, an 'E' code will be reported with the value. If the analyte is qualitatively identified as present, but the quantitative determination is substantially more uncertain, the NWQL will identify the result with an 'E' code even though the measured value is greater than the MDL. A value reported with an 'E' code should be used with caution. When no analyte is detected in a sample, the default reporting value is the MDL preceded by a less-than sign (<).

Parameter Code	Compound Name	MDL	Unit	Parameter Code	Compound Name	MDL	Unit
77057	ACETATE, VINYL	5.0	ug/L	77652	FREON-113	0.05	ug/L
81552	ACETONE	5.0	ug/L	81607	FURAN, TETRAHYDRO-	5.0	ug/L
34210	ACROLEIN	2.0	ug/L	39702	HEXACHLORO-BUTADIENE	0.20	ug/L
34215	ACRYLONITRILE	2.0	ug/L	77103	2-HEXANONE	5.0	ug/L
34030	BENZENE	0.05	ug/L	50000	ISODURENE	0.05	ug/L
81555	BENZENE, BROMO-	0.05	ug/L	81597	METHACRYLATE, METHYL-	1.0	ug/L
34301	BENZENE, CHLORO-	0.05	ug/L	73570	METHACRYLATE, ETHYL-	1.0	ug/L
34536	BENZENE, O-DI-CHLORO-	0.05	ug/L	34413	METHANE, BROMO-	0.10	ug/L
34566	BENZENE, 1,3-DI-CHLORO-	0.05	ug/L	34418	METHANE, CHLORO-	0.20	ug/L
34571	BENZENE, 1,4-DI-CHLORO-	0.05	ug/L	77297	METHANE, CHLORO-BROMO-	0.10	ug/L
77613	BENZENE 1,2,3-TRICHLORO-	0.20	ug/L	32105	METHANE, CHLORO-DIBROMO-	0.10	ug/L
34551	BENZENE, 1,2,4-TRICHLORO-	0.20	ug/L	30217	METHANE, DIBROMO-	0.10	ug/L
77221	BENZENE, 1,2,3-TRIMETHYL-	0.05	ug/L	32101	METHANE, DICHLORO-BROMO-	0.10	ug/L
77222	BENZENE, 1,2,4-TRIMETHYL-	0.05	ug/L	34668	METHANE, DIFLUORO-DICHLORO-	0.20	ug/L
77226	BENZENE, 1,2,5-TRIMETHYL-	0.05	ug/L	77424	METHANE, IODO-	0.05	ug/L
34371	BENZENE, ETHYL-	0.05	ug/L	32102	METHANE, TETRACHLORO-	0.05	ug/L
77224	BENZENE, N-PROPYL-	0.05	ug/L	32104	METHANE, TRIBROMO-	0.20	ug/L
77223	BENZENE, ISOPROPYL-	0.05	ug/L	32106	METHANE, TRICHLORO-	0.05	ug/L
77342	BENZENE, N-BUTYL-	0.05	ug/L	34488	METHANE, FLUORO-TRICHLORO-	0.10	ug/L
77350	BENZENE, SEC-BUTYL-	0.05	ug/L	49991	METHYL ACRYLATE	2.0	ug/L
77353	BENZENE, TERT-BUTYL-	0.05	ug/L	81593	METHACRYLONITRILE	2.0	ug/L
73547	2-BUTENE, TRANS-1,4-DICHLORO-	5.0	ug/L	81595	METHYL ETHYL KETONE	5.0	ug/L
77041	CARBON DISULFIDE	0.05	ug/L	78133	METHYL ISOBUTYL KETONE	5.0	ug/L
77651	ETHANE, 1,2-DIBROMO-	0.10	ug/L	34696	NAPHTHALENE	0.20	ug/L
34311	ETHANE, CHLORO-	0.10	ug/L	49999	PREHNITENE	0.05	ug/L
34496	ETHANE, 1,1-DICHLORO-	0.05	ug/L	34541	PROPANE, 1,2-DICHLORO-	0.05	ug/L
32103	ETHANE, 1,2-DICHLORO-	0.05	ug/L	77170	PROPANE, 2,2-DICHLORO-	0.05	ug/L
34506	ETHANE, 1,1,1-TRICHLORO-	0.05	ug/L	77173	PROPANE, 1,3-DICHLORO-	0.05	ug/L
34511	ETHANE, 1,1,2-TRICHLORO-	0.10	ug/L	77443	PROPANE, 1,2,3-TRICHLORO-	0.20	ug/L
77562	ETHANE, 1,1,2-TETRATRICHLORO-	0.05	ug/L	82625	PROPANE, CHLORO-DIBROMO-	0.50	ug/L
34516	ETHANE, 1,1,2,2-TETRATRICHLORO-	0.05	ug/L	78109	PROPENE, 3-CHLORO-	0.10	ug/L
34396	ETHANE, HEXACHLORO-	0.05	ug/L	77168	PROPENE, 1,1-DICHLORO-	0.05	ug/L
50002	ETHENE, BROMO-	0.10	ug/L	34704	PROPENE, CIS-1,3-DICHLORO-	0.10	ug/L
34423	ETHENE, CHLORO-	0.10	ug/L	34699	PROPENE, TRANS-1,3-DICHLORO-	0.10	ug/L
34501	ETHENE, 1,1-DICHLORO-	0.10	ug/L	77128	STYRENE	0.05	ug/L
77093	ETHENE, CIS-1,2-DICHLORO-	0.05	ug/L	34010	TOLUENE	0.05	ug/L
34546	ETHENE, TRANS-1,2-DICHLORO-	0.05	ug/L	77275	TOLUENE, O-CHLORO-	0.05	ug/L
39180	ETHENE, TRICHLORO-	0.05	ug/L	77277	TOLUENE, P-CHLORO-	0.05	ug/L
34475	ETHENE, TETRACHLORO-	0.05	ug/L	77220	TOLUENE, O-ETHYL-	0.05	ug/L
81577	ETHER, DI-ISOPROPYL-	0.10	ug/L	77356	TOLUENE, P-ISOPROPYL-	0.05	ug/L
81576	ETHER, ETHYL-	0.10	ug/L	39175	VINYL CHLORIDE	0.10	ug/L
78032	ETHER, METHYL-TERT-BUTYL-	0.10	ug/L	77135	XYLENE, O-	0.05	ug/L
50004	ETHER, ETHYL-TERT-BUTYL-	0.10	ug/L	85795	XYLENE, M- and P-	0.05	ug/L
50005	ETHER, TERT-PENTYL-METHYL-	0.10	ug/L				

QUALITY OF GROUND WATER

ALLEGHENY AND MONONGAHELA RIVER BASIN NAWQA PROJECT

SUBUNIT OF GLACIOFLUVIAL SEDIMENTS OF THE APPALACHIAN PLATEAU PHYSIOGRAPHIC PROVINCE--Continued

REMARKS.--Explanation of the column headings--SITE IDENTIFIER: 15-digit unique identifier based on site latitude (first six digits), longitude (digits seven through thirteen), and a 2-digit sequence number suffix; DEG°C: degrees Celsius; NTU: nephelometric turbidity units; uS/CM: microsiemens per centimeter at 25 degrees Celsius; mg/L: milligrams per liter; PCI/L: Picocurie per liter; uG/L: micrograms per liter; 2 SIGMA: counting statistics that represents error in the reported radon value caused by variation in sample counting, background radiation, volume of sample, and decay since sample was collected; DISS: dissolved; REC: recoverable; WH TOT IT: alkalinity, as determined by incremental titration of unfiltered water; DIS TOT IT: alkalinity as determined by incremental titration of filtered water.

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

SITE IDENTIFIER	LOCAL ID	DATE	TIME	PH		TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (mg/L)	HARD NESS TOTAL (mg/L AS CACO3)	CALCIUM DIS-SOLVED (mg/L AS CA)	
				SPE-CIFIC CON-DUCT-ANCE (uS/CM) (00095)	WATER WHOLE FIELD (STAND-ARD UNITS) (00400)					
ALLEGANY COUNTY										
420015078143201	Ag 261	10-09-96	0800	226	7.1	9.5	1.6	86	23	
CATTARAUGUS COUNTY										
422404078594901	Ct 632	10-07-96	1300	953	7.7	10.5	4.0	330	100	
421623079015001	Ct 633	10-07-96	0800	290	7.3	10.5	1.5	150	46	
420631078245701	Ct 634	09-18-96	0800	424	7.5	11.0	0.5	160	45	
420937078464601	Ct 635	09-17-96	1300	166	6.5	12.0	3.8	62	18	
421202078352101	Ct 636	09-18-96	1300	196	8.1	12.5	0.2	85	27	
421728078382301	Ct 637	09-19-96	0800	322	7.8	13.5	0.2	150	51	
422101078325501	Ct 638	09-19-96	1300	159	6.7	9.5	4.5	50	16	
CHAUTAUQUA COUNTY										
420310079432301	Cu 860	09-16-96	1300	420	7.8	14.0	5.7	140	46	
420253079283801	Cu 861	09-16-96	0800	219	8.0	12.0	5.7	140	43	
421604079284001	Cu 862	10-02-96	0800	214	8.4	11.5	0.2	83	24	
422139079111001	Cu 863	10-02-96	1300	972	6.8	11.5	0.1	270	87	
420819079055901	Cu 864	10-09-96	1300	718	7.5	12.0	3.0	310	91	
420418079070601	Cu 865	10-10-96	0800	373	7.9	12.0	0.1	140	39	
LOCAL ID	MAGNE-SIUM, DIS-SOLVED (mg/L AS MG) (00925)	SODIUM, DIS-SOLVED (mg/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (mg/L AS K) (00935)	ALKA-LINITY WAT WH TOT IT FIELD (mg/L AS CACO3) (00419)	ALKA-LINITY WAT DIS TOT IT FIELD (mg/L AS CACO3) (39086)	SULFATE DIS-SOLVED (mg/L) (00945)	CHLO-RIDE, DIS-SOLVED (mg/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (mg/L AS F) (00950)	BROMIDE DIS-SOLVED (mg/L AS BR) (71870)	SILICA, DIS-SOLVED (mg/L AS SIO2) (00955)
ALLEGANY COUNTY										
Ag 261	6.9	9.8	0.8	63	66	8.0	23	0.2	0.17	10
CATTARAUGUS COUNTY										
Ct 632	20	50	3.9	223	214	33	140	<0.1	0.07	7.7
Ct 633	7.5	6.3	0.9	103	116	22	13	<0.1	0.07	9.1
Ct 634	12	23	1.5	145	149	17	33	0.2	0.03	11
Ct 635	4.1	5.7	0.5	66	66	8.1	10	0.1	<0.01	11
Ct 636	4.3	6.1	0.7	100	86	6.4	0.6	0.2	0.03	8.2
Ct 637	5.1	6.3	1.0	131	128	12	14	<0.1	0.02	5.8
Ct 638	2.5	11	0.9	45	45	10	12	<0.1	0.01	4.0
CHAUTAUQUA COUNTY										
Cu 860	5.7	30	2.6	127	131	20	17	<0.1	0.03	5.1
Cu 861	8.4	2.1	0.5	106	106	13	4.9	<0.1	<0.01	8.9
Cu 862	5.5	12	0.6	102	101	0.2	8.5	0.2	0.07	10
Cu 863	14	58	20	256	240	16	140	<0.1	0.60	7.4
Cu 864	20	9.1	1.6	155	147	43	110	<0.1	0.05	8.6
Cu 865	9.5	24	1.4	179	191	12	8.4	0.2	0.11	10

QUALITY OF GROUND WATER

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ALLEGHENY AND MONONGAHELA RIVER BASIN NAWQA PROJECT

SUBUNIT OF GLACIOFLUVIAL SEDIMENTS OF THE APPALACHIAN PLATEAU PHYSIOGRAPHIC PROVINCE--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

LOCAL ID	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (mG/L) (70300)	NITRO- GEN, NITRITE DIS- SOLVED (mG/L) AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (mG/L) AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (mG/L) AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (mG/L) AS N) (00623)	PHOS- PHORUS DIS- SOLVED (mG/L) AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (mG/L) AS P) (00671)	IRON, DIS- SOLVED (uG/L) AS FE) (01046)	MANGA- NESE, DIS- SOLVED (uG/L) AS MN) (01056)
ALLEGANY COUNTY									
Ag 261	126	<0.01	0.41	<0.015	<0.2	0.03	0.03	21	3
CATTARAUGUS COUNTY									
Ct 632	530	<0.01	3.7	<0.015	<0.2	<0.01	<0.01	11	<1
Ct 633	184	<0.01	0.67	0.02	<0.2	<0.01	<0.01	8	<1
Ct 634	216	<0.01	<0.05	0.07	<0.2	<0.01	<0.01	84	290
Ct 635	80	0.01	0.11	0.03	<0.2	<0.01	<0.01	420	2200
Ct 636	94	<0.01	<0.05	0.03	<0.2	0.01	0.02	180	270
Ct 637	166	0.03	0.33	0.03	<0.2	<0.01	0.03	4	1600
Ct 638	72	<0.01	0.31	<0.015	<0.2	<0.01	0.02	47	1
CHAUTAUQUA COUNTY									
Cu 860	232	<0.01	9.9	0.02	<0.2	<0.01	<0.010	5	<1
Cu 861	150	<0.01	5.4	0.02	<0.2	<0.01	<0.010	<3	<1
Cu 862	162	<0.01	<0.05	0.14	<0.2	<0.01	0.010	390	35
Cu 863	516	<0.01	4.7	2.9	3.2	<0.01	<0.010	140	2900
Cu 864	428	<0.01	3.4	<0.015	<0.2	<0.01	<0.010	8	11
Cu 865	210	<0.01	<0.05	0.20	<0.2	0.01	0.010	450	120
LOCAL ID	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	CARBON, DIS- SOLVED (mG/L) AS C) (00681)	ATRA- ZINE, WATER, DISS, REC (uG/L) (39632)	DEETHYL ATRA- ZINE, WATER, DISS, REC (uG/L) (04040)	CARBO- FURAN FLTRD 0.7 m GF, REC (uG/L) (82674)	DI- AZINON, DIS- SOLVED (uG/L) (39572)	EPTC WATER FLTRD 0.7 m GF, REC (uG/L) (82668)	METO- LACHLOR WATER DISSOLV (uG/L) (39415)
ALLEGANY COUNTY									
Ag 261	2800	49	0.3	<0.001	<0.002	<0.003	<0.002	<0.002	<0.002
CATTARAUGUS COUNTY									
Ct 632	510	26	0.6	<0.001	<0.002	<0.003	<0.002	<0.002	<0.002
Ct 633	2600	50	1.0	0.008	E0.005	<0.003	<0.002	<0.002	<0.002
Ct 634	190	17	0.3	<0.001	<0.002	<0.003	<0.002	<0.002	<0.002
Ct 635	1300	35	--	<0.001	<0.002	<0.003	<0.002	<0.002	<0.002
Ct 636	860	26	0.2	<0.001	<0.002	<0.003	<0.002	<0.002	<0.002
Ct 637	680	28	0.4	<0.001	E0.006	<0.003	<0.002	<0.002	<0.002
Ct 638	1500	37	0.7	0.005	E0.006	<0.003	E0.002	<0.002	<0.002
CHAUTAUQUA COUNTY									
Cu 860	810	29	1.2	0.011	E0.145	<0.003	<0.002	<0.002	<0.002
Cu 861	810	29	0.3	<0.001	E0.008	<0.003	<0.002	<0.002	<0.002
Cu 862	340	21	0.4	<0.001	<0.002	<0.003	<0.002	<0.002	<0.002
Cu 863	1200	32	2.5	0.012	E0.009	E0.015	<0.002	0.004	0.005
Cu 864	1000	31	0.8	<0.001	<0.002	<0.003	<0.002	<0.002	<0.002
Cu 865	460	23	0.4	<0.001	<0.002	<0.003	<0.002	<0.002	<0.002

QUALITY OF GROUND WATER

ALLEGHENY AND MONONGAHELA RIVER BASIN NAWQA PROJECT

SUBUNIT OF GLACIOFLUVIAL SEDIMENTS OF THE APPALACHIAN PLATEAU PHYSIOGRAPHIC PROVINCE--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

LOCAL ID	METRI- BUZIN SENCOR WATER DISSOLV (uG/L) (82630)	SI- MAZINE, WATER, DISS, REC (uG/L) (04035)	TEBU- THIURON WATER FLTRD 0.7 m GF, REC (uG/L) (82670)	BENZENE 124-TRI METHYL UNFILT RECOVER (uG/L) (77222)	ETHYL- BENZENE TOTAL (uG/L) (34371)	CARBON DI- SULFIDE WATER WHOLE TOTAL (uG/L) (77041)	1,1,1- TRI- CHLORO- ETHANE TOTAL (uG/L) (34506)	FREON- 113 WATER UNFLTRD REC (uG/L) (77652)	METHYL- CHLO- RIDE TOTAL (uG/L) (34418)
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ALLEGANY COUNTY

Ag 261	<0.004	<0.005	<0.01	E0.010	<0.05	<0.05	<0.05	<0.05	<0.2
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CATTARAUGUS COUNTY

Ct 632	<0.004	<0.005	<0.01	<0.05	<0.05	<0.05	E0.090	<0.05	<0.2
Ct 633	<0.004	<0.005	<0.01	E0.010	<0.05	<0.05	<0.05	<0.05	<0.2
Ct 634	<0.004	<0.005	<0.01	<0.05	<0.05	E0.007	<0.05	<0.05	E0.010
Ct 635	<0.004	<0.005	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2
Ct 636	<0.004	<0.005	<0.01	E0.070	<0.05	E0.030	<0.05	<0.05	E0.010
Ct 637	<0.004	<0.005	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	E0.010
Ct 638	0.013	<0.005	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	E0.010

CHAUTAUQUA COUNTY

Cu 860	0.021	<0.005	<0.01	E0.010	<0.05	E0.020	<0.05	<0.05	<0.2
Cu 861	0.021	<0.005	<0.01	E0.007	<0.05	E0.020	<0.05	<0.05	<0.2
Cu 862	<0.004	<0.005	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2
Cu 863	<0.004	<0.005	<0.01	<0.05	<0.05	<0.05	E0.006	<0.05	<0.2
Cu 864	<0.004	<0.005	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2
Cu 865	<0.004	<0.005	<0.01	E0.008	<0.05	E0.010	<0.05	<0.05	E0.010

LOCAL ID	DI- CHLORO- DI- FLUORO- METHANE TOTAL (uG/L) (34668)	CARBON- TETRA- CHLO- RIDE TOTAL (uG/L) (32102)	CHLORO- FORM TOTAL (uG/L) (32106)	METHYL ETHYL KETONE WATER WHOLE TOTAL (uG/L) (81595)	O- XYLENE WATER WHOLE TOTAL (uG/L) (77135)
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ALLEGANY COUNTY

Ag 261	<0.2	<0.05	E0.050	<5	<0.05
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CATTARAUGUS COUNTY

Ct 632	<0.2	<0.05	<0.05	<5	<0.05
Ct 633	<0.2	<0.05	<0.05	<5	<0.05
Ct 634	<0.2	<0.05	<0.05	<5	<0.05
Ct 635	<0.2	<0.05	E0.090	E1.30	<0.05
Ct 636	<0.2	<0.05	<0.05	<5	<0.05
Ct 637	<0.2	<0.05	<0.05	<5	<0.05
Ct 638	<0.2	<0.05	<0.05	<5	<0.05

CHAUTAUQUA COUNTY

Cu 860	<0.2	E0.010	<0.05	<5	<0.05
Cu 861	<0.2	<0.05	<0.05	<5	<0.05
Cu 862	<0.2	<0.05	<0.05	<5	<0.05
Cu 863	<0.2	<0.05	E0.006	<5	<0.05
Cu 864	<0.2	<0.05	E0.007	<5	<0.05
Cu 865	<0.2	<0.05	E0.002	<5	<0.05

QUANTITY OF PRECIPITATION
425129076082701 AT OTISCO ROAD NEAR TULLY, NY

315

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

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

INSTRUMENTATION.--Tipping bucket raingage with 8.214 in. diameter receiving funnel, mounted on a pedestal in the backyard of residence. Funnel is heated to facilitate melting of snow. Each tip of the raingage bucket is equivalent to .01 in. of precipitation. Tips of the raingage bucket are recorded and accumulated at hourly intervals on an electronic data logger.

REMARKS.--Rain gage is operated in conjunction with streamflow station 04237946 Onondaga Creek Tributary No. 6, downstream of main depression area, for the Tully mudboil project.

PERIOD OF RECORD MAXIMUM.--Maximum recorded daily precipitation, 3.92 in. on November 8, 1996.

ANNUAL MAXIMUM.--Maximum recorded daily precipitation, 3.92 in. on November 8.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	1.29	.00	.03	.00	.00	.01	.63	.28	.00	.00
2	.04	.00	.52	.00	.00	.27	.00	.00	.19	.02	.00	.49
3	.01	.16	.03	.09	.10	.00	.00	.31	.00	.04	.03	.02
4	.00	.00	.05	.00	.32	.00	.00	.00	.00	.10	.00	.01
5	.00	.00	.02	.20	.09	.25	.04	.00	.00	.00	.00	.00
6	.00	.00	.21	.02	.00	.22	.04	.13	.07	.00	.00	.04
7	.00	.03	.00	.00	.01	.05	.00	.00	.02	.00	.00	.00
8	.00	3.92	.00	.00	.00	.03	.00	.00	.00	.26	.00	.00
9	.00	.23	.03	.01	.00	.03	.00	.12	.00	.58	.00	.00
10	.30	.15	.00	.01	.00	.03	.00	.08	.00	.00	.00	.00
11	.01	.00	.08	.01	.01	.01	.00	.06	.00	.00	.22	.28
12	.00	.04	.02	.00	.04	.01	.18	.11	.01	.00	.00	.38
13	.00	.01	1.41	.00	.00	.00	.08	.00	.49	.00	1.02	.01
14	.15	.00	.13	.00	.00	.45	.00	.01	.00	.00	.00	.00
15	.00	.00	.00	.00	.03	.00	.00	.09	.00	.01	.00	.00
16	.01	.00	.00	.06	.06	.02	.10	.10	.07	.00	.08	.00
17	.00	.00	.00	.00	.00	.00	.00	.03	.81	.02	.03	.20
18	.00	.01	.01	.00	.00	.00	.11	.00	.16	.01	.00	.01
19	.48	.11	.06	.00	.13	.00	.07	.50	.00	.00	.00	.04
20	.04	.04	.00	.01	.01	.00	.00	.00	---	.00	.08	.11
21	.01	.03	.00	.00	.01	.29	.00	.02	---	.34	.12	.01
22	.02	.09	.01	.06	.00	.06	.00	.00	.00	.00	.05	.00
23	.32	.01	.19	.00	.05	.00	.00	.00	.00	.00	.12	.10
24	.01	.05	.39	.00	.00	.00	.00	.00	.17	.00	.00	.01
25	.00	.43	.00	.01	.00	.33	.00	.02	.00	.00	.00	.15
26	.00	.55	.00	.00	.07	.30	.00	.00	.52	.00	.05	.00
27	.00	.02	.00	.00	.73	.00	.24	.00	---	.04	.54	.01
28	.18	.00	.00	.09	.00	.00	.67	.00	.00	.00	.00	.11
29	.00	.00	.03	.00	---	.11	.00	.00	.00	.00	.04	.55
30	.21	.00	.00	.00	---	.16	.00	.13	.00	.00	.00	.05
31	.00	---	.05	.06	---	.46	---	.29	---	.00	.00	---
TOTAL	1.79	5.88	4.53	0.63	1.69	3.08	1.53	2.01	---	1.70	2.38	2.58

CHEMICAL QUALITY OF PRECIPITATION

GENESEE RIVER BASIN

430117077350101 AT MENDON PONDS, ROCHESTER, NY

LOCATION.--Lat 43°01'17", long 77°35'01", Monroe County, Hydrologic Unit 04130003, in Mendon Ponds County Park, 200 ft east of rangers' quarters, 300 ft east of State Highway 65, and 1.7 mi south of Interstate Highway 90.

PERIOD OF RECORD.--June 1980 to current year (monthly composite).

June 1980 to current year (monthly wetfall).

June 1980 to current year (monthly dustfall).

INSTRUMENTATION.--Standard 8-inch diameter weighing-bucket rain gage. Potentiometer output is recorded on electronic data logger at 60-minute intervals.

The composite sample collector is a straight-sided polyethylene funnel approximately 6.5 inch in diameter that drains into a Teflon receiving bottle. A looped plastic tubing connects the funnel with the receiving bottle to retard evaporation. The polyethylene funnel is heated during the cold-weather season to aid in complete collection of snow. The receiving bottle is enclosed in an insulated box. The opening for the collector is approximately 5 ft above ground level.

Wet/dry precipitation collector used for wetfall and dustfall samples. An automatic sensor detects precipitation and activates a motor that removes the cover from the wetfall-collection vessel and covers the dustfall-collection vessel. When precipitation ceases, the cycle is reversed. The sampling vessels are polyethylene and have a collection diameter of 11.26 inch and a capacity of about 3.4 gallons. The openings of the collectors are approximately 8 ft above ground level.

COOPERATION.--Water-quality samples were collected and analyzed by the Monroe County Health Laboratory at Rochester, NY.

REMARKS.--Prior to 1994 water year, data published in "Water Resources of Monroe County New York, Water Years 1984-88", U. S. Geological Survey open-file report 93-370 and in "Water Resources of Monroe County New York, Water Years 1989-93", U. S. Geological Survey open-file report 97-587.

DUSTFALL CHEMICAL ANALYSES, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
MONTHLY DUSTFALL

DATE	TIME	CALCIUM TOTAL RECOVERABLE (MG/L AS CA) (00916)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
SEP 30-OCT 29	1010	.82	.29	.020	2.2	1.0	3.7	1.3	3.4
OCT 29-DEC 03	1015	1.7	.29	1.7	.11	2.2	4.8	.76	.76
DEC 03-JAN 07	1015	1.5	.29	2.7	.06	2.9	6.7	1.4	1.8
JAN 07-31	0955	1.5	.30	5.4	.06	6.6	3.1	.39	.39
JAN 31-MAR 07	0835	2.3	.47	5.1	.11	5.9	5.1	.62	.85
MAR 07-APR 01	1015	2.0	.42	1.2	.11	3.0	4.5	.56	.78
APR 01-MAY 02	1015	2.6	.38	.99	.23	.60	5.4	.12	.63
MAY 02-30	1015	2.8	.51	.17	.29	.60	6.1	.30	.95
MAY 30-JUL 01	0935	1.9	.46	.18	.93	.80	6.8	.24	2.7
JUL 01-AUG 05	0945	1.3	.37	.10	.51	1.0	3.9	.05	.82
AUG 05-SEP 02	1000	1.3	.24	.080	.16	<.20	3.6	.14	.55
SEP 03-30	0945	.58	.96	.18	3.1	.82	5.4	.80	1.1

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHODIS- SOLVED (MG/L AS P) (00671)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE LAB (STAND- ARD UNITS) (00403)	ACIDITY (MG/L AS CACO3) (00435)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)
SEP 30-OCT 29	.37	.770	.525	29	7.0	6.1	5	20
OCT 29-DEC 03	1.4	.030	.015	48	4.3	6.1	8	30
DEC 03-JAN 07	2.8	.025	.018	93	3.6	11	7	30
JAN 07-31	1.1	.035	.011	46	6.3	3.7	9	20
JAN 31-MAR 07	2.1	.025	.003	57	6.2	2.7	16	40
MAR 07-APR 01	1.4	.025	.009	33	5.6	3.9	14	50
APR 01-MAY 02	1.0	.100	.021	30	7.5	2.1	13	50
MAY 02-30	1.2	.110	.024	30	7.0	3.5	13	30
MAY 30-JUL 01	.53	.420	.130	29	5.7	5.2	19	40
JUL 01-AUG 05	.40	.170	.094	19	6.5	4.4	3	30
AUG 05-SEP 02	.36	.070	.027	15	6.7	4.1	5	20
SEP 03-30	.71	.970	.705	39	6.2	6.0	7	20

Note; Monthly dustfall samples are dissolved in one liter of deionized water for analysis and concentration are reported on a per liter basis. Thus, a reported calcium concentration of 1.0 mg/L would mean that 1.0 mg of calcium accumulated in the sampler.

CHEMICAL QUALITY OF PRECIPITATION

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GENESEE RIVER BASIN

430117077350101 AT MENDON PONDS, ROCHESTER, NY--Continued

WETFALL CHEMICAL ANALYSES, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

MONTHLY WETFALL

DATE	TIME	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA) (00916)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
SEP 30-OCT 29	1135	.26	.080	.040	.66	1.1	1.6	.15	.46
OCT 29-DEC 03	1000	.20	.040	.20	.03	.40	1.5	.24	.27
DEC 03-JAN 07	1000	.53	.12	1.1	.03	1.1	3.4	.48	.43
JAN 07-31	0945	1.0	.18	3.1	.05	3.7	1.8	.25	.26
JAN 31-MAR 07	0825	.56	.12	1.2	.04	1.5	2.6	.37	.59
MAR 07-APR 01	1000	.44	.080	.24	.04	1.0	2.6	.38	.69
APR 01-MAY 02	1000	2.5	.55	.76	.21	.80	7.4	.90	1.3
MAY 02-30	1000	1.6	.32	.37	.22	1.2	6.4	1.3	1.6
MAY 30-JUL 01	0930	1.1	.26	.11	.40	1.5	11	1.4	1.6
JUL 01-AUG 05	0930	1.8	.46	.19	.41	.60	14	1.5	2.2
AUG 05-SEP 02	0945	.41	.060	.020	.07	<.20	3.8	.38	.61
SEP 03-30	1115	N.92	.040	<.050	.18	.67	2.5	.22	.45

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE LAB (STAND- ARD UNITS) (00403)	ACIDITY (MG/L AS CACO3) (00435)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
SEP 30-OCT 29	.29	.028	.004	13	5.1	6.6	5	20
OCT 29-DEC 03	.42	.005	<.002	16	4.6	4.9	12	20
DEC 03-JAN 07	1.2	.010	.006	46	3.8	8.2	6	10
JAN 07-31	.76	.060	.003	29	5.5	4.0	7	10
JAN 31-MAR 07	.98	<.005	.002	32	4.6	5.8	6	30
MAR 07-APR 01	.71	.010	.005	29	4.0	8.0	6	30
APR 01-MAY 02	1.3	.085	.009	39	5.7	3.6	13	40
MAY 02-30	1.5	.060	.006	36	4.5	6.1	12	40
MAY 30-JUL 01	1.8	.120	.017	83	3.7	13	9	30
JUL 01-AUG 05	2.3	.120	.004	92	3.6	15	3	30
AUG 05-SEP 02	.57	.025	.008	34	3.9	7.3	5	20
SEP 03-30	.31	.028	.015	20	3.7	6.6	4	10

CHEMICAL QUALITY OF PRECIPITATION

GENESEE RIVER BASIN

430117077350101 AT MENDON PONDS, ROCHESTER, NY--Continued

BULK CHEMICAL ANALYSES, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

MONTHLY COMPOSITE

DATE	TIME	CALCIUM TOTAL RECOVERABLE (MG/L AS CA) (00916)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
SEP 30-OCT 29	1035	.42	.13	.040	.93	.40	2.0	.01	.17
OCT 29-DEC 03	1045	.40	.090	.21	.12	.80	1.9	.09	.30
DEC 03-JAN 07	1045	.51	.12	.71	.09	.80	4.9	.26	.74
JAN 07-31	1025	.20	.050	3.2	.05	1.2	1.0	.18	.23
JAN 31-MAR 07	0915	.94	.22	2.2	.26	3.4	4.5	.94	1.4
MAR 07-APR 01	1100	.60	.13	.49	.05	1.3	3.4	.45	1.0
APR 01-MAY 02	1040	1.0	.23	.58	.25	.60	3.3	.84	1.3
MAY 02-30	1100	1.1	.23	.20	.17	.70	4.2	.82	1.9
MAY 30-JUL 01	1030	.70	.15	.11	.48	1.3	5.0	1.0	1.2
JUL 01-AUG 05	1030	1.7	.31	.23	1.9	1.4	4.8	1.3	2.4
AUG 05-SEP 02	1045	.47	.14	.060	.67	.50	1.9	1.4	2.0
SEP 03-30	1030	.69	.11	<.050	.38	.61	2.2	.24	.43

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE LAB (STAND- ARD UNITS) (00403)	ACIDITY (MG/L AS CACO3) (00435)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)
SEP 30-OCT 29	.07	.180	.140	13	5.1	6.8	<5	20
OCT 29-DEC 03	.30	.010	<.002	19	4.5	4.1	14	20
DEC 03-JAN 07	1.1	.015	<.002	58	3.8	9.1	<5	20
JAN 07-31	.24	.010	.003	11	5.3	3.1	<5	<10
JAN 31-MAR 07	1.3	.015	<.002	49	4.7	6.7	10	30
MAR 07-APR 01	.88	.010	<.002	36	4.1	8.6	6	50
APR 01-MAY 02	.71	.025	<.002	24	5.6	1.5	2	40
MAY 02-30	.91	.020	<.002	37	4.7	7.3	5	20
MAY 30-JUL 01	.76	.070	.004	42	4.2	14	6	30
JUL 01-AUG 05	.81	.190	.095	36	4.8	9.9	3	40
AUG 05-SEP 02	.19	.210	.135	20	7.3	4.1	4	10
SEP 03-30	.22	.070	.002	17	4.4	7.7	3	20

CHEMICAL QUALITY OF PRECIPITATION

319

IRONDEQUOIT CREEK BASIN

431021077315902 AT EMPIRE BOULEVARD, ROCHESTER, NY

LOCATION.--Lat 43°10'21", long 77°31'59", Monroe County, Hydrologic Unit 04140101, in the Irondequoit wetlands 1,350 ft south of New York State Highway 404.

PERIOD OF RECORD.--October 1992 to current year (monthly wetfall).

October 1992 to current year (monthly wetfall).

INSTRUMENTATION.--Wet/dry precipitation collector used for wetfall and dustfall samples. An automatic sensor detects precipitation and activates a motor that removes the cover from the wetfall-collection vessel and covers the dustfall-collection vessel. When precipitation ceases, the cycle is reversed. The sampling vessels are polyethylene and have a collection diameter of 11.26 inches and a capacity of about 3.4 gallons. The openings of the collectors are approximately 8 ft above ground level.

COOPERATION.--Water-quality samples were collected and analyzed by the Monroe County Health Laboratory at Rochester, NY.

REMARKS.--Prior to 1994 water year, data published in "Water Resources of Monroe County New York, Water Years 1989-93", U. S. Geological Survey open-file report 97-587.

DUSTFALL CHEMICAL ANALYSES, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

MONTHLY DUSTFALL

DATE	TIME	CALCIUM TOTAL RECOVERABLE (MG/L AS CA) (00916)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
SEP 30-OCT 29	1055	.85	.16	.050	.06	.20	1.6	.10	.27
OCT 29-DEC 03	1110	.55	.11	.12	.03	.20	1.4	.06	.21
DEC 03-JAN 07	1110	1.8	.28	.96	.03	.90	4.8	.16	1.0
JAN 07-31	1045	.16	.42	4.3	.06	5.6	5.6	.67	.60
MAR 07-APR 01	1130	.90	.24	.31	.05	.60	4.5	.72	.73
APR 01-MAY 02	1130	3.6	1.0	.60	.36	1.2	13	1.4	2.0
MAY 02-30	1130	3.5	.77	.19	.34	.90	14	2.2	3.6
MAY 30-JUL 01	1100	2.2	.65	.44	1.1	1.8	5.2	.59	7.7

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- ORTHOPHOS- DIS- SOLVED (MG/L AS P) (00671)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE LAB (STAND- ARD UNITS) (00403)	ACIDITY (MG/L AS CACO3) (00435)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)
SEP 30-OCT 29	.36	.025	.007	11	7.5	2.0	<5	30
OCT 29-DEC 03	.18	.010	.002	8	6.7	1.7	11	20
DEC 03-JAN 07	1.6	.015	.011	62	3.9	8.6	<5	20
JAN 07-31	1.8	.025	.015	74	4.0	8.3	15	30
MAR 07-APR 01	1.0	.015	.009	43	4.1	8.0	9	80
APR 01-MAY 02	1.8	.150	.037	55	6.0	4.5	14	60
MAY 02-30	2.1	.170	.027	57	5.3	4.8	21	40
MAY 30-JUL 01	.63	1.25	.510	34	5.5	6.9	16	50

Note: Monthly dustfall samples are dissolved in one liter of deionized water for analysis and concentration are reported on a per liter basis. Thus, a reported calcium concentration of 1.0 mg/L would mean that 1.0 mg of calcium accumulated in the sampler.

CHEMICAL QUALITY OF PRECIPITATION

IRONDEQUOIT CREEK BASIN

431021077315902 AT EMPIRE BOULEVARD, ROCHESTER, NY--continued

WETFALL CHEMICAL ANALYSES, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

MONTHLY WETFALL

DATE	TIME	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA) (00916)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
SEP 30-OCT 29	1045	.22	.060	.030	<.01	.50	1.8	.23	.46
OCT 29-DEC 03	1100	.35	.10	.27	.02	.60	2.2	.26	.30
DEC 03-JAN 07	1100	3.0	.15	.66	<.03	1.0	1.4	.17	.46
JAN 07-31	1035	1.4	.20	3.2	.05	4.1	2.4	.22	.53
JAN 31-MAR 07	0930	2.1	.40	2.0	.07	3.0	3.6	.28	.57
MAR 07-APR 01	1115	1.1	.21	.62	.08	1.1	2.3	.30	.71
APR 01-MAY 02	1115	1.3	.15	.38	.17	.20	1.8	.10	.43
MAY 02-30	1115	.76	.17	.080	.18	1.6	1.8	.14	.70
MAY 30-JUL 01	1045	2.0	.58	.20	.35	1.1	23	2.2	3.4

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE LAB (STAND- ARD UNITS) (00403)	ACIDITY (MG/L AS CACO3) (00435)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
SEP 30-OCT 29	.28	.005	.004	15	4.8	3.0	<5	10
OCT 29-DEC 03	.44	.005	.005	24	4.5	4.3	7	<10
DEC 03-JAN 07	.44	.015	.004	14	5.8	2.2	8	20
JAN 07-31	.76	.020	.005	32	6.2	2.8	15	20
JAN 31-MAR 07	.93	.020	.004	32	6.7	6.7	16	60
MAR 07-APR 01	.87	.020	.005	19	5.7	2.6	16	100
APR 01-MAY 02	.56	.100	<.002	15	6.9	3.0	18	40
MAY 02-30	.36	.090	.025	11	7.2	3.1	7	30
MAY 30-JUL 01	2.8	.150	.023	189	3.4	24	19	40

CHEMICAL QUALITY OF PRECIPITATION

321

LAKE ONTARIO BASIN

431248077564601 AT SUNY BROCKPORT, NY

LOCATION.--Lat 43°12'48", long 77°56'46", Monroe County, Hydrologic Unit 04130001, at SUNY Brockport on roof of Lennon Hall, on Monroe Ave., 0.35 mi west of New York State Highway 19 and 31.

PERIOD OF RECORD.-- July 1989 to current year (monthly dustfall).

July 1989 to current year (monthly wetfall).

July 1989 to current year (monthly composite).

INSTRUMENTATION.--The composite sample collector is a straight-sided polyethylene funnel approximately 6.5 inch in diameter that drains into a Teflon receiving bottle. A looped plastic tubing connects the funnel with the receiving bottle to retard evaporation. The polyethylene funnel is heated during the cold-weather season to aid in complete collection of snow. The receiving bottle is enclosed in an insulated box. Wet/dry precipitation collector used for wetfall and dustfall samples. An automatic sensor detects precipitation and activates a motor that removes the cover from the wetfall-collection vessel and covers the dustfall-collection vessel. When precipitation ceases, the cycle is reversed. The sampling vessels are polyethylene and have a collection diameter of 11.26 inch and a capacity of about 3.4 gallons.

COOPERATION.--Water-quality samples were collected and analyzed by the Monroe County Health Laboratory at Rochester, NY.

REMARKS.--Analytical results of samples from two sample collectors at this site (SUNY Brockport East and SUNY Brockport West) were combined to produce a complete record of chemical quality of precipitation. Prior to 1994 water year, data published in "Water Resources of Monroe County New York, Water Years 1989-93", U. S. Geological Survey open-file report 97-587.

DUSTFALL CHEMICAL ANALYSES, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

MONTHLY DUSTFALL

DATE	TIME	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA) (00916)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
SEP 30-OCT 29	1115	3.6	.72	.25	.50	.40	7.3	.26	.67
OCT 29-DEC 03	1135	.80	.22	.25	.03	.50	2.4	.29	.34
DEC 03-JAN 07	1135	4.2	1.2	1.5	.07	1.5	9.3	1.3	2.0
JAN 07-31	1115	1.6	.24	2.4	.05	2.5	3.1	.36	.69
JAN 31-MAR 07	1000	1.6	.31	.63	.09	.60	3.2	.32	.42
MAR 07-APR 01	1200	4.3	.80	.89	.06	1.4	8.9	.83	1.1

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE LAB (STAND- ARD UNITS) (00403)	ACIDITY (MG/L AS CACO3) (00435)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
SEP 30-OCT 29	1.3	.085	.015	37	4.4	2.1	8	30
OCT 29-DEC 03	.59	.010	.002	18	5.0	4.1	14	20
DEC 03-JAN 07	3.1	.055	.012	64	6.4	3.0	11	50
JAN 07-31	.90	.065	.007	30	6.1	2.8	17	30
JAN 31-MAR 07	.91	.040	.013	21	--	2.7	29	50
MAR 07-APR 01	2.3	.035	.003	53	5.9	4.3	19	70

Note; Monthly dustfall samples are dissolved in one liter of deionized water for analysis and concentration are reported on a per liter basis. Thus, a reported calcium concentration of 1.0 mg/L would mean that 1.0 mg of calcium accumulated in the sampler.

CHEMICAL QUALITY OF PRECIPITATION

LAKE ONTARIO BASIN

431248077564601 AT SUNY BROCKPORT, NY-continued

WETFALL CHEMICAL ANALYSES, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

MONTHLY WETFALL

DATE	TIME	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA) (00916)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
SEP 30-OCT 29	1100	.33	.080	.026	<.01	.20	1.7	.18	.36
OCT 29-DEC 03	1125	1.1	.21	.37	.06	.80	2.2	.18	.28
DEC 03-JAN 07	1125	2.1	.58	.69	.14	.90	6.6	.62	.84
JAN 07-31	1055	1.4	.30	1.2	.05	1.4	2.6	.28	.23
JAN 31-MAR 07	0945	1.3	.30	.54	.05	.70	3.4	.35	.35
MAR 07-APR 01	1145	1.2	.38	.10	.13	.80	4.0	.47	.56

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE LAB (STAND- ARD UNITS) (00403)	ACIDITY (MG/L AS CACO3) (00435)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
SEP 30-OCT 29	.27	<.005	<.002	12	5.0	3.6	<5	30
OCT 29-DEC 03	.52	.020	.004	15	6.6	2.7	14	30
DEC 03-JAN 07	1.5	.025	.013	39	5.0	5.2	8	30
JAN 07-31	.83	.030	.008	23	6.3	3.1	22	30
JAN 31-MAR 07	.87	.015	.003	26	5.3	4.0	14	40
MAR 07-APR 01	1.0	.010	.003	30	4.7	5.8	17	30

CHEMICAL QUALITY OF PRECIPITATION

323

LAKE ONTARIO BASIN

431248077564601 SUNY AT BROCKPORT, NY-continued

BULK CHEMICAL ANALYSES, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

MONTHLY COMPOSITE

DATE	TIME	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA) (00916)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
OCT 29-DEC 03	1200	.98	.25	.27	.04	.70	2.8	.34	.32
DEC 03-JAN 07	1145	2.7	.73	.90	.11	.90	6.3	.92	1.4
JAN 07-31	1125	1.8	.39	2.0	.05	2.3	3.3	.38	.51
JAN 31-MAR 07	1030	2.1	.41	.93	.08	1.2	4.3	.45	.56
MAR 07-APR 01	1215	2.0	.55	.18	.06	.80	4.4	.64	.77
APR 01-MAY 02	1145	7.8	1.3	.68	.08	.80	16	.61	2.0
MAY 02-30	1145	7.8	1.3	.28	.52	2.9	18	1.3	3.7

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE LAB (STAND- ARD UNITS) (00403)	ACIDITY (MG/L AS CACO3) (00435)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
OCT 29-DEC 03	.63	.025	.016	18	5.1	3.4	14	20
DEC 03-JAN 07	2.0	.040	.017	46	5.2	3.9	7	30
JAN 07-31	.94	.060	.010	30	7.0	2.4	17	30
JAN 31-MAR 07	1.1	.028	.006	30	6.9	2.7	19	40
MAR 07-APR 01	1.2	.020	.007	28	6.1	3.9	9	30
APR 01-MAY 02	2.5	.460	.056	74	6.5	3.8	24	90
MAY 02-30	3.2	.240	.045	82	6.3	3.6	19	40

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CONVERSION FACTORS AND VERTICAL DATUM

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

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

U.S. DEPARTMENT OF THE INTERIOR
U.S. Geological Survey
903 Hanshaw Road
Ithaca, NY 14850

