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Water Resources Data New York Water Year 2003

Volume 3. Western New York

By J.F. Hornlein, C.O. Szabo, and D.A. Sherwood

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In cooperation with the State of New York
and with other agencies

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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

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:

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13. ABSTRACT *(Maximum 200 words)*
Water resources data for the 2003 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 72 gaging stations; stage only at 14 gaging stations; stage and contents at 6 gaging stations; water quality at 7 gaging stations, 62 wells, and 19 partial record stations; water levels at 27 observation wells; daily precipation totals at 3 sites, and chemical quality of precipitation at 1 site. Also included are data for 39 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.

14. SUBJECT TERMS
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ILLUSTRATIONS

TABLES

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, (n) nutrient, (p) pesticide, (pr) precipitation, (t) water temperature, (s) sediment, (e) elevation, gage heights, or contents]

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CREST-STAGE PARTIAL RECORD STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

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*   *   *   *   *   *   *   *

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

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DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS

The following continuous-record surface-water discharge or stage-only stations (gaging stations) in 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	#0.61	1932-68
Butternut Creek at Morris, NY (d)	01502000	59.7	1938-95
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	#3.16	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
Cayuta Creek near Alpine, NY (d)	01515500	17.6	1930-31
Tioga River at Lindley, NY (d)	01520500*	771.0	1930-95
Canisteo River at Hornell, NY (d)	01522000	93.7	1938-43

‡ No winter record.

Corrected.

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			
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, 1938-40, 1942-44
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
Fivemile Creek near Kanona, NY (d)	01528000	66.8	1937-95
Diversion from Waneta Lake to Keuka Lake at Keuka, NY (d)	01528700	45.5	1967-96
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‡,
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	290.0	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 Trib. No. 2 to Tributary No. 4 near West Valley, NY (d)	04213442	.002	1976-77
Franks Creek Trib. 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	263,700.0	1984-94
Niagara Riverl at Anderson Park, Buffalo, NY (e)	04216060	263,700.0	1985-2002

‡ 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	1912-19, 1920-68, 1977-92
Tonawanda Creek near Alabama, NY (d)	04217500	231.0	1956-89
Murder Creek near Akron, NY (d)	04217750	58.8	1983-99
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

‡ 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			
Sterling Creek at Sterling, NY (d)	04232100	44.4	1957-95
Catharine Creek at Montour Falls, NY (d)	04232200 *	41.1	1975-78‡
Keuka Inlet (Keuka Lake) at Hammondsport, NY (e)	04232450	182.0	1960-96
Kendig Creek near MacDougall, NY (d)	04232630 *	13.8	1965-68
Dryden Lake Inlet near Harford, NY (d)	04233678	2.73	1973-74
Virgil Creek at Freeville, NY (d)	04233700	40.3	1973-76
Salmon Creek at Ludlowville, NY (d)	04234018	81.7	1965-68
Canoga Creek at Canoga, NY (d)	04234055	3.20	1965-68
Mud Creek at East Victor, NY (d)	04234200 *	64.2	1958-68
Red Creek near Walworth, NY (d)	04234270	23.8	1965-69
Flint Creek at Potter, NY (d)	04235150	31.0	1964-68 , 1971-79
Clyde River at Lock 26 Clyde, NY (d)	04235271	845.0	1935-67
Black Brook at Tyre, NY (d)	04235276	19.0	1985-95
Owasco Inlet at Moravia, NY (d)	04235300	106.0	1960-68
Owasco Outlet near Auburn, NY (d)	04235500	206.0	1913-98
Grout Brook Trib. southeast of Fair Haven, NY (d)	04235820	0.27	1996-99
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 Reservoir near Nedrow, NY (e)	04238500	67.7	1949-98
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 Benthuysen Brook near Amber, NY (d)	0424016975	5.84	1982-83
Ninemile Creek at Camillus, NY (d)	04240200	84.3	1958-82, 1988-98
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 at Jamesville, NY (d)	04245200 *	32.2	1958-99
Butternut Creek below Dewitt, NY (d)	04245250	58.6	1964-66
Scriba Creek near Constantia, NY (d)	04245840 *	38.4	1966-68
Oneida River at Caughdenoy, NY (d)	04246500	1,382.0	1948-98
Lake Ontario at Oswego, NY (e)	04249010	295,800.0	1860-1995

‡ No winter record.

DISCONTINUED SURFACE-WATER-QUALITY STATIONS

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

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

Discontinued continuous-record surface-water-quality stations

Station name	Station number	Drainage area (mi^2)	Type of record	Period of record (water years)
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

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				
Grout Brook Trib. southeast of Fair Haven, NY	04235820	0.27	Temp.	1996-99
Seneca River at Baldwinsville, NY	04237500	3,138.0	Temp.	1958-75
Spafford Creek at Bromley Road nr Spafford, NY	04240145	3.14	Sed.	1981-83
Spafford Creek at Sawmill Road nr Spafford, NY	04240150	8.06	Sed.	1981-83
Rice Brook at Rice Grove, NY	0424015305	2.44	Sed.	1981-83
Willow Brook at Lader Point, NY	0424016205	3.73	Sed.	1981-83
Amber Brook at Amber, NY	0424016825	3.69	Sed.	1981-83
Van Benthuysen Brook near Amber, NY	0424016975	5.84	Sed.	1981-83
East Branch Fish Creek at Taberg, NY	04242500	188.0	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

DISCONTINUED CREST-STAGE PARTIAL RECORD STATIONS

The following crest-stage partial-record stations in western New York were discontinued. Only maximum discharges and/or gage heights were collected for the period of documented record, expressed in water years, shown for each station. The period of documented record may include peaks prior to and after gaged record. Those stations with an asterisk (*) after the station number are also discontinued continuous-record surface-water stations (see previous listing) and those with a double asterisk (**) after the station number are current continuous-record surface-water stations.

Discontinued crest-stage partial record stations

Station name	Station number	Drainage area (mi^2)	Period of documented record (water years)
SUSQUEHANNA RIVER BASIN			
Ocquionis Creek at Richfield Springs, NY	01496363	20.0	1975-77
Mink Creek at Richfield Springs, NY	01496370	10.4	1969-86
Hyder Creek near Richfield Springs, NY	01496390	9.52	1975-77
Herkimer Creek at Schuyler Lake, NY	01496448	12.0	1976-77
Susquehanna River Trib. near Milford, NY	01496630	3.52	1976
Susquehanna River at Colliersville, NY	01497500 *	349.0	1971-72
Schnevus Creek at Schnevus, NY	01497800	54.2	1963-76
Susquehanna River southwest of Oneonta, NY	01498620	678.0	1988-91
Otego Creek near Oneonta, NY	01499000 *	108.0	1969-75
Unadilla River near New Berlin, NY	01501000 *	199.0	1970-72
Mill Brook at New Berlin, NY	01501015 *	4.64	1982-86
Wharton Creek Trib. near Edmeston, NY	01501140	2.02	1976-86
Unadille River at Rockdale, NY	01502500**	520.0	1929-33, 1937-2000
Susquehanna River at Afton, NY	01502701	1716.0	1972, 1977, 1979-90, 1996
Ouaquaga Creek near Belden, NY	01502714	3.37	1975-86
Susquehanna River at Tompkins St. at Binghamton, NY	01503495	2265.0	1988-90
Electric Light Stream near Morrisville, NY	01503960	7.21	1976-86
Cold Brook near North Norwich, NY	01505017	5.80	1975-86
Cold Brook at North Norwich, NY	01505018	5.90	1975-79
Canasawacta Creek near South Plymouth, NY	01505500	57.9	1977
Albright Creek at East Homer, NY	01508500 *	6.81	1969-76
West Branch Tioughnioga River at Homer, NY	01508803 *	71.5	1987-92
Otter creek Trib. at State Hwy 222 near Cortland, NY	01508946	2.85	1976-86
Page Brook Trib. near Page Brook, NY	01512515	2.07	1976-78
Nanticoke Creek Trib. at Nanticoke, NY	01513712	1.70	1975-86
Nanticoke Creek at Union Center, NY	01513790 *	90.7	1956, 1963-64, 1966-68, 1970-74
Susquehanna River near Waverly, NY	01515000**	4,773.0	1937-2000
Karr Valley Creek at Almond, NY	01522500 *	27.4	1971-73
Tuscarora Creek above South Addison, NY	01525981**	102.0	1989-2000
Tuscarora Creek near South Addison, NY	01526000 *	114.0	1971-72
Cohocton River at Cohocton, NY	01527000 *	52.2	1982-99

DISCONTINUED CREST-STAGE PARTIAL RECORD STATIONS--Continued

Station name	Station number	Drainage area (mi^2)	Period of documented record (water years)
ALLEGHENY RIVER BASIN			
Johnson Creek near Franklinville, NY	03010743	5.25	1977-78, 1982-86
Olean Creek near Olean, NY	03010800 *	198.0	1970-95
Great Valley Creek Trib. near Great Valley, NY	03010997	3.91	1977-78
Great Valley Creek near Salamanca, NY	03011000 *	137.0	1977-92
West Branch Conewango Creek Trib. near Hamlet, NY	03012837	6.84	1977-81
Conewango Creek at Waterboro, NY	03013000 *	290.0	1994
STREAMS TRIBUTARY TO LAKE ERIE			
Walnut Creek Trib. near Arcade, NY	04213399	1.02	1979, 1981-86
Franks Creek Tributary No. 4 near West Valley, NY	04213441	.12	1976
South Branch Cattaraugus Creek near Otto, NY	04213490	25.1	1963-99
Delaware Creek near Angola, NY	04214040	8.32	1963-86
Eighteenmile Creek at North Boston, NY	04214200 *	37.2	1971-76
Smoke Creek at Lackawanna, NY	04214250	14.3	1955, 1963-68, 1970-74, 1976
South Branch Smoke Creek at Lackawanna, NY	04214260	13.0	1953, 1955, 1967-76
Buffalo Creek near Wales Hollow, NY	04214400 *	76.9	1970-74
Hunter Creek at Colegrave, NY	04214410	14.0	1964-86
Little Buffalo Creek near East Lancaster, NY	04214980	24.0	1963, 1966-73, 1976-80
West Branch Cazenovia Creek near East Aurora, NY	04215250	58.7	1963, 1965-68, 1970
East Branch Cazenovia Creek at South Wales, NY	04215350	38.1	1963, 1966-70
STREAMS TRIBUTARY TO NIAGARA RIVER			
Tonawanda Creek near Johnsonburg, NY	04216400	23.7	1962-86
Delaware Park Lake at Buffalo, NY	04216212	1.14	1985-02
Scajaquada Creek below Delaware Park Lake at Buffalo, NY	04216214	25.7	1985-02
Little Tonawanda Creek Trib. near Batavia, NY	04216875	1.02	1976-86
Murder Creek at Pembroke, NY	04217700	43.6	1962-72, 1974-86
Fourmile Creek near Youngstown, NY	04219645	4.88	1970-73, 1976-80, 1982-86

DISCONTINUED CREST-STAGE PARTIAL RECORD STATIONS--Continued

Station name	Station number	Drainage area (mi^2)	Period of documented record (water years)
STREAMS TRIBUTARY TO LAKE ONTARIO			
Eighteenmile Creek Trib. near Lockport, NY	04219738	2.53	1977-86
Johnson Creek Trib. near Lyndonville, NY	04219905	4.95	1970, 1972-73, 1977-79
Oak Orchard Creek at Barryville Rd. near Elba, NY	04219922	6.48	1976-86
Oak Orchard Creek near Elba, NY	04219925	7.49	1976-78
Oak Orchard Creek at Medina, NY	04220150	157.0	1962-70, 1972, 1975-76
West Creek near Hamlin, NY	04220245	4.56	1978-81, 1983-86
West Creek near Hilton, NY	04220250 *	31.0	1971-72, 1986-2002
Quig Hollow Brook near Andover, NY	04220455	4.24	1964-72
Genesee River at Transit Bridge near Angelica, NY	04221725	579.0	1975-76
Black Creek at Hyde Flats Road at Black Creek, NY	04221769	10.7	1978-93
Wiscoy Creek at Bliss, NY	04222600	22.0	1962-86
Sugar Creek near Ossian, NY	04224700	10.0	1964-86
Sugar Creek near Canaseraga, NY	04224740	16.9	1977
Stony Brook at Stony Brook State Park, NY	04224848	21.4	1977
Mill Creek at Patchinville, NY	04224900	4.22	1964-86
Mill Creek at Dansville, NY	04224978	35.9	1977
Canaseraga Creek at Groveland, NY	04225500 *	180.0	1975-77
Bradner Creek near Dansville, NY	04225600	9.68	1976
Keshequa Creek at Nunda, NY	04225915	32.7	1975-77
Keshequa Creek at Tuscarora, NY	04225950	58.5	1976-77
Little Conesus Creek near South Lima, NY	04228370	7.38	1975-76
Little Conesus Creek near East Avon, NY	04228380	8.02	1975-76
Springwater Creek at Springwater, NY	04228900 *	10.1	1970-72
Oatka Creek at Rock Glen, NY	04230320	14.5	1977
Oatka Creek at Pearl Creek, NY	04230400	78.4	1975-76
Pearl Creek at Pearl Creek, NY	04230410	10.8	1975-77
Oatka Creek near Pavillion Center, NY	04230423	110.0	1975-77
Mud Creek near LeRoy, NY	04230470	10.2	1975-76
Hotel Creek at Griffin Road near Churchville, NY	04231040	4.57	1976-86
Irondequoit Creek near Pittsford, NY	04232040 *	44.4	1962-63, 1965-66, 1968-70, 1972
Irondequoit Creek at Bushnell Basin, NY	04232042	52.6	1962-64, 1966, 1968-70
Mill Creek Trib. near Webster, NY	042320527	2.12	1971-72, 1976-86
Second Creek Trib. at Alton, NY	04232071	1.07	1970, 1973, 1976-86

DISCONTINUED CREST-STAGE PARTIAL RECORD STATIONS--Continued

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
STREAMS TRIBUTARY TO LAKE ONTARIO--continued			
Red Creek Trib. No. 16 near Red Creek, NY	04232087	2.90	1969, 1976-86
Hector Falls Creek at Burdett, NY	04232406	11.8	1971-74
Sugar Creek at Guyanoga, NY	04232460	28.9	1966-2000
Sixmile Creek near Ithaca, NY	04233310	42.0	1967-69, 1971-73, 1976-86
Webster Brook at Summer Hill, NY	04233624	2.59	1975
Fall Creek Trib. No. 7 at Stevens Corners, NY	04233632	0.52	1975-76
Fall Creek at Freeville, NY	04233648	55.9	1975
Virgil Creek at Mill Street, Dryden, NY	04233676	20.7	1966-70, 1972, 1975-86
Dryden Lake Inlet near Harford, NY	04233678 *	2.73	1975-76
Virgil Creek at Freeville, NY	04233700 *	40.3	1976-86
Salmon Creek at Ludlowville, NY	04234018 *	81.7	1971-72
Cayuga Lake Trib. No. 8 near Jacksonville, NY	042340202	1.36	1977-86
Yawger Creek Trib. near Auburn, NY	042340588	1.76	1976-86
Ganargua Creek above Macedon, NY	04234250	104.0	1965-69
Marbletown Creek Trib. near Newark, NY	04234363	0.58	1976-86
West River near Middlesex, NY	04234400	29.3	1965-72, 1975-77
Black Brook at Tyre, NY	04235276 *	19.0	1966-73, 1975-84
Owasco Inlet at Moravia, NY	04235300 *	106.0	1970
Canada Creek Trib. near Lee Center, NY	04242795	1.34	1977-86
Chittenango Creek near Chittenango, NY	04244000 *	66.3	1978
Limestone Creek at Fayetteville, NY	04245000 *	85.5	1987-95
Negro Brook near Bridgeport, NY	04245405	1.53	1976-79
Wine Creek at Oswego, NY	04249011	3.11	1976-78

INTRODUCTION

Water resources data for the 2003 water year for New York consist of records of stage, discharge, and water quality of streams; stage and contents of lakes and reservoirs; ground-water levels and water quality; and precipitation quality. This volume contains records for water discharge at 72 gaging stations; stage only at 14 gaging stations; stage and contents at 6 gaging stations; water quality at 7 gaging stations, 62 wells, and 19 partial-record stations; water levels at 27 observation wells; daily precipitation totals at 3 sites, and chemical quality of precipitation at 1 site. Also included are data for 39 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. Surface-water, ground-water, and water-quality data at all sites are listed in Eastern Standard Time (EST), unless otherwise noted. 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–02–3.” 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 2003, 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 Onondaga, Department of Water Environment Protection

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, National Weather Service, 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 (Orion Power New York); Rochester Gas and Electric Corporation.

Organizations that supplied data are acknowledged in station descriptions.

SUMMARY OF HYDROLOGIC CONDITIONS[1]

Surface Water

Streamflow in western New York during the 2003 water year was characterized by above-average annual mean discharges at most index sites (table 1). The greatest departures from normal occurred during June, July, August, and September (table 2), when monthly mean discharges averaged 254, 290, 568, and 368 percent of the normal monthly means. Departures from the median discharges at two index stations—Susquehanna River at Conklin and Allegheny River at Salamanca—are shown in figures 1 and 2.

The 2003 water year began with variable amounts of precipitation and near-normal air temperatures. Streamflow during October 2002 was excessive (upper 25 percent of the record) in the Eastern Plateau and the Central Lakes regions and normal to deficient (lower 25 percent of the record) further to the west. November was cooler with normal precipitation. Streamflow conditions throughout western New York remained essentially the same as they were during October.

Air temperatures in December averaged colder than normal. Precipitation during the month throughout western New York was above normal. Most of the precipitation fell as snow. Snowfall across western New York ranged from about 14 inches in Elmira to over 40 inches in Rochester and Syracuse. Streamflow remained at or decreased to normal at most index sites.

Air temperatures in January 2003 remained below normal for the month (5.5^o F below), and precipitation was above normal. Rochester and Syracuse again reported more than 40 inches of snow and Oswego reported 77.7 inches of snow for the month. Streamflowin January was normal at all index sites. February was the fifth consecutive month with colder-than-normal temperatures. Precipitation for the month was at or near normal, although large amounts of snow fell over parts of western New York. Streamflow either remained normal or decreased to deficient at all index sites.

March marked then end of the string of consecutive colder-than-normal months. The average temperature across the State equalled the long-term norm. Snow continued to fall across the State during the month but precipitation was slightly below normal. Streamflow, however, increased at all index sites in response to snowmelt from warm temperatures at the end of the month. In April, temperatures and precipitation were below normal. Streamflow decreased to either normal or deficient at all index sites

Temperatures in May were again below normal across the State. Precipitation throughout much of western New York was above normal for the month. As a result, streamflow was normal at all index sites. In June, the pattern of below normal temperatures continued. Precipitation ranged from normal to above normal across western New York. Streamflow at all index sites either remained normal or increased to excessive for the month.

July brought warm, wet weather to the western part of the State. The Statewide average precipitation was 4.67 inches (123 percent of normal). The Western Plateau averaged 7.43 inches of rain, which was nearly twice the normal monthly rainfall. Streamflow was excessive at most index sites for the month of July. The Genesee River at Wellsville had its highest monthly mean discharge on record for July, and the Allegheny River at Salamanca had its second highest monthly mean discharge on record for July.

Temperatures and precipitation were again above normal during August. The Eastern Plateau was the wettest region with 151 percent of normal precipitation. Streamflow in August was excessive at all index sites. The Genesee River at Wellsville and the Allegheny River at Salamanca both had their highest monthly mean discharges on record for August. Flint Creek at Phelps, Chemung River at Chemung, and Unadilla River at Rockdale had their third highest monthly mean discharges on record for August.

September was the third consecutive month with above average temperatures and precipitation. The Statewide precipitation average was 5.49 inches. The Eastern Plateau was the wettest region with over 8 inches of rain (207 percent of normal). Streamflow either remained excessive or decreased to normal at all index sites. The Chemung River at Chemung again had its third highest monthly mean discharge on record and the Genesee River at Wellsville had its fourth highest mionthly mean discharge on record for September.

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

Table 1.--Mean discharges for selected streams for water year 2003 and mean annual discharges for the period of record.
[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	Mean discharge for 2002 water year	Percent difference
01502500	Unadilla River at Rockdale	1930-33, 37-95, 2002	841	1,057	+ 25.7
01503000	Susquehanna River at Conklin	1913–2002	3,572	4,522	+ 26.6
01512500	Chenango River near Chenango Forks	1913–2002	2,414	2,991	+ 23.9
01531000	Chemung River at Chemung	1906–13, 1915–2002	2,554	3,451	+ 35.1
03011020	Allegheny River at Salamanca	1904–2002	2,769	3,224	+ 16.4
04213500	Cattaraugus Creek at Gowanda	1940-97, 2002	748	774	+ 3.5
04217000	Tonawanda Creek at Batavia	1944–2002	213	219	+ 2.8
04221000	Genesee River at Wellsville	1955-58, 1973-2002	385	505	+ 31.2
04230500	Oatka Creek at Garbutt	1946-2002	215	210	- 2.3
04234000	Fall Creek near Ithaca	1926–2002	186	214	+ 15.0
04235250	Flint Creek at Phelps	1960–1995	89.7	92.3	+ 2.9
04243500	Oneida Creek at Oneida	1950–2002	166	237	+ 42.8

Table 2.--Monthly mean discharge for water year 2003 at selected sites, as percentage of period-of-record monthly median discharge.
[Locations are shown in fig. 4.]

Station no.	Name	Period of record	Monthly mean discharge, as percentage of monthly median discharge			
			June	July	Aug	Sep
01502500	Unadilla River at Rockdale	1930-33, 1937-95, 2002	230	202	356	372
01503000	Susquehanna River at Conklin	1913–2002	317	156	252	475
01512500	Chenango River near Chenango Forks	1913–2002	256	247	378	328
01531000	Chemung River at Chemung	1906–13, 1915–2002	368	541	1,100	758
03011020	Allegheny River at Salamanca	1904–2002	231	551	887	566
04213500	Cattaraugus Creek at Gowanda	1940-97, 2001-02	175	209	274	166
04217000	Tonawanda Creek at Batavia	1944-2002	276	119	413	228
04221000	Genesee River at Wellsville	1955-58, 1973-2002	211	652	1,800	792
04230500	Oatka Creek at Garbutt	1946–2002	244	126	216	127
04234000	Fall Creek near Ithaca	1926–2002	172	318	300	258
04235250	Flint Creek at Phelps	1960-95	269	163	602	211
04243500	Oneida Creek at Oneida	1950–2002	302	200	237	132

Water Quality

Samples of atmospheric deposition, ground water, and surface water were collected at several sites throughout Monroe County for chemical analysis. (Locations are shown in fig. 5). Analyses indicated no significant changes from previous years. Concentrations of all constituents monitored were within the historical range of the period of record for each station. Sites are periodically added to, or dropped from, this monitoring network, which currently emphasizes the Irondequoit Creek basin but is being expanded to other parts of Monroe County. Constituent concentrations were used with streamflow data to calculate long-term trends in concentration and constituent loadings, which are used by county managers to assess environmental effects of land-use changes and water-resource-management practices. Water samples were analyzed by the Monroe County Environmental Health Laboratory in Rochester, N.Y.

Suspended-sediment samples from the Tully Valley mudboil/depression area (MDA) for the 2003 water year indicated a variable rate of sediment loading to Onondaga Creek from active mudboils, but the average sediment load increased to about 1.4 tons per day. This loading rate is slightly higher than previous water years due to several months of mudboil activity within the MDA as well as additional sediment discharge from another mudboil containment area just downstream from the MDA. The location of the sediment sampling point was moved downstream on Tributary #6 from the MDA flume to include the second mudboil area. Discharge of sediment to Onondaga Creek Tributary #6 from this newer mudboil area varies, but usually has a similar sediment concentration to that formerly measured at the sampling point just downstream of the MDA.

Water-quality analyses of springs along Onondaga Creek from the headwaters to Onondaga Lake during the 2003 water year indicated that mineralized discharges occur in the central and northern part of Tully Valley segment (from mudboils, depressurizing wells, and landslide areas at the base of Bare Mountain) and from brine springs adjacent to Onondaga Lake. Freshwater springs discharge from the Tully Moraine and from springs located on the east and west valley walls near the southern part of the city of Syracuse.

Water samples were collected for pesticide analyses from selected lakes, reservoirs, and wells that serve as sources of drinking water throughout upstate New York, as part of the Statewide Pesticide Monitoring Project in cooperation with the New York State Department of Environmental Conservation. More than 22 samples from 6 surface-water and 2 ground-water sites in western New York were analyzed for 60 or more pesticides or degradates this year. The analytical detection limits ranged from 0.001 to 0.05 μg/L. Trace levels of a few pesticides—mainly atrazine, metolachlor, and their degradates—were detected at several sites, but the concentrations did not exceed any Federal or New York State standards for drinking water.

Water samples were collected from selected public-supply wells and private resdential wells to describe the chemical quality of ground water throughout the Chemung River basin upgradient of Waverly, New York. Samples of raw, untreated water from these wells were analyzed for physical properties, inorganic constituents, nutrients, metals, radionuclides, pesticides, and volatile organic compounds. Two samples exceeded the chloride Secondary Maximum Contaminant Level (SMCL) of 250 milligrams per liter. The U.S. Environmental Protection Agency Drinking Water Advisory for sodium (30 to 60 milligrams per liter) was exceeded in 11 samples. The SMCL for aluminum (200 micrograms per liter) was exceeded in one sample. The Maximum Contaminant Level (MCL) for barium (2,000 micrograms per liter) was exceeded in one sample. The SMCL for iron (300 micrograms per liter) was exceeded in 11 samples. The SMCL for manganese (50 micrograms per liter) was exceeded in 20 samples. The MCL fro radon (300 Pico curies per liter) was exceeded in 34 samples.

Ground Water

Ground-water levels in shallow, unconfined aquifers in western New York typically show a seasonal pattern—a sharp rise during the spring in response to aquifer recharge from precipitation, and a gradual decline from summer through early fall. Aquifer recharge varies locally and seasonally and is affected by many factors, including the timing and amount of precipitation, the soil-moisture content, the amount of local runoff, and the rate of evapotranspiration. Evapotranspiration consists of physical evaporation, transpiration by vegetation, and ground-water evapotranspiration. Typically, recharge is greatest during the late fall and from early to mid-spring, when transpiration is minimal, and the ground is not frozen and allows infiltration. Water levels rise during the spring and typically exceed those reached in the preceding fall, mainly as a result of recharge from the melting snowpack. Water levels decline during the late spring and summer, when plant growth and rising water temperatures increase the rate of evapotranspiration and, thus, reduce the rate of recharge. Storms of sufficient intensity and duration provide minor recharge to shallow aquifers during summer. Precipitation in New York is (on average) fairly evenly distributed from month to month; thus, the annual summer decline in ground-water levels is due primarily to a reduction in recharge from increased evapotranspiration.

Water levels in confined aquifers generally are less responsive to individual storms than those in unconfined aquifers; the response in confined aquifers is generally subdued and delayed because their hydraulic connection to the overlying unconfined aquifers is indirect.

The minimum, maximum, median long-term monthly, and current water levels at three observation wells during the 2003 water year are shown in the hydrographs in figure 3. The hydrograph for well Ct-121 in Cattaraugus County (western New York) illustrates the water-level fluctuations under natural (nonpumping) conditions in a confined sand and gravel aquifer; the hydrograph for well Og-23 in Otsego County (central New York) illustrates seasonal water-level fluctuations under natural conditions in a shallow, unconfined till aquifer; and the hydrograph for well Cm-622 in Chemung County (south-central New York) illustrates water-level fluctuations under natural conditions in an unconfined sand and gravel aquifer.

Water levels under confined conditions at well Ct-121 were below the median throughout the entire water year except for part of August, when they were above the median. Water levels at well Og-23 were above the median from October to November, just above or below the median in December through mid July, and well above the median throughout the remainder of the water year; water levels were at and near maximum values in early August. Water levels at well Cm-622 were below the median in October, above the median during November through mid-April, then declined to below the median in for the rest of April and May. In June, water levels were again above the median before dropping to just below the median during the first part of July. From mid-July through September, water levels were well above the median. Water levels at this well were affected by water-level changes in Newtown Creek.

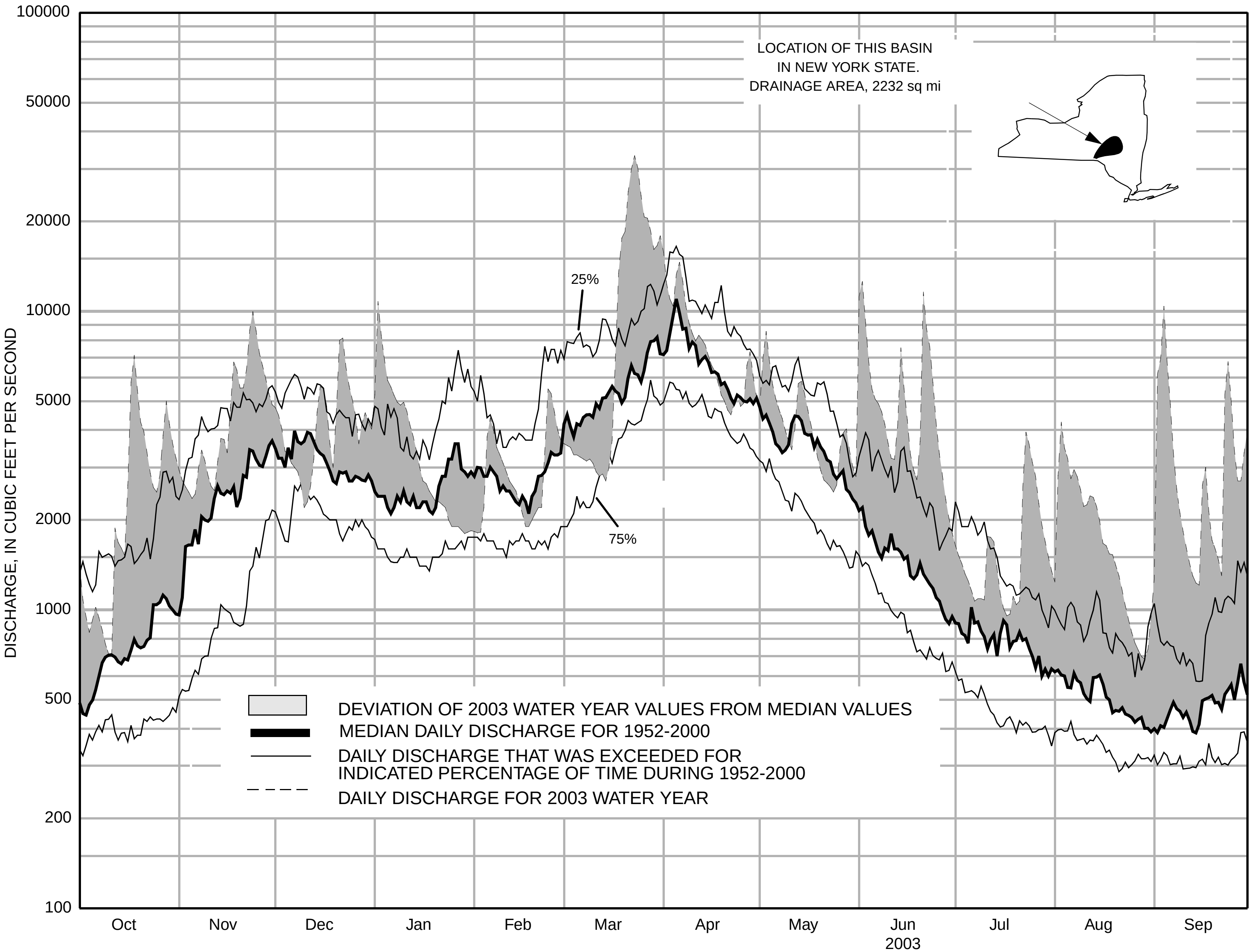

Figure 1.--Hydrographic Comparisons, Susquehanna River at Conklin, N.Y.

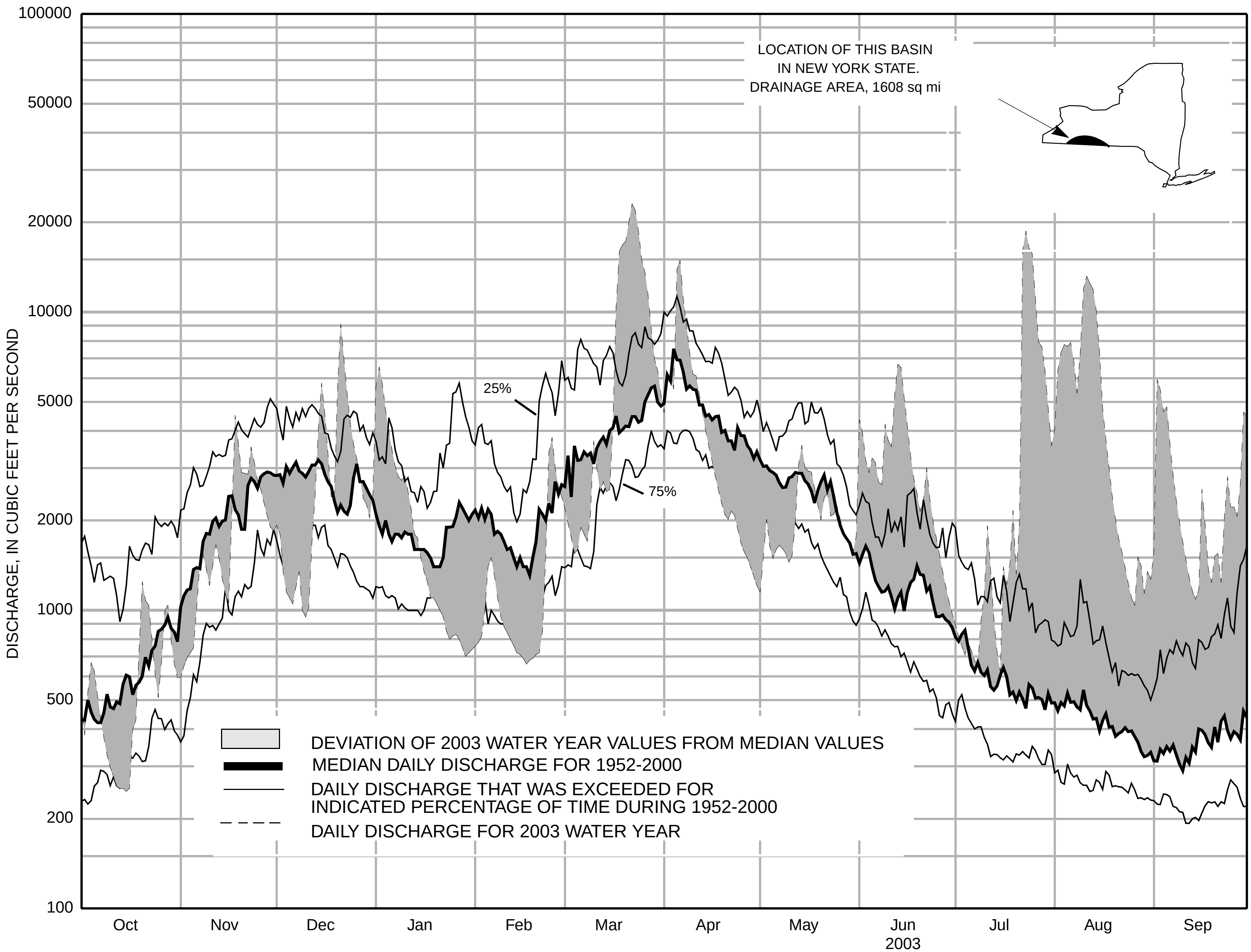

Figure 2.--Hydrographic Comparisons, Allegheny River at Salamanca, N.Y.

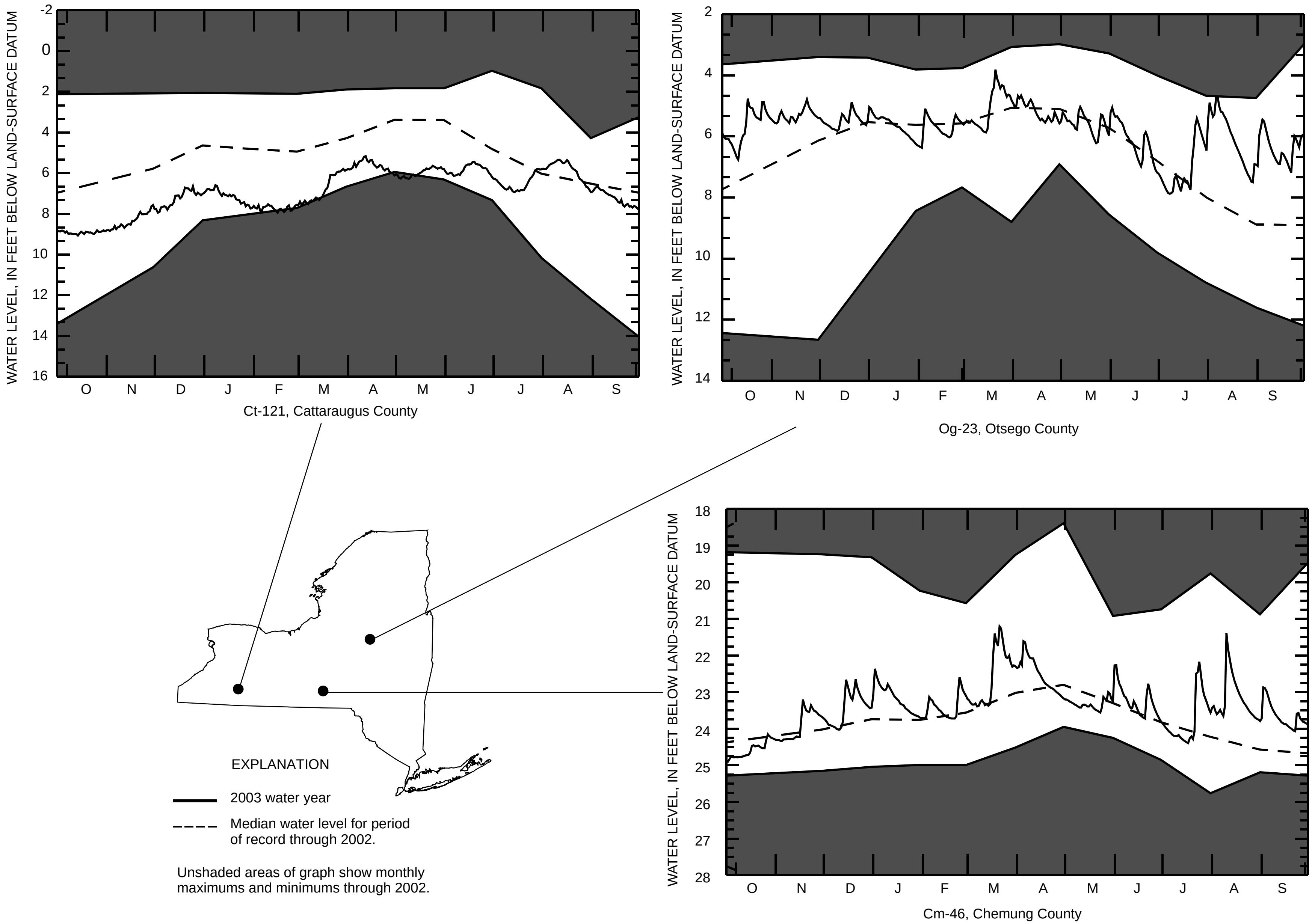

Figure 3.-Comparison of ground-water levels at selected observation wells in New York during 2003 water year with median, maximum, and minimum levels for period of record.

DOWNSTREAM ORDER AND STATION NUMBER

Since October 1, 1950, hydrologic-station records in USGS reports have been listed in order of 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 entering between two main-stream stations is listed between those stations. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary on which a station is located with respect to the stream to which it is immediately tributary is indicated by an indention in that list of stations in the front of this report. Each indentation represents one rank. This downstream order and system of indentation indicates which stations are on tributaries between any two stations and the rank of the tributary on which each station is located.

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These station numbers are in the same downstream order used in this report. In assigning a station number, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list composed of both types of stations. Gaps are consecutive. The complete 8-digit (or 10-digit) number for each station such as 09004100, which appears just to the left of the station name, includes a 2-digit part number “09” plus the 6-digit (or 8-digit) downstream order number “004100.” In areas of high station density, an additional two digits may be added to the station identification number to yield a 10-digit number. The stations are numbered in downstream order as described above between stations of consecutive 8-digit numbers.

NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

The USGS well and miscellaneous site-numbering system is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, and the next 7 digits denote degrees, minutes, and seconds of longitude; the last 2 digits are a sequential number for wells within a 1-second grid. In the event that the latitude-longitude coordinates for a well and miscellaneous site are the same, a sequential number such as “01,” “02,” and so forth, would be assigned as one would for wells (see fig. 4). The 8-digit, downstream order station numbers are not assigned to wells and miscellaneous sites where only random water-quality samples or discharge measurements are taken.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Benchmark Network is a network of 61 sites in small drainage basins in 39 States that was established in 1963 to provide consistent streamflow data representative of undeveloped watersheds nationwide, and from which data could be analyzed on a continuing basis for use in comparison and contrast with conditions observed in basins more obviously affected by human activities. At selected sites, water-quality information is being gathered on major ions and nutrients, primarily to assess the effects of acid deposition on stream chemistry. Additional information on the Hydrologic Benchmark Program may be accessed from *http://water.usgs.gov/hbn/*.

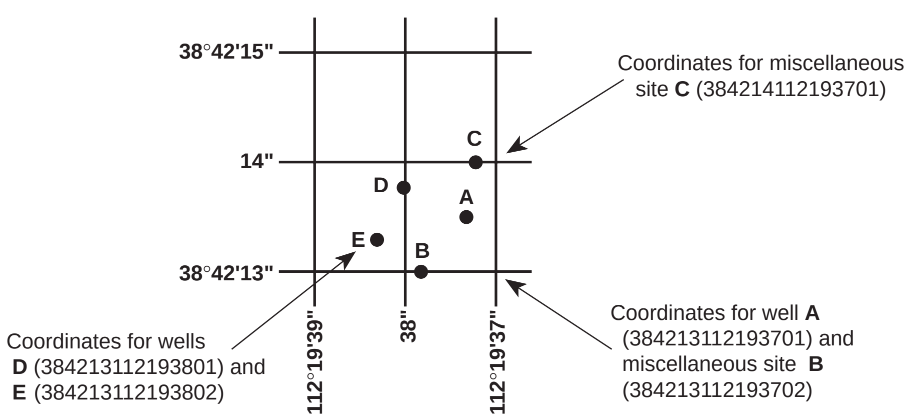

Figure 4. System for numbering wells and miscellaneous sites (latitude and longitude).

National Stream-Quality Accounting Network (NASQAN) is a network of sites used to monitor the water quality of large rivers within the Nation's largest river basins. From 1995 through 1999, a network of approximately 40 stations was operated in the Mississippi, Columbia, Colorado, and Rio Grande River basins. For the period 2000 through 2004, sampling was reduced to a few index stations on the Colorado and Columbia Rivers so that a network of 5 stations could be implemented on the Yukon River. Samples are collected with sufficient frequency that the flux of a wide range of constituents can be estimated. The objective of NASQAN is to characterize the water quality of these large rivers by measuring concentration and mass transport of a wide range of dissolved and suspended constituents, including nutrients, major ions, dissolved and sediment-bound heavy metals, common pesticides, and inorganic and organic forms of carbon. This information will be used (1) to describe the long-term trends and changes in concentration and transport of these constituents; (2) to test findings of the National Water-Quality Assessment (NAWQA) Program; (3) to characterize processes unique to large-river systems such as storage and re-mobilization of sediments and associated contaminants; and (4) to refine existing estimates of off-continent transport of water, sediment, and chemicals for assessing human effects on the world's oceans and for determining global cycles of carbon, nutrients, and other chemicals. Additional information about the NASQAN Program may be accessed from *http://water.usgs.gov/nasqan/*.

The National Atmospheric Deposition Program/National Trends Network (NADP/NTN) is a network of monitoring sites that provide continuous measurement and assessment of the chemical constituents in precipitation throughout the United States. As the lead Federal agency, the USGS works together with over 100 organizations to provide a long-term, spatial and temporal record of atmospheric deposition generated from this network of 250 precipitation-chemistry monitoring sites. The USGS supports 74 of these 250 sites. This long-term, nationally consistent monitoring program, coupled with ecosystem research, provides critical information toward a national scorecard to evaluate the effectiveness of ongoing and future regulations intended to reduce atmospheric emissions and subsequent impacts to the Nation's land and water resources. Reports and other information on the NADP/NTN Program, as well as data from the individual sites, may be accessed from *http://bqs.usgs.gov/acidrain/*.

The USGS National Water-Quality Assessment (NAWQA) Program is a long-term program with goals to describe the status and trends of water-quality conditions for a large, representative part of the Nation's ground- and surface-water resources; to provide an improved understanding of the primary natural and human factors affecting these observed conditions and trends; and to provide information that supports development and evaluation of management, regulatory, and monitoring decisions by other agencies.

Assessment activities are being conducted in 42 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 is 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 water-resources managers to use in making decisions and a foundation for aggregation and comparison of findings to address water-quality issues of regional and national interest.

Communication and coordination between USGS personnel and other local, State, and Federal interests are critical components of the NAWQA Program. Each study unit has a local liaison committee consisting of representatives from key Federal, State, and local water-resources agencies, Indian nations, and universities in the study unit. Liaison committees typically meet semiannually to discuss their information needs, monitoring plans and progress, desired information products, and opportunities to collaborate efforts among the agencies. Additional information about the NAWQA Program may be accessed from *http://water.usgs.gov/nawqa/*.

The USGS National Streamflow Information Program (NSIP) is a long-term program with goals to provide framework streamflow data across the Nation. Included in the program are creation of a permanent Federally funded streamflow network, research on the nature of streamflow, regional assessments of streamflow data and databases, and upgrades in the streamflow information delivery systems. Additional information about NSIP may be accessed from *http://water.usgs.gov/nsip/*.

EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS

Data Collection and Computation

The base data collected at gaging stations (fig.5) consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and volume of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from a water-stage recorder that is either downloaded electronically in the field to a laptop computer or similar device or is transmitted using telemetry such as GOES satellite, land-line or cellular-phone modems, or by radio transmission. Measurements of discharge are made with a current meter or acoustic Doppler current profiler, using the general methods adopted by the USGS. These methods are described in standard textbooks, USGS Water-Supply Paper 2175, and the Techniques of Water-Resources Investigations of the United States Geological Survey (TWRIs), Book 3, Chapters 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, discharge-rating tables for any stage are prepared from stage-discharge curves. If extensions to the rating curves are necessary to express discharge greater than measured, the extensions are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, or computation of flow over dams and weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharges are computed from the daily values. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features of the stream channel, the daily mean discharge is computed by the shifting-control method in which correction factors based on individual discharge measurements and notes by engineers and observers are used when applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the controlling section, the daily mean discharge is computed by the shifting-control method.

The stage-discharge relation at some stream-gaging stations is affected by backwater from reservoirs, tributary streams, or other sources. Such an occurrence 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 at some distance from the base gage.

An index velocity is measured using ultrasonic or acoustic instruments at some stream-gaging stations and this index velocity is used to calculate an average velocity for the flow in the stream. This average velocity along with a stage-area relation is then used to calculate average discharge.

At some stations, 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 in the northern United States, the stage-discharge relation is affected by ice in the winter; therefore, computation of the discharge in the usual manner is impossible. Discharge for periods of ice effect is computed on the basis of gage-height record and occasional winter-discharge measurements. Consideration is given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge from other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the volume or 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 changes are computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys, the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some stream-gaging stations, periods of time occur when no gage-height record is obtained or the recorded gage height is faulty and cannot be used to compute daily discharge or contents. Such a situation can happen when the recorder stops or otherwise fails to operate properly, the intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated on the basis of recorded range in stage, prior and subsequent records, discharge measurements, weather records, and comparison with records from other stations in the same or nearby basins. Likewise, lake or reservoir volumes may be estimated on the basis of operator’s log, prior and subsequent records, inflow-outflow studies, and other information.

Data Presentation

The records published for each continuous-record surface-water discharge station (stream-gaging station) consist of five parts: (1) the station manuscript or description; (2) the data table of daily mean values of discharge for the current water year with summary data; (3) a tabular statistical summary of monthly mean flow data for a designated period, by water year; (4) 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; and (5) a hydrograph of discharge.

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 follow that clarify information presented under the various headings of the station description.

LOCATION.—Location information is obtained from the most accurate maps available. The location of the gaging station with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given. River mileages, given for only a few stations, were determined by methods given in “River Mileage Measurement,” Bulletin 14, Revision of October 1968, prepared by the Water Resources Council or were provided by the U.S. Army Corps of Engineers.

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

PERIOD OF RECORD.—This term indicates the time period for which records have been published 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 its flow reasonably can be considered equivalent to flow at the present station.

REVISED RECORDS.—If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

GAGE.—The type of gage in current use, the datum of the current gage referred to a standard datum, 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 either will be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily discharge table. (See section titled Identifying Estimated Daily Discharge.) Information is presented relative to the accuracy of the records, to special methods of computation, and to conditions that affect natural flow at the station. In addition, information may be presented pertaining to average discharge data for the period of record; to extremes data for the period of record and the current year; and, possibly, to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, the outlet works and spillway, and the purpose and use of the reservoir.

COOPERATION.—Records provided by a cooperating organization or obtained for the USGS by a cooperating organization are identified here.

EXTREMES OUTSIDE PERIOD OF RECORD.—Information here documents 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 USGS.

REVISIONS.—Records are revised if errors in published records are discovered. Appropriate updates are made in the USGS distributed data system, NWIS, and subsequently to its Web-based National data system, NWISWeb (*http://water.usgs.gov/nwis/nwis*). Users are encouraged to obtain all required data from NWIS or NWISWeb to ensure that they have the most recent data updates. Updates to NWISWeb are made on an annual basis.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because no current or, possibly, future station manuscript would be published for these stations to document the revision in a REVISED RECORDS entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the District Office (address given on the back of the title page of this report) to determine if the published records were revised after the station was discontinued. If, however, the data for a discontinued station were obtained by computer retrieval, the data would be current. Any published revision of data is always accompanied by revision of the corresponding data in computer storage.

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

Peak Discharge Greater than Base Discharge

Tables of peak discharge above base discharge are included for some stations where secondary instantaneous peak discharge data are used in flood-frequency studies of highway and bridge design, flood-control structures, and other flood-related projects. The base discharge value is selected so an average of three peaks a year will be reported. This base discharge value has a recurrence interval of approximately 1.1 years or a 91-percent chance of exceedence in any 1 year.

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 arithmetic 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 is 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). Values for cubic feet per second per square mile and runoff in inches or in acre-feet may be omitted if extensive regulation or diversion is in effect 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 volumes are given. These values are identified by a symbol and a corresponding footnote.

Statistics of Monthly Mean Data

A tabular summary of the mean (line headed MEAN), maximum (MAX), and minimum (MIN) of monthly mean flows for each month for a designated period is provided below the mean values table. The water years of the first occurrence of the maximum and minimum monthly flows are provided immediately below those values. 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. The designated period will consist of all of the station record within the specified water years, including complete months of record for partial water years, and may coincide with the period of record for the station. The water years for which the statistics are computed are 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 a designated period, as appropriate. The designated period selected, WATER YEARS __-__, will consist of all of the station records within the specified water years, including complete months of record for partial water years, and may coincide with the period of record for the station. The water years for which the statistics are computed are consecutive, unless a break in the station record is indicated in the manuscript. All of the calculations for the statistical characteristics designated ANNUAL (see line headings below), except for the ANNUAL 7-DAY MINIMUM statistic, are calculated for the designated period using complete water years. The other statistical characteristics may be calculated using partial water years.

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

The following summary statistics data are provided with each continuous record of discharge. Comments that 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.

ANNUAL MEAN.—The arithmetic mean for the individual daily mean discharges for the year noted or for the designated period.

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

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

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

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

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

MAXIMUM PEAK FLOW.—The maximum instantaneous peak discharge occurring for the water year or designated period. Occasionally the maximum flow for a year may occur at midnight at the beginning or end of the year, on a recession from or rise toward a higher peak in the adjoining year. In this case, the maximum peak flow is given in the table and the maximum flow may be reported in a footnote or in the REMARKS paragraph in the manuscript.

MAXIMUM PEAK STAGE.—The maximum instantaneous peak stage occurring for the water year or designated period. Occasionally the maximum stage for a year may occur at midnight at the beginning or end of the year, on a recession from or rise toward a higher peak in the adjoining year. In this case, the maximum peak stage is given in the table and the maximum stage may be reported in the REMARKS paragraph in the manuscript or in a footnote. If the dates of occurrence of the maximum peak stage and maximum peak flow are different, 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 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) indicate the depth to which the drainage area would be covered if all of the runoff for a given time period were uniformly distributed on it.

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

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

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

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in two tables. The first table lists annual maximum stage and discharge at crest-stage stations, and the second table lists discharge measurements at low-flow partial-record stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. These measurements are often made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for a 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. This identification is shown either by flagging individual daily values with the letter “e” and noting in a table footnote, “e–Estimated,” or by listing the dates of the estimated record in the REMARKS paragraph of the station description.

Accuracy of Field Data and Computed Results

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

The degree of accuracy of the records is stated in the REMARKS in the station description. “Excellent” indicates that about 95 percent of the daily discharges are within 5 percent of the true value; “good” within 10 percent; and “fair,” within 15 percent. “Poor” indicates that daily discharges have less than “fair” accuracy. Different accuracies may be attributed to different parts of a given record.

Values of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 ft^3/s; to the nearest tenths between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s; and to 3 significant figures above 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharge values 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, values 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 Data Records Available

Information of a more detailed nature than that published for most of the stream-gaging stations such as discharge measurements, gage-height records, and rating tables is available from the District office. Also, most stream-gaging station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the District office (see address that is shown on the back of the title page of this report).

EXPLANATION OF PRECIPITATION RECORDS

Data Collection and Computation

Rainfall data generally are collected using electronic data loggers that measure the rainfall in 0.01-inch increments every 15 minutes using either a tipping-bucket rain gage or a collection well gage. Twenty-four hour rainfall totals are tabulated and presented. A 24-hour period extends from just past midnight of the previous day to midnight of the current day. Snowfall-affected data can result during cold weather when snow fills the rain-gage funnel and then melts as temperatures rise. Snowfall-affected data are subject to errors. Missing values are indicated by this symbol “---” in the table.

Data Presentation

Precipitation records collected at surface-water gaging stations are identified with the same station number and name as the stream-gaging station. Where a surface-water daily-record station is not available, the precipitation record is published with its own name and latitude-longitude identification number.

Information pertinent to the history of a precipitation station is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, period of record, and general remarks.

The following information is provided with each precipitation station. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.—See Data Presentation in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

PERIOD OF RECORD.—See Data Presentation in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

INSTRUMENTATION.—Information on the type of rainfall collection system is given.

REMARKS.—Remarks provide added information pertinent to the collection, analysis, or computation of records.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and Examination of Data

Surface-water samples for analysis usually are collected at or near stream-gaging stations. The quality-of-water records are given immediately following the discharge records at these stations.

The descriptive heading for water-quality records gives the period of record for all water-quality data; the period of daily record for parameters that are measured on a daily basis (specific conductance, water temperature, sediment discharge, and so forth); extremes for the current year; and general remarks.

For ground-water records, no descriptive statements are given; however, the well number, depth of well, sampling date, or other pertinent data are given in the table containing the chemical analyses of the ground water.

Water Analysis

Most of the methods used for collecting and analyzing water samples are described in the TWRIs. A list of TWRIs is provided in this report.

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 at several verticals to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum and minimum values (and sometimes mean or median values) for each constituent measured, and are based on 15-minute or 1-hour intervals of recorded data beginning at 0000 hours and ending at 2400 hours for the day of record.

SURFACE-WATER-QUALITY RECORDS

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because discharge data is useful in the interpretation of surface-water quality. Records of surface-water quality in this report involve a variety of types of data and measurement frequencies.

Classification of Records

Water-quality data for surface-water sites are grouped into one of three classifications. A *continuous-record station* is a site where data are collected on a regularly scheduled basis. Frequency may be one 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 continuous- or partial-record station, where samples are collected to give better areal coverage to define water-quality conditions in the river basin.

A careful distinction needs to be made between *continuous records* as used in this report and *continuous recordings* that refer to a continuous graph or a series of discrete values recorded at short intervals. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently. Locations of stations for which records on the quality of surface water appear in this report are shown in figures 5, 7 and 8.

Accuracy of the Records

One of four accuracy classifications is applied for measured physical properties at continuous-record stations on a scale ranging from poor to excellent. The accuracy rating is based on data values recorded before any shifts or corrections are made. Additional consideration also is given to the amount of publishable record and to the amount of data that have been corrected or shifted.

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 water quality differs significantly from that at the nearby surface-water station, the continuing water-quality record is published with its own station number and name in the regular downstream-order sequence. Water-quality data for partial-record stations and for miscellaneous sampling sites appear in separate tables following the table of discharge measurements at miscellaneous sites.

On-Site Measurements and Sample Collection

In obtaining water-quality data, a major concern is assuring that the data obtained represent the naturally occurring quality of the water. To ensure this, certain measurements, such as water temperature, pH, and dissolved oxygen, must be made on site when the samples are taken. To assure that measurements made in the laboratory also represent the naturally occurring water, carefully prescribed procedures must 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 on-site measurements and for collecting, treating, and shipping samples are given in TWRIs Book 1, Chapter D2; Book 3, Chapters A1, A3, and A4; and Book 9, Chapters A1-A9. These TWRIs are listed in this report. Also, detailed information on collecting, treating, and shipping samples can be obtained from the USGS District office (see address that is shown on the back of title page in this report).

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.

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published. Water temperatures measured at the time of water-discharge measurements are on file in the District office.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross section.

During periods of rapidly changing flow or rapidly changing concentration, samples may be collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily discharges of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples are collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observation, such data are useful in establishing seasonal relations between quality and streamflow and in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of suspended-sediment discharge, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included for some stations.

Laboratory Measurements

Samples for biochemical oxygen demand (BOD) and indicator bacteria are analyzed locally. All other samples are analyzed in the USGS laboratory in Lakewood, Colorado, unless otherwise noted. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chapter C1. Methods used by the USGS laboratories are given in the TWRIs, Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, and A4. 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 is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily. Tables of chemical, physical, biological, radiochemical data, and so forth, obtained at a frequency less than daily are presented first. Tables of “daily values” of specific conductance, pH, water temperature, dissolved oxygen, and suspended sediment then follow in sequence.

In the descriptive headings, if the location is identical to that of the discharge gaging station, neither the LOCATION nor the DRAINAGE AREA statements are repeated. The following information is provided with each continuous-record station. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.—See Data Presentation information in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

DRAINAGE AREA.—See Data Presentation information in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

PERIOD OF RECORD.—This indicates the time periods for which published water-quality records for the station are available. The periods are shown separately for records of parameters measured daily or continuously and those measured less than daily. For those measured daily or continuously, periods of record are given for the parameters individually.

INSTRUMENTATION.—Information on instrumentation is given only if a water-quality monitor temperature record, sediment pumping sampler, or other sampling device is in operation at a station.

REMARKS.—Remarks provide added information pertinent to the collection, analysis, or computation of the records.

COOPERATION.—Records provided by a cooperating organization or obtained for the USGS by a cooperating organization are identified here.

EXTREMES.—Maximums and minimums are given only for parameters measured daily or more frequently. For parameters measured weekly or less frequently, true maximums or minimums may not have been obtained. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.—Records are revised if errors in published water-quality records are discovered. Appropriate updates are made in the USGS distributed data system, NWIS, and subsequently to its Web-based National data system, NWISWeb (*http://waterdata.usgs.gov/nwis*). Users of USGS water-quality data are encouraged to obtain all required data from NWIS or NWISWeb to ensure that they have the most recent updates. Updates to the NWISWeb are made on an annual basis.

The surface-water-quality records for partial-record stations and miscellaneous sampling sites are published in separate tables following the table of discharge measurements at miscellaneous sites. No descriptive statements are given for these records. Each station is published with its own station number and name in the regular downstream-order sequence.

Remark Codes

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

Printed Output	Remark
E or e	Estimated value.
>	Actual value is known to be greater than the value shown.
<	Actual value is known to be less than the value shown.
K	Results based on colony count outside the acceptance range (non-ideal colony count).
L	Biological organism count less than 0.5 percent (organism may be observed rather than counted).
D	Biological organism count equal to or greater than 15 percent (dominant).
V	Analyte was detected in both the environmental sample and the associated blanks.
&	Biological organism estimated as dominant.

Water-Quality Control Data

The USGS National Water Quality Laboratory collects quality-control data on a continuing basis to evaluate selected analytical methods to determine long-term method detection levels (LT-MDLs) and laboratory reporting levels (LRLs). These values are re-evaluated each year on the basis of the most recent quality-control data and, consequently, may change from year to year.

This reporting procedure limits the occurrence of false positive error. Falsely reporting a concentration greater than the LT-MDL for a sample in which the analyte is not present is 1 percent or less. Application of the LRL limits the occurrence of false negative error. The chance of falsely reporting a non-detection for a sample in which the analyte is present at a concentration equal to or greater than the LRL is 1 percent or less.

Accordingly, concentrations are reported as less than LRL for samples in which the analyte was either not detected or did not pass identification. Analytes detected at concentrations between the LT-MDL and the LRL and that pass identification criteria are estimated. Estimated concentrations will be noted with a remark code of “E.” These data should be used with the understanding that their uncertainty is greater than that of data reported without the E remark code.

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 office 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. These data are not presented in this report but are available from the District office.

Blank Samples

Blank samples are collected and analyzed to ensure that environmental samples have not been contaminated in 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. Many types of blank samples are possible; each is 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. The reference material 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. Many types of replicate samples are 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:

Concurrent samples—A type of replicate sample in which the samples are collected simultaneously with two or more samplers or by using one sampler and alternating the collection of samples into two or more compositing containers.

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, each subsample 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 or degradation on the analyte concentration during sample processing and analysis.

EXPLANATION OF GROUND-WATER-LEVEL RECORDS

Generally, only ground-water-level data from selected wells with continuous recorders from a basic network of observation wells are published in this report. This basic network contains observation wells located so that the most significant data are obtained from the fewest wells in the most important aquifers.

Site Identification Numbers

Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude and (2) a local number that is produced for local needs. See NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES in this report for a detailed explanation.

Data Collection and Computation

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

Most methods for collecting and analyzing water samples are described in the TWRIs referred to in the On-site Measurements and Sample Collection and the Laboratory Measurements sections in this report. In addition, TWRI Book 1, Chapter D2, describes guidelines for the collection and field analysis of ground-water samples for selected unstable constituents. Procedures for on-site measurements and for collecting, treating, and shipping samples are given in TWRIs Book 1, Chapter D2; Book 3, Chapters A1, A3, and A4; and Book 9, Chapters A1 through A9. The values in this report represent water-quality conditions at the time of sampling, as much as possible, and that are consistent with available sampling techniques and methods of analysis. These methods are consistent with ASTM standards and generally follow ISO standards. Trained personnel collected all samples. The wells sampled were pumped long enough to ensure 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.

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 elevation of the land-surface datum above sea level 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 for every fifth day and the end of each month (EOM).

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 of 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 or a larger unit.

Data Presentation

Water-level data are presented in alphabetical order by county. The primary identification number for a given well is the 15-digit site identification number that appears in the upper left corner of the table. The secondary identification number is the local or county well number. Well locations are shown in figure 5; each well is identified on the map by its local well or county well number.

Each well record consists of three parts: the well description, the data table of water levels observed during the water year, and, for most wells, a hydrograph following the data table. Well descriptions are presented in the headings preceding the tabular data.

The following comments clarify information presented in these various headings.

LOCATION.—This paragraph follows the well-identification number and reports the hydrologic-unit number and a geographic point of reference. Latitudes and longitudes used in this report are reported as North American Datum of 1927 unless otherwise specified.

AQUIFER.—This entry designates by name and geologic age the aquifer that the well taps.

WELL CHARACTERISTICS.—This entry describes the well in terms of depth, casing diameter and depth or screened interval, method of construction, use, and changes since construction.

INSTRUMENTATION.—This paragraph provides information on both the frequency of measurement and the collection method used, allowing the user to better evaluate the reported water-level extremes by knowing whether they are based on continuous, monthly, or some other frequency of measurement.

DATUM.—This entry describes both the measuring point and the land-surface elevation at the well. The altitude of the land-surface datum is described in feet above the altitude datum; it is reported with a precision depending on the method of determination. The measuring point is described physically (such as top of casing, top of instrument shelf, and so forth), 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 National Geodetic Vertical Datum of 1929 (NGVD 29); it is reported with a precision depending on the method of determination.

REMARKS.—This entry describes factors that may influence the water level in a well or the measurement of the water level, when various methods of measurement were begun, and the network (climatic, terrane, local, or areal effects) or the special project to which the well belongs.

PERIOD OF RECORD.—This entry indicates the time period for which records are published for the well, the month and year at the start of publication of water-level records by the USGS, and the words “to current year” if the records are to be continued into the following year. Time periods for which water-level records are available, but are not published by the USGS, may be noted.

EXTREMES FOR PERIOD OF RECORD.—This entry contains the highest and lowest instantaneously recorded or measured water levels of the period of published record, with respect to land-surface datum or sea level, and the dates of occurrence.

Water-Level Tables

A table of water levels follows the well description for each well. Water-level measurements in this report are given in feet with reference to either sea level or land-surface datum (lsd). Missing records are indicated by dashes in place of the water-level value.

For wells not equipped with recorders, water-level measurements were obtained periodically by steel or electric tape. Tables of periodic water-level measurements in these wells show the date of measurement and the measured water-level value.

Hydrographs

Hydrographs are a graphic display of water-level fluctuations over a period of time. In this report, current water year and, when appropriate, period-of-record hydrographs are shown. Hydrographs that display periodic water-level measurements show points that may be connected with a dashed line from one measurement to the next. Hydrographs that display recorder data show a solid line representing the mean water level recorded for each day. Missing data are indicated by a blank space or break in a hydrograph. Missing data may occur as a result of recorder malfunctions, battery failures, or mechanical problems related to the response of the recorder's float mechanism to water-level fluctuations in a well.

GROUND-WATER-QUALITY DATA

Data Collection and Computation

The ground-water-quality data in this report were obtained as a part of special studies in specific areas. Consequently, a number of chemical analyses are presented for some wells within a county but not for others. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality Statewide.

Most methods for collecting and analyzing water samples are described in the TWRIs. Procedures for on-site measurements and for collecting, treating, and shipping samples are given in TWRI, Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, and A4. Also, detailed information on collecting, treating, and shipping samples may be obtained from the USGS District office (see address shown on back of title page in this report).

Laboratory Measurements

Analysis for sulfide and measurement of alkalinity, pH, water temperature, specific conductance, and dissolved oxygen are performed on site. All other sample analyses are performed at the USGS laboratory in Lakewood, Colorado, unless otherwise noted. Methods used by the USGS laboratory are given in TWRI, Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, and A4.

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 from *http://water.usgs.gov*.

Water-quality data and ground-water data also are available through the WWW. In addition, data can be provided in various machine-readable formats on various media. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each Water Discipline District Office (See address that is shown on the back of the title page of this report.)

DEFINITION OF TERMS

Specialized technical terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. Terms such as algae, water level, and precipitation are used in their common everyday meanings, definitions of which are given in standard dictionaries. Not all terms defined in this alphabetical list apply to every State. See also table for converting English units to International System (SI) Units. Other glossaries that also define water-related terms are accessible from *http://water.usgs.gov/glossaries.html*.

Acid neutralizing capacity (ANC) is the equivalent sum of all bases or base-producing materials, solutes plus particulates, in an aqueous system that can be titrated with acid to an equivalence point. This term designates titration of an "unfiltered" sample (formerly reported as alkalinity).

Acre-foot (AC-FT, acre-ft) is a unit of volume, commonly used to measure quantities of water used or stored, equivalent to the volume of water required to cover 1 acre to a depth of 1 foot and equivalent to 43,560 cubic feet, 325,851 gallons, or 1,233 cubic meters. (See also "Annual runoff")

Adenosine triphosphate (ATP) is an organic, phosphate-rich compound important in the transfer of energy in organisms. Its central role in living cells makes ATP an excellent indicator of the presence of living material in water. A measurement of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter.

Adjusted discharge is discharge data that have been mathematically adjusted (for example, to remove the effects of a daily tide cycle or reservoir storage).

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. (See also "Biomass" and "Dry weight")

Alkalinity is the capacity of solutes in an aqueous system to neutralize acid. This term designates titration of a "filtered" sample.

Annual runoff is the total quantity of water that is discharged ("runs off") from a drainage basin in a year. Data reports may present annual runoff data as volumes in acre-feet, as discharges per unit of drainage area in cubic feet per second per square mile, or as depths of water on the drainage basin in inches.

Annual 7-day minimum is the lowest mean value for any 7-consecutive-day period in a year. Annual 7-day minimum values are reported herein for the calendar year and the water year (October 1 through September 30). Most low-flow frequency analyses use a climatic year (April 1-March 31), which tends to prevent the low-flow period from being artificially split between adjacent years. The date shown in the summary statistics table is the initial date of the 7-day period. (This value should not be confused with the 7-day, 10-year low-flow statistic.)

Aroclor is the registered trademark for a group of polychlorinated biphenyls that were manufactured by the Monsanto Company prior to 1976. Aroclors are assigned specific 4-digit reference numbers dependent upon molecular type and degree of substitution of the biphenyl ring hydrogen atoms by chlorine atoms. The first two digits of a numbered aroclor represent the molecular type, and the last two digits represent the percentage weight of the hydrogen-substituted chlorine.

Artificial substrate is a device that purposely is placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is collected. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multiplate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection. (See also "Substrate")

Ash mass is the mass or amount of residue present after the residue from a dry-mass determination has been ashed in a muffle furnace at a temperature of 500 °C for 1 hour. Ash mass of zooplankton and phytoplankton is expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square meter (g/m^2). (See also "Biomass" and "Dry mass")

Aspect is the direction toward which a slope faces with respect to the compass.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, whereas 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.

Bankfull stage, as used in this report, is the stage at which a stream first overflows its natural banks formed by floods with 1- to 3-year recurrence intervals.

Base discharge (for peak discharge) is a discharge value, determined for selected stations, above which peak discharge data are published. The base discharge at each station is selected so that an average of about three peak flows per year will be published. (See also "Peak flow")

Base flow is sustained flow of a stream in the absence of direct runoff. It includes natural and human-induced streamflows. Natural base flow is sustained largely by ground-water discharge.

Bed material is the sediment mixture of which a stream-bed, lake, pond, reservoir, or estuary bottom is composed. (See also "Bedload" and "Sediment")

Bedload is material in transport that primarily is supported by the streambed. In this report, bedload is considered to consist of particles in transit from the bed to the top of the bedload sampler nozzle (an elevation ranging from 0.25 to 0.5 foot). These particles are retained in the bedload sampler. A sample collected with a pressure-differential bedload sampler also may contain a component of the suspended load.

Bedload discharge (tons per day) is the rate of sediment moving as bedload, reported as dry weight, that passes through a cross section in a given time. NOTE: Bedload discharge values in this report may include a component of the suspended-sediment discharge. A correction may be necessary when computing the total sediment discharge by summing the bedload discharge and the suspended-sediment discharge. (See also “Bedload,” “Dry weight,” “Sediment,” and “Suspended-sediment discharge”)

Benthic organisms are the group of organisms inhabiting the bottom of an aquatic environment. They include a number of types of organisms, such as bacteria, fungi, insect larvae and nymphs, snails, clams, and crayfish. They are useful as indicators of water quality.

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 mass per unit area or volume of habitat.

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

Blue-green algae (*Cyanophyta*) are a group of phytoplankton and periphyton organisms with a blue pigment in addition to a green pigment called chlorophyll. Blue-green algae can cause nuisance water-quality conditions in lakes and slow-flowing rivers; however, they are found commonly in streams throughout the year. The abundance of blue-green algae in phytoplankton samples is expressed as the number of cells per milliliter (cells/mL) or biovolume in cubic micrometers per milliliter (μm^3/mL). The abundance of blue-green algae in periphyton samples is given in cells per square centimeter (cells/cm^2) or biovolume per square centimeter ($\mu m^3/cm^2$). (See also “Phytoplankton”and “Periphyton”)

Bottom material (See “Bed material”)

Bulk electrical conductivity is the combined electrical conductivity of all material within a doughnut-shaped volume surrounding an induction probe. Bulk conductivity is affected by different physical and chemical properties of the material including the dissolved-solids content of the pore water, and the lithology and porosity of the rock.

Canadian Geodetic Vertical Datum 1928 is a geodetic datum derived from a general adjustment of Canada’s first order level network in 1928.

Cell volume (biovolume) determination is one of several common methods used to estimate biomass of algae in aquatic systems. Cell members of algae are used frequently in aquatic surveys as an indicator of algal production. However, cell numbers alone cannot represent true biomass because of considerable cell-size variation among the algal species. Cell volume (μm^3) is determined by obtaining critical cell measurements or cell dimensions (for example, length, width, height, or radius) for 20 to 50 cells of each important species to obtain an average biovolume per cell. Cells are categorized according to the correspondence of their cellular shape to the nearest geometric solid or combinations of simple solids (for example, spheres, cones, or cylinders). Representative formulae used to compute biovolume are as follows:

sphere $4/3\ \pi r^3$ cone $1/3\ \pi r^2 h$ cylinder $\pi r^2 h$.

pi (π) is the ratio of the circumference to the diameter of a circle; pi = 3.14159….

From cell volume, total algal biomass expressed as biovolume (μm^3/mL) is thus determined by multiplying the number of cells of a given species by its average cell volume and then summing these volumes for all species.

Cells/volume refers to the number of cells of any organism that 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 volume, and generally are reported as cells or units per milliliter (mL) or liter (L).

Cfs-day (See “Cubic foot per second-day”)

Channel bars, as used in this report, are the lowest prominent geomorphic features higher than the channel bed.

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 BOD or with carbonaceous organic pollution from sewage or industrial wastes. [See also “Biochemical oxygen demand (BOD)”]

Clostridium perfringens *(C. perfringens)* is a spore-forming bacterium that is common in the feces of human and other warm-blooded animals. Clostridial spores are being used experimentally as an indicator of past fecal contamination and the presence of microorganisms that are resistant to disinfection and environmental stresses. (See also “Bacteria”)

Coliphages are viruses that infect and replicate in coliform bacteria. They are indicative of sewage contamination of water and of the survival and transport of viruses in the environment.

Color unit is produced by 1 milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Confined aquifer is a term used to describe an aquifer containing water between two relatively impermeable bound-aries. The water level in a well tapping a confined aquifer stands above the top of the confined aquifer and can be higher or lower than the water table that may be present in the material above it. In some cases, the water level can rise above the ground surface, yielding a flowing well.

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.

Continuous-record station is a site where data are collected with sufficient frequency to define daily mean values and variations within a day.

Control designates a feature in the channel that physically affects the water-surface elevation and thereby determines the stage-discharge relation at the gage. This feature may be a constriction of the channel, a bedrock outcrop, a gravel bar, 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 saltwater.

Cubic foot per second (CFS, ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point in 1 second. It is equivalent to approximately 7.48 gallons per second or approximately 449 gallons per minute, or 0.02832 cubic meters per second. The term “second-foot” sometimes is used synonymously with “cubic foot per second” but is now obsolete.

Cubic foot per second-day (CFS-DAY, Cfs-day, $[(ft^3/s)/d]$) is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.98347 acre-feet, 646,317 gallons, or 2,446.6 cubic meters. The daily mean discharges reported in the daily value data tables numerically are equal to the daily volumes in cfs-days, and the totals also represent volumes in cfs-days.

Cubic foot per second per square mile [CFSM, $(ft^3/s)/mi^2$] 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. (See also “Annual runoff”)

Daily mean suspended-sediment concentration is the time-weighted mean concentration of suspended sediment passing a stream cross section during a 24-hour day. (See also “Sediment” and “Suspended-sediment concentration”)

Daily record station is a site where data are collected with sufficient frequency to develop a record of one or more data values per day. The frequency of data collection can range from continuous recording to data collection on a daily or near-daily basis.

Data collection platform (DCP) is an electronic instrument that collects, processes, and stores data from various sensors, and transmits the data by satellite data relay, line-of-sight radio, and/or landline telemetry.

Data logger is a microprocessor-based data acquisition system designed specifically to acquire, process, and store data. Data usually are downloaded from onsite data loggers for entry into office data systems.

Datum is a surface or point relative to which measurements of height and/or horizontal position are reported. A vertical datum is a horizontal surface used as the zero point for measurements of gage height, stage, or elevation; a horizontal datum is a reference for positions given in terms of latitude-longitude, State Plane coordinates, or Universal Transverse Mercator (UTM) coordinates. (See also “Gage datum,” “Land-surface datum,” “National Geodetic Vertical Datum of 1929,” and “North American Vertical Datum of 1988”)

Diatoms *(Bacillariophyta)* are unicellular or colonial algae with a siliceous cell wall. The abundance of diatoms in phytoplankton samples is expressed as the number of cells per milliliter (cells/mL) or biovolume in cubic micrometers per milliliter ($\mu m^3/mL$). The abundance of diatoms in periphyton samples is given in cells per square centimeter ($cells/cm^2$) or biovolume per square centimeter ($\mu m^3/cm^2$). (See also “Phytoplankton” and “Periphyton”)

Diel is of or pertaining to a 24-hour period of time; a regular daily cycle.

Discharge, or **flow**, is the rate that matter passes through a cross section of a stream channel or other water body per unit of time. The term commonly refers to the volume of water (including, unless otherwise stated, any sediment or other constituents suspended or dissolved in the water) that passes a cross section in a stream channel, canal, pipeline, and so forth, within a given period of time (cubic feet per second). Discharge also can apply to the rate at which constituents, such as suspended sediment, bedload, and dissolved or suspended chemicals, pass through a cross section, in which cases the quantity is expressed as the mass of constituent that passes the cross section in a given period of time (tons per day).

Dissolved refers to that material in a representative water sample that passes through a 0.45-micrometer membrane filter. This is a convenient operational definition used by Federal and State agencies that collect water-quality data. Determinations of “dissolved” constituent concentrations are made on sample water that has been filtered.

Dissolved oxygen (DO) is the molecular oxygen (oxygen gas) dissolved in water. The concentration in water is a function of atmospheric pressure, temperature, and dissolved-solids concentration of the water. The ability of water to retain oxygen decreases with increasing temperature or dissolved-solids concentration. Photosynthesis and respiration by plants commonly cause diurnal variations in dissolved-oxygen concentration in water from some streams.

Dissolved solids concentration in water is the quantity of dissolved material in a sample of water. It is determined either analytically by the "residue-on-evaporation" method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. In the mathematical calculation, the bicarbonate value, in milligrams per liter, is multiplied by 0.4926 to convert it to carbonate. Alternatively, alkalinity concentration (as mg/L $CaCO_3$) can be converted to carbonate concentration by multiplying by 0.60.

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

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

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. 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 upstream from the location, measured in a horizontal plane, that has a common outlet at the site for its surface runoff from precipitation that normally drains by gravity into a stream. Drainage areas given herein include all closed basins, or noncontributing areas, within the area unless otherwise specified.

Drainage basin is a part of the Earth's surface that contains a drainage system with a common outlet for its surface runoff. (See "Drainage area")

Dry mass refers to the mass of residue present after drying in an oven at 105 °C, 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. (See also "Ash mass," "Biomass," and "Wet mass")

Dry weight refers to the weight of animal tissue after it has been dried in an oven at 65 °C until a constant weight is achieved. Dry weight represents total organic and inorganic matter in the tissue. (See also "Wet weight")

Embeddedness is the degree to which gravel-sized and larger particles are surrounded or enclosed by finer-sized particles. (See also "Substrate embeddedness class")

Enterococcus bacteria commonly are found in the feces of humans and other warmblooded animals. Although some strains are ubiquitous and not related to fecal pollution, the presence of enterococci in water is an indication of fecal pollution and the possible presence of enteric pathogens. Enterococcus bacteria are those bacteria that produce pink to red colonies with black or reddish-brown precipitate after incubation at 41 °C on mE agar (nutrient medium for bacterial growth) and subsequent transfer to EIA medium. Enterococci include *Streptococcus feacalis, Streptococcus feacium, Streptococcus avium,* and their variants. (See also "Bacteria")

EPT Index is the total number of distinct taxa within the insect orders Ephemeroptera, Plecoptera, and Trichoptera. This index summarizes the taxa richness within the aquatic insects that generally are considered pollution sensitive; the index usually decreases with pollution.

Escherichia coli *(E. coli)* are bacteria present in the intestine and feces of warmblooded animals. *E. coli* are a member species of the fecal coliform group of indicator bacteria. In the laboratory, they are defined as those bacteria that produce yellow or yellow-brown colonies on a filter pad saturated with urea substrate broth after primary culturing for 22 to 24 hours at 44.5 °C on mTEC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample. (See also "Bacteria")

Estimated (E) value of a concentration is reported when an analyte is detected and all criteria for a positive result are met. If the concentration is less than the method detection limit (MDL), an E code will be reported with the value. If the analyte is identified qualitatively as present, but the quantitative determination is substantially more uncertain, the National Water Quality Laboratory 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 (<). For bacteriological data, concentrations are reported as estimated when results are based on non-ideal colony counts.

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

Extractable organic halides (EOX) are organic compounds that contain halogen atoms such as chlorine. These organic compounds are semivolatile and extractable by ethyl acetate from air-dried streambed sediment. The ethyl acetate extract is combusted, and the concentration is determined by microcoulometric determination of the halides formed. The concentration is reported as micrograms of chlorine per gram of the dry weight of the streambed sediment.

Fecal coliform bacteria are present in the intestines or feces of warmblooded animals. They often are used as indicators of the sanitary quality of the water. In the laboratory, they are defined as all organisms that produce blue colonies within 24 hours when incubated at 44.5 °C plus or minus 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. (See also “Bacteria”)

Fecal streptococcal bacteria are present in the intestines of warm-blooded animals and are ubiquitous in the environment. They are characterized as gram-positive, cocci bacteria that are capable of growth in brain-heart infusion broth. In the laboratory, they are defined as all the organisms that produce red or pink colonies within 48 hours at 35 °C plus or minus 1.0 °C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample. (See also “Bacteria”)

Fire algae (*Pyrrhophyta*) are free-swimming unicells characterized by a red pigment spot. (See also “Phytoplankton”)

Flow-duration percentiles are values on a scale of 100 that indicate the percentage of time for which a flow is not exceeded. For example, the 90th percentile of river flow is greater than or equal to 90 percent of all recorded flow rates.

Gage datum is a horizontal surface used as a zero point for measurement of stage or gage height. This surface usually is located slightly below the lowest point of the stream bottom such that the gage height is usually slightly greater than the maximum depth of water. Because the gage datum is not an actual physical object, the datum is usually defined by specifying the elevations of permanent reference marks such as bridge abutments and survey monuments, and the gage is set to agree with the reference marks. Gage datum is a local datum that is maintained independently of any national geodetic datum. However, if the elevation of the gage datum relative to the national datum (North American Vertical Datum of 1988 or National Geodetic Vertical Datum of 1929) has been determined, then the gage readings can be converted to elevations above the national datum by adding the elevation of the gage datum to the gage reading.

Gage height (G.H.) is the water-surface elevation, in feet above the gage datum. If the water surface is below the gage datum, the gage height is negative. Gage height often is used interchangeably with the more general term “stage,” although gage height is more appropriate when used in reference to a reading on a gage.

Gage values are values that are recorded, transmitted, and/or computed from a gaging station. Gage values typically are collected at 5-, 15-, or 30-minute intervals.

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

Gas chromatography/flame ionization detector (GC/FID) is a laboratory analytical method used as a screening technique for semivolatile organic compounds that are extractable from water in methylene chloride.

Geomorphic channel units, as used in this report, are fluvial geomorphic descriptors of channel shape and stream velocity. Pools, riffles, and runs are types of geomorphic channel units considered for National Water-Quality Assessment (NAWQA) Program habitat sampling.

Green algae *(Chlorophyta)* are unicellular or colonial algae with chlorophyll pigments similar to those in terrestrial green plants. Some forms of green algae produce mats or floating “moss” in lakes. The abundance of green algae in phytoplankton samples is expressed as the number of cells per milliliter (cells/mL) or biovolume in cubic micrometers per milliliter (μm^3/mL). The abundance of green algae in periphyton samples is given in cells per square centimeter (cells/cm^2) or biovolume per square centimeter ($\mu m^3/cm^2$). (See also “Phytoplankton” and “Periphyton”)

Habitat, as used in this report, includes all nonliving (physical) aspects of the aquatic ecosystem, although living components like aquatic macrophytes and riparian vegetation also are usually included. Measurements of habitat typically are made over a wider geographic scale than are measurements of species distribution.

Habitat quality index is the qualitative description (level 1) of instream habitat and riparian conditions surrounding the reach sampled. Scores range from 0 to 100 percent with higher scores indicative of desirable habitat conditions for aquatic life. Index only applicable to wadable streams.

Hardness of water is a physical-chemical characteristic that commonly is recognized by the increased quantity of soap required to produce lather. It is computed as the sum of equivalents of polyvalent cations (primarily calcium and magnesium) and is expressed as the equivalent concentration of calcium carbonate ($CaCO_3$).

High tide is the maximum height reached by each rising tide. The high-high and low-high tides are the higher and lower of the two high tides, respectively, of each tidal day. *See NOAA Web site: http://www.co-ops.nos.noaa.gov/tideglos.html*

Hilsenhoff’s Biotic Index (HBI) is an indicator of organic pollution that uses tolerance values to weight taxa abundances; usually increases with pollution. It is calculated as follows:

$$HBI = sum\frac{(n)(a)}{N},$$

where n is the number of individuals of each taxon, a is the tolerance value of each taxon, and N is the total number of organisms in the sample.

Horizontal datum (See “Datum”)

Hydrologic index stations referred to in this report are continuous-record gaging stations that have been selected as representative of streamflow patterns for their respective regions. Station locations are shown on index maps.

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

Inch (IN., in.), in reference to streamflow, as used in this report, refers to the depth to which the drainage area would be covered with water if all of the runoff for a given time period were distributed uniformly on it. (See also “Annual runoff”)

Instantaneous discharge is the discharge at a particular instant of time. (See also “Discharge”)

International Boundary Commission Survey Datum refers to a geodetic datum established at numerous monuments along the United States-Canada boundary by the International Boundary Commission.

Island, as used in this report, is a mid-channel bar that has permanent woody vegetation, is flooded once a year, on average, and remains stable except during large flood events.

Laboratory reporting level (LRL) generally is equal to twice the yearly determined long-term method detection level (LT-MDL). The LRL controls false negative error. The probability of falsely reporting a nondetection for a sample that contained an analyte at a concentration equal to or greater than the LRL is predicted to be less than or equal to 1 percent. The value of the LRL will be reported with a “less than” (<) remark code for samples in which the analyte was not detected. The National Water Quality Laboratory (NWQL) collects quality-control data from selected analytical methods on a continuing basis to determine LT-MDLs and to establish LRLs. These values are reevaluated annually on the basis of the most current quality-control data and, therefore, may change. The LRL replaces the term ‘non-detection value’ (NDV).

Land-surface datum (lsd) is a datum plane that is approximately at land surface at each ground-water observation well.

Latent heat flux (often used interchangeably with latent heat-flux density) is the amount of heat energy that converts water from liquid to vapor (evaporation) or from vapor to liquid (condensation) across a specified cross-sectional area per unit time. Usually expressed in watts per square meter.

Light-attenuation coefficient, also known as the extinction coefficient, is a measure of water clarity. Light is attenuated according to the Lambert-Beer equation:

$$I = I_o e^{-\lambda L},$$

where I_o is the source light intensity, I is the light intensity at length L (in meters) from the source, λ is the light-attenuation coefficient, and e is the base of the natural logarithm. The light-attenuation coefficient is defined as

$$\lambda = -\frac{1}{L}\log_e\frac{I}{I_o}.$$

Lipid is any one of a family of compounds that are insoluble in water and that make up one of the principal components of living cells. Lipids include fats, oils, waxes, and steroids. Many environmental contaminants such as organochlorine pesticides are lipophilic.

Long-term method detection level (LT-MDL) is a detection level derived by determining the standard deviation of a minimum of 24 method detection limit (MDL) spike-sample measurements over an extended period of time. LT-MDL data are collected on a continuous basis to assess year-to-year variations in the LT-MDL. The LT-MDL controls false positive error. The chance of falsely reporting a concentration at or greater than the LT-MDL for a sample that did not contain the analyte is predicted to be less than or equal to 1 percent.

Low tide is the minimum height reached by each falling tide. The high-low and low-low tides are the higher and lower of the two low tides, respectively, of each tidal day. *See NOAA Web site: http://www.co-ops.nos.noaa.gov/tideglos.html*

Macrophytes are the macroscopic plants in the aquatic environment. The most common macrophytes are the rooted vascular plants that usually are arranged in zones in aquatic ecosystems and restricted in the area by the extent of illumination through the water and sediment deposition along the shoreline.

Mean concentration of suspended sediment (Daily mean suspended-sediment concentration) is the time-weighted concentration of suspended sediment passing a stream cross section during a given time period. (See also “Daily mean suspended-sediment concentration” and “Suspended-sediment concentration”)

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period. (See also “Discharge”)

Mean high or **low tide** is the average of all high or low tides, respectively, over a specific period.

Mean sea level is a local tidal datum. It is the arithmetic mean of hourly heights observed over the National Tidal Datum Epoch. Shorter series are specified in the name; for example, monthly mean sea level and yearly mean sea level. In order that they may be recovered when needed, such datums are referenced to fixed points known as benchmarks. (See also “Datum”)

Measuring point (MP) is an arbitrary permanent reference point from which the distance to water surface in a well is measured to obtain water level.

Megahertz is a unit of frequency. One megahertz equals one million cycles per second.

Membrane filter is a thin microporous material of specific pore size used to filter bacteria, algae, and other very small particles from water.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

Method detection limit (MDL) is the minimum concentration of a substance that can be measured and reported with 99-percent confidence that the analyte concentration is greater than zero. It is determined from the analysis of a sample in a given matrix containing the analyte. At the MDL concentration, the risk of a false positive is predicted to be less than or equal to 1 percent.

Method of Cubatures is a method of computing discharge in tidal estuaries based on the conservation of mass equation.

Methylene blue active substances (MBAS) indicate the presence of detergents (anionic surfactants). The determination depends on the formation of a blue color when methylene blue dye reacts with synthetic anionic detergent compounds.

Micrograms per gram (UG/G, μg/g) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

Micrograms per kilogram (UG/KG, μg/kg) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the constituent per unit mass (kilogram) of the material analyzed. One microgram per kilogram is equivalent to 1 part per billion.

Micrograms per liter (UG/L, μg/L) is a unit expressing the concentration of chemical constituents in water as mass (micrograms) of constituent per unit volume (liter) of water. One thousand micrograms per liter is equivalent to 1 milligram per liter. One microgram per liter is equivalent to 1 part per billion.

Microsiemens per centimeter (US/CM, μS/cm) is a unit expressing the amount of electrical conductivity of a solution as measured between opposite faces of a centimeter cube of solution at a specified temperature. Siemens is the International System of Units nomenclature. It is synonymous with mhos and is the reciprocal of resistance in ohms.

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

Minimum reporting level (MRL) is the smallest measured concentration of a constituent that may be reliably reported by using a given analytical method.

Miscellaneous site, miscellaneous station, or miscellaneous sampling site is a site where streamflow, sediment, and/or water-quality data or water-quality or sediment samples are collected once, or more often on a random or discontinuous basis to provide better areal coverage for defining hydrologic and water-quality conditions over a broad area in a river basin.

Most probable number (MPN) is an index of the number of coliform bacteria that, more probably than any other number, would give the results shown by the laboratory examination; it is not an actual enumeration. MPN is determined from the distribution of gas-positive cultures among multiple inoculated tubes.

Multiple-plate samplers are artificial substrates of known surface area used for obtaining benthic invertebrate samples. They consist of a series of spaced, hardboard plates on an eyebolt.

Nanograms per liter (NG/L, ng/L) is a unit expressing the concentration of chemical constituents in solution as mass (nanograms) of solute per unit volume (liter) of water. One million nanograms per liter is equivalent to 1 milligram per liter.

National Geodetic Vertical Datum of 1929 (NGVD 29) is a fixed reference adopted as a standard geodetic datum for elevations determined by leveling. It formerly was called “Sea Level Datum of 1929” or “mean sea level.” Although the datum was derived from the mean sea level at 26 tide stations**,** it does not necessarily represent local mean sea level at any particular place. *See NOAA Web site: http://www.ngs.noaa.gov/faq.shtml#WhatVD29VD88* (See “North American Vertical Datum of 1988”)

Natural substrate refers to any naturally occurring immersed or submersed solid surface, such as a rock or tree, upon which an organism lives. (See also “Substrate”)

Nekton are the consumers in the aquatic environment and consist of large, free-swimming organisms that are capable of sustained, directed mobility.

Nephelometric turbidity unit (NTU) is the measurement for reporting turbidity that is based on use of a standard suspension of formazin. Turbidity measured in NTU uses nephelometric methods that depend on passing specific light of a specific wavelength through the sample.

North American Datum of 1927 (NAD 27) is the horizontal control datum for the United States that was defined by a location and azimuth on the Clarke spheroid of 1866.

North American Datum of 1983 (NAD 83) is the horizontal control datum for the United States, Canada, Mexico, and Central America that is based on the adjustment of 250,000 points including 600 satellite Doppler stations that constrain the system to a geocentric origin. NAD 83 has been officially adopted as the legal horizontal datum for the United States by the Federal government.

North American Vertical Datum of 1988 (NAVD 88) is a fixed reference adopted as the official civilian vertical datum for elevations determined by Federal surveying and mapping activities in the United States. This datum was established in 1991 by minimum-constraint adjustment of the Canadian**,** Mexican, and United States first-order terrestrial leveling networks.

Open or **screened interval** is the length of unscreened opening or of well screen through which water enters a well, in feet below land surface.

Organic carbon (OC) is a measure of organic matter present in aqueous solution, suspension, or bottom sediment. May be reported as dissolved organic carbon (DOC), particulate organic carbon (POC), or total organic carbon (TOC).

Organic mass or **volatile mass** of a living substance is the difference between the dry mass and ash mass and represents the actual mass of the living matter. Organic mass is expressed in the same units as for ash mass and dry mass. (See also “Ash mass,” “Biomass,” and “Dry mass”)

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 meter (m^2), acre, or hectare. 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 milliliter (mL) or liter (L). Numbers of planktonic organisms can be expressed in these terms.

Organochlorine compounds are any chemicals that contain carbon and chlorine. Organochlorine compounds that are important in investigations of water, sediment, and biological quality include certain pesticides and industrial compounds.

Parameter code is a 5-digit number used in the USGS computerized data system, National Water Information System (NWIS), to uniquely identify a specific constituent or property.

Partial-record station is a site where discrete measurements of one or more hydrologic parameters are obtained over a period of time without continuous data being recorded or computed. A common example is a crest-stage gage partial-record station at which only peak stages and flows are recorded.

Particle size is the diameter, in millimeters (mm), of a particle determined by sieve or sedimentation methods. The sedimentation method uses the principle of Stokes Law to calculate sediment particle sizes. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube, sedigraph) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification, as used in this report, agrees with the recommendation made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay	>0.00024 - 0.004	Sedimentation
Silt	>0.004 - 0.062	Sedimentation
Sand	>0.062 - 2.0	Sedimentation/sieve
Gravel	>2.0 - 64.0	Sieve
Cobble	>64 - 256	Manual measurement
Boulder	>256	Manual measurement

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. For the sedimentation method, most of the organic matter is removed, and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native water analysis.

Peak flow (peak stage) is an instantaneous local maximum value in the continuous time series of streamflows or stages, preceded by a period of increasing values and followed by a period of decreasing values. Several peak values ordinarily occur in a year. The maximum peak value in a year is called the annual peak; peaks lower than the annual peak are called secondary peaks. Occasionally, the annual peak may not be the maximum value for the year; in such cases, the maximum value occurs at midnight at the beginning or end of the year, on the recession from or rise toward a higher peak in the adjoining year. If values are recorded at a discrete series of times, the peak recorded value may be taken as an approximation of the true peak, which may occur between the recording instants. If the values are recorded with finite precision, a sequence of equal recorded values may occur at the peak; in this case, the first value is taken as the peak.

Percent composition or **percent of total** 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, weight, mass, or volume.

Percent shading is a measure of the amount of sunlight potentially reaching the stream. A clinometer is used to measure left and right bank canopy angles. These values are added together, divided by 180, and multiplied by 100 to compute percentage of shade.

Periodic-record station is a site where stage, discharge, sediment, chemical, physical, or other hydrologic measurements are made one or more times during a year but at a frequency insufficient to develop a daily record.

Periphyton is the assemblage of microorganisms attached to and living upon submerged solid surfaces. Although primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton are useful indicators of water quality.

Pesticides are chemical compounds used to control undesirable organisms. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

pH of water is the negative logarithm of the hydrogen-ion activity. Solutions with pH less than 7.0 standard units are termed "acidic," and solutions with a pH greater than 7.0 are termed "basic." Solutions with a pH of 7.0 are neutral. The presence and concentration of many dissolved chemical constituents found in water are affected, in part, by the hydrogen-ion activity of water. Biological processes including growth, distribution of organisms, and toxicity of the water to organisms also are affected, in part, by the hydrogen-ion activity of water.

Phytoplankton is the plant part of the plankton. They usually are 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 commonly are known as algae. (See also "Plankton")

Picocurie (PC, pCi) is one-trillionth (1×10^{-12}) of the amount of radioactive nuclide represented by a curie (Ci). A curie is the quantity of radioactive nuclide that yields 3.7×10^{10} radioactive disintegrations per second (dps). A picocurie yields 0.037 dps, or 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. Concentrations are expressed as a number of cells per milliliter (cells/mL) of sample.

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.

Pool, as used in this report, is a small part of a stream reach with little velocity, commonly with water deeper than surrounding areas.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photo-synthetic 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 (carbon method) by the plants.

Primary productivity (carbon method) is expressed as milligrams of carbon per area per unit time [mg C/(m^2/time)] for periphyton and macrophytes or per volume [mg C/(m^3/time)] for phytoplankton. The carbon method defines 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 with unenriched water samples. Unit time may be either the hour or day, depending on the incubation period. (See also "Primary productivity")

Primary productivity (oxygen method) is expressed as milligrams of oxygen per area per unit time [mg O/(m^2/time)] for periphyton and macrophytes or per volume [mg O/(m^3/time)] for phytoplankton. The oxygen method defines 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. (See also "Primary productivity")

Radioisotopes are isotopic forms of elements that exhibit radioactivity. Isotopes are varieties of a chemical element that differ in atomic weight but are very nearly alike in chemical properties. The difference arises because the atoms of the isotopic forms of an element differ in the number of neutrons in the nucleus; for example, ordinary chlorine is a mixture of isotopes having atomic weights of 35 and 37, and the natural mixture has an atomic weight of about 35.453. Many of the elements similarly exist as mixtures of isotopes, and a great many new isotopes have been produced in the operation of nuclear devices such as the cyclotron. There are 275 isotopes of the 81 stable elements, in addition to more than 800 radioactive isotopes.

Reach, as used in this report, is a length of stream that is chosen to represent a uniform set of physical, chemical, and biological conditions within a segment. It is the principal sampling unit for collecting physical, chemical, and biological data.

Recoverable from bed (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 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. (See also “Bed material”)

Recurrence interval, also referred to as return period, is the average time, usually expressed in years, between occurrences of hydrologic events of a specified type (such as exceedances of a specified high flow or nonexceedance of a specified low flow). The terms “return period” and “recurrence interval” do not imply regular cyclic occurrence. The actual times between occurrences vary randomly, with most of the times being less than the average and a few being substantially greater than the average. For example, the 100-year flood is the flow rate that is exceeded by the annual maximum peak flow at intervals whose average length is 100 years (that is, once in 100 years, on average); almost two-thirds of all exceedances of the 100-year flood occur less than 100 years after the previous exceedance, half occur less than 70 years after the previous exceedance, and about one-eighth occur more than 200 years after the previous exceedance. Similarly, the 7-day, 10-year low flow ($7Q_{10}$) is the flow rate below which the annual minimum 7-day-mean flow dips at intervals whose average length is 10 years (that is, once in 10 years, on average); almost two-thirds of the nonexceedances of the $7Q_{10}$ occur less than 10 years after the previous nonexceedance, half occur less than 7 years after, and about one-eighth occur more than 20 years after the previous nonexceedance. The recurrence interval for annual events is the reciprocal of the annual probability of occurrence. Thus, the 100-year flood has a 1-percent chance of being exceeded by the maximum peak flow in any year, and there is a 10-percent chance in any year that the annual minimum 7-day-mean flow will be less than the $7Q_{10}$.

Replicate samples are a group of samples collected in a manner such that the samples are thought to be essentially identical in composition.

Return period (See “Recurrence interval”)

Riffle, as used in this report, is a shallow part of the stream where water flows swiftly over completely or partially submerged obstructions to produce surface agitation.

River mileage is the curvilinear distance, in miles, measured upstream from the mouth along the meandering path of a stream channel in accordance with Bulletin No. 14 (October 1968) of the Water Resources Council and typically is used to denote location along a river.

Run, as used in this report, is a relatively shallow part of a stream with moderate velocity and little or no surface turbulence.

Runoff is the quantity of water that is discharged (“runs off”) from a drainage basin during a given time period. Runoff data may be presented as volumes in acre-feet, as mean discharges per unit of drainage area in cubic feet per second per square mile, or as depths of water on the drainage basin in inches. (See also “Annual runoff”)

Sea level, as used in this report, refers to one of the two commonly used national vertical datums (NGVD 1929 or NAVD 1988). See separate entries for definitions of these datums.

Sediment is solid material that originates mostly from disintegrated rocks; when transported by, suspended in, or deposited from water, it is referred to as “fluvial sediment.” Sediment 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 affected by environmental and land-use factors. Some major factors are topography, soil characteristics, land cover, and depth and intensity of precipitation.

Sensible heat flux (often used interchangeably with latent sensible heat-flux density) is the amount of heat energy that moves by turbulent transport through the air across a specified cross-sectional area per unit time and goes to heating (cooling) the air. Usually expressed in watts per square meter.

Seven-day, 10-year low flow ($7Q_{10}$) is the discharge below which the annual 7-day minimum flow falls in 1 year out of 10 on the long-term average. The recurrence interval of the $7Q_{10}$ is 10 years; the chance that the annual 7-day minimum flow will be less than the $7Q_{10}$ is 10 percent in any given year. (See also “Annual 7-day minimum” and “Recurrence interval”)

Shelves, as used in this report, are streambank features extending nearly horizontally from the flood plain to the lower limit of persistent woody vegetation.

Sodium adsorption ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Sodium hazard in water is an index that can be used to evaluate the suitability of water for irrigating crops.

Soil heat flux (often used interchangeably with soil heat-flux density) is the amount of heat energy that moves by conduction across a specified cross-sectional area of soil per unit time and goes to heating (or cooling) the soil. Usually expressed in watts per square meter.

Soil-water content is the water lost from the soil upon drying to constant mass at 105 °C; expressed either as mass of water per unit mass of dry soil or as the volume of water per unit bulk volume of soil.

Specific electrical conductance (conductivity) is a measure of the capacity of water (or other media) to conduct an electrical current. It is expressed in microsiemens per centimeter at 25 °C. Specific electrical conductance is a function of the types and quantity of dissolved substances in water and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is from 55 to 75 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stable isotope ratio (per MIL) is a unit expressing the ratio of the abundance of two radioactive isotopes. Isotope ratios are used in hydrologic studies to determine the age or source of specific water, to evaluate mixing of different water, as an aid in determining reaction rates, and other chemical or hydrologic processes.

Stage (See “Gage height”)

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

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 lives.

Substrate embeddedness class is a visual estimate of riffle streambed substrate larger than gravel that is surrounded or covered by fine sediment (<2 mm, sand or finer). Below are the class categories expressed as the percentage covered by fine sediment:

0	no gravel or larger substrate	3	26-50 percent
1	> 75 percent	4	5-25 percent
2	51-75 percent	5	< 5 percent

Surface area of a lake is that area (acres) encompassed by the boundary of the lake as shown on USGS topographic maps, or other available maps or photographs. Because surface area changes with lake stage, surface areas listed in this report represent those determined for the stage at the time the maps or photographs were obtained.

Surficial bed material is the upper surface (0.1 to 0.2 foot) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Surrogate is an analyte that behaves similarly to a target analyte, but that is highly unlikely to occur in a sample. A surrogate is added to a sample in known amounts before extraction and is measured with the same laboratory procedures used to measure the target analyte. Its purpose is to monitor method performance for an individual sample.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of undissolved material in a water-sediment mixture. It is defined operationally as the 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 suspended water-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 are 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 directly analyzing the suspended mate-rial collected on the filter or, more commonly, by difference, on the basis of determinations of (1) dissolved and (2) total recoverable concentrations of the constituent. (See also “Suspended”)

Suspended sediment is the sediment maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid. (See also “Sediment”)

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 foot above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L). The analytical technique uses the mass of all of the sediment and the net weight of the water-sediment mixture in a sample to compute the suspended-sediment concentration. (See also “Sediment” and “Suspended sediment”)

Suspended-sediment discharge (tons/d) is the rate of sediment transport, as measured by dry mass or volume, that passes a cross section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ft^3/s) x 0.0027. (See also “Sediment,” “Suspended sediment,” and “Suspended-sediment concentration”)

Suspended-sediment load is a general term that refers to a given characteristic of the material in suspension that passes a point during a specified period of time. The term needs to be qualified, such as “annual suspended-sediment load” or “sand-size suspended-sediment load,” and so on. It is not synonymous with either suspended-sediment discharge or concentration. (See also “Sediment”)

Suspended solids, total residue at 105 °C concentration is the concentration of inorganic and organic material retained on a filter, expressed as milligrams of dry material per liter of water (mg/L). An aliquot of the sample is used for this analysis.

Suspended, total is the total amount of a given constituent in the part of a water-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. 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 directly analyzing portions of the suspended material collected on the filter or, more commonly, by difference, on the basis of determinations of (1) dissolved and (2) total concentrations of the constituent. (See also “Suspended”)

Synoptic studies are short-term investigations of specific water-quality conditions during selected seasonal or hydro-logic periods to provide improved spatial resolution for critical water-quality conditions. For the period and conditions sampled, they assess the spatial distribution of selected water-quality conditions in relation to causative factors, such as land use and contaminant sources.

Taxa (Species) richness is the number of species (taxa) present in a defined area or sampling unit.

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

Kingdom:	Animal
Phylum:	Arthropeda
Class:	Insecta
Order:	Ephemeroptera
Family:	Ephemeridae
Genus:	*Hexagenia*
Species:	*Hexagenia limbata*

Thalweg is the line formed by connecting points of minimum streambed elevation (deepest part of the channel).

Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term “temperature recorder” is used in the table descriptions and refers to any instrument that records temperature whether on a chart, a tape, or any other medium.

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 resulting from the mixing of flow proportionally to the duration of the concentration.

Tons per acre-foot (T/acre-ft) is the dry mass (tons) of a constituent per unit volume (acre-foot) of water. It is computed by multiplying the concentration of the constituent, in milligrams per liter, by 0.00136.

Tons per day (T/DAY, tons/d) is a common chemical or sediment discharge unit. It is the quantity of a substance in solution, in suspension, or as bedload that passes a stream section during a 24-hour period. It is equivalent to 2,000 pounds per day, or 0.9072 metric ton per day.

Total is the amount of a given constituent in a representative whole-water (unfiltered) 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 determined at least 95 percent of the constituent in the sample.)

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. This group includes coliforms that inhabit the intestine of warmblooded animals and those that inhabit soils. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria that ferment lactose with gas formation within 48 hours at 35 °C. In the laboratory, these bacteria are defined as all the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35 °C plus or minus 1.0 °C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 milliliters of sample. (See also “Bacteria”)

Total discharge is the quantity of a given constituent, measured as dry mass or volume, that passes a stream cross section per unit of time. When referring to constituents other than water, this term needs to be qualified, such as “total sediment discharge,” “total chloride discharge,” and so on.

Total in bottom material is the 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.”

Total length (fish) is the straight-line distance from the anterior point of a fish specimen's snout, with the mouth closed, to the posterior end of the caudal (tail) fin, with the lobes of the caudal fin squeezed together.

Total load refers to all of a constituent in transport. When referring to sediment, it includes suspended load plus bed load.

Total organism count is the number of organisms collected and enumerated in any particular sample. (See also “Organism count/volume”)

Total recoverable is the amount of a given constituent in a whole-water sample after a 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 for whole-water samples, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures may produce different analytical results.

Total sediment discharge is the mass of suspended-sediment plus bed-load transport, measured as dry weight, that passes a cross section in a given time. It is a rate and is reported as tons per day. (See also “Bedload,” “Bedload discharge,” “Sediment,” “Suspended sediment,” and “Suspended-sediment concentration”)

Total sediment load or **total load** is the sediment in transport as bedload and suspended-sediment load. The term may be qualified, such as “annual suspended-sediment load” or “sand-size suspended-sediment load,” and so on. It differs from total sediment discharge in that load refers to the material, whereas discharge refers to the quantity of material, expressed in units of mass per unit time. (See also “Sediment,” “Suspended-sediment load,” and “Total load”)

Transect, as used in this report, is a line across a stream perpendicular to the flow and along which measurements are taken, so that morphological and flow characteristics along the line are described from bank to bank. Unlike a cross section, no attempt is made to determine known elevation points along the line.

Turbidity is the reduction in the transparency of a solution because of the presence of suspended and some dissolved substances. The measurement technique records the collective optical properties of the solution that cause light to be scattered and attenuated rather than transmitted in straight lines; the higher the intensity of scattered or attenuated light, the higher the value of the turbidity. Turbidity is expressed in nephelometric turbidity units (NTU). Depending on the method used, the turbidity units as NTU can be defined as the intensity of light of a specified wavelength scattered or attenuated by suspended particles or absorbed at a method specified angle, usually 90 degrees, from the path of the incident light. Currently approved methods for the measurement of turbidity in the USGS include those that conform to USEPA Method 180.1, ASTM D1889-00, and ISO 7027. Measurements of turbidity by these different methods and different instruments are unlikely to yield equivalent values.

Ultraviolet (UV) absorbance (absorption) at 254 or 280 nanometers is a measure of the aggregate concentration of the mixture of UV absorbing organic materials dissolved in the analyzed water, such as lignin, tannin, humic substances, and various aromatic compounds. UV absorbance (absorption) at 254 or 280 nanometers is measured in UV absorption units per centimeter of path length of UV light through a sample.

Unconfined aquifer is an aquifer whose upper surface is a water table free to fluctuate under atmospheric pressure. (See “Water-table aquifer”)

Vertical datum (See “Datum”)

Volatile organic compounds (VOCs) are organic compounds that can be isolated from the water phase of a sample by purging the water sample with inert gas, such as helium, and, subsequently, analyzed by gas chromatography. Many VOCs are human-made chemicals that are used and produced in the manufacture of paints, adhesives, petroleum products, pharmaceuticals, and refrigerants. They often are components of fuels, solvents, hydraulic fluids, paint thinners, and dry-cleaning agents commonly used in urban settings. VOC contamination of drinking-water supplies is a human-health concern because many are toxic and are known or suspected human carcinogens.

Water table is that surface in a ground-water body at which the water pressure is equal to the atmospheric pressure.

Water-table aquifer is an unconfined aquifer within which the water table is found.

Water year in USGS reports dealing with surface-water supply is the 12-month period October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 2002, is called the “2002 water year.”

Watershed (See “Drainage basin”)

WDR is used as an abbreviation for “Water-Data Report” in the REVISED RECORDS paragraph to refer to State annual hydrologic-data reports. (WRD was used as an abbreviation for “Water-Resources Data” in reports published prior to 1976.)

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

Wet mass is the mass of living matter plus contained water. (See also “Biomass” and “Dry mass”)

Wet weight refers to the weight of animal tissue or other substance including its contained water. (See also “Dry weight”)

WSP is used as an acronym for “Water-Supply Paper” in reference to previously published reports.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column and often are 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. (See also “Plankton”)

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Reports in the Techniques of Water-Resources Investigations series, which are listed below, are online at http://water.usgs.gov/pubs/twri/. Printed copies are for sale by the USGS, Information Services, Box 25286, Federal Center, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office), telephone 1-888-ASK-USGS. Please telephone 1-888-ASK-USGS for current prices, and refer to the title, book number, chapter number, and mention the "U.S. Geological Survey Techniques of Water-Resources Investigations." Products can then be ordered by telephone, or online at http://www.usgs.gov/sales.html, or by FAX to (303)236-469 of an order form available online at http://mac.usgs.gov/isb/pubs/forms/. Prepayment by major credit card or by a check or money order payable to the "U.S. Geological Survey" is required.

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3–B4. *Regression modeling of ground-water flow*, by R.L. Cooley and R.L. Naff: USGS–TWRI book 3, chap. B4. 1990. 232 p.

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, chap. B4. 1993. 8 p.

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, chap. B5. 1987. 15 p.

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, chap. B6. 1987. 28 p.

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, chap. B7. 1992. 190 p.

3–B8. *System and boundary conceptualization in ground-water flow simulation,* by T.E. Reilly: USGS–TWRI book 3, chap. B8. 2001. 29 p.

Section C. Sedimentation and Erosion Techniques

3–C1. *Fluvial sediment concepts,* by H.P. Guy: USGS–TWRI book 3, chap. C1. 1970. 55 p.

3–C2. *Field methods for measurement of fluvial sediment,* by T.K. Edwards and G.D. Glysson: USGS–TWRI book 3, chap. C2. 1999. 89 p.

3–C3. *Computation of fluvial-sediment discharge,* by George Porterfield: USGS–TWRI book 3, chap. C3. 1972. 66 p.

Book 4. Hydrologic Analysis and Interpretation

Section A. Statistical Analysis

4–A1. *Some statistical tools in hydrology*, by H.C. Riggs: USGS–TWRI book 4, chap. A1. 1968. 39 p.

4–A2. *Frequency curves,* by H.C. Riggs: USGS–TWRI book 4, chap. A2. 1968. 15 p.

4–A3. *Statistical methods in water resources*, by D.R. Helsel and R.M. Hirsch: USGS–TWRI book 4, chap. A3. 1991. Available only online at http://water.usgs.gov/pubs/twri/twri4a3/. (Accessed August 30, 2002.)

Section B. Surface Water

4–B1. *Low-flow investigations,* by H.C. Riggs: USGS–TWRI book 4, chap. B1. 1972. 18 p.

4–B2. *Storage analyses for water supply*, by H.C. Riggs and C.H. Hardison: USGS–TWRI book 4, chap. B2. 1973. 20 p.

4–B3. *Regional analyses of streamflow characteristics,* by H.C. Riggs: USGS–TWRI book 4, chap. B3. 1973. 15 p.

Section D. Interrelated Phases of the Hydrologic Cycle

4–D1. *Computation of rate and volume of stream depletion by wells,* by C.T. Jenkins: USGS–TWRI book 4, chap. D1. 1970. 17 p.

Book 5. Laboratory Analysis

Section A. Water Analysis

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, chap. A1. 1989. 545 p.

5–A2. *Determination of minor elements in water by emission spectroscopy,* by P.R. Barnett and E.C. Mallory, Jr.: USGS–TWRI book 5, chap. A2. 1971. 31 p.

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, chap. A3. 1987. 80 p.

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, chap. A4. 1989. 363 p.

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, chap. A5. 1977. 95 p.

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, chap. A6. 1982. 181 p.

Section C. Sediment Analysis

5–C1. *Laboratory theory and methods for sediment analysis*, by H.P. Guy: USGS–TWRI book 5, chap. C1. 1969. 58 p.

Book 6. Modeling Techniques

Section A. Ground Water

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

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, chap. A2. 1991. 68 p.

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, chap. A3. 1993. 136 p.

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, chap. A4. 1992. 108 p.

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, chap. A5. 1993. 243 p.

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: USGS–TWRI book 6, chap. A6. 1996. 125 p.

6–A7. *User's guide to SEAWAT: A computer program for simulation of three-dimensional variable-density ground-water flow,* by Weixing Guo and Christian D. Langevin: USGS–TWRI book 6, chap. A7. 2002. 77 p.

Book 7. Automated Data Processing and Computations

Section C. Computer Programs

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, chap. C1. 1976. 116 p.

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, chap. C2. 1978. 90 p.

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, chap. C3. 1981. 110 p.

Book 8. Instrumentation

Section A. Instruments for Measurement of Water Level

8–A1. *Methods of measuring water levels in deep wells*, by M.S. Garber and F.C. Koopman: USGS–TWRI book 8, chap. A1. 1968. 23 p.

8–A2. *Installation and service manual for U.S. Geological Survey manometers*, by J.D. Craig: USGS–TWRI book 8, chap. A2. 1983. 57 p.

Section B. Instruments for Measurement of Discharge

8–B2. *Calibration and maintenance of vertical-axis type current meters,* by G.F. Smoot and C.E. Novak: USGS–TWRI book 8, chap. B2. 1968. 15 p.

Book 9. Handbooks for Water-Resources Investigations

Section A. National Field Manual for the Collection of Water-Quality Data

9–A1. *National field manual for the collection of water-quality data: Preparations for water sampling*, by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A1. 1998. 47 p.

9–A2. *National field manual for the collection of water-quality data: Selection of equipment for water sampling*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A2. 1998. 94 p.

9–A3. *National field manual for the collection of water-quality data: Cleaning of equipment for water sampling*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A3. 1998. 75 p.

9–A4. *National field manual for the collection of water-quality data: Collection of water samples*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A4. 1999. 156 p.

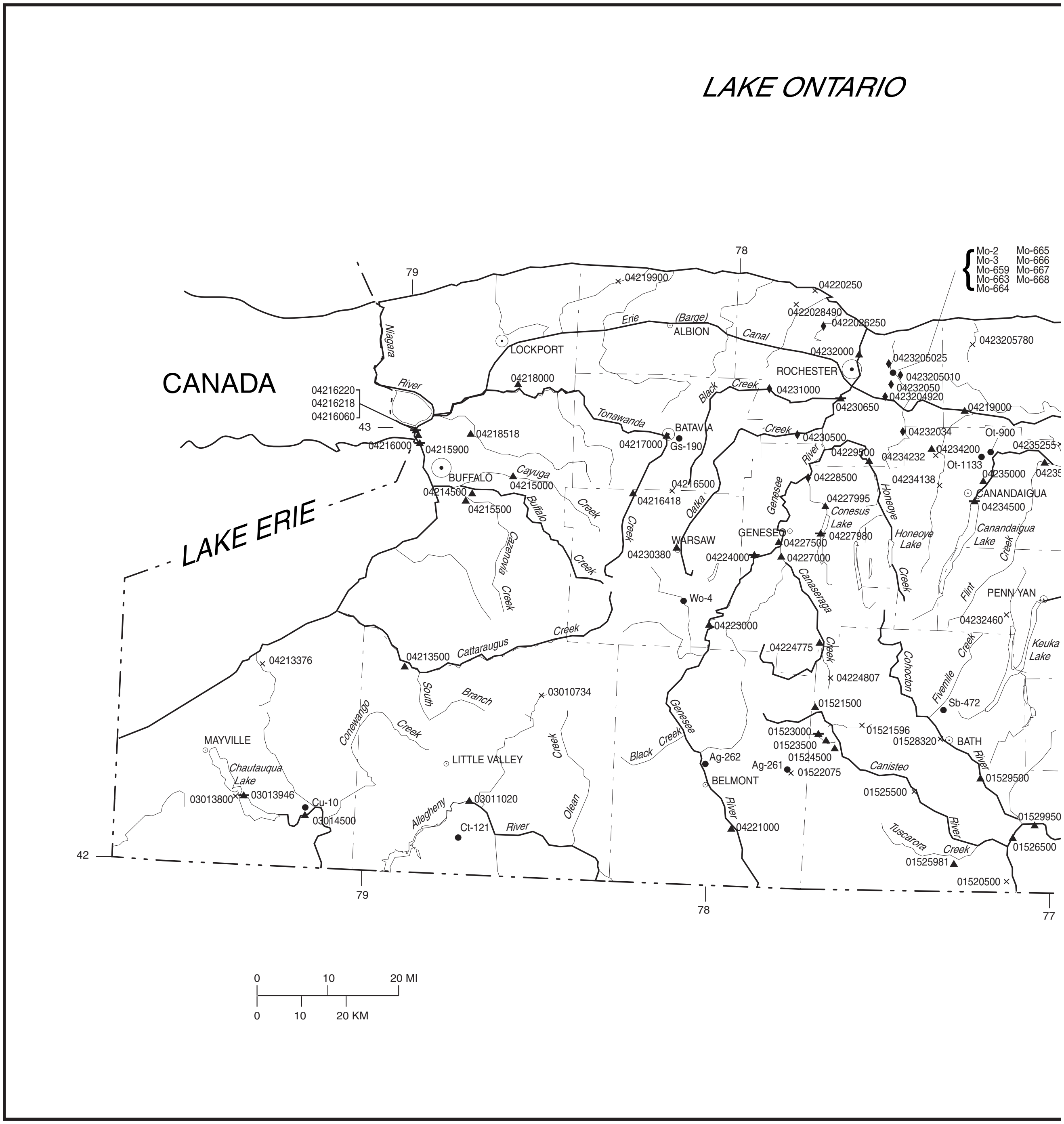
9–A5. *National field manual for the collection of water-quality data: Processing of water samples*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A5. 1999, 149 p.

9–A6. *National field manual for the collection of water-quality data: Field measurements*, edited by F.D. Wilde and D.B. Radtke: USGS–TWRI book 9, chap. A6. 1998. Variously paginated.

9–A7. *National field manual for the collection of water-quality data: Biological indicators*, edited by D.N. Myers and F.D. Wilde: USGS–TWRI book 9, chap. A7. 1997 and 1999. Variously paginated.

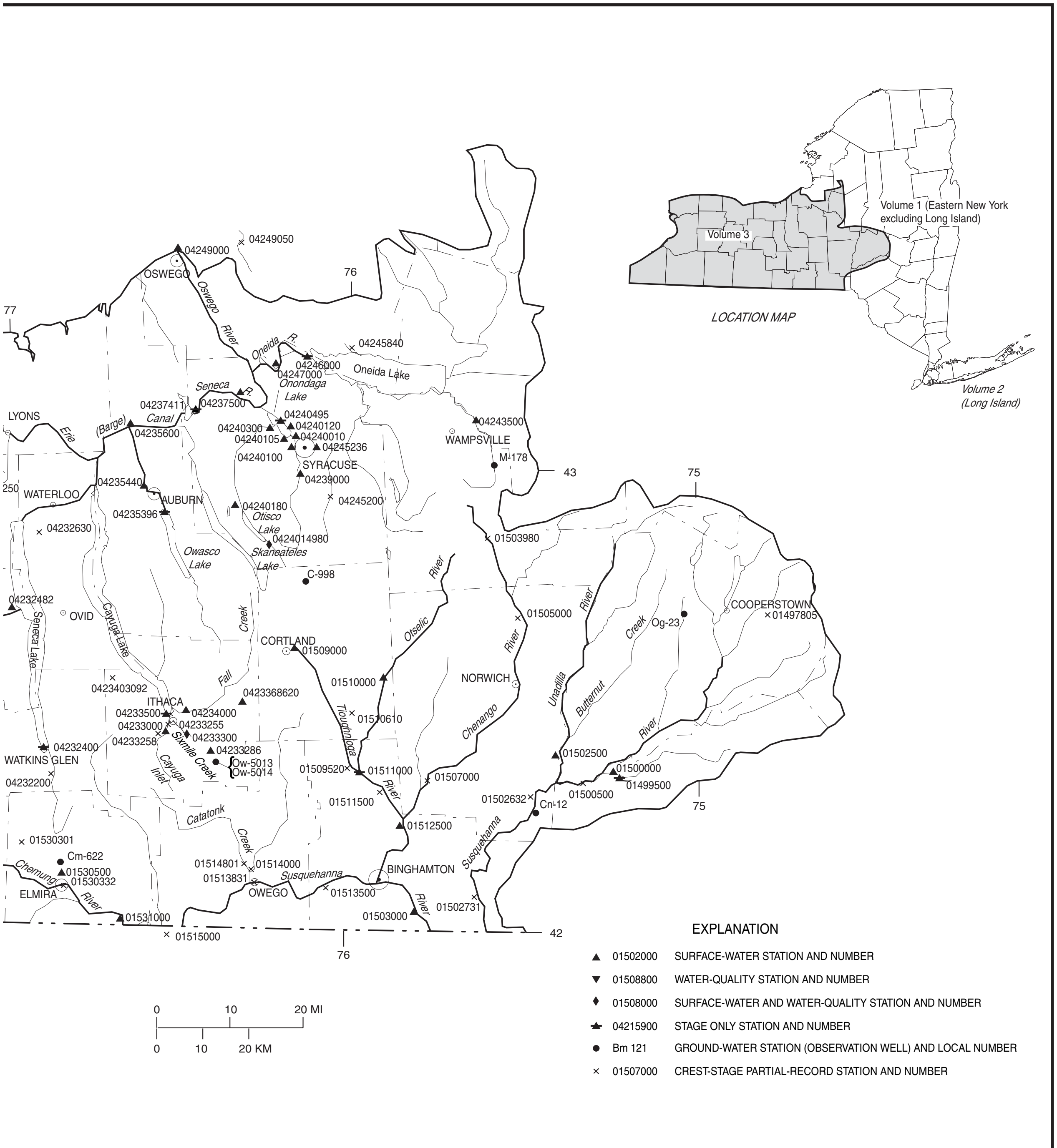
9–A8. *National field manual for the collection of water-quality data: Bottom-material samples*, by D.B. Radtke: USGS–TWRI book 9, chap. A8. 1998. 48 p.

9–A9. *National field manual for the collection of water-quality data: Safety in field activities*, by S.L. Lane and R.G. Fay: USGS–TWRI book 9, chap. A9. 1998. 60 p.



Base from U.S. Geological Survey digital data, 1:2,000,000, 1972.
Albers Equal-Area Conic projection
Standard parallels 29°30' and 45°30', central meridian -96°00'.

FIGURE 5. LOCATION OF GAGING STATIONS AND



OBSERVATION WELLS IN WESTERN NEW YORK

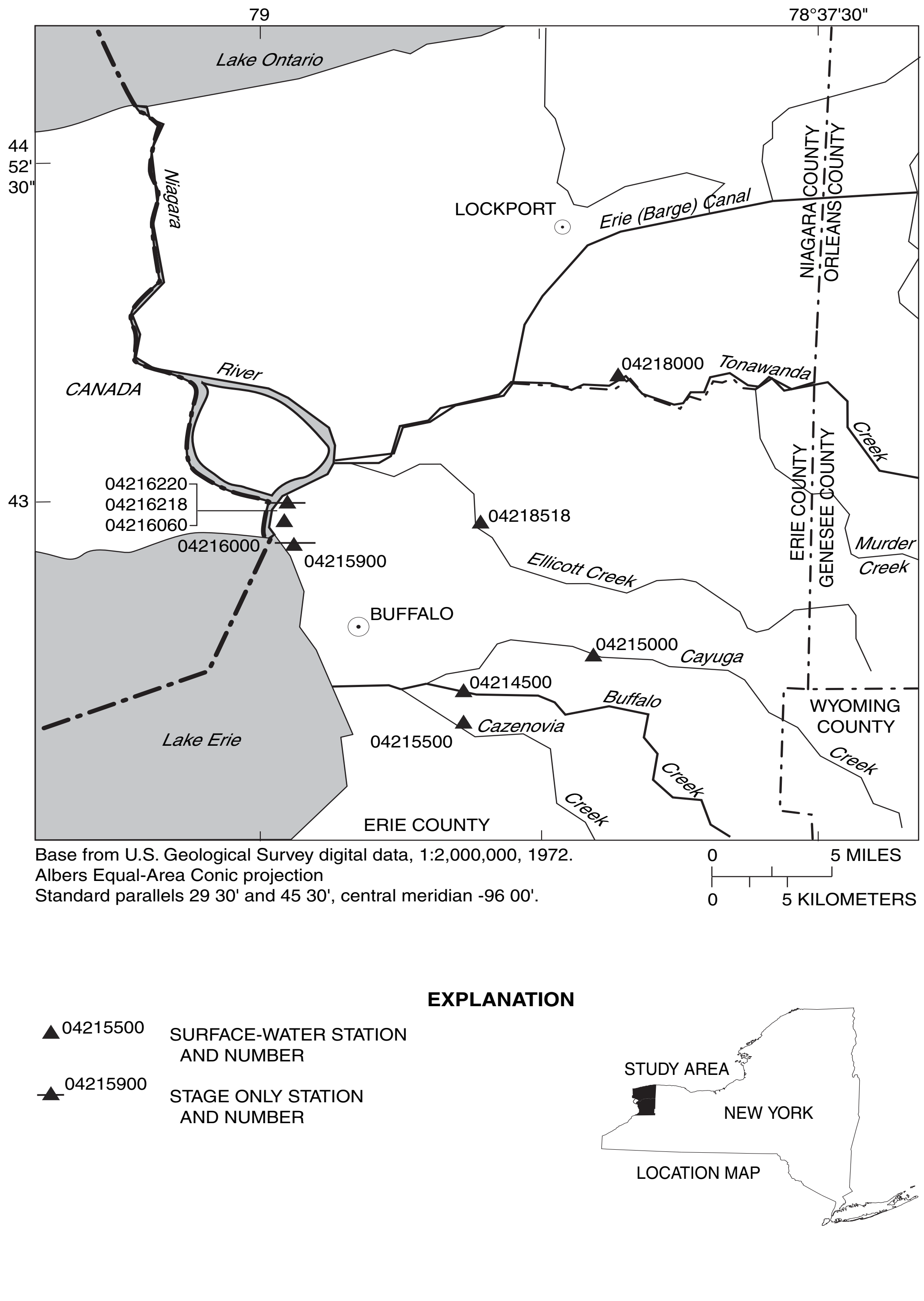


FIGURE 6. LOCATION OF GAGING STATIONS AND OBSERVATION WELLS IN ERIE AND NIAGARA COUNTIES, NY.

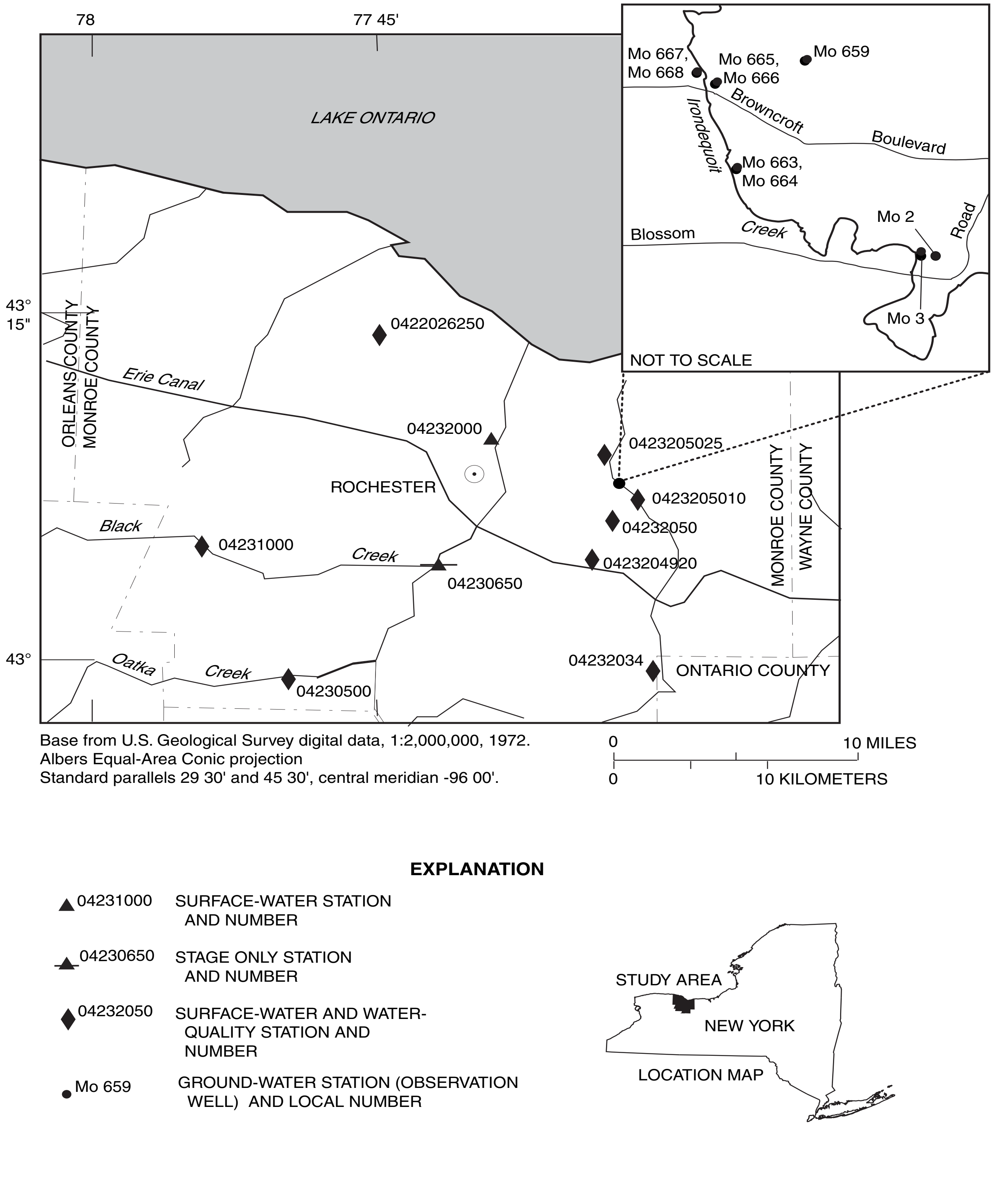
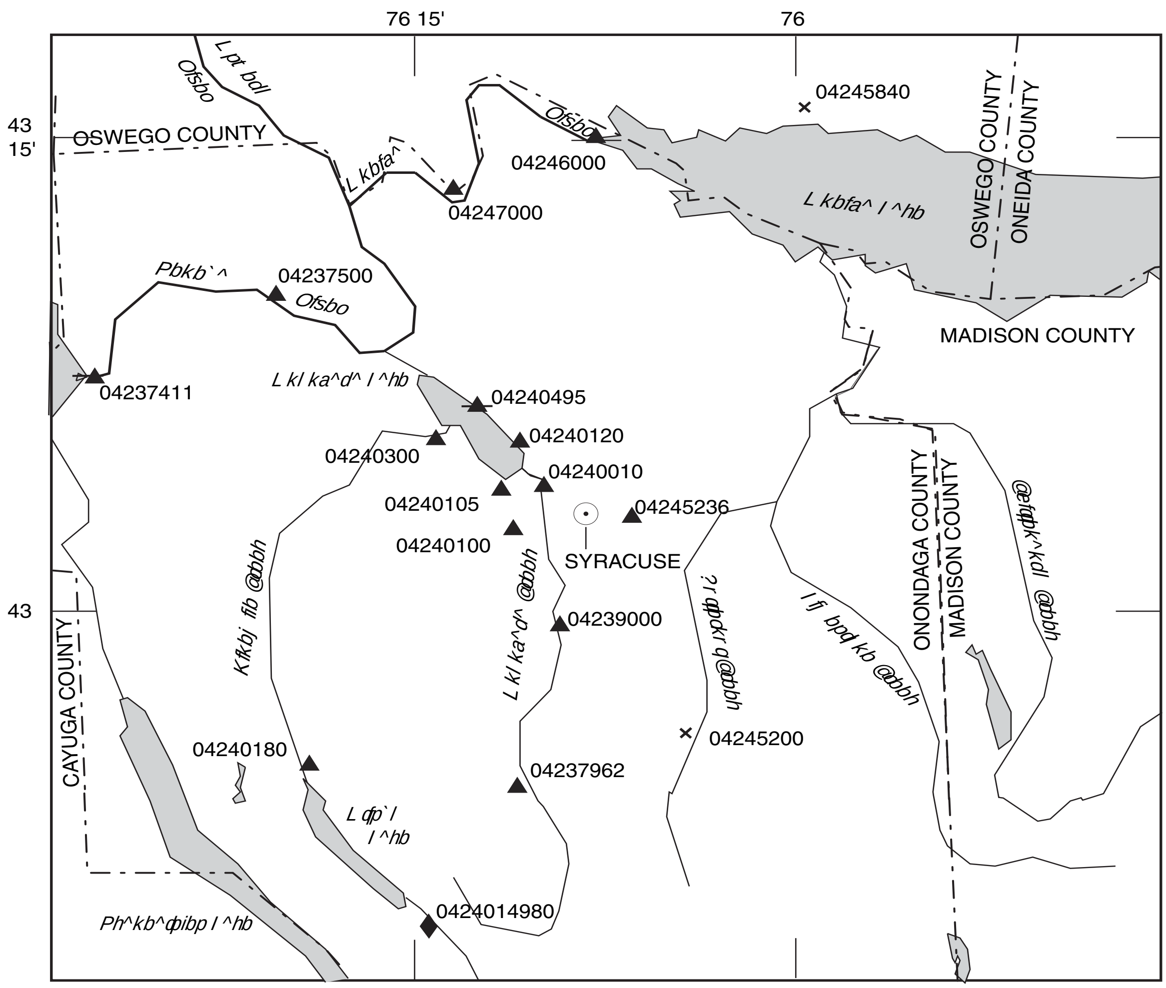


FIGURE 7 . LOCATION OF GAGING STATIONS AND OBSERVATION WELLS IN MONROE COUNTY, NY.



Base from U.S. Geological Survey digital data, 1:2,000,000, 1972.
Albers Equal-Area Conic projection
Standard parallels 29 30' and 45 30', central meridian -96 00'.

0 5 MILES

0 5 KILOMETERS

EXPLANATION

- ▲ 04245200 SURFACE-WATER STATION AND NUMBER
- 04240495 STAGE ONLY STATION AND NUMBER
- × 04245840 CREST-STAGE PARTIAL-RECORD STATION AND NUMBER
- ◆ 0424014980 SURFACE-WATER AND WATER-QUALITY STATION AND NUMBER

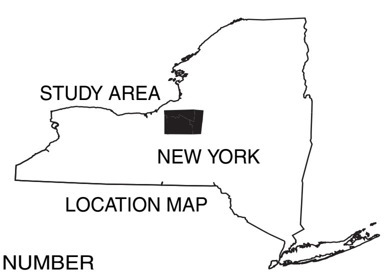


FIGURE 8. LOCATION OF GAGING STATIONS AND OBSERVATION WELLS IN ONONDAGA COUNTY, NY.

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01500000 OULEOUT CREEK AT EAST SIDNEY, NY

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

DRAINAGE AREA.--103 mi^2.

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

REVISED RECORDS.--WSP 2103: Drainage area.

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

REMARKS.--Records good. Since November 1949, flow regulated by East Sidney Lake (see station 01499500). Satellite gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, prior to construction of East Sidney Reservoir in 1950, 7,250 ft^3/s, Dec. 30, 1942, gage height, 7.62 ft, site and datum then in use, from rating curve extended above 4,000 ft^3/s; minimum daily discharge, 1.2 cfs, gage height, 0.32 ft, Aug. 13, 14, 17, 1949, result of construction; minimum instantaneous discharge not determined. Maximum discharge, since construction of East Sidney Reservoir in 1950, 4,000 ft^3/s, Apr. 7, 1960, gage height, 6.19 ft.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,110 ft^3/s, Mar. 25, gage height, 4.79 ft; minimum discharge, 15 ft^3/s, Sept. 4, gage height, 1.07 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61	108	215	315	67	255	1,030	280	243	40	185	70
2	46	108	215	415	67	246	496	774	440	56	236	550
3	43	108	214	401	67	201	456	618	543	48	116	764
4	52	104	212	357	114	146	592	506	329	41	59	480
5	42	103	212	319	168	174	673	442	251	41	59	468
6	37	117	210	237	176	213	653	328	250	41	155	284
7	37	159	200	229	176	175	485	277	198	53	214	185
8	29	154	187	231	174	175	486	240	170	68	180	158
9	26	134	183	233	152	186	408	226	170	72	119	158
10	26	153	160	232	140	160	352	194	150	70	97	116
11	31	164	137	203	134	137	336	180	133	137	97	83
12	72	165	208	186	104	155	356	330	130	110	150	76
13	172	202	235	164	94	166	318	396	129	69	167	76
14	185	218	276	141	86	168	252	329	417	46	99	61
15	98	217	343	121	74	169	233	290	389	37	72	90
16	263	217	324	112	77	189	234	249	239	37	72	146
17	845	349	261	111	88	530	203	173	177	37	e62	115
18	547	456	161	108	97	945	170	144	162	37	e57	51
19	374	354	176	107	97	1,240	137	146	162	37	e57	38
20	312	295	598	104	97	1,040	113	147	185	37	e41	38
21	233	334	656	100	97	28	87	147	446	53	e35	50
22	195	426	404	99	101	28	85	147	520	157	35	55
23	154	496	362	97	321	28	117	145	384	157	34	493
24	117	509	286	95	353	699	111	144	267	91	29	406
25	100	433	258	84	302	1,880	88	116	205	84	26	208
26	174	396	207	77	222	1,720	142	127	172	69	26	215
27	218	356	234	73	213	1,010	474	140	165	48	25	159
28	201	254	253	68	246	1,440	412	140	118	32	25	247
29	169	214	217	67	---	1,720	326	140	100	28	25	354
30	167	214	184	67	---	1,630	263	116	55	30	25	271
31	125	---	197	67	---	1,500	---	112	---	33	44	---
TOTAL	5,151	7,517	7,985	5,220	4,104	18,353	10,088	7,743	7,299	1,896	2,623	6,465
MEAN	166	251	258	168	147	592	336	250	243	61.2	84.6	216
MAX	845	509	656	415	353	1,880	1,030	774	543	157	236	764
MIN	26	103	137	67	67	28	85	112	55	28	25	38

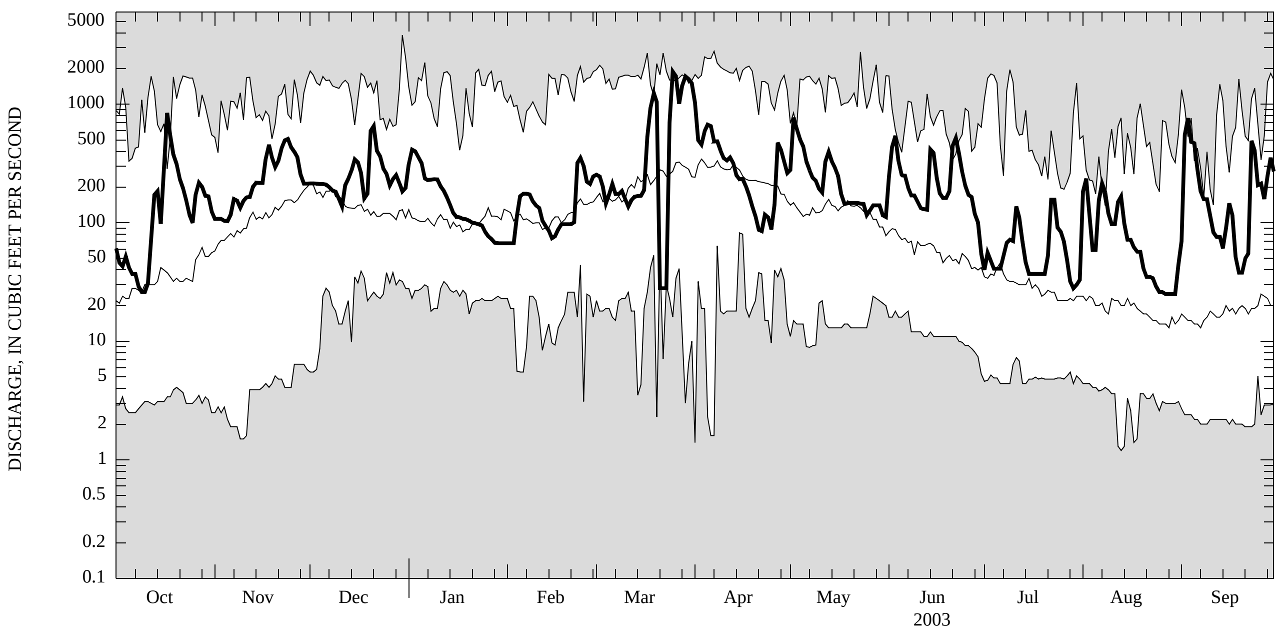
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	94.6	178	225	192	208	340	391	185	105	56.6	40.0	59.1
MAX	618	411	531	517	604	690	1,117	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	118	35.4	16.2	6.95	3.86	2.45
(WY)	(1965)	(1965)	(1961)	(1961)	(1980)	(1960)	(1985)	(1987)	(1964)	(1965)	(1964)	(1964)

01500000 OULEOUT CREEK AT EAST SIDNEY, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1950 - 2003	
ANNUAL TOTAL	69,294		84,444			
ANNUAL MEAN	190		231		172	
HIGHEST ANNUAL MEAN					242	1960
LOWEST ANNUAL MEAN					77.9	1965
HIGHEST DAILY MEAN	1,700	Mar 29	1,880	Mar 25	2,800	Apr 7, 1960
LOWEST DAILY MEAN	11	Jul 24	25	Aug 27	1.4	Apr 1, 1989
ANNUAL SEVEN-DAY MINIMUM	13	Aug 7	26	Aug 24	1.8	Nov 5, 1973
10 PERCENT EXCEEDS	429		461		409	
50 PERCENT EXCEEDS	144		166		87	
90 PERCENT EXCEEDS	16		42		12	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

01502500 UNADILLA RIVER AT ROCKDALE, NY

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

DRAINAGE AREA.--520 mi^2.

PERIOD OF RECORD.--November 1929 to September 1933, January 1937 to March 1995, October 1995 to September 2000 (annual maximums only), October 2000 to current year.

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

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

REMARKS.--Records good except those for estimated daily discharges, which are fair. Telephone and satellite gage-height telemeters at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,400 ft^3/s, Dec. 31, 1942, gage height, 12.98 ft; minimum instantaneous discharge not determined.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 22	0730	*11,400	*10.97	No other peak greater than base discharge.			

Minimum discharge, 191 ft^3/s, Aug. 29, gage height, 3.91 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	406	714	1,190	1,400	e470	803	2,980	844	1,960	450	1,130	281
2	328	676	1,060	1,720	474	e790	2,340	1,290	2,320	402	1,750	1,150
3	319	637	927	1,500	469	e760	2,240	1,240	1,440	358	949	957
4	513	608	e800	1,220	641	e730	2,880	1,000	1,130	328	912	972
5	483	601	e850	1,350	e1,300	e750	3,560	875	1,170	305	763	827
6	434	722	e830	1,290	e1,200	e850	3,510	850	1,250	284	701	595
7	371	1,000	e780	1,170	e1,100	e750	2,650	827	1,020	279	737	475
8	320	932	e740	1,130	e940	e750	2,210	772	966	267	707	407
9	287	794	628	1,150	e880	e760	1,990	745	847	267	564	362
10	259	733	e580	1,120	e820	e680	1,870	685	728	264	718	322
11	252	703	e600	986	e800	e640	1,980	697	677	312	780	295
12	273	739	654	e900	e750	e660	2,100	1,280	844	362	676	273
13	331	965	689	e820	e710	e660	2,010	1,530	840	302	612	253
14	348	998	888	e800	e680	e600	1,840	1,380	863	254	564	247
15	336	851	1,220	e700	e640	633	1,680	1,170	967	227	474	355
16	401	799	1,090	e650	e600	778	1,610	1,020	755	239	427	771
17	1,670	1,230	868	e620	e560	e1,500	1,470	904	623	263	424	522
18	1,460	1,610	e620	e600	e560	2,970	1,280	811	573	258	408	384
19	1,000	1,360	e770	e580	e570	4,020	1,290	728	555	251	367	328
20	1,100	1,300	1,340	e560	e580	3,960	1,260	657	543	271	333	321
21	933	1,570	2,220	e550	e540	7,920	1,080	645	700	248	304	296
22	773	1,810	1,670	e540	e550	11,200	1,110	653	1,660	906	281	269
23	687	2,760	1,420	e530	e800	10,200	1,370	590	1,480	1,240	263	965
24	685	2,390	1,250	e510	e1,150	7,170	1,270	599	992	1,170	243	954
25	635	1,950	1,030	e480	e1,100	5,200	1,120	1,020	773	1,200	225	601
26	963	1,790	636	e490	e900	5,410	1,120	1,070	659	854	215	510
27	1,670	1,600	1,020	e490	e800	5,680	1,390	930	582	622	209	455
28	1,180	1,410	e1,150	e480	e780	4,290	1,140	776	524	531	204	764
29	985	1,260	1,150	e460	---	3,620	987	738	475	462	199	1,040
30	862	1,200	1,040	e470	---	4,490	889	660	440	402	511	775
31	776	---	1,030	e460	---	4,200	---	623	---	352	336	---
TOTAL	21,040	35,712	30,740	25,726	21,364	93,424	54,226	27,609	28,356	13,930	16,986	16,726
MEAN	679	1,190	992	830	763	3,014	1,808	891	945	449	548	558
MAX	1,670	2,760	2,220	1,720	1,300	11,200	3,560	1,530	2,320	1,240	1,750	1,150
MIN	252	601	580	460	469	600	889	590	440	227	199	247
CFSM	1.31	2.29	1.91	1.60	1.47	5.80	3.48	1.71	1.82	0.86	1.05	1.07
IN.	1.51	2.55	2.20	1.84	1.53	6.68	3.88	1.98	2.03	1.00	1.22	1.20

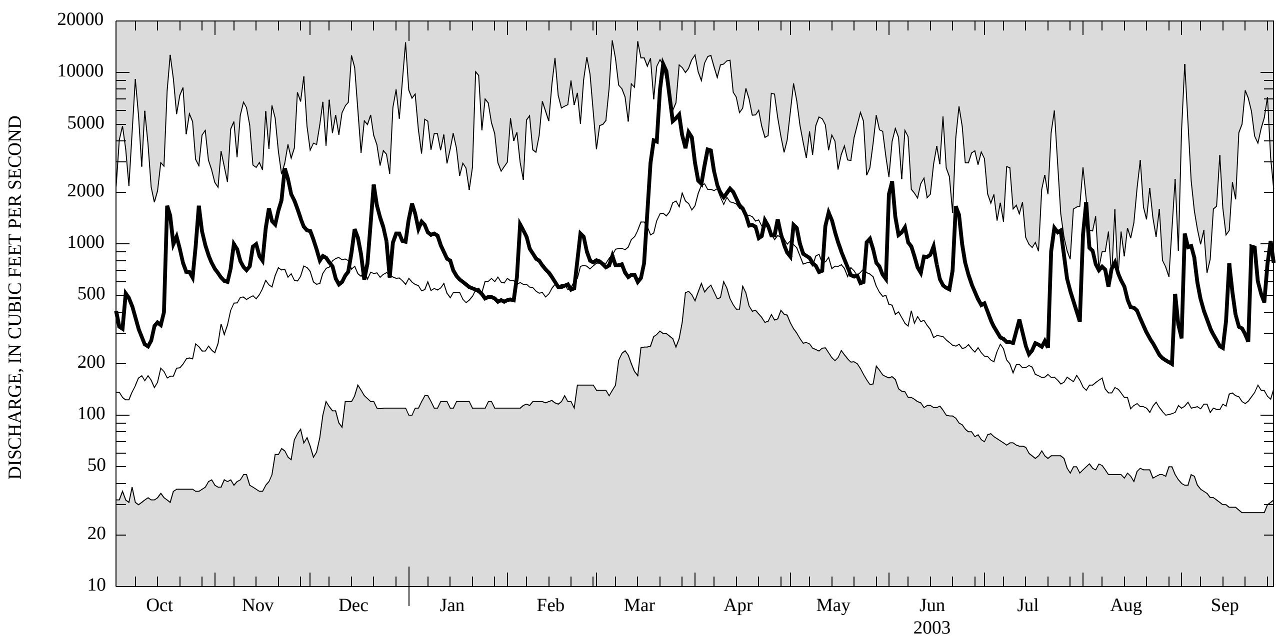
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	435	780	965	848	981	1,787	2,059	954	533	290	203	281
MAX	2,944	2,223	2,104	1,931	2,858	4,181	5,395	2,264	1,710	1,209	836	2,067
(WY)	(1978)	(1960)	(1973)	(1952)	(1981)	(1977)	(1940)	(1943)	(1972)	(1947)	(1992)	(1977)
MIN	34.6	51.6	148	115	174	568	465	278	128	65.4	54.0	34.2
(WY)	(1965)	(1965)	(1931)	(1931)	(1980)	(1941)	(1946)	(1985)	(1964)	(1962)	(1964)	(1964)

01502500 UNADILLA RIVER AT ROCKDALE, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1930 - 2003	
ANNUAL TOTAL	319,143		385,839			
ANNUAL MEAN	874		1,057		844	
HIGHEST ANNUAL MEAN					1,294	1943
LOWEST ANNUAL MEAN					447	1965
HIGHEST DAILY MEAN	5,290	Mar 27	11,200	Mar 22	15,400	Mar 6, 1979
LOWEST DAILY MEAN	58	Sep 14	199	Aug 29	27	Sep 20, 1964
ANNUAL SEVEN-DAY MINIMUM	64	Sep 9	223	Aug 23	27	Sep 20, 1964
ANNUAL RUNOFF (CFSM)	1.68		2.03		1.62	
ANNUAL RUNOFF (INCHES)	22.83		27.60		22.06	
10 PERCENT EXCEEDS	1,700		1,770		1,960	
50 PERCENT EXCEEDS	791		773		460	
90 PERCENT EXCEEDS	103		316		96	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

01503000 SUSQUEHANNA RIVER AT CONKLIN, NY

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

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

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

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

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

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

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

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 23	0830	*33,500	*14.73	No other peak greater than base discharge.			

Minimum discharge, 666 ft^3/s, Aug. 29, gage height, 2.43 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,400	2,930	4,750	5,260	e1,830	e3,600	15,800	4,740	11,200	1,640	1,240	1,270
2	1,080	2,710	4,490	10,800	e1,810	e3,550	12,300	6,970	12,600	1,520	2,820	6,160
3	949	2,580	4,050	8,330	e1,820	e3,500	11,000	8,570	9,150	1,430	4,260	6,940
4	841	2,480	e3,400	6,890	e2,200	e3,300	10,400	6,850	6,770	1,320	3,480	10,400
5	927	2,360	e3,300	5,870	e3,800	e3,300	13,300	5,690	5,480	1,250	3,220	6,780
6	1,020	2,440	e3,100	5,580	e4,400	e3,250	14,600	5,100	5,080	1,160	2,750	4,890
7	942	2,970	e3,000	5,240	e4,000	e3,200	12,600	4,690	4,900	1,070	2,950	3,340
8	857	3,430	e2,900	4,960	e3,500	e3,150	10,400	4,380	4,610	1,090	2,790	2,540
9	770	3,170	e2,600	4,850	e3,300	e3,200	9,090	3,980	4,190	1,090	2,530	2,110
10	712	2,820	e2,200	4,960	e3,100	e3,100	8,440	3,670	3,620	1,080	2,220	1,830
11	715	2,590	e2,300	4,620	e2,900	e2,900	7,940	3,440	3,220	1,760	2,250	1,610
12	1,880	2,510	e2,600	e4,150	e2,700	e2,800	8,320	4,070	3,190	1,750	2,410	1,430
13	1,680	3,140	e3,200	e3,800	e2,600	e2,850	8,030	5,730	4,170	1,690	2,380	1,300
14	1,610	3,750	4,600	e3,400	e2,500	e2,700	7,720	5,830	7,550	1,370	2,220	1,230
15	1,520	3,720	e5,600	e3,000	e2,300	e3,000	7,090	5,290	5,500	1,130	1,980	1,210
16	2,620	3,360	e5,500	e2,700	e2,100	e3,700	6,590	4,670	4,330	1,010	1,670	2,620
17	5,790	4,760	e4,800	e2,650	e1,900	e7,000	6,290	4,160	3,310	955	1,640	3,000
18	7,130	6,770	e3,600	e2,500	e1,900	13,400	5,770	3,670	2,930	967	1,540	2,140
19	5,450	6,360	e3,000	e2,400	e2,000	17,600	5,240	3,250	2,730	1,110	1,530	1,710
20	4,250	5,530	4,590	e2,300	e2,100	18,500	5,000	2,930	3,670	1,040	1,410	1,600
21	3,950	5,540	7,990	e2,300	e2,200	25,200	4,670	2,720	11,600	1,070	1,300	1,470
22	3,360	6,370	8,140	e2,250	e2,200	30,000	4,500	2,660	8,760	2,580	1,160	1,300
23	2,870	8,660	6,510	e2,200	e3,400	33,200	4,880	2,580	7,620	3,940	1,030	5,260
24	2,570	9,980	5,620	e2,000	e5,500	30,200	5,300	2,480	5,780	3,580	923	6,790
25	2,480	8,600	5,060	e1,900	e5,300	24,400	4,800	2,620	4,230	3,120	839	4,980
26	2,830	7,250	4,480	e1,900	e4,600	20,700	4,920	3,440	3,330	2,800	774	3,410
27	3,850	6,580	3,600	e1,900	e4,000	20,500	6,600	3,910	2,800	2,270	733	2,700
28	5,000	5,940	e4,200	e1,850	e3,700	18,600	7,320	4,040	2,340	1,920	697	2,700
29	4,180	5,300	4,580	e1,800	---	16,100	6,000	3,410	2,020	1,690	684	3,360
30	3,600	4,870	4,260	e1,820	---	16,600	5,170	3,010	1,810	1,500	738	4,000
31	3,230	---	4,030	e1,840	---	17,900	---	2,790	---	1,350	949	---
TOTAL	80,063	139,470	132,050	116,020	83,660	361,000	240,080	131,340	158,490	51,252	57,117	100,080
MEAN	2,583	4,649	4,260	3,743	2,988	11,650	8,003	4,237	5,283	1,653	1,842	3,336
MAX	7,130	9,980	8,140	10,800	5,500	33,200	15,800	8,570	12,600	3,940	4,260	10,400
MIN	712	2,360	2,200	1,800	1,810	2,700	4,500	2,480	1,810	955	684	1,210
CFSM	1.16	2.08	1.91	1.68	1.34	5.22	3.59	1.90	2.37	0.74	0.83	1.49
IN.	1.33	2.32	2.20	1.93	1.39	6.02	4.00	2.19	2.64	0.85	0.95	1.67

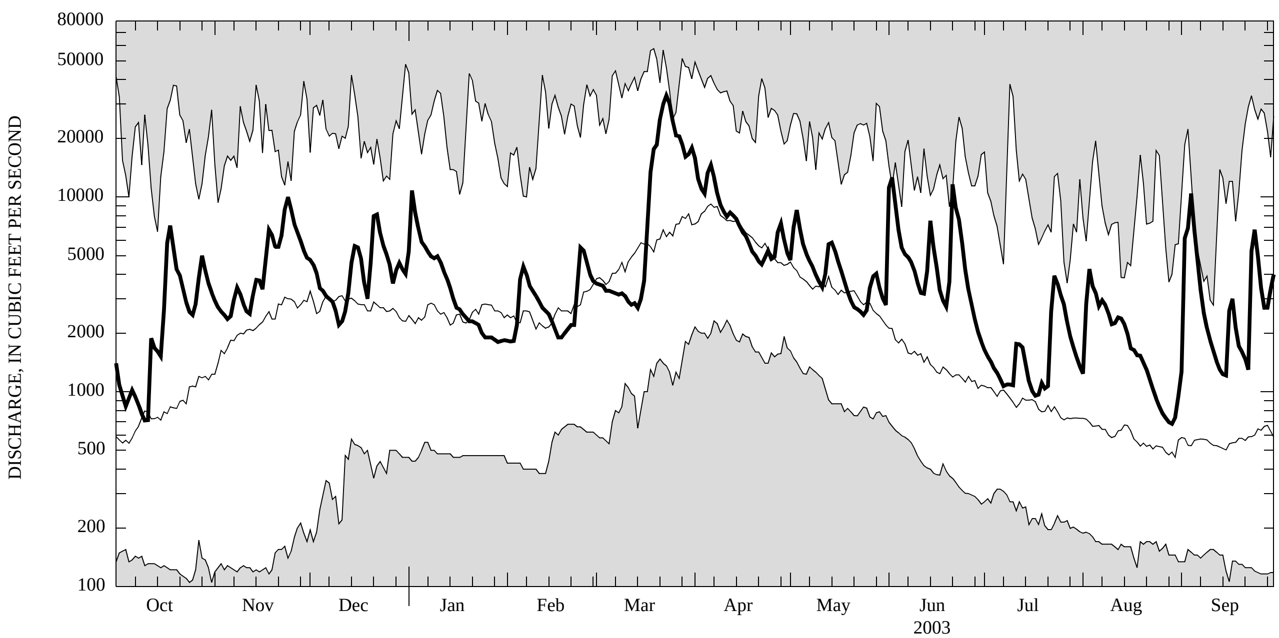
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1,825	3,322	3,919	3,903	3,949	7,569	8,432	4,248	2,291	1,421	981	1,180
MAX	12,860	9,281	10,680	10,110	11,150	18,540	21,340	10,590	8,122	7,929	5,033	8,783
(WY)	(1978)	(1928)	(1997)	(1913)	(1981)	(1936)	(1940)	(1943)	(1917)	(1915)	(1915)	(1977)
MIN	130	140	641	476	724	2,808	2,000	1,300	476	267	171	142
(WY)	(1965)	(1965)	(1931)	(1931)	(1980)	(1965)	(1946)	(1985)	(1999)	(1936)	(1964)	(1964)

01503000 SUSQUEHANNA RIVER AT CONKLIN, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1913 - 2003	
ANNUAL TOTAL	1,302,812		1,650,622			
ANNUAL MEAN	3,569		4,522		3,582	
HIGHEST ANNUAL MEAN					5,667	1928
LOWEST ANNUAL MEAN					1,690	1965
HIGHEST DAILY MEAN	21,600	Mar 27	33,200	Mar 23	57,800	Mar 19, 1936
LOWEST DAILY MEAN	207	Sep 14	684	Aug 29	105	Oct 24, 1964
ANNUAL SEVEN-DAY MINIMUM	220	Sep 11	770	Aug 24	114	Oct 19, 1964
ANNUAL RUNOFF (CFSM)	1.60		2.03		1.60	
ANNUAL RUNOFF (INCHES)	21.71		27.51		21.81	
10 PERCENT EXCEEDS	7,200		8,320		8,390	
50 PERCENT EXCEEDS	3,080		3,300		2,000	
90 PERCENT EXCEEDS	340		1,260		422	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

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

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

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

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

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

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

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 21	2145	*5,510	*9.33	No other peak greater than base discharge.			

Minimum discharge, 116 ft^3/s, Sept. 22, 23.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	278	339	664	882	263	501	1,640	356	1,040	211	191	149
2	228	331	600	998	266	494	1,350	479	1,310	199	217	413
3	240	318	527	851	255	e445	1,310	536	853	187	182	387
4	267	304	e480	788	492	e430	2,000	431	665	174	185	572
5	241	311	e460	730	850	e440	2,870	389	677	162	200	434
6	223	395	e440	680	649	e430	2,700	389	667	157	260	331
7	193	507	e420	642	625	e360	1,950	364	579	171	268	280
8	172	434	408	627	e510	e390	1,560	350	529	152	243	240
9	158	388	e370	619	e500	401	1,310	330	453	150	261	214
10	147	363	e350	595	e450	e350	1,180	306	394	151	1,880	193
11	142	350	e330	517	e410	e340	1,130	364	415	183	2,160	177
12	146	341	435	496	e390	e360	992	1,260	507	184	936	160
13	148	388	471	e440	e370	351	892	1,360	481	152	682	147
14	141	374	814	e430	e360	313	799	1,200	640	136	514	145
15	135	343	1,110	e420	e350	341	736	906	561	127	406	137
16	167	339	957	e410	e340	424	683	735	454	183	378	160
17	912	770	803	e400	e320	919	626	625	391	245	489	153
18	651	1,130	e640	e380	e300	2,070	574	545	373	215	388	128
19	570	900	e660	e380	304	2,730	506	468	363	226	308	123
20	764	803	1,070	e370	290	2,680	478	412	342	182	265	132
21	558	913	1,760	e360	287	4,060	454	408	387	189	236	128
22	462	1,070	1,290	e340	301	5,330	473	387	659	507	218	118
23	413	1,360	1,030	e320	619	4,640	567	346	523	488	202	470
24	380	1,150	878	e310	821	3,250	573	425	391	528	182	399
25	338	1,030	e770	e310	697	e2,800	554	735	334	429	162	280
26	561	966	e690	e300	e560	e3,000	499	579	299	315	150	272
27	660	843	706	e290	e550	e2,900	482	489	265	269	142	232
28	513	742	644	e290	564	e2,300	441	432	247	250	132	282
29	439	683	604	e280	---	2,270	407	386	230	225	143	344
30	394	658	562	e280	---	2,830	380	356	220	204	212	323
31	353	---	588	e270	---	2,220	---	351	---	183	164	---
TOTAL	10,994	18,843	21,531	15,005	12,693	50,369	30,116	16,699	15,249	7,134	12,356	7,523
MEAN	355	628	695	484	453	1,625	1,004	539	508	230	399	251
MAX	912	1,360	1,760	998	850	5,330	2,870	1,360	1,310	528	2,160	572
MIN	135	304	330	270	255	313	380	306	220	127	132	118
CFSM	1.21	2.15	2.38	1.66	1.55	5.56	3.44	1.84	1.74	0.79	1.37	0.86
IN.	1.40	2.40	2.74	1.91	1.62	6.42	3.84	2.13	1.94	0.91	1.57	0.96

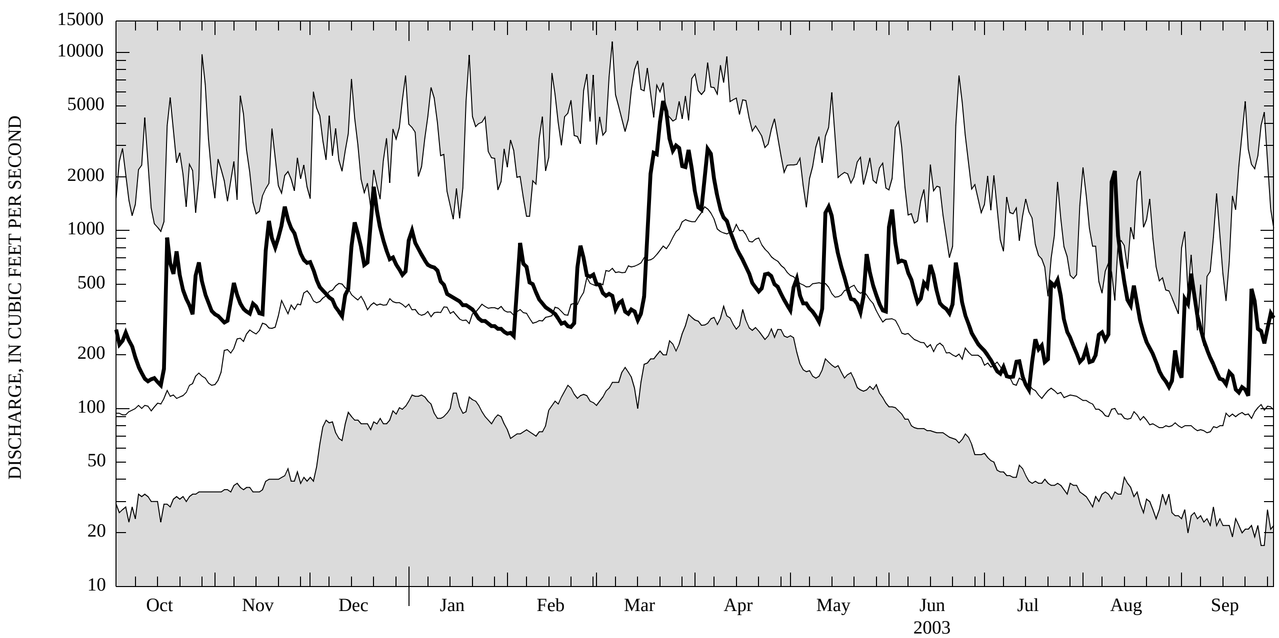
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	244	422	568	522	565	1,047	1,250	583	337	184	133	153
MAX	1,553	1,119	1,537	1,415	1,469	2,432	3,487	1,539	1,674	539	480	1,125
(WY)	(1978)	(1969)	(1997)	(1998)	(1976)	(1945)	(1993)	(2000)	(1972)	(1976)	(1992)	(1977)
MIN	33.2	44.3	86.7	112	127	359	305	205	77.7	43.5	34.6	23.8
(WY)	(1965)	(1965)	(1961)	(1961)	(1963)	(1941)	(1946)	(1999)	(1999)	(1962)	(1939)	(1939)

01509000 TIOUGHNIOGA RIVER AT CORTLAND, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1938 - 2003	
ANNUAL TOTAL	203,411		218,512			
ANNUAL MEAN	557		599		500	
HIGHEST ANNUAL MEAN					723	1943
LOWEST ANNUAL MEAN					303	1965
HIGHEST DAILY MEAN	3,220	Feb 2	5,330	Mar 22	11,500	Mar 6, 1979
LOWEST DAILY MEAN	52	Sep 14	118	Sep 22	17	Sep 26, 1959
ANNUAL SEVEN-DAY MINIMUM	57	Sep 8	135	Sep 16	21	Sep 19, 1939
ANNUAL RUNOFF (CFSM)	1.91		2.05		1.71	
ANNUAL RUNOFF (INCHES)	25.91		27.84		23.25	
10 PERCENT EXCEEDS	1,100		1,120		1,110	
50 PERCENT EXCEEDS	460		408		287	
90 PERCENT EXCEEDS	97		173		70	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

01510000 OTSELIC RIVER AT CINCINNATUS, NY

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

DRAINAGE AREA.--147 mi^2.

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

REVISED RECORDS.--WSP 2103: Drainage area.

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

REMARKS.--Records good except those for esimated daily discharges, which are fair. Telephone and satellite gage-height telemeters at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,390 ft^3/s, Dec. 30, 1942; maximum gage height, 10.89 ft, Jan. 19, 1996, ice jam; minimum discharge, 3.8 ft^3/s, Sept. 25, 1939.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 21	1900	*3,830	*6.89	No other peak greater than base discharge.			

Minimum discharge, 45 ft^3/s, Aug. 29, gage height, 0.90 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	291	262	350	460	111	237	779	199	869	134	238	63
2	234	251	307	530	112	239	662	328	617	119	222	368
3	264	239	265	385	108	209	651	293	391	108	166	247
4	252	226	252	363	328	e210	1,230	242	330	102	211	461
5	225	224	238	331	471	222	1,880	222	378	95	224	282
6	195	311	234	310	301	222	1,350	221	347	92	302	200
7	167	366	e210	290	295	e190	874	208	302	90	281	159
8	146	304	210	288	254	202	716	198	283	89	258	136
9	132	276	169	288	e250	196	610	185	242	89	326	115
10	121	258	167	269	e220	170	572	169	214	87	1,180	99
11	119	250	172	237	e200	e170	577	184	240	97	538	89
12	136	242	208	233	e190	177	488	669	293	91	353	80
13	135	296	216	197	e180	167	445	694	301	81	279	75
14	133	256	440	e200	e170	150	388	537	760	74	223	73
15	115	235	497	e190	e165	163	365	401	407	69	184	70
16	443	232	373	e190	e160	219	346	331	314	76	177	138
17	1,360	573	312	e180	143	695	303	285	265	77	191	101
18	630	638	244	e165	e150	1,680	270	252	260	82	150	82
19	792	443	287	e165	152	1,910	260	221	246	85	125	75
20	768	464	785	e160	143	1,680	238	204	224	73	105	80
21	513	616	915	e155	e135	3,490	223	232	300	104	93	71
22	388	997	586	e140	153	3,260	281	205	637	544	85	64
23	359	1,320	474	e140	388	2,660	351	183	355	912	77	267
24	314	842	379	135	427	1,760	321	359	272	1,220	67	203
25	275	721	324	135	327	1,750	315	519	232	543	61	144
26	732	638	314	134	e260	2,220	288	316	206	325	59	148
27	559	526	323	119	e260	1,690	278	282	182	264	58	119
28	401	433	289	114	261	1,170	249	251	164	232	53	201
29	347	387	269	119	---	1,580	226	228	147	191	51	245
30	308	366	249	110	---	1,750	207	213	149	164	115	196
31	274	---	265	106	---	1,050	---	209	---	145	69	---
TOTAL	11,128	13,192	10,323	6,838	6,314	31,488	15,743	9,040	9,927	6,454	6,521	4,651
MEAN	359	440	333	221	226	1,016	525	292	331	208	210	155
MAX	1,360	1,320	915	530	471	3,490	1,880	694	869	1,220	1,180	461
MIN	115	224	167	106	108	150	207	169	147	69	51	63
CFSM	2.44	2.99	2.27	1.50	1.53	6.91	3.57	1.98	2.25	1.42	1.43	1.05
IN.	2.82	3.34	2.61	1.73	1.60	7.97	3.98	2.29	2.51	1.63	1.65	1.18

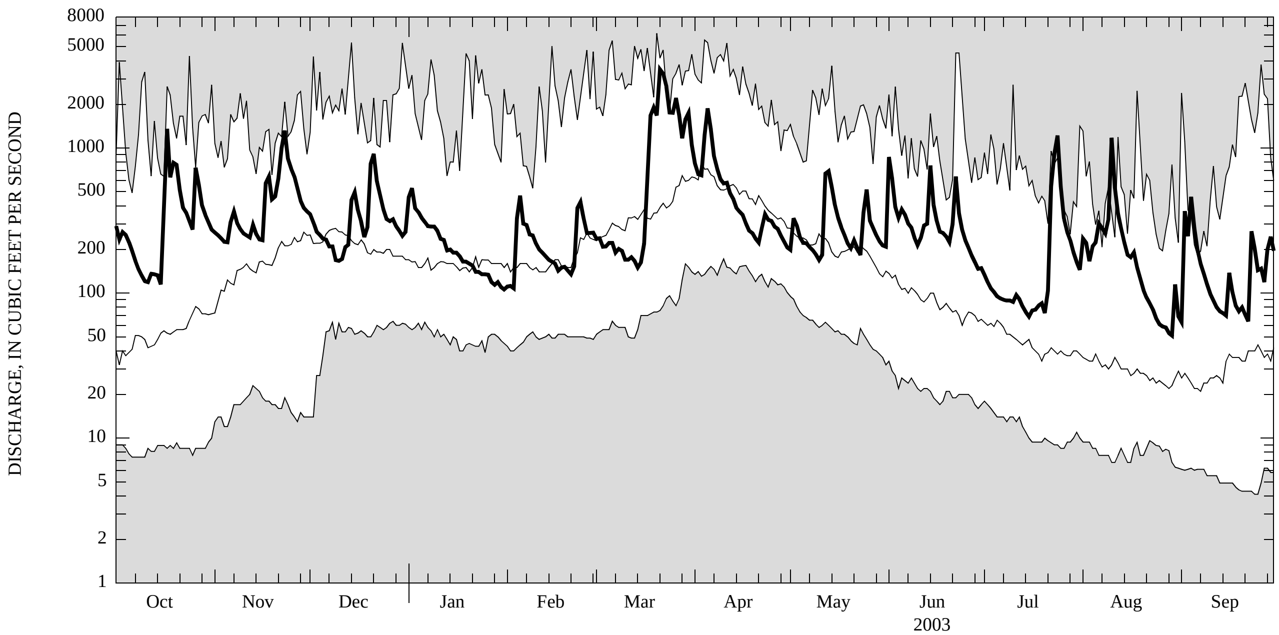
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	145	243	325	273	291	587	676	298	163	87.0	56.9	87.7
MAX	713	628	841	716	764	1,302	1,693	927	773	299	277	706
(WY)	(1978)	(1960)	(1997)	(1998)	(1976)	(1945)	(1940)	(2000)	(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)

01510000 OTSELIC RIVER AT CINCINNATUS, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1938 - 2003	
ANNUAL TOTAL	121,379.2		131,619			
ANNUAL MEAN	333		361		269	
HIGHEST ANNUAL MEAN					391	1943
LOWEST ANNUAL MEAN					151	1995
HIGHEST DAILY MEAN	2,190	Sep 28	3,490	Mar 21	6,200	Mar 20, 1948
LOWEST DAILY MEAN	8.7	Sep 14	51	Aug 29	4.1	Sep 24, 1939
ANNUAL SEVEN-DAY MINIMUM	11	Sep 8	61	Aug 23	4.3	Sep 19, 1939
ANNUAL RUNOFF (CFSM)	2.26		2.45		1.83	
ANNUAL RUNOFF (INCHES)	30.72		33.31		24.84	
10 PERCENT EXCEEDS	723		694		613	
50 PERCENT EXCEEDS	265		242		140	
90 PERCENT EXCEEDS	26		96		23	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

01512500 CHENANGO RIVER NEAR CHENANGO FORKS, NY

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

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

PERIOD OF RECORD.--November l912 to current year.

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

REMARKS.--Records good except those for estimated daily discharges, which are fair. Since March 1942, flood flows partly regulated by Whitney Point Lake (see station 0l5ll000). Slight diversion from upstream tributaries for operation of Erie (Barge) Canal. Telephone and satellite gage-height telemeters at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 96,000 ft^3/s, July 8, 1935, gage height, 20.3 ft, from floodmarks, from rating curve extended above 32,000 ft^3/s on basis of slope-area measurement of peak flow; minimum discharge, 79 ft^3/s, Sept. 3, 4, 5, 6, 1999.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 22	2100	*19,700	*9.81	No other peak greater than base discharge.			

Minimum discharge, 490 ft^3/s, Aug. 29, gage height, 2.87 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,040	1,920	3,300	3,910	e1,180	e2,400	9,450	1,600	5,800	1,040	1,970	759
2	1,460	1,820	3,170	6,430	e1,180	e2,350	8,400	2,150	6,960	987	3,630	3,740
3	1,100	1,780	e2,900	5,150	e1,140	e2,300	8,250	2,730	4,410	876	2,070	3,400
4	1,370	1,730	e2,600	4,260	e2,000	e2,200	8,980	2,450	3,250	814	1,670	3,550
5	1,300	1,710	e2,500	3,850	e4,000	e2,200	13,400	2,190	3,370	767	2,250	3,050
6	1,190	1,990	e2,400	3,410	e2,900	e2,150	12,600	2,010	3,530	705	2,210	1,900
7	1,080	2,710	e2,300	3,210	e2,800	e2,100	10,100	1,830	2,990	677	2,520	1,470
8	911	2,610	2,310	3,120	e2,400	e2,000	8,320	1,740	2,770	696	1,990	1,250
9	805	2,200	e2,000	3,130	e2,200	e2,050	7,140	1,730	2,350	691	1,910	1,110
10	759	2,050	e1,800	3,150	e2,100	e2,000	6,230	1,630	2,000	682	5,040	984
11	740	2,000	e1,900	2,810	e1,950	e1,700	5,700	1,640	1,850	751	4,780	851
12	755	2,010	e2,100	2,570	e1,800	1,770	5,380	3,040	2,110	822	3,350	792
13	811	2,350	2,330	e2,350	e1,750	e1,750	4,780	5,030	2,380	747	2,420	746
14	824	2,360	3,360	e2,150	e1,700	e1,700	4,180	4,760	3,220	670	1,910	733
15	934	2,130	4,930	e2,000	e1,550	1,700	3,670	3,500	3,390	623	1,540	683
16	1,230	2,050	4,460	e1,850	e1,450	2,140	3,430	3,050	2,450	644	1,300	1,110
17	5,330	4,180	3,710	e1,800	e1,300	5,140	3,130	2,670	2,020	691	1,320	1,200
18	4,790	6,570	e2,550	e1,650	e1,320	10,100	2,740	2,290	1,850	744	1,300	1,010
19	3,200	4,830	2,600	e1,600	e1,400	12,700	2,380	1,960	1,720	758	1,130	918
20	4,330	3,890	4,430	e1,550	e1,450	12,500	2,290	1,760	1,740	693	986	852
21	3,390	4,560	7,620	e1,520	e1,500	16,700	2,080	1,700	3,030	759	859	814
22	2,500	5,470	6,100	e1,500	e1,550	19,300	2,150	1,710	4,330	3,840	726	700
23	2,320	8,120	4,710	e1,450	e2,600	18,300	2,580	1,520	4,170	4,040	677	2,650
24	2,200	7,120	3,920	e1,350	e4,500	14,800	2,600	1,840	2,630	6,390	631	3,050
25	1,860	5,720	3,510	e1,300	e3,500	14,300	2,400	4,210	2,140	5,390	589	1,970
26	3,030	5,210	2,930	e1,280	e3,100	14,100	2,320	3,360	1,860	2,990	563	1,660
27	4,290	4,550	3,060	e1,260	e2,700	13,000	2,530	2,380	1,620	2,400	546	1,460
28	3,370	3,840	2,960	e1,240	e2,500	12,000	2,150	1,970	1,440	2,070	524	1,990
29	2,600	3,490	2,730	e1,220	---	10,800	1,890	1,850	1,240	1,580	511	2,240
30	2,260	3,320	2,510	e1,240	---	12,500	1,730	1,770	1,080	1,310	727	2,070
31	2,090	---	2,510	e1,220	---	11,200	---	1,680	---	1,050	813	---
TOTAL	64,869	104,290	100,210	74,530	59,520	229,950	152,980	73,750	83,700	46,897	52,462	48,712
MEAN	2,093	3,476	3,233	2,404	2,126	7,418	5,099	2,379	2,790	1,513	1,692	1,624
MAX	5,330	8,120	7,620	6,430	4,500	19,300	13,400	5,030	6,960	6,390	5,040	3,740
MIN	740	1,710	1,800	1,220	1,140	1,700	1,730	1,520	1,080	623	511	683
CFSM	1.41	2.34	2.18	1.62	1.43	5.00	3.44	1.60	1.88	1.02	1.14	1.09
IN.	1.63	2.62	2.51	1.87	1.49	5.77	3.84	1.85	2.10	1.18	1.32	1.22

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1,275	2,230	2,717	2,621	2,660	5,324	5,728	2,643	1,521	923	642	775
MAX	7,210	6,167	7,534	7,361	7,688	12,560	15,330	6,836	7,439	5,713	3,138	5,766
(WY)	(1978)	(1928)	(1997)	(1913)	(1976)	(1936)	(1993)	(2000)	(1917)	(1935)	(1915)	(1977)
MIN	155	168	525	445	472	1,977	1,317	770	312	175	133	107
(WY)	(1940)	(1965)	(1961)	(1961)	(1980)	(1937)	(1946)	(1985)	(1999)	(1939)	(1999)	(1939)

01512500 CHENANGO RIVER NEAR CHENANGO FORKS, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1913 - 2003	
ANNUAL TOTAL	978,033		1,091,870			
ANNUAL MEAN	2,680		2,991		2,420	
HIGHEST ANNUAL MEAN					3,618	1943
LOWEST ANNUAL MEAN					1,307	1965
HIGHEST DAILY MEAN	13,700	Jun 6	19,300	Mar 22	55,400	Jul 8, 1935
LOWEST DAILY MEAN	149	Sep 14	511	Aug 29	79	Sep 5, 1999
ANNUAL SEVEN-DAY MINIMUM	165	Sep 9	577	Aug 23	86	Sep 1, 1999
ANNUAL RUNOFF (CFSM)	1.81		2.02		1.63	
ANNUAL RUNOFF (INCHES)	24.53		27.39		22.17	
10 PERCENT EXCEEDS	5,580		5,420		5,960	
50 PERCENT EXCEEDS	2,340		2,150		1,300	
90 PERCENT EXCEEDS	290		812		300	

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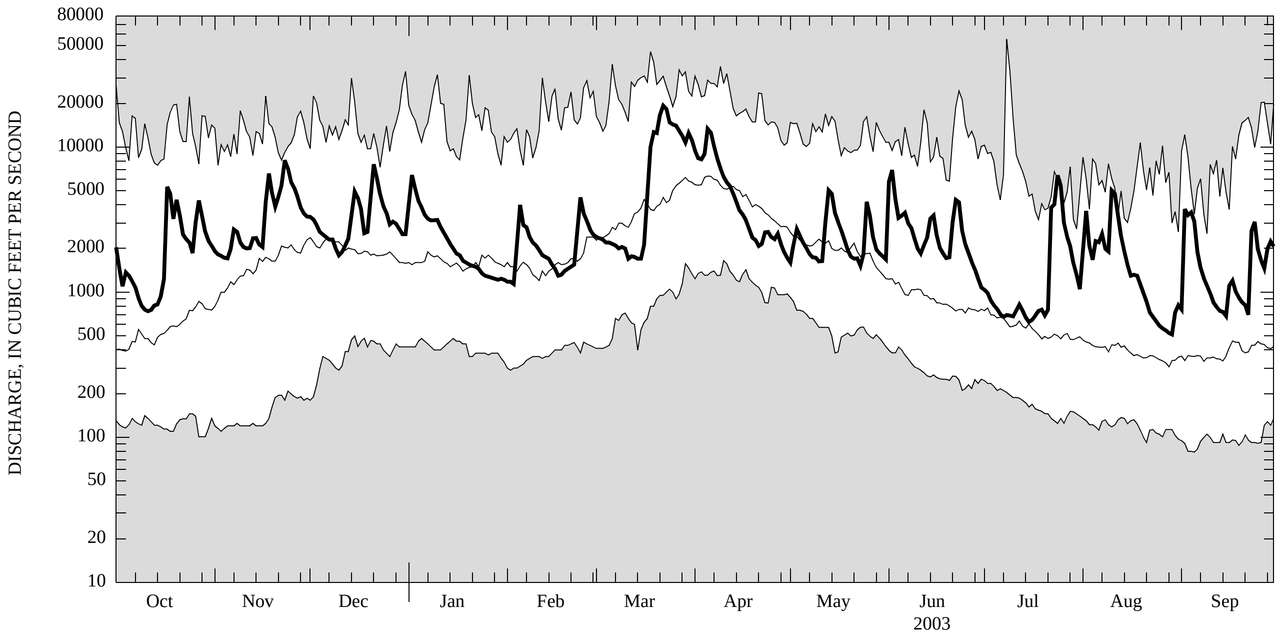


2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

01515000 SUSQUEHANNA RIVER NEAR WAVERLY, NY

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

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

PERIOD OF RECORD.--February 1937 to March 1995, October 1995 to September 2000 (annual maximums only), October 2000 to current year.

REVISED RECORDS.--WSP 2103: Drainage area.

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

REMARKS.--Records good except those for estimated daily discharges, which are fair. Minor regulation by upstream lakes and reservoirs. Slight diversion from upstream tributaries for operation of Erie (Barge) Canal. Telephone and satellite gage-height telemeters at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 121,000 ft^3/s, June 23, 1972, gage height 21.24 ft; minimum instantaneous discharge not determined.

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

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 23	0945	*61,700	*14.16	No other peak greater than base discharge.			

Minimum discharge, 1,570 ft^3/s, Aug. 29.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6,170	7,410	11,600	12,500	4,720	9,630	33,400	9,580	24,900	4,410	4,270	2,280
2	4,850	6,570	11,200	25,000	4,760	e9,400	28,600	13,000	31,700	4,000	6,410	13,400
3	3,770	6,460	10,600	22,800	4,770	e9,100	27,100	14,500	23,100	3,690	9,520	18,500
4	3,060	6,290	9,300	18,200	5,780	8,760	25,000	14,400	17,300	3,340	9,090	18,600
5	2,990	6,140	8,480	15,800	e9,800	8,560	33,400	12,100	15,000	3,050	8,190	18,000
6	2,990	6,090	e8,150	14,100	e11,400	8,460	37,200	10,900	13,500	2,910	8,350	12,900
7	2,960	6,650	e8,100	13,200	11,300	8,160	32,000	9,970	12,600	2,610	7,670	9,490
8	2,780	8,280	e7,850	12,500	e9,900	8,140	26,800	9,340	12,400	2,400	7,960	7,260
9	2,460	8,400	e7,550	12,400	e9,300	e8,200	23,400	8,860	10,900	2,440	6,920	5,890
10	2,180	7,550	e6,700	12,800	e8,500	e7,900	21,600	8,270	9,640	2,550	8,040	4,940
11	2,010	6,950	6,120	12,300	e7,900	e7,400	20,200	7,800	8,580	2,690	11,000	4,230
12	2,050	6,670	6,180	11,100	e7,100	7,000	19,300	8,680	8,420	3,800	9,550	3,660
13	3,040	7,110	8,090	e9,900	e6,400	e7,150	18,500	11,400	9,610	3,670	8,130	3,190
14	3,420	8,400	12,300	8,800	e6,200	e6,900	17,000	14,800	12,000	3,370	6,850	2,960
15	3,290	8,750	17,600	e8,000	e5,900	7,120	15,700	13,100	14,000	2,800	5,930	2,770
16	3,700	8,350	16,600	e7,500	e5,400	9,190	14,500	11,500	11,300	2,420	5,060	3,020
17	11,500	12,700	14,400	e7,300	e4,900	18,500	13,600	10,300	9,140	2,240	4,390	5,610
18	16,000	20,400	11,900	e6,800	4,720	33,700	12,700	9,340	7,860	2,270	4,220	5,720
19	13,800	18,700	9,570	e6,300	5,140	40,600	11,600	8,300	7,380	2,500	4,010	4,470
20	11,700	15,200	11,700	e6,100	5,390	42,300	10,800	7,400	7,040	2,560	3,720	3,730
21	11,300	14,200	19,900	e6,200	5,480	55,600	10,300	6,920	26,500	2,520	3,290	3,390
22	9,460	15,100	21,300	e6,100	5,610	60,000	9,820	6,620	23,900	9,200	2,930	3,100
23	7,490	20,300	17,900	e5,900	e8,600	61,300	10,100	6,440	19,700	13,800	2,530	5,010
24	6,980	22,200	15,000	e5,200	e14,000	57,100	11,000	6,570	15,400	14,700	2,220	13,800
25	6,680	20,400	13,300	e5,100	14,400	49,800	10,900	9,540	11,600	14,900	2,030	12,100
26	7,430	17,900	12,100	e5,050	12,600	43,900	10,200	10,600	9,330	10,900	1,890	8,990
27	10,800	16,200	10,700	e5,000	e10,800	41,300	11,900	9,900	7,900	8,460	1,790	7,150
28	11,800	14,500	e10,100	e4,900	9,900	38,400	13,100	9,550	6,770	7,350	1,690	6,800
29	11,000	13,100	10,500	e4,600	---	33,900	12,200	8,810	5,820	6,070	1,600	7,750
30	9,260	12,000	10,400	e4,800	---	34,500	10,600	7,810	5,010	4,940	1,610	8,790
31	8,330	---	9,960	e4,900	---	35,600	---	7,250	---	4,170	1,740	---
TOTAL	205,250	348,970	355,150	301,150	220,670	777,570	552,520	303,550	398,300	156,730	162,600	227,500
MEAN	6,621	11,630	11,460	9,715	7,881	25,080	18,420	9,792	13,280	5,056	5,245	7,583
MAX	16,000	22,200	21,300	25,000	14,400	61,300	37,200	14,800	31,700	14,900	11,000	18,600
MIN	2,010	6,090	6,120	4,600	4,720	6,900	9,820	6,440	5,010	2,240	1,600	2,280
CFSM	1.39	2.44	2.40	2.04	1.65	5.26	3.86	2.05	2.78	1.06	1.10	1.59
IN.	1.60	2.72	2.77	2.35	1.72	6.06	4.31	2.37	3.10	1.22	1.27	1.77

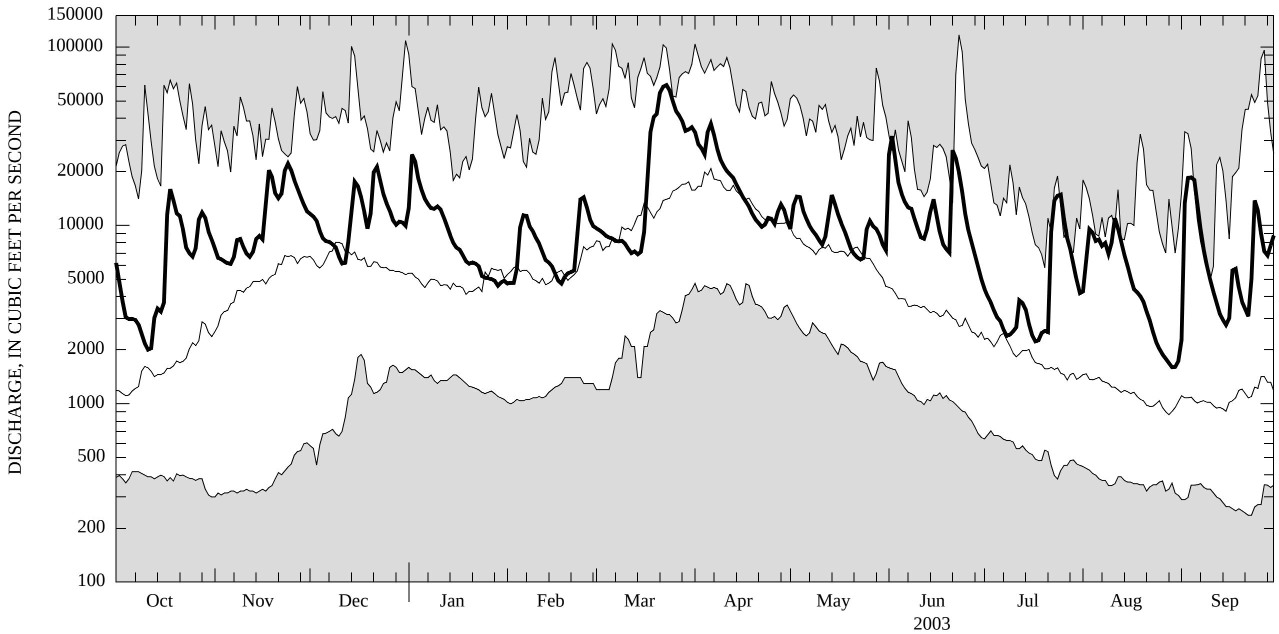
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3,907	6,827	8,795	7,529	8,759	16,010	18,430	9,170	5,195	2,550	1,883	2,541
MAX	25,090	17,130	19,820	18,670	23,870	33,430	46,500	22,140	22,550	7,620	8,386	17,800
(WY)	(1978)	(1973)	(1973)	(1979)	(1976)	(1945)	(1993)	(1943)	(1972)	(1947)	(1994)	(1977)
MIN	392	382	1,835	1,319	1,472	6,763	3,962	2,418	1,155	589	384	326
(WY)	(1965)	(1965)	(1965)	(1961)	(1980)	(1941)	(1946)	(1985)	(1939)	(1962)	(1964)	(1964)

01515000 SUSQUEHANNA RIVER NEAR WAVERLY, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1937 - 2003	
ANNUAL TOTAL	3,313,013		4,009,960			
ANNUAL MEAN	9,077		10,990		7,634	
HIGHEST ANNUAL MEAN					11,490	1978
LOWEST ANNUAL MEAN					3,745	1965
HIGHEST DAILY MEAN	42,500	Mar 27	61,300	Mar 23	117,000	Jun 23, 1972
LOWEST DAILY MEAN	415	Sep 15	1,600	Aug 29	237	Sep 22, 1964
ANNUAL SEVEN-DAY MINIMUM	456	Sep 11	1,760	Aug 25	248	Sep 17, 1964
MAXIMUM PEAK FLOW					121,000	Jun 23, 1972
MAXIMUM PEAK STAGE					21.24	Jun 23, 1972
ANNUAL RUNOFF (CFSM)	1.90		2.30		1.60	
ANNUAL RUNOFF (INCHES)	25.82		31.25		21.73	
10 PERCENT EXCEEDS	18,500		20,200		18,000	
50 PERCENT EXCEEDS	8,480		8,600		4,270	
90 PERCENT EXCEEDS	770		3,050		840	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

01521500 CANISTEO RIVER AT ARKPORT, NY

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

DRAINAGE AREA.--30.6 mi^2.

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

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

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

REMARKS.--Records good except those for estimated daily discharges, which are fair. Since March 1940, flows above 500 ft^3/s controlled by detention in Arkport Reservoir. Satellite gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, prior to construction of Arkport Reservoir in 1940, 2,000 ft^3/s, Mar. 5, 1938, Feb. 20, 1939; maximum gage height, 5.63 ft, Feb.19, 1939 (ice jam); practically no flow July 30, 1938, Sept. 30, 1939 (result of construction operations). Maximum discharge, since construction of Arkport Reservoir in 1940, 1,740 ft^3/s, Feb. 11, 1966.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 632 ft^3/s, July 24, gage height, 2.95 ft; minimum discharge, 1.8 ft^3/s, July 5, 8, 9, gage height, 0.68 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	4.0	19	182	10	e28	48	8.7	127	2.8	68	7.8
2	2.8	4.3	17	80	10	e24	61	37	50	2.6	55	48
3	3.9	4.8	e15	58	9.8	e24	47	30	29	2.5	76	42
4	4.0	5.3	e14	47	32	e24	62	19	38	2.1	65	61
5	3.4	6.2	12	40	e42	e24	506	17	40	2.0	207	19
6	2.9	13	e11	36	e40	e26	166	19	30	2.4	118	12
7	2.7	15	e11	e34	e34	e26	67	17	26	2.1	56	8.9
8	2.6	12	e11	34	e30	31	56	16	25	2.0	33	7.3
9	2.6	9.2	e10	38	e28	e65	51	14	34	4.5	33	6.4
10	2.5	7.6	e11	41	e26	e50	84	12	21	5.9	61	5.8
11	2.4	10	9.3	e32	e24	e40	90	17	87	17	91	5.0
12	2.3	11	17	e30	e24	35	65	24	62	6.3	376	4.6
13	2.4	10	27	e28	e22	e35	47	29	111	4.1	75	5.2
14	2.2	8.8	114	e28	e20	e34	38	27	61	3.0	37	5.2
15	2.0	7.5	83	e26	18	53	32	21	34	2.5	24	13
16	3.3	7.9	60	e24	e17	236	27	50	20	6.6	18	23
17	5.2	44	e45	e20	e16	431	23	54	14	4.0	14	9.4
18	4.0	44	e40	e18	e20	554	20	31	12	33	11	6.9
19	7.7	29	e40	e16	e18	297	18	22	11	12	9.2	7.3
20	13	42	324	e14	e16	303	17	16	9.9	5.8	7.7	11
21	6.8	52	135	e13	e16	547	17	31	41	171	6.7	7.8
22	5.0	82	71	e12	18	547	22	20	33	398	6.2	6.6
23	4.2	63	51	e12	e90	221	20	16	15	234	5.3	15
24	3.6	38	39	e11	e85	136	17	29	9.5	514	4.7	9.5
25	3.4	33	31	e11	e50	155	15	24	7.0	146	4.3	7.3
26	6.8	30	30	e11	e42	230	14	20	5.3	44	4.4	6.5
27	7.6	25	26	e11	e36	100	13	17	4.4	34	4.3	33
28	5.9	20	e24	e11	e32	72	11	46	3.8	36	4.0	201
29	4.8	18	23	e10	---	83	9.9	23	3.5	21	3.7	39
30	4.1	20	22	e10	---	72	9.2	17	3.2	14	4.7	38
31	3.8	---	125	10	---	55	---	52	---	10	3.9	---
TOTAL	131.1	676.6	1,467.3	948	825.8	4,558	1,673.1	775.7	967.6	1,745.2	1,487.1	672.5
MEAN	4.23	22.6	47.3	30.6	29.5	147	55.8	25.0	32.3	56.3	48.0	22.4
MAX	13	82	324	182	90	554	506	54	127	514	376	201
MIN	2.0	4.0	9.3	10	9.8	24	9.2	8.7	3.2	2.0	3.7	4.6

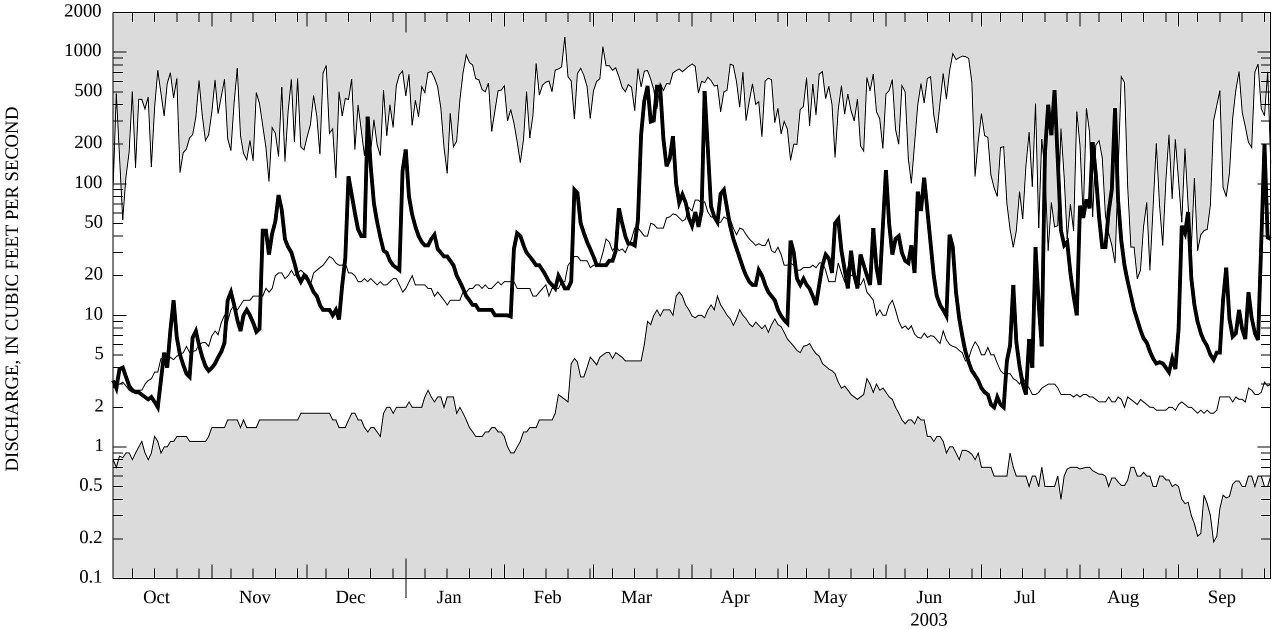
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	16.2	29.4	38.4	37.6	45.7	84.9	82.5	40.5	27.2	8.54	6.77	10.0
MAX	98.4	106	132	121	195	188	205	144	245	56.3	58.6	151
(WY)	(1977)	(1951)	(1973)	(1998)	(1976)	(1942)	(1993)	(1943)	(1972)	(2003)	(1984)	(1977)
MIN	1.09	1.62	1.67	1.85	8.28	24.9	10.9	5.81	1.57	0.82	0.67	0.59
(WY)	(1942)	(1961)	(1961)	(1961)	(1958)	(1981)	(1946)	(1955)	(1955)	(1955)	(2001)	(1995)

01521500 CANISTEO RIVER AT ARKPORT, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1937 - 2003	
ANNUAL TOTAL	13,825.10		15,928.0			
ANNUAL MEAN	37.9		43.6		35.6	
HIGHEST ANNUAL MEAN					55.9	1972
LOWEST ANNUAL MEAN					20.9	1955
HIGHEST DAILY MEAN	554	Feb 1	554	Mar 18	1,300	Feb 20, 1939
LOWEST DAILY MEAN	0.95	Sep 9	2.0	Oct 15	0.19	Sep 12, 1995
ANNUAL SEVEN-DAY MINIMUM	1.0	Sep 7	2.2	Jul 2	0.28	Sep 7, 1995
10 PERCENT EXCEEDS	87		83		77	
50 PERCENT EXCEEDS	19		20		12	
90 PERCENT EXCEEDS	1.6		4.0		1.7	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS 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 mi^2.

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

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

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, prior to construction of Almond Reservoir in 1949, 9,430 ft^3/s, May 17, 1945, gage height, 5.14 ft, from rating curve extended above 3,400 ft^3/s; maximum gage height, 6.65 ft, June 3, 1947; minimum discharge, 3.4 ft^3/s, Oct. 2, 1941. Maximum discharge, since construction of Almond Reservoir, 5,880 ft^3/s, June 23, 1972, gage height 6.14 ft; minimum discharge, 0.5 ft^3/s, May 29, 1965.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,510 ft^3/s, Mar. 23, gage height, 3.29 ft; minimum discharge, 3.4 ft^3/s, July 3, 4, gage height, 0.82 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	e12	29	280	e24	43	110	24	158	17	133	87
2	10	e12	29	159	e28	42	140	24	176	17	116	293
3	9.2	e12	e29	77	21	44	134	60	86	8.1	228	118
4	8.7	e18	28	90	33	46	112	80	80	3.6	305	112
5	8.7	18	27	82	59	53	592	36	113	15	110	69
6	9.2	15	26	55	78	59	632	17	67	20	267	40
7	8.6	21	20	49	55	e60	139	24	50	12	228	21
8	9.2	25	20	65	e42	60	124	32	80	9.2	100	22
9	8.2	25	21	73	37	60	122	33	95	13	102	21
10	8.0	25	21	57	35	60	101	33	65	18	158	14
11	e8.0	25	17	48	e34	60	129	21	78	43	138	20
12	e8.0	25	24	61	30	60	173	61	157	45	432	27
13	8.4	25	29	53	28	60	159	70	209	30	508	19
14	e8.0	19	51	e50	22	60	76	76	135	14	234	10
15	e7.5	15	96	e46	25	61	24	55	67	4.0	130	11
16	e8.0	15	116	e40	22	365	45	74	28	13	47	38
17	e9.0	26	66	e38	23	702	53	111	18	19	30	64
18	e8.0	92	66	e34	28	812	47	77	18	24	36	39
19	e15	75	80	e32	20	768	48	57	31	37	28	25
20	e25	50	496	e30	16	517	48	56	42	42	20	16
21	e20	50	317	e29	44	123	41	45	136	181	25	14
22	e17	95	89	e28	41	540	41	42	165	497	25	9.9
23	e12	147	75	e27	91	1,230	49	42	63	346	25	9.2
24	e9.0	105	77	e26	75	810	40	45	37	554	17	9.2
25	e10	43	66	e25	80	271	34	46	29	406	12	29
26	e13	28	53	e24	e90	270	34	69	13	126	12	37
27	e15	33	49	e23	e70	228	34	57	20	55	20	42
28	e14	32	49	e22	50	166	31	87	20	54	25	429
29	e13	29	45	e21	---	127	24	101	13	43	13	284
30	e13	29	42	e20	---	110	24	64	11	20	41	41
31	e12	---	112	e19	---	110	---	88	---	20	33	---
TOTAL	344.7	1,141	2,265	1,683	1,201	7,977	3,360	1,707	2,260	2,705.9	3,598	1,970.3
MEAN	11.1	38.0	73.1	54.3	42.9	257	112	55.1	75.3	87.3	116	65.7
MAX	25	147	496	280	91	1,230	632	111	209	554	508	429
MIN	7.5	12	17	19	16	42	24	17	11	3.6	12	9.2

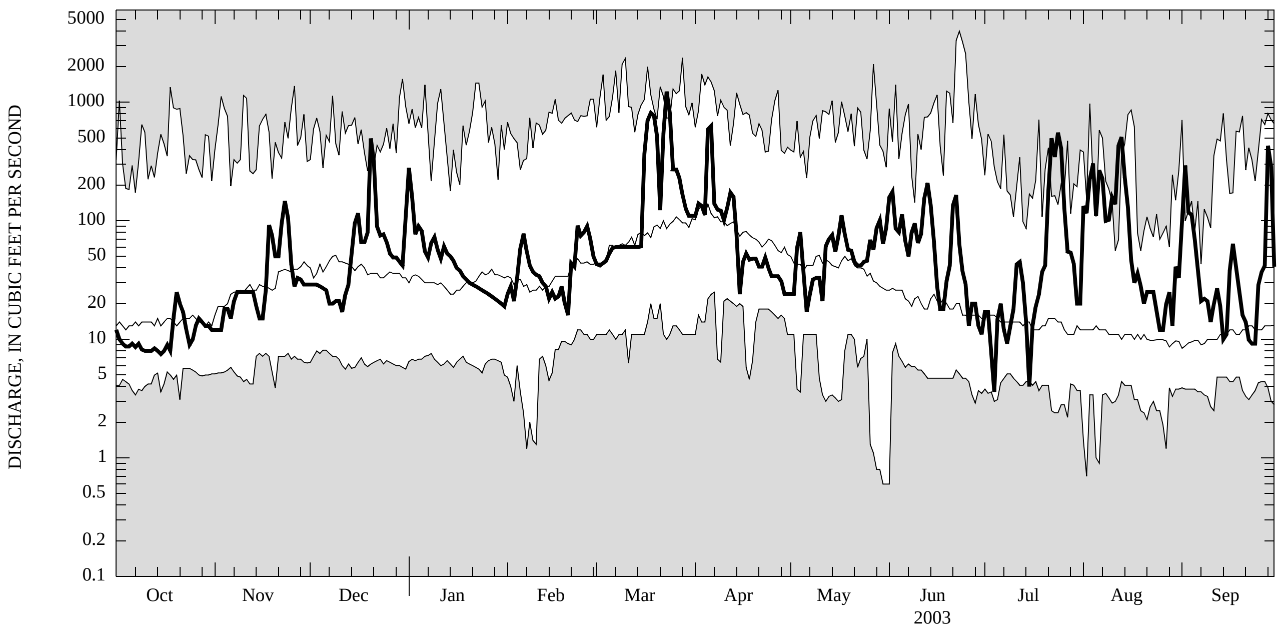
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	33.2	58.3	70.0	68.5	81.6	145	145	71.3	58.3	23.7	20.4	25.9
MAX	139	193	218	215	278	306	470	215	547	111	128	198
(WY)	(1977)	(1951)	(1973)	(1996)	(1976)	(1956)	(1993)	(1984)	(1972)	(1972)	(1984)	(1977)
MIN	7.07	9.16	7.13	6.55	17.7	33.4	46.0	15.5	5.24	4.63	5.13	6.09
(WY)	(1950)	(1961)	(1961)	(1961)	(1980)	(1969)	(1955)	(1955)	(1965)	(1965)	(1965)	(1955)

01523500 CANACADEA CREEK NEAR HORNELL, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1949 - 2003	
ANNUAL TOTAL	24,778.00		30,212.9			
ANNUAL MEAN	67.9		82.8		66.6	
HIGHEST ANNUAL MEAN					110	1972
LOWEST ANNUAL MEAN					36.9	1965
HIGHEST DAILY MEAN	926	Jun 28	1,230	Mar 23	3,970	Jun 23, 1972
LOWEST DAILY MEAN	0.90	Aug 6	3.6	Jul 4	0.60	May 30, 1965
ANNUAL SEVEN-DAY MINIMUM	4.7	Aug 28	8.0	Oct 10	0.83	May 26, 1965
10 PERCENT EXCEEDS	162		161		146	
50 PERCENT EXCEEDS	29		41		27	
90 PERCENT EXCEEDS	7.5		12		8.1	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

01524500 CANISTEO RIVER BELOW CANACADEA CREEK, AT HORNELL, NY

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

DRAINAGE AREA.--158 mi^2.

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

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

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

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Diversion from Carrington Creek, a tributary upstream from station, by City of Hornell for municipal supply; 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.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, prior to construction of Almond Reservoir in 1949, 9,340 ft^3/s, May 26, 1943, gage height 13.30 ft, from rating curve extended above 7,600 ft^3/s on the basis of critical-depth measurement of peak flow; minimum discharge, 9.3 ft^3/s, Mar. 4, 1947. Maximum discharge, since construction of Almond Reservoir, 9,560 ft^3/s, June 23, 1972, gage height, 13.45 ft, from floodmark, from rating curve extended above 7,600 ft^3/s on the basis of critical-depth measurement of peak flow; minimum discharge, 7.4 ft^3/s, Sept. 13, 14, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,500 ft^3/s, Aug. 12, gage height, 5.12 ft; minimum discharge, 23 ft^3/s, Oct. 15, gage height, 0.54 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	31	76	731	57	101	296	74	472	37	342	130
2	27	30	70	394	59	e100	382	117	352	37	350	461
3	32	30	e54	245	64	e100	332	148	207	30	561	197
4	29	35	e52	230	106	e110	339	147	200	25	602	242
5	28	37	e50	205	166	e125	1,930	104	243	33	460	133
6	27	39	e48	157	e190	143	1,320	85	171	40	615	95
7	25	48	e47	134	126	e120	427	86	136	34	454	68
8	24	48	46	162	e90	e130	358	92	168	26	243	61
9	24	46	e40	184	e95	e220	341	94	195	41	246	60
10	25	44	e42	180	e88	e170	363	86	146	50	338	50
11	25	45	41	145	e80	e150	428	e75	249	107	450	52
12	25	47	60	e150	e76	150	408	e140	331	76	1,670	56
13	25	47	84	e135	e75	164	348	e150	471	58	891	52
14	24	41	e270	e135	e65	e145	237	e150	326	40	449	44
15	24	36	299	e120	e62	183	157	e130	186	25	292	55
16	29	38	260	e105	e56	e900	166	188	113	46	167	120
17	31	92	e170	e100	e50	e1,700	165	273	85	44	129	106
18	28	e160	e160	e85	75	2,250	149	180	79	92	119	76
19	37	e140	183	e85	61	1,780	139	131	87	85	105	63
20	50	114	e800	e80	55	1,460	133	123	98	71	87	61
21	46	137	e740	e75	79	1,810	127	134	262	305	87	51
22	43	216	293	e70	93	2,010	137	114	298	1,200	85	44
23	36	e285	220	e66	e220	2,130	139	104	139	1,050	78	55
24	31	e210	182	e65	e260	1,410	123	e160	91	1,450	65	48
25	31	121	165	e62	e200	739	108	e170	73	1,010	57	58
26	37	98	139	e60	e210	893	103	160	50	325	56	67
27	37	96	127	e56	e170	598	100	145	51	197	64	107
28	35	86	119	e55	124	431	92	211	50	201	64	979
29	33	76	116	52	---	389	79	194	41	148	50	467
30	32	78	117	e50	---	355	75	140	37	102	75	158
31	31	---	276	e50	---	314	---	199	---	88	72	---
TOTAL	961	2,551	5,346	4,423	3,052	21,280	9,501	4,304	5,407	7,073	9,323	4,216
MEAN	31.0	85.0	172	143	109	686	317	139	180	228	301	141
MAX	50	285	800	731	260	2,250	1,930	273	472	1,450	1,670	979
MIN	24	30	40	50	50	100	75	74	37	25	50	44

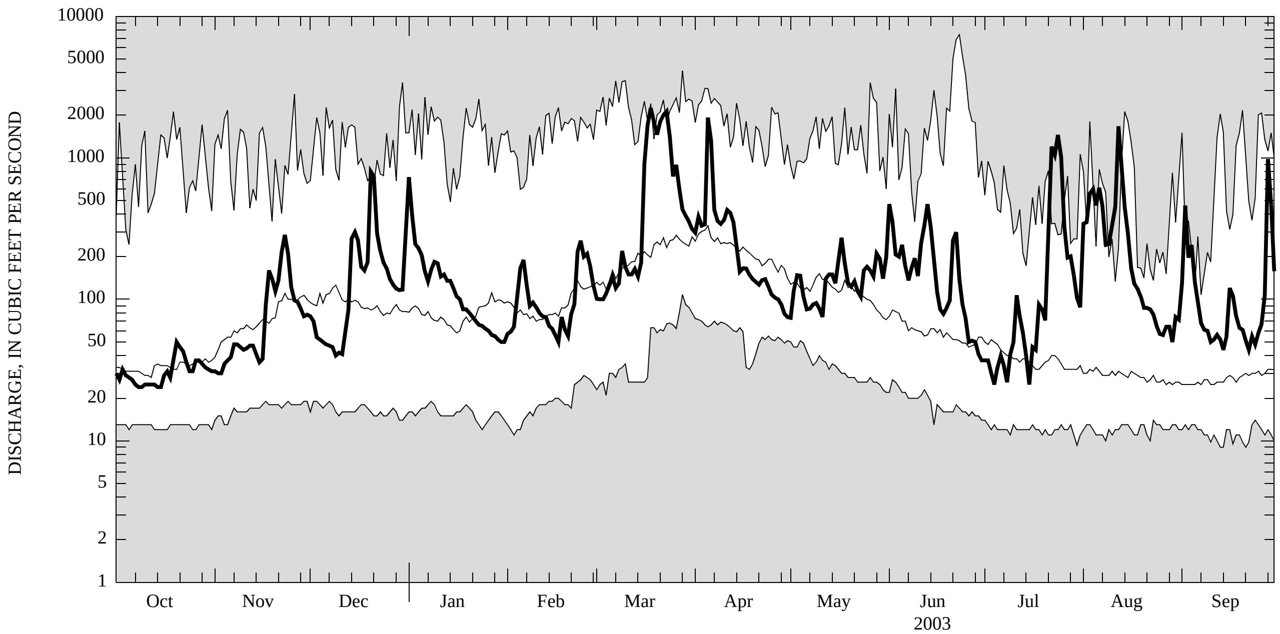
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	75.5	126	158	158	187	357	345	197	144	58.3	50.4	59.7
MAX	304	455	551	499	722	826	877	696	1,226	249	303	498
(WY)	(1977)	(1951)	(1973)	(1998)	(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)

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

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1942 - 2003	
ANNUAL TOTAL	59,028		77,437			
ANNUAL MEAN	162		212		159	
HIGHEST ANNUAL MEAN					255	1972
LOWEST ANNUAL MEAN					79.8	1965
HIGHEST DAILY MEAN	1,820	Jun 27	2,250	Mar 18	7,440	Jun 23, 1972
LOWEST DAILY MEAN	16	Sep 13	24	Oct 8	9.0	Sep 13, 1955
ANNUAL SEVEN-DAY MINIMUM	18	Sep 8	25	Oct 8	10	Sep 8, 1955
10 PERCENT EXCEEDS	347		429		350	
50 PERCENT EXCEEDS	91		106		70	
90 PERCENT EXCEEDS	23		37		22	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

01525981 TUSCARORA CREEK ABOVE SOUTH ADDISON, NY

LOCATION.--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.--102 mi^2.

PERIOD OF RECORD.--October 1988 to September 2000 (annual maximums only), October 2000 to current year.

REVISED RECORDS.--WDR NY-01-3: 1991(M).

GAGE.--Water-stage recorder. Datum of gage is 1,079.00 ft above NGVD of 1929.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Telephone and satellite gage-height telemeters at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,200 ft^3/s, July 22, 2003, gage height, 12.62 ft, from floodmark, from rating curve extended above 3,700 ft^3/s, maximum gage height, 13.49 ft, Jan. 19, 1996 (ice jam); minimum discharge, 0.17 ft^3/s, Aug. 15, 16, 2001, gage height 1.52 ft.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 17	1800	4,870	7.96	Jul 24	0300	3,770	7.10
Mar 20	2200	6,070	8.80	Aug 1	0700	4,530	7.71
Jul 22	1915	*a13,200	*b12.62	Aug 10	0115	7,350	9.61

Minimum discharge, 0.43 ft^3/s, Oct. 10, 11, gage height, 1.67 ft.

a From rating curve extended above 3,700 ft^3/s.
b From floodmark.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.82	7.8	e18	335	e22	e90	244	25	564	19	1,170	30
2	0.51	7.1	e17	246	e23	e95	810	55	178	17	208	630
3	1.2	6.5	e16	152	e23	e80	301	53	107	15	427	174
4	2.8	e6.0	e18	121	e44	e75	365	36	150	14	514	239
5	2.0	e5.5	17	102	e110	85	1,760	31	158	13	151	96
6	1.2	e5.2	e17	94	e95	e100	378	34	106	12	119	63
7	0.84	5.5	e15	83	e75	e65	229	32	92	11	79	45
8	0.55	5.3	13	92	e50	e70	199	31	92	11	275	35
9	0.46	4.9	e13	e120	e40	e180	203	30	76	14	848	29
10	0.43	4.6	e12	145	e30	e150	341	27	58	20	2,250	26
11	0.47	4.6	13	e110	e30	e105	278	26	49	36	1,010	22
12	0.87	4.7	18	e80	e28	e100	191	31	68	22	846	19
13	1.2	5.9	27	e72	e26	e180	142	31	114	16	212	18
14	1.1	6.1	e120	e64	e24	e110	115	28	73	14	119	24
15	0.85	5.7	167	e56	e22	e200	97	26	49	12	80	38
16	4.0	6.6	118	e52	e22	1,430	82	48	37	41	59	93
17	17	58	e72	e48	e24	2,610	69	99	30	25	47	42
18	12	87	e60	e44	e30	2,190	62	57	34	32	37	29
19	9.6	47	e75	e40	e30	1,330	57	41	33	31	30	32
20	12	36	453	e36	e35	1,810	52	33	31	19	24	60
21	9.8	40	289	e34	e40	2,570	49	34	1,190	405	20	36
22	7.3	46	147	e32	e50	1,490	56	32	401	3,680	17	28
23	5.5	68	116	e29	e170	664	51	28	165	935	15	208
24	4.2	41	82	e29	e270	476	45	93	91	1,800	12	74
25	4.1	34	e60	e28	e150	416	40	117	58	396	11	56
26	31	32	e60	e27	e95	533	37	123	43	137	9.6	56
27	29	28	e50	e27	e100	327	35	92	33	79	9.9	213
28	18	23	e46	e25	e95	228	31	74	27	67	9.3	1,390
29	13	21	e42	e25	---	220	28	59	23	41	9.3	203
30	11	21	e40	e24	---	217	26	47	21	26	13	140
31	9.1	---	86	e22	---	210	---	121	---	17	11	---
TOTAL	211.90	674.0	2,297	2,394	1,753	18,406	6,373	1,594	4,151	7,977	8,642.1	4,148
MEAN	6.84	22.5	74.1	77.2	62.6	594	212	51.4	138	257	279	138
MAX	31	87	453	335	270	2,610	1,760	123	1,190	3,680	2,250	1,390
MIN	0.43	4.6	12	22	22	65	26	25	21	11	9.3	18
CFSM	0.07	0.22	0.73	0.76	0.62	5.88	2.10	0.51	1.37	2.55	2.76	1.37
IN.	0.08	0.25	0.85	0.88	0.65	6.78	2.35	0.59	1.53	2.94	3.18	1.53

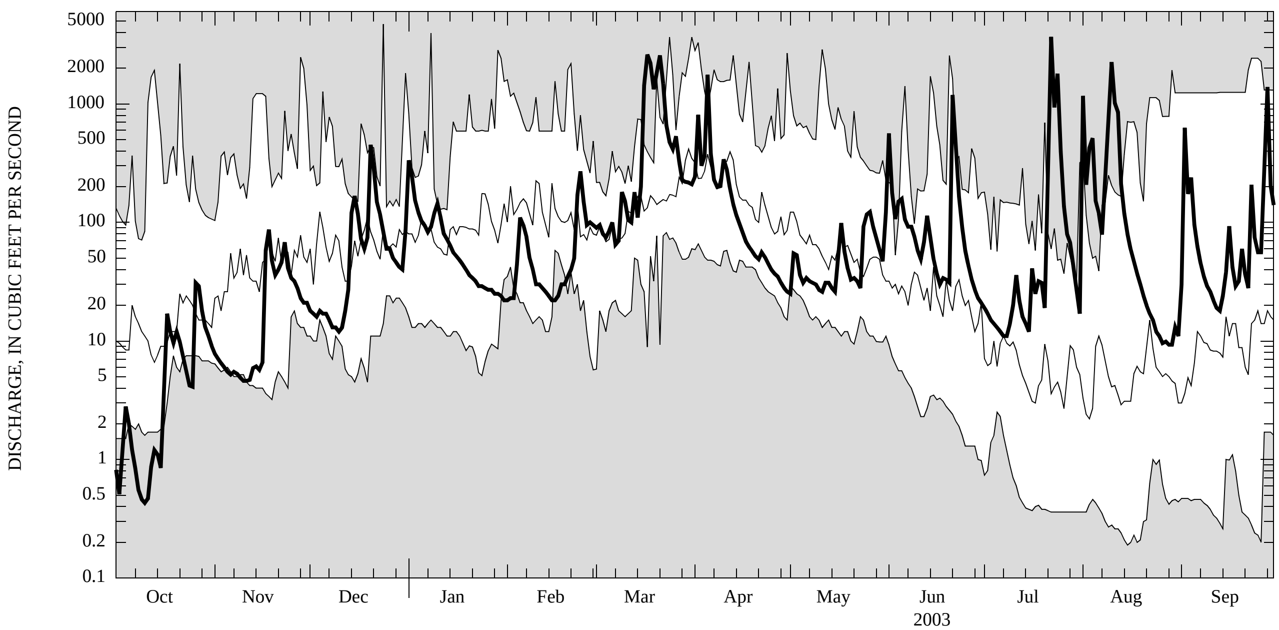
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	18.3	20.4	58.9	42.4	72.6	291	261	73.5	135	89.4	93.8	48.3
MAX	42.4	29.1	74.1	77.2	92.7	594	454	146	235	257	279	138
(WY)	(2001)	(2001)	(2003)	(2003)	(2002)	(2003)	(2001)	(2002)	(2002)	(2003)	(2003)	(2003)
MIN	5.85	9.60	43.6	17.8	62.4	127	117	22.9	32.4	1.30	0.87	1.98
(WY)	(2002)	(2002)	(2002)	(2001)	(2001)	(2002)	(2002)	(2001)	(2001)	(2001)	(2001)	(2002)

01525981 TUSCARORA CREEK ABOVE SOUTH ADDISON, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 2001 - 2003	
ANNUAL TOTAL	26,200.97		58,621.00			
ANNUAL MEAN	71.8		161		100	
HIGHEST ANNUAL MEAN					161	2003
LOWEST ANNUAL MEAN					68.1	2002
HIGHEST DAILY MEAN	1,410	Jun 6	3,680	Jul 22	3,680	Jul 22, 2003
LOWEST DAILY MEAN	0.20	Sep 26	0.43	Oct 10	0.19	Aug 15, 2001
ANNUAL SEVEN-DAY MINIMUM	0.28	Sep 20	0.69	Oct 6	0.21	Aug 13, 2001
ANNUAL RUNOFF (CFSM)	0.71		1.59		0.99	
ANNUAL RUNOFF (INCHES)	9.65		21.59		13.51	
10 PERCENT EXCEEDS	151		311		202	
50 PERCENT EXCEEDS	30		42		27	
90 PERCENT EXCEEDS	0.47		8.6		1.2	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

01526500 TIOGA RIVER NEAR ERWINS, NY

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

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

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

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

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

REMARKS.--Records good except those for estimated daily discharges, which are poor. High flows regulated by upstream reservoirs. Since March 1979, flood flows regulated by Tioga Lake; normal regulation occasionally sufficient to affect figures of monthly runofff. Telephone and satellite gage-height telemeters at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, prior to construction of Tioga Reservoir in 1979, 190,000 ft^3/s, June 23, 1972, from rating curve extended above 90,000 ft^3/s, on basis of computation of peak flow at Lindley and Canisteo River at Erwins, 7.2 mi and 2.0 mi upstream, respectively, adjusted for flow from intervening area, gage height, 26.74 ft, from floodmarks; minimum discharge, 18 ft^3/s, Sept. 2, 3, 1939; minimum gage height, 0.40 ft, Sept. 8, 9, 1954, July 23, Aug. 10, 11, 1955. Maximum discharge, since construction of Tioga Reservoir in 1979, 45,600 ft^3/s, Jan. 19, 1996, gage height 16.98 ft; minimum discharge, 52 ft^3/s, Oct. 1, 2, 6, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 24,100 ft^3/s, July 23, gage height, 12.26 ft; minimum discharge, 105 ft^3/s, Oct. 15, gage height, 0.46 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	190	232	528	2,750	e450	e1,050	3,200	588	5,620	542	5,250	e520
2	146	229	e480	5,250	e460	e1,000	6,010	627	5,510	493	5,200	e7,000
3	136	201	e410	2,740	e480	e900	6,100	838	3,170	428	3,460	3,900
4	145	198	e410	2,460	e580	e820	4,430	785	2,750	355	4,710	3,630
5	151	196	e400	1,800	e800	e840	10,100	753	2,900	298	3,690	3,220
6	133	247	e400	1,660	e950	e1,000	8,550	712	2,500	292	3,840	2,240
7	123	219	e390	1,440	e860	e950	5,000	624	1,800	309	2,880	1,350
8	116	224	e390	e1,400	e780	e1,000	4,010	602	2,260	310	3,440	1,020
9	111	226	e380	e1,500	e660	e1,400	3,630	580	1,770	354	4,470	793
10	109	217	e380	e1,800	e600	e1,850	3,600	577	1,610	414	11,900	738
11	112	215	e370	e1,700	e580	e1,750	4,020	575	1,280	504	5,990	659
12	117	215	e400	e1,400	e530	1,850	3,520	698	1,530	597	8,960	558
13	113	300	e550	e1,150	e500	2,080	3,070	737	2,350	419	5,200	519
14	110	319	1,130	e950	e490	1,890	2,340	690	2,260	347	3,220	559
15	106	319	e2,500	e900	e480	2,010	1,970	672	1,550	240	2,230	659
16	173	323	e2,400	e850	e460	4,660	1,780	699	1,110	242	1,600	1,320
17	421	582	e1,200	e750	e450	12,500	1,590	1,270	803	329	1,430	1,410
18	578	1,460	e1,000	e720	e440	16,800	1,450	1,310	785	339	1,190	850
19	326	1,240	e920	e720	e460	14,100	1,280	1,030	907	512	971	727
20	312	854	e2,900	e650	e470	12,000	1,140	873	850	441	835	536
21	281	747	6,030	e600	e490	14,200	1,110	848	4,450	1,060	654	732
22	261	893	2,570	e580	e550	9,610	1,100	843	9,120	14,300	622	637
23	246	1,130	2,120	e510	1,080	12,000	1,180	772	4,670	10,600	565	2,430
24	234	1,060	1,680	e460	2,280	13,900	1,120	898	2,480	10,800	499	2,520
25	199	918	e1,500	e490	e1,950	10,800	793	1,700	1,580	7,180	468	1,130
26	266	858	e1,300	e500	e1,450	9,430	800	1,580	1,340	3,030	410	1,180
27	476	779	e1,100	e490	e1,200	6,250	755	1,540	1,140	1,990	432	1,250
28	372	705	e950	e460	e1,150	4,230	701	1,480	819	1,910	433	9,180
29	321	624	e950	e430	---	3,650	669	1,360	703	1,450	e400	5,050
30	254	564	e940	e430	---	3,820	614	1,140	618	997	e380	2,760
31	240	---	1,020	e440	---	3,620	---	1,160	---	818	e400	---
TOTAL	6,878	16,294	37,698	37,980	21,630	171,960	85,632	28,561	70,235	61,900	85,729	59,077
MEAN	222	543	1,216	1,225	772	5,547	2,854	921	2,341	1,997	2,765	1,969
MAX	578	1,460	6,030	5,250	2,280	16,800	10,100	1,700	9,120	14,300	11,900	9,180
MIN	106	196	370	430	440	820	614	575	618	240	380	519

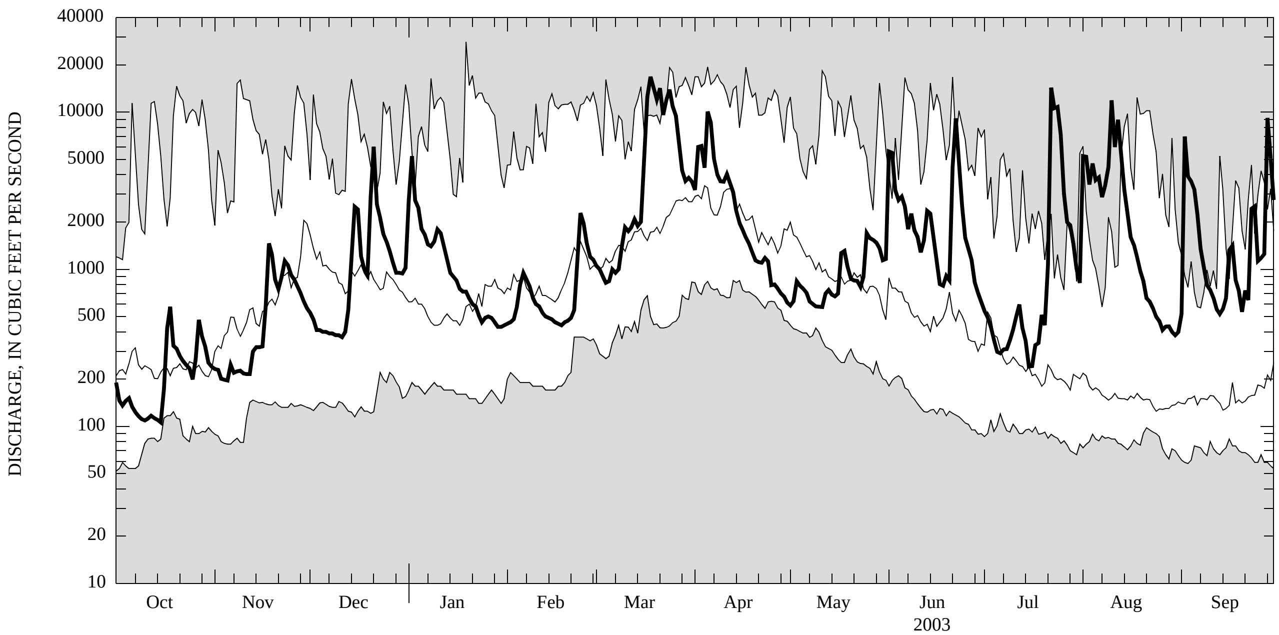
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	661	1,150	1,418	1,325	1,736	2,796	3,462	1,735	1,272	527	514	401
MAX	4,160	4,401	3,545	4,870	4,219	5,737	11,970	4,689	4,579	1,997	3,257	1,969
(WY)	(1991)	(1997)	(1997)	(1996)	(1981)	(1994)	(1993)	(1989)	(1989)	(2003)	(1994)	(2003)
MIN	96.5	139	155	165	340	843	1,320	371	142	95.9	102	72.0
(WY)	(1992)	(1999)	(1999)	(1981)	(1980)	(1981)	(1981)	(1985)	(1999)	(1991)	(2001)	(1980)

01526500 TIOGA RIVER NEAR ERWINS, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1980 - 2003	
ANNUAL TOTAL	441,027		683,574			
ANNUAL MEAN	1,208		1,873		1,412	
HIGHEST ANNUAL MEAN					2,192	1984
LOWEST ANNUAL MEAN					786	1999
HIGHEST DAILY MEAN	12,800	Jun 6	16,800	Mar 18	28,000	Jan 19, 1996
LOWEST DAILY MEAN	83	Sep 14	106	Oct 15	52	Oct 1, 1980
ANNUAL SEVEN-DAY MINIMUM	87	Sep 8	111	Oct 9	55	Sep 30, 1980
10 PERCENT EXCEEDS	2,750		4,660		3,360	
50 PERCENT EXCEEDS	743		858		596	
90 PERCENT EXCEEDS	115		264		133	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

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 mi^2.

PERIOD OF RECORD.--May 1938 to September 1945, June 1996 to September 1997, June 2001 to September 2002.

GAGE.--Water-stage recorder. Datum of gage is 1,182.75 ft above NGVD of 1929. May 16, 1938 to Sept. 30, 1945, at site 4,200 ft downstream at datum 2.75 ft lower.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Telephone and satellite gage-height telemeters at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,880 ft^3/s Mar. 17, 1942, gage height, 8.88 ft, site and datum then in use, minimum discharge, 6.5 ft^3/s, Sept. 28, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 23, 1972 reached a discharge of 13,300 ft^3/s on basis of contracted opening measurement of peak flow.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 22	0115	*3,000	*5.20	Jul 22	2215	1,480	4.20

Minimum discharge, 33 ft^3/s, Oct. 15, 16, gage height, 1.96 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	47	110	404	e85	163	465	131	520	73	251	87
2	41	53	97	329	e90	167	453	180	344	71	317	208
3	62	52	e90	297	e85	e150	391	169	293	68	487	150
4	74	51	e95	281	e100	e145	414	146	271	67	633	178
5	63	50	e100	262	e140	159	1,010	135	257	66	356	128
6	51	62	e95	241	e145	e155	764	145	223	66	318	108
7	44	63	e85	e220	e130	e140	651	136	202	62	318	96
8	40	57	75	211	e110	154	587	128	190	63	288	90
9	37	54	e70	212	e100	188	499	122	180	74	272	82
10	36	53	e75	205	e90	e150	488	116	161	78	309	78
11	35	51	e80	e165	e85	e160	467	174	232	115	310	75
12	37	48	86	e155	e80	171	414	184	201	82	414	70
13	40	51	90	e145	e80	176	358	183	241	70	305	77
14	36	50	228	e135	e80	e170	325	172	211	65	264	79
15	34	47	236	e130	e75	186	301	159	179	62	231	78
16	41	52	207	e130	e75	358	280	190	157	79	207	113
17	56	94	e170	e125	e75	e860	255	221	144	72	184	90
18	51	105	e160	e125	e75	e1,450	235	187	144	93	162	80
19	52	92	e170	e125	e80	1,470	222	166	141	84	143	83
20	59	99	e290	e125	e85	1,440	207	155	134	71	131	97
21	48	118	384	e125	e100	2,070	199	183	192	160	121	82
22	43	180	318	e125	112	2,540	200	159	166	483	114	76
23	41	205	276	e115	e190	1,730	195	145	130	426	106	99
24	40	173	235	e105	e200	1,370	183	210	112	435	96	81
25	41	163	214	e100	e180	1,180	170	225	104	273	92	76
26	67	149	e180	e90	e170	1,250	163	212	93	190	89	71
27	64	137	173	e85	e160	970	153	215	86	177	86	109
28	54	121	e160	e80	e165	809	143	232	82	169	80	593
29	50	115	154	e80	---	731	135	196	78	131	79	270
30	48	117	144	e80	---	634	127	178	77	116	86	228
31	46	---	207	e75	---	540	---	237	---	104	79	---
TOTAL	1,476	2,709	5,054	5,082	3,142	21,836	10,454	5,391	5,545	4,145	6,928	3,732
MEAN	47.6	90.3	163	164	112	704	348	174	185	134	223	124
MAX	74	205	384	404	200	2,540	1,010	237	520	483	633	593
MIN	34	47	70	75	75	140	127	116	77	62	79	70
CFSM	0.31	0.59	1.07	1.08	0.74	4.63	2.29	1.14	1.22	0.88	1.47	0.82
IN.	0.36	0.66	1.24	1.24	0.77	5.34	2.56	1.32	1.36	1.01	1.70	0.91

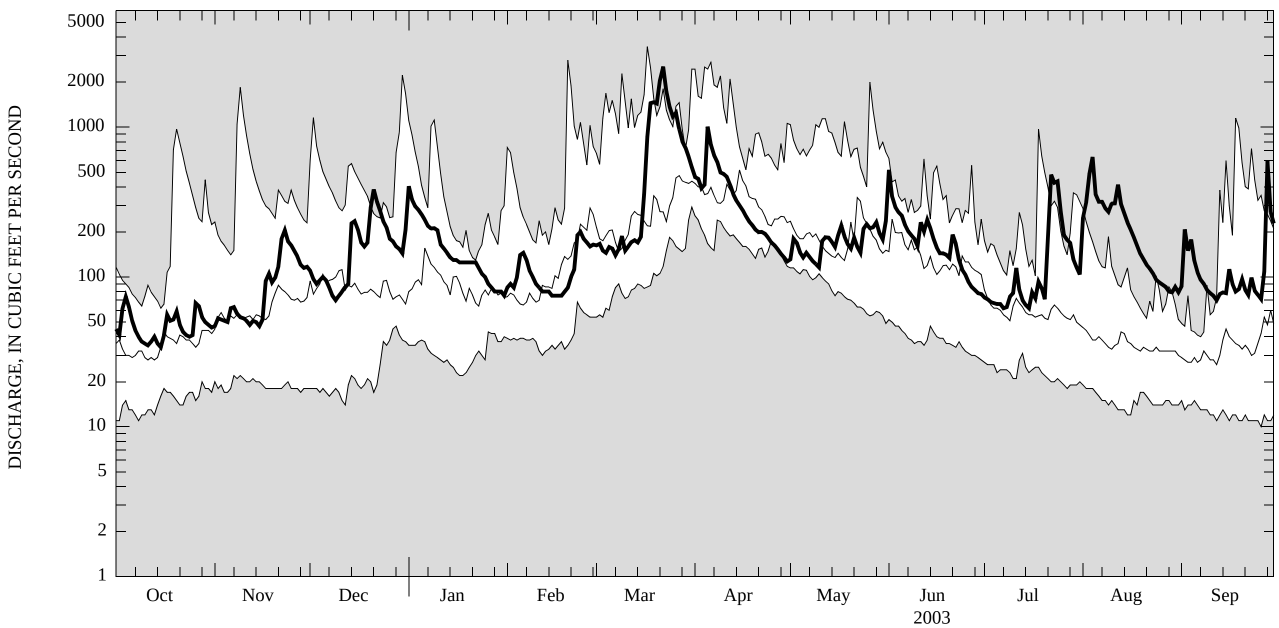
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	59.2	104	147	126	174	460	454	273	151	80.7	56.2	71.3
MAX	233	394	397	280	417	997	1,143	746	270	187	223	231
(WY)	(1997)	(1997)	(1997)	(1943)	(1939)	(1945)	(1940)	(1943)	(2002)	(1942)	(2003)	(1945)
MIN	15.2	19.2	34.5	43.8	68.4	206	242	84.1	38.9	25.8	17.4	13.5
(WY)	(1942)	(1942)	(1942)	(1942)	(1942)	(1998)	(1997)	(1941)	(1939)	(1941)	(2001)	(1941)

01527500 COHOCTON RIVER AT AVOCA, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1938 - 2003	
ANNUAL TOTAL	59,440		75,494			
ANNUAL MEAN	163		207		183	
HIGHEST ANNUAL MEAN					245	1943
LOWEST ANNUAL MEAN					141	1941
HIGHEST DAILY MEAN	916	May 14	2,540	Mar 22	3,450	Mar 17, 1942
LOWEST DAILY MEAN	20	Sep 12	34	Oct 15	10	Sep 26, 1941
ANNUAL SEVEN-DAY MINIMUM	22	Sep 8	36	Oct 9	11	Sep 23, 1941
MAXIMUM PEAK FLOW					3,880	Mar 17, 1942
MAXIMUM PEAK STAGE					8.88	Mar 17, 1942
INSTANTANEOUS LOW FLOW					26	Sep 3, 1996
ANNUAL RUNOFF (CFSM)	1.07		1.36		1.20	
ANNUAL RUNOFF (INCHES)	14.55		18.48		16.36	
10 PERCENT EXCEEDS	365		387		431	
50 PERCENT EXCEEDS	118		137		90	
90 PERCENT EXCEEDS	36		54		26	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

01529500 COHOCTON RIVER NEAR CAMPBELL, NY

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

DRAINAGE AREA.--470 mi^2.

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

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

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

REMARKS.--Records good except those for estimated daily discharges, which are poor. During each year since March 1931, a large part of flow from 45.5 mi^2 of drainage area upstream from Lake Lamoka on Mud Creek, a tributary upstream from this station, has been diverted into Keuka Lake (Oswego River basin) for power development. Telephone and satellite gage-height telemeters at station.

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

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 22	0500	*7,260	*6.28	Apr 5	1230	5,530	5.44

Minimum discharge, 50 ft^3/s, Oct. 15, 16, gage height, 0.02 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	77	81	223	1,090	e200	e390	1,310	275	1,710	171	680	187
2	64	81	e200	949	206	e380	1,470	365	1,160	160	573	835
3	67	86	e170	736	201	e340	1,370	424	822	143	1,110	548
4	99	84	e180	636	e220	e320	1,360	345	780	131	1,600	567
5	87	83	e200	572	e360	e350	4,390	314	718	122	797	387
6	74	90	e200	518	e380	e340	3,190	318	595	122	663	297
7	65	104	e190	472	e380	e300	2,190	319	478	113	807	251
8	60	103	e150	475	e280	e340	1,810	300	465	110	948	225
9	56	96	e130	478	e240	e420	1,590	283	419	121	1,560	324
10	54	90	e140	538	e210	e380	1,580	265	365	160	2,310	330
11	52	89	e140	e430	e200	e370	1,760	284	394	244	1,480	267
12	53	87	e170	e360	e190	e360	1,470	362	500	180	1,920	182
13	54	93	e220	e345	e190	e360	1,210	343	588	141	1,220	174
14	54	88	e450	e320	e185	e340	1,020	343	570	124	919	189
15	51	86	e930	e310	e180	e420	901	319	424	114	782	177
16	59	91	e690	e305	e175	1,220	808	350	347	148	562	276
17	88	151	e500	e300	e170	3,510	732	527	301	141	461	210
18	86	258	e380	e295	e170	5,160	657	433	286	170	388	176
19	81	218	e410	e295	e175	4,590	590	361	283	198	332	229
20	92	207	e800	e290	e180	4,230	559	322	266	143	293	265
21	88	248	1,250	e280	e250	5,840	516	364	884	375	265	190
22	78	333	828	e280	317	6,670	534	342	938	2,670	245	165
23	72	493	662	e240	567	4,860	521	303	528	2,540	225	328
24	74	431	614	e220	e850	3,560	496	379	369	2,150	209	237
25	72	386	592	e210	e640	2,870	450	548	299	1,620	197	204
26	98	372	e520	e205	e440	3,000	424	492	260	972	184	199
27	122	338	e510	e195	e390	2,480	412	498	231	753	182	224
28	106	294	e500	e190	e400	1,970	335	551	212	723	169	1,970
29	93	264	483	e180	---	1,740	303	459	196	497	157	874
30	84	236	426	e185	---	1,630	281	394	183	321	163	669
31	80	---	437	e180	---	1,450	---	468	---	263	155	---
TOTAL	2,340	5,661	13,295	12,079	8,346	60,190	34,239	11,650	15,571	15,840	21,556	11,156
MEAN	75.5	189	429	390	298	1,942	1,141	376	519	511	695	372
MAX	122	493	1,250	1,090	850	6,670	4,390	551	1,710	2,670	2,310	1,970
MIN	51	81	130	180	170	300	281	265	183	110	155	165
CFSM	0.16	0.40	0.91	0.83	0.63	4.13	2.43	0.80	1.10	1.09	1.48	0.79
IN.	0.19	0.45	1.05	0.96	0.66	4.76	2.71	0.92	1.23	1.25	1.71	0.88

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1918 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	186	330	422	416	494	1,109	1,136	607	346	186	125	136
MAX	1,284	1,611	1,861	1,586	2,059	3,793	3,579	2,074	3,167	2,278	695	1,204
(WY)	(1956)	(1928)	(1928)	(1998)	(1976)	(1936)	(1993)	(1919)	(1972)	(1935)	(2003)	(1977)
MIN	25.7	33.0	42.5	32.5	75.1	312	201	143	59.2	31.1	25.0	15.5
(WY)	(1942)	(1942)	(1961)	(1961)	(1920)	(1965)	(1946)	(1934)	(1955)	(1955)	(1934)	(1934)

01529500 COHOCTON RIVER NEAR CAMPBELL, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1918 - 2003	
ANNUAL TOTAL	152,908		211,923			
ANNUAL MEAN	419		581		457	
HIGHEST ANNUAL MEAN					766	1956
LOWEST ANNUAL MEAN					210	1965
HIGHEST DAILY MEAN	3,550	May 14	6,670	Mar 22	24,400	Jul 8, 1935
LOWEST DAILY MEAN	30	Sep 14	51	Oct 15	8.0	Sep 6, 1934
ANNUAL SEVEN-DAY MINIMUM	32	Sep 8	53	Oct 9	11	Sep 3, 1934
ANNUAL RUNOFF (CFSM)	0.89		1.24		0.97	
ANNUAL RUNOFF (INCHES)	12.10		16.77		13.21	
10 PERCENT EXCEEDS	959		1,360		1,100	
50 PERCENT EXCEEDS	264		321		208	
90 PERCENT EXCEEDS	56		91		50	

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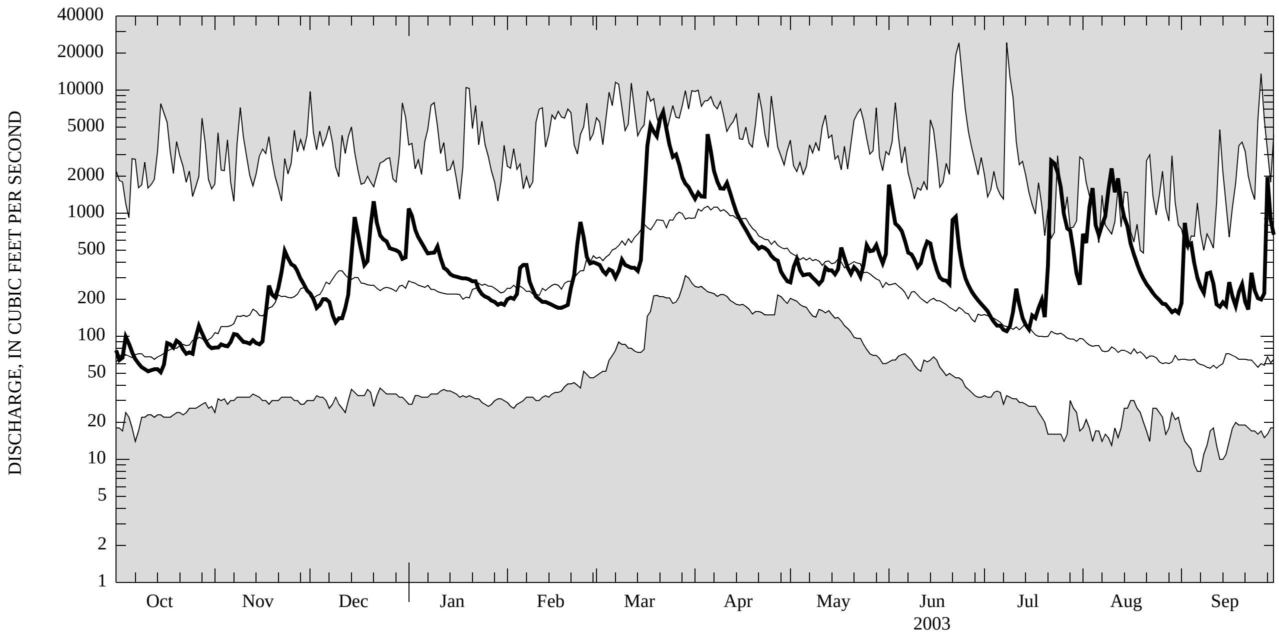

2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

01529950 CHEMUNG RIVER AT CORNING, NY

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

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

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

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

GAGE.--Water-stage recorder. Datum of gage is 900.00 ft above NGVD of 1929.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, prior to construction of Tioga Reservoir in 1979, 127,000 ft^3/s, Sept. 26, 1975, gage height, 32.46 ft; minimum discharge, 210 ft^3/s, Aug. 1978. Maximum discharge, since construction of Tioga Reservoir in 1979, about 61,000 ft^3/s, Jan. 19, 1996; minimum discharge, 95 ft^3/s, Sept. 9, 10, 23, 24, 1991, gage height, 14.30 ft.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 40,000 ft^3/s, July 22, gage height, 24.49 ft; minimum discharge,165 ft^3/s, Oct. 15.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	339	342	820	4,030	e760	e1,700	4,780	1,020	9,960	816	6,270	656
2	258	336	e730	6,990	e760	e1,600	8,780	1,130	8,110	759	6,530	8,780
3	275	307	e580	4,080	e800	e1,450	8,590	1,510	4,820	663	4,750	4,890
4	294	298	e600	3,620	e950	e1,350	6,220	1,340	4,280	572	6,710	4,420
5	310	297	e640	2,820	e1,300	e1,400	17,400	1,220	4,310	505	4,770	3,710
6	268	355	e680	2,600	e1,500	e1,600	12,900	1,190	3,690	492	5,030	2,650
7	228	340	e660	2,260	e1,400	e1,550	8,110	1,120	2,790	501	3,950	1,600
8	202	353	e630	e2,120	e1,300	e1,600	6,510	1,060	3,310	499	4,590	1,250
9	187	353	e540	e2,300	e1,100	e2,150	5,420	1,020	2,620	550	6,570	1,070
10	179	359	e550	e2,700	e980	e2,600	5,330	983	2,330	641	15,800	1,060
11	183	350	e570	e2,500	e900	e2,500	6,100	977	1,910	794	8,290	891
12	190	330	e630	e2,100	e850	e2,600	5,250	1,230	2,410	912	11,900	731
13	184	418	867	e1,800	e830	e2,900	4,550	1,250	3,350	660	7,040	658
14	177	455	e1,650	e1,550	e810	2,670	3,620	1,210	3,250	563	4,300	699
15	175	450	e3,650	e1,450	e800	2,860	3,370	1,160	2,310	455	3,160	787
16	250	453	3,420	e1,350	e760	7,210	2,930	1,230	1,710	489	2,280	1,530
17	496	694	e2,100	e1,250	e740	19,200	2,650	2,160	1,310	571	1,940	1,620
18	749	1,780	e1,580	e1,150	e740	24,500	2,390	2,120	1,260	635	1,590	1,010
19	472	1,550	e1,700	e1,100	e750	20,600	2,330	1,690	1,390	864	1,260	937
20	452	1,150	3,810	e1,050	e780	17,900	2,010	1,450	1,320	698	1,100	780
21	426	1,040	e8,200	e1,000	e820	21,800	1,890	1,460	9,260	1,300	868	883
22	386	1,280	3,970	e1,000	e1,000	17,200	1,830	1,470	11,500	20,900	808	760
23	354	1,700	3,220	e900	e1,700	17,500	1,950	1,340	6,050	18,200	734	2,530
24	333	1,620	2,670	e800	e3,700	17,400	1,890	1,480	3,360	15,600	649	2,930
25	301	1,420	2,480	e840	e3,000	13,700	1,500	2,780	2,230	9,920	611	1,290
26	403	1,350	e2,150	e850	e2,300	12,700	1,450	2,620	1,860	4,600	547	1,310
27	627	1,240	e1,900	e800	e1,900	9,120	1,380	2,620	1,580	3,150	564	1,360
28	550	1,110	e1,700	e750	e1,800	6,750	1,230	2,780	1,210	3,000	569	11,800
29	475	989	e1,660	e750	---	5,790	1,150	2,430	1,050	2,250	500	6,720
30	395	888	1,570	e730	---	5,650	1,060	2,010	927	1,470	483	3,660
31	359	---	1,610	e740	---	5,490	---	2,120	---	1,170	499	---
TOTAL	10,477	23,607	57,537	57,980	35,030	253,040	134,570	49,180	105,467	94,199	114,662	72,972
MEAN	338	787	1,856	1,870	1,251	8,163	4,486	1,586	3,516	3,039	3,699	2,432
MAX	749	1,780	8,200	6,990	3,700	24,500	17,400	2,780	11,500	20,900	15,800	11,800
MIN	175	297	540	730	740	1,350	1,060	977	927	455	483	656

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1,119	1,691	2,159	2,116	2,624	4,374	4,749	2,535	1,748	792	700	866
MAX	5,478	6,124	5,297	6,879	7,993	9,533	16,150	6,692	5,835	3,039	3,699	5,569
(WY)	(1991)	(1997)	(1997)	(1996)	(1976)	(1979)	(1993)	(1989)	(1989)	(2003)	(2003)	(1975)
MIN	157	226	240	328	537	1,284	1,599	549	214	173	153	141
(WY)	(1992)	(1999)	(1999)	(1981)	(1980)	(1981)	(1981)	(1985)	(1999)	(1991)	(1999)	(1991)

01529950 CHEMUNG RIVER AT CORNING, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1975 - 2003	
ANNUAL TOTAL	663,615		1,008,721			
ANNUAL MEAN	1,818		2,764		2,118	
HIGHEST ANNUAL MEAN					3,284	1978
LOWEST ANNUAL MEAN					1,203	1999
HIGHEST DAILY MEAN	16,500	May 14	24,500	Mar 18	87,100	Sep 26, 1975
LOWEST DAILY MEAN	134	Sep 12	175	Oct 15	105	Oct 3, 1980
ANNUAL SEVEN-DAY MINIMUM	143	Sep 8	182	Oct 9	108	Oct 2, 1980
10 PERCENT EXCEEDS	3,990		6,630		4,960	
50 PERCENT EXCEEDS	1,130		1,360		962	
90 PERCENT EXCEEDS	177		423		227	

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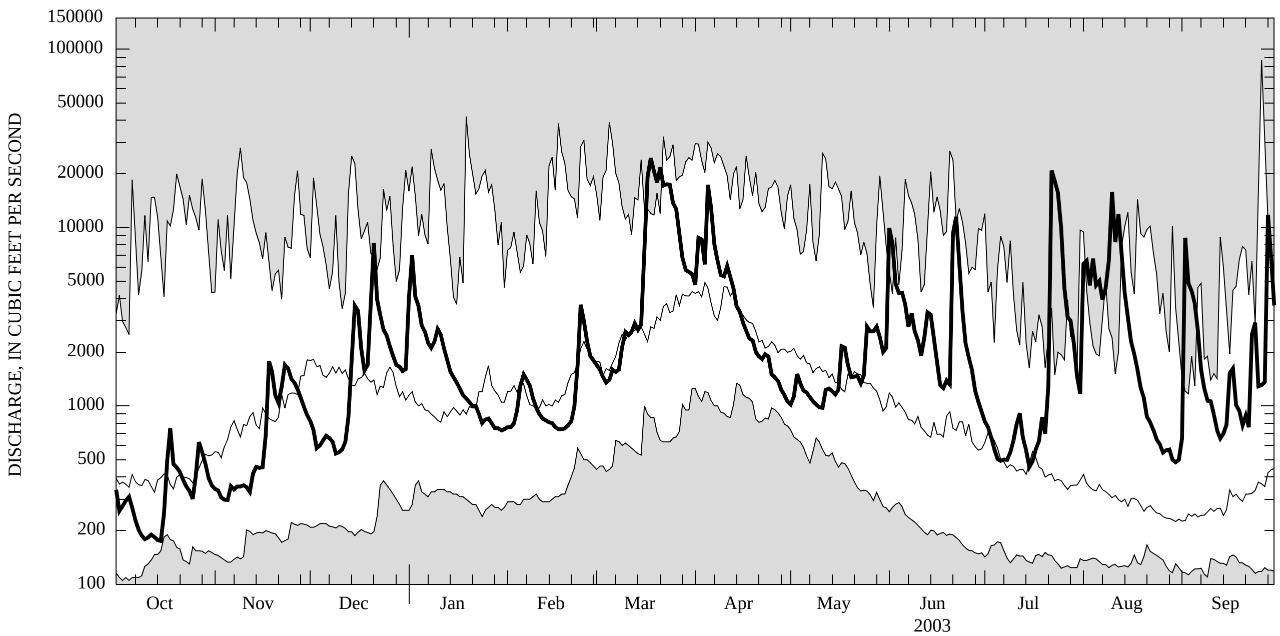


2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

01530500 NEWTOWN CREEK AT ELMIRA, NY

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

DRAINAGE AREA.--77.5 mi^2.

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

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

GAGE.--Water-stage recorder. Datum of gage is 838.35 ft above NGVD of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Diurnal fluctuation at low flow caused by numerous industrial operations upstream. Since August 1989, high flows regulated by detention in upstream reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, prior to construction of upstream reservoir in August 1989, about 4,000 ft^3/s, June 23, 1972 (backwater from Chemung River), maximum gage height, 19.28 ft, June 23, 1972, from floodmarks (backwater from Chemung River). Maximum discharge, since construction of upstream reservoir in August 1989, 3,810 ft^3/s, Jan. 19, 1996, gage height 16.98 ft. Minimum instantaneous discharge not determined.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 17	2330	*1,310	*10.29	No other peak greater than base discharge.			

Minimum discharge, 6.9 ft^3/s, Oct. 1, 6, 7, 8, gage height, 4.17 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.3	13	56	216	26	77	170	40	701	30	86	35
2	8.4	12	48	455	27	75	211	42	259	27	74	342
3	16	12	41	187	28	e65	234	42	153	25	53	132
4	9.6	11	31	149	85	e60	194	38	143	24	46	130
5	8.7	11	37	123	136	68	658	36	132	23	73	88
6	7.4	12	35	110	e80	73	306	36	99	21	79	65
7	8.2	12	30	99	e70	56	211	34	89	20	58	53
8	7.5	12	32	97	e48	66	182	34	95	20	48	45
9	7.9	12	24	121	54	97	169	32	72	23	207	41
10	8.0	11	25	158	e44	e90	189	30	59	23	685	36
11	7.9	12	27	119	e38	e65	185	33	55	27	206	33
12	8.8	12	44	98	e36	66	145	55	69	21	151	31
13	8.5	15	72	77	e32	77	120	54	111	20	104	28
14	8.3	18	401	e65	e30	62	104	48	81	19	77	28
15	12	17	345	65	e30	82	96	44	62	18	64	27
16	22	17	211	57	27	313	84	47	48	17	56	30
17	22	297	146	e50	28	766	76	52	41	18	52	28
18	17	238	e100	e40	28	898	69	45	42	27	47	26
19	11	130	98	46	29	496	66	41	42	27	43	25
20	13	95	300	43	30	461	64	37	43	23	39	25
21	12	95	262	35	30	880	60	36	267	102	36	24
22	10	102	154	33	42	618	63	33	264	737	34	24
23	9.1	163	126	29	304	373	65	30	145	374	32	152
24	8.7	106	100	29	265	261	62	68	95	521	29	73
25	9.2	93	89	28	152	219	55	136	74	195	28	51
26	41	90	84	29	e105	284	53	88	57	114	26	48
27	52	76	73	27	102	263	52	81	48	88	25	44
28	28	66	64	26	88	180	47	176	41	84	23	43
29	21	60	63	26	---	168	44	102	37	64	24	42
30	17	57	58	25	---	203	40	77	33	51	25	37
31	14	---	71	24	---	182	---	82	---	44	24	---
TOTAL	442.5	1,877	3,247	2,686	1,994	7,644	4,074	1,729	3,457	2,827	2,554	1,786
MEAN	14.3	62.6	105	86.6	71.2	247	136	55.8	115	91.2	82.4	59.5
MAX	52	297	401	455	304	898	658	176	701	737	685	342
MIN	7.4	11	24	24	26	56	40	30	33	17	23	24

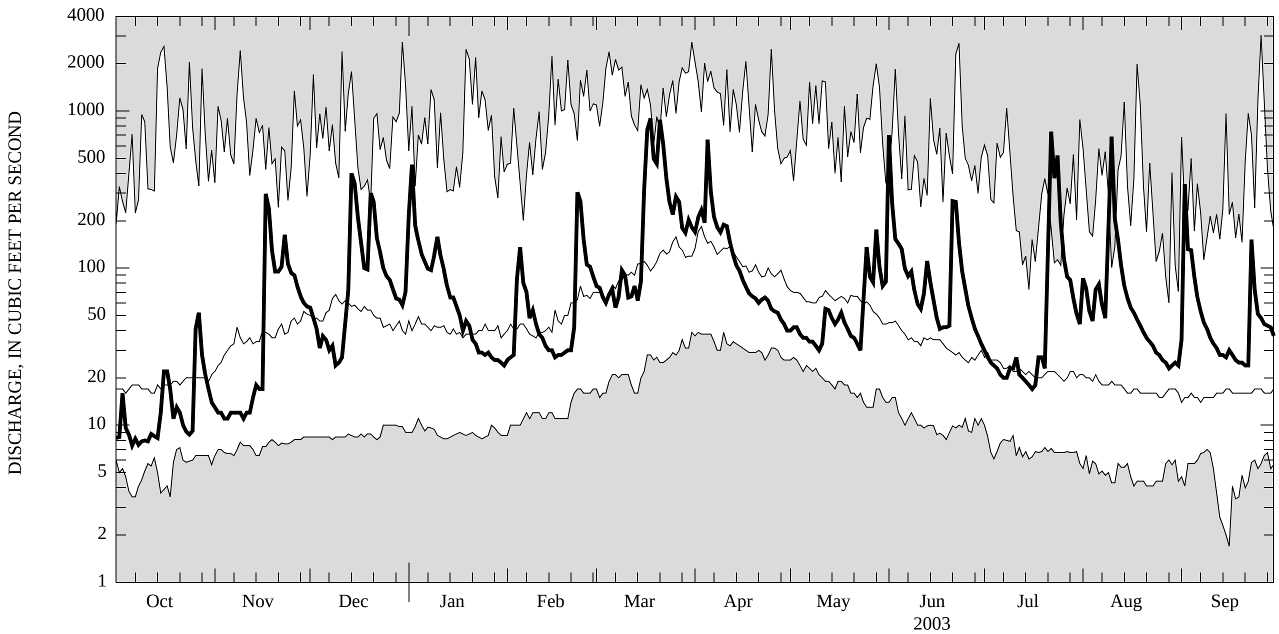
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	47.7	82.5	89.7	98.3	98.2	172	205	88.7	66.3	38.7	36.2	26.7
MAX	183	295	248	269	205	310	747	249	142	105	171	108
(WY)	(1991)	(1997)	(1997)	(1996)	(1990)	(1994)	(1993)	(1996)	(1996)	(1992)	(1994)	(1992)
MIN	9.21	9.34	11.8	12.6	23.2	63.5	87.5	22.0	11.1	7.30	7.25	8.28
(WY)	(2002)	(2002)	(1999)	(2001)	(1993)	(1990)	(1997)	(2001)	(1999)	(1991)	(1991)	(1991)

01530500 NEWTOWN CREEK AT ELMIRA, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1990 - 2003	
ANNUAL TOTAL	25,061.7		34,317.5			
ANNUAL MEAN	68.7		94.0		87.3	
HIGHEST ANNUAL MEAN					133	1993
LOWEST ANNUAL MEAN					46.9	2001
HIGHEST DAILY MEAN	851	May 14	898	Mar 18	2,470	Jan 19, 1996
LOWEST DAILY MEAN	6.9	Sep 12	7.4	Oct 6	4.9	Aug 3, 1991
ANNUAL SEVEN-DAY MINIMUM	7.9	Oct 5	7.9	Oct 5	6.0	Aug 12, 1991
10 PERCENT EXCEEDS	154		211		184	
50 PERCENT EXCEEDS	39		52		39	
90 PERCENT EXCEEDS	9.7		17		10	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

01531000 CHEMUNG RIVER AT CHEMUNG, NY

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

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

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

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

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, prior to construction of Tioga Reservoir in 1979, 189,000 ft^3/s, June 23, 1972, gage height, 31.62 ft, from floodmark, from rating curve extended above 65,000 ft^3/s, on basis of slope-area and velocity-area studies at gage height 19.57 ft, and slope-area and contracted opening measurements at gage heights 23.97 and 31.62 ft; minimum discharge, 49 ft^3/s, Aug. 14, 1911, gage height, 1.47 ft. Maximum discharge, since construction of Tioga Reservoir in 1979, 77,800 ft^3/s, Jan. 20, 1996, gage height 19.71 ft; minimum discharge, 104 ft^3/s, Sept. 3, 1991, gage height, 2.82 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 37,100 ft^3/s, July 23, gage height, 14.00 ft; minimum discharge, 222 ft^3/s, Oct. 15, gage height, 2.88 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	481	427	1,090	4,090	e850	2,430	6,500	1,250	12,000	1,070	3,840	766
2	352	415	992	9,550	874	2,230	8,660	1,280	12,000	968	9,330	9,150
3	331	404	e850	6,200	911	e2,000	11,700	1,580	6,750	876	5,250	8,730
4	326	384	e640	4,840	e1,100	e1,750	8,280	1,610	5,250	776	6,550	5,850
5	307	375	e750	3,900	e1,500	e1,800	17,700	1,480	5,340	678	5,550	5,010
6	309	391	e840	3,390	e1,700	2,120	19,900	1,430	4,680	615	6,130	3,890
7	280	418	e820	2,990	e1,700	e2,000	10,900	1,360	3,570	611	4,650	2,510
8	262	407	e800	2,830	e1,600	1,920	8,490	1,290	3,840	625	4,460	1,920
9	243	413	e700	3,170	e1,350	2,510	7,420	1,240	3,410	646	6,120	1,550
10	237	410	e680	3,740	e1,150	e3,250	7,050	1,180	2,790	706	20,200	1,490
11	239	412	e800	3,610	e1,050	e3,000	8,050	1,210	2,420	829	11,500	1,330
12	244	410	864	e2,900	e1,020	e2,850	7,190	1,420	2,480	978	11,800	1,160
13	244	427	1,110	e2,600	e1,000	e3,200	6,240	1,540	3,590	879	9,240	984
14	239	498	e2,400	e2,050	e980	e3,000	5,020	1,510	4,020	703	5,590	963
15	227	514	e4,600	e1,850	e900	e3,050	4,320	1,410	2,950	615	4,080	994
16	279	529	e4,800	e1,750	e850	6,440	3,810	1,430	2,260	520	3,100	1,390
17	532	1,370	3,290	e1,600	e820	20,100	3,410	2,130	1,710	596	2,720	1,890
18	696	2,520	e2,300	e1,300	e800	31,800	3,080	2,640	1,510	664	2,220	1,540
19	712	2,400	e2,100	e1,350	e820	26,900	2,840	2,260	1,550	851	1,830	1,210
20	521	1,860	3,810	e1,300	e840	22,700	2,550	1,950	1,590	879	1,590	1,090
21	493	1,500	10,200	e1,200	e860	31,900	2,390	1,880	7,200	1,410	1,330	1,040
22	463	1,570	5,830	e1,100	e980	23,900	2,340	1,960	15,900	13,700	1,170	1,040
23	426	2,100	4,240	e960	e1,600	21,700	2,380	1,810	8,890	25,800	1,080	1,890
24	400	2,190	3,450	e880	e3,800	21,800	2,320	1,930	4,930	18,700	962	4,200
25	384	1,900	3,080	e930	4,580	18,000	2,040	3,180	3,060	14,700	882	1,940
26	457	1,740	2,850	e950	3,540	15,700	1,800	3,250	2,430	6,960	825	1,650
27	635	1,610	2,450	e920	2,850	13,600	1,750	3,180	2,070	4,350	779	1,650
28	741	1,450	2,140	e850	2,720	9,110	1,600	3,310	1,680	3,760	791	7,610
29	604	1,290	2,090	e810	---	7,330	1,440	3,140	1,370	3,160	742	8,930
30	530	1,170	1,920	e820	---	e7,700	1,320	2,580	1,200	2,280	725	4,480
31	456	---	1,950	e830	---	e7,300	---	2,300	---	1,730	678	---
TOTAL	12,650	31,504	74,436	75,260	42,745	323,090	172,490	59,720	132,440	111,635	135,714	87,847
MEAN	408	1,050	2,401	2,428	1,527	10,420	5,750	1,926	4,415	3,601	4,378	2,928
MAX	741	2,520	10,200	9,550	4,580	31,900	19,900	3,310	15,900	25,800	20,200	9,150
MIN	227	375	640	810	800	1,750	1,320	1,180	1,200	520	678	766

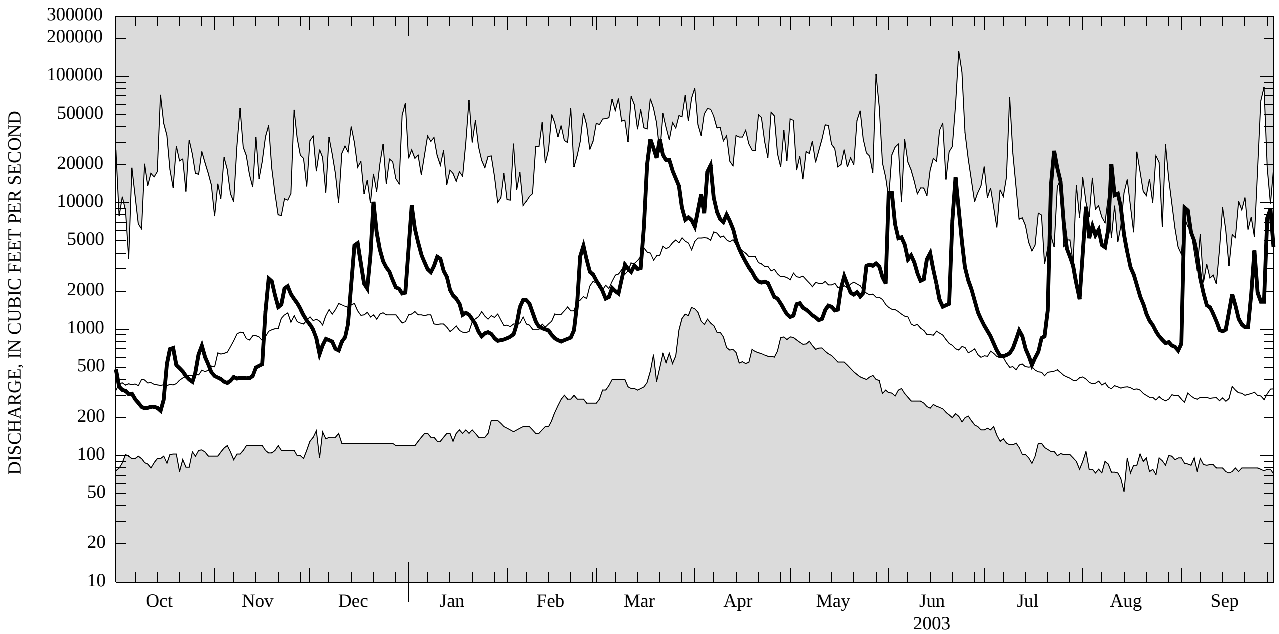
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1,210	2,101	2,665	2,460	3,143	5,146	6,502	3,332	2,259	1,061	953	726
MAX	6,774	8,107	6,688	8,569	7,695	10,420	21,600	8,901	7,418	3,601	5,001	2,928
(WY)	(1991)	(1997)	(1997)	(1996)	(1981)	(2003)	(1993)	(1996)	(1989)	(2003)	(1994)	(2003)
MIN	199	266	282	459	631	1,750	2,214	696	280	196	161	169
(WY)	(1992)	(1999)	(1999)	(1981)	(1980)	(1981)	(1981)	(1985)	(1999)	(1991)	(1999)	(1991)

01531000 CHEMUNG RIVER AT CHEMUNG, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1980 - 2003	
ANNUAL TOTAL	835,826		1,259,531			
ANNUAL MEAN	2,290		3,451		2,623	
HIGHEST ANNUAL MEAN					4,126	1984
LOWEST ANNUAL MEAN					1,513	1999
HIGHEST DAILY MEAN	22,000	May 14	31,900	Mar 21	65,400	Jan 20, 1996
LOWEST DAILY MEAN	151	Sep 13	227	Oct 15	113	Sep 3, 1991
ANNUAL SEVEN-DAY MINIMUM	159	Sep 9	239	Oct 9	125	Sep 1, 1991
10 PERCENT EXCEEDS	5,130		8,360		6,080	
50 PERCENT EXCEEDS	1,470		1,750		1,200	
90 PERCENT EXCEEDS	239		496		274	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

LAKES AND RESERVOIRS IN SUSQUEHANNA RIVER BASIN

01499500 EAST SIDNEY LAKE.--Lat 42°19'40", long 75°13'42", Delaware County, Hydrologic Unit 02050101, at East Sidney Dam, on Ouleout Creek, 0.3 mi upstream from bridge on County Highway 44 at East Sidney, 4.4 mi upstream from mouth, and 4.5 mi east of Unadilla. DRAINAGE AREA, 103 mi^2. PERIOD OF RECORD, November 1949 to September 1952 (monthend elevations and contents), October 1952 to September 1985 (mean daily elevations and monthend contents), October 1986 to current year (monthend elevations and contents). Prior to October 1970, published as "East Sidney Reservoir at East Sidney". REVISED RECORDS, WSP 2103: Drainage area. GAGE, water-stage recorder. Datum of gage is NGVD of 1929. Prior to Oct. 1, 1979, at datum 0.05 ft lower.

REMARKS.--Lake is formed by concrete dam and rockfill dike, completed by Corps of Engineers in June 1950; regulation of outflow began in November 1949; first used for flood regulation on Mar. 28, 1950. Usable capacity, 33,550 acre-ft between elevations 1,115.0 ft (sill of conduits) and 1,203.0 ft (crest of spillway). Dead storage 56 acre-ft. Discharge is controlled by the operation of five gates. Water is stored during high flows and released when downstream conditions warrant. Lake is used for flood control and recreation. Telephone 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, 15,076 acre-ft, Mar. 24, elevation, 1,180.80 ft; minimum, 1,539 acre-ft, Dec. 26, elevation, 1,139.26 ft.

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

REMARKS.--Lake is formed by earthfill dam with concrete spillway, completed by Corps of Engineers in 1942 for flood control; first used for flood regulation on Mar. 9, 1942. Usable capacity 86,440 acre-ft between elevations 950.0 ft (sill of gates) and 1,010.0 ft (crest of spillway). Dead storage, 28 acre-ft. Figures given herein represent total contents. Discharge is controlled by operation of three gates. Water is stored during high flows and released when downstream conditions warrant. Lake is used for flood control and recreation. Telephone 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, 42,134 acre-ft, Mar. 24, elevation, 991.69 ft; minimum, 5,100 acre-ft, Mar. 5, elevation, 965.88 ft.

MONTHEND ELEVATION AND CONTENTS AT 0000, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Elevation (feet)	Contents (acre-(feet)	Change in contents (equlivalent in cfs)	Elevation (feet)	Contents (acre-(feet)	Change in contents (equivalent in cfs)
	01499500 East Sidney Lake			01511000 Whitney Point Lake		
Sept. 30	1,150.81	3,452	--	973.43	13,231	--
Oct. 31	1,150.47	3,380	- 1.2	973.17	12,901	- 5.4
Nov. 30	1,150.59	3,405	+ 0.4	973.14	12,863	- 0.6
Dec. 31	1,140.44	1,687	- 27.9	966.34	5,550	- 119
CAL YR 2002	--	--	0	--	--	+ 0.3
Jan. 31	1,140.14	1,648	- 0.6	966.10	5,313	- 3.8
Feb. 28	1,141.03	1,764	+ 2.1	966.37	5,579	+ 4.8
Mar. 31	1,148.04	2,897	+ 18.4	981.06	23,854	+ 297
Apr. 30	1,150.54	3,395	+ 8.4	972.60	12,205	- 196
May 31	1,150.62	3,412	+ 0.3	973.02	12,710	+ 8.2
June 30	1,150.56	3,399	- 0.2	972.96	12,637	- 1.2
July 31	1,150.78	3,446	+ 0.8	973.00	12,685	+ 0.8
Aug. 31	1,151.07	3,508	+ 1.0	973.25	13,002	+ 5.2
Sept. 30	1,150.12	3,306	- 3.4	973.10	12,812	- 3.2
WTR YR 2003	--	--	- 0.2	--	--	- 0.6

LAKES AND RESERVOIRS IN SUSQUEHANNA RIVER BASIN--Continued

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

REMARKS.--Reservoir is formed by rolled earth and rockfill dam. Flood flows are routed to Hammond Lake through a connecting channel with weir at elevation 1,101.0 ft and to Hammond Dam spillway with crest at elevation 1,131.0 ft. Storage began in November 1979. Capacity at elevation l,l31.0 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. 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, 22,980 acre-ft, Mar. 22, elevation, 1,100.14 ft; minimum, 9,090 acre-ft, Sept. 19, elevation, 1,080.09 ft.

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

REMARKS.--Reservoir is formed by rolled earth and rockfill dam with concrete chute spillway with uncontrolled weir at elevation l,l31.0 ft. Storage began in November 1979. Capacity at elevation 1,131.0 ft is 63,000 acre-ft. Recreation lake elevation is l,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. 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, 17,050 acre-ft, Mar. 23, elevation, 1,096.50 ft; minimum, 7,760 acre-ft, Oct. 10, 11, 12, 15, 16, elevation, 1,084.47 ft.

MONTHEND ELEVATION AND CONTENTS AT 0000, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equlivalent in cfs)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)
	01517900 Tioga Lake			01518498 Hammond Lake		
Sept. 30	1,081.10	9,550	--	1,084.60	7,840	--
Oct. 31	1,081.26	9,630	+ 1.3	1,085.18	8,240	+ 6.5
Nov. 30	1,083.54	10,770	+ 19.2	1,087.68	9,960	+ 28.9
Dec. 31	1,083.03	10,510	- 4.2	1,087.35	9,720	- 3.9
CAL YR 2002	--	--	- 0.2	--	--	- 0.1
Jan. 31	1,081.84	9,910	- 9.8	1,087.11	9,540	- 2.9
Feb. 29	1,081.29	9,640	- 4.9	1,087.08	9,520	- 0.4
Mar. 31	1,081.47	9,730	+ 1.5	1,086.70	9,280	- 3.9
Apr. 30	1,081.48	9,740	+ 0.2	1,086.54	9,180	- 1.7
May 31	1,081.55	9,770	+ 0.5	1,086.44	9,120	- 1.0
June 30	1,081.50	9,740	- 0.5	1,086.58	9,200	+ 1.3
July 31	1,081.09	9,540	- 3.3	1,086.63	9,230	+ 0.5
Aug. 31	1,081.59	9,790	+ 4.1	1,086.49	9,150	- 1.3
Sept. 30	1,081.12	9,560	- 3.9	1,086.45	9,120	- 0.5
WTR YR 2003	--	--	0	--	--	+ 1.8

LAKES AND RESERVOIRS IN SUSQUEHANNA RIVER BASIN--Continued

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

REMARKS.--Reservoir is formed by rolled earth and rockfill dam with concrete chute spillway with uncontrolled weir at elevation 1,117.0 ft. Storage began in December 1979. Capacity at elevation 1,117.0 ft is 89,110 acre-ft. Recreation lake elevation is 1,045.0 ft, capacity 7,330 acre-ft. Reservoir is used for flood control and recreation. Figures given herein represent total contents. Flow is regulated by two service gates and low-flow by-pass system. 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, 45,040 acre-ft, Mar. 22, elevation, 1,090.57 ft; minimum, 29,320 acre-ft, Mar. 16, elevation, 1,076.92 ft.

01523000 ALMOND LAKE NEAR ALMOND, NY.--Lat 42°20’56", long 77°42’10", Steuben County, Hydrologic Unit 02050104, at Almond Dam on Canacadea Creek, 2.0 mi northeast of Almond, and 3.0 mi upstream from mouth. DRAINAGE AREA, 55.8 mi^2. PERIOD OF RECORD, July 1949 to September 1952 (monthly elevations and contents), October 1952 to September 1985 (mean daily elevations and monthend contents), October 1985 to current year (monthend elevations and contents). Prior to October 1970, published as "Almond Reservoir near Almond". REVISED RECORDS, WSP 2103: Drainage area. GAGE, Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Corps of Engineers).

REMARKS.--Lake is formed by earthfill dam with concrete spillway, completed by Corps of Engineers in June 1949 for flood control; first used for flood regulation on Mar. 28, 1950. Usable capacity, 14,800 acre-ft between elevations 1,229.0 ft (sill of gates) and 1,300.0 ft (crest of spillway). No dead storage. Figures given herein represent usable contents. Discharge is controlled by the operation of three gates. Water is stored during high flows and released when downstream conditions warrant. Lake is used for flood control and recreation. Telephone 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, 6,005 acre-ft, Mar. 22, elevation, 1,278.21 ft; minimum, 1,638 acre-ft, Dec. 21, elevation, 1,259.25 ft.

MONTHEND ELEVATION AND CONTENTS AT 0000, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Elevation (feet)	Contents (acre-(feet)	Change in contents (equlivalent in cfs)	Elevation (feet)	Contents (acre-(feet)	Change in contents (equivalent in cfs)
	01519995 Cowanesque Lake			01523000 Almond Lake		
Sept. 30	1,079.44	31,980	--	1,259.85	1,727	--
Oct. 31	1,079.73	32,300	+ 5.2	1,260.31	1,800	+ 1.2
Nov. 30	1,080.19	32,790	+ 8.2	1,260.26	1,792	- 0.1
Dec. 31	1,080.20	32,800	+ 0.2	1,260.82	1,881	+ 1.4
CAL YR 2002	--	--	- 0.2	--	--	+ 0.1
Jan. 31	1,080.19	32,790	- 0.2	1,260.16	1,776	- 1.7
Feb. 28	1,080.07	32,670	- 2.2	1,260.01	1,752	- 0.4
Mar. 31	1,080.19	32,790	+ 2.0	1,260.67	1,857	+ 1.7
Apr. 30	1,080.17	32,770	- 0.3	1,260.13	1,771	- 1.4
May 31	1,080.17	32,770	0	1,260.85	1,886	+ 1.9
June 30	1,080.19	32,790	+ 0.3	1,260.30	1,798	- 1.5
July 31	1,080.18	32,780	- 0.2	1,260.28	1,795	0
Aug. 31	1,080.20	32,800	+ 0.3	1,260.22	1,785	- 0.2
Sept. 30	1,080.21	32,810	+ 0.2	1,260.20	1,782	0
WTR YR 2003	--	--	+ 1.1	--	--	+ 0.1

03011020 ALLEGHENY RIVER AT SALAMANCA, NY

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

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

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

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

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

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.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 73,000 ft^3/s, June 23, 1972, gage height, 24.01 ft, from floodmarks; minimum instantaneous discharge not determined.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 22	1900	*23,600	*12.02	Jul 23	0100	19,700	10.84
Apr 5	2200	17,200	10.00				

Minimum discharge, 237 ft^3/s, Oct. 16, gage height, 2.70 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	475	597	1,930	5,640	e760	e2,200	4,600	1,150	4,360	894	4,020	1,570
2	383	649	1,800	6,550	e780	e1,950	6,080	1,510	3,940	816	6,410	5,940
3	534	693	e1,350	5,740	e820	e1,750	6,130	2,020	3,170	757	7,330	5,500
4	668	721	e1,150	4,670	e1,000	e1,550	5,530	1,640	2,900	709	7,780	4,640
5	626	748	e1,100	3,980	e1,400	e1,600	13,900	1,490	3,240	774	7,680	4,810
6	519	1,030	e1,050	3,450	e1,500	e1,900	14,900	1,600	3,130	732	7,900	3,630
7	434	1,440	e1,200	3,040	e1,300	e1,800	11,000	1,650	2,690	676	6,800	2,840
8	373	1,540	e1,350	2,810	e1,100	e1,700	9,030	1,610	2,640	664	5,350	2,330
9	326	1,370	e1,000	2,730	e950	e2,100	7,290	1,550	4,210	930	7,360	1,970
10	297	1,210	e950	2,820	e880	e3,700	6,190	1,450	3,710	1,130	12,000	1,700
11	277	1,410	1,020	2,510	e840	e3,000	6,120	1,530	3,540	1,920	13,200	1,480
12	257	1,660	1,700	2,180	e800	e2,500	5,290	1,990	5,250	1,360	12,500	1,290
13	252	1,490	2,450	e1,800	e760	e2,700	4,600	3,080	6,690	940	11,900	1,160
14	253	1,270	e4,100	e1,750	e720	e2,500	3,990	3,570	6,520	727	10,100	1,090
15	247	1,130	5,780	e1,500	e710	2,540	3,530	3,020	5,160	622	7,350	1,170
16	253	1,060	4,590	e1,350	e690	4,210	3,160	2,930	4,140	1,400	4,760	2,550
17	399	2,170	e3,350	e1,250	e660	10,400	2,810	2,910	3,290	1,220	3,730	1,940
18	428	4,510	e2,400	e1,100	e680	16,000	2,520	2,570	2,760	1,430	2,990	1,370
19	745	3,640	e2,450	e1,100	e690	16,800	2,280	2,250	2,470	2,160	2,410	1,240
20	1,250	2,900	5,600	e1,050	e710	17,300	2,090	2,010	2,150	1,320	2,020	1,520
21	1,080	2,880	9,120	e1,000	e720	20,100	2,020	2,380	2,340	1,970	1,740	1,550
22	1,040	2,860	6,920	e950	e850	23,100	2,150	2,470	3,000	16,100	1,570	1,240
23	806	3,530	5,280	e850	e1,500	21,900	2,080	2,070	2,370	18,700	1,390	2,050
24	611	3,130	4,240	e800	e3,400	18,700	1,870	2,100	1,990	16,400	1,230	2,810
25	510	2,730	3,600	e820	e3,800	15,000	1,680	2,240	1,750	15,700	1,100	2,220
26	673	2,540	3,220	e830	e3,000	13,600	1,570	2,020	1,540	11,000	1,040	2,220
27	993	2,290	2,800	e800	e2,600	11,400	1,500	1,820	1,350	7,920	1,510	2,070
28	1,040	2,080	2,370	e750	e2,400	8,710	1,400	1,770	1,200	7,650	1,410	2,670
29	789	1,900	2,270	e700	---	6,930	1,300	1,670	1,070	6,350	1,140	4,620
30	660	1,850	2,040	e720	---	6,360	1,210	1,560	973	4,730	1,350	4,510
31	595	---	2,450	e740	---	5,300	---	1,770	---	3,560	1,270	---
TOTAL	17,793	57,028	90,630	65,980	36,020	249,300	137,820	63,400	93,543	131,261	158,340	75,700
MEAN	574	1,901	2,924	2,128	1,286	8,042	4,594	2,045	3,118	4,234	5,108	2,523
MAX	1,250	4,510	9,120	6,550	3,800	23,100	14,900	3,570	6,690	18,700	13,200	5,940
MIN	247	597	950	700	660	1,550	1,210	1,150	973	622	1,040	1,090
CFSM	0.36	1.18	1.82	1.32	0.80	5.00	2.86	1.27	1.94	2.63	3.18	1.57
IN.	0.41	1.32	2.10	1.53	0.83	5.77	3.19	1.47	2.16	3.04	3.66	1.75

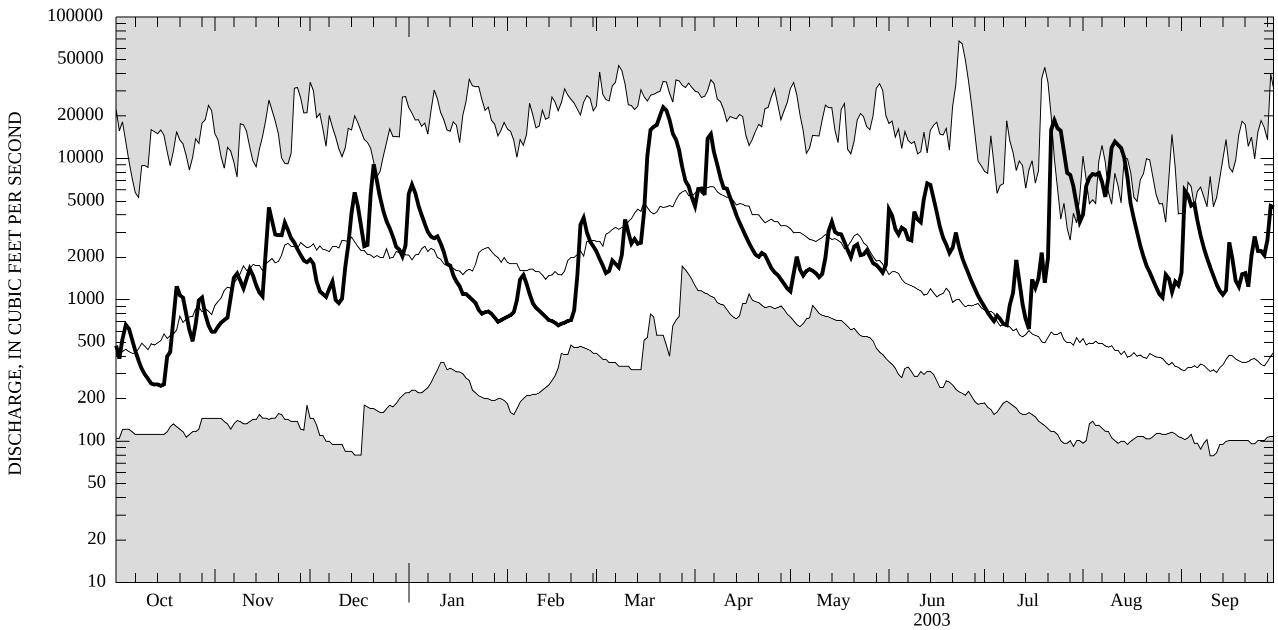
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1,322	2,502	3,070	3,312	3,178	5,919	5,815	3,455	2,036	1,114	757	838
MAX	5,801	8,605	9,147	10,200	9,683	14,850	15,540	9,574	11,520	6,074	5,108	7,477
(WY)	(1991)	(1928)	(1928)	(1913)	(1976)	(1936)	(1940)	(1943)	(1972)	(1942)	(2003)	(1977)
MIN	124	146	189	255	550	1,983	970	796	299	150	119	118
(WY)	(1931)	(1931)	(1961)	(1961)	(1905)	(1937)	(1946)	(1985)	(1934)	(1934)	(1930)	(1932)

03011020 ALLEGHENY RIVER AT SALAMANCA, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1904 - 2003	
ANNUAL TOTAL	1,023,095		1,176,815			
ANNUAL MEAN	2,803		3,224		2,773	
HIGHEST ANNUAL MEAN					4,174	1916
LOWEST ANNUAL MEAN					1,777	1999
HIGHEST DAILY MEAN	16,200	Feb 1	23,100	Mar 22	67,900	Jun 23, 1972
LOWEST DAILY MEAN	151	Sep 13	247	Oct 15	79	Sep 10, 1971
ANNUAL SEVEN-DAY MINIMUM	165	Sep 8	262	Oct 10	84	Dec 11, 1908
ANNUAL RUNOFF (CFSM)	1.74		2.01		1.72	
ANNUAL RUNOFF (INCHES)	23.67		27.22		23.43	
10 PERCENT EXCEEDS	6,260		7,070		6,700	
50 PERCENT EXCEEDS	2,170		1,970		1,510	
90 PERCENT EXCEEDS	320		710		289	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

03013946 CHAUTAUQUA LAKE AT BEMUS POINT, NY

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

DRAINAGE AREA.--189 mi^2.

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

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,311.23 ft, Mar. 5, 1976; minimum, 1,306.20 ft, Dec. 16, 1998.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,309.15 ft, Apr. 5, 6; minimum elevation, 1,306.97 ft, Feb. 22.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,307.53	1,307.49	1,307.85	1,308.41	1,307.25	1,307.15	1,308.98	1,308.05	1,308.41	1,308.18	1,308.42	1,308.48
2	1,307.52	1,307.49	1,307.83	1,308.51	1,307.21	1,307.14	1,309.00	1,308.13	1,308.42	1,308.17	1,308.35	1,308.71
3	1,307.57	1,307.49	1,307.81	1,308.51	1,307.18	1,307.12	1,308.96	1,308.16	1,308.43	1,308.16	1,308.27	1,308.76
4	1,307.57	1,307.48	1,307.75	1,308.49	1,307.24	1,307.11	1,308.92	1,308.16	1,308.42	1,308.15	1,308.22	1,308.74
5	1,307.57	1,307.48	1,307.71	1,308.44	1,307.34	1,307.11	1,309.09	1,308.16	1,308.44	1,308.20	1,308.22	1,308.66
6	1,307.55	1,307.50	1,307.68	1,308.40	1,307.36	1,307.13	1,309.12	1,308.24	1,308.45	1,308.19	1,308.24	1,308.58
7	1,307.52	1,307.52	1,307.63	1,308.35	1,307.36	1,307.12	1,309.09	1,308.29	1,308.45	1,308.19	1,308.27	1,308.50
8	1,307.50	1,307.52	1,307.61	1,308.30	1,307.34	1,307.11	1,309.06	1,308.32	1,308.46	1,308.18	1,308.29	1,308.42
9	1,307.48	1,307.51	1,307.55	1,308.24	1,307.32	1,307.16	1,309.01	1,308.34	1,308.50	1,308.25	1,308.33	1,308.34
10	1,307.46	1,307.52	1,307.51	1,308.21	1,307.30	1,307.21	1,308.97	1,308.35	1,308.49	1,308.27	1,308.41	1,308.28
11	1,307.46	1,307.65	1,307.48	1,308.17	1,307.28	1,307.20	1,308.94	1,308.37	1,308.49	1,308.27	1,308.43	1,308.27
12	1,307.44	1,307.70	1,307.53	1,308.14	1,307.26	1,307.18	1,308.88	1,308.42	1,308.51	1,308.26	1,308.44	1,308.26
13	1,307.43	1,307.71	1,307.55	1,308.08	1,307.23	1,307.19	1,308.81	1,308.69	1,308.64	1,308.24	1,308.42	1,308.23
14	1,307.42	1,307.70	1,307.68	1,308.03	1,307.19	1,307.18	1,308.73	1,308.97	1,308.65	1,308.23	1,308.38	1,308.23
15	1,307.39	1,307.69	1,307.80	1,307.99	1,307.16	1,307.17	1,308.64	1,308.95	1,308.60	1,308.21	1,308.34	1,308.24
16	1,307.40	1,307.69	1,307.85	1,307.94	1,307.13	1,307.23	1,308.57	1,308.89	1,308.51	1,308.24	1,308.31	1,308.24
17	1,307.42	1,307.75	1,307.83	1,307.89	1,307.11	1,307.47	1,308.49	1,308.81	1,308.42	1,308.23	1,308.33	1,308.23
18	1,307.42	1,307.83	1,307.80	1,307.84	1,307.10	1,307.82	1,308.39	1,308.71	1,308.34	1,308.24	1,308.29	1,308.21
19	1,307.47	1,307.86	1,307.78	1,307.79	1,307.06	1,308.12	1,308.31	1,308.62	1,308.29	1,308.23	1,308.26	1,308.20
20	1,307.53	1,307.88	1,308.06	1,307.75	1,307.03	1,308.39	1,308.22	1,308.53	1,308.28	1,308.21	1,308.25	1,308.18
21	1,307.53	1,307.89	1,308.26	1,307.71	1,307.00	1,308.58	1,308.21	1,308.48	1,308.29	1,308.24	1,308.23	1,308.18
22	1,307.52	1,307.96	1,308.27	1,307.66	1,306.99	1,308.74	1,308.18	1,308.42	1,308.29	1,308.34	1,308.26	1,308.18
23	1,307.51	1,308.06	1,308.25	1,307.62	1,307.11	1,308.82	1,308.14	1,308.35	1,308.29	1,308.39	1,308.26	1,308.31
24	1,307.50	1,308.05	1,308.22	1,307.58	1,307.19	1,308.81	1,308.11	1,308.36	1,308.28	1,308.45	1,308.24	1,308.34
25	1,307.49	1,308.02	1,308.21	1,307.53	1,307.21	1,308.82	1,308.09	1,308.33	1,308.28	1,308.45	1,308.22	1,308.33
26	1,307.52	1,307.99	1,308.19	1,307.49	1,307.21	1,309.06	1,308.07	1,308.26	1,308.27	1,308.38	1,308.29	1,308.32
27	1,307.53	1,307.96	1,308.13	1,307.45	1,307.19	1,309.12	1,308.06	1,308.22	1,308.25	1,308.43	1,308.34	1,308.41
28	1,307.53	1,307.92	1,308.08	1,307.40	1,307.18	1,309.10	1,308.06	1,308.23	1,308.23	1,308.66	1,308.33	1,308.50
29	1,307.52	1,307.87	1,308.04	1,307.37	---	1,309.08	1,308.05	1,308.24	1,308.21	1,308.62	1,308.36	1,308.50
30	1,307.50	1,307.84	1,307.99	1,307.32	---	1,309.09	1,308.05	1,308.24	1,308.20	1,308.55	1,308.41	1,308.53
31	1,307.47	---	1,308.11	1,307.28	---	1,309.03	---	1,308.30	---	1,308.48	1,308.38	---
MEAN	1,307.49	1,307.73	1,307.87	1,307.93	1,307.20	1,307.89	1,308.57	1,308.41	1,308.39	1,308.30	1,308.32	1,308.38
MAX	1,307.57	1,308.06	1,308.27	1,308.51	1,307.36	1,309.12	1,309.12	1,308.97	1,308.65	1,308.66	1,308.44	1,308.76
MIN	1,307.39	1,307.48	1,307.48	1,307.28	1,306.99	1,307.11	1,308.05	1,308.05	1,308.20	1,308.15	1,308.22	1,308.18

CAL YR 2002 MEAN 1,307.96 MAX 1,309.62 MIN 1,306.86
WTR YR 2003 MEAN 1,308.05 MAX 1,309.12 MIN 1,306.99

03014500 CHADAKOIN RIVER AT FALCONER, NY

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

DRAINAGE AREA.--194 mi^2.

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

REVISED RECORDS.--WSP 803: 1936(M). WDR NY-98-3: 1997 (M).

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,250 ft^3/s, Sept. 14, 1979, gage height, 4.93 ft; minimum discharge, 2.5 ft^3/s, Sept. 18, 1995; minimum gage height, 0.05 ft, Oct. 3, 2001.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,040 ft^3/s, May 15, gage height, 2.59 ft; minimum discharge, 58 ft^3/s, Oct. 27, 28, gage height, 0.58 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	144	583	661	409	387	906	e98	92	e85	595	399
2	64	142	535	666	404	388	907	122	90	e85	652	453
3	69	141	535	666	390	361	898	99	136	e85	634	499
4	62	139	538	681	437	324	887	98	229	e85	277	553
5	62	128	535	739	447	375	956	100	232	e90	139	675
6	62	124	527	750	439	386	962	99	231	e90	138	646
7	62	120	522	738	443	377	905	99	231	e90	140	629
8	61	118	507	729	432	378	901	70	244	e90	134	608
9	66	117	512	720	429	399	901	68	323	e95	196	573
10	68	119	478	712	428	405	887	68	417	e95	340	238
11	68	119	473	701	418	399	870	72	433	89	343	111
12	68	113	501	689	418	395	881	332	478	88	341	110
13	69	144	503	677	408	397	862	699	e810	90	340	108
14	67	155	544	662	398	395	833	870	e790	89	354	109
15	66	188	560	646	390	372	834	932	e790	99	340	114
16	74	191	581	632	381	394	854	921	e770	99	326	106
17	67	211	567	619	374	440	816	899	e520	95	326	106
18	65	216	553	599	374	508	786	885	e500	100	321	212
19	74	205	549	586	365	576	782	848	e150	97	153	534
20	65	209	592	581	358	638	762	831	e100	98	81	320
21	64	209	612	565	349	693	728	785	e100	228	79	124
22	63	269	618	551	361	748	596	654	e100	510	84	141
23	62	474	624	534	417	806	519	648	e92	540	77	128
24	62	589	624	519	400	814	311	652	e92	596	76	145
25	65	612	624	503	397	845	310	648	e90	626	75	206
26	63	608	625	490	378	927	212	645	e90	730	102	205
27	59	607	618	481	381	940	113	249	e90	764	74	254
28	59	598	611	463	395	919	113	89	e90	693	69	311
29	109	592	609	456	---	929	103	88	e95	688	119	366
30	141	591	599	428	---	947	e95	87	e98	674	242	523
31	140	---	641	415	---	935	---	107	---	638	330	---
TOTAL	2,210	8,192	17,500	18,859	11,220	17,797	20,490	12,862	8,503	8,521	7,497	9,506
MEAN	71.3	273	565	608	401	574	683	415	283	275	242	317
MAX	141	612	641	750	447	947	962	932	810	764	652	675
MIN	59	113	473	415	349	324	95	68	90	85	69	106

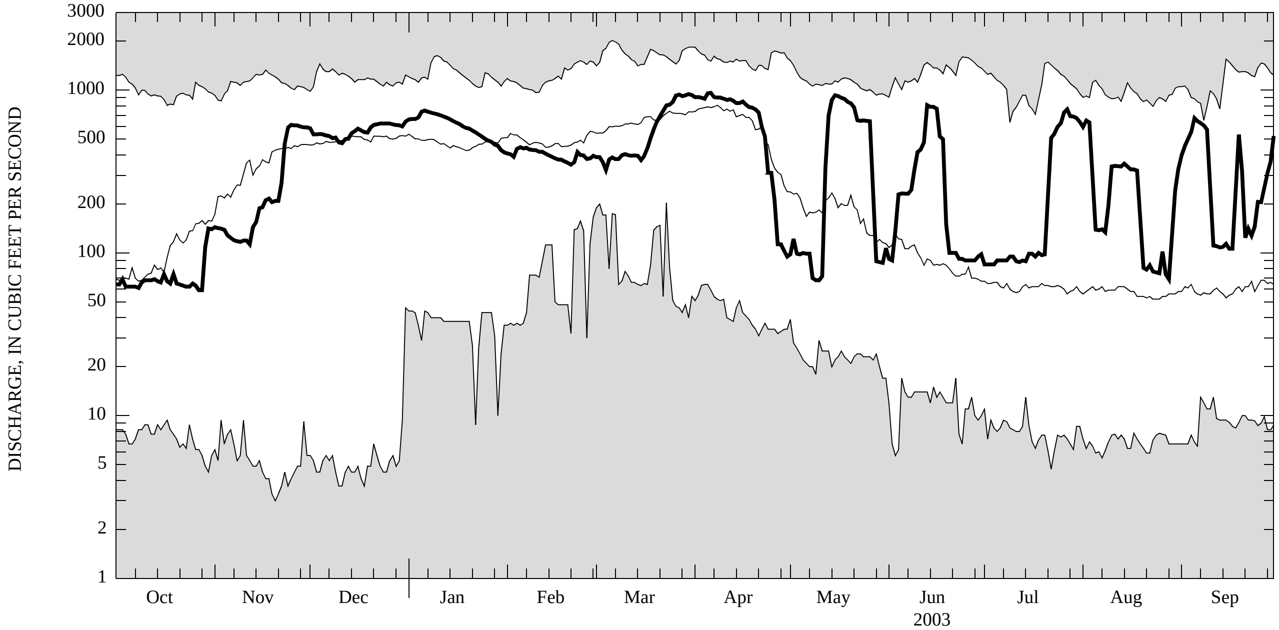
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	207	377	502	518	521	677	632	310	209	119	108	150
MAX	751	997	997	1,120	989	1,358	1,305	974	852	729	540	705
(WY)	(1946)	(1986)	(1951)	(1998)	(1990)	(1976)	(1947)	(1943)	(1986)	(1986)	(1977)	(1977)
MIN	8.12	5.69	6.38	36.3	195	282	53.1	58.5	15.1	8.55	7.44	17.8
(WY)	(1964)	(1961)	(1961)	(1961)	(1963)	(1983)	(1946)	(1941)	(1954)	(1954)	(1954)	(1941)

03014500 CHADAKOIN RIVER AT FALCONER, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1935 - 2003	
ANNUAL TOTAL	144,247		143,157			
ANNUAL MEAN	395		392		361	
HIGHEST ANNUAL MEAN					527	1986
LOWEST ANNUAL MEAN					222	1999
HIGHEST DAILY MEAN	1,190	May 18	962	Apr 6	2,020	Mar 6, 1976
LOWEST DAILY MEAN	37	Jul 25	59	Oct 27	3.0	Nov 20, 1960
ANNUAL SEVEN-DAY MINIMUM	43	Jul 20	62	Oct 22	3.7	Nov 18, 1960
10 PERCENT EXCEEDS	853		788		828	
50 PERCENT EXCEEDS	311		387		286	
90 PERCENT EXCEEDS	62		77		37	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

LAKES IN ALLEGHENY RIVER BASIN

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

04213500 CATTARAUGUS CREEK AT GOWANDA, NY

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 mi^2.

PERIOD OF RECORD.--November 1939 to March 1998, October 1999 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 738.85 ft above NGVD of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Diurnal fluctuation at low and medium flow caused by powerplant 20 mi upstream from station. Telephone and satellite gage-height telemeters at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 34,600 ft^3/s, Mar. 7, 1956, gage height, 14.03 ft; minimum discharge, about 6 ft^3/s, Aug. 21, 1941, result of regulation; minimum gage height, 0.90 ft, Oct. 26, 1951.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 26	0835	*8,110	*6.87	No other peak greater than base discharge.			

Minimum discharge, 126 ft^3/s, Oct. 15, 16, gage height, 1.32 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	163	320	813	3,520	e280	672	1,270	379	963	227	338	298
2	147	399	690	1,650	e320	674	2,280	541	577	215	325	1,140
3	330	358	523	1,130	e350	578	1,490	536	421	220	339	626
4	305	373	e550	975	e1,100	e580	1,320	428	390	205	460	410
5	223	423	e550	846	1,310	687	3,600	394	611	209	566	317
6	192	608	548	777	e1,000	786	2,290	614	656	222	682	279
7	167	780	519	701	e900	637	1,580	535	499	270	509	247
8	151	576	538	725	e700	725	1,340	458	505	255	638	227
9	142	442	401	759	e580	1,360	1,310	417	2,020	258	1,230	215
10	136	390	e440	e800	e520	1,080	1,320	389	888	255	1,200	204
11	133	613	537	e650	e500	855	1,420	1,030	686	285	1,370	193
12	131	553	e1,300	e600	e450	e830	1,130	1,430	747	258	1,270	183
13	136	422	1,170	e520	e400	e790	929	3,630	2,100	222	943	175
14	138	357	2,550	e480	e380	672	811	2,580	1,390	198	554	173
15	129	320	1,860	e460	e360	e760	727	1,380	855	181	413	187
16	e150	334	1,350	e440	e320	1,980	662	1,140	609	219	355	406
17	e230	1,150	915	e440	e280	4,850	601	931	485	210	332	310
18	e240	1,300	766	e400	e280	6,040	571	734	443	231	300	228
19	e400	868	871	e420	e300	4,850	531	596	432	238	272	208
20	e620	1,210	4,010	e400	e300	5,280	503	523	401	192	249	277
21	e400	1,280	2,340	e360	e310	6,390	616	1,140	400	220	232	235
22	275	1,270	1,380	e350	e350	4,960	686	708	428	602	220	208
23	236	1,340	1,070	e320	e1,600	3,210	693	546	353	1,150	207	367
24	210	907	882	e300	e1,400	2,530	594	543	313	2,560	194	346
25	195	833	805	e290	e1,050	2,780	521	515	289	1,170	187	258
26	236	765	743	e280	e800	6,120	484	448	270	584	206	223
27	251	666	680	e260	e750	3,050	460	416	255	1,170	405	228
28	219	590	638	e260	e720	2,130	430	441	242	1,150	252	318
29	196	567	624	e260	---	2,070	403	388	231	616	273	278
30	185	729	594	e250	---	1,850	385	357	239	408	387	401
31	177	---	2,590	e250	---	1,410	---	434	---	331	278	---
TOTAL	6,843	20,743	33,247	19,873	17,610	71,186	30,957	24,601	18,698	14,531	15,186	9,165
MEAN	221	691	1,072	641	629	2,296	1,032	794	623	469	490	306
MAX	620	1,340	4,010	3,520	1,600	6,390	3,600	3,630	2,100	2,560	1,370	1,140
MIN	129	320	401	250	280	578	385	357	231	181	187	173
CFSM	0.51	1.59	2.46	1.47	1.44	5.27	2.37	1.82	1.43	1.08	1.12	0.70
IN.	0.58	1.77	2.84	1.70	1.50	6.07	2.64	2.10	1.60	1.24	1.30	0.78

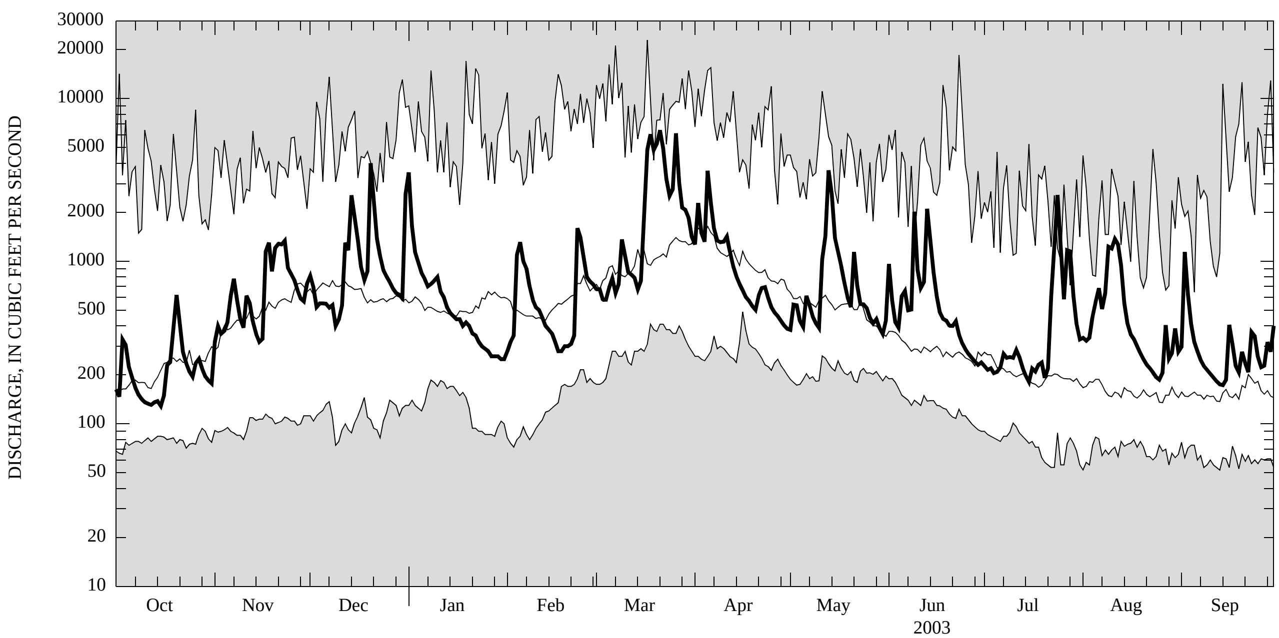
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	404	713	951	846	954	1,583	1,451	749	497	293	251	318
MAX	1,573	1,772	2,089	2,305	2,819	3,824	3,686	1,948	1,436	867	1,225	2,423
(WY)	(1946)	(1986)	(1991)	(1998)	(1976)	(1945)	(1947)	(1943)	(1989)	(1986)	(1977)	(1977)
MIN	81.8	118	111	136	222	790	279	283	143	78.3	79.5	85.8
(WY)	(1964)	(1961)	(1961)	(1961)	(1963)	(2001)	(1946)	(1941)	(1955)	(1955)	(1941)	(1960)

04213500 CATTARAUGUS CREEK AT GOWANDA, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1940 - 2003	
ANNUAL TOTAL	310,503		282,640			
ANNUAL MEAN	851		774		746	
HIGHEST ANNUAL MEAN					1,030	1977
LOWEST ANNUAL MEAN					532	1995
HIGHEST DAILY MEAN	10,900	Feb 1	6,390	Mar 21	22,900	Mar 17, 1942
LOWEST DAILY MEAN	101	Sep 10	129	Oct 15	52	Sep 13, 1945
ANNUAL SEVEN-DAY MINIMUM	106	Sep 7	135	Oct 9	57	Sep 7, 1945
ANNUAL RUNOFF (CFSM)	1.95		1.78		1.71	
ANNUAL RUNOFF (INCHES)	26.49		24.12		23.24	
10 PERCENT EXCEEDS	1,690		1,400		1,590	
50 PERCENT EXCEEDS	611		503		421	
90 PERCENT EXCEEDS	143		213		126	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

04214500 BUFFALO CREEK AT GARDENVILLE, NY

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

DRAINAGE AREA.--142 mi^2.

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

REVISED RECORDS.--WSP 1337: 1939-52. WSP 1912; WDR NY-82-3: Drainage area. WDR NY-78-1: 1939-l976 (P).

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

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Telephone and satellite gage-height telemeters at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,300 ft^3/s, Mar. 1, 1955, Mar. 7, 1956, maximum gage height 14.34 ft, Mar. 21, 1978 (ice jam); minimum discharge, 0.2 ft^3/s, Sept. 1, 1964.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 17	2130	*4,290	*6.04	No other peak greater than base discharge.			

Minimum discharge, 15 ft^3/s, Sept. 14, gage height, 0.54 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	36	e210	1,440	e105	e185	228	82	369	37	27	29
2	28	95	e140	451	e110	e180	264	170	227	33	28	95
3	43	68	e130	324	e125	e170	232	239	143	29	32	91
4	59	55	e150	284	e300	e170	260	153	111	27	58	50
5	47	55	e140	240	e440	e200	704	116	152	27	54	40
6	35	84	e130	215	e320	e220	635	186	167	26	462	33
7	30	105	e120	e160	e260	e180	405	237	125	25	106	28
8	26	74	e120	e220	e200	e275	275	168	109	30	125	24
9	23	58	e110	319	e170	e640	290	129	516	32	134	21
10	22	52	e100	e370	e160	e540	304	101	348	38	185	20
11	e20	75	e110	e200	e155	e400	335	617	238	40	178	18
12	21	87	e240	e200	e140	e320	251	639	186	37	306	18
13	22	66	e280	e170	e130	e300	200	1,430	573	32	181	17
14	22	52	e800	e160	e125	e260	167	674	549	27	83	16
15	21	47	e660	e160	e120	e300	151	354	351	25	52	25
16	31	48	e440	e180	e115	e920	135	348	229	31	51	112
17	55	364	e260	e160	e100	2,490	120	311	108	28	45	61
18	56	410	e220	e160	e100	2,440	113	199	76	28	38	39
19	67	206	e300	e150	e100	1,430	106	147	69	27	32	33
20	138	277	2,240	e140	e100	1,660	102	127	69	23	28	32
21	67	261	767	e135	e105	1,930	110	435	71	26	25	30
22	46	327	419	e130	e125	1,490	150	222	78	63	25	32
23	39	499	357	e120	e380	790	165	142	63	129	23	110
24	34	236	300	e115	e360	555	138	176	51	359	23	98
25	31	223	e240	e110	e310	533	111	183	45	205	23	63
26	41	184	e230	e110	e215	1,280	97	122	43	75	20	42
27	46	145	e230	e100	e210	565	89	99	38	48	21	43
28	42	e110	e210	e100	e200	384	81	211	35	42	23	51
29	34	e112	e210	e100	---	373	73	160	35	40	19	59
30	30	e240	e200	e100	---	373	68	110	35	30	27	159
31	28	---	1,340	e100	---	270	---	96	---	25	39	---
TOTAL	1,235	4,651	11,403	6,923	5,280	21,823	6,359	8,383	5,209	1,644	2,473	1,489
MEAN	39.8	155	368	223	189	704	212	270	174	53.0	79.8	49.6
MAX	138	499	2,240	1,440	440	2,490	704	1,430	573	359	462	159
MIN	20	36	100	100	100	170	68	82	35	23	19	16
CFSM	0.28	1.09	2.59	1.57	1.33	4.96	1.49	1.90	1.22	0.37	0.56	0.35
IN.	0.32	1.22	2.99	1.81	1.38	5.72	1.67	2.20	1.36	0.43	0.65	0.39

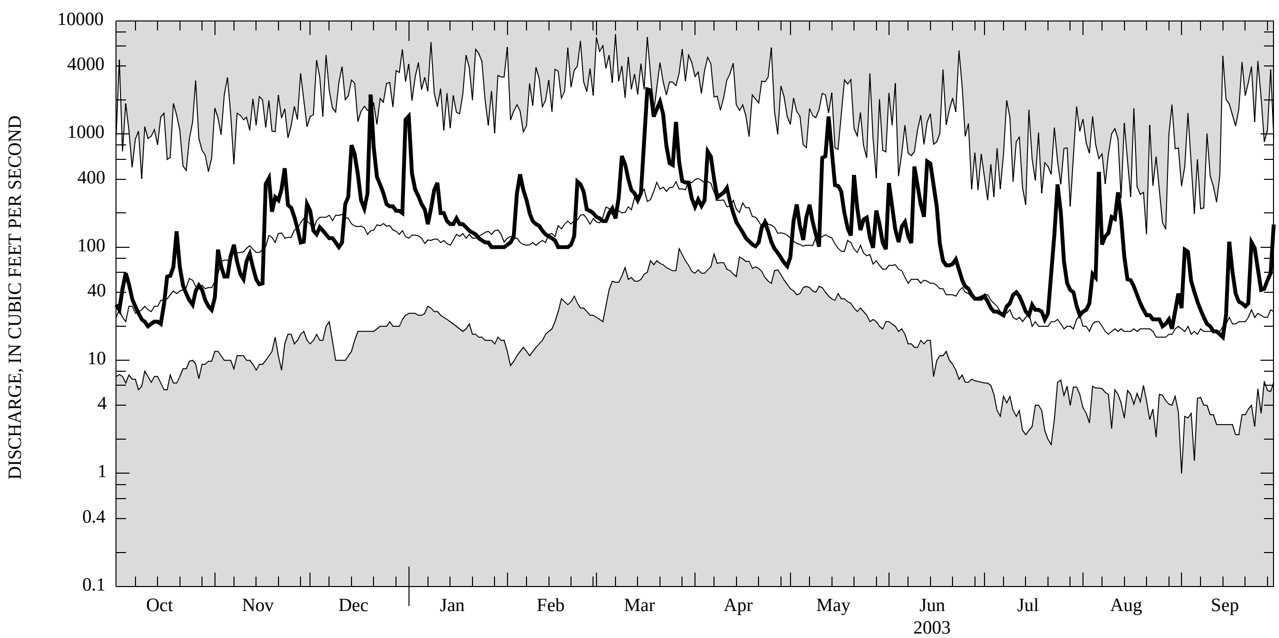
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	90.7	199	287	259	306	490	373	180	105	51.1	46.6	72.1
MAX	381	686	706	725	835	1,048	950	495	531	354	376	827
(WY)	(1987)	(1986)	(1991)	(1998)	(1976)	(1942)	(1947)	(1984)	(1989)	(1992)	(1992)	(1977)
MIN	9.32	18.2	17.4	27.4	40.2	197	68.8	38.5	15.6	6.89	10.8	6.25
(WY)	(1965)	(1961)	(1961)	(1961)	(1963)	(1981)	(1946)	(1941)	(1955)	(1955)	(1966)	(1964)

04214500 BUFFALO CREEK AT GARDENVILLE, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1939 - 2003	
ANNUAL TOTAL	94,149.3		76,872			
ANNUAL MEAN	258		211		204	
HIGHEST ANNUAL MEAN					301	1977
LOWEST ANNUAL MEAN					119	1999
HIGHEST DAILY MEAN	5,900	Feb 1	2,490	Mar 17	7,650	Mar 7, 1956
LOWEST DAILY MEAN	7.3	Sep 13	16	Sep 14	1.0	Sep 1, 1964
ANNUAL SEVEN-DAY MINIMUM	8.7	Sep 8	19	Sep 8	2.6	Sep 13, 1964
ANNUAL RUNOFF (CFSM)	1.82		1.48		1.44	
ANNUAL RUNOFF (INCHES)	24.66		20.14		19.56	
10 PERCENT EXCEEDS	540		414		460	
50 PERCENT EXCEEDS	144		120		88	
90 PERCENT EXCEEDS	16		27		15	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

04215000 CAYUGA CREEK NEAR LANCASTER, NY

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

DRAINAGE AREA.--96.4 mi^2.

PERIOD OF RECORD.--September 1938 to September 1968, October 1971 to April 1974 (annual maximums 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 NGVD of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Since August 1962, undetermined amount of flow diverted by Lancaster Country Club for irrigation upstream from station. Concrete dam configuration modified in September 1974 resulting in a lower point of zero flow. Telephone and satellite gage-height telemeters at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,440 ft^3/s, Sept. 14, 1979, gage height, 10.48 ft; maximum gage height 13.35 ft, Jan. 23, 1999 (ice jam);practically no flow part of Aug. 8, 9, 1939, when stop logs were installed in the dam.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 20	1145	*3,540	7.23	Mar 21	0130	2,880	6.83
Mar 17	2030	a3,500	*b7.75				

Minimum discharge, 2.7 ft^3/s, Sept. 12, 13, gage height, 2.58 ft.

a About.
b Ice jam.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.9	13	e210	1,160	e52	e92	146	48	357	11	8.9	6.0
2	7.7	22	e86	344	e56	e86	161	98	126	10	8.8	14
3	16	23	e76	236	e70	e84	138	103	73	9.2	12	16
4	26	20	e92	205	e320	e78	137	61	61	8.1	19	11
5	16	19	e94	181	e380	e86	375	51	94	7.3	33	13
6	12	27	e86	167	e300	e94	376	122	102	7.3	177	8.8
7	9.2	36	e76	e120	e200	e82	284	94	71	7.1	52	6.6
8	7.3	25	e80	e140	e120	e88	170	66	69	7.9	36	5.1
9	6.2	20	e68	e240	e110	e540	179	54	262	7.5	23	4.4
10	6.0	18	e52	e300	e85	e460	225	46	100	8.2	43	3.8
11	5.7	28	e58	e150	e76	e350	266	324	89	10	137	3.3
12	5.5	38	e90	e150	e72	e200	181	332	101	10	229	2.9
13	5.5	28	e230	e110	e64	e170	138	1,060	390	9.6	151	2.9
14	5.5	22	e720	e100	e61	e140	115	380	252	7.5	45	3.2
15	5.5	20	e600	e84	e56	e140	99	192	126	6.1	28	5.6
16	6.6	21	e360	e78	e49	e700	84	210	75	8.4	21	35
17	22	257	e270	e70	e48	e1,100	73	221	52	8.0	18	19
18	22	232	e200	e60	e48	e2,000	68	128	42	7.3	19	11
19	56	115	e220	e60	e52	1,100	63	88	39	7.8	13	8.5
20	86	171	e2,200	e60	e52	1,340	59	75	35	6.3	10	6.1
21	31	125	634	e50	e54	1,570	71	319	36	7.3	8.5	5.7
22	20	226	351	e48	e60	1,030	84	127	40	16	7.8	5.7
23	19	364	e250	e52	e200	563	107	81	30	22	6.8	31
24	18	154	e220	e50	e340	374	84	135	23	211	5.9	29
25	14	140	e170	e48	e290	372	66	120	20	77	5.2	18
26	20	109	e150	e50	e170	869	57	75	17	29	5.2	12
27	29	83	e160	e50	e120	341	51	63	14	18	5.7	11
28	22	64	e150	e52	e100	230	45	98	13	16	5.0	17
29	17	62	e140	e54	---	233	40	69	12	13	4.8	16
30	14	241	e140	e50	---	230	37	52	12	10	4.8	25
31	12	---	e1,200	e48	---	165	---	58	---	7.9	5.6	---
TOTAL	552.6	2,723	9,433	4,567	3,605	14,907	3,979	4,950	2,733	591.8	1,149.0	356.6
MEAN	17.8	90.8	304	147	129	481	133	160	91.1	19.1	37.1	11.9
MAX	86	364	2,200	1,160	380	2,000	376	1,060	390	211	229	35
MIN	5.5	13	52	48	48	78	37	46	12	6.1	4.8	2.9
CFSM	0.18	0.94	3.16	1.53	1.34	4.99	1.38	1.66	0.95	0.20	0.38	0.12
IN.	0.21	1.05	3.64	1.76	1.39	5.75	1.54	1.91	1.05	0.23	0.44	0.14

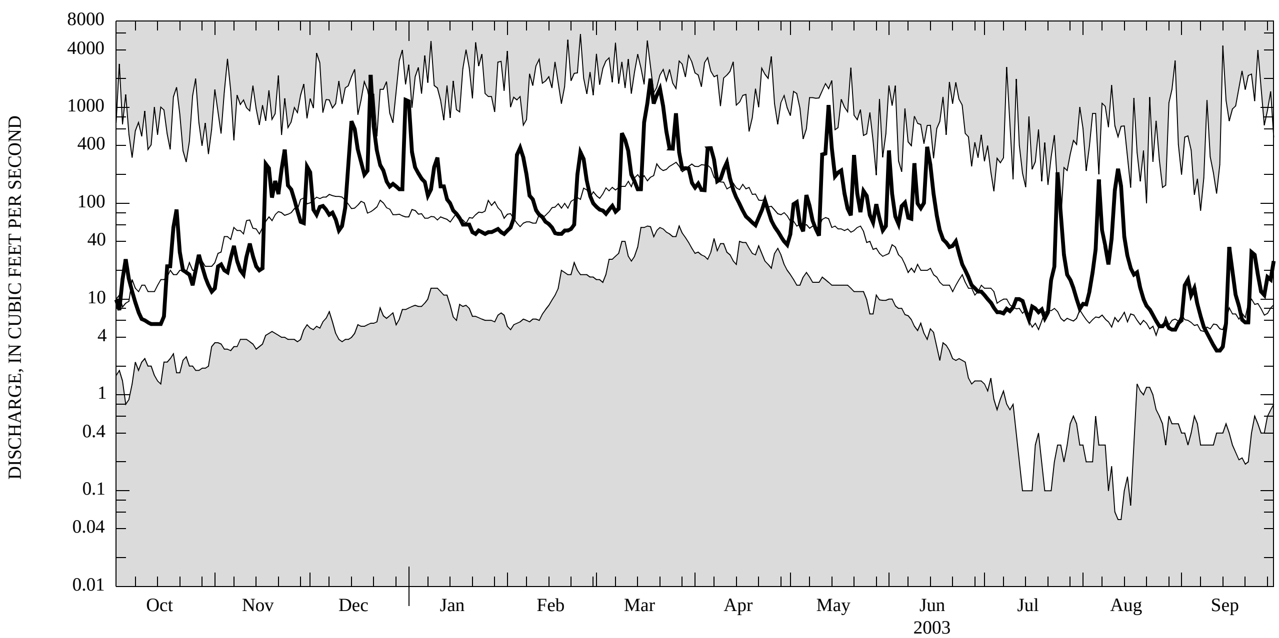
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	58.3	126	187	177	216	339	248	111	56.1	24.3	30.1	46.5
MAX	252	601	505	543	457	680	623	343	338	166	323	572
(WY)	(1987)	(1986)	(1978)	(1998)	(1976)	(1942)	(1940)	(2002)	(1989)	(1998)	(1977)	(1977)
MIN	2.90	4.34	5.60	9.85	25.1	146	36.5	18.7	5.88	1.06	1.87	0.80
(WY)	(1967)	(1961)	(1961)	(1961)	(1963)	(1981)	(1946)	(1941)	(1955)	(1955)	(1939)	(1960)

04215000 CAYUGA CREEK NEAR LANCASTER, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1939 - 2003	
ANNUAL TOTAL	64,540.0		49,547.0			
ANNUAL MEAN	177		136		135	
HIGHEST ANNUAL MEAN					206	1956
LOWEST ANNUAL MEAN					78.5	1962
HIGHEST DAILY MEAN	3,900	Feb 1	2,200	Dec 20	5,830	Feb 24, 1985
LOWEST DAILY MEAN	1.7	Sep 9	2.9	Sep 12	0.05	Aug 12, 2001
ANNUAL SEVEN-DAY MINIMUM	2.2	Aug 9	3.7	Sep 8	0.09	Aug 10, 2001
ANNUAL RUNOFF (CFSM)	1.83		1.41		1.40	
ANNUAL RUNOFF (INCHES)	24.91		19.12		18.97	
10 PERCENT EXCEEDS	402		319		310	
50 PERCENT EXCEEDS	85		60		48	
90 PERCENT EXCEEDS	4.2		7.3		4.0	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

04215500 CAZENOVIA CREEK AT EBENEZER, NY

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

DRAINAGE AREA.--135 mi^2.

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

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

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,500 ft^3/s, Mar. 1, 1955, gage height, 15.82 ft, present datum; minimum discharge, 2.6 ft^3/s, Nov. 7, 1953; minimum gage height, 1.76 ft, Sept. 15, 1991.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 20	1215	4,530	8.20	Mar 17	0145	*a5,000	*b11.63
Dec 31	2200	4,050	7.78	Mar 21	0045	4,270	7.98

Minimum discharge, 15 ft^3/s, Aug. 25, gage height, 2.18 ft.

a About.
a Ice jam.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	80	344	1,850	e120	e200	271	101	464	35	38	33
2	32	119	e190	565	e130	e190	355	270	161	30	35	220
3	55	63	e180	349	e140	e185	282	207	100	28	41	119
4	54	57	e200	290	e280	e180	324	122	100	25	173	74
5	39	65	e200	234	e480	e220	1,210	103	149	23	266	49
6	32	148	e190	214	e325	e240	644	339	158	22	457	36
7	27	149	e180	193	e240	e220	406	202	107	24	129	31
8	22	90	e190	217	e200	e320	298	143	140	36	79	26
9	19	61	e160	324	e190	e1,000	299	118	503	35	64	24
10	18	54	e140	e340	e180	e650	321	100	181	46	93	22
11	17	160	e140	e280	e175	e440	381	936	150	42	95	21
12	18	158	e230	e270	e170	e350	247	1,020	161	43	217	20
13	20	77	e320	e220	e160	e300	198	2,710	855	36	104	19
14	20	59	e930	e210	e150	e270	169	1,150	439	28	66	22
15	18	53	e780	e200	e140	e360	155	459	217	29	50	36
16	39	53	e600	e210	e135	e1,200	142	426	138	38	50	69
17	75	451	e350	e180	e120	e3,000	128	265	100	37	45	38
18	58	421	e320	e170	e120	e2,800	120	180	83	36	37	21
19	178	220	e400	e170	e125	1,930	112	133	79	29	32	17
20	196	356	2,940	e160	e130	2,530	107	154	74	22	28	19
21	57	366	938	e155	e140	2,730	135	672	79	32	24	29
22	41	619	507	e150	e150	2,130	175	192	91	110	32	31
23	33	635	370	e145	e450	1,170	205	129	69	383	21	151
24	27	268	299	e140	e640	941	161	187	56	809	19	126
25	24	238	242	e135	e350	1,160	127	156	49	259	17	61
26	35	218	227	e135	e230	2,190	109	108	42	99	26	36
27	47	182	208	e130	e200	846	98	93	38	62	58	45
28	36	151	200	e130	e210	589	88	140	35	96	31	93
29	29	e200	201	e125	---	697	80	97	36	63	24	98
30	25	432	198	e120	---	550	74	79	35	42	35	280
31	23	---	2,020	e120	---	341	---	102	---	33	32	---
TOTAL	1,343	6,203	14,394	8,131	6,080	29,929	7,421	11,093	4,889	2,632	2,418	1,866
MEAN	43.3	207	464	262	217	965	247	358	163	84.9	78.0	62.2
MAX	196	635	2,940	1,850	640	3,000	1,210	2,710	855	809	457	280
MIN	17	53	140	120	120	180	74	79	35	22	17	17
CFSM	0.32	1.53	3.44	1.94	1.61	7.15	1.83	2.65	1.21	0.63	0.58	0.46
IN.	0.37	1.71	3.97	2.24	1.68	8.25	2.04	3.06	1.35	0.73	0.67	0.51

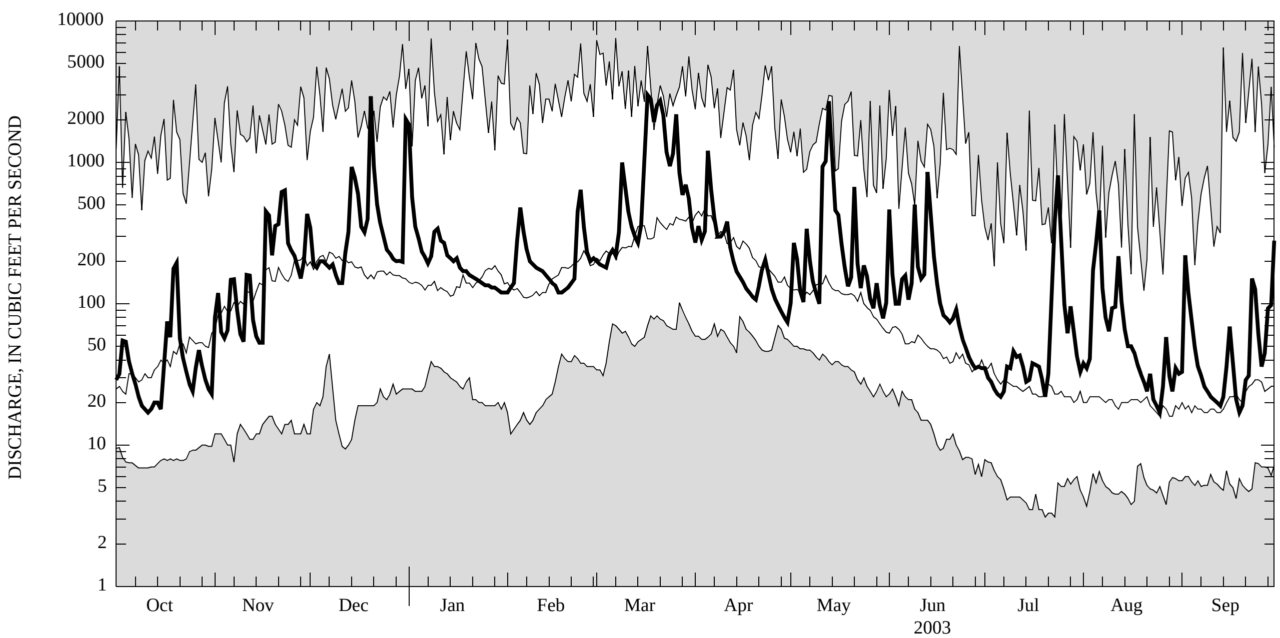
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	110	244	345	306	342	550	418	209	112	53.0	50.1	81.5
MAX	410	705	868	816	859	1,062	1,005	585	473	381	371	978
(WY)	(1946)	(1986)	(1991)	(1998)	(1976)	(1945)	(1947)	(1984)	(1989)	(1992)	(1977)	(1977)
MIN	9.76	16.2	20.4	37.8	55.8	216	79.9	43.6	17.5	6.11	9.62	7.93
(WY)	(1954)	(1961)	(1961)	(1961)	(1963)	(1981)	(1946)	(1941)	(1955)	(1955)	(1966)	(1960)

04215500 CAZENOVIA CREEK AT EBENEZER, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1940 - 2003	
ANNUAL TOTAL	114,229.0		96,399			
ANNUAL MEAN	313		264		235	
HIGHEST ANNUAL MEAN					332	1977
LOWEST ANNUAL MEAN					145	1999
HIGHEST DAILY MEAN	7,390	Feb 1	3,000	Mar 17	7,560	Mar 7, 1956
LOWEST DAILY MEAN	7.6	Sep 9	17	Oct 11	3.1	Jul 20, 1955
ANNUAL SEVEN-DAY MINIMUM	9.5	Sep 4	19	Oct 9	3.5	Jul 17, 1955
ANNUAL RUNOFF (CFSM)	2.32		1.96		1.74	
ANNUAL RUNOFF (INCHES)	31.48		26.56		23.61	
10 PERCENT EXCEEDS	715		556		546	
50 PERCENT EXCEEDS	174		140		100	
90 PERCENT EXCEEDS	18		28		15	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

04215900 LAKE ERIE AT BUFFALO, NY

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

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

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

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

GAGE.--Water-stage recorder. Elevations are in feet International Great Lakes Datum (IGLD) of 1985. Prior to Oct. 1, 1991, elevations are in feet (IGLD) of 1955, 0.67 ft lower. Prior to Feb. 5, 1899, nonrecording gages.

COOPERATION.--Records furnished by U.S. Department of Commerce, NOAA-NOS, Oceanographic Products and Services Division, Silver Spring, Maryland.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 580.65 ft, datum then in use, Dec. 2, 1985; minimum elevation, 564.17 ft, datum then in use, Mar. 10, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 574.40 ft, Oct. 5; minimum elevation, 567.77 ft, Apr. 17.

ELEVATION (FEET IGLD)
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	571.09	571.13	571.66	569.39	569.96	569.82	570.32	570.68	571.25	571.34	571.36	570.75
2	571.06	571.10	570.41	569.24	569.95	570.01	570.14	570.64	571.43	571.31	571.40	570.62
3	570.48	570.35	570.24	570.36	569.75	569.83	569.50	570.55	571.06	571.35	571.43	571.07
4	571.07	570.68	570.30	570.59	571.10	569.81	569.14	570.51	571.02	571.51	571.44	571.23
5	571.51	570.00	570.18	570.31	570.21	569.85	570.96	570.55	571.51	571.64	571.46	571.10
6	570.84	570.71	570.94	570.48	569.94	569.78	570.32	570.83	571.28	571.42	571.54	571.12
7	571.58	570.54	571.48	571.32	569.95	569.85	568.86	570.81	571.18	571.51	571.45	571.23
8	570.60	570.90	570.74	571.02	570.30	569.84	570.25	570.82	571.23	571.54	571.42	570.69
9	570.74	570.35	570.39	571.14	570.10	570.05	570.36	570.68	571.61	571.39	571.40	570.60
10	570.64	570.36	570.42	571.13	570.00	570.04	570.42	570.90	571.24	571.26	571.50	570.85
11	570.37	570.83	569.98	571.74	570.04	569.91	570.58	571.45	571.38	572.46	571.41	570.81
12	570.62	570.22	570.22	571.24	570.44	569.85	570.76	572.15	570.90	572.18	571.30	570.79
13	571.09	570.63	569.94	571.41	569.92	569.73	570.65	571.44	571.50	571.58	571.39	570.76
14	570.52	570.60	570.15	570.39	569.80	569.86	570.66	571.13	571.42	571.44	571.43	570.85
15	570.61	570.01	570.84	571.06	569.15	569.87	570.85	570.79	571.34	571.54	571.51	571.19
16	570.60	569.11	570.21	570.59	568.56	569.93	570.09	570.93	571.13	571.73	571.59	571.07
17	570.71	570.22	569.61	570.23	568.84	569.95	569.17	570.93	571.26	571.61	571.13	570.81
18	570.90	571.07	569.91	570.61	569.60	569.69	570.59	571.02	571.35	571.45	571.32	570.41
19	571.76	570.74	570.14	571.01	569.95	569.37	570.56	570.98	571.36	571.46	571.31	570.83
20	570.76	570.53	571.43	570.71	569.84	569.97	570.64	571.20	571.27	571.41	571.30	571.00
21	570.39	570.25	572.42	570.27	569.77	570.16	570.75	571.02	571.38	571.56	571.40	570.62
22	570.45	570.22	571.47	570.21	569.51	570.31	571.06	570.84	571.53	571.39	571.42	571.10
23	570.25	571.25	572.11	570.22	570.16	570.25	570.92	570.94	571.48	571.39	571.22	571.52
24	570.14	570.65	569.92	570.21	569.95	570.14	570.68	571.18	571.41	571.66	571.16	571.08
25	570.10	570.50	569.77	570.35	569.88	570.30	570.56	571.14	571.45	571.56	571.56	571.27
26	570.68	570.24	570.88	570.15	569.85	570.26	570.66	571.19	571.50	571.68	571.47	570.70
27	570.75	570.33	570.67	570.01	569.82	570.09	570.65	571.20	571.64	571.95	571.28	571.29
28	570.31	571.16	570.87	569.96	569.87	570.19	570.75	571.24	571.42	571.43	571.09	571.09
29	569.65	572.14	570.28	569.99	---	570.60	570.67	571.22	571.49	571.47	571.50	571.23
30	569.72	571.34	570.09	569.93	---	570.45	570.44	571.19	571.46	571.27	570.98	571.59
31	570.54	---	570.49	569.88	---	570.46	---	570.93	---	571.31	571.00	---
MEAN	570.66	570.61	570.59	570.49	569.86	570.01	570.40	571.00	571.35	571.54	571.36	570.98
MAX	571.76	572.14	572.42	571.74	571.10	570.60	571.06	572.15	571.64	572.46	571.59	571.59
MIN	569.65	569.11	569.61	569.24	568.56	569.37	568.86	570.51	570.90	571.26	570.98	570.41

WTR YR 2003 MEAN 570.74 MAX 572.46 MIN 568.56

04216000 NIAGARA RIVER AT BUFFALO, NY

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

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

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

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

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

REMARKS.--Records do not include water diverted from Lake Michigan by Illinois and Michigan Canal during period of its operation prior to 1910 and by Chicago Sanitary and Ship Canal, which began operation in 1900, and from Lake Erie by Welland and New York State Canals before 1918. Records include water diverted into Lake Superior from Hudson Bay drainage by the Long Lake project, which began operation in July 1939, and by the Ogoki project, which began operation in July 1943. Figures of monthly mean discharge for 1860 to 1960 and daily discharge for 1961 to 1965, published in WSP 1912, are the official records of the U.S. Lake Survey, and have been coordinated with and concurred by the counterpart Canadian agencies, as have been the extremes for period of record through December 1976 and records October 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 347,000 ft^3/s, Dec. 2, 1985, result of high, storm-generated Lake Erie level; minimum daily, 90,000 ft^3/s, Jan. 13, 1964, Aug. 29, 1984. Maximum monthly mean discharge, 268,400 ft^3/s, June 1986; minimum monthly mean, 116,200 ft^3/s, February 1936. Maximum and minimum instantaneous discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 229,000 ft^3/s, Dec. 21; minimum daily discharge, 145,000 ft^3/s, Jan. 17. Maximum and minimum instantaneous discharge not determined.

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

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

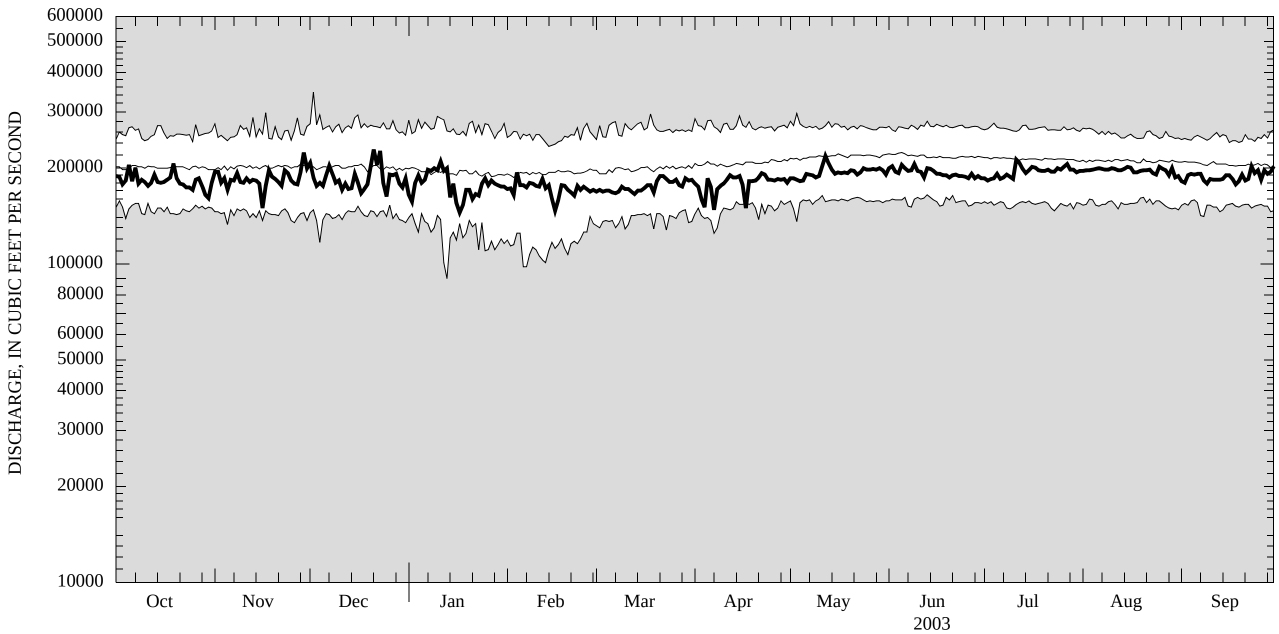
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	189,000	195,000	208,000	165,000	172,000	169,000	179,000	186,000	200,000	186,000	196,000	182,000
2	188,000	195,000	187,000	157,000	173,000	171,000	175,000	186,000	203,000	183,000	197,000	180,000
3	178,000	180,000	176,000	180,000	165,000	169,000	160,000	184,000	195,000	185,000	197,000	190,000
4	183,000	186,000	180,000	190,000	194,000	170,000	151,000	182,000	193,000	186,000	198,000	192,000
5	205,000	171,000	176,000	180,000	177,000	170,000	186,000	183,000	205,000	192,000	199,000	191,000
6	182,000	184,000	190,000	184,000	177,000	168,000	175,000	192,000	200,000	185,000	200,000	192,000
7	201,000	183,000	204,000	198,000	174,000	167,000	148,000	191,000	196,000	187,000	199,000	192,000
8	179,000	193,000	192,000	196,000	180,000	169,000	172,000	190,000	197,000	191,000	198,000	183,000
9	184,000	181,000	180,000	200,000	179,000	175,000	176,000	187,000	206,000	188,000	198,000	179,000
10	181,000	180,000	183,000	197,000	176,000	172,000	179,000	189,000	196,000	185,000	200,000	185,000
11	176,000	186,000	171,000	210,000	175,000	172,000	184,000	203,000	195,000	213,000	199,000	184,000
12	180,000	181,000	179,000	196,000	185,000	169,000	190,000	219,000	187,000	208,000	197,000	184,000
13	191,000	184,000	172,000	200,000	173,000	166,000	187,000	207,000	200,000	199,000	197,000	184,000
14	181,000	183,000	173,000	162,000	177,000	170,000	187,000	198,000	199,000	193,000	199,000	185,000
15	180,000	179,000	192,000	179,000	160,000	170,000	189,000	192,000	196,000	197,000	202,000	190,000
16	181,000	150,000	180,000	155,000	147,000	173,000	177,000	194,000	192,000	202,000	201,000	190,000
17	184,000	176,000	167,000	145,000	159,000	177,000	150,000	193,000	192,000	201,000	194,000	185,000
18	187,000	197,000	172,000	153,000	177,000	177,000	182,000	194,000	190,000	197,000	194,000	178,000
19	207,000	188,000	178,000	171,000	176,000	168,000	182,000	193,000	190,000	196,000	196,000	182,000
20	186,000	185,000	202,000	171,000	171,000	182,000	183,000	197,000	187,000	196,000	197,000	191,000
21	179,000	181,000	229,000	160,000	168,000	189,000	187,000	196,000	190,000	198,000	197,000	183,000
22	178,000	176,000	205,000	166,000	164,000	189,000	193,000	191,000	191,000	195,000	198,000	185,000
23	174,000	197,000	227,000	164,000	176,000	185,000	191,000	194,000	189,000	195,000	193,000	203,000
24	174,000	193,000	179,000	179,000	171,000	181,000	184,000	200,000	189,000	200,000	191,000	193,000
25	171,000	183,000	163,000	186,000	175,000	181,000	184,000	198,000	188,000	198,000	202,000	197,000
26	184,000	179,000	191,000	177,000	172,000	184,000	183,000	198,000	186,000	202,000	199,000	184,000
27	186,000	178,000	190,000	183,000	169,000	177,000	185,000	199,000	192,000	206,000	197,000	197,000
28	176,000	195,000	192,000	179,000	171,000	175,000	184,000	198,000	186,000	198,000	190,000	192,000
29	165,000	224,000	179,000	177,000	---	186,000	185,000	200,000	189,000	198,000	200,000	195,000
30	161,000	200,000	174,000	175,000	---	183,000	180,000	197,000	186,000	194,000	187,000	203,000
31	180,000	---	186,000	175,000	---	184,000	---	191,000	---	196,000	189,000	---
TOTAL	5,651,000	5,563,000	5,777,000	5,510,000	4,833,000	5,438,000	5,368,000	6,022,000	5,805,000	6,050,000	6,101,000	5,651,000
MEAN	182,300	185,400	186,400	177,700	172,600	175,400	178,900	194,300	193,500	195,200	196,800	188,400
MAX	207,000	224,000	229,000	210,000	194,000	189,000	193,000	219,000	206,000	213,000	202,000	203,000
MIN	161,000	150,000	163,000	145,000	147,000	166,000	148,000	182,000	186,000	183,000	187,000	178,000

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	200,300	200,500	201,100	195,200	192,900	198,900	207,600	216,200	215,800	211,900	208,100	203,700
MAX	254,000	248,000	260,900	254,000	241,600	255,500	264,200	264,700	268,400	265,200	253,500	243,700
(WY)	(1987)	(1987)	(1986)	(1987)	(1987)	(1986)	(1985)	(1974)	(1986)	(1986)	(1986)	(1986)
MIN	152,700	148,100	149,800	138,500	116,200	142,700	152,000	159,100	158,000	154,100	155,000	153,900
(WY)	(1935)	(1935)	(1965)	(1964)	(1936)	(1934)	(1935)	(1934)	(1934)	(1934)	(1934)	(1934)

04216000 NIAGARA RIVER AT BUFFALO, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1926 - 2003	
ANNUAL TOTAL	71,342,000		67,769,000			
ANNUAL MEAN	195,500		185,700		204,800	
HIGHEST ANNUAL MEAN					249,600	1986
LOWEST ANNUAL MEAN					155,300	1934
HIGHEST DAILY MEAN	276,000	Mar 10	229,000	Dec 21	347,000	Dec 2, 1985
LOWEST DAILY MEAN	150,000	Nov 16	145,000	Jan 17	90,000	Jan 13, 1964
ANNUAL SEVEN-DAY MINIMUM	174,000	Oct 24	160,000	Jan 16	105,000	Feb 6, 1936
10 PERCENT EXCEEDS	213,000		200,000		239,000	
50 PERCENT EXCEEDS	195,000		186,000		205,000	
90 PERCENT EXCEEDS	179,000		170,000		171,000	



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

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

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

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

PERIOD OF RECORD.--October 1984 to March 1997, November 1998 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, 0.67 ft lower.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 575.95 ft, datum then in use, Dec. 2, 1985; minimum daily, 568.63 ft, Feb. 16, 2003, but may have been lower during periods of no gage height record Jan. 16-27 and Mar. 13-22.

EXTREMES FOR CURRENT YEAR.--Maximum daily elevation, 572.42 ft, July 11, but may have been higher during period of no gage height record June 20-23 and Aug. 7-25; minimum daily elevation, 568.63 ft, Feb. 16, but may have been lower during period of no gage height record Jan. 16-27and Mar. 13-22.

ELEVATION (FEET IGLD)
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	571.04	571.04	571.60	569.33	569.91	569.77	570.28	570.66	571.18	571.30	571.28	570.66
2	570.99	571.02	570.35	569.18	569.89	569.97	570.07	570.58	571.39	571.25	571.35	570.54
3	570.40	570.27	570.18	570.31	569.67	569.77	569.45	570.49	570.99	571.30	571.36	571.00
4	571.00	570.61	570.23	570.53	571.01	569.77	569.06	570.45	570.96	571.45	571.37	571.15
5	571.45	569.95	570.13	570.25	570.15	569.79	570.91	570.50	571.46	571.59	571.39	571.04
6	570.76	570.64	570.88	570.42	569.88	569.74	570.25	570.82	571.25	571.36	571.47	571.06
7	571.24	570.48	571.46	571.27	569.89	569.80	568.80	570.77	571.13	571.46	---	571.17
8	---	570.87	570.66	570.97	570.25	569.79	570.18	570.76	571.20	571.48	---	570.62
9	---	570.31	570.35	571.11	570.04	570.00	570.29	570.62	571.57	571.33	---	570.53
10	---	570.31	570.39	571.03	569.94	569.99	570.37	570.81	571.18	571.19	---	570.78
11	---	570.79	569.92	571.67	569.98	569.86	570.53	571.41	571.33	572.42	---	570.74
12	---	570.15	570.17	571.17	570.36	569.80	570.72	572.10	570.83	572.11	---	570.73
13	---	570.57	569.88	571.35	569.87	---	570.62	571.38	571.44	571.52	---	570.68
14	---	570.55	570.07	570.32	569.78	---	570.63	571.08	571.36	571.38	---	570.78
15	---	569.96	570.80	570.99	569.16	---	570.82	570.74	571.28	571.46	---	571.11
16	---	569.04	570.14	---	568.63	---	570.05	570.88	571.07	571.67	---	571.01
17	---	570.15	569.56	---	569.10	---	569.11	570.88	571.21	571.55	---	570.74
18	---	571.01	569.86	---	569.89	---	570.57	570.96	571.29	571.38	---	570.35
19	---	570.68	570.12	---	569.93	---	570.51	570.92	571.32	571.40	---	570.78
20	---	570.50	571.38	---	569.79	---	570.63	571.16	---	571.34	---	570.93
21	---	570.20	572.36	---	569.72	---	570.72	570.96	---	571.50	---	570.55
22	---	570.14	571.43	---	569.46	---	571.02	570.78	---	571.33	---	571.04
23	---	571.19	572.06	---	570.10	570.16	570.87	570.89	---	571.33	---	571.43
24	---	570.60	569.86	---	569.91	570.09	570.65	571.14	571.37	571.59	---	571.01
25	---	570.44	569.70	---	569.83	570.26	570.51	571.10	571.40	571.50	---	571.20
26	---	570.17	570.81	---	569.79	570.22	570.62	571.14	571.45	571.62	571.59	570.62
27	---	570.26	570.62	---	569.77	570.04	570.61	571.15	571.61	571.88	571.20	571.24
28	---	571.09	570.84	569.91	569.82	570.16	570.71	571.20	571.37	571.37	571.01	571.05
29	569.54	572.14	570.23	569.93	---	570.58	570.63	571.17	571.45	571.40	571.43	571.16
30	569.65	571.25	570.04	569.87	---	570.40	570.36	571.13	571.41	571.21	570.91	571.48
31	570.47	---	570.44	569.82	---	570.42	---	570.88	---	571.24	570.93	---
MEAN	---	570.55	570.53	---	569.84	---	570.35	570.95	---	571.48	---	570.91
MAX	---	572.14	572.36	---	571.01	---	571.02	572.10	---	572.42	---	571.48
MIN	---	569.04	569.56	---	568.63	---	568.80	570.45	---	571.19	---	570.35

04216220 NIAGARA RIVER AT BLACK ROCK LOCK, BUFFALO, NY

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

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

PERIOD OF RECORD.--October 1984 to March 1997, November 1998 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, 0.67 ft lower.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 568.80 ft, datum then in use, Jan. 21, 1985, but may have been higher during period of no gage height record Nov. 11 to Dec. 10, 1984; minimum daily, 561.92 ft, Jan. 14, 1999.

EXTREMES FOR CURRENT YEAR.--Maximum daily elevation, 566.15 ft, July 11; minimum daily elevation, 563.60 ft, Nov. 16, but may have been lower during periods of no gage height record Feb.23 to Mar 7 and Apr. 4-9.

ELEVATION (FEET IGLD)
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	565.56	565.18	565.18	564.02	564.09	---	564.45	564.74	565.18	565.56	565.27	565.18
2	565.52	565.12	564.58	563.86	564.13	---	564.36	564.72	565.26	565.53	565.40	564.95
3	565.16	564.58	564.34	564.52	564.06	---	563.95	564.68	565.03	565.52	565.35	565.23
4	565.42	564.77	564.39	564.60	564.98	---	---	564.75	564.90	565.60	565.41	565.38
5	565.91	564.35	564.28	564.33	564.75	---	---	564.72	565.20	565.72	565.47	565.24
6	565.33	564.75	564.74	564.48	564.24	---	---	564.88	565.07	565.56	565.49	565.29
7	565.87	564.64	565.15	564.95	564.16	---	---	564.85	565.09	565.60	565.45	565.40
8	565.23	564.89	564.76	564.80	564.41	564.07	---	564.82	565.16	565.59	565.41	565.02
9	565.29	564.49	564.38	564.94	564.43	---	---	564.71	565.46	565.44	565.41	564.94
10	565.24	564.50	564.41	564.89	564.34	---	564.58	564.84	565.14	565.33	565.46	565.09
11	565.08	564.77	564.24	565.23	564.27	---	564.74	565.21	565.25	566.15	565.40	565.08
12	565.20	564.44	564.29	564.94	564.59	564.08	564.85	565.69	564.99	565.94	565.34	565.07
13	565.55	564.63	564.21	565.19	564.51	---	564.72	565.33	565.37	565.56	565.42	565.06
14	565.15	564.62	564.36	564.20	564.49	---	564.71	565.09	565.34	565.45	565.47	565.11
15	565.16	564.41	564.77	565.07	563.89	564.06	564.85	564.83	565.36	565.45	565.45	565.33
16	565.24	563.60	564.48	564.49	563.80	564.13	564.44	564.90	565.20	565.70	565.58	565.36
17	565.20	564.40	563.95	564.28	564.20	564.19	563.61	564.94	565.24	565.53	565.30	565.16
18	565.34	564.91	564.13	564.40	564.36	564.15	564.68	564.97	565.32	565.39	565.42	564.89
19	565.97	564.72	564.28	564.92	564.10	563.89	564.71	564.91	565.42	565.40	565.42	565.11
20	565.25	564.59	565.11	564.83	564.07	564.35	564.69	565.05	565.36	565.30	565.33	565.32
21	564.93	564.36	565.80	564.39	564.02	564.45	564.79	565.02	565.49	565.45	565.40	564.97
22	565.02	564.41	565.15	564.36	563.87	564.53	564.97	564.85	565.63	565.28	565.45	565.22
23	564.86	565.13	565.54	564.20	---	564.47	564.80	564.82	565.60	565.32	565.34	565.69
24	564.73	564.82	564.12	564.47	---	564.34	564.64	564.99	565.60	565.48	565.31	565.34
25	564.67	564.59	563.91	564.40	---	564.38	564.62	565.01	565.61	565.41	565.59	565.44
26	565.11	564.43	564.77	564.37	---	564.32	564.70	565.05	565.58	565.44	565.53	564.99
27	565.17	564.46	564.62	564.24	---	564.22	564.70	565.07	565.82	565.68	565.42	565.44
28	564.87	564.97	564.75	564.23	---	564.23	564.73	565.08	565.56	565.34	565.20	565.35
29	564.40	565.54	564.40	564.16	---	564.61	564.76	565.01	565.65	565.34	565.47	565.46
30	564.34	565.02	564.24	564.16	---	564.49	564.52	565.05	565.65	565.25	565.23	565.71
31	564.90	---	564.52	564.02	---	564.49	---	564.91	---	565.24	565.26	---
MEAN	565.18	564.67	564.58	564.51	---	---	---	564.95	565.35	565.50	565.40	565.23
MAX	565.97	565.54	565.80	565.23	---	---	---	565.69	565.82	566.15	565.59	565.71
MIN	564.34	563.60	563.91	563.86	---	---	---	564.68	564.90	565.24	565.20	564.89

04216418 TONAWANDA CREEK AT ATTICA, NY

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

DRAINAGE AREA.--76.9 mi^2.

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

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

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 954.63 ft above NGVD of 1929.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,400 ft^3/s, July 8, 1998, gage height, 12.71 ft, from high-water mark, from rating curve extended above 4,800 ft^3/s; minimum discharge, 3.1 ft^3/s, Aug. 26, Sep. 7, 1995; minimum gage height, 3.27 ft, Oct. 4, 2001, Sept. 13, 2002.

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

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 17	2000	2,060	6.72	Mar 21	0045	*2,190	*6.87

Minimum discharge, 12 ft^3/s, Oct. 11, 12, 13, 16, gage height, 3.32 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	23	109	561	e56	e90	161	53	387	21	20	24
2	16	31	e120	223	e66	e88	178	119	150	19	20	85
3	29	26	e100	163	e80	e86	148	91	99	18	17	50
4	32	25	e110	140	e180	e82	147	63	87	17	17	39
5	21	27	118	118	e160	e80	408	58	174	16	118	29
6	19	43	90	106	e140	e78	324	98	133	17	118	24
7	16	43	e75	e90	e110	e76	228	77	98	17	48	20
8	14	32	67	e100	e90	e90	174	65	91	19	35	18
9	13	29	e55	118	e80	e300	158	59	311	22	29	17
10	13	26	e60	116	e76	252	249	52	118	22	202	16
11	13	28	e70	e95	e74	166	285	474	103	22	246	15
12	12	29	84	e95	e72	142	226	338	122	21	242	15
13	13	25	110	e90	e68	126	177	750	400	20	128	15
14	13	22	305	e90	e66	103	137	347	225	18	66	15
15	13	22	249	e85	e64	e130	117	201	133	16	45	66
16	17	25	187	e80	e62	e400	101	208	91	21	42	123
17	37	103	e130	e75	e60	1,210	89	197	71	20	126	39
18	25	90	e135	e75	e60	1,160	82	128	61	21	49	27
19	39	64	e160	e70	e62	731	76	98	58	18	36	23
20	50	128	1,050	e66	e64	998	70	89	52	16	29	28
21	28	117	334	e62	e68	1,260	78	215	51	20	25	24
22	22	162	195	e60	e110	1,000	89	110	50	40	23	21
23	20	164	148	e58	e170	579	90	88	40	56	21	68
24	19	98	127	e56	e150	464	78	106	34	63	18	57
25	18	94	108	e56	e120	537	66	93	28	41	17	36
26	22	79	e105	e54	e100	888	60	75	25	26	18	28
27	24	68	e100	e54	e100	409	54	182	23	23	20	25
28	20	57	96	e52	e95	309	49	219	22	25	17	34
29	18	60	94	e50	---	319	44	105	21	20	28	41
30	17	111	92	e48	---	249	42	80	23	18	50	84
31	16	---	676	e52	---	181	---	123	---	16	24	---
TOTAL	645	1,851	5,459	3,158	2,603	12,583	4,185	4,961	3,281	729	1,894	1,106
MEAN	20.8	61.7	176	102	93.0	406	140	160	109	23.5	61.1	36.9
MAX	50	164	1,050	561	180	1,260	408	750	400	63	246	123
MIN	12	22	55	48	56	76	42	52	21	16	17	15
CFSM	0.27	0.80	2.29	1.32	1.21	5.28	1.81	2.08	1.42	0.31	0.79	0.48
IN.	0.31	0.90	2.64	1.53	1.26	6.09	2.02	2.40	1.59	0.35	0.92	0.54

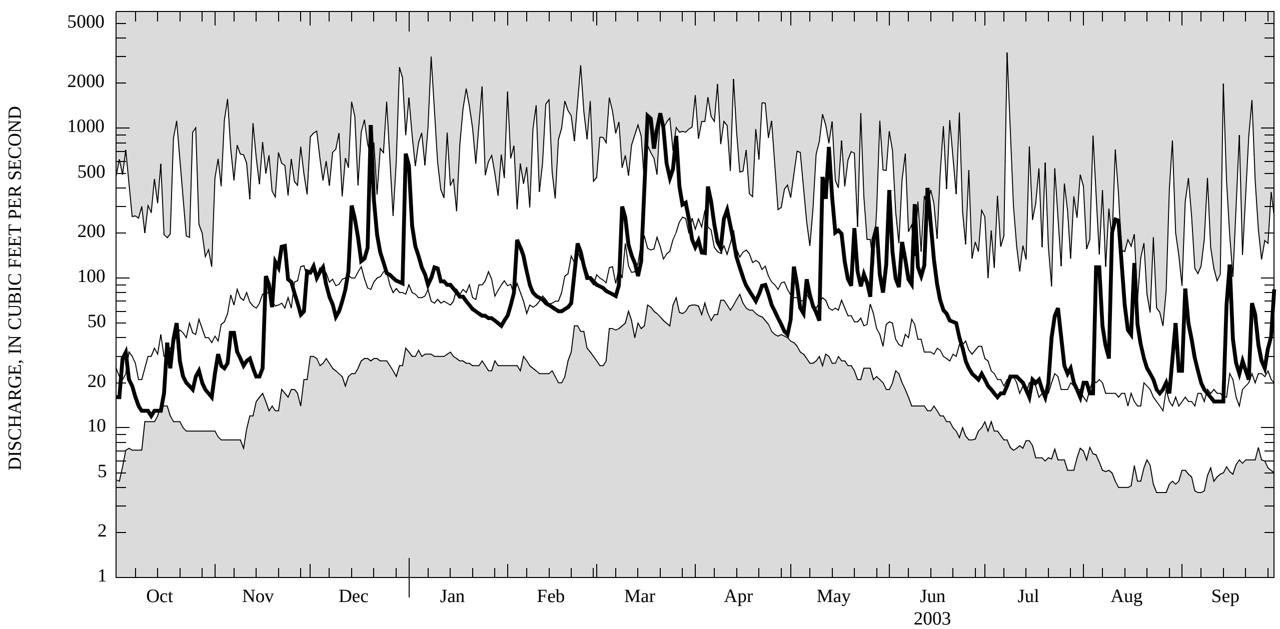
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	63.3	115	151	141	152	230	212	111	66.0	40.6	34.1	46.0
MAX	182	353	329	361	293	459	366	265	278	221	192	172
(WY)	(1987)	(1986)	(1978)	(1998)	(1981)	(1979)	(1978)	(2002)	(1989)	(1998)	(1992)	(2000)
MIN	10.8	16.6	34.5	41.5	34.4	122	73.1	36.4	16.5	10.1	7.28	6.19
(WY)	(1992)	(1992)	(1990)	(1994)	(1980)	(1981)	(1995)	(1995)	(1999)	(1983)	(1991)	(1995)

04216418 TONAWANDA CREEK AT ATTICA, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1978 - 2003	
ANNUAL TOTAL	48,685.1		42,455			
ANNUAL MEAN	133		116		113	
HIGHEST ANNUAL MEAN					157	1978
LOWEST ANNUAL MEAN					72.8	1995
HIGHEST DAILY MEAN	1,750	Feb 1	1,260	Mar 21	3,200	Jul 8, 1998
LOWEST DAILY MEAN	8.1	Sep 9	12	Oct 12	3.7	Aug 24, 1995
ANNUAL SEVEN-DAY MINIMUM	9.2	Sep 7	13	Oct 9	3.9	Aug 23, 1995
ANNUAL RUNOFF (CFSM)	1.73		1.51		1.47	
ANNUAL RUNOFF (INCHES)	23.55		20.54		20.01	
10 PERCENT EXCEEDS	292		234		249	
50 PERCENT EXCEEDS	88		68		62	
90 PERCENT EXCEEDS	13		18		14	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

04217000 TONAWANDA CREEK AT BATAVIA, NY

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

DRAINAGE AREA.--171 mi^2.

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

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

GAGE.--Water-stage recorder, crest stage gage, and concrete control. Datum of gage is 876.33 ft above NGVD of 1929.

REMARKS.--Records 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 and satellite gage-height telemeters at station.

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

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

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 18	1330	*3,170	*8.72	Mar 21	1930	2,660	7.72

Minimum discharge, 11 ft^3/s, Oct. 12, 13, gage height, 1.42 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	21	246	1,320	92	167	291	100	567	43	27	31
2	17	27	133	1,200	104	158	295	158	568	39	30	62
3	18	33	118	536	110	154	273	217	257	34	28	122
4	34	30	128	360	161	144	257	151	194	32	31	69
5	33	28	131	292	359	159	296	124	325	31	32	59
6	26	31	120	255	313	174	704	155	301	29	290	40
7	22	46	106	222	265	153	671	177	226	30	136	33
8	16	43	111	229	201	172	383	137	190	29	76	28
9	13	36	92	248	e170	383	321	122	368	29	56	24
10	12	34	78	303	e145	597	315	110	313	32	50	22
11	12	32	85	e220	e130	488	616	189	209	31	348	20
12	12	33	95	e210	e120	332	527	681	219	33	548	19
13	11	33	168	e200	e115	314	380	691	428	31	409	19
14	13	30	295	188	e110	244	292	939	563	28	186	19
15	13	28	560	180	112	257	250	582	325	23	113	25
16	13	29	518	163	101	484	220	351	216	24	91	200
17	19	59	354	162	94	e1,300	192	459	164	28	304	114
18	33	176	221	136	93	2,810	177	307	137	25	158	56
19	27	113	308	137	96	2,280	162	222	123	26	86	40
20	58	121	635	132	97	1,650	153	181	116	22	60	35
21	50	188	1,540	121	98	2,270	148	288	108	22	48	41
22	31	147	1,030	e115	107	2,220	166	253	115	36	39	32
23	27	322	498	108	193	1,620	175	184	97	65	33	54
24	27	201	328	103	333	1,120	167	180	78	156	28	133
25	23	147	268	100	295	873	145	224	67	141	26	82
26	23	131	244	98	211	1,030	129	175	57	64	25	52
27	30	110	251	93	194	1,300	122	146	51	44	25	42
28	31	90	226	92	186	770	114	430	48	41	24	41
29	26	80	220	93	---	547	108	258	46	38	21	50
30	25	109	204	88	---	492	100	175	43	30	54	85
31	22	---	404	87	---	358	---	150	---	26	49	---
TOTAL	738	2,508	9,715	7,791	4,605	25,020	8,149	8,516	6,519	1,262	3,431	1,649
MEAN	23.8	83.6	313	251	164	807	272	275	217	40.7	111	55.0
MAX	58	322	1,540	1,320	359	2,810	704	939	568	156	548	200
MIN	11	21	78	87	92	144	100	100	43	22	21	19
CFSM	0.14	0.49	1.83	1.47	0.96	4.72	1.59	1.61	1.27	0.24	0.65	0.32
IN.	0.16	0.55	2.11	1.69	1.00	5.44	1.77	1.85	1.42	0.27	0.75	0.36

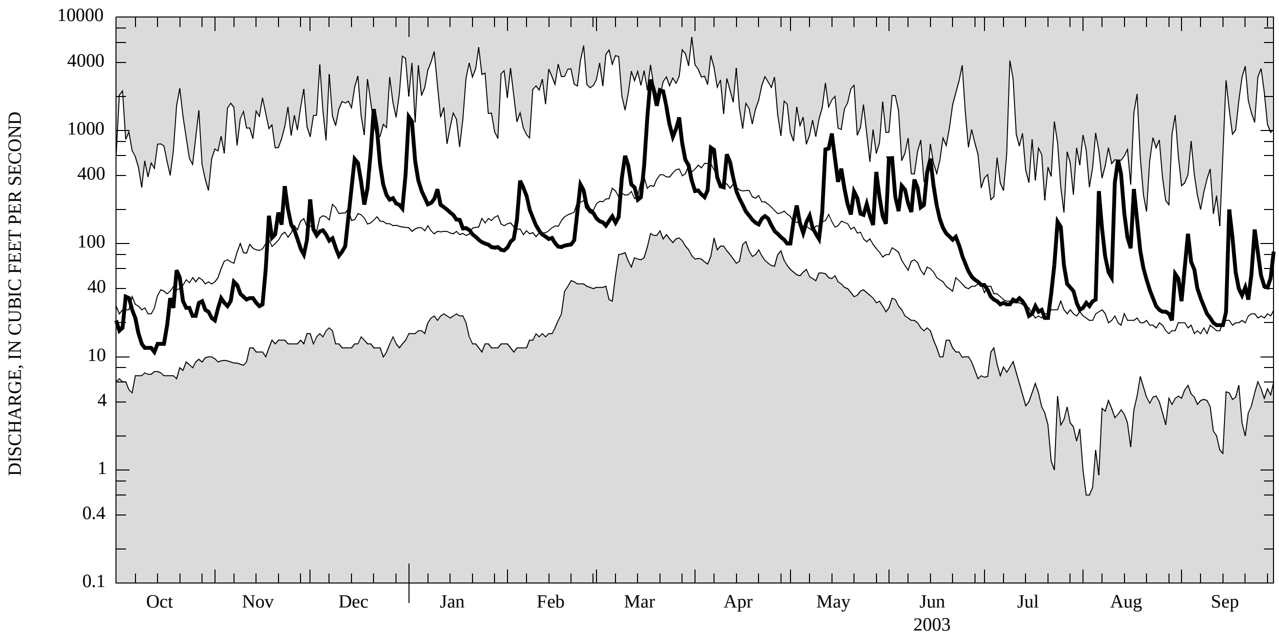
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	82.3	167	260	266	318	533	453	209	110	57.0	49.1	63.8
MAX	344	653	718	812	903	1,206	1,100	544	722	415	451	873
(WY)	(1946)	(1986)	(1978)	(1998)	(1976)	(1945)	(1947)	(1984)	(1989)	(1998)	(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)

04217000 TONAWANDA CREEK AT BATAVIA, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1944 - 2003	
ANNUAL TOTAL	90,102.5		79,903			
ANNUAL MEAN	247		219		213	
HIGHEST ANNUAL MEAN					311	1976
LOWEST ANNUAL MEAN					124	1965
HIGHEST DAILY MEAN	3,550	Feb 2	2,810	Mar 18	6,660	Mar 31, 1960
LOWEST DAILY MEAN	8.9	Sep 14	11	Oct 13	0.60	Aug 2, 1955
ANNUAL SEVEN-DAY MINIMUM	10	Sep 8	12	Oct 9	1.1	Jul 31, 1955
ANNUAL RUNOFF (CFSM)	1.44		1.28		1.25	
ANNUAL RUNOFF (INCHES)	19.60		17.38		16.96	
10 PERCENT EXCEEDS	608		490		509	
50 PERCENT EXCEEDS	131		122		98	
90 PERCENT EXCEEDS	13		26		15	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

04218000 TONAWANDA CREEK AT RAPIDS, NY

LOCATION.--Lat 43°05'35", long 78°38'11", Niagara County, Hydrologic Unit 04120104, on right bank at downstream side of bridge on Rapids Road at Rapids, 4.6 mi east of Pendleton, 4.9 mi downstream from Beeman Creek, and 5.9 mi upstream from Mud Creek.

DRAINAGE AREA.--349 mi^2, includes 0.76 mi^2 in Mud Creek from which flow is diverted into Black Creek.

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

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

GAGE.--Water-stage recorder. Datum of gage is 571.19 ft above NGVD of 1929.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,280 ft^3/s, Apr. 1, 1960, gage height, 16.96 ft (does not include about 4,300 ft^3/s bypassing the gage, as estimated and reported by the Buffalo District Corps of Engineers); minimum discharge, 4.5 ft^3/s, July 28, 1983, gage height, 0.91 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 20	2230	*4,990	*13.74	No other peak greater than base discharge.			

Minimum discharge, 22 ft^3/s, Oct. 14, 15, gage height, 1.12 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74	43	133	1,030	e155	e320	798	197	341	71	50	51
2	49	42	207	1,540	e160	e300	653	209	699	68	48	65
3	38	40	226	1,830	e180	e270	614	263	858	61	50	56
4	34	40	169	1,440	e210	e260	606	337	482	56	66	83
5	36	50	e180	e800	e300	e250	622	287	395	49	80	98
6	33	54	e180	e550	e580	e260	823	284	471	48	88	76
7	43	52	e170	e420	e620	e280	1,270	315	473	49	194	66
8	38	53	e160	e380	e490	e285	1,280	329	379	50	212	54
9	33	63	e150	e370	e370	e340	1,010	284	371	49	129	48
10	30	69	e140	e390	e300	e740	871	250	492	49	99	44
11	27	66	e130	e420	e250	e1,000	1,000	271	518	55	84	42
12	24	64	e140	e440	e230	e840	1,190	478	362	57	272	39
13	24	61	174	e390	e220	e630	1,140	1,070	366	54	1,020	37
14	22	55	254	e360	e205	e560	880	1,220	592	53	795	36
15	22	52	503	e340	e200	e500	634	1,290	892	51	333	36
16	24	50	844	e320	e195	e620	514	1,130	597	48	198	48
17	28	63	986	e280	e190	e1,100	439	1,020	385	50	145	103
18	33	90	763	e270	e180	e2,000	382	1,010	282	46	232	163
19	39	153	574	e250	e175	e3,800	340	726	230	44	228	96
20	56	187	671	e240	e175	4,890	311	510	201	44	144	72
21	70	151	1,070	e230	e185	4,810	294	492	187	43	106	58
22	66	197	1,560	e220	e200	4,300	285	566	184	51	86	52
23	69	260	1,860	e210	e220	4,070	294	533	177	56	74	64
24	55	313	1,330	e200	e360	3,490	301	439	169	70	62	73
25	50	324	692	e190	e560	2,500	295	452	147	132	52	91
26	44	229	516	e185	e660	1,910	269	450	127	176	50	120
27	43	194	454	e180	e420	1,780	243	381	110	120	49	100
28	43	171	451	e175	e350	1,900	225	353	96	85	44	82
29	44	149	433	e170	---	1,580	213	516	82	69	43	71
30	49	132	408	e165	---	1,170	203	452	73	61	43	67
31	48	---	515	e160	---	1,020	---	324	---	56	41	---
TOTAL	1,288	3,467	16,043	14,145	8,340	47,775	17,999	16,438	10,738	1,971	5,117	2,091
MEAN	41.5	116	518	456	298	1,541	600	530	358	63.6	165	69.7
MAX	74	324	1,860	1,830	660	4,890	1,280	1,290	892	176	1,020	163
MIN	22	40	130	160	155	250	203	197	73	43	41	36
CFSM	0.12	0.33	1.48	1.31	0.85	4.42	1.72	1.52	1.03	0.18	0.47	0.20
IN.	0.14	0.37	1.71	1.51	0.89	5.09	1.92	1.75	1.14	0.21	0.55	0.22

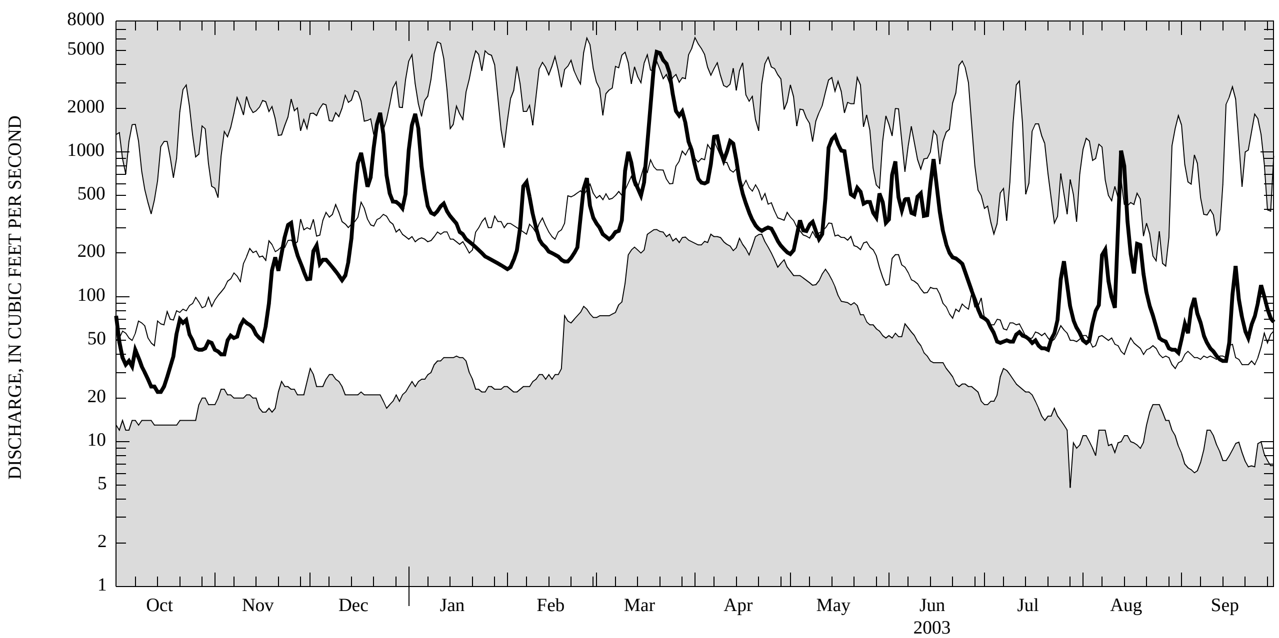
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	147	304	481	538	664	961	897	427	220	99.3	85.5	93.2
MAX	642	1,239	1,116	1,581	1,363	1,650	1,534	1,046	1,372	511	601	614
(WY)	(1987)	(1986)	(1987)	(1998)	(1981)	(1956)	(1960)	(1956)	(1989)	(1998)	(1992)	(1992)
MIN	14.8	25.7	23.3	29.4	103	452	334	144	45.6	26.1	15.9	10.0
(WY)	(1965)	(1961)	(1961)	(1961)	(1963)	(1981)	(1995)	(1993)	(1965)	(1991)	(1991)	(1991)

04218000 TONAWANDA CREEK AT RAPIDS, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1955 - 2003	
ANNUAL TOTAL	176,672		145,412			
ANNUAL MEAN	484		398		408	
HIGHEST ANNUAL MEAN					565	1998
LOWEST ANNUAL MEAN					255	1965
HIGHEST DAILY MEAN	3,890	Feb 4	4,890	Mar 20	6,130	Apr 1, 1960
LOWEST DAILY MEAN	10	Sep 14	22	Oct 14	4.8	Jul 28, 1983
ANNUAL SEVEN-DAY MINIMUM	12	Sep 9	24	Oct 11	6.8	Sep 1, 1991
ANNUAL RUNOFF (CFSM)	1.39		1.14		1.17	
ANNUAL RUNOFF (INCHES)	18.83		15.50		15.90	
10 PERCENT EXCEEDS	1,260		1,000		1,060	
50 PERCENT EXCEEDS	238		200		195	
90 PERCENT EXCEEDS	24		44		31	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

04218518 ELLICOTT CREEK BELOW WILLIAMSVILLE, NY

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

DRAINAGE AREA.--81.6 mi^2.

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

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

GAGE.--Water-stage recorder. Datum of gage is 586.41 ft above NGVD of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Regulation by seasonal manipulation of dam at Island Park 2.4 mi upstream by Village of Williamsville and by intermittent pumping from stone quarries into stream upstream from station. Records at medium and high flows may be comparable with those obtained at station 042l8500 between October 1955 and September 1972. Telephone gage-height telemeter at station.

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

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 21	1215	1,140	5.64	Mar 19	0000	*1,610	*6.87
Jan 1	2100	1,090	5.51				

Minimum discharge, 11 ft^3/s, Oct. 11, 12, 13, 14, 15, 16, gage height, 1.61 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	34	104	857	e65	106	139	64	152	45	31	29
2	24	33	89	627	e75	100	129	85	190	43	26	31
3	27	33	e68	288	e80	e95	127	99	102	43	29	30
4	24	35	e72	233	119	e100	122	84	86	35	31	30
5	23	34	e78	190	155	105	147	74	101	37	59	32
6	22	38	e74	162	186	95	236	113	111	34	49	27
7	23	36	73	132	e170	e96	304	116	98	37	54	26
8	22	31	71	130	e140	116	221	89	94	33	56	26
9	21	29	e70	149	e105	211	180	73	162	29	50	25
10	13	32	e60	e210	e90	e250	184	63	149	29	51	24
11	11	48	61	e160	e85	e300	220	130	99	47	143	24
12	11	34	74	e150	e80	262	215	220	100	31	95	24
13	12	33	135	e120	e74	187	160	336	117	29	112	24
14	11	32	249	e90	e66	e150	127	393	228	27	83	21
15	11	33	387	e68	e62	158	99	203	151	39	50	27
16	21	33	429	e85	e60	240	92	189	94	43	41	42
17	20	73	314	e92	59	613	83	247	77	32	38	34
18	27	105	225	e90	56	1,380	77	194	66	29	35	37
19	78	93	189	e90	55	1,330	75	125	61	30	35	29
20	45	65	421	e84	57	877	73	111	57	31	36	27
21	43	65	1,040	e78	59	959	72	167	59	45	33	27
22	38	143	470	e76	77	784	77	187	53	35	35	28
23	35	170	299	e72	199	497	83	112	51	50	31	50
24	30	158	205	e70	e160	337	85	116	48	64	31	66
25	30	97	165	e70	e150	264	76	153	43	42	30	54
26	36	78	141	e68	e140	319	68	112	39	35	31	36
27	31	67	150	e66	e140	391	64	120	41	26	31	44
28	31	58	141	e64	133	249	60	86	47	23	29	40
29	37	54	143	e64	---	197	56	79	47	36	32	39
30	35	60	140	e60	---	192	54	69	46	33	28	56
31	33	---	280	e60	---	168	---	86	---	34	28	---
TOTAL	849	1,834	6,417	4,755	2,897	11,128	3,705	4,295	2,769	1,126	1,443	1,009
MEAN	27.4	61.1	207	153	103	359	124	139	92.3	36.3	46.5	33.6
MAX	78	170	1,040	857	199	1,380	304	393	228	64	143	66
MIN	11	29	60	60	55	95	54	63	39	23	26	21
CFSM	0.34	0.75	2.54	1.88	1.27	4.40	1.51	1.70	1.13	0.45	0.57	0.41
IN.	0.39	0.84	2.93	2.17	1.32	5.07	1.69	1.96	1.26	0.51	0.66	0.46

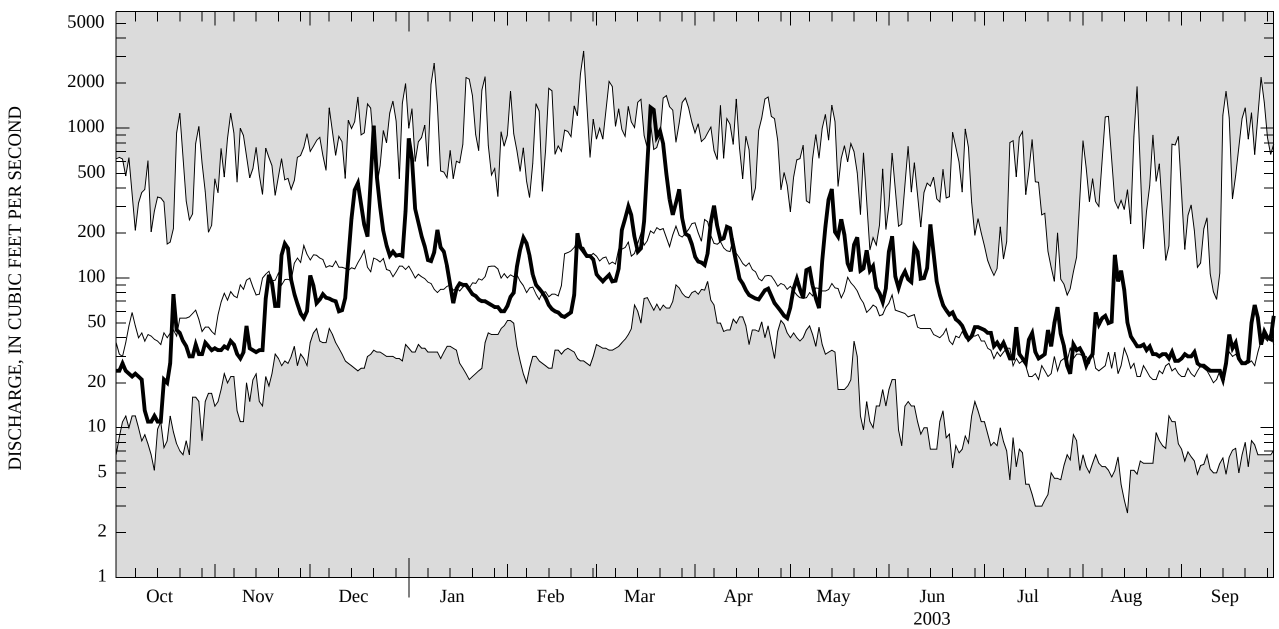
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	71.2	137	194	172	191	271	206	122	77.9	43.4	54.3	64.8
MAX	196	342	441	426	377	519	363	284	275	144	397	425
(WY)	(1997)	(1986)	(1978)	(1998)	(1990)	(1977)	(1996)	(2002)	(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)

04218518 ELLICOTT CREEK BELOW WILLIAMSVILLE, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1973 - 2003	
ANNUAL TOTAL	56,249		42,227			
ANNUAL MEAN	154		116		133	
HIGHEST ANNUAL MEAN					177	1977
LOWEST ANNUAL MEAN					91.2	1999
HIGHEST DAILY MEAN	1,770	Feb 2	1,380	Mar 18	3,280	Feb 25, 1985
LOWEST DAILY MEAN	11	Oct 11	11	Oct 11	2.7	Aug 15, 1978
ANNUAL SEVEN-DAY MINIMUM	13	Oct 9	13	Oct 9	3.6	Jul 15, 1978
ANNUAL RUNOFF (CFSM)	1.89		1.42		1.64	
ANNUAL RUNOFF (INCHES)	25.64		19.25		22.22	
10 PERCENT EXCEEDS	371		223		299	
50 PERCENT EXCEEDS	91		70		74	
90 PERCENT EXCEEDS	20		28		19	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

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 NGVD of 1929. 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.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 874 ft^3/s, Dec. 3, 1969, maximum instantaneous discharge not determined; no significant flow at times in many years.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	251	216	---	---	---	---	---	60	263	289	269	259
2	252	199	---	---	---	---	---	104	254	291	288	261
3	258	176	---	---	---	---	---	167	258	297	279	259
4	245	173	---	---	---	---	---	203	255	300	264	165
5	251	206	---	---	---	---	---	203	256	306	271	189
6	246	209	---	---	---	---	---	146	259	309	283	258
7	228	198	---	---	---	---	---	129	257	301	288	246
8	226	152	---	---	---	---	---	129	269	310	276	244
9	224	106	---	---	---	---	---	111	257	315	293	256
10	221	81	---	---	---	---	---	102	220	308	285	267
11	226	65	---	---	---	---	---	101	197	305	278	266
12	226	45	---	---	---	---	---	109	208	299	263	266
13	225	2.4	---	---	---	---	---	109	209	299	254	279
14	228	---	---	---	---	---	---	116	222	289	259	285
15	228	---	---	---	---	---	---	135	222	289	266	250
16	225	---	---	---	---	---	---	196	207	286	275	247
17	223	---	---	---	---	---	---	250	213	303	277	258
18	224	---	---	---	---	---	---	252	209	288	254	256
19	224	---	---	---	---	---	---	258	214	300	274	247
20	229	---	---	---	---	---	---	254	210	298	259	264
21	224	---	---	---	---	---	---	249	216	283	263	259
22	223	---	---	---	---	---	---	255	220	298	264	247
23	223	---	---	---	---	---	---	256	208	288	271	251
24	223	---	---	---	---	---	---	249	211	300	276	249
25	223	---	---	---	---	---	---	252	216	295	266	239
26	223	---	---	---	---	---	---	242	214	290	261	250
27	221	---	---	---	---	---	---	250	244	303	281	247
28	226	---	---	---	---	---	---	245	264	288	271	259
29	221	---	---	---	---	---	2.8	248	264	288	266	252
30	222	---	---	---	---	---	20	252	267	285	276	249
31	223	---	---	---	---	---	---	250	---	279	276	---
TOTAL	7,112	---	---	---	---	---	---	5,882	6,983	9,179	8,426	7,524
MEAN	229	---	---	---	---	---	---	190	233	296	272	251
MAX	258	---	---	---	---	---	---	258	269	315	293	285
MIN	221	---	---	---	---	---	---	60	197	279	254	165

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.--10.1 mi^2.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR NY-2001-3: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 306 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Discharge includes undetermined diversion from Erie (Barge) Canal upstream from station. 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 FOR PERIOD OF RECORD.--Maximum discharge, 573 ft^3/s, Apr. 22, 1991, gage height, 3.89 ft, from rating curve extended above 130 ft^3/s on basis of contracted-opening measurement of peak flow; maximum gage height, 4.90 ft, Jan. 24, 1999 (ice jam); minimum discharge, 0.39 ft^3/s, Aug. 19, 1993, gage height 0.46 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 758 ft^3/s, May 17, 1974, gage height 4.36 ft.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 17	2000	*222	*2.63	Mar 21	0115	216	2.60

Minimum discharge, 3.8 ft^3/s, Aug. 25, 26, 28, 29, Sept. 8, 11, gage height, 0.77 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.9	6.8	6.7	33	e11	e18	11	9.2	41	6.8	6.1	5.2
2	5.9	6.8	e7.0	e14	e17	e22	11	12	17	6.9	5.8	6.1
3	6.7	7.8	e7.0	e14	e17	e18	11	10	12	6.8	5.6	5.4
4	6.1	7.6	e7.0	12	e44	e16	42	9.4	12	6.5	5.7	5.3
5	6.2	7.4	e6.5	9.4	e45	e18	80	10	26	6.7	6.1	5.2
6	6.0	8.4	e6.5	8.8	e28	e15	77	16	15	6.6	6.0	5.2
7	6.0	7.0	e5.8	e9.5	e19	e14	40	12	12	6.5	5.5	5.2
8	5.9	6.6	e5.8	e9.5	e17	e21	21	11	12	6.5	5.5	5.1
9	5.9	6.5	e5.6	14	e14	e80	20	11	12	6.2	5.5	5.2
10	5.9	6.4	e5.4	e15	e12	e40	41	10	11	6.1	6.1	5.2
11	6.0	6.4	e5.4	e20	e10	e26	56	52	10	6.4	6.1	5.1
12	6.1	6.2	e14	e15	e9.0	e24	39	33	10	6.3	6.4	5.2
13	6.3	6.2	e15	e14	e8.0	e22	21	28	13	6.1	5.9	5.4
14	6.4	5.9	e36	e12	e7.5	e22	14	18	12	5.9	5.7	5.3
15	6.5	5.8	27	e11	e7.0	e26	12	14	10	5.9	5.5	8.0
16	7.4	5.9	18	e10	e6.8	e75	11	58	9.1	7.7	5.5	7.9
17	7.8	14	12	e9.0	e6.4	131	9.3	49	8.5	6.0	5.6	5.6
18	6.8	11	e11	e8.0	e6.0	115	8.6	20	8.1	5.8	5.4	5.5
19	9.7	7.9	9.7	e7.5	e7.0	55	8.0	15	8.0	5.9	5.3	5.6
20	7.4	7.3	15	e7.0	e9.0	60	7.7	13	7.9	6.0	5.2	5.6
21	6.6	6.6	12	e7.0	e15	108	7.8	22	9.2	6.3	5.2	5.5
22	6.8	14	10	e6.4	e20	41	8.2	14	9.0	6.8	5.3	5.7
23	9.0	16	9.0	e6.2	e70	26	8.8	12	8.2	6.4	5.1	7.0
24	7.0	9.1	8.0	e5.8	e50	20	8.5	23	7.5	7.3	4.9	5.6
25	6.7	7.4	e7.6	e5.6	e38	17	7.4	24	7.3	6.5	4.5	5.3
26	8.9	6.3	17	e5.2	e27	36	7.0	15	7.2	6.2	5.8	5.1
27	7.4	6.2	9.8	e5.0	e24	20	6.7	12	6.9	6.1	5.0	5.6
28	7.0	6.0	8.3	e5.2	e21	14	6.7	12	7.0	6.2	4.7	6.0
29	7.0	5.9	7.6	e5.0	---	13	7.0	11	6.8	5.8	6.6	5.2
30	7.0	7.4	7.6	e5.0	---	13	7.3	11	6.8	5.8	6.0	5.0
31	6.7	---	36	e5.2	---	11	---	14	---	5.6	5.1	---
TOTAL	211.0	232.8	359.3	314.3	565.7	1,137	616.0	580.6	342.5	196.6	172.7	168.3
MEAN	6.81	7.76	11.6	10.1	20.2	36.7	20.5	18.7	11.4	6.34	5.57	5.61
MAX	9.7	16	36	33	70	131	80	58	41	7.7	6.6	8.0
MIN	5.9	5.8	5.4	5.0	6.0	11	6.7	9.2	6.8	5.6	4.5	5.0

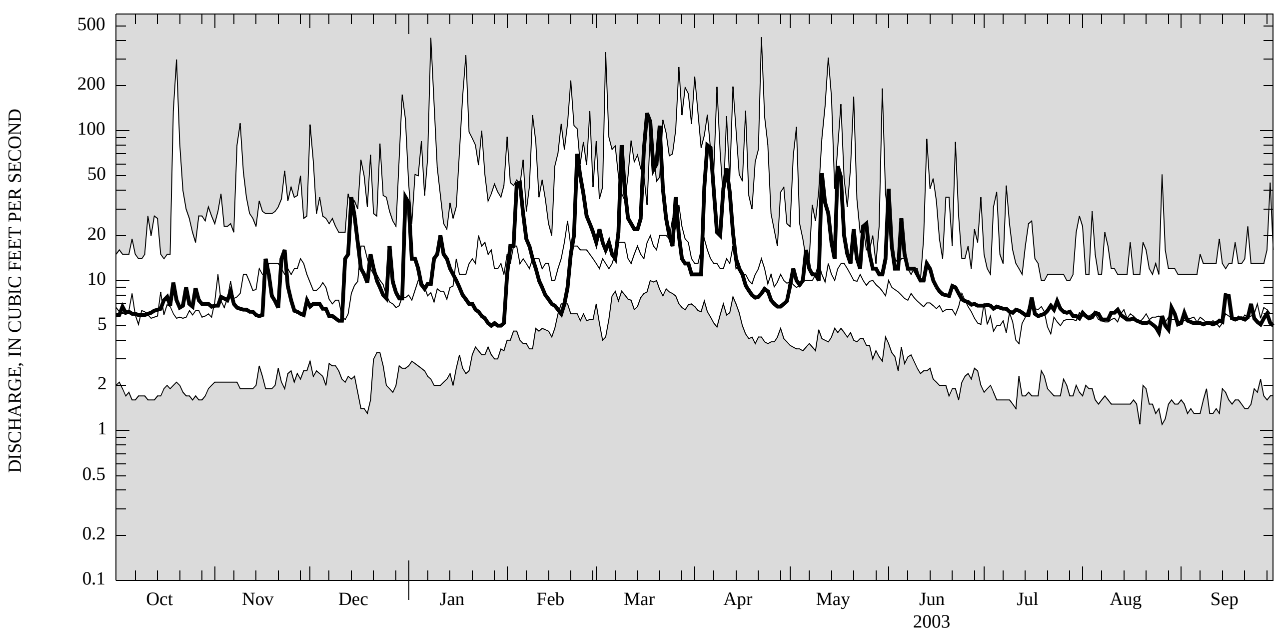
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	8.57	11.8	12.3	17.5	20.7	26.3	21.3	15.7	8.49	6.18	5.92	6.17
MAX	30.9	26.4	23.7	45.6	38.9	40.7	31.7	31.3	16.8	13.5	11.8	12.7
(WY)	(1997)	(1997)	(1997)	(1998)	(1990)	(1993)	(1991)	(2002)	(1996)	(1998)	(1999)	(1999)
MIN	1.83	2.49	3.00	6.39	7.82	15.2	5.27	4.77	3.06	1.96	1.60	1.92
(WY)	(1995)	(1992)	(1999)	(2000)	(1993)	(2002)	(1995)	(1993)	(1991)	(1993)	(1993)	(1994)

0422026250 NORTHRUP CREEK AT NORTH GREECE, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1990 - 2003	
ANNUAL TOTAL	4,713.0		4,896.8			
ANNUAL MEAN	12.9		13.4		13.4	
HIGHEST ANNUAL MEAN					18.7	1998
LOWEST ANNUAL MEAN					7.33	1995
HIGHEST DAILY MEAN	191	May 30	131	Mar 17	420	Apr 22, 1991
LOWEST DAILY MEAN	4.9	Sep 13	4.5	Aug 25	1.1	Aug 19, 1993
ANNUAL SEVEN-DAY MINIMUM	5.2	Sep 8	5.0	Aug 22	1.4	Aug 22, 1993
10 PERCENT EXCEEDS	19		26		25	
50 PERCENT EXCEEDS	8.6		7.6		8.4	
90 PERCENT EXCEEDS	5.5		5.5		3.0	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

0422026250 NORTHRUP CREEK AT NORTH GREECE, NY—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1989 to current year.
CHEMICAL DATA: Water years 1989 (a), 1990 to 2003 (e).
NUTRIENT DATA: Water years 1989 (a), 1990 to 2003 (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. The non-daily water-quality records for this site were collected and reported in local standard time.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 28.0°C, July 5, 1999; minimum, 0°C, for many days during winter period.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 25.5°C, July 5; minimum, 0°C, for many days during winter period.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	20.0	18.0	19.0	6.5	5.5	6.0	2.5	0.0	1.0	2.5	1.0	2.0
2	20.5	19.5	20.0	5.5	5.0	5.0	0.0	0.0	0.0	1.0	0.0	0.0
3	20.5	16.5	18.5	5.5	4.5	5.0	0.0	0.0	0.0	0.0	0.0	0.0
4	19.5	16.5	18.0	6.5	5.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0
5	19.5	16.0	18.0	7.0	6.0	6.5	0.0	0.0	0.0	0.5	0.0	0.0
6	16.0	14.0	15.0	6.5	6.0	6.5	0.0	0.0	0.0	1.0	0.0	0.5
7	15.5	13.5	15.0	6.5	4.5	5.0	0.0	0.0	0.0	0.0	0.0	0.0
8	13.5	12.0	12.5	8.0	4.5	6.0	0.0	0.0	0.0	1.5	0.0	0.5
9	13.0	11.0	12.5	9.5	7.5	8.5	0.0	0.0	0.0	2.0	0.0	1.5
10	15.0	13.0	14.0	11.5	9.5	10.5	0.0	0.0	0.0	0.5	0.0	0.0
11	15.0	14.0	14.5	12.5	10.5	12.0	0.0	0.0	0.0	0.5	0.0	0.0
12	16.0	14.5	15.5	10.5	8.5	9.5	0.0	0.0	0.0	0.0	0.0	0.0
13	16.0	13.0	15.0	8.5	7.5	8.0	0.0	0.0	0.0	0.0	0.0	0.0
14	13.0	10.0	11.5	9.0	7.0	8.0	2.5	0.0	1.5	0.0	0.0	0.0
15	11.5	9.0	10.5	9.0	6.5	8.0	2.5	2.0	2.5	0.0	0.0	0.0
16	12.5	11.5	12.0	6.5	3.0	5.0	2.0	0.5	1.0	0.0	0.0	0.0
17	12.0	10.0	11.5	4.0	2.5	3.5	0.5	0.0	0.0	0.0	0.0	0.0
18	10.5	9.5	10.0	4.0	3.5	3.5	0.5	0.0	0.0	0.0	0.0	0.0
19	11.5	10.5	11.0	4.5	3.0	3.5	3.0	0.0	1.0	0.0	0.0	0.0
20	11.0	10.0	10.5	6.0	4.0	5.0	4.0	3.0	3.5	0.0	0.0	0.0
21	10.0	9.0	9.5	6.5	5.0	6.0	3.5	2.0	2.5	0.0	0.0	0.0
22	9.0	8.5	9.0	6.0	5.0	6.0	2.5	2.0	2.0	0.0	0.0	0.0
23	9.5	8.0	9.0	5.0	3.5	4.0	2.0	1.0	1.5	0.0	0.0	0.0
24	8.0	7.0	7.5	4.5	3.5	4.0	1.5	0.5	1.0	0.0	0.0	0.0
25	8.0	6.0	7.0	5.0	4.5	5.0	1.0	0.0	0.0	0.0	0.0	0.0
26	9.5	8.0	9.0	4.5	2.5	4.0	0.0	0.0	0.0	0.0	0.0	0.0
27	9.5	9.0	9.5	2.5	1.5	2.0	0.0	0.0	0.0	0.0	0.0	0.0
28	9.0	7.5	8.5	1.5	0.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0
29	7.5	7.0	7.5	2.5	1.0	1.5	1.5	0.0	0.5	0.0	0.0	0.0
30	7.0	6.0	6.5	3.5	2.5	3.0	2.0	0.5	1.0	0.0	0.0	0.0
31	6.0	5.0	5.5	---	---	---	3.0	2.0	2.5	0.0	0.0	0.0
MONTH	20.5	5.0	12.0	12.5	0.5	5.6	4.0	0.0	0.7	2.5	0.0	0.1

0422026250 NORTHRUP CREEK AT NORTH GREECE, NY—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	0.0	0.0	0.0	0.0	0.0	0.0	3.5	1.5	2.5	16.0	11.5	13.5
2	0.0	0.0	0.0	0.0	0.0	0.0	4.0	3.5	4.0	14.5	12.0	13.0
3	0.0	0.0	0.0	0.0	0.0	0.0	3.5	1.5	3.0	14.5	10.0	12.0
4	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	15.0	9.5	12.5
5	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.5	13.0	11.5	12.0
6	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	2.0	16.5	10.5	13.5
7	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.5	1.0	16.0	14.0	14.5
8	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.5	1.0	16.0	13.0	14.0
9	0.0	0.0	0.0	0.5	0.0	0.0	3.5	1.5	2.5	16.5	12.5	14.0
10	0.0	0.0	0.0	0.5	0.0	0.0	7.5	1.0	4.0	16.5	13.5	15.0
11	0.0	0.0	0.0	0.0	0.0	0.0	7.0	3.0	5.0	17.5	14.5	16.0
12	0.5	0.0	0.0	0.0	0.0	0.0	10.0	4.0	7.0	15.5	12.0	13.5
13	0.0	0.0	0.0	0.0	0.0	0.0	9.5	5.5	8.0	12.0	11.0	11.0
14	0.0	0.0	0.0	0.0	0.0	0.0	12.0	6.0	9.0	14.0	10.5	12.0
15	0.0	0.0	0.0	0.0	0.0	0.0	16.0	10.5	13.0	14.0	11.0	13.0
16	0.0	0.0	0.0	1.0	0.0	0.0	14.0	8.5	12.0	14.0	12.5	13.0
17	0.0	0.0	0.0	3.0	0.5	1.5	8.5	5.5	6.5	16.0	12.0	13.5
18	0.0	0.0	0.0	4.0	1.0	2.5	11.0	6.0	8.5	18.0	14.0	16.0
19	0.0	0.0	0.0	4.5	1.0	2.5	14.5	9.5	11.5	18.5	13.5	16.0
20	0.0	0.0	0.0	4.0	3.0	3.5	17.0	11.5	14.0	17.5	15.0	16.5
21	0.0	0.0	0.0	5.5	2.0	3.5	15.0	13.0	14.5	16.5	13.5	15.0
22	0.0	0.0	0.0	6.0	4.0	5.0	13.0	9.0	11.5	16.0	12.5	14.0
23	1.0	0.0	0.0	6.0	4.0	5.0	9.0	6.0	7.5	15.5	13.0	14.5
24	0.5	0.0	0.0	8.0	3.5	6.0	11.0	4.5	8.0	15.0	14.0	14.5
25	0.0	0.0	0.0	9.0	7.0	8.0	13.0	7.5	10.0	16.5	13.0	15.0
26	0.0	0.0	0.0	9.0	7.0	8.0	12.0	9.0	10.0	17.5	14.5	16.0
27	0.0	0.0	0.0	9.5	6.0	7.5	14.5	8.0	11.0	17.0	14.5	15.5
28	0.0	0.0	0.0	11.5	7.0	9.5	17.0	10.5	14.0	17.0	14.0	16.0
29	---	---	---	11.0	8.0	10.0	16.0	12.0	14.0	17.5	15.0	16.5
30	---	---	---	8.0	4.5	6.0	14.0	11.0	12.5	18.5	16.0	17.0
31	---	---	---	4.5	2.5	3.5	---	---	---	17.5	14.0	15.5
MONTH	1.0	0.0	0.0	11.5	0.0	2.6	17.0	0.0	7.6	18.5	9.5	14.3
	JUNE			JULY			AUGUST			SEPTEMBER		
1	14.0	12.0	13.0	22.5	19.5	21.0	23.0	21.5	22.0	19.5	18.5	19.0
2	16.5	12.5	14.5	23.5	20.5	22.0	23.0	20.5	22.0	19.5	18.5	19.0
3	15.5	13.5	14.5	24.5	22.0	23.0	23.0	22.0	22.5	21.0	19.0	20.0
4	15.5	14.0	15.0	25.0	22.0	23.5	24.0	22.0	23.0	20.5	19.5	20.0
5	16.0	14.5	15.0	25.5	23.5	24.0	23.0	22.0	22.5	20.0	18.0	19.0
6	18.5	14.5	16.5	25.0	22.5	23.5	22.5	21.5	22.0	19.0	17.0	18.0
7	18.0	16.5	17.0	23.0	22.0	22.5	23.0	21.0	22.0	20.5	18.0	19.0
8	19.0	16.0	17.5	24.5	22.0	23.0	23.5	21.5	22.5	20.0	18.5	19.5
9	19.0	17.0	18.0	23.0	21.5	22.5	23.5	22.5	23.0	19.0	17.0	18.0
10	18.0	16.0	17.5	21.5	20.0	21.0	24.0	23.0	23.0	19.5	17.5	18.5
11	19.5	18.0	18.5	22.5	20.5	21.5	23.5	22.5	23.0	20.0	17.5	19.0
12	19.0	17.0	17.5	21.0	19.0	20.0	23.5	23.0	23.0	20.0	19.0	19.5
13	18.0	16.5	17.5	21.5	18.5	20.0	24.5	22.0	23.0	20.5	19.0	19.5
14	19.0	17.5	18.0	22.5	19.0	20.5	24.5	22.5	23.5	22.5	20.5	21.5
15	20.5	18.0	19.0	23.0	20.5	21.5	25.0	22.5	23.5	22.0	21.0	21.5
16	19.0	16.5	17.5	22.5	20.5	21.5	24.5	23.5	24.5	21.0	18.5	19.5
17	20.5	16.5	18.5	22.0	19.0	20.5	23.5	21.5	22.5	19.5	17.5	18.5
18	20.0	19.0	19.5	22.0	20.5	21.5	22.5	20.5	21.5	19.0	17.0	18.5
19	19.5	18.5	19.0	21.5	19.0	20.0	23.0	20.5	21.5	19.0	18.5	19.0
20	18.5	17.0	17.5	21.0	20.0	20.5	23.5	21.0	22.0	19.0	17.0	18.5
21	18.0	17.0	17.5	20.5	20.0	20.5	24.0	22.0	23.0	17.5	15.5	16.5
22	20.5	16.5	18.5	21.5	20.5	21.0	24.0	22.0	23.5	18.0	16.0	17.0
23	22.0	18.5	20.0	21.5	20.0	21.0	22.0	20.0	21.0	18.0	17.0	18.0
24	23.0	19.5	21.5	21.0	20.0	20.5	20.5	18.0	19.5	17.5	16.0	17.0
25	24.0	21.0	22.5	22.0	19.5	21.0	22.0	19.5	21.0	17.5	16.0	17.0
26	25.0	22.0	23.5	22.0	20.5	21.5	22.5	20.5	21.5	16.5	14.5	15.5
27	24.0	20.5	22.5	22.5	21.5	22.0	22.5	20.5	22.0	18.0	16.5	17.5
28	22.0	19.0	20.5	21.5	20.5	21.0	20.5	18.5	19.5	17.5	15.5	17.0
29	21.5	20.0	21.0	22.0	19.5	20.5	23.0	19.5	21.0	15.5	13.5	14.5
30	22.0	20.0	21.0	22.5	19.5	21.0	23.0	18.5	20.5	13.5	12.5	13.0
31	---	---	---	22.5	20.5	21.5	19.5	17.0	18.5	---	---	---
MONTH	25.0	12.0	18.3	25.5	18.5	21.5	25.0	17.0	22.0	22.5	12.5	18.3
YEAR	25.5	0.0	10.3									

0422026250 NORTHRUP CREEK AT NORTH GREECE, NY—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Ending time	Dis-charge, cfs (00060)	Tur-bidity, NTU (00076)	Chlor-ide, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Residue total at 105 deg. C, sus-pended, mg/L (00530)	Residue vola-tile, sus-pended, mg/L (00535)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water unfltrd mg/L as N (00630)	Ortho-phos-phate, water, fltrd, mg/L as P (00671)	Phos-phorus, water, unfltrd mg/L (00665)
OCT													
19-19	0600	1700	9.8	11	46	51	--	--	.61	<.01	1.7	.108	.175
19-21	1800	0900	7.8	10	53	51	--	--	.56	<.01	1.6	.119	.154
21-24	0955	0854	7.5	5.7	56	62	--	--	.53	<.01	1.5	.105	.158
NOV													
14-18	1115	1014	8.6	6.5	89	60	--	--	.73	<.01	1.8	.095	.139
18-21	1235	1035	7.8	7.6	117	62	--	--	.75	.04	1.6	.078	.129
22-22	1110	2210	19	44	100	70	53	14	1.1	.06	1.7	.087	.256
22-25	2310	1010	12	10	143	80	--	--	.97	.13	1.6	.081	.147
25-27	1115	1015	6.5	3.1	--q	--q	--	--	1.3	.34	2.1	.078	.093
DEC													
11-12	1355	0955	5.4	2.3	184	96	--	--	2.3	1.6	2.5	.103	.162
12-14	1105	1804	21	24	318	74	--	--	1.9	.93	2.0	.089	.247
14-16	1905	1005	26	33	174	65	49	10	1.4	.33	2.6	.071	.232
16-19	1130	1029	12	9.8	232	76	--	--	1.2	.35	3.3	.067	.146
DEC 31- JAN 01	1320	0020	55	7.4	193	57	--	--	2.0	1.1	3.2	.097	.175
01-02	0120	1020	27	23	192	57	--	--	.97	.31	2.7	.074	.222
02-06	1040	0939	12	6.4	277	65	--	--	1.5	.72	3.5	.076	.126
JAN 30- FEB 03	0955	0854	11	3.1	289	66	--	--	1.9	1.2	3.1	.107	.181
03-04	1015	1815	32	11	367	48	--	--	1.2	.53	2.3	.074	.152
04-06	1915	0915	41	10	224	38	--	--	1.2	.35	2.4	.062	.127
06-10	1030	0929	18	3.6	270	65	--	--	1.3	.61	3.1	.060	.134
22-23	1010	0910	40	--	335	68	8	--	.96	.30	3.4	.089	.156
23-24	1010	0910	62	--	307	50	20	--	.96	.17	2.3	.069	.164
MAR													
14-18	0805	0905	72	--	210	51	86	--	1.3	.14	2.6	.040	.251
18-25	0950	0850	55	--	105	32	75	--	.93	.04	2.1	.043	.227
APR													
03-08	1845	0845	54	--	144	42	36	--	.95	.56	1.8	.025	.141
MAY													
11-13	0200	0859	42	--	100	46	114	--	1.9	.03	1.2	.044	.387
MAY 31- JUN 03	1040	0740	25	--	104	45	71	--	1.4	.01	1.6	.089	.359
JUL													
21-25	1335	1035	6.9	--	69	62	--q	--	1.2	.14	1.4	.198	.374

Remark codes used in this table:
< -- Less than

Null value qualifier codes used in this table:
q -- Sample discarded: holding time exceeded

04221000 GENESEE RIVER AT WELLSVILLE, NY

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

DRAINAGE AREA.--288 mi^2.

PERIOD OF RECORD.--August 1955 to September 1958, October 1972 to current year. Records for June 1916 to September 1972, published as Genesee River at Scio (station 04221500) at site 5.2 mi downstream, are not equivalent because of difference in drainage areas.

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

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

REMARKS.--Records good except those for estimated daily discharges, which are fair. Telephone and satellite gage-height telemeters at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,700 ft^3/s, Jan. 19, 1996, gage height, 16.13 ft; minimum instantaneous discharge not determined.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since June 1916, 38,500 ft^3/s, June 23, 1972, gage height, 20.7 ft, present datum, from floodmark, on basis of contracted-opening measurement of peak flow 0.5 mi downstream.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 21	2200	*6,990	*10.03	Aug 5	2200	5,550	9.19
Apr 5	0830	4,650	8.63	Aug 10	0430	3,650	7.98
Jul 22	0530	5,120	8.93	Aug 12	0200	4,820	8.74
Jul 24	0700	4,610	8.60	Sep 28	0430	4,380	8.45
Aug 1	1530	4,470	8.51				

Minimum discharge, 27 ft^3/s, Oct. 15, gage height, 4.27 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	48	161	e800	103	257	767	165	616	152	2,880	263
2	33	50	136	e650	100	e250	1,980	371	392	135	1,910	1,480
3	44	50	e105	516	98	e190	1,140	289	322	123	1,820	620
4	45	49	104	465	150	e180	1,190	231	370	111	2,380	1,110
5	44	49	117	411	226	e210	3,490	224	453	117	2,290	590
6	42	56	112	377	185	242	1,740	237	360	112	2,250	467
7	36	71	102	e340	171	e180	1,300	223	332	99	1,450	382
8	33	69	101	336	e135	e230	1,120	234	334	96	1,650	329
9	31	63	83	347	e130	e420	1,010	208	392	229	1,300	284
10	31	60	93	350	e130	e370	994	190	306	181	2,610	247
11	31	65	104	e280	e125	e310	928	256	316	279	1,830	214
12	31	67	181	e270	e125	e300	770	331	449	147	3,210	190
13	31	71	241	e240	e125	355	654	306	709	111	1,520	175
14	30	69	e440	e220	e120	e280	577	300	511	93	1,040	183
15	29	64	471	e200	e120	399	512	258	418	82	788	170
16	34	68	368	e180	e115	1,300	460	388	350	244	673	274
17	52	326	e260	e170	e110	3,090	408	422	300	132	612	168
18	49	363	e240	e165	e110	3,840	373	321	297	311	461	143
19	72	218	281	e165	e110	3,080	340	271	267	200	380	182
20	92	201	1,390	e160	e105	3,200	309	242	238	133	320	282
21	62	232	1,060	e160	105	5,260	316	306	1,200	1,260	278	178
22	51	378	680	e155	121	4,830	363	244	824	4,410	245	158
23	46	404	543	e155	362	2,820	318	216	543	3,080	216	436
24	41	277	440	e150	453	2,010	274	320	440	3,550	188	265
25	41	251	397	e145	381	1,740	245	294	368	1,800	169	261
26	96	233	e360	e140	e290	1,880	233	273	310	1,080	157	264
27	94	208	311	e135	e290	1,380	222	246	262	912	203	384
28	66	177	e270	e130	288	1,090	197	250	224	849	152	2,940
29	56	167	267	e125	---	1,040	182	232	192	575	137	1,070
30	51	169	237	e120	---	949	169	205	175	448	195	799
31	48	---	353	114	---	798	---	299	---	365	139	---
TOTAL	1,478	4,573	10,008	8,171	4,883	42,480	22,581	8,352	12,270	21,416	33,453	14,508
MEAN	47.7	152	323	264	174	1,370	753	269	409	691	1,079	484
MAX	96	404	1,390	800	453	5,260	3,490	422	1,200	4,410	3,210	2,940
MIN	29	48	83	114	98	180	169	165	175	82	137	143
CFSM	0.17	0.53	1.12	0.92	0.61	4.76	2.61	0.94	1.42	2.40	3.75	1.68
IN.	0.19	0.59	1.29	1.06	0.63	5.49	2.92	1.08	1.58	2.77	4.32	1.87

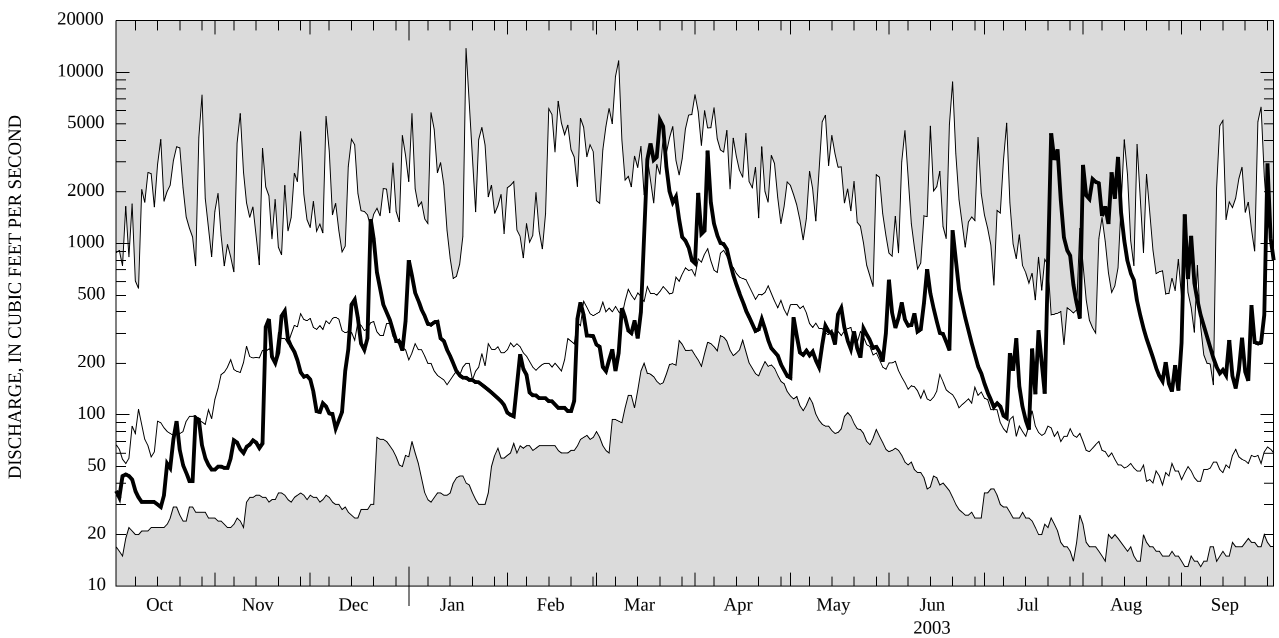
04221000 GENESEE RIVER AT WELLSVILLE, NY—Continued

DISCHARGE, CUBIC FEET PER SECOND—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 2003, BY WATER YEAR (WY)												
MEAN	215	338	434	376	461	761	852	451	300	169	142	169
MAX	784	1,001	1,016	1,263	1,443	1,689	1,925	1,208	1,269	691	1,079	1,246
(WY)	(1991)	(1997)	(1973)	(1996)	(1976)	(1956)	(1958)	(1996)	(1989)	(2003)	(2003)	(1977)
MIN	25.0	32.6	50.5	52.1	94.4	320	361	113	45.3	27.5	23.0	18.8
(WY)	(1958)	(1999)	(1999)	(1981)	(1958)	(1981)	(1976)	(1985)	(1991)	(1993)	(1999)	(1995)

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1956 - 2003	
ANNUAL TOTAL	132,310		184,173			
ANNUAL MEAN	362		505		388	
HIGHEST ANNUAL MEAN					564	1956
LOWEST ANNUAL MEAN					210	1999
HIGHEST DAILY MEAN	4,570	Jun 6	5,260	Mar 21	13,800	Jan 19, 1996
LOWEST DAILY MEAN	16	Sep 12	29	Oct 15	13	Sep 2, 1991
ANNUAL SEVEN-DAY MINIMUM	17	Sep 8	31	Oct 9	15	Sep 3, 1995
ANNUAL RUNOFF (CFSM)	1.26		1.75		1.35	
ANNUAL RUNOFF (INCHES)	17.09		23.79		18.31	
10 PERCENT EXCEEDS	923		1,280		880	
50 PERCENT EXCEEDS	237		251		202	
90 PERCENT EXCEEDS	31		66		40	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

04223000 GENESEE RIVER AT PORTAGEVILLE, NY

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

DRAINAGE AREA.--984 mi^2.

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

REVISED RECORDS.--WSP 264: 1908. WSP 564: 1916(M). WSP 2112; WDR NY-82-3: Drainage area. WDR 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 NGVD of 1929 (levels by Corps of Engineers). Prior to Aug. 24, 1911, nonrecording gage and Aug. 24, 1911 to Sept. 30, 1946, water-stage recorder at site 8 mi downstream at different datum. Oct. 1, 1946 to June 21, 1972, water-stage recorder at site 1,200 ft downstream at datum 2.60 ft higher (destroyed by flood of June 1972). June 21, 1972 to July 11, 1972, nonrecording gage at same site and datum. July 12, 1972 to May 18, 1973, nonrecording gage at site 500 ft upstream at datum 11.48 ft higher.

REMARKS.--Records fair 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.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 90,000 ft^3/s, June 23, 1972, gage height, 35.25 ft, site and datum then in use, from high-water mark, from rating curve extended above 25,000 ft^3/s on basis of contracted-opening measurement of 71,000 ft^3/s, 0.4 mi upstream and contracted-opening measurement of 98,200 ft^3/s, 0.7 mi downstream from gage; minimum discharge, 18 ft^3/s, Oct. 5, 17, 1913, gage height, 1.70 ft, site and datum then in use.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 15,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 22	0745	19,900	17.20	Jul 23	0030	17,000	16.25
Apr 5	1530	17,500	16.40	Aug 10	1000	*20,900	*17.53

Minimum discharge, 121 ft^3/s, Oct. 12, 13, 14, 15, 16, gage height, 8.27 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	186	210	840	4,680	e560	1,550	2,190	561	2,980	411	2,230	443
2	159	264	730	3,280	e550	1,470	3,940	1,020	1,860	377	3,630	4,050
3	186	475	e500	2,600	e540	e1,400	3,260	1,600	1,200	394	3,780	2,370
4	312	495	e520	2,330	e840	e1,300	2,590	986	1,010	365	3,510	1,920
5	377	470	e580	2,080	e1,800	e1,200	11,100	822	1,530	346	3,290	1,380
6	232	385	e600	1,900	e1,480	e1,250	6,230	890	1,530	364	7,020	1,020
7	182	521	e540	1,650	e1,180	e1,100	3,910	956	1,150	321	4,650	855
8	155	499	e510	1,640	e980	e1,150	3,100	799	1,200	302	3,450	735
9	141	420	e440	1,630	e900	2,010	2,780	803	2,110	325	5,750	653
10	133	373	e460	1,380	e780	2,750	2,860	781	1,450	650	13,900	578
11	127	601	e520	1,150	e740	2,120	3,720	866	1,490	847	5,570	529
12	123	676	e620	1,070	e710	1,610	2,690	1,390	2,120	774	8,020	501
13	123	559	e900	e940	e700	1,520	2,190	1,840	3,110	490	4,670	458
14	126	491	e3,000	e900	e680	1,650	1,830	1,800	2,600	364	2,710	401
15	123	336	3,460	e800	e640	2,060	1,610	1,310	1,600	306	1,970	482
16	127	319	2,570	e760	e630	3,450	1,410	1,490	1,300	494	1,540	1,150
17	179	838	1,930	e740	e600	8,630	1,250	1,720	1,060	713	1,830	748
18	288	1,820	1,580	e700	e590	12,300	1,160	1,370	907	603	1,220	486
19	476	1,190	1,760	e680	e580	9,400	1,080	1,050	834	776	976	556
20	685	1,200	5,130	e660	e570	9,620	1,000	929	781	498	842	469
21	582	2,270	5,350	e680	e530	15,500	950	1,350	981	505	745	547
22	613	2,480	3,320	e660	776	15,700	1,070	1,160	2,110	10,500	703	431
23	686	2,950	2,570	e650	1,910	8,530	1,100	883	1,310	10,300	575	546
24	665	2,180	2,110	e640	3,660	6,080	993	936	1,030	11,300	507	860
25	542	1,940	1,880	e630	3,120	5,930	887	1,160	866	6,480	462	648
26	492	1,850	1,620	e620	e2,200	8,510	805	948	753	3,000	438	613
27	589	1,480	1,190	e610	e2,000	6,000	760	814	643	2,080	609	522
28	537	849	1,030	e600	e1,800	4,020	705	826	541	2,500	592	3,120
29	274	763	1,020	e590	---	3,580	639	819	485	1,560	457	2,480
30	224	780	919	e580	---	3,390	587	704	449	1,160	489	1,560
31	206	---	1,780	e570	---	2,480	---	689	---	979	486	---
TOTAL	9,850	29,684	49,979	38,400	32,046	147,260	68,396	33,272	40,990	60,084	86,621	31,111
MEAN	318	989	1,612	1,239	1,144	4,750	2,280	1,073	1,366	1,938	2,794	1,037
MAX	686	2,950	5,350	4,680	3,660	15,700	11,100	1,840	3,110	11,300	13,900	4,050
MIN	123	210	440	570	530	1,100	587	561	449	302	438	401
CFSM	0.32	1.01	1.64	1.26	1.16	4.83	2.32	1.09	1.39	1.97	2.84	1.05
IN.	0.37	1.12	1.89	1.45	1.21	5.57	2.59	1.26	1.55	2.27	3.27	1.18

04223000 GENESEE RIVER AT PORTAGEVILLE, NY—Continued

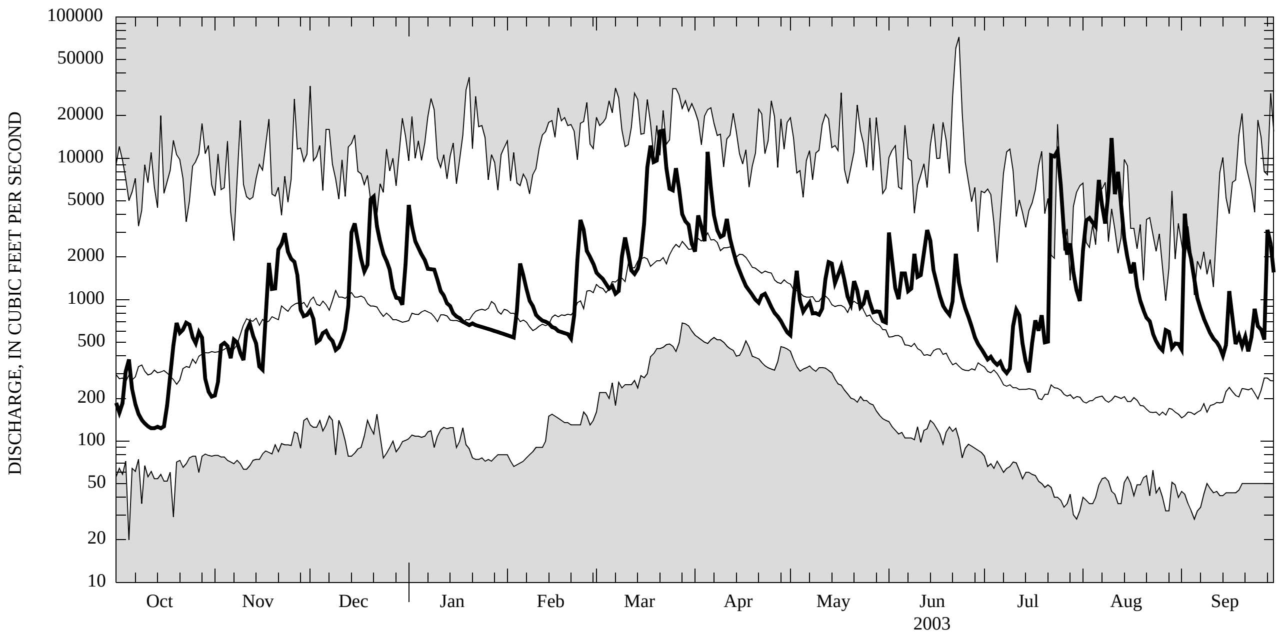
DISCHARGE, CUBIC FEET PER SECOND—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1908 - 2003, BY WATER YEAR (WY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	637	1,074	1,335	1,409	1,470	2,884	2,773	1,510	908	460	347	412
MAX	3,320	4,201	4,314	4,795	5,838	7,360	7,780	4,826	7,006	1,938	2,794	4,949
(WY)	(1918)	(1928)	(1928)	(1913)	(1976)	(1936)	(1940)	(1919)	(1972)	(2003)	(2003)	(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 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1908 - 2003	
ANNUAL TOTAL	501,275		627,693			
ANNUAL MEAN	1,373		1,720		1,267	
HIGHEST ANNUAL MEAN					2,038	1916
LOWEST ANNUAL MEAN					766	1962
HIGHEST DAILY MEAN	13,300	Feb 1	15,700	Mar 22	72,000	Jun 23, 1972
LOWEST DAILY MEAN	74	Sep 13	123	Oct 12	20	Oct 5, 1913
ANNUAL SEVEN-DAY MINIMUM	79	Sep 8	126	Oct 10	34	Jul 25, 1934
ANNUAL RUNOFF (CFSM)	1.40		1.75		1.29	
ANNUAL RUNOFF (INCHES)	18.95		23.73		17.49	
10 PERCENT EXCEEDS	3,240		3,540		2,900	
50 PERCENT EXCEEDS	919		919		610	
90 PERCENT EXCEEDS	126		390		135	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

04224000 MOUNT MORRIS LAKE NEAR MOUNT MORRIS, NY

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

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

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

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

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

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

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

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

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 717.43 ft, Mar. 27, contents, 210,800 acre-ft; minimum elevation, 586.83 ft, Nov. 11, contents, 961 acre-ft.

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

Elevation	Contents	Elevation	Contents	Elevation	Contents
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 ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	589.12	587.96	591.26	620.60	590.30	600.08	706.55	589.71	604.63	589.97	632.37	588.78
2	588.79	587.81	590.78	626.54	590.63	595.02	703.41	591.20	614.34	589.67	628.58	599.49
3	588.72	587.78	589.46	628.30	590.65	594.32	701.59	596.66	613.86	589.65	626.19	604.07
4	588.97	587.86	588.79	629.03	591.68	594.14	698.88	592.95	612.19	589.63	623.58	592.63
5	589.75	587.87	589.49	629.15	597.33	594.50	699.98	591.45	612.48	589.61	620.93	591.81
6	589.31	587.84	589.68	628.85	600.80	594.72	707.24	595.40	612.61	589.59	628.40	590.56
7	588.99	587.84	589.17	628.27	598.76	594.64	708.24	605.06	611.21	589.58	634.31	590.38
8	588.60	587.51	589.63	627.46	595.34	594.61	706.98	608.86	608.97	589.58	633.09	590.16
9	588.53	587.09	588.86	626.72	594.23	601.31	704.56	606.93	608.74	589.56	632.58	590.02
10	588.49	586.93	587.98	626.00	593.70	607.41	702.37	598.21	611.82	590.93	642.22	589.96
11	588.43	586.84	588.34	624.73	592.59	608.17	701.62	593.90	610.34	592.23	652.27	589.95
12	588.42	586.98	589.15	622.62	591.77	606.29	699.65	599.23	612.14	593.32	658.26	589.91
13	588.40	587.12	591.77	619.94	591.10	605.88	696.58	605.03	615.60	591.04	663.26	589.84
14	588.36	588.37	599.01	616.39	590.77	604.80	693.07	609.97	620.80	589.90	663.61	589.81
15	588.36	589.15	614.27	612.18	596.84	607.43	689.35	610.57	621.40	589.73	661.30	589.79
16	588.37	588.85	615.94	606.25	596.90	612.07	685.44	609.34	619.95	589.71	657.79	590.15
17	588.42	589.35	613.88	594.91	592.05	628.56	681.42	610.60	615.89	592.40	653.65	590.41
18	588.42	595.86	608.62	591.17	590.24	648.84	677.23	611.11	609.79	591.06	649.18	590.28
19	588.48	593.74	608.24	591.08	590.65	662.76	672.70	609.31	597.66	592.51	643.71	590.48
20	588.58	592.90	613.77	591.89	591.22	673.05	668.03	605.47	592.98	591.19	637.39	590.14
21	588.65	598.58	629.09	590.96	591.16	684.69	663.23	602.39	592.63	590.15	629.06	589.54
22	588.61	602.34	633.36	590.67	591.11	697.90	658.28	603.92	603.37	615.65	617.86	589.39
23	588.54	607.12	634.41	590.46	593.30	707.22	653.40	598.02	603.45	641.06	596.69	589.40
24	588.49	607.83	633.67	590.08	604.21	710.69	648.35	594.63	594.70	651.39	589.99	589.72
25	588.47	605.72	632.25	590.52	609.37	712.09	642.93	597.88	593.50	661.04	589.78	589.79
26	588.47	611.90	630.42	590.93	609.38	714.48	637.08	597.44	592.67	662.04	589.53	589.57
27	588.47	617.64	627.86	590.53	607.02	716.89	630.49	594.44	591.94	659.24	589.25	589.45
28	588.74	612.15	624.52	590.18	604.65	716.58	622.37	594.31	591.11	655.31	589.66	592.61
29	588.70	595.94	620.69	590.21	---	715.09	608.80	596.09	590.64	651.13	588.90	596.41
30	588.37	590.81	616.38	590.11	---	712.93	589.59	593.21	590.32	645.94	588.89	591.73
31	588.17	---	613.48	590.03	---	709.95	---	592.62	---	639.96	588.93	---
MEAN	588.62	594.19	607.56	607.64	595.63	646.04	675.31	600.19	605.72	609.15	625.85	591.21
MAX	589.75	617.64	634.41	629.15	609.38	716.89	708.24	611.11	621.40	662.04	663.61	604.07
MIN	588.17	586.84	587.98	590.03	590.24	594.14	589.59	589.71	590.32	589.56	588.89	588.78

WTR YR 2003 MEAN 612.35 MAX 716.89 MIN 586.84

04224775 CANASERAGA CREEK ABOVE DANSVILLE, NY

LOCATION.--Lat 42°32'08", long 77°42'16", Livingston County, Hydrologic Unit 04130002, on right bank on Poags Hole Road, 0.7 mi upstream from Stony Brook, and 1.7 mi south of Dansville.

DRAINAGE AREA.--88.9 mi^2.

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

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

GAGE.--Water-stage recorder. Datum of gage is 715.60 ft above NGVD of 1929.

REMARKS.--Records fair. Satellite gage-height and precipitation telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,340 ft^3/s, Jan. 19, 1996, gage height, 8.50 ft, from rating curve extended above 2,700 ft^3/s; minimum discharge, 6.5 ft^3/s, Aug. 17, 18, 1999.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 17	1930	2,880	4.57	Jul 22	2015	*6,720	*6.30
Mar 20	2330	3,080	4.69	Jul 24	1200	1,970	3.96

Minimum discharge, 13 ft^3/s, Oct. 15, 16, gage height, 0.57 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	19	e67	e490	e54	e170	283	50	342	22	132	43
2	16	20	e54	e280	e62	e165	298	135	180	21	106	162
3	23	21	e41	e200	e74	e160	265	107	126	25	112	81
4	26	21	e54	172	e170	e210	287	80	111	22	111	63
5	20	22	e52	146	e240	e250	761	74	117	19	335	50
6	18	28	e50	132	e170	e400	329	81	99	20	245	43
7	17	32	e46	121	e150	e270	235	74	93	19	168	38
8	15	29	e41	124	e100	e220	205	69	94	18	119	34
9	15	26	e38	129	e84	e500	186	64	122	24	262	31
10	15	24	e44	135	e70	e300	227	60	86	27	462	29
11	14	26	e36	113	e64	e200	249	94	135	44	339	27
12	14	27	e74	e100	e56	e180	204	105	116	28	439	25
13	14	27	88	e94	e54	217	166	100	184	22	246	23
14	14	26	287	e86	e52	189	145	92	136	19	177	23
15	14	24	214	e80	e58	237	131	81	101	19	136	26
16	17	26	160	e76	e72	656	118	134	78	34	111	56
17	20	75	e120	e74	e80	1,650	105	159	65	25	95	31
18	18	94	e94	e72	e110	1,550	97	108	58	57	80	26
19	21	67	121	e80	e90	994	92	87	55	43	70	25
20	31	79	565	e80	e82	1,130	87	76	50	28	62	29
21	25	108	343	e76	e76	1,710	86	100	68	76	56	26
22	20	130	229	e71	e90	1,310	91	79	66	902	52	24
23	19	140	175	e68	e240	738	83	69	49	587	47	28
24	19	96	e135	e64	e350	572	77	92	41	925	43	27
25	18	90	e115	e61	e230	540	71	86	36	341	40	24
26	25	86	e110	e58	e200	751	67	75	32	188	41	22
27	26	77	99	e56	e190	503	65	80	29	162	40	27
28	22	66	e90	e52	e190	416	59	210	27	154	35	120
29	22	64	e84	e58	---	398	55	106	25	110	40	52
30	19	68	e74	e54	---	365	51	81	23	88	50	43
31	18	---	310	e48	---	313	---	106	---	74	38	---
TOTAL	591	1,638	4,010	3,450	3,458	17,264	5,175	2,914	2,744	4,143	4,289	1,258
MEAN	19.1	54.6	129	111	124	557	172	94.0	91.5	134	138	41.9
MAX	31	140	565	490	350	1,710	761	210	342	925	462	162
MIN	14	19	36	48	52	160	51	50	23	18	35	22
CFSM	0.21	0.61	1.46	1.25	1.39	6.26	1.94	1.06	1.03	1.50	1.56	0.47
IN.	0.25	0.69	1.68	1.44	1.45	7.22	2.17	1.22	1.15	1.73	1.79	0.53

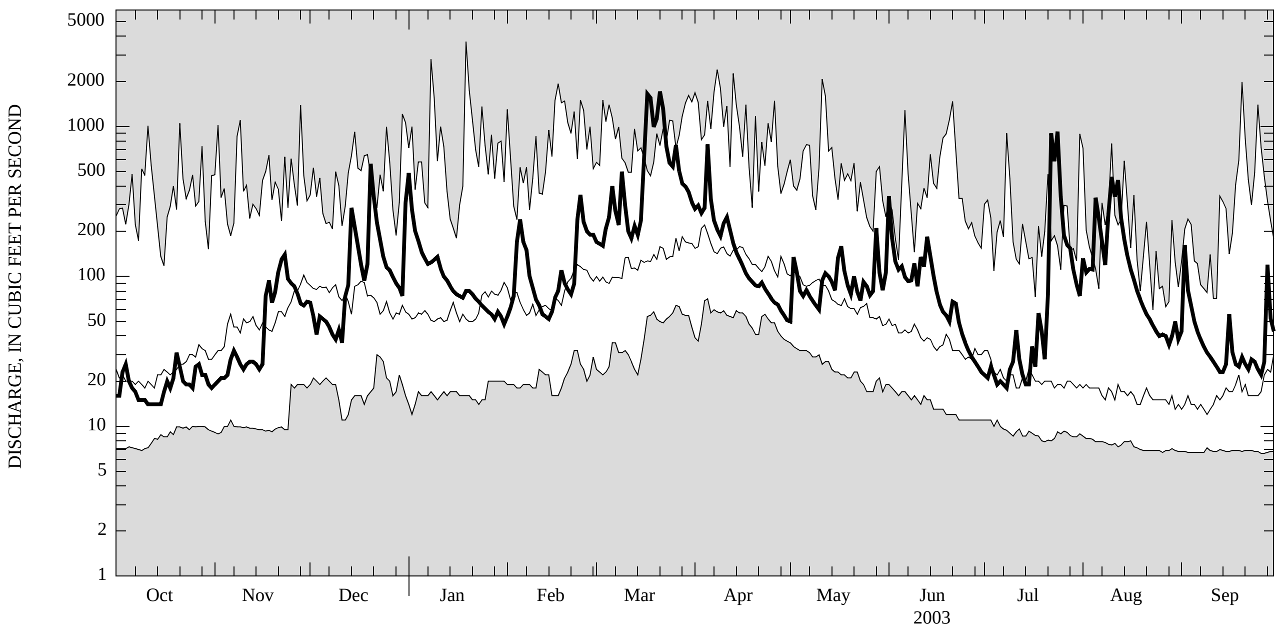
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	51.2	84.8	106	109	135	207	212	116	68.0	40.1	34.1	39.1
MAX	175	194	252	411	432	557	519	327	270	134	138	331
(WY)	(1991)	(1993)	(1978)	(1996)	(1976)	(2003)	(1993)	(1996)	(1989)	(2003)	(2003)	(1977)
MIN	10.7	17.4	21.6	24.4	31.4	70.6	81.8	26.2	16.8	10.8	7.52	6.83
(WY)	(2002)	(2002)	(1999)	(1984)	(1980)	(1984)	(1981)	(1985)	(1991)	(1985)	(1985)	(1995)

04224775 CANASERAGA CREEK ABOVE DANSVILLE, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1974 - 2003	
ANNUAL TOTAL	32,801.7		50,934			
ANNUAL MEAN	89.9		140		99.5	
HIGHEST ANNUAL MEAN					154	1996
LOWEST ANNUAL MEAN					64.1	1999
HIGHEST DAILY MEAN	1,300	Feb 1	1,710	Mar 21	3,680	Jan 19, 1996
LOWEST DAILY MEAN	7.1	Sep 13	14	Oct 11	6.6	Sep 26, 1995
ANNUAL SEVEN-DAY MINIMUM	7.5	Sep 7	14	Oct 9	6.7	Sep 2, 1995
ANNUAL RUNOFF (CFSM)	1.01		1.57		1.12	
ANNUAL RUNOFF (INCHES)	13.73		21.31		15.21	
10 PERCENT EXCEEDS	188		291		216	
50 PERCENT EXCEEDS	64		77		51	
90 PERCENT EXCEEDS	12		22		13	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

04227000 CANASERAGA CREEK AT SHAKERS CROSSING, NY

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

DRAINAGE AREA.--335 mi^2.

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

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

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,510 ft^3/s, Jan. 19, 1996, gage height 13.01 ft; maximum gage height 23.62 ft, present datum, May 17, 1916 (backwater from Genesee River); minimum discharge, 4.3 ft^3/s, Aug. 19, 1970, gage height, 2.26 ft, result of temporary regulation.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 23, 1972 reached an estimated discharge of 11,200 ft^3/s from U. S. Army Corps of Engineers publication (Tropical Storm Agnes, June 1972).

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 18	0030	3,150	10.27	Apr 5	1330	3,450	*a11.44
Mar 22	0500	3,450	10.81	Aug 10	0500	*3,650	11.43

Minimum discharge, 43 ft^3/s, Oct. 12, 13, 15, 16, gage height, 3.55 ft.

a Backwater from Genesee River.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	57	178	1,410	e140	247	598	171	1,080	77	282	106
2	49	62	139	817	164	256	623	297	650	74	262	523
3	68	64	e80	548	166	250	554	369	397	78	263	361
4	92	65	e92	460	557	230	656	252	333	79	301	219
5	69	65	e110	405	663	350	2,350	222	362	69	586	166
6	60	73	e106	375	416	550	1,600	239	323	66	812	140
7	53	83	e93	328	e340	299	1,060	221	273	67	663	124
8	48	77	e110	374	e240	363	823	205	292	69	432	113
9	46	71	e80	505	e220	1,110	831	194	349	75	1,300	105
10	45	68	80	648	e200	721	835	187	278	85	2,750	98
11	44	67	99	e400	e190	431	903	236	252	125	1,580	93
12	43	69	124	e340	e175	393	709	343	324	98	2,020	88
13	43	70	178	e280	e165	485	614	287	441	77	1,400	85
14	54	69	711	e250	e155	316	536	264	426	69	982	87
15	43	67	846	e240	e170	478	490	238	292	65	611	88
16	45	68	539	e210	140	1,330	445	287	216	86	448	223
17	74	163	e340	e180	150	2,340	395	445	177	91	459	139
18	63	264	e320	e160	154	2,780	337	314	164	86	339	106
19	57	192	366	e170	177	2,110	334	244	159	138	293	100
20	79	180	1,360	e170	175	1,810	320	209	151	83	244	102
21	74	240	1,160	e145	170	2,900	294	282	166	82	242	103
22	62	248	647	e150	196	3,140	332	250	200	656	218	92
23	58	350	465	e140	569	2,250	321	204	152	1,610	142	92
24	57	226	354	e150	638	1,670	286	253	127	1,500	123	99
25	54	195	290	e160	452	1,360	269	356	112	1,160	115	91
26	67	187	274	e160	281	1,900	248	257	102	521	112	88
27	75	167	261	e140	281	1,440	235	251	94	342	117	88
28	69	122	222	e130	290	1,080	218	490	89	398	103	483
29	63	141	232	e150	---	833	191	324	84	265	99	338
30	59	156	214	e130	---	828	174	242	84	189	141	188
31	56	---	692	e125	---	693	---	243	---	108	115	---
TOTAL	1,824	3,926	10,762	9,850	7,634	34,943	17,581	8,376	8,149	8,488	17,554	4,728
MEAN	58.8	131	347	318	273	1,127	586	270	272	274	566	158
MAX	92	350	1,360	1,410	663	3,140	2,350	490	1,080	1,610	2,750	523
MIN	43	57	80	125	140	230	174	171	84	65	99	85
CFSM	0.18	0.39	1.04	0.95	0.81	3.36	1.75	0.81	0.81	0.82	1.69	0.47
IN.	0.20	0.44	1.20	1.09	0.85	3.88	1.95	0.93	0.90	0.94	1.95	0.53

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	145	218	300	316	404	658	664	348	208	114	96.4	106
MAX	601	647	906	1,181	1,452	1,575	1,537	1,081	913	454	566	1,162
(WY)	(1978)	(1993)	(1978)	(1998)	(1976)	(1979)	(1993)	(1996)	(1989)	(1992)	(2003)	(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)

04227000 CANASERAGA CREEK AT SHAKERS CROSSING, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1959 - 2003	
ANNUAL TOTAL	92,371		133,815			
ANNUAL MEAN	253		367		298	
HIGHEST ANNUAL MEAN					464	1998
LOWEST ANNUAL MEAN					137	1965
HIGHEST DAILY MEAN	2,580	Feb 1	3,140	Mar 22	5,150	Jan 9, 1998
LOWEST DAILY MEAN	33	Sep 11	43	Oct 12	8.5	Aug 18, 1970
ANNUAL SEVEN-DAY MINIMUM	34	Sep 8	45	Oct 10	15	Jul 26, 1965
ANNUAL RUNOFF (CFSM)	0.76		1.09		0.89	
ANNUAL RUNOFF (INCHES)	10.26		14.86		12.09	
10 PERCENT EXCEEDS	554		825		700	
50 PERCENT EXCEEDS	163		218		149	
90 PERCENT EXCEEDS	45		69		40	

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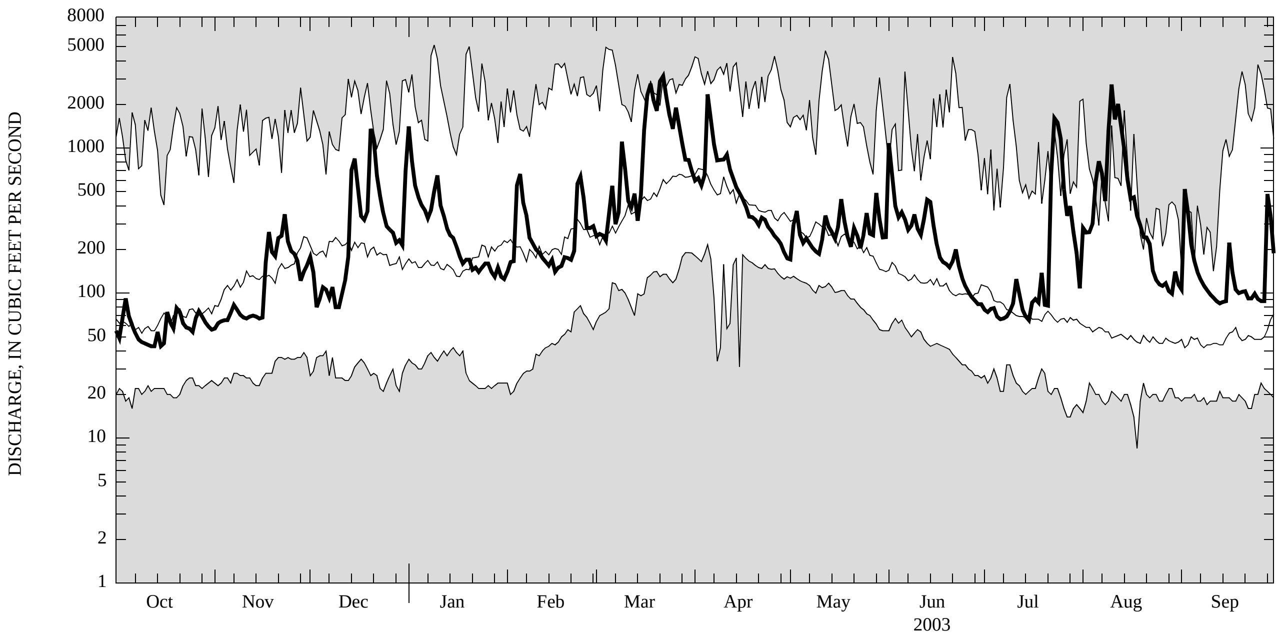


2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

04227500 GENESEE RIVER NEAR MOUNT MORRIS, NY

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

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

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

REVISED RECORDS.--WSP 1277: 1952. WSP 1387: 1913. WSP 1437: 1955. WSP 2112; WDR NY-82-3: Drainage area. WDR NY-78-1: 1974-77 (M, m). WDR NY-01-3: 1991, 1992, 1996-2000 (M).

GAGE.--Water-stage recorder. Datum of gage is 540.12 ft above NGVD of 1929. Prior to Sept. 11, 1915, nonrecording gage on bridge at datum 2.85 ft lower.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, prior to construction of Mt. Morris Reservoir in November 1951, 55,100 ft^3/s, May 17, 1916, gage height, 25.44 ft; maximum gage height, 25.80 ft, Mar. 13, 1920 (ice jam); minimum discharge, 18 ft^3/s, Aug. 29, 1909. Maximum discharge, since construction of Mt. Morris Reservoir in November 1951, 17,800 ft^3/s, June 23, 1972, gage height, 24.50 ft, minimum discharge, 12 ft^3/s, July 23, 1955, gage height, 0.22 ft, partially obstructed intake.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,610 ft^3/s, Aug. 10, gage height, 13.26 ft; minimum discharge, 158 ft^3/s, Oct. 11.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	282	276	1,010	3,660	e800	e1,800	7,160	794	2,610	492	6,400	491
2	225	292	885	3,150	e800	e1,700	7,060	1,020	2,650	451	5,900	2,600
3	233	406	e700	2,870	e860	e1,500	6,970	2,230	2,280	436	5,170	4,190
4	322	521	e510	2,780	e1,100	e1,350	6,840	1,480	1,490	442	5,010	2,120
5	412	539	e540	2,720	e2,000	e1,300	6,620	1,110	1,860	400	4,900	2,000
6	344	447	e600	2,660	e2,200	e1,350	4,320	1,050	2,130	399	2,890	1,250
7	267	523	e550	e2,600	e2,000	e1,700	5,470	709	2,020	396	4,450	978
8	215	582	e540	2,630	e1,800	e1,600	6,400	943	1,960	369	5,240	871
9	194	504	e500	2,760	e1,600	e2,500	7,000	1,360	2,000	363	6,170	771
10	183	444	e420	2,950	e1,300	e2,900	6,270	1,500	2,050	547	6,590	650
11	175	500	e500	2,630	e1,200	e2,600	6,030	1,050	1,950	759	3,810	577
12	170	688	557	2,490	e1,000	e2,300	6,630	1,570	2,120	1,010	4,180	548
13	170	648	962	e2,250	e980	e2,300	6,960	1,770	2,360	620	4,440	521
14	178	568	2,540	e2,100	e900	e2,300	6,890	1,920	2,550	462	5,430	489
15	168	453	4,380	e2,000	e800	e2,400	6,750	1,940	2,400	377	5,950	464
16	171	391	3,860	e1,800	e880	e3,000	6,590	1,950	2,520	384	6,100	860
17	220	532	3,550	e1,350	e1,200	5,000	6,430	2,220	2,730	750	6,270	1,120
18	269	2,100	3,190	e840	e1,040	3,710	6,360	2,060	2,450	603	6,150	621
19	365	1,710	2,120	e800	e700	2,780	6,430	1,900	1,680	823	6,060	590
20	608	1,330	3,260	e820	e800	3,090	6,300	1,750	956	676	5,980	526
21	704	2,200	3,580	e840	e800	5,490	6,210	1,700	902	512	5,910	578
22	590	2,730	3,040	e840	e860	5,450	6,200	1,730	1,930	1,830	5,110	506
23	669	3,090	3,100	e820	e1,400	4,620	6,030	1,470	2,110	3,070	2,480	491
24	697	3,040	3,350	e800	e2,300	5,770	5,820	1,190	1,370	3,200	652	792
25	673	2,230	3,260	e860	e2,100	5,970	5,570	1,590	999	4,020	568	814
26	531	700	3,180	e820	e2,100	6,530	5,300	1,510	856	4,990	526	700
27	558	1,060	3,110	e900	e2,050	6,600	5,000	1,210	747	6,130	551	656
28	609	3,180	2,970	e940	e2,000	6,910	4,610	1,440	641	6,630	720	1,960
29	498	1,880	2,860	e840	---	6,790	3,940	1,180	576	6,460	523	3,750
30	313	884	2,500	e760	---	7,310	1,130	1,000	537	6,170	566	1,960
31	279	---	2,530	e740	---	7,290	---	916	---	6,120	547	---
TOTAL	11,292	34,448	64,654	55,020	37,570	115,910	179,290	45,262	53,434	59,891	125,243	34,444
MEAN	364	1,148	2,086	1,775	1,342	3,739	5,976	1,460	1,781	1,932	4,040	1,148
MAX	704	3,180	4,380	3,660	2,300	7,310	7,160	2,230	2,730	6,630	6,590	4,190
MIN	168	276	420	740	700	1,300	1,130	709	537	363	523	464

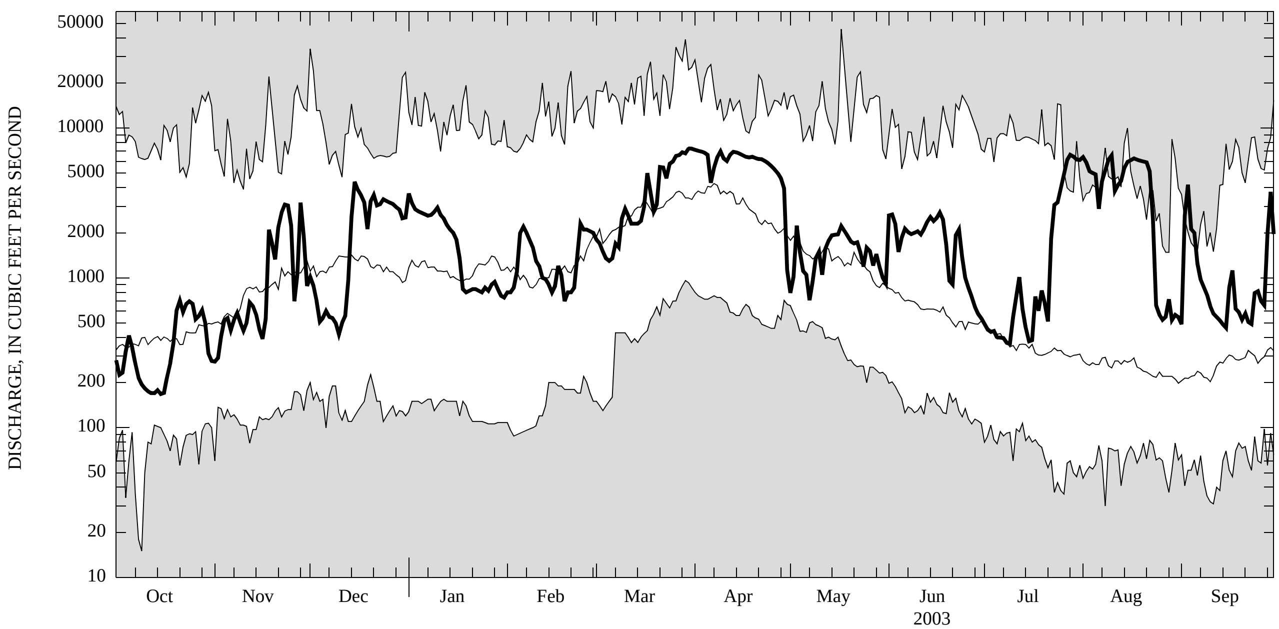
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	930	1,420	1,993	1,806	2,054	3,706	4,133	2,130	1,244	747	522	542
MAX	4,743	3,720	5,369	5,659	5,106	7,755	7,270	5,677	4,305	6,801	4,040	4,130
(WY)	(1978)	(1968)	(1973)	(1998)	(1990)	(1976)	(1978)	(1996)	(1989)	(1972)	(2003)	(1977)
MIN	107	152	280	135	383	1,365	1,464	477	191	87.6	116	99.2
(WY)	(1961)	(1965)	(1961)	(1961)	(1958)	(1960)	(1995)	(1955)	(1955)	(1955)	(2001)	(1995)

04227500 GENESEE RIVER NEAR MOUNT MORRIS, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1952 - 2003	
ANNUAL TOTAL	655,738		816,458			
ANNUAL MEAN	1,797		2,237		1,766	
HIGHEST ANNUAL MEAN					2,601	1984
LOWEST ANNUAL MEAN					1,057	1965
HIGHEST DAILY MEAN	6,210	May 22	7,310	Mar 30	16,500	Jun 24, 1972
LOWEST DAILY MEAN	104	Sep 14	168	Oct 15	15	Oct 9, 1980
ANNUAL SEVEN-DAY MINIMUM	111	Sep 8	174	Oct 10	57	Jul 27, 1955
10 PERCENT EXCEEDS	4,390		6,080		4,750	
50 PERCENT EXCEEDS	1,010		1,510		956	
90 PERCENT EXCEEDS	178		446		185	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

04227980 CONESUS LAKE NEAR LAKEVILLE, NY

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

DRAINAGE AREA.--69.8 mi^2.

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

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

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929. 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 mi^2. Daily average of about 2 ft^3/s diverted from lake for water supply for Avon, Geneseo, and Lakeville Water District.

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

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 819.29 ft, Mar. 22; minimum elevation, 816.63 ft, Dec. 10, 11.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	817.21	816.82	816.72	817.40	817.67	817.13	818.94	818.77	818.88	818.65	818.75	818.33
2	817.21	816.81	816.71	817.49	817.65	817.11	818.86	818.81	818.91	818.64	818.75	818.39
3	817.22	816.79	816.71	817.55	817.61	817.10	818.80	818.82	818.87	818.63	818.73	818.39
4	817.22	816.78	816.70	817.61	817.63	817.08	818.82	818.81	818.82	818.61	818.73	818.38
5	817.20	816.77	816.69	817.64	817.66	817.09	818.95	818.82	818.77	818.60	818.74	818.36
6	817.17	816.77	816.69	817.66	817.64	817.13	819.01	818.82	818.71	818.58	818.78	818.34
7	817.14	816.75	816.68	817.70	817.62	817.15	818.95	818.79	818.69	818.57	818.77	818.32
8	817.12	816.74	816.67	817.73	817.60	817.17	818.88	818.76	818.67	818.57	818.75	818.30
9	817.10	816.72	816.66	817.76	817.56	817.27	818.77	818.72	818.68	818.58	818.93	818.28
10	817.08	816.71	816.65	817.79	817.54	817.33	818.66	818.67	818.66	818.58	818.95	818.27
11	817.07	816.70	816.64	817.83	817.51	817.36	818.62	818.68	818.68	818.60	818.81	818.24
12	817.06	816.70	816.66	817.84	817.49	817.39	818.60	818.69	818.69	818.57	818.77	818.22
13	817.05	816.69	816.66	817.86	817.45	817.43	818.61	818.68	818.74	818.55	818.62	818.21
14	817.03	816.68	816.74	817.87	817.41	817.46	818.63	818.66	818.77	818.53	818.52	818.20
15	817.00	816.66	816.80	817.88	817.36	817.50	818.65	818.65	818.77	818.52	818.51	818.20
16	817.00	816.67	816.85	817.89	817.33	817.62	818.67	818.67	818.77	818.52	818.52	818.21
17	817.01	816.72	816.87	817.90	817.31	817.92	818.67	818.72	818.76	818.50	818.52	818.13
18	816.99	816.74	816.88	817.89	817.30	818.27	818.68	818.73	818.75	818.48	818.49	818.00
19	816.98	816.73	816.89	817.87	817.25	818.55	818.69	818.73	818.73	818.46	818.46	817.91
20	816.96	816.72	816.94	817.86	817.21	818.78	818.70	818.73	818.72	818.44	818.42	817.88
21	816.95	816.71	817.02	817.85	817.18	819.09	818.71	818.79	818.72	818.45	818.41	817.86
22	816.93	816.72	817.07	817.84	817.16	819.26	818.73	818.79	818.73	818.54	818.39	817.86
23	816.92	816.75	817.10	817.83	817.21	819.19	818.75	818.80	818.72	818.67	818.37	817.86
24	816.91	816.74	817.12	817.81	817.22	819.00	818.75	818.81	818.71	818.77	818.35	817.84
25	816.89	816.73	817.17	817.79	817.22	818.88	818.76	818.85	818.70	818.86	818.33	817.82
26	816.91	816.73	817.21	817.77	817.20	818.99	818.77	818.84	818.70	818.86	818.32	817.81
27	816.90	816.73	817.22	817.76	817.18	819.05	818.77	818.82	818.68	818.85	818.31	817.82
28	816.88	816.73	817.23	817.75	817.15	819.03	818.77	818.84	818.67	818.82	818.29	817.89
29	816.86	816.72	817.23	817.73	---	819.02	818.76	818.81	818.66	818.79	818.31	817.89
30	816.84	816.72	817.24	817.71	---	819.02	818.76	818.77	818.67	818.75	818.33	817.89
31	816.83	---	817.28	817.69	---	819.00	---	818.75	---	818.72	818.32	---
MEAN	817.02	816.73	816.89	817.76	817.40	818.04	818.76	818.76	818.73	818.62	818.56	818.10
MAX	817.22	816.82	817.28	817.90	817.67	819.26	819.01	818.85	818.91	818.86	818.95	818.39
MIN	816.83	816.66	816.64	817.40	817.15	817.08	818.60	818.65	818.66	818.44	818.29	817.81

CAL YR 2002 MEAN 817.83 MAX 819.26 MIN 816.59
WTR YR 2003 MEAN 817.95 MAX 819.26 MIN 816.64

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 mi^2.

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

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 810 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good. Flow regulated by Conesus Lake (see station 04227980).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,030 ft^3/s, May 12, 1996, gage height, 5.55 ft; minimum discharge, 2.5 ft^3/s, Aug. 29, 31, 2003, gage height, 0.33 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 678 ft^3/s, Mar. 23, gage height, 4.40 ft; minimum discharge, 2.5 ft^3/s, Aug. 29, 31, gage height, 0.33 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	9.1	12	19	55	75	209	26	141	17	44	3.3
2	11	8.9	12	15	78	77	218	29	187	17	44	16
3	10	8.7	12	15	78	76	153	28	205	17	44	24
4	10	8.7	12	15	100	45	135	28	200	15	43	24
5	10	8.3	12	15	103	13	238	41	197	14	77	24
6	9.9	9.8	12	15	97	11	289	56	151	14	130	24
7	9.9	13	12	15	95	9.7	311	77	122	12	140	24
8	9.8	13	12	15	94	14	335	97	107	9.7	150	16
9	9.8	12	12	18	88	24	353	96	98	9.8	281	9.6
10	9.8	12	12	18	81	12	298	96	70	9.2	507	14
11	9.9	12	12	16	81	12	171	100	41	8.9	536	17
12	9.9	12	12	15	80	13	103	86	41	8.9	528	17
13	10	11	10	14	79	13	50	73	42	8.8	456	18
14	9.9	8.4	15	14	79	12	29	73	41	11	178	16
15	9.9	8.1	12	14	78	16	22	61	40	12	62	32
16	10	8.4	10	14	77	22	21	43	39	12	62	74
17	10	10	9.0	27	76	19	21	43	39	12	63	160
18	9.9	9.1	8.7	46	76	16	21	41	38	12	65	225
19	10	8.7	9.0	45	76	13	20	41	35	11	65	91
20	10	10	10	44	75	34	20	33	26	11	61	22
21	9.8	13	9.2	44	75	251	20	30	27	12	17	14
22	9.8	14	8.8	44	78	420	20	30	27	17	14	9.1
23	9.7	14	8.5	e43	90	653	20	61	22	16	14	9.5
24	9.7	13	8.4	43	79	558	20	85	16	18	14	9.9
25	9.1	13	7.7	43	77	300	20	86	13	35	14	11
26	9.2	13	10	43	76	147	20	98	6.3	69	8.6	11
27	9.5	13	13	e43	76	204	19	120	8.5	69	3.2	11
28	9.5	13	13	e43	75	218	20	132	8.7	66	2.9	12
29	9.3	12	13	43	---	139	20	130	8.9	65	4.1	12
30	9.3	12	13	e43	---	131	22	125	13	65	3.1	12
31	9.3	---	23	42	---	165	---	128	---	60	2.9	---
TOTAL	304.9	331.2	355.3	883	2,272	3,712.7	3,218	2,193	2,010.4	734.3	3,633.8	962.4
MEAN	9.84	11.0	11.5	28.5	81.1	120	107	70.7	67.0	23.7	117	32.1
MAX	11	14	23	46	103	653	353	132	205	69	536	225
MIN	9.1	8.1	7.7	14	55	9.7	19	26	6.3	8.8	2.9	3.3

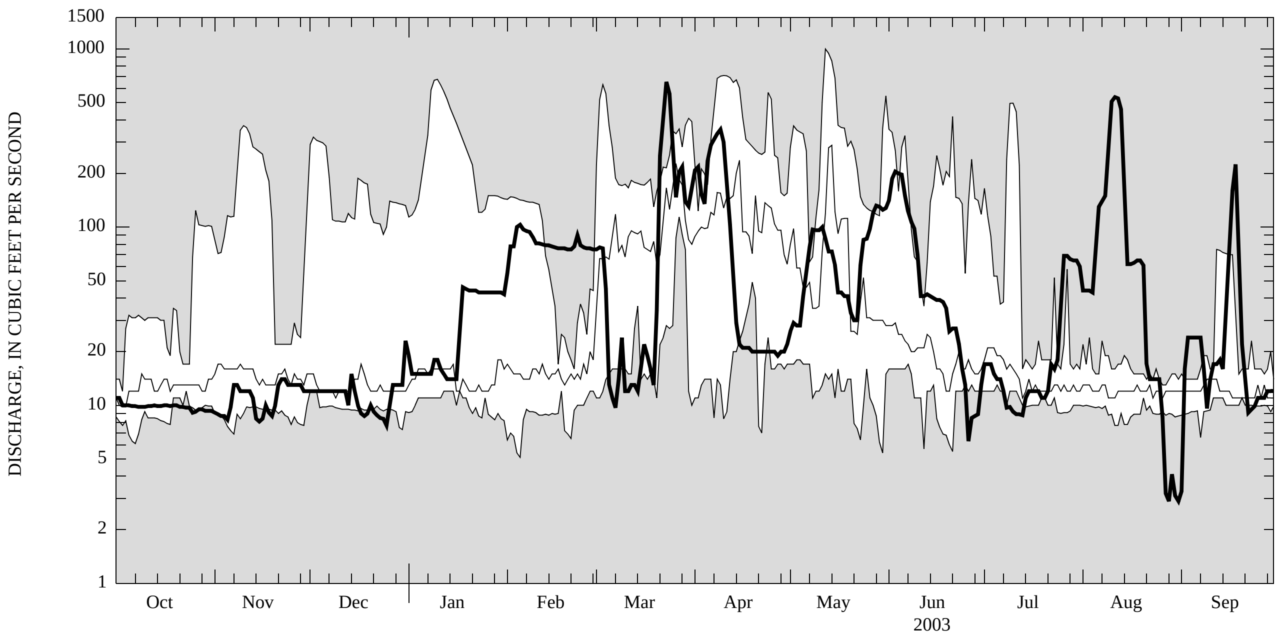
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	16.2	33.2	43.0	61.7	32.8	119	142	105	53.5	26.1	25.5	16.6
MAX	32.4	142	140	276	81.1	197	225	254	88.3	85.6	117	32.1
(WY)	(1997)	(1997)	(1997)	(1998)	(2003)	(1998)	(2001)	(1996)	(2002)	(1998)	(2003)	(2003)
MIN	9.84	9.86	10.1	11.9	12.6	66.6	93.1	24.8	13.1	11.3	9.62	11.2
(WY)	(2003)	(2001)	(1999)	(2002)	(1997)	(2000)	(1997)	(2001)	(1999)	(1999)	(1999)	(2001)

04227995 CONESUS CREEK NEAR LAKEVILLE, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1996 - 2003	
ANNUAL TOTAL	16,595.1		20,611.0			
ANNUAL MEAN	45.5		56.5		54.4	
HIGHEST ANNUAL MEAN					82.1	1998
LOWEST ANNUAL MEAN					39.1	1999
HIGHEST DAILY MEAN	545	May 31	653	Mar 23	997	May 12, 1996
LOWEST DAILY MEAN	6.6	Jun 20	2.9	Aug 28	2.9	Aug 28, 2003
ANNUAL SEVEN-DAY MINIMUM	8.8	Dec 19	4.0	Aug 26	4.0	Aug 26, 2003
10 PERCENT EXCEEDS	156		137		145	
50 PERCENT EXCEEDS	15		20		15	
90 PERCENT EXCEEDS	9.9		9.3		9.7	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

04228500 GENESEE RIVER AT AVON, NY

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

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

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

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

GAGE.--Water-stage recorder. Datum of gage is 500.11 ft above NGVD of 1929.

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

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,190 ft^3/s, Apr. 5, gage height, 32.13 ft; minimum discharge, 195 ft^3/s, Oct. 14, gage height, 14.26 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	396	310	1,130	3,660	e840	e1,900	7,630	1,200	2,040	608	6,220	671
2	296	309	1,150	3,520	e840	e1,900	7,510	1,100	3,220	562	6,150	967
3	255	339	847	2,970	e920	e1,600	7,380	1,700	2,770	520	5,430	3,500
4	284	550	e580	2,740	e1,200	e1,450	7,330	1,990	2,330	518	5,030	3,100
5	389	618	e650	2,630	e2,000	e1,400	8,040	1,470	1,820	493	4,990	2,000
6	479	629	e760	2,560	e2,150	e1,450	7,340	1,350	2,260	458	3,970	1,550
7	358	526	e760	2,500	e2,300	e1,800	6,030	1,210	2,180	470	3,700	1,200
8	288	664	e750	2,510	e2,000	e1,700	6,610	915	2,090	441	4,910	1,030
9	241	660	e700	2,590	e1,800	e2,500	7,490	1,370	2,030	418	5,760	909
10	224	572	e500	3,030	e1,400	e3,400	7,670	1,670	2,100	430	7,050	807
11	211	512	e600	2,820	e1,300	e2,900	6,750	1,450	2,000	733	5,960	716
12	203	690	e800	2,650	e1,100	2,490	6,860	1,590	2,000	971	5,090	658
13	198	807	e760	2,360	e1,050	2,490	7,220	1,820	2,200	895	4,760	629
14	196	705	e1,500	e2,100	e960	2,470	7,250	1,930	2,470	635	5,230	587
15	202	641	e3,600	e1,700	e840	2,280	7,080	2,000	2,410	492	5,720	549
16	201	490	3,580	e1,620	e950	3,100	6,880	2,010	2,270	428	5,930	819
17	214	517	3,300	e1,560	e1,300	4,950	6,670	2,330	2,490	554	6,230	1,420
18	252	1,200	3,080	e1,300	e1,100	6,040	6,480	2,280	2,440	798	6,190	1,130
19	327	1,930	2,390	e860	e750	4,600	6,490	2,060	2,150	742	6,130	816
20	497	1,500	2,290	e860	e840	3,600	6,460	1,900	1,390	869	5,930	725
21	792	1,570	3,660	e900	e830	6,130	6,300	1,820	1,090	653	5,920	633
22	738	2,230	3,210	e900	e920	7,690	6,290	1,810	1,320	925	5,540	669
23	697	2,490	2,820	e870	e1,500	6,420	6,190	1,740	1,970	2,290	4,210	599
24	793	2,700	3,070	e850	e2,100	6,420	5,980	1,530	1,790	2,460	1,510	683
25	773	2,570	3,080	e920	e2,500	6,680	5,730	1,730	1,270	3,390	840	913
26	739	1,540	2,970	e870	e2,400	7,080	5,450	1,820	1,050	4,240	753	762
27	631	658	2,930	e950	e2,300	7,560	5,150	1,620	918	5,390	693	720
28	700	2,000	2,820	e1,000	e2,200	7,510	4,800	1,560	805	6,280	790	785
29	700	2,530	2,710	e900	---	7,320	4,300	1,570	706	6,460	788	3,290
30	502	1,380	2,560	e820	---	e7,450	2,780	1,410	655	6,250	689	2,540
31	345	---	2,390	e780	---	7,680	---	1,240	---	5,980	707	---
TOTAL	13,121	33,837	61,947	56,300	40,390	131,960	194,140	51,195	56,234	56,353	132,820	35,377
MEAN	423	1,128	1,998	1,816	1,442	4,257	6,471	1,651	1,874	1,818	4,285	1,179
MAX	793	2,700	3,660	3,660	2,500	7,690	8,040	2,330	3,220	6,460	7,050	3,500
MIN	196	309	500	780	750	1,400	2,780	915	655	418	689	549

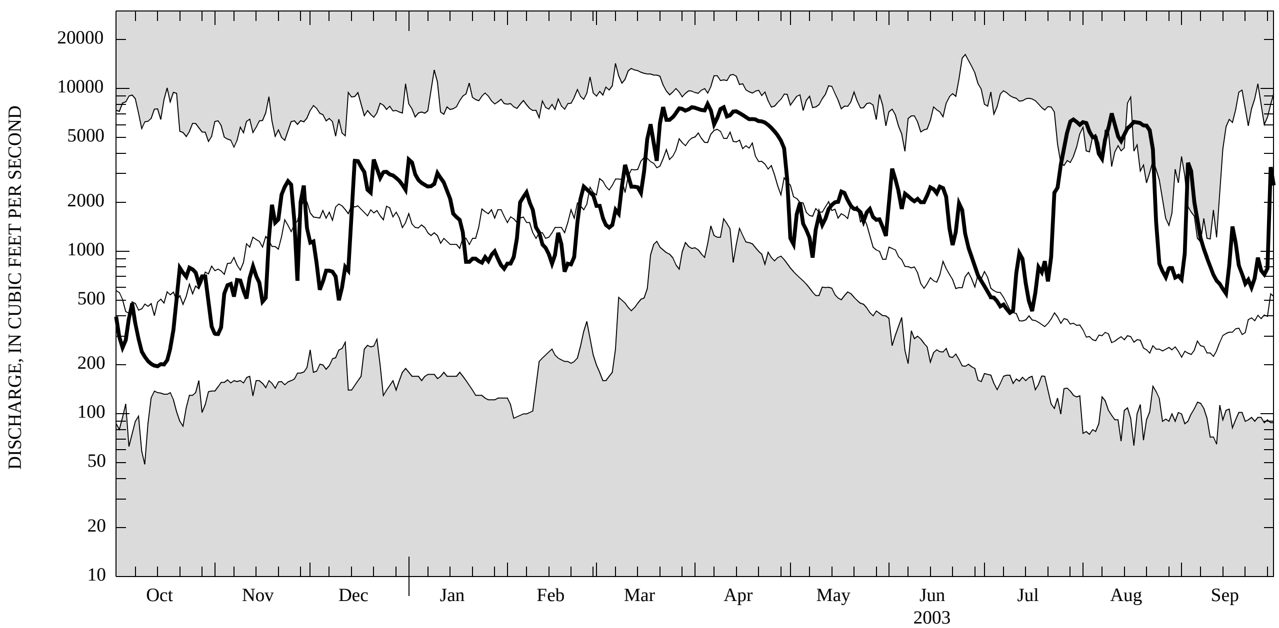
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1,020	1,556	2,210	2,018	2,324	4,054	4,584	2,354	1,375	840	584	589
MAX	5,146	3,756	5,942	6,715	6,036	8,916	7,846	6,516	4,906	7,032	4,285	4,569
(WY)	(1978)	(1997)	(1973)	(1998)	(1990)	(1956)	(1993)	(1996)	(1989)	(1972)	(2003)	(1977)
MIN	145	182	325	155	397	1,813	1,672	613	281	172	142	111
(WY)	(1964)	(1965)	(1961)	(1961)	(1958)	(1960)	(1995)	(1985)	(1999)	(1962)	(1965)	(1955)

04228500 GENESEE RIVER AT AVON, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1955 - 2003	
ANNUAL TOTAL	682,733		863,674			
ANNUAL MEAN	1,871		2,366		1,957	
HIGHEST ANNUAL MEAN					2,846	1978
LOWEST ANNUAL MEAN					1,130	1965
HIGHEST DAILY MEAN	6,290	Apr 15	8,040	Apr 5	16,200	Jun 25, 1972
LOWEST DAILY MEAN	125	Sep 14	196	Oct 14	49	Oct 10, 1980
ANNUAL SEVEN-DAY MINIMUM	135	Sep 9	204	Oct 11	88	Aug 1, 1955
10 PERCENT EXCEEDS	4,380		6,220		5,330	
50 PERCENT EXCEEDS	1,200		1,600		1,100	
90 PERCENT EXCEEDS	208		515		223	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

04229500 HONEOYE CREEK AT HONEOYE FALLS, NY

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

DRAINAGE AREA.--196 mi^2.

WATER-DISCHARGE RECORDS

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 NGVD of 1929. Prior to Sept. 30, 1970, water-stage recorder at same site at datum 609.76 ft above NGVD of 1929.

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 ft^3/s). This pumped water enters creek upstream from gage. Satellite gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,630 ft^3/s, Mar. 28, 1950, gage height, 6.42 ft, datum then in use; minimum discharge, no flow, Aug. 12, 15, 2001.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 23, 1972, reached a stage of about 6.3 ft, present datum; discharge, about 6,600 ft^3/s, from rating curve extended above 3,300 ft^3/s.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 10	0500	ice jam	*4.30	Mar 22	1000	1,200	3.23
Mar 18	1300	*a1,300	a3.3	Apr 6	0730	1,240	3.26

Minimum discharge, 0.23 ft^3/s, Oct. 15, 16.

a About.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	2.6	e12	e390	e52	e105	299	44	513	16	21	16
2	1.6	2.6	e13	e210	e58	e100	286	71	816	14	23	42
3	1.5	2.3	e12	e160	e60	e95	248	109	575	11	21	75
4	0.98	2.3	e11	e140	e75	e90	261	88	382	8.7	29	44
5	0.86	2.5	10	e140	e220	e100	784	73	296	7.1	62	29
6	0.57	3.2	9.5	e125	e190	e110	1,040	76	249	5.5	606	22
7	0.39	3.0	e9.0	e110	e150	e100	621	94	204	5.0	527	17
8	0.36	3.1	e9.0	e120	e120	e100	391	69	198	4.7	350	14
9	0.35	3.2	8.4	e130	e100	e230	337	61	194	4.1	317	12
10	0.33	3.3	e10	e150	e90	e320	336	53	189	4.2	276	9.6
11	0.29	3.4	9.4	e120	e80	e250	360	77	144	5.4	167	8.3
12	0.26	3.2	11	e120	e75	e160	298	242	127	5.7	258	7.4
13	0.29	3.0	11	e110	e70	e150	234	192	128	6.0	542	6.2
14	0.24	3.0	e25	e110	e62	e130	188	176	149	5.5	278	5.4
15	0.24	3.5	e65	e105	e60	e150	162	150	127	4.6	115	5.9
16	0.54	6.6	e60	e100	e58	e280	143	146	98	4.5	79	7.3
17	0.45	17	e45	e95	e56	e750	123	260	76	3.1	82	18
18	0.71	25	e34	e85	e54	e1,200	105	222	67	2.6	70	70
19	1.2	21	e38	e80	e56	985	115	154	56	2.4	52	68
20	1.6	18	e70	e75	e56	756	103	120	45	2.1	42	34
21	1.9	15	e160	e70	e58	1,050	85	124	41	2.5	34	17
22	2.1	15	e120	e65	e65	1,190	83	125	46	7.1	28	10
23	2.7	17	e95	e62	e120	968	83	102	41	27	23	8.5
24	2.2	19	e70	e60	e200	685	83	140	34	47	19	7.8
25	2.2	19	e55	e60	e180	554	76	538	29	64	15	7.5
26	3.0	16	e35	e58	e140	702	69	376	26	50	14	6.0
27	2.5	15	e40	e56	e120	714	63	253	22	35	11	8.2
28	2.4	13	e38	e54	e110	527	57	216	19	28	9.7	23
29	2.8	11	e36	e52	---	427	52	179	15	26	9.2	62
30	3.0	11	e34	e50	---	389	47	152	14	22	26	40
31	2.8	---	e100	e50	---	367	---	134	---	20	22	---
TOTAL	42.46	282.8	1,255.3	3,312	2,735	13,734	7,132	4,816	4,920	450.8	4,127.9	701.1
MEAN	1.37	9.43	40.5	107	97.7	443	238	155	164	14.5	133	23.4
MAX	3.0	25	160	390	220	1,200	1,040	538	816	64	606	75
MIN	0.24	2.3	8.4	50	52	90	47	44	14	2.1	9.2	5.4

04229500 HONEOYE CREEK AT HONEOYE FALLS, NY—Continued

DISCHARGE, CUBIC FEET PER SECOND—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

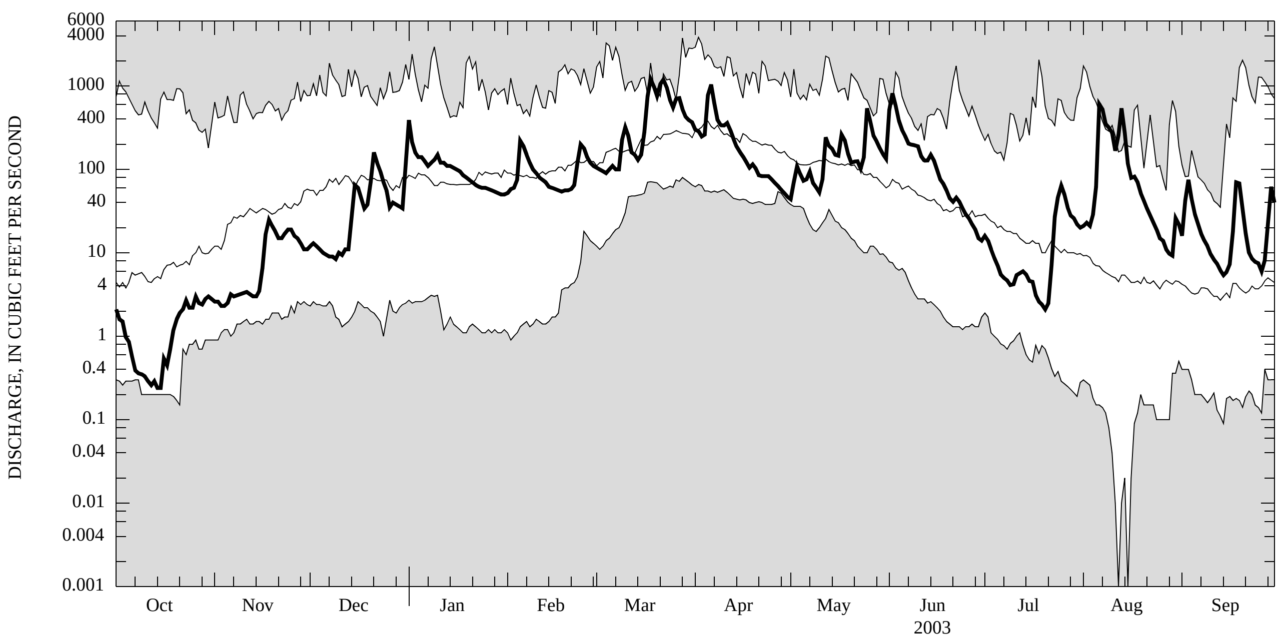
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	39.6	72.8	125	131	163	297	328	174	78.5	31.4	23.6	20.5
MAX	443	345	493	486	664	685	1,146	608	344	377	336	538
(WY)	(1978)	(1978)	(1946)	(1998)	(1976)	(1976)	(1993)	(1996)	(1989)	(1992)	(1992)	(1977)
MIN	0.45	2.06	2.04	2.15	10.3	107	50.0	23.7	3.19	0.94	0.24	0.62
(WY)	(1964)	(1961)	(1961)	(1961)	(1958)	(1965)	(1946)	(1995)	(1995)	(2001)	(2001)	(2002)

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1946 - 2003	
ANNUAL TOTAL	35,589.20		43,509.36			
ANNUAL MEAN	97.5		119		123	
HIGHEST ANNUAL MEAN					238	1993
LOWEST ANNUAL MEAN					46.4	1965
HIGHEST DAILY MEAN	1,240	Feb 2	1,200	Mar 18	3,820	Apr 2, 1993
LOWEST DAILY MEAN	0.09	Sep 14	0.24	Oct 14	0.00	Aug 12, 2001
ANNUAL SEVEN-DAY MINIMUM	0.16	Sep 8	0.29	Oct 9	0.01	Aug 10, 2001
10 PERCENT EXCEEDS	239		298		325	
50 PERCENT EXCEEDS	38		56		52	
90 PERCENT EXCEEDS	0.38		2.8		2.3	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.
ZERO FLOWS ARE PLOTTED AS 0.001 DISCHARGE, WHICH MAY INCLUDE THE LOWEST DAILY MEAN FOR PERIOD OF RECORD.

04229500 HONEOYE CREEK AT HONEOYE FALLS, NY—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1954, 1998 to current year.
CHEMICAL DATA: Water years 1954 (a), 1998 to 2003 (e).
NUTRIENT DATA: Water years 1954 (a), 1998 to 2003 (e).

INSTRUMENTATION.--Automatic water sampler since March 1998.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Ending time	Dis-charge, cfs (00060)	Tur-bidity, NTU (00076)	Chlor-ide, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Residue total at 105 deg. C, sus-pended, mg/L (00530)	Residue vola-tile, sus-pended, mg/L (00535)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water unfltrd mg/L as N (00630)	Ortho-phos-phate, water, fltrd, mg/L as P (00671)	Phos-phorus, water, unfltrd mg/L (00665)
OCT													
03-07	0835	0734	.87	3.5	33	19	--	--	.66	<.01	.03	.010	.061
07-11	0815	0714	.35	4.0	34	20	--	--	.47	<.01	.03	.013	.377
11-15	0805	0704	.26	5.2	41	22	--	--	.55	.01	.05	.014	.043
15-17	0855	0755	.42	50	56	37	--	--	.40	.01	.13	.020	.144
17-21	0835	0734	1.1	3.7	37	17	--	--	.46	<.01	.04	.014	.042
21-24	0825	0724	2.3	3.5	34	17	--	--	.44	<.01	.07	.009	.040
24-28	0905	0904	2.5	2.7	39	20	--	--	.43	<.01	.05	.013	.037
28-31	1010	0909	2.8	1.6	39	20	--	--	.42	<.01	.04	.011	.023
OCT 31-													
NOV 04	0950	0849	2.5	1.7	47	21	--	--	.48	<.01	.07	.008	.043
04-08	0940	0839	2.8	2.1	54	24	--	--	.41	.01	.06	.013	.051
08-12	0915	0814	3.3	2.4	43	20	--	--	.46	<.01	<.02	.007	.038
12-14	0935	0835	3.1	2.4	44	22	--	--	.44	<.01	<.02	.007	.034
14-15	0925	1624	3.0	2.5	43	22	--	--	.52	<.01	.02	.005	.042
15-18	1725	0825	13	6.5	51	24	--	--	.55	<.10	.04	.042	.109
18-21	0935	0834	20	5.5	53	33	--	--	.56	<.10	.04	.016	.066
21-25	0935	0834	17	6.4	58	32	--	--	.38	<.01	.07	.015	.060
25-27	0905	0905	17	5.2	--q	--q	--	--	.44	<.01	.29	.011	.037
DEC													
02-05	1015	0914	12	5.3	49	100	--	--	.34	.02	.69	.008	.037
05-06	0945	1245	9.8	2.8	101	58	--	--	.35	.01	.78	.007	.018
12-13	0905	2005	11	3.0	118	45	--	--	.34	.02	.54	.009	.030
13-15	2105	0805	33	28	129	47	--	--	.61	<.01	.85	.033	.158
15-16	0905	0805	63	48	107	45	45	8	.75	.02	1.7	.027	.179
16-19	0905	0804	44	22	115	49	--	--	.71	<.01	3.2	.025	.103
19-23	0925	0824	102	25	101	59	--	--	.70	<.01	2.5	.023	.099
23-26	0915	0814	66	9.1	84	63	--	--	.59	<.01	1.8	.013	.051
26-30	0935	0834	37	7.3	68	53	--	--	.50	<.01	1.2	.011	.057
DEC 30-													
JAN 01	0925	0825	128	58	58	38	84	12	1.1	.01	1.1	.015	.180
01-02	0925	0824	327	98	74	34	110	14	1.4	<.01	2.0	.025	.276
02-06	0935	0834	154	19	66	33	--	--	.47	.01	1.3	.013	.050
06-09	1005	0904	119	9.6	69	32	--	--	.49	.02	.97	.011	.045
09-13	1005	0904	128	12	78	30	--	--	.56	.02	1.2	.011	.063
13-17	0930	0829	105	6.0	73	31	--	--	.41	.02	.98	.008	.043
17-21	0840	0739	82	3.5	90	46	--	--	.38	<.01	.99	.007	.025
21-23	1000	0900	66	4.4	72	38	--	--	.75	<.01	.77	.006	.022
27-30	0940	0839	53	2.8	68	40	--	--	.45	<.01	.67	.006	.036
MAR													
15-19	1425	0825	680	--	46	24	245	--	1.3	.02	.93	.017	.538
19-26	0915	0815	856	--	48	26	88	--	.64	.03	.70	.012	.175
APR													
04-10	2020	0720	608	--	44	18	61	--	.53	.01	.61	.013	.119
MAY													
24-28	0615	0715	334	--	46	28	128	--	1.1	.02	.39	.012	.317
MAY 31-													
JUN 04	1310	0710	558	--	48	30	95	--	.77	.01	.44	.017	.218
JUL													
25-25	0930	1050	67	50	20	--q	--	--	.67	.02	.27	.023	.090

Remark codes used in this table:
< -- Less than

Null value qualifier codes used in this table:
q -- Sample discarded: holding time exceeded

04230380 OATKA CREEK AT WARSAW, NY

LOCATION.--Lat 42°44'39", long 78°08'16", Wyoming County, Hydrologic Unit 04130003, on right bank 400 ft downstream from bridge on Court Street, Warsaw.

DRAINAGE AREA.--39.1 mi^2.

PERIOD OF RECORD.--December 1963 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 987.15 ft above NGVD of 1929 (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.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,110 ft^3/s, July 8, 1998, gage height 9.90 ft; minimum discharge, 0.90 ft^3/s, Aug. 1, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 690 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 17	2015	1,100	4.49	Mar 26	0430	904	4.00
Mar 20	2330	*1,450	*5.31	Apr 5	1615	695	3.58

Minimum discharge, 4.8 ft^3/s, Oct. 1, 2, 10, 11, 12, 15.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.5	14	37	194	e21	e36	82	25	211	11	15	14
2	6.3	14	e30	76	e21	e34	84	52	76	10	11	56
3	25	12	e28	70	30	e34	75	35	53	9.5	10	24
4	15	11	e26	62	63	e35	76	25	50	9.1	11	16
5	10	12	25	55	e50	e36	301	27	105	8.8	24	12
6	7.6	16	24	52	e42	e37	163	49	64	9.0	34	10
7	6.2	15	25	51	e36	e38	111	32	52	9.2	16	9.2
8	5.6	12	24	51	e32	48	92	28	48	8.9	14	8.4
9	5.5	9.9	e22	58	e28	e120	84	24	89	14	26	8.1
10	5.3	9.4	e20	e50	e26	e90	151	22	50	12	61	7.2
11	5.1	10	18	e48	e25	e70	151	115	44	17	70	6.6
12	5.1	9.8	25	e46	e24	65	115	100	72	11	143	6.3
13	5.3	9.1	32	e44	e23	e60	90	217	185	11	56	6.4
14	5.3	8.4	74	e42	e22	e56	74	105	89	8.9	31	6.6
15	5.0	8.9	e60	e40	e21	76	67	69	58	8.7	22	28
16	8.9	12	e50	e38	e21	265	61	102	41	11	18	30
17	14	39	e40	e36	e21	655	54	93	33	9.2	17	13
18	7.2	34	e35	e34	e22	744	50	62	29	11	14	9.9
19	25	28	e100	e32	e23	453	45	48	29	8.6	12	9.4
20	14	46	288	e30	e24	674	42	42	26	7.6	11	11
21	9.2	45	116	e28	e26	866	45	69	28	16	9.5	8.9
22	7.8	55	73	e26	e32	603	47	45	26	30	8.9	9.6
23	8.2	51	60	e24	e70	329	44	37	21	26	7.9	25
24	7.0	37	53	e24	e60	241	38	63	17	38	6.8	17
25	7.6	34	47	e23	e50	279	34	65	15	22	6.6	13
26	12	31	49	e22	e42	556	31	45	15	13	7.3	10
27	9.5	27	44	e22	e40	194	29	54	12	14	7.3	10
28	8.1	23	43	e21	e38	148	27	71	11	15	6.1	12
29	7.1	25	42	e20	---	152	24	45	11	10	21	15
30	6.9	38	40	e20	---	112	23	35	16	8.8	18	23
31	6.5	---	186	e20	---	86	---	77	---	8.0	9.8	---
TOTAL	276.8	696.5	1,736	1,359	933	7,192	2,310	1,878	1,576	406.3	725.2	435.6
MEAN	8.93	23.2	56.0	43.8	33.3	232	77.0	60.6	52.5	13.1	23.4	14.5
MAX	25	55	288	194	70	866	301	217	211	38	143	56
MIN	5.0	8.4	18	20	21	34	23	22	11	7.6	6.1	6.3
CFSM	0.23	0.59	1.43	1.12	0.85	5.93	1.97	1.55	1.34	0.34	0.60	0.37
IN.	0.26	0.66	1.65	1.29	0.89	6.84	2.20	1.79	1.50	0.39	0.69	0.41

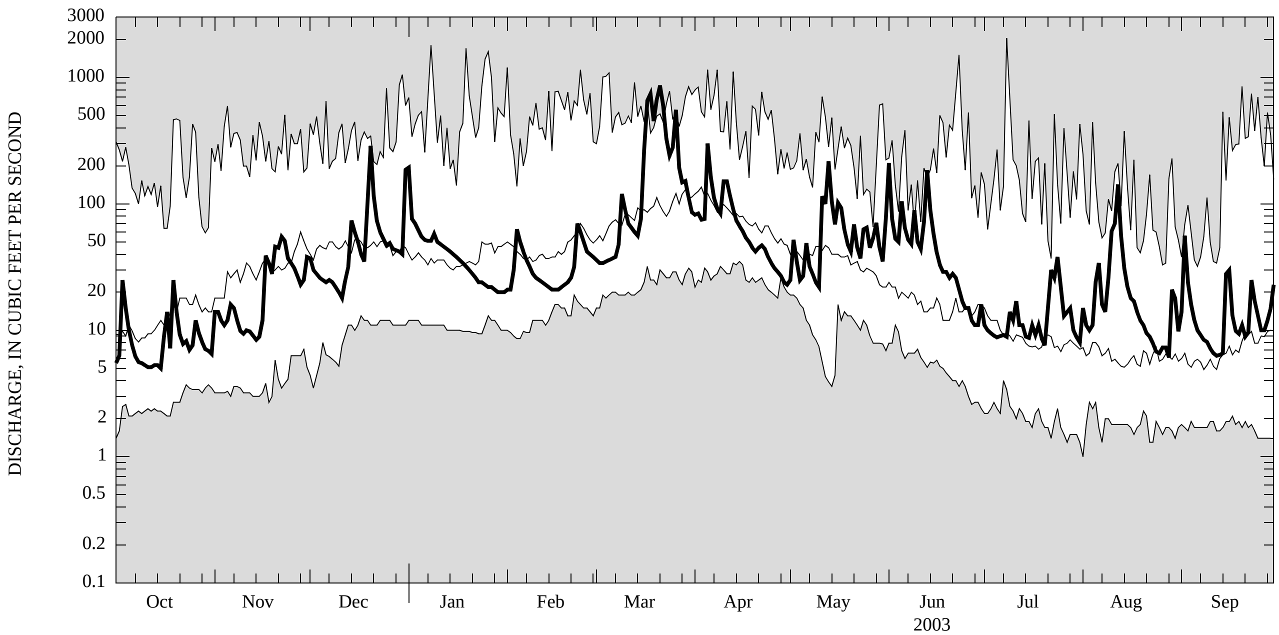
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	24.1	48.4	66.3	68.3	77.6	125	111	53.5	32.2	19.0	13.5	18.6
MAX	76.7	131	130	234	235	232	185	129	165	145	86.8	166
(WY)	(1978)	(1986)	(1978)	(1979)	(1976)	(2003)	(1996)	(1984)	(1989)	(1998)	(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)

04230380 OATKA CREEK AT WARSAW, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1964 - 2003	
ANNUAL TOTAL	21,933.4		19,524.4			
ANNUAL MEAN	60.1		53.5		54.9	
HIGHEST ANNUAL MEAN					83.3	1998
LOWEST ANNUAL MEAN					29.6	1965
HIGHEST DAILY MEAN	1,200	Feb 1	866	Mar 21	2,050	Jul 8, 1998
LOWEST DAILY MEAN	2.9	Sep 9	5.0	Oct 15	1.0	Aug 1, 1965
ANNUAL SEVEN-DAY MINIMUM	2.9	Sep 8	5.2	Oct 9	1.4	Jul 26, 1965
ANNUAL RUNOFF (CFSM)	1.54		1.37		1.40	
ANNUAL RUNOFF (INCHES)	20.87		18.58		19.07	
10 PERCENT EXCEEDS	139		96		122	
50 PERCENT EXCEEDS	33		28		29	
90 PERCENT EXCEEDS	4.3		8.4		5.2	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

04230500 OATKA CREEK AT GARBUTT, NY

LOCATION.--Lat 43°00'36", long 77°47'30", Monroe County, Hydrologic Unit 04130003, on right bank 40 ft downstream from bridge on Union Street in Garbutt, 1.5 mi west of Scottsville, and 4.2 mi upstream from mouth.

DRAINAGE AREA.--200 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1945 to current year.

REVISED RECORDS.--WSP 2112; WDR NY-82-3: Drainage area. WDR NY 1971: 1960(M). WDR NY 1993: 1991. WDR NY 1997: 1996 (P).

GAGE.--Water-stage recorder. Datum of gage is 560.86 ft above NGVD of 1929.

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.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,050 ft^3/s, Mar. 31, 1960, gage height, 8.64 ft; minimum discharge, 3.3 ft^3/s, Sept. 11, 12, 1958; minimum gage height, 1.88 ft, June 19, 1959, result of regulation.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 19	0415	*2,530	*6.17	No other peak greater than base discharge.			

Minimum discharge, 29 ft^3/s, Oct. 1, 2, 10, 11, 13, 14, 15, 16, gage height, 2.25 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	32	68	592	109	202	411	162	452	79	62	48
2	30	33	e80	534	115	e185	379	180	515	78	59	51
3	32	33	e66	495	124	e175	372	222	496	77	58	53
4	31	33	e58	390	146	e160	368	212	339	74	60	80
5	31	32	67	315	205	176	397	180	309	72	64	61
6	30	34	61	287	e250	e180	666	185	366	71	61	52
7	30	33	59	235	e240	e180	856	204	316	71	76	47
8	30	32	e56	247	e200	181	696	192	258	68	83	43
9	30	32	e52	272	e180	372	521	170	258	69	72	41
10	30	32	71	e320	170	503	472	157	290	68	68	42
11	30	32	53	e290	e145	455	663	186	253	67	76	40
12	30	32	55	e240	e135	431	679	372	222	66	192	40
13	30	32	61	e230	e130	380	600	405	278	66	275	40
14	30	33	107	e200	130	349	469	415	422	66	257	40
15	30	32	278	e200	125	324	398	414	417	64	155	44
16	32	33	318	e180	e110	472	358	349	309	63	107	49
17	33	41	e230	e170	111	1,000	324	439	212	62	137	44
18	30	39	e150	e150	110	1,950	299	429	179	61	178	54
19	32	37	172	e150	110	2,220	279	323	161	60	101	44
20	33	46	287	e150	111	1,660	263	259	150	59	76	39
21	30	45	463	e140	113	1,720	249	270	145	61	67	38
22	30	64	468	e130	123	1,960	243	292	139	69	61	39
23	32	74	450	131	191	1,690	240	245	135	64	55	42
24	31	92	301	125	e270	1,170	230	233	123	92	53	41
25	31	79	220	126	e300	879	215	374	111	117	52	41
26	34	63	155	123	e250	863	199	364	103	94	51	44
27	32	59	197	e110	e200	1,020	187	278	96	79	48	42
28	32	55	199	e110	211	945	178	325	91	70	47	41
29	31	54	188	113	---	679	166	309	87	65	46	40
30	32	55	175	e105	---	554	156	245	84	62	46	39
31	31	---	246	107	---	484	---	219	---	61	45	---
TOTAL	960	1,323	5,411	6,967	4,614	23,519	11,533	8,609	7,316	2,195	2,788	1,359
MEAN	31.0	44.1	175	225	165	759	384	278	244	70.8	89.9	45.3
MAX	34	92	468	592	300	2,220	856	439	515	117	275	80
MIN	30	32	52	105	109	160	156	157	84	59	45	38
CFSM	0.15	0.22	0.87	1.12	0.82	3.79	1.92	1.39	1.22	0.35	0.45	0.23
IN.	0.18	0.25	1.01	1.30	0.86	4.37	2.15	1.60	1.36	0.41	0.52	0.25

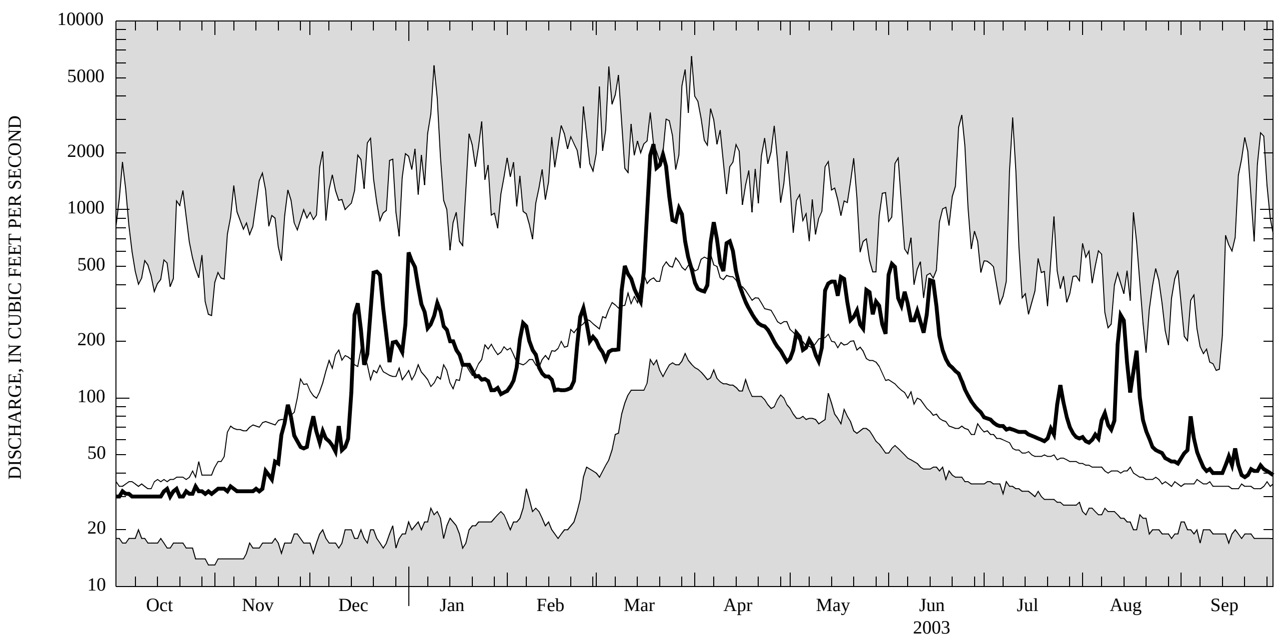
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 2003, BY WATER YEAR (WY)

MEAN	75.6	135	217	235	298	545	500	251	139	76.6	58.1	59.7
MAX	400	567	798	881	868	1,048	1,069	581	760	355	294	748
(WY)	(1978)	(1986)	(1978)	(1998)	(1976)	(1956)	(1947)	(1984)	(1989)	(1998)	(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)

04230500 OATKA CREEK AT GARBUTT, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1946 - 2003	
ANNUAL TOTAL	76,887		76,594			
ANNUAL MEAN	211		210		215	
HIGHEST ANNUAL MEAN					371	1978
LOWEST ANNUAL MEAN					117	1965
HIGHEST DAILY MEAN	1,780	Feb 3	2,220	Mar 19	6,500	Mar 31, 1960
LOWEST DAILY MEAN	28	Sep 24	30	Oct 1	13	Oct 30, 1966
ANNUAL SEVEN-DAY MINIMUM	29	Sep 20	30	Oct 6	14	Oct 26, 1966
ANNUAL RUNOFF (CFSM)	1.05		1.05		1.08	
ANNUAL RUNOFF (INCHES)	14.30		14.25		14.63	
10 PERCENT EXCEEDS	464		443		507	
50 PERCENT EXCEEDS	109		123		108	
90 PERCENT EXCEEDS	31		32		30	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

04230500 OATKA CREEK AT GARBUTT, NY—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1954, 1962, 1971, 1975 to 1977, 1989-90, 1997 to current year.
CHEMICAL DATA: Water years 1954 (a), 1962 (a), 1971 (a), 1975 (b), 1976-77 (e), 1989 (c), 1990 (d), 1997 to 2003 (e).
NUTRIENT DATA: Water years 1954 (a), 1962 (a), 1971 (a), 1975 (b), 1976-77 (e), 1989 (c), 1990 (d), 1997 to 2003 (e).
SEDIMENT DATA: Water years 1975 to 1977 (e), 1989 (c), 1990 (d), 1991 (a).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1959 to March 1961.
SUSPENDED SEDIMENT DISCHARGE: March 1975 to September 1977.

INSTRUMENTATION.--Automatic water sampler since July 1997.

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, 1977, 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, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Ending time	Dis-charge, cfs (00060)	Tur-bidity, NTU (00076)	Chlor-ide, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Residue total at 105 deg. C, sus-pended, mg/L (00530)	Residue vola-tile, sus-pended, mg/L (00535)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water unfltrd mg/L as N (00630)	Ortho-phos-phate, water, fltrd, mg/L as P (00671)	Phos-phorus, water, unfltrd mg/L (00665)
OCT													
03-07	0915	0814	31	4.5	64	488	11	<3	.49	<.01	1.4	.006	.036
07-11	0910	0809	30	2.9	57	460	8	<3	.36	<.01	1.5	.009	.024
11-15	0840	0739	30	3.0	58	472	6	<3	.37	.01	1.5	.006	.038
15-17	0950	0850	32	3.4	66	459	4	<3	.30	<.01	1.6	.008	.027
17-21	0910	0809	32	3.0	60	428	6	<3	.29	<.01	1.4	.008	.022
21-24	0915	0814	31	3.0	62	504	5	<3	.29	<.01	1.5	.006	.024
24-28	0925	0924	32	2.8	65	494	4	<3	.24	<.01	1.5	.015	.020
28-31	1050	0949	32	1.5	60	486	4	<3	.35	<.01	1.5	.008	.019
OCT 31-													
NOV 04	1025	0924	32	1.4	58	459	<7	<7	.31	<.01	1.5	.007	.030
04-08	1015	0914	33	.83	61	487	3	<3	.25	<.01	1.5	.008	.030
08-12	0940	0839	32	1.7	59	453	6	<3	.44	.01	1.4	.010	.028
12-14	1010	0910	32	1.9	62	487	6	<3	.42	<.01	1.4	.004	.026
14-18	0955	0854	35	1.6	62	454	4	<3	.50	<.01	1.3	.012	.038
18-21	1005	0904	42	2.0	64	470	6	<3	.34	<.10	1.4	.009	.032
21-25	1010	0909	73	5.6	72	318	13	<2	.43	<.01	1.4	.011	.067
25-27	0945	0945	66	2.6	--q	--q	9	<6	.45	<.01	1.7	.013	.035
NOV 27-													
DEC 02	1015	0914	61	5.1	70	345	8	<6	.34	.01	1.7	.010	.027
02-05	1050	0949	66	5.3	74	292	24	7	.47	.04	1.9	.028	.064
05-09	1035	0934	59	4.9	79	341	7	<6	.35	.03	2.0	.013	.036
12-13	0935	2035	59	3.9	79	372	7	<3	.36	.01	1.8	.015	.052
13-16	2135	0835	207	18	94	259	38	10	.62	.05	2.5	.023	.135
16-19	0940	0839	213	9.8	95	156	21	4	.76	.05	3.1	.027	.099
19-23	1020	0919	383	22	83	126	28	<12	.78	.05	3.5	.034	.145
23-26	0955	0854	279	6.5	76	149	9	<7	.58	.03	3.1	.032	.063
26-30	1005	0904	187	5.3	78	188	7	<3	.52	.03	3.2	.019	.053
DEC 30-													
JAN 01	1005	0905	286	14	90	163	22	4	.73	.06	3.3	.022	.095
01-02	1005	0904	585	26	97	103	33	7	.93	.07	3.7	.039	.165
02-06	1020	0919	408	12	69	107	14	<3	.63	.06	3.1	.024	.065
06-07	1035	0634	276	5.7	76	164	<8	<7	.52	.03	3.5	.020	.052
09-13	1125	0925	274	6.0	115	155	<7	<6	.50	.03	3.4	.017	.054
13-17	1030	0929	196	3.5	79	184	<6	<6	.40	.08	3.2	.014	.045
17-21	0940	0839	152	4.7	74	191	8	<6	.35	.02	3.3	.012	.036
21-23	1045	0945	133	3.6	74	225	10	<6	.46	.02	3.3	.016	.024
27-30	1015	0914	110	2.7	76	253	<8	<6	.40	<.10	3.1	.009	.038
JAN 30-													
FEB 03	1010	0909	111	1.6	79	253	<6	<6	.32	.02	3.0	.009	.035
03-06	1005	0904	175	4.2	100	121	<6	<6	.37	.03	2.9	.011	.056
06-10	1025	0924	210	3.9	110	165	6	<6	.42	.02	2.9	.012	.034
10-14	1005	0904	141	2.5	85	198	4	<3	.37	<.01	2.6	.011	.022
22-27	1915	1015	242	--	104	187	67	--	.78	.02	2.8	.008	.094
MAR													
15-19	1510	0910	1,200	--	56	68	91	--	1.3	.14	2.5	.030	.314

04230500 OATKA CREEK AT GARBUTT, NY—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Ending time	Dis- charge, cfs (00060)	Chlor- ide, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Residue total at 105 deg. C, sus- pended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water unfltrd mg/L as N (00630)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, unfltrd mg/L (00665)
MAR											
19-26	1005	0905	1,520	43	56	37	.72	.06	2.4	.024	.127
MAY											
21-24	0845	1944	260	60	138	16	.62	.02	1.9	.008	.050
MAY 31-											
JUN 04	1405	0805	450	55	94	40	.84	.01	1.8	.019	.151
JUL											
21-22	1230	0730	67	57	360	--q	.61	.04	2.2	.008	.065
25-25	1000	1120	124	63	223	--q	.47	.01	1.7	.016	.046

Remark codes used in this table:
< -- Less than

Null value qualifier codes used in this table:
q -- Sample discarded: holding time exceeded

04230650 GENESEE RIVER AT BALLANTYNE BRIDGE, NEAR MORTIMER, NY

LOCATION.--Lat 43°05'32", long 77°40'50", Monroe County, Hydrologic Unit 04130003, on right bank 400 ft upstream from Ballantyne Bridge on State Highway 252, 1.6 mi west of Mortimer, and 2.8 mi upstream from Erie (Barge) Canal.

DRAINAGE AREA.--2,210 mi^2.

PERIOD OF RECORD.--October 1973 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 500.00 ft above NGVD of 1929.

REMARKS.--River regulated for operation of Erie (Barge) Canal, downstream powerplants, and at high stages by Mount Morris Lake (see station 04224000). Satellite gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 20.57 ft, Jan. 10, 1998; 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, 16.08 ft, Mar. 22; minimum gage ehight, 10.32 ft, Jan. 12.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.86	11.54	11.69	12.22	11.31	11.49	14.02	11.68	12.18	11.52	13.33	11.78
2	11.65	11.59	11.72	12.30	11.13	11.28	13.94	11.94	12.79	11.62	13.22	11.75
3	11.83	11.65	11.53	11.88	11.46	11.23	13.88	12.09	12.57	11.59	12.95	12.38
4	11.60	11.69	11.52	11.97	11.46	11.18	13.86	12.25	12.31	11.53	12.77	12.21
5	11.73	11.58	11.68	11.94	12.13	11.03	14.18	11.86	12.05	11.75	12.80	11.89
6	11.79	11.63	11.69	12.02	12.39	11.16	14.86	11.93	12.26	11.84	12.70	11.98
7	11.84	11.53	11.66	12.23	12.27	11.25	14.01	11.99	12.19	11.88	12.50	11.58
8	11.74	11.56	11.65	12.19	11.93	10.95	14.26	11.83	12.02	11.82	12.89	11.67
9	11.60	11.64	11.51	12.23	11.76	11.47	14.56	11.97	12.05	11.63	13.09	11.62
10	11.59	11.56	11.49	12.29	11.66	12.12	14.68	12.05	12.05	11.56	13.59	11.66
11	11.74	11.62	11.59	12.27	11.44	12.18	14.44	11.98	12.00	11.70	13.37	11.61
12	11.81	11.65	10.90	11.88	11.39	11.44	14.50	12.08	12.10	11.81	12.95	11.69
13	11.86	11.75	10.83	12.21	11.34	11.23	14.62	12.24	12.28	11.71	12.89	11.61
14	11.86	11.78	11.11	12.18	11.20	11.32	14.46	12.16	12.30	11.60	13.09	11.58
15	11.84	11.65	11.78	13.01	11.34	11.26	14.30	12.16	12.30	11.48	13.18	11.63
16	11.83	11.52	12.22	13.00	11.65	11.66	14.12	12.15	12.18	11.54	13.20	11.81
17	11.85	11.59	11.84	12.81	11.64	13.15	13.94	12.38	12.23	11.63	13.37	11.95
18	11.78	11.83	12.20	12.20	11.41	14.61	13.90	12.43	12.23	11.89	13.36	11.68
19	11.83	12.06	11.80	11.62	11.18	14.48	13.86	12.14	12.03	11.75	13.21	11.49
20	11.68	11.68	11.53	11.55	11.04	13.70	13.78	12.18	11.75	11.74	13.07	11.52
21	11.82	11.76	12.58	11.58	10.77	14.84	13.73	11.99	11.64	11.65	13.23	11.63
22	11.77	11.96	12.27	11.50	10.90	15.93	13.73	12.04	11.70	11.64	13.08	11.57
23	11.83	11.79	12.07	11.32	11.24	15.27	13.75	11.98	12.10	11.98	12.49	11.51
24	11.74	11.78	12.36	11.38	11.58	14.44	13.57	11.78	11.82	11.91	11.46	11.76
25	11.80	11.74	12.27	11.50	11.72	14.12	13.44	12.05	11.71	12.24	11.42	11.93
26	11.81	11.63	12.07	11.55	11.74	14.22	13.36	12.14	11.80	12.50	11.62	11.90
27	11.72	11.57	11.74	11.55	11.57	14.73	13.36	11.94	11.73	12.82	11.48	11.76
28	11.79	11.77	11.38	11.52	11.49	14.54	13.17	11.96	11.60	13.28	11.54	11.73
29	11.89	11.93	11.46	11.51	---	14.20	13.00	12.01	11.61	13.30	11.70	12.25
30	11.78	11.77	11.46	11.42	---	14.03	12.43	11.82	11.65	13.22	11.57	12.10
31	11.58	---	11.33	11.41	---	14.12	---	11.76	---	13.16	11.68	---
MEAN	11.77	11.69	11.71	11.94	11.51	12.86	13.92	12.03	12.04	11.98	12.67	11.77
MAX	11.89	12.06	12.58	13.01	12.39	15.93	14.86	12.43	12.79	13.30	13.59	12.38
MIN	11.58	11.52	10.83	11.32	10.77	10.95	12.43	11.68	11.60	11.48	11.42	11.49

CAL YR 2002 MEAN 12.11 MAX 14.43 MIN 10.27
WTR YR 2003 MEAN 12.16 MAX 15.93 MIN 10.77

04231000 BLACK CREEK AT CHURCHVILLE, NY

LOCATION.--Lat 43°06'02", long 77°52'57", Monroe County, Hydrologic Unit 04130003, on right bank at east end of Carrol Street in Churchville, 100 ft downstream from mainline tracks of Penn Central Transportation Co., and 0.3 mi downstream from Black Creek Dam.

DRAINAGE AREA.--130 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1945 to current year.

REVISED RECORDS.--WDR NY-82-3: Drainage area. WDR NY-2000-3: 1998 (M), 1999 (M).

GAGE.--Water-stage recorder. Datum of gage is 551.88 ft above NGVD of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Prior to May 1952, small diversion by Penn Central Transportation Co. and slight regulation by pumping operations upstream from station. Telephone gage-height telemeter and satellite gage-height and precipitation telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,880 ft^3/s, Mar. 31, 1960, gage height, 9.44 ft; minimum discharge, 0.17 ft^3/s, Aug. 12, 2001; minimum gage height, 0.93 ft, Aug. 5, 6, 7, Sept. 15, 1959.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 19	0130	*1,760	*6.71	No other peak greater than base discharge.			

Minimum discharge, 3.7 ft^3/s, Oct. 10, 11, Sept. 12, gage height, 1.26 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.4	13	30	293	51	e140	178	85	139	23	11	6.9
2	8.2	12	31	413	59	e130	165	99	177	26	11	9.3
3	7.9	12	31	375	74	e120	159	115	186	18	12	11
4	7.7	15	35	240	e115	e110	174	112	129	15	14	12
5	11	13	33	186	e150	113	232	103	153	14	29	12
6	6.8	17	31	151	e180	e115	355	115	216	13	37	10
7	7.1	15	29	111	e180	e105	558	124	188	14	27	8.9
8	5.5	17	29	126	e160	96	491	115	139	15	25	7.0
9	5.4	15	29	144	e140	174	348	104	127	15	20	6.2
10	5.4	16	24	174	e125	e230	301	99	130	14	19	5.4
11	4.4	15	24	164	e105	e210	446	135	122	16	19	4.6
12	5.2	14	28	e150	e100	e200	613	259	107	14	28	3.9
13	8.2	14	36	e140	e90	e180	471	344	116	12	78	4.8
14	5.9	15	79	e110	e75	e170	332	285	148	11	99	5.3
15	5.6	14	137	e105	e70	e160	240	220	160	10	40	10
16	8.4	15	234	e90	e70	e300	194	210	124	16	20	16
17	10	28	251	e85	e65	617	165	269	94	15	18	17
18	10	37	144	e75	61	1,350	145	287	79	12	16	18
19	15	38	103	e70	56	1,680	135	204	78	11	14	15
20	15	36	126	e65	56	1,350	127	149	64	9.5	13	12
21	15	34	187	e65	59	1,130	124	155	62	12	11	9.5
22	14	39	264	e60	71	1,160	122	162	67	15	8.8	9.3
23	16	53	236	e60	127	915	122	136	65	18	7.2	15
24	14	59	148	e60	e170	624	120	136	56	29	6.6	16
25	14	49	85	56	e195	451	113	172	47	40	6.3	17
26	17	38	63	e55	e180	443	106	187	39	37	7.6	17
27	18	33	87	e55	e150	479	99	146	33	26	8.1	16
28	16	29	94	e55	e150	424	91	124	30	20	7.2	13
29	15	27	86	54	---	296	91	127	26	16	7.2	11
30	15	29	80	e50	---	230	84	114	24	12	7.2	10
31	13	---	132	e50	---	202	---	96	---	11	6.9	---
TOTAL	329.1	761	2,926	3,887	3,084	13,904	6,901	4,988	3,125	529.5	634.1	329.1
MEAN	10.6	25.4	94.4	125	110	449	230	161	104	17.1	20.5	11.0
MAX	18	59	264	413	195	1,680	613	344	216	40	99	18
MIN	4.4	12	24	50	51	96	84	85	24	9.5	6.3	3.9
CFSM	0.08	0.20	0.73	0.96	0.85	3.45	1.77	1.24	0.80	0.13	0.16	0.08
IN.	0.09	0.22	0.84	1.11	0.88	3.98	1.97	1.43	0.89	0.15	0.18	0.09

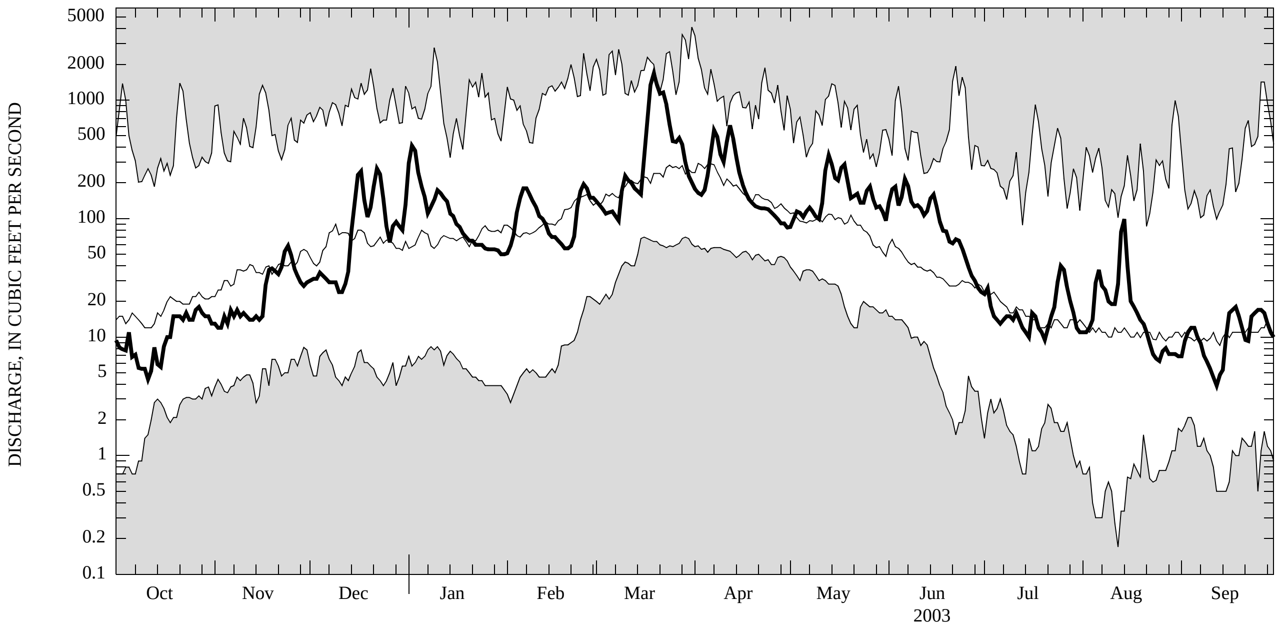
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	39.7	74.9	121	129	187	329	253	129	65.2	26.8	21.5	24.9
MAX	235	405	497	484	460	664	497	325	348	143	201	284
(WY)	(1946)	(1971)	(1978)	(1998)	(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	2.35	1.66
(WY)	(1964)	(1965)	(1961)	(1961)	(1958)	(1989)	(1946)	(1949)	(1949)	(1965)	(2001)	(1959)

04231000 BLACK CREEK AT CHURCHVILLE, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1946 - 2003	
ANNUAL TOTAL	43,317.8		41,397.8			
ANNUAL MEAN	119		113		116	
HIGHEST ANNUAL MEAN					207	1978
LOWEST ANNUAL MEAN					52.3	1953
HIGHEST DAILY MEAN	1,330	May 15	1,680	Mar 19	4,120	Mar 31, 1960
LOWEST DAILY MEAN	1.6	Sep 14	3.9	Sep 12	0.17	Aug 12, 2001
ANNUAL SEVEN-DAY MINIMUM	1.9	Sep 8	5.3	Sep 8	0.47	Aug 3, 1959
ANNUAL RUNOFF (CFSM)	0.91		0.87		0.89	
ANNUAL RUNOFF (INCHES)	12.40		11.85		12.16	
10 PERCENT EXCEEDS	278		235		288	
50 PERCENT EXCEEDS	53		59		48	
90 PERCENT EXCEEDS	5.3		9.5		6.9	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

04231000 BLACK CREEK AT CHURCHVILLE, NY—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1954, 1956, 1961, 1962, 1965 to 1976, 1998 to current year.
CHEMICAL DATA: Water years 1954 (a), 1956 (a), 1961 (b), 1962 (e), 1965 (a), 1966 to 1974 (d), 1975-76 (e), 1998 to 2003 (e).
NUTRIENT DATA: Water years 1954 (a), 1956 (a), 1961 (b), 1962 (e), 1965 (a), 1966 to 1974 (d), 1975-76 (e), 1998 to 2003 (e).
SEDIMENT DATA: Water years 1975-76 (e).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1961 to September 1962.

INSTRUMENTATION.--Automatic water sampler since April 1998.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Ending time	Dis-charge, cfs (00060)	Tur-bidity, NTU (00076)	Chlor-ide, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Residue total at 105 deg. C, sus-pended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water unfltrd mg/L as N (00630)	Ortho-phos-phate, water, fltrd, mg/L as P (00671)	Phos-phorus, water, unfltrd mg/L (00665)
OCT												
03-07	0950	0849	8.3	3.7	86	497	--	.77	.08	.33	.011	.061
07-11	0925	0824	5.5	3.5	78	529	--	.61	.06	.41	.016	.041
11-15	0905	0804	6.0	3.2	80	534	--	.67	.04	.42	.012	.061
15-17	1015	0915	8.2	5.1	82	502	--	.76	.03	.05	.006	.067
17-21	0935	0834	13	5.3	76	506	--	.70	.03	.49	.009	.061
21-24	0935	0834	15	4.8	86	540	--	.67	.03	.46	.005	.059
24-28	0955	0954	16	3.3	83	554	--	.64	.07	.71	.015	.055
28-31	1110	1009	15	3.1	84	567	--	.67	.06	.79	.015	.043
OCT 31-NOV 04	1050	0949	13	2.8	81	550	--	.63	.06	.81	.016	.056
04-08	1040	0939	15	4.3	78	570	--	.61	.08	.82	.015	.054
08-12	1010	0909	15	3.9	80	575	--	.64	.07	.79	.017	.059
12-14	1035	0935	14	4.8	78	618	--	.72	.10	.83	.015	.057
14-16	1020	0920	14	5.6	80	580	--	.83	.17	.87	.018	.062
16-18	1020	0920	26	10	81	581	--	1.1	.30	.80	.021	.083
18-21	1025	0924	37	7.2	76	564	--	.73	.14	.85	.036	.078
21-24	1040	0140	44	6.2	76	558	--	.62	.04	1.0	.030	.079
24-25	0240	0939	57	6.3	85	552	--	.66	.41	1.1	.028	.076
25-27	1015	1015	40	3.6	--q	--q	--	.59	.03	1.3	.023	.049
NOV 27-DEC 02	1045	0944	29	3.7	112	452	--	.75	.03	1.9	.021	.054
05-09	1050	0949	30	3.4	109	466	--	.59	.02	2.3	.021	.035
12-13	1005	1305	31	5.4	104	419	--	.68	.04	2.8	.019	.059
13-16	1405	0905	111	6.5	102	431	--	.68	.04	3.0	.024	.064
16-19	1010	0909	194	12	79	217	--	.98	.01	4.5	.035	.118
23-26	1020	0919	127	5.1	80	80	--	.82	.01	4.3	.033	.054
26-30	1025	0924	85	3.1	87	236	--	.70	.01	4.5	.025	.044
DEC 30-JAN 02	1035	0934	212	5.2	74	194	--	1.1	.02	3.6	.024	.056
02-06	1040	0939	278	6.8	87	149	--	.46	.10	4.0	.029	.052
06-09	1055	0954	126	3.0	83	196	--	.61	.01	4.1	.020	.045
09-13	1205	1005	158	2.7	95	185	--	.61	.02	3.8	.018	.047
13-17	1105	0905	105	2.2	92	201	--	.62	.01	3.7	.018	.039
17-21	1005	0904	72	9.2	82	228	--	.39	.02	3.8	.017	.049
23-27	1140	1039	57	1.5	81	254	--	.56	.03	3.7	.020	.046
27-30	1045	0944	54	1.1	76	268	--	.52	.02	3.5	.002	.038
MAR												
16-19	1245	0945	975	--	51	83	78	.91	.05	2.3	.020	.188
19-26	1035	0935	969	--	47	76	35	.81	.02	2.7	.020	.087
JUL												
21-25	1300	0800	21	--	78	381	--q	.92	.07	.59	.009	.078

Null value qualifier codes used in this table:
q -- Sample discarded: holding time exceeded

04232000 GENESEE RIVER AT ROCHESTER, NY

LOCATION.--Lat 43°10'50", long 77°37'40", Monroe County, Hydrologic Unit 04130003, on right bank 40 ft downstream from Rochester Gas and Electric 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 mi^2.

PERIOD OF RECORD.--April 1904 to September 1918, December 1919 to current year. Published as "at Driving Park Avenue," 1919-68.

REVISED RECORDS.--WSP 1912; WDR NY-82-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 244.24 ft above NGVD of 1929 (245.00 ft, Barge Canal datum). April 1904 to December 1910, nonrecording gage and December 1910 to September 1918, water-stage recorder at site 5 mi upstream at datum 506.85 ft, Barge Canal datum. December 1919 to Apr. 4, 1927, water-stage recorder in plant 5, and Apr. 4, 1927 to June 19, 1956, at present site at datum 5.76 ft higher than present datum. June 20, 1956 to Sept. 30, 1969, at present site at datum 2.76 ft higher than present datum. Oct. 1, 1969 to Sept. 30, 1985, at present site at datum 2.00 ft higher than present datum.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Extensive diurnal fluctuation caused by powerplants upstream from station. New York State Erie (Barge) Canal crosses river 5.4 mi upstream from station. Water diverted by the canal from Lake Erie is discharged into river from the west, the canal again diverting a smaller amount of water from river to the east. Additional regulation is provided by Rushford Lake, Mount Morris Lake (see station 04224000), and Conesus Lake (see station 04227980).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48,300 ft^3/s, Mar. 30, 1916, gage height 15.3 ft, site and datum then in use; maximum at present site, 34,400 ft^3/s, Mar. 19, 1942; maximum gage height, 17.08 ft, Apr. 2, 1940, datum then in use; minimum discharge, less than 10 ft^3/s, occurred during low-water periods in some years when power plant was shut down.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge on Mar. 18, 1865, was about 54,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 14,100 ft^3/s, Mar. 22, gage height, 12.47 ft, result of regulation; minimum daily discharge, 428 ft^3/s, Oct. 12.; minimum instantaneous discharge not determined.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	651	690	1,130	5,270	1,140	2,560	9,750	1,120	3,230	e958	6,190	902
2	683	613	1,220	5,410	1,130	2,560	9,490	1,470	5,170	e858	6,380	1,020
3	580	627	924	4,430	1,230	2,020	9,520	2,020	5,080	e820	5,970	3,260
4	640	672	615	3,930	1,650	1,890	9,360	3,010	4,200	e789	5,520	4,360
5	632	641	700	3,850	2,630	1,910	10,100	2,340	3,510	e582	5,770	2,350
6	667	673	837	3,470	2,940	1,950	11,500	1,860	3,750	e698	5,760	2,140
7	678	604	819	3,350	3,180	2,400	9,340	2,070	3,870	e771	5,560	1,700
8	618	577	817	3,320	2,660	2,290	9,240	1,740	3,470	e811	5,400	1,220
9	623	696	753	3,530	2,330	3,350	9,580	1,780	3,330	e727	5,560	1,200
10	518	582	560	4,160	1,910	4,780	9,790	2,160	3,340	e682	6,010	1,070
11	431	535	640	3,930	1,810	4,040	9,030	2,290	3,330	e807	6,970	930
12	428	587	872	3,490	1,500	3,740	9,030	2,530	2,870	e1,050	6,550	886
13	432	729	822	3,180	1,390	3,370	9,250	3,230	3,590	1,380	6,250	902
14	440	728	1,690	2,750	1,280	3,220	9,070	3,270	4,130	e902	6,050	902
15	462	671	3,900	2,280	1,130	2,910	8,840	3,270	4,140	e798	6,010	818
16	457	580	4,780	2,190	1,270	4,360	8,330	3,620	3,630	e694	6,100	958
17	555	663	4,150	2,100	1,720	7,870	7,710	4,380	3,530	e631	6,140	1,620
18	544	1,020	3,280	1,720	1,470	10,600	7,400	4,490	3,550	e968	6,300	1,680
19	722	2,050	3,030	1,140	1,020	10,500	7,420	3,770	3,310	e942	6,350	1,150
20	806	1,680	2,720	1,170	1,190	9,550	7,480	3,310	2,400	e1,180	6,310	981
21	910	1,380	4,490	1,210	1,140	11,600	7,330	3,350	1,900	e868	6,120	867
22	1,010	2,440	4,570	1,210	1,250	13,500	7,150	3,130	1,740	e1,080	6,060	972
23	1,020	2,700	3,830	1,170	2,040	12,600	6,840	3,030	2,770	2,270	5,850	958
24	986	3,070	3,930	1,130	2,860	11,000	e6,400	3,010	2,750	3,230	3,400	735
25	891	2,870	4,090	1,220	3,380	10,200	6,100	3,440	2,080	3,530	e1,010	1,070
26	1,120	1,920	3,650	1,170	3,260	10,400	5,750	3,930	1,580	4,390	1,140	1,050
27	887	888	3,820	1,280	3,140	11,500	5,370	3,210	1,590	5,110	e912	1,090
28	867	1,540	3,570	1,350	3,030	11,100	4,270	2,690	1,470	6,070	948	1,080
29	859	2,860	3,370	1,190	---	10,500	3,770	2,690	e1,120	6,420	1,040	2,970
30	971	1,680	3,280	1,090	---	10,000	2,700	2,450	e1,260	6,320	1,050	3,400
31	755	---	3,300	1,040	---	10,000	---	2,220	---	5,890	882	---
TOTAL	21,843	36,966	76,159	77,730	54,680	208,270	236,910	86,880	91,690	62,226	149,562	44,241
MEAN	705	1,232	2,457	2,507	1,953	6,718	7,897	2,803	3,056	2,007	4,825	1,475
MAX	1,120	3,070	4,780	5,410	3,380	13,500	11,500	4,490	5,170	6,420	6,970	4,360
MIN	428	535	560	1,040	1,020	1,890	2,700	1,120	1,120	582	882	735

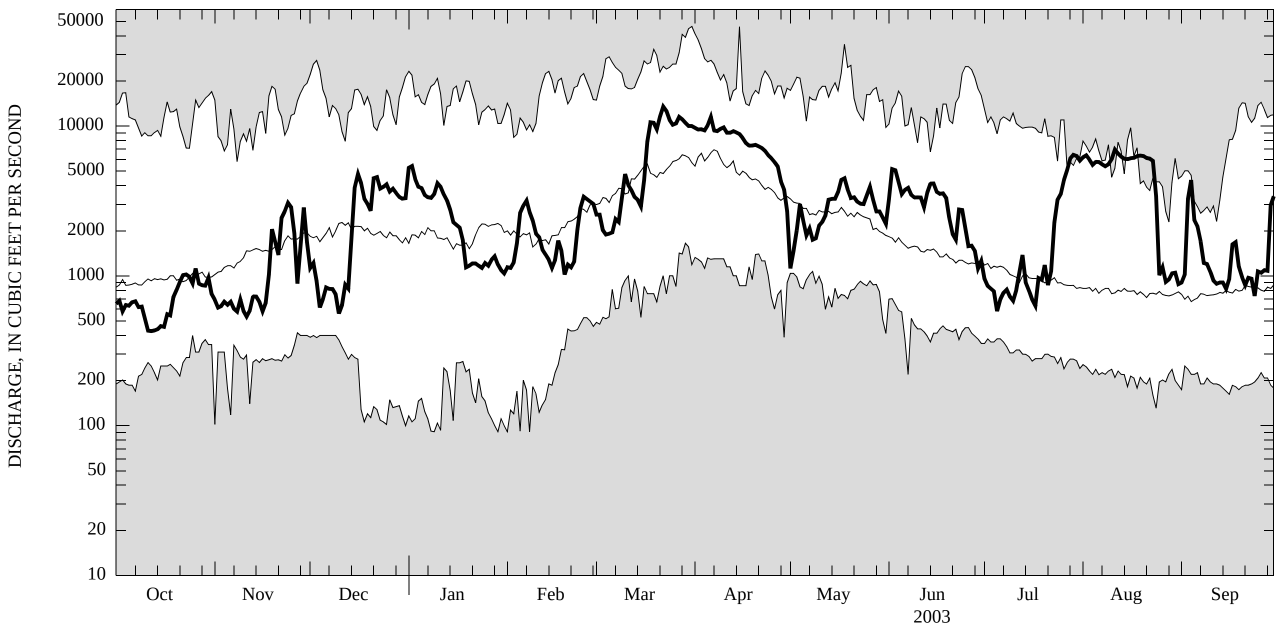
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 2003, BY WATER YEAR (WY)

MEAN	1,443	2,102	2,739	2,850	3,228	6,159	6,006	3,532	2,098	1,310	1,001	993
MAX	7,095	7,383	9,973	8,830	9,157	14,300	14,160	10,230	7,311	8,524	4,825	6,722
(WY)	(1978)	(1928)	(1928)	(1913)	(1925)	(1945)	(1940)	(1943)	(1972)	(1972)	(2003)	(1977)
MIN	338	436	502	152	560	2,213	1,561	1,140	479	350	229	199
(WY)	(1914)	(1910)	(1910)	(1961)	(1920)	(1937)	(1946)	(1915)	(1915)	(1913)	(1913)	(1913)

04232000 GENESEE RIVER AT ROCHESTER, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1904 - 2003	
ANNUAL TOTAL	967,279		1,147,157			
ANNUAL MEAN	2,650		3,143		2,804	
HIGHEST ANNUAL MEAN					4,426	1978
LOWEST ANNUAL MEAN					1,663	1999
HIGHEST DAILY MEAN	9,830	May 14	13,500	Mar 22	46,300	Mar 31, 1916
LOWEST DAILY MEAN	281	Aug 31	428	Oct 12	91	Jan 9, 1961
ANNUAL SEVEN-DAY MINIMUM	398	Aug 10	453	Oct 10	104	Jan 26, 1961
10 PERCENT EXCEEDS	6,290		7,220		6,810	
50 PERCENT EXCEEDS	1,680		2,290		1,590	
90 PERCENT EXCEEDS	475		683		594	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

04232034 IRONDEQUOIT CREEK AT RAILROAD MILLS NEAR FISHERS, NY

LOCATION.--Lat 43°01'40", long 77°28'42", Ontario County, Hydrologic Unit 04140101, on right bank 90 ft upstream from bridge on Railroad Mills Road, 1.5 mi northwest of Fishers, and 4.0 mi southwest of Fairport.

DRAINAGE AREA.--39.2 mi^2.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Elevation of gage is 450 ft above NGVD of 1929, 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. Telephone gage-height telemeter at station. Several measurements of water temperature were made during the year.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 1,000 ft^3/s, Jan. 8, 1998, gage height 10.40 ft, from rating curve extended above 420 ft^3/s ; minimum discharge, 6.8 ft^3/s, Aug. 21, 1995, gage height, 3.96 ft.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr 6	0330	*410	*8.01	No other peak greater than base discharge.			

Minimum discharge, 10 ft^3/s, Sept. 11, 12, gage height, 4.09 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	14	28	151	24	30	53	31	135	15	20	13
2	12	15	25	57	30	e32	48	47	72	14	17	20
3	15	16	22	43	32	e35	43	40	46	15	18	18
4	14	16	e21	40	72	e33	87	30	37	13	29	15
5	13	17	21	37	e80	e33	230	32	49	13	58	13
6	12	23	21	36	e54	e33	242	59	42	13	51	13
7	12	18	21	35	42	e32	85	40	39	13	31	12
8	12	16	21	39	e32	35	69	41	35	14	22	12
9	12	15	e20	53	31	140	73	32	34	14	21	11
10	12	15	e19	e56	e26	e80	83	31	32	14	21	11
11	12	15	19	e46	e26	e48	80	42	34	19	19	11
12	13	15	23	e36	e25	37	57	49	39	15	85	10
13	13	15	30	e30	e25	45	47	48	43	14	46	11
14	12	15	110	e28	e25	e36	42	43	43	13	25	11
15	12	15	137	e27	25	46	40	37	33	12	19	11
16	16	16	67	e27	e21	123	37	59	26	14	17	16
17	20	48	e40	e26	e22	200	34	101	24	14	16	13
18	16	39	e34	e26	e23	153	35	47	22	12	15	12
19	17	28	33	e25	22	85	33	35	21	12	14	11
20	17	23	53	e24	23	86	32	34	21	11	14	12
21	15	21	51	e23	25	226	32	47	20	14	13	12
22	14	26	37	e23	33	158	33	35	21	31	13	11
23	19	40	32	e22	110	95	34	33	20	25	12	15
24	17	29	29	e22	e85	66	34	83	18	24	11	17
25	15	25	27	e22	e58	59	30	158	17	23	11	15
26	24	23	28	e22	e40	156	29	58	16	16	12	13
27	20	22	29	e22	e35	88	28	44	16	15	13	16
28	17	21	29	e22	32	58	27	37	15	15	12	39
29	15	21	29	e22	---	60	28	34	15	14	11	24
30	15	24	29	e20	---	61	26	41	15	13	13	18
31	14	---	87	e21	---	53	---	46	---	12	12	---
TOTAL	460	646	1,172	1,083	1,078	2,422	1,751	1,494	1,000	476	691	436
MEAN	14.8	21.5	37.8	34.9	38.5	78.1	58.4	48.2	33.3	15.4	22.3	14.5
MAX	24	48	137	151	110	226	242	158	135	31	85	39
MIN	12	14	19	20	21	30	26	30	15	11	11	10
CFSM	0.38	0.55	0.96	0.89	0.98	1.99	1.49	1.23	0.85	0.39	0.57	0.37
IN.	0.44	0.61	1.11	1.03	1.02	2.30	1.66	1.42	0.95	0.45	0.66	0.41

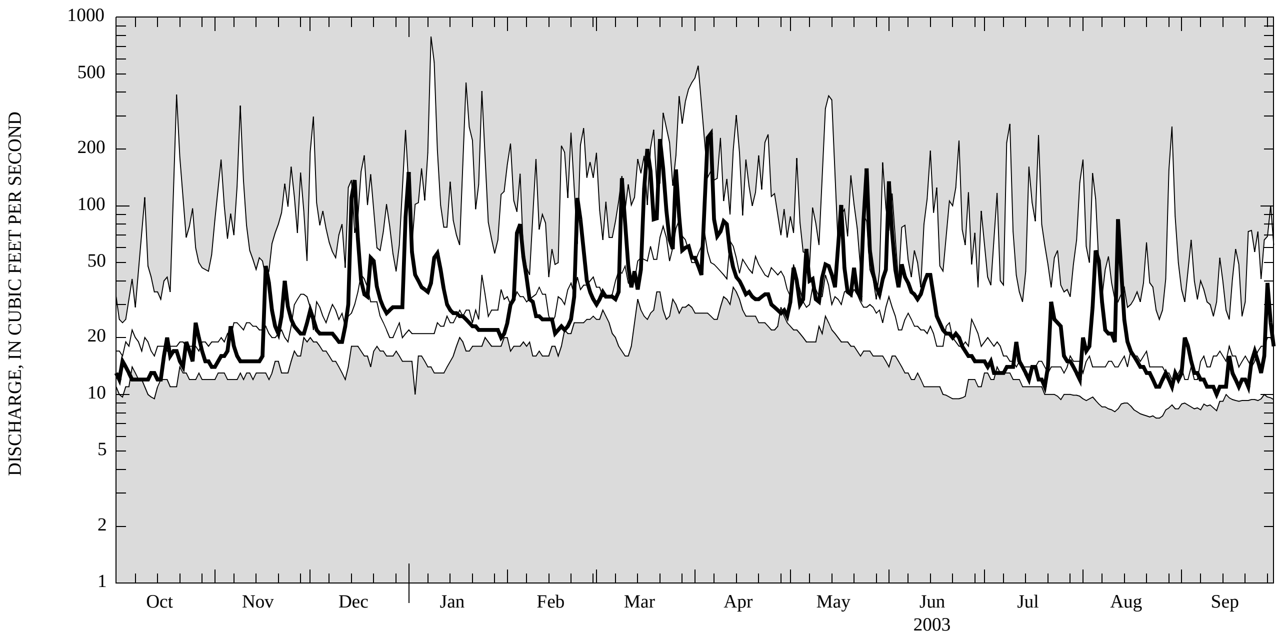
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	22.8	32.3	36.7	44.2	44.1	69.1	65.8	41.4	28.9	21.6	19.1	18.2
MAX	53.7	67.5	73.0	112	69.7	98.0	143	69.0	56.5	52.5	58.0	35.8
(WY)	(1997)	(1993)	(1997)	(1998)	(1998)	(1993)	(1993)	(2002)	(1996)	(1992)	(1992)	(1992)
MIN	12.5	15.3	20.7	20.8	27.8	41.1	27.4	20.2	12.3	12.1	9.03	9.92
(WY)	(2002)	(2002)	(1999)	(2002)	(1995)	(2002)	(1995)	(1995)	(1995)	(2001)	(1995)	(1995)

04232034 IRONDEQUOIT CREEK AT RAILROAD MILLS NEAR FISHERS, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1991 - 2003	
ANNUAL TOTAL	11,855.0		12,709			
ANNUAL MEAN	32.5		34.8		37.1	
HIGHEST ANNUAL MEAN					53.5	1993
LOWEST ANNUAL MEAN					24.7	1995
HIGHEST DAILY MEAN	364	May 14	242	Apr 6	790	Jan 8, 1998
LOWEST DAILY MEAN	8.7	Sep 9	10	Sep 12	7.5	Aug 24, 1995
ANNUAL SEVEN-DAY MINIMUM	8.9	Sep 4	11	Sep 9	7.6	Aug 20, 1995
ANNUAL RUNOFF (CFSM)	0.83		0.89		0.95	
ANNUAL RUNOFF (INCHES)	11.25		12.06		12.86	
10 PERCENT EXCEEDS	56		63		70	
50 PERCENT EXCEEDS	24		25		25	
90 PERCENT EXCEEDS	11		13		13	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

04232034 IRONDEQUOIT CREEK AT RAILROAD MILLS NEAR FISHERS, NY

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1992 to current year.
CHEMICAL DATA: Water years 1992 to 2003 (e).
NUTRIENT DATA: Water years 1992 to 2003 (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, 23.5°C, July 3, 2002; minimum 0°C, for many days during winter period.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 20.0°C, Aug. 12, 13, 14; minimum 0.5°C, for many days during winter period.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	16.0	14.0	15.0	7.0	6.0	6.5	4.0	2.5	3.0	2.5	1.0	2.0
2	16.5	15.5	16.0	6.5	5.5	6.0	2.5	2.0	2.5	1.5	1.0	1.0
3	16.5	14.5	15.5	6.5	6.0	6.0	2.0	1.0	1.0	1.0	0.5	1.0
4	16.0	14.0	15.0	6.5	6.0	6.5	2.0	1.0	1.5	2.0	1.0	1.5
5	16.5	14.0	15.5	7.0	6.5	7.0	2.5	1.0	1.5	2.5	1.5	2.0
6	14.0	12.5	13.0	7.0	6.5	6.5	2.5	1.5	2.0	2.5	2.0	2.0
7	13.5	12.0	13.0	6.5	6.0	6.0	3.0	1.5	2.0	2.0	1.0	1.5
8	12.0	10.5	11.0	7.5	5.5	6.5	3.5	2.0	3.0	2.5	1.5	2.0
9	11.0	9.5	10.5	9.0	7.5	8.0	2.0	1.0	1.0	3.0	2.0	2.5
10	12.5	10.5	11.5	10.5	9.0	9.5	1.5	1.0	1.0	2.0	1.0	1.5
11	12.5	12.0	12.0	11.5	10.5	11.0	2.5	1.0	1.5	1.5	0.5	0.5
12	13.0	12.5	12.5	10.5	9.5	10.0	3.5	2.5	3.0	1.5	0.5	1.0
13	13.0	11.5	12.5	9.5	8.5	9.0	3.0	2.5	3.0	1.0	0.5	1.0
14	11.5	9.0	10.0	9.0	8.0	8.5	3.0	1.5	2.5	1.0	0.5	0.5
15	10.0	8.0	9.0	9.0	8.0	8.5	2.5	1.5	2.0	1.0	0.5	0.5
16	10.5	10.0	10.0	8.0	6.0	7.0	2.5	1.5	2.0	1.0	0.5	0.5
17	10.5	9.5	10.0	6.0	5.5	6.0	1.5	0.5	1.5	1.0	0.5	0.5
18	9.5	8.5	9.0	5.5	5.0	5.0	1.5	0.5	1.0	0.5	0.5	0.5
19	10.5	9.5	10.0	5.0	4.5	5.0	3.0	1.5	2.0	1.0	0.5	0.5
20	10.0	9.0	9.5	6.0	5.0	5.5	3.5	3.0	3.0	1.0	0.5	0.5
21	9.5	8.5	9.0	7.0	5.5	6.0	3.0	2.5	3.0	0.5	0.5	0.5
22	8.5	8.0	8.0	7.0	6.5	7.0	3.5	3.0	3.0	0.5	0.5	0.5
23	8.5	8.0	8.5	6.5	5.0	5.5	3.0	2.5	3.0	0.5	0.5	0.5
24	8.0	7.5	7.5	5.5	5.0	5.5	3.0	2.0	2.5	0.5	0.5	0.5
25	7.5	6.5	7.0	6.0	5.5	6.0	2.5	0.5	1.5	0.5	0.5	0.5
26	8.5	7.5	8.0	6.0	5.0	5.5	2.0	1.0	1.5	1.0	0.5	0.5
27	9.0	8.5	8.5	5.0	4.0	4.5	2.0	2.0	2.0	0.5	0.5	0.5
28	9.0	8.0	8.5	4.0	3.0	3.5	2.5	2.0	2.0	0.5	0.5	0.5
29	8.0	7.5	7.5	4.0	3.5	3.5	3.0	2.5	2.5	1.5	0.5	1.0
30	7.5	6.5	7.0	4.5	4.0	4.5	3.0	2.5	2.5	1.0	0.5	0.5
31	6.5	5.5	6.0	---	---	---	3.5	2.5	3.5	1.5	0.5	0.5
MONTH	16.5	5.5	10.5	11.5	3.0	6.5	4.0	0.5	2.2	3.0	0.5	0.9

04232034 IRONDEQUOIT CREEK AT RAILROAD MILLS NEAR FISHERS, NY—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	2.5	1.5	2.0	3.0	1.5	2.5	5.0	3.5	4.0	13.5	11.5	12.5
2	2.5	2.5	2.5	3.0	1.5	2.5	5.5	4.5	5.0	13.5	12.0	12.5
3	3.0	2.0	2.5	1.5	0.5	1.0	5.5	4.0	5.0	12.5	10.5	11.5
4	2.5	0.5	2.0	2.0	0.5	1.0	4.0	2.0	3.0	12.5	10.0	11.0
5	1.0	0.5	0.5	2.5	2.0	2.0	2.5	2.0	2.0	12.5	10.5	11.0
6	1.5	0.5	0.5	2.0	1.0	1.5	4.0	0.5	2.0	13.0	10.0	11.5
7	1.5	0.5	1.5	2.0	0.5	1.0	3.5	2.5	3.0	13.0	12.5	13.0
8	1.0	0.5	0.5	3.5	2.0	2.5	3.0	2.5	2.5	13.0	12.0	12.5
9	1.5	0.5	1.0	3.0	0.5	1.5	3.5	3.0	3.5	13.5	11.5	12.5
10	1.5	0.5	0.5	1.0	0.5	0.5	6.0	3.0	4.0	14.0	12.0	13.0
11	1.0	0.5	0.5	1.5	0.5	1.0	6.0	5.5	5.5	14.0	13.0	13.5
12	0.5	0.5	0.5	3.0	1.5	2.0	7.5	5.5	6.5	14.0	12.0	13.0
13	0.5	0.5	0.5	2.0	1.0	1.5	8.0	6.5	7.5	12.0	10.5	11.0
14	0.5	0.5	0.5	2.5	0.5	1.5	9.5	6.5	8.0	11.5	10.5	11.0
15	0.5	0.5	0.5	4.5	2.0	3.0	12.0	8.5	10.0	12.0	10.0	11.0
16	0.5	0.5	0.5	3.5	1.5	2.5	11.5	10.0	11.0	12.0	11.5	11.5
17	0.5	0.5	0.5	4.0	1.0	2.0	10.0	8.0	8.5	13.0	11.0	12.0
18	1.5	0.5	0.5	4.5	2.5	3.5	9.5	7.5	8.0	15.0	12.5	13.5
19	3.0	1.5	2.0	5.0	2.5	4.0	11.5	9.0	10.0	15.0	13.0	14.0
20	3.0	2.0	2.5	5.0	4.5	5.0	12.5	10.0	11.5	15.0	13.0	14.0
21	3.5	2.0	3.0	6.0	3.0	4.0	12.5	11.5	12.0	14.5	13.0	14.0
22	3.0	2.0	2.5	6.0	5.5	6.0	12.0	10.0	11.0	14.0	12.0	13.0
23	2.0	0.5	1.0	6.0	5.0	5.5	10.0	8.0	8.5	14.0	12.5	13.0
24	1.0	0.5	0.5	7.5	4.5	5.5	9.5	7.0	8.0	13.5	12.5	13.0
25	1.0	0.5	0.5	9.0	6.5	7.5	10.5	8.0	9.0	14.5	12.5	13.5
26	0.5	0.5	0.5	8.5	7.0	7.5	10.5	9.0	9.5	14.0	13.5	13.5
27	1.5	0.5	1.0	8.5	6.5	7.5	11.0	8.0	9.5	14.0	12.0	13.0
28	2.5	1.5	2.0	10.0	7.5	8.5	12.5	9.5	11.0	14.0	12.5	13.5
29	---	---	---	10.0	8.5	9.5	13.0	11.5	12.5	15.0	12.5	13.5
30	---	---	---	8.5	5.5	7.0	12.5	11.0	11.5	15.5	13.5	14.5
31	---	---	---	6.0	4.5	5.0	---	---	---	15.0	13.0	14.0
MONTH	3.5	0.5	1.2	10.0	0.5	3.7	13.0	0.5	7.4	15.5	10.0	12.7

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	13.0	11.5	12.0	17.0	16.0	16.5	17.0	16.5	17.0	15.5	15.0	15.0
2	13.5	11.5	12.5	17.5	16.0	16.5	17.0	16.5	17.0	15.5	15.0	15.0
3	13.5	12.0	13.0	18.0	16.5	17.5	17.0	16.5	17.0	16.0	15.5	15.5
4	13.5	12.5	13.0	18.5	17.0	17.5	18.5	17.0	18.0	16.5	15.5	16.0
5	14.0	13.0	13.5	19.0	18.0	18.5	19.0	18.5	18.5	16.0	15.0	15.5
6	15.5	13.0	14.0	19.0	17.5	18.5	18.5	18.0	18.5	15.0	14.0	14.5
7	15.0	14.5	14.5	19.0	17.0	17.5	18.5	17.5	18.0	15.5	14.0	14.5
8	15.5	14.0	14.5	18.0	16.5	17.5	19.0	18.0	18.5	16.0	15.0	15.5
9	16.0	14.5	15.5	18.0	17.0	17.5	18.5	18.0	18.0	15.5	14.0	14.5
10	16.0	14.5	15.5	17.5	16.5	16.5	18.5	17.5	18.0	15.0	14.0	14.5
11	16.0	15.0	15.5	17.0	16.0	16.5	18.0	17.5	18.0	15.0	14.0	14.5
12	16.0	15.0	15.5	17.0	16.0	16.5	20.0	17.5	19.0	15.5	14.5	15.0
13	15.5	15.0	15.0	17.0	15.5	16.0	20.0	19.0	19.5	15.5	15.0	15.0
14	16.0	15.0	15.5	17.0	15.5	16.5	20.0	18.5	19.0	17.0	15.0	16.0
15	17.0	15.0	16.0	17.5	16.0	17.0	19.5	18.0	19.0	17.0	16.0	16.5
16	16.5	14.5	15.5	17.5	17.0	17.0	19.0	18.5	18.5	16.5	15.5	16.0
17	17.0	14.5	15.5	17.5	16.0	16.5	18.5	17.5	18.0	16.0	14.5	15.0
18	16.5	15.5	16.0	18.0	16.5	17.0	18.0	16.5	17.5	15.0	14.0	14.5
19	15.5	14.5	15.0	17.5	16.0	16.5	17.5	16.0	17.0	15.0	14.5	15.0
20	15.0	14.5	14.5	16.5	15.5	16.0	18.0	16.5	17.0	15.5	14.5	15.0
21	15.0	14.0	14.5	16.0	15.5	15.5	18.0	17.0	17.5	15.0	13.5	14.0
22	16.0	13.5	14.5	16.5	15.5	16.0	18.5	17.5	18.0	14.0	13.5	14.0
23	16.5	14.5	15.5	17.0	16.5	17.0	18.0	16.5	17.0	15.0	14.0	14.5
24	17.5	15.5	16.5	17.0	16.0	16.5	17.0	15.0	16.0	14.5	13.5	14.0
25	18.0	16.0	17.0	17.5	15.5	16.5	17.0	15.5	16.0	14.5	14.0	14.5
26	18.5	17.0	18.0	17.5	16.5	17.0	17.0	16.0	16.5	14.0	13.0	13.5
27	18.5	17.5	17.5	17.0	16.5	17.0	17.5	16.0	17.0	15.0	13.5	14.0
28	17.5	16.0	16.5	17.0	16.5	17.0	17.0	15.5	16.0	15.0	14.5	14.5
29	17.5	16.0	16.5	17.0	15.5	16.5	17.0	15.5	16.0	14.5	13.0	13.5
30	17.5	16.0	16.5	17.0	16.0	16.5	17.0	16.0	16.5	13.0	12.0	12.5
31	---	---	---	17.0	16.0	16.5	16.0	14.5	15.0	---	---	---
MONTH	18.5	11.5	15.2	19.0	15.5	16.8	20.0	14.5	17.5	17.0	12.0	14.7
YEAR	20.0	0.5	9.2									

04232034 IRONDEQUOIT CREEK AT RAILROAD MILLS NEAR FISHERS, NY—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Ending time	Dis- charge, cfs (00060)	Tur- bidity, NTU (00076)	Chlor- ide, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Residue total at 105 deg. C, sus- pended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water unfltrd mg/L as N (00630)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, unfltrd mg/L (00665)
OCT												
16-16	0815	1915	15	6.1	96	96	--	.40	<.01	1.2	.015	.035
16-17	2015	0715	22	36	101	313	--	.60	<.01	1.2	.011	.099
17-21	0750	0649	17	9.2	111	316	--	.36	.01	1.1	.010	.025
JAN												
02-02	0855	0855	54	20	121	137	--	.62	.01	1.4	.028	.080
FEB												
03-04	0835	2235	54	17	196	159	--	.43	.03	1.5	.012	.069
04-06	2335	0735	74	24	169	114	--	1.2	<.10	1.2	.010	.088
22-27	1815	0915	68	--	143	129	31	.72	<.01	1.0	<.003	.100
MAR												
08-12	1330	0730	78	--	106	127	107	.80	<.01	1.2	.004	.203
15-19	1340	0740	143	--	74	82	217	1.2	<.01	.91	.004	.380
19-26	0845	0745	111	--	90	95	135	.85	.04	1.0	.006	.197
MAY												
24-28	0535	0635	86	--	84	111	169	1.3	.02	.86	.010	.290
MAY 31-												
JUN 04	1220	0620	77	--	--	--	--	.85	<.01	.77	.011	.229
JUL												
21-25	1125	0625	25	--	109	252	--q	.69	<.01	1.3	.014	.128

Remark codes used in this table:
< -- Less than

Null value qualifier codes used in this table:
q -- Sample discarded: holding time exceeded

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.--9.50 mi^2, flow from 2.54 mi^2 noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1990 to December 2002 (discontinued).

REVISED RECORDS.--WDR NY-92-3: Drainage area. WDR NY-2000-3: 1998.

GAGE.--Water-stage recorder. Datum of gage is 400.00 ft above NGVD of 1929.

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.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 459 ft^3/s, July 8, 1998, gage height 9.03 ft, from rating curve extended above 210 ft^3/s; minimum daily discharge, 0.55 ft^3/s, Nov. 25, 1999; minimum instantaneous discharge not determined.

EXTREMES FOR CURRENT PERIOD.--October 2002 to December 2002: Peak discharges greater than base discharge of 150 ft^3/s and maximum (*):

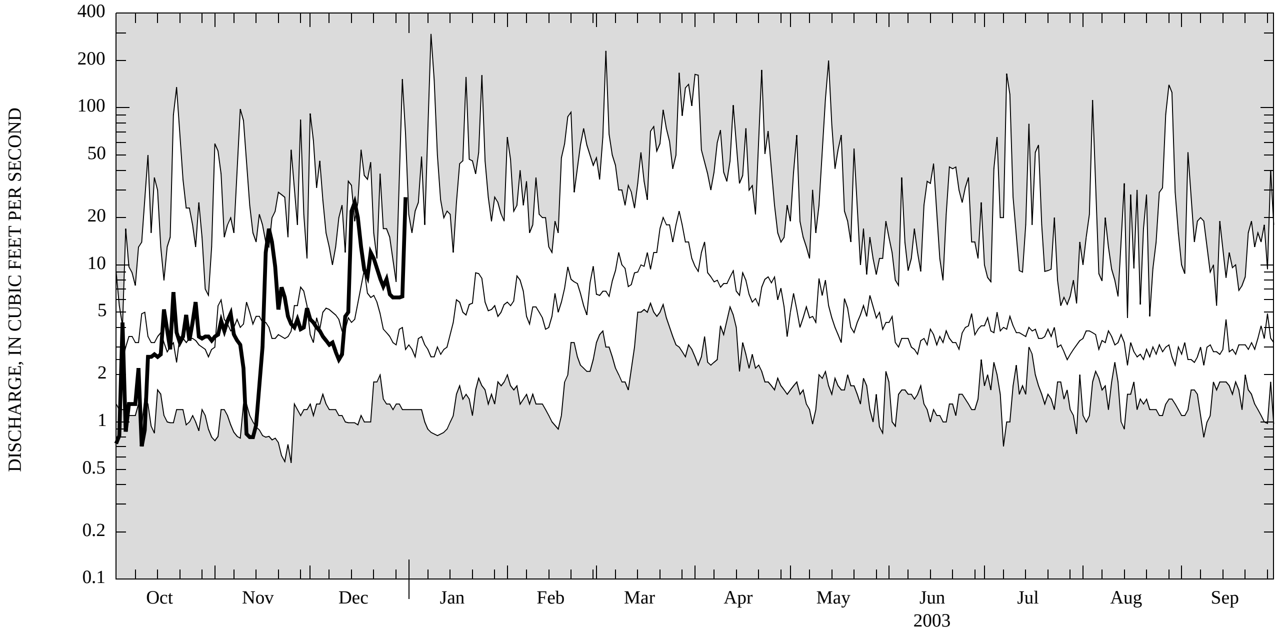
Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
No peak greater than base discharge.							

Minimum discharge, 0.63 ft^3/s, Oct. 10, gage height, 0.88 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.73	3.5	4.5	---	---	---	---	---	---	---	---	---
2	0.82	3.6	4.3	---	---	---	---	---	---	---	---	---
3	4.3	4.4	4.0	---	---	---	---	---	---	---	---	---
4	0.87	3.8	3.8	---	---	---	---	---	---	---	---	---
5	1.3	4.4	3.5	---	---	---	---	---	---	---	---	---
6	1.3	4.9	3.3	---	---	---	---	---	---	---	---	---
7	1.3	3.6	3.1	---	---	---	---	---	---	---	---	---
8	2.2	3.3	3.2	---	---	---	---	---	---	---	---	---
9	0.70	3.1	2.8	---	---	---	---	---	---	---	---	---
10	0.89	2.2	2.5	---	---	---	---	---	---	---	---	---
11	2.6	0.84	2.7	---	---	---	---	---	---	---	---	---
12	2.6	0.80	4.7	---	---	---	---	---	---	---	---	---
13	2.7	0.80	5.0	---	---	---	---	---	---	---	---	---
14	2.6	0.96	22	---	---	---	---	---	---	---	---	---
15	2.7	1.8	25	---	---	---	---	---	---	---	---	---
16	5.2	3.0	20	---	---	---	---	---	---	---	---	---
17	3.8	12	13	---	---	---	---	---	---	---	---	---
18	2.9	17	9.3	---	---	---	---	---	---	---	---	---
19	6.7	14	8.4	---	---	---	---	---	---	---	---	---
20	3.7	9.8	12	---	---	---	---	---	---	---	---	---
21	3.2	5.2	11	---	---	---	---	---	---	---	---	---
22	3.5	7.2	9.5	---	---	---	---	---	---	---	---	---
23	4.8	6.2	8.2	---	---	---	---	---	---	---	---	---
24	3.3	4.7	7.3	---	---	---	---	---	---	---	---	---
25	4.3	4.2	8.1	---	---	---	---	---	---	---	---	---
26	5.8	4.0	6.5	---	---	---	---	---	---	---	---	---
27	3.5	4.5	6.2	---	---	---	---	---	---	---	---	---
28	3.4	3.9	6.2	---	---	---	---	---	---	---	---	---
29	3.5	4.0	6.2	---	---	---	---	---	---	---	---	---
30	3.5	5.3	6.3	---	---	---	---	---	---	---	---	---
31	3.3	---	27	---	---	---	---	---	---	---	---	---
TOTAL	92.01	147.00	259.6	---	---	---	---	---	---	---	---	---
MEAN	2.97	4.90	8.37	---	---	---	---	---	---	---	---	---
MAX	6.7	17	27	---	---	---	---	---	---	---	---	---
MIN	0.70	0.80	2.5	---	---	---	---	---	---	---	---	---

0423204920 EAST BRANCH ALLEN CREEK AT PITTSFORD, NY—Continued



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

0423204920 EAST BRANCH ALLEN CREEK AT PITTSFORD, NY

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1990 to 2002 (e) October 2002 to December 2002 (d) (discontinued).
CHEMICAL DATA: Water years 1990 to 2002 (e) October 2002 to December 2002 (d) (discontinued).
NUTRIENT DATA: Water years 1990 to 2002 (e) October 2002 to December 2002 (d) (discontinued).
PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: November 1994 to December 2002 (discontinued).
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, July 5, 31, 1999; minimum, 0°C, for many days during winter period.
EXTREMES FOR CURRENT PERIOD.--October 2002 to December 2002:
WATER TEMPERATURES: Maximum, 20.0°C, Oct. 2; minimum, 0.5°C, Dec. 9, 10, 25.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	19.5	17.0	18.0	7.5	6.5	7.5	4.0	2.0	2.5	---	---	---
2	20.0	18.5	19.5	7.0	6.0	6.5	2.0	1.0	1.5	---	---	---
3	19.5	16.5	18.0	7.0	6.0	6.5	1.0	1.0	1.0	---	---	---
4	19.0	16.0	17.5	7.5	6.5	7.0	1.5	1.0	1.0	---	---	---
5	19.0	16.0	17.5	7.5	6.5	7.0	2.0	1.0	1.5	---	---	---
6	16.0	14.0	15.0	7.0	6.5	7.0	2.0	1.0	1.5	---	---	---
7	15.5	13.5	14.5	7.0	5.5	6.0	2.0	1.0	1.5	---	---	---
8	13.5	12.0	12.5	8.0	5.5	7.0	3.0	1.5	2.5	---	---	---
9	13.0	11.0	12.0	8.5	7.5	8.0	1.5	0.5	1.0	---	---	---
10	14.5	12.5	13.5	11.5	8.5	9.5	1.0	0.5	1.0	---	---	---
11	15.5	14.5	15.0	13.0	11.0	12.0	2.0	1.0	1.0	---	---	---
12	16.0	15.0	15.5	11.0	9.5	10.0	3.0	2.0	2.5	---	---	---
13	16.0	14.0	15.5	9.5	8.5	9.0	3.5	2.5	3.0	---	---	---
14	14.0	12.0	13.0	9.5	7.5	9.0	3.5	3.0	3.0	---	---	---
15	13.0	10.5	12.0	9.5	7.5	9.0	3.0	2.5	3.0	---	---	---
16	13.5	13.0	13.0	7.5	5.5	6.5	2.5	2.0	2.5	---	---	---
17	13.0	11.5	12.5	6.0	5.0	5.5	2.5	1.5	2.0	---	---	---
18	12.0	11.0	11.5	6.0	5.5	5.5	2.0	1.0	1.5	---	---	---
19	13.0	12.0	12.0	5.5	5.5	5.5	3.0	2.0	2.5	---	---	---
20	12.0	11.0	11.5	6.0	5.0	5.5	3.5	3.0	3.5	---	---	---
21	11.0	10.0	10.5	7.0	5.5	6.0	3.0	2.5	3.0	---	---	---
22	10.5	9.5	10.0	7.5	6.0	7.0	3.5	2.5	3.0	---	---	---
23	10.5	9.5	10.0	6.0	5.0	5.5	2.5	2.0	2.5	---	---	---
24	9.5	9.0	9.0	5.5	5.0	5.5	2.5	2.0	2.0	---	---	---
25	9.5	7.5	8.5	5.5	5.5	5.5	2.0	0.5	1.0	---	---	---
26	10.0	9.0	9.5	5.5	3.5	4.5	1.5	1.0	1.5	---	---	---
27	10.0	9.5	10.0	4.5	3.0	4.0	2.0	1.5	2.0	---	---	---
28	9.5	8.5	9.0	3.0	2.5	3.0	2.0	1.5	2.0	---	---	---
29	8.5	8.0	8.5	4.0	3.0	3.0	3.0	2.0	2.5	---	---	---
30	8.5	7.5	8.0	4.5	4.0	4.5	3.0	1.5	2.5	---	---	---
31	8.0	6.5	7.0	---	---	---	3.5	2.5	3.0	---	---	---
MONTH	20.0	6.5	12.6	13.0	2.5	6.6	4.0	0.5	2.1	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		

0423204920 EAST BRANCH ALLEN CREEK AT PITTSFORD, NY—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Ending time	Dis-charge, cfs (00060)	Tur-bidity, NTU (00076)	Chlor-ide, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Residue total at 105 deg. C, sus-pended, mg/L (00530)	Residue vola-tile, sus-pended, mg/L (00535)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water unfltrd mg/L as N (00630)	Ortho-phos-phate, water, fltrd, mg/L as P (00671)	Phos-phorus, water, unfltrd mg/L (00665)
OCT													
16-16	0720	1420	5.9	11	56	110	--	--	.44	.04	.58	.036	.077
16-17	1520	0620	5.8	7.1	96	49	--	--	.35	.02	.46	.034	.063
NOV													
16-17	1215	1115	9.6	12	88	128	--	--	.65	.05	.32	.016	.089
17-18	1215	0715	9.0	16	92	77	--	--	.60	<.01	.38	.016	.079
18-21	0835	0734	14	16	104	104	--	--	1.00	.03	.56	.011	.111
21-25	0815	0714	5.5	5.8	111	85	--	--	.62	.04	.96	.017	.080
DEC													
13-14	2025	1125	15	32	323	74	42	12	.77	.08	.97	.013	.123
14-16	1225	0724	25	37	285	66	38	8	.51	.05	2.3	.034	.167
16-19	0820	0719	12	21	283	74	--	--	.80	.05	3.9	.036	.138

Remark codes used in this table:
< -- Less than

04232050 ALLEN CREEK NEAR ROCHESTER, NY

LOCATION.--Lat 43°07'49", long 77°31'08", Monroe County, Hydrologic Unit 04140101, on right bank 525 ft downstream from Penn Central Transportation Co. bridge, near Rochester, and about 1.3 mi upstream from Irondequoit Creek.

DRAINAGE AREA.--30.1 mi^2, flow from 3.5 mi^2 noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1959 to current year.

REVISED RECORDS.--WDR 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 NGVD of 1929.

REMARKS.--Records 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 ft^3/s) from Erie (Barge) Canal upstream from station. January 1980 to present, diversion reduced to a maximum of 3 ft^3/s for use by several golf courses adjacent to stream. Telephone gage-height telemeter at station. 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.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,280 ft^3/s, May 17, 1974, gage height, 7.42 ft, from rating curve extended above 1,000 ft^3/s on basis of contracted-opening measurement of peak discharge and step-backwater analysis; minimum daily discharge, 1.7 ft^3/s, Jan. 24, 1963; minimum instantaneous discharge not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 21	0200	*579	*3.99	Apr 5	1700	537	3.91

Minimum discharge, 1.8 ft^3/s, Oct. 10, 11, gage height, 2.12 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.9	8.0	18	164	18	18	26	61	176	5.7	11	6.9
2	6.2	8.7	12	55	25	25	24	54	51	5.5	6.0	14
3	14	15	10	34	24	e24	26	31	30	5.5	34	7.3
4	6.8	12	8.8	30	132	e20	126	27	36	5.5	24	6.2
5	4.4	11	9.2	25	57	e20	300	33	96	5.3	40	6.1
6	3.8	23	9.2	24	33	e19	218	37	32	5.3	98	5.6
7	3.2	11	8.6	24	26	e19	99	28	26	5.9	37	5.4
8	2.8	8.4	8.9	27	e19	27	65	26	24	6.2	19	5.3
9	2.5	7.1	8.3	49	18	161	58	24	24	5.7	12	5.0
10	1.9	6.0	7.3	51	e16	e40	59	22	19	6.2	9.2	4.9
11	4.0	3.4	7.6	33	e14	e30	53	52	23	8.1	10	4.7
12	5.3	3.7	25	26	e12	34	46	37	20	6.2	67	4.9
13	5.1	2.9	23	22	e11	36	41	38	64	5.8	13	5.1
14	6.1	2.8	208	19	e11	e30	32	29	31	5.2	9.8	5.3
15	6.0	4.0	90	18	e11	46	29	27	21	5.1	12	38
16	17	7.7	58	16	e10	155	27	160	17	6.7	7.6	24
17	20	129	32	e15	e9.5	233	24	67	13	5.4	7.9	9.0
18	8.7	41	23	e14	e9.2	174	22	26	11	4.9	5.6	6.0
19	47	26	22	13	10	79	20	21	11	4.6	6.0	5.3
20	16	17	39	12	12	116	20	32	11	4.5	6.0	6.8
21	9.6	12	30	e12	16	293	21	77	15	12	5.3	5.4
22	7.8	59	30	e10	63	134	22	25	13	17	6.2	5.1
23	23	41	27	e10	201	69	23	26	11	10	6.2	13
24	12	17	23	e9.5	60	43	21	160	8.3	38	5.3	6.7
25	9.2	11	19	e9.2	e38	44	19	136	6.4	11	5.3	6.2
26	35	9.4	19	e9.0	e31	159	19	50	6.3	8.0	7.8	7.5
27	12	12	18	e8.0	e28	60	17	32	6.2	8.4	6.7	16
28	9.1	12	18	e8.5	22	42	17	36	5.9	7.4	6.6	35
29	8.0	11	19	9.0	---	39	16	28	5.7	6.9	14	9.3
30	7.7	26	20	7.6	---	34	16	22	6.1	6.4	9.2	7.3
31	6.3	---	173	8.0	---	29	---	64	---	6.3	6.4	---
TOTAL	327.4	558.1	1,023.9	771.8	936.7	2,252	1,506	1,488	819.9	244.7	514.1	287.3
MEAN	10.6	18.6	33.0	24.9	33.5	72.6	50.2	48.0	27.3	7.89	16.6	9.58
MAX	47	129	208	164	201	293	300	160	176	38	98	38
MIN	1.9	2.8	7.3	7.6	9.2	18	16	21	5.7	4.5	5.3	4.7

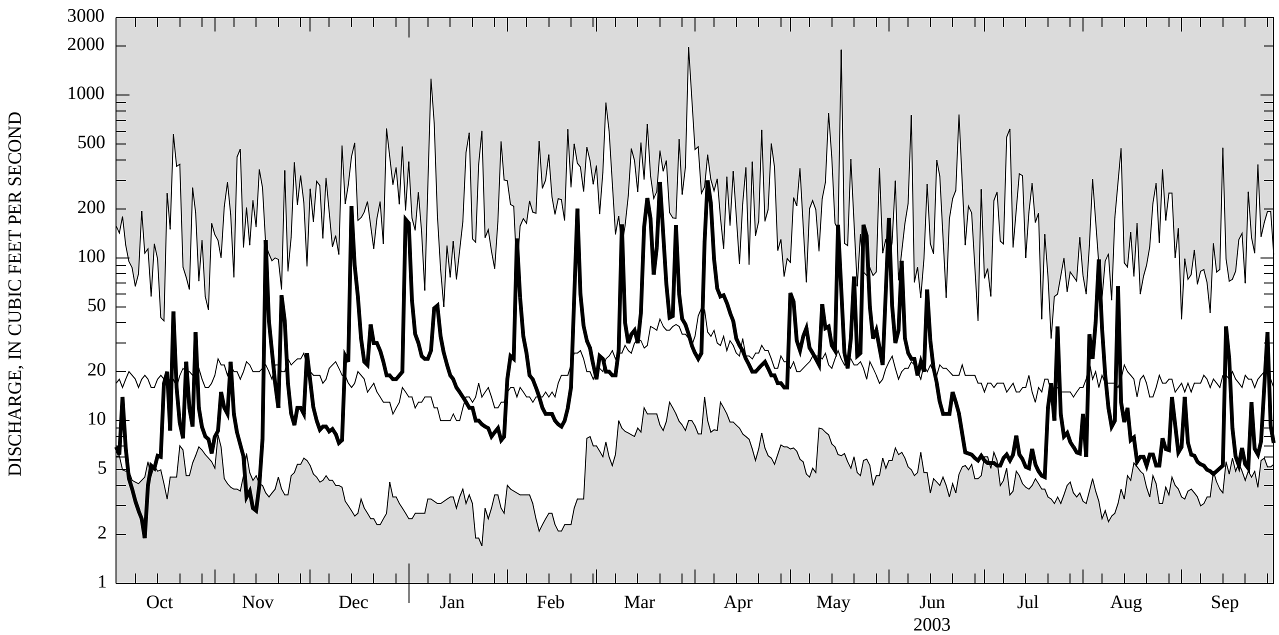
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	24.0	29.5	29.7	25.0	34.9	56.7	45.3	33.3	27.0	21.9	23.5	22.1
MAX	74.8	102	89.7	108	94.9	131	80.7	103	78.4	79.7	50.7	60.5
(WY)	(1978)	(1973)	(1978)	(1998)	(1981)	(1960)	(1969)	(1974)	(1972)	(1998)	(1992)	(1977)
MIN	7.99	7.42	4.80	4.40	10.4	22.6	11.2	8.94	8.58	6.29	5.08	6.07
(WY)	(1962)	(1961)	(1961)	(1963)	(1989)	(1981)	(1995)	(1995)	(2001)	(2001)	(2002)	(1961)

04232050 ALLEN CREEK NEAR ROCHESTER, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1960 - 2003	
ANNUAL TOTAL	8,637.7		10,729.9			
ANNUAL MEAN	23.7		29.4		30.8	
HIGHEST ANNUAL MEAN					50.6	1978
LOWEST ANNUAL MEAN					16.1	1995
HIGHEST DAILY MEAN	414	May 14	300	Apr 5	1,970	Mar 30, 1960
LOWEST DAILY MEAN	1.9	Oct 10	1.9	Oct 10	1.7	Jan 24, 1963
ANNUAL SEVEN-DAY MINIMUM	3.2	Oct 5	3.2	Oct 5	2.3	Feb 15, 1962
10 PERCENT EXCEEDS	44		60		56	
50 PERCENT EXCEEDS	13		17		19	
90 PERCENT EXCEEDS	4.1		5.5		7.2	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

04232050 ALLEN CREEK NEAR ROCHESTER, NY—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971-72, 1979-81, 1983 to current year.
CHEMICAL DATA: Water years 1971-72 (a), 1979 (a), 1980 (d), 1981 (e), 1983 to 2003 (e).
NUTRIENT DATA: Water years 1971-72 (a), 1979 (a), 1980 (d), 1981 (e), 1983 to 2003 (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.--Records for October 1983 to September 1993 are 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. Prior to October 1983, unpublished records are available in the files of the U.S. Geological Survey.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 26.5°C, July 5, 1999; minimum, 0°C, for many days during winter period.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum daily mean, 22.0°C, Aug. 13, 15; minimum daily mean, 0°C, Jan. 23, 27, Feb. 16, 17, and Mar 10.

TEMPERATURE, WATER, DEGREES CELSIUS,
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.5	7.5	3.5	3.0	3.0	2.0	4.0	14.0	13.0	19.0	20.0	18.0
2	18.0	7.0	3.0	1.5	2.0	2.5	5.0	13.0	14.0	19.5	19.5	18.5
3	17.0	7.5	1.5	1.0	2.0	0.0	4.5	12.0	14.0	20.5	19.5	18.5
4	17.5	8.0	2.0	2.0	1.5	1.0	2.0	12.0	14.5	21.0	21.5	19.0
5	17.0	8.0	2.5	2.5	0.5	1.5	2.5	11.5	15.0	21.5	21.0	18.0
6	14.5	7.5	2.5	2.5	1.0	1.0	3.0	13.0	15.5	21.0	21.0	17.5
7	14.5	7.0	2.5	1.5	1.5	1.0	3.0	13.5	15.5	19.5	21.5	18.0
8	12.5	8.0	3.5	3.0	1.0	2.5	3.0	13.0	16.0	20.5	21.5	18.0
9	12.5	9.5	1.0	3.0	1.0	1.0	3.5	13.0	16.5	20.0	21.0	17.5
10	14.0	11.0	1.5	2.0	1.0	0.0	5.0	14.0	16.5	19.0	20.5	17.5
11	14.5	12.0	2.5	1.0	0.5	1.0	6.0	14.5	17.0	20.0	20.5	18.0
12	15.0	10.5	3.5	1.5	0.5	2.0	7.5	13.0	16.5	18.5	21.5	18.0
13	14.5	9.0	3.5	1.0	0.5	1.0	8.0	11.5	17.0	19.0	22.0	18.5
14	12.0	9.0	3.5	0.5	1.0	1.5	9.0	11.5	17.0	19.0	21.5	19.5
15	10.5	9.0	3.5	0.5	0.5	3.0	12.0	12.0	17.5	20.0	22.0	20.0
16	12.5	6.5	2.5	1.0	0.0	3.0	11.0	12.5	17.0	19.5	21.5	19.5
17	12.5	5.5	2.5	0.5	0.0	3.5	8.0	13.5	17.5	19.5	20.5	18.5
18	11.0	6.0	1.5	0.5	1.0	4.0	9.0	15.0	17.5	20.0	20.0	17.5
19	12.0	5.5	3.5	1.0	2.5	4.0	11.5	15.0	17.0	19.0	20.0	18.0
20	11.5	6.5	4.5	0.5	2.5	4.5	13.0	15.0	16.5	18.5	20.5	17.5
21	10.5	7.0	3.5	0.5	2.5	5.0	12.0	15.0	16.0	18.5	20.5	16.0
22	9.5	7.5	3.5	0.5	1.5	5.5	10.5	14.0	17.5	20.0	21.0	16.5
23	10.0	5.5	3.0	0.0	0.5	5.5	8.0	14.5	18.5	19.5	19.5	17.0
24	9.0	6.5	3.0	0.5	0.5	6.0	9.0	14.0	19.0	19.0	18.5	16.5
25	8.5	6.5	1.0	1.0	0.5	8.0	10.0	14.5	19.5	19.5	19.0	16.5
26	9.5	6.0	2.0	1.0	0.5	8.0	9.5	14.5	20.0	20.0	20.0	15.5
27	10.0	5.0	2.5	0.0	1.0	8.0	10.5	14.0	19.5	19.5	20.0	17.0
28	9.5	4.0	2.5	0.5	1.5	9.0	12.5	14.5	19.0	19.5	19.0	17.0
29	9.0	4.5	3.0	1.5	---	9.5	13.0	15.0	19.0	19.0	20.0	15.0
30	8.0	5.5	3.0	0.5	---	6.5	12.0	15.5	19.0	19.5	19.5	14.0
31	7.0	---	4.0	1.5	---	5.0	---	14.5	---	19.5	18.0	---
MEAN	12.3	7.3	2.8	1.2	1.1	3.7	7.9	13.6	16.9	19.6	20.4	17.6
MAX	18.0	12.0	4.5	3.0	3.0	9.5	13.0	15.5	20.0	21.5	22.0	20.0
MIN	7.0	4.0	1.0	0.0	0.0	0.0	2.0	11.5	13.0	18.5	18.0	14.0

04232050 ALLEN CREEK NEAR ROCHESTER, NY—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Ending time	Dis-charge, cfs (00060)	Tur-bidity, NTU (00076)	Chlor-ide, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Residue total at 105 deg. C, sus-pended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water unfltrd mg/L as N (00630)	Ortho-phos-phate, water, fltrd, mg/L as P (00671)	Phos-phorus, water, unfltrd mg/L (00665)
OCT												
16-16	0740	1840	14	11	112	102	--	.57	.02	.74	.028	.089
16-17	1940	0640	35	20	77	55	--	.64	<.01	.56	.030	.123
17-19	0740	0239	11	8.2	97	72	--	.42	<.01	.64	.025	.089
19-19	0340	1840	59	41	90	64	--	.86	.02	.60	.023	.182
19-21	1940	0640	18	26	97	75	--	.88	.01	.65	.018	.164
21-24	0735	0634	14	9.8	116	82	--	.52	<.01	.83	.015	.094
NOV												
14-18	0905	0804	40	10	183	93	--	.62	<.01	.55	.018	.077
18-21	0920	0819	25	3.8	162	60	--	.59	<.01	.68	.010	.054
22-22	0855	1955	78	8.0	190	66	--	.50	<.01	.87	.017	.061
22-25	2055	0755	31	4.7	178	61	--	.45	<.10	.96	.015	.043
25-27	0830	0730	9.9	2.0	--q	--q	--	.42	<.01	1.2	.016	.033
DEC												
16-19	0855	0754	31	7.7	527	70	--	.63	.05	2.7	.024	.071
JAN												
02-06	0815	0714	33	15	726	70	--	1.3	.04	2.4	.024	.098
JAN 30-												
FEB 03	0755	0654	16	2.3	1,060	90	--	.46	.06	1.8	.006	.037
03-04	0800	1259	64	10	1,170	81	--	.62	.11	1.5	.005	.076
04-06	1400	0700	76	21	756	64	--	.84	.12	1.8	.011	.106
06-10	0805	0704	23	10	576	80	--	.70	.04	2.0	.010	.071
22-23	0820	0720	147	--	921	83	5	.47	.03	1.8	.003	.033
23-24	0820	0720	129	--	675	59	74	1.6	.15	1.5	.009	.210
FEB 25-												
MAR 01	0810	0910	32	--	595	--	13	.76	.01	2.1	.012	.089
08-11	0940	0640	78	--	500	67	19	.80	.06	1.9	.012	.097
15-18	0945	0645	168	--	354	48	24	.91	.04	1.6	.020	.090
18-25	0740	0640	123	--	261	46	32	.69	.02	1.9	.022	.096
APR												
03-05	1620	0120	102	--	505	54	12	.69	.12	1.7	.013	.061
MAY												
01-06	0810	0610	43	--	300	74	5	.49	.02	.95	.007	.026
24-27	0210	0610	111	--	168	44	16	.75	<.01	.96	.014	.061
JUL												
21-25	1100	0900	20	--	139	62	--q	.77	<.01	.67	.025	.146

Remark codes used in this table:
< -- Less than

Null value qualifier codes used in this table:
q -- Sample discarded: holding time exceeded

0423205010 IRONDEQUOIT CREEK ABOVE BLOSSOM ROAD, ROCHESTER, NY

LOCATION.--Lat 43°08'42", long 77°30'44", Monroe County, Hydrologic Unit 04140101, on right bank 4,000 ft upstream from bridge on Blossom Road, 1.8 mi east of Rochester, 1.7 mi downstream from Allen Creek, and 4.4 mi upstream from mouth.

DRAINAGE AREA.--142 mi^2, flow from 7.78 mi^2 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 NGVD of 1929 (levels by Corps of Engineers). Prior to Oct. 1, 1991, at site 0.8 mi downstream at datum 1.56 ft lower.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Discharge includes undetermined diversion from Erie (Barge) Canal. Unpublished water-quality records for prior years are available in files of Monroe County Department of Health. Telephone gage-height telemeter at station. Several measurements of water temperature were made during the year.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,300 ft^3/s, Jan. 8, 1998, gage height, 9.95 ft; minimum discharge, 25 ft^3/s, Sept. 8, 9, 10, 14, 2002, gage height, 2.14 ft.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr 5	1945	*973	*8.17	No other peak greater than base discharge.			

Minimum discharge, 27 ft^3/s, Oct. 14, 15, gage height, 2.18 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	54	84	476	e88	106	157	150	344	e46	70	49
2	37	60	73	250	111	119	148	191	268	45	52	80
3	54	69	63	163	114	115	141	149	178	e45	70	63
4	45	64	59	139	307	124	335	116	154	e43	122	52
5	39	60	60	127	288	119	662	123	215	43	281	48
6	36	95	60	120	206	117	798	174	162	41	285	47
7	33	66	58	114	155	97	466	148	136	42	237	46
8	32	58	60	125	115	113	318	126	128	e43	126	45
9	32	52	e50	174	108	365	289	117	128	e44	102	43
10	38	49	e48	197	97	255	290	103	110	45	92	43
11	43	45	e54	149	e94	179	284	157	124	e49	81	41
12	36	44	89	131	e92	152	237	175	123	e45	230	40
13	36	41	96	109	e88	160	194	170	174	e44	172	40
14	33	39	376	97	82	129	167	146	148	44	120	39
15	27	38	377	e90	e76	154	149	126	119	41	96	71
16	42	42	237	e88	e66	340	133	272	97	56	75	99
17	56	238	155	e82	72	570	119	317	e75	47	65	58
18	35	151	e105	e78	78	532	114	205	e65	43	56	50
19	68	102	e110	e82	79	374	115	149	e58	40	54	48
20	47	74	153	e80	82	341	114	139	e56	40	52	51
21	37	64	158	e74	89	708	122	236	e54	58	49	43
22	36	117	132	e74	142	552	134	153	e54	100	50	42
23	60	149	118	e72	417	376	140	128	e52	79	46	76
24	55	93	106	e70	267	273	137	301	e52	114	44	57
25	45	75	100	e72	207	238	128	457	e50	75	43	48
26	91	64	96	e70	160	437	120	307	e48	55	57	46
27	65	71	97	e66	149	343	116	210	e47	53	51	73
28	51	68	96	e64	120	234	127	180	e47	50	47	192
29	78	63	97	e72	---	207	110	158	e46	48	63	93
30	81	85	96	e60	---	195	89	135	e47	46	67	63
31	58	---	301	e64	---	171	---	163	---	43	51	---
TOTAL	1,467	2,290	3,764	3,629	3,949	8,195	6,453	5,681	3,359	1,607	3,006	1,786
MEAN	47.3	76.3	121	117	141	264	215	183	112	51.8	97.0	59.5
MAX	91	238	377	476	417	708	798	457	344	114	285	192
MIN	27	38	48	60	66	97	89	103	46	40	43	39
CFSM	0.35	0.57	0.90	0.87	1.05	1.97	1.60	1.37	0.83	0.39	0.72	0.44
IN.	0.41	0.63	1.04	1.01	1.09	2.27	1.79	1.57	0.93	0.45	0.83	0.50

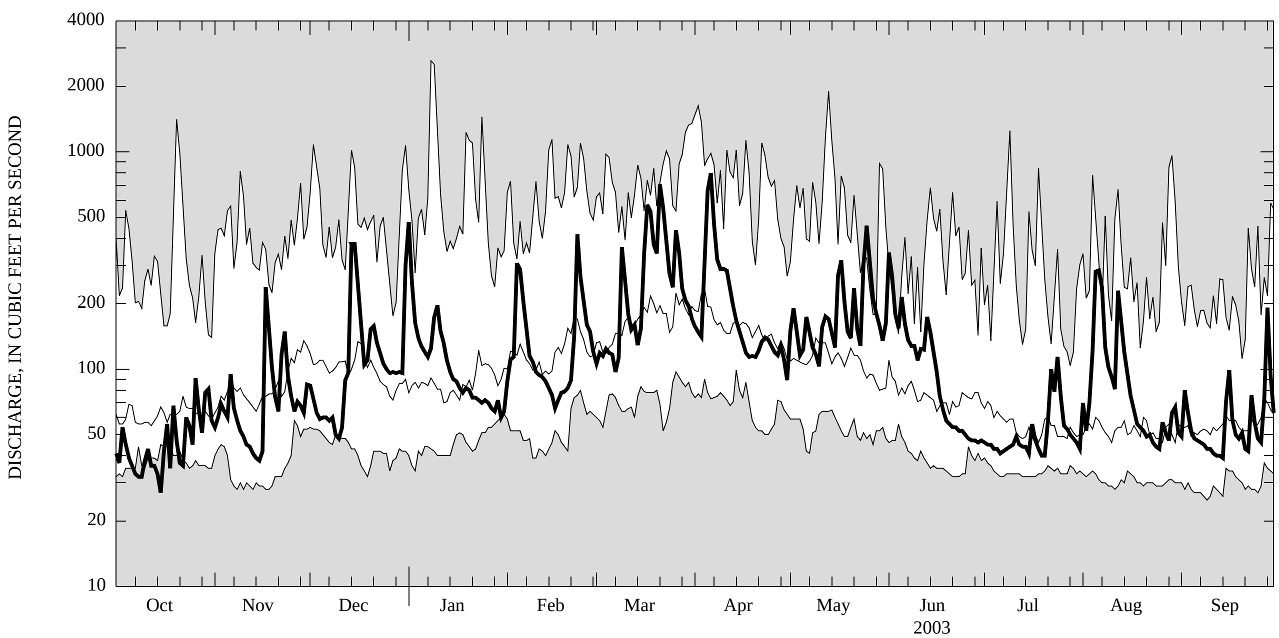
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 2003, BY WATER YEAR (WY)

MEAN	84.8	112	135	140	171	225	222	151	98.8	72.1	77.5	70.7
MAX	191	224	253	446	347	348	468	292	186	194	253	132
(WY)	(1997)	(1986)	(1997)	(1998)	(1981)	(1993)	(1993)	(1984)	(1989)	(1998)	(1992)	(1992)
MIN	39.5	52.3	49.5	60.8	67.1	122	82.8	62.1	46.9	42.2	35.8	39.8
(WY)	(1983)	(2002)	(1990)	(1989)	(1989)	(1988)	(1995)	(1995)	(1988)	(1983)	(2002)	(1995)

0423205010 IRONDEQUOIT CREEK ABOVE BLOSSOM ROAD, ROCHESTER, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1981 - 2003	
ANNUAL TOTAL	42,122		45,186			
ANNUAL MEAN	115		124		131	
HIGHEST ANNUAL MEAN					182	1993
LOWEST ANNUAL MEAN					80.1	1995
HIGHEST DAILY MEAN	1,020	May 14	798	Apr 6	2,620	Jan 8, 1998
LOWEST DAILY MEAN	25	Sep 9	27	Oct 15	25	Sep 9, 2002
ANNUAL SEVEN-DAY MINIMUM	27	Sep 4	35	Oct 9	27	Sep 4, 2002
ANNUAL RUNOFF (CFSM)	0.86		0.92		0.97	
ANNUAL RUNOFF (INCHES)	11.67		12.52		13.22	
10 PERCENT EXCEEDS	231		267		257	
50 PERCENT EXCEEDS	83		90		86	
90 PERCENT EXCEEDS	32		43		44	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

0423205010 IRONDEQUOIT CREEK ABOVE BLOSSOM ROAD, ROCHESTER, NY—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1980-81, 1983 to current year.
CHEMICAL DATA: Water years 1980-81, 1983 to 2003 (e).
NUTRIENT DATA: Water years 1980-81, 1983 to 2003 (e).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: November 1994 to September 2001.

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.--Records for October 1983 to September 1993 are 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. Prior to October 1983, unpublished records are available in the files of the U.S. Geological Survey.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 27.0°C, July 5,6, 1999; minimum 0.0°C, for many days during winter period.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Ending time	Dis- charge, cfs (00060)	Tur- bidity, NTU (00076)	Chlor- ide, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Residue total at 105 deg. C, sus- pended, mg/L (00530)	Residue vola- tile, sus- pended, mg/L (00535)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water unfltrd mg/L as N (00630)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, unfltrd mg/L (00665)
OCT													
03-07	0805	0704	43	6.8	149	232	--	--	.40	<.01	.81	.019	.057
07-11	0800	0659	35	5.5	148	263	--	--	.35	<.01	.90	.024	.043
11-15	0745	0644	36	4.5	134	219	--	--	.34	.02	.79	.020	.062
15-17	0800	0700	42	6.5	127	204	--	--	.34	.01	.81	.018	.053
17-19	0805	0304	40	6.3	116	195	--	--	.36	.01	.70	.020	.049
19-19	0405	1505	52	9.8	130	197	--	--	.39	.01	.75	.020	.065
19-21	1605	0705	56	22	102	143	--	--	.60	<.01	.67	.019	.105
21-24	0800	0659	46	5.1	134	200	--	--	.35	<.01	.80	.016	.048
24-28	0820	0819	63	6.2	124	170	--	--	.37	<.01	.64	.014	.059
28-31	0915	0814	72	5.0	139	185	--	--	.42	<.01	.64	.013	.035
NOV													
04-08	0905	0804	71	5.7	116	162	--	--	.38	<.01	.64	.013	.053
08-12	0815	0714	50	4.3	127	200	--	--	.41	<.01	.71	.012	.035
12-14	0905	0905	42	3.2	140	213	--	--	.34	<.01	.65	.010	.031
14-18	0935	0834	101	12	137	177	--	--	.59	<.01	.65	.016	.084
18-21	1005	0904	96	7.7	126	120	--	--	.57	.03	.69	.015	.071
21-22	0920	0820	60	5.8	154	180	--	--	.43	<.01	.86	.015	.064
22-23	0920	0020	156	23	134	146	--	--	.70	.01	.84	.016	.118
23-25	0120	0819	113	9.3	141	142	--	--	.60	<.01	.81	.015	.066
25-27	0900	0800	66	4.9	--q	--q	--	--	.42	<.01	.99	.014	.044
NOV 27-DEC 02	0905	0804	75	6.9	248	182	--	--	.40	.01	1.1	.013	.051
02-05	0935	0834	63	4.6	180	310	--	--	.39	<.01	1.2	.013	.032
05-09	0920	0819	59	4.2	275	204	--	--	.32	.01	1.4	.014	.028
09-12	0915	0814	55	4.0	260	193	--	--	.42	.02	1.3	.012	.054
12-14	0945	1644	158	24	512	151	--	--	.43	<.01	1.2	.011	.104
14-16	1745	0845	384	130	223	85	185	32	.97	.01	1.4	.018	.420
16-19	0940	0839	148	22	263	129	--	--	.72	.01	1.9	.018	.094
19-23	0900	0700	140	13	291	134	--	--	.59	<.01	1.7	.016	.076
23-26	0755	0654	105	6.4	305	150	--	--	.50	<.01	1.7	.017	.062
26-30	0825	0724	97	6.8	285	162	--	--	.48	<.01	1.7	.009	.050
DEC 30-JAN 01	0805	0105	229	26	286	132	--	--	.74	<.01	1.6	.012	.117
01-02	0205	0704	428	84	222	80	127	20	1.3	<.01	1.7	.022	.298
02-06	0840	0739	154	12	310	122	--	--	.68	<.01	1.9	.014	.060
06-09	0910	0809	123	7.2	463	143	--	--	.51	<.01	1.8	.011	.041
09-13	0830	0729	160	8.9	398	119	--	--	.49	<.01	1.7	.010	.053
13-17	0820	0719	94	5.1	285	141	--	--	.47	<.01	1.8	.010	.042
17-21	0915	0814	80	2.8	234	145	--	--	.43	.01	1.7	.009	.038
21-23	0910	0810	73	3.3	219	148	--	--	.46	<.01	1.7	.007	.023
23-27	0910	0809	70	2.6	228	167	--	--	.39	<.01	1.7	.009	.029
27-30	0845	0744	67	2.1	238	171	--	--	.39	<.01	1.6	.006	.028
JAN 30-FEB 03	0825	0724	85	4.1	426	163	--	--	.45	.01	1.7	.009	.048

0423205010 IRONDEQUOIT CREEK ABOVE BLOSSOM ROAD, ROCHESTER, NY—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Ending time	Dis-charge, cfs (00060)	Tur-bidity, NTU (00076)	Chlor-ide, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Residue total at 105 deg. C, sus-pended, mg/L (00530)	Residue vola-tile, sus-pended, mg/L (00535)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water unfltrd mg/L as N (00630)	Ortho-phos-phate, water, fltrd, mg/L as P (00671)	Phos-phorus, water, unfltrd mg/L (00665)
FEB													
03-04	0830	1630	198	26	518	128	--	--	.62	.02	1.5	.007	.117
04-06	1730	0730	290	35	418	102	54	9	.79	.02	1.6	.010	.115
06-10	0835	0734	134	10	275	122	--	--	.56	<.02	1.8	.009	.034
10-14	0825	0724	92	3.2	260	166	--	--	.47	<.01	1.8	.006	.044
14-18	0820	0719	74	2.0	236	167	--	--	.38	<.01	1.7	.009	.029
22-23	1255	1155	329	--	433	120	62	--	.89	<.01	1.5	.006	.121
23-24	1255	0755	344	--	410	85	77	--	.82	<.01	1.6	.008	.157
FEB 25-													
MAR 01	0845	1644	145	--	272	111	21	--	.58	.02	1.6	.011	.076
08-11	1010	0710	257	--	260	94	73	--	.57	<.01	1.7	.008	.152
14-18	0615	0715	330	--	220	97	83	--	.77	<.01	1.6	.001	.164
18-21	0810	1210	454	--	146	64	64	--	.64	<.01	1.7	.016	.116
MAR 25-													
APR 01	0825	0725	257	--	171	91	46	--	.81	.03	1.6	.019	.107
03-04	1650	2050	289	--	267	87	36	--	.70	.01	1.7	.014	.089
08-14	0730	1030	258	--	--	--	--	--	.62	.02	1.7	.017	.057
MAY													
01-06	0850	0650	152	--	176	117	23	--	.74	.03	.95	.012	.065
23-27	2020	0719	333	--	114	72	251	--	1.6	.03	.82	.014	.388
JUL													
21-25	0800	0900	91	--	127	142	--q	--	.46	<.01	.44	.018	.078

Date	Zinc, water, unfltrd recover -able, ug/L (01092)
FEB	
03-04	--
04-06	--
06-10	--
10-14	--
14-18	--
22-23	37
23-24	33
FEB 25-	
MAR 01	--
08-11	33
14-18	28
18-21	25
MAR 25-	
APR 01	26
03-04	23
08-14	--
MAY	
01-06	20
23-27	84
JUL	
21-25	15

Remark codes used in this table:
< -- Less than

Null value qualifier codes used in this table:
q -- Sample discarded: holding time exceeded

0423205025 IRONDEQUOIT CREEK AT EMPIRE BOULEVARD, ROCHESTER, NY

LOCATION.--Lat 43°10'34", long 77°31'37", Monroe County, Hydrologic Unit 04140101, on right bank 25 ft upstream from bridge on Empire Boulevard (Route 404), 200 ft upstream from mouth at south end of Irondequoit Bay, and 1.5 mi east of Rochester.

DRAINAGE AREA.--151 mi^2, flow from 7.78 mi^2 noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1990 to December 2002 (discontinued).

GAGE.--Doppler velocity meter, water-stage recorder, and crest-stage gage. Datum of gage is 242.66 ft above NGVD of 1929 (levels by Corps of Engineers).

REMARKS.--No estimated daily discharges. Records poor. 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. Telephone gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,400 ft^3/s, Jan. 9, 1999, maximum gage height, 6.64 ft, Apr. 23, 1993 (backwater from Irondequoit Bay); minimum daily discharge, 24 ft^3/s, Aug. 27, 1995, Aug. 2, 1997; minimum instantaneous discharge not determined.

EXTREMES FOR CURRENT PERIOD.--October 2002 to December 2002: Maximum daily discharge, 443 ft^3/s, Dec. 15; minimum daily discharge, 23 ft^3/s, Oct. 15. Maximum and minimum instantaneous discharge not determined.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	65	100	---	---	---	---	---	---	---	---	---
2	33	76	82	---	---	---	---	---	---	---	---	---
3	53	84	72	---	---	---	---	---	---	---	---	---
4	52	81	75	---	---	---	---	---	---	---	---	---
5	32	73	74	---	---	---	---	---	---	---	---	---
6	35	117	75	---	---	---	---	---	---	---	---	---
7	29	84	76	---	---	---	---	---	---	---	---	---
8	31	69	67	---	---	---	---	---	---	---	---	---
9	29	66	66	---	---	---	---	---	---	---	---	---
10	35	60	70	---	---	---	---	---	---	---	---	---
11	42	51	80	---	---	---	---	---	---	---	---	---
12	35	51	97	---	---	---	---	---	---	---	---	---
13	31	51	122	---	---	---	---	---	---	---	---	---
14	33	51	289	---	---	---	---	---	---	---	---	---
15	23	41	443	---	---	---	---	---	---	---	---	---
16	37	47	297	---	---	---	---	---	---	---	---	---
17	66	234	195	---	---	---	---	---	---	---	---	---
18	40	198	137	---	---	---	---	---	---	---	---	---
19	81	138	146	---	---	---	---	---	---	---	---	---
20	67	93	178	---	---	---	---	---	---	---	---	---
21	40	84	190	---	---	---	---	---	---	---	---	---
22	37	106	165	---	---	---	---	---	---	---	---	---
23	69	206	147	---	---	---	---	---	---	---	---	---
24	63	125	133	---	---	---	---	---	---	---	---	---
25	56	97	101	---	---	---	---	---	---	---	---	---
26	107	82	97	---	---	---	---	---	---	---	---	---
27	79	80	111	---	---	---	---	---	---	---	---	---
28	56	87	116	---	---	---	---	---	---	---	---	---
29	76	76	115	---	---	---	---	---	---	---	---	---
30	95	95	118	---	---	---	---	---	---	---	---	---
31	73	---	247	---	---	---	---	---	---	---	---	---
TOTAL	1,576	2,768	4,281	---	---	---	---	---	---	---	---	---
MEAN	50.8	92.3	138	---	---	---	---	---	---	---	---	---
MAX	107	234	443	---	---	---	---	---	---	---	---	---
MIN	23	41	66	---	---	---	---	---	---	---	---	---

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	86.3	109	137	166	170	268	237	141	100	79.5	79.2	72.9
MAX	187	208	247	442	226	351	481	254	172	201	262	132
(WY)	(1997)	(1993)	(1997)	(1998)	(2001)	(1993)	(1993)	(2000)	(2000)	(1998)	(1992)	(1992)
MIN	50.8	55.6	66.2	57.3	85.6	144	82.0	63.8	49.9	47.1	33.0	38.1
(WY)	(2003)	(2002)	(1999)	(2002)	(1995)	(2002)	(1995)	(1995)	(1995)	(2001)	(2002)	(1995)

0423205025 IRONDEQUOIT CREEK AT EMPIRE BOULEVARD, ROCHESTER, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		WATER YEARS 1990 - 2003	
ANNUAL TOTAL	41,428			
ANNUAL MEAN	114		138	
HIGHEST ANNUAL MEAN			183	1993
LOWEST ANNUAL MEAN			80.3	1995
HIGHEST DAILY MEAN	904	May 14	2,900	Jan 9, 1998
LOWEST DAILY MEAN	20	Aug 5	20	Aug 5, 2002
ANNUAL SEVEN-DAY MINIMUM	25	Sep 1	25	Sep 1, 2002
10 PERCENT EXCEEDS	228		276	
50 PERCENT EXCEEDS	82		90	
90 PERCENT EXCEEDS	30		45	

0423205025 IRONDEQUOIT CREEK AT EMPIRE BOULEVARD, ROCHESTER, NY—Continued

LOCATION.--Lat 43°10'34", long 77°31'37", Monroe County, Hydrologic Unit 04140101, on right bank 25 ft upstream from bridge on Empire Boulevard (Route 404), 200 ft upstream from mouth at south end of Irondequoit Bay, and 1.5 mi east of Rochester.

DRAINAGE AREA.--151 mi^2, flow from 7.78 mi^2 noncontributing.

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

GAGE.--Water-stage recorder, and crest-stage gage. Datum of gage is 242.66 ft above NGVD of 1929 (levels by Corps of Engineers).

REMARKS.--Records affected by backwater from Irondequoit Bay. Unpublished gage-height record for March 1989 to December 2002 is available in files of U.S. Geological Survey. Unpublished water-quality records are available in files of Monroe County Department of Health. Telephone gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 6.64 ft, Apr. 23, 1993 (backwater from Irondequoit Bay); minimum gage height, 2.28 ft, Nov. 25, 2001.

EXTREMES FOR CURRENT PERIOD.--January 2003 to September 2003: Maximum gage height, 4.94 ft, June 19; minimum gage height, 2.35 ft, Mar. 8.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	3.08	2.89	2.76	2.99	3.83	4.78	4.74	4.45	3.96
2	---	---	---	2.84	3.00	2.51	3.09	3.93	4.73	4.70	4.43	3.93
3	---	---	---	2.68	3.00	2.75	3.26	3.91	4.73	4.66	4.42	3.82
4	---	---	---	2.57	3.28	2.75	3.65	3.89	4.72	4.62	4.44	3.85
5	---	---	---	2.50	3.19	2.51	3.45	3.81	4.74	4.64	4.45	3.87
6	---	---	---	2.49	3.04	2.46	3.68	3.94	4.77	4.69	4.44	3.79
7	---	---	---	2.46	2.74	2.48	3.58	3.99	4.77	4.64	4.47	3.79
8	---	---	---	2.48	2.78	2.39	3.47	4.00	4.79	4.64	4.51	3.80
9	---	---	---	2.59	2.89	3.05	3.45	4.03	4.74	4.65	4.50	3.69
10	---	---	---	2.65	2.85	3.08	3.45	4.02	4.82	4.55	4.49	3.62
11	---	---	---	2.68	2.90	3.12	3.49	4.01	4.79	4.47	4.49	3.59
12	---	---	---	2.86	2.88	2.56	3.54	4.04	4.84	4.52	4.56	3.52
13	---	---	---	2.78	2.87	2.52	3.54	4.18	4.86	4.66	4.51	3.49
14	---	---	---	2.86	2.84	2.43	3.52	4.21	4.88	4.60	4.51	3.47
15	---	---	---	2.86	2.81	2.44	3.47	4.20	4.89	4.50	4.52	3.49
16	---	---	---	2.84	2.75	2.82	3.68	4.25	4.89	4.60	4.56	3.61
17	---	---	---	2.83	2.79	3.27	3.74	4.31	4.85	4.60	4.54	3.60
18	---	---	---	2.74	2.83	3.32	3.52	4.31	4.84	4.63	4.43	3.54
19	---	---	---	2.71	2.85	3.04	3.60	4.29	4.87	4.57	4.36	3.38
20	---	---	---	2.66	2.87	2.85	3.55	4.28	4.89	4.51	4.36	3.39
21	---	---	---	2.63	2.90	3.28	3.58	4.42	4.87	4.51	4.33	3.36
22	---	---	---	2.64	3.00	3.30	3.64	4.42	4.87	4.56	4.41	3.29
23	---	---	---	2.64	3.56	3.02	3.80	4.39	4.86	4.53	4.44	3.36
24	---	---	---	2.65	3.47	2.80	3.78	4.47	4.84	4.52	4.32	3.37
25	---	---	---	2.67	3.55	2.71	3.77	4.56	4.82	4.51	4.21	3.38
26	---	---	---	2.67	3.25	2.95	3.78	4.56	4.80	4.48	4.20	3.39
27	---	---	---	2.66	3.10	3.00	3.76	4.58	4.81	4.53	4.24	3.29
28	---	---	---	2.68	2.92	2.77	3.71	4.58	4.78	4.61	4.17	3.42
29	---	---	---	2.74	---	2.81	3.82	4.62	4.70	4.54	4.01	3.41
30	---	---	---	2.74	---	2.97	3.81	4.65	4.79	4.51	4.12	3.37
31	---	---	---	2.79	---	3.03	---	4.71	---	4.45	4.02	---
MEAN	---	---	---	2.70	2.99	2.83	3.57	4.24	4.81	4.58	4.38	3.56
MAX	---	---	---	3.08	3.56	3.32	3.82	4.71	4.89	4.74	4.56	3.96
MIN	---	---	---	2.46	2.74	2.39	2.99	3.81	4.70	4.45	4.01	3.29

0423205025 IRONDEQUOIT CREEK AT EMPIRE BOULEVARD, ROCHESTER, NY

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1989 to current year.
CHEMICAL DATA: Water years 1989 to 2003 (e).
NUTRIENT DATA: Water years 1989 to 2003 (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; since July 2000, provides 5-minute-interval readings.

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

REMARKS.--Records for October 1988 to September 1993 are 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 recorded, 29.0°C, July 15, 1995, Aug. 9, 2001; minimum recorded, 0°C, for many days during winter period.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum recorded, 27.0°C, July 6; minimum recorded, 0°C, for many days during winter period

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	20.5	16.0	18.5	8.0	6.5	7.0	4.0	2.0	2.5	3.5	1.5	2.5
2	21.0	18.0	19.0	7.0	6.0	6.5	2.0	1.0	1.5	1.5	0.5	0.5
3	19.5	16.5	18.5	7.0	5.5	6.0	1.0	0.0	0.5	0.5	0.0	0.0
4	19.5	16.0	17.5	7.0	6.0	6.5	0.5	0.0	0.0	1.5	0.5	1.0
5	18.5	16.0	17.5	8.0	6.5	7.0	0.5	0.0	0.5	2.0	1.5	1.5
6	17.5	14.0	16.0	7.0	6.5	6.5	1.5	0.5	1.0	2.0	1.5	2.0
7	16.5	14.0	15.0	7.5	5.5	6.0	1.0	0.0	0.5	1.5	0.5	1.0
8	15.5	12.5	13.5	8.5	5.0	6.5	2.5	1.0	1.5	2.5	1.0	1.5
9	13.5	11.0	12.5	9.0	7.0	8.0	1.0	0.0	0.5	2.5	2.0	2.5
10	15.5	11.5	13.5	11.0	9.0	10.0	1.0	0.0	0.5	2.0	0.5	1.5
11	14.0	12.5	13.5	12.5	11.0	11.5	0.5	0.0	0.0	0.5	0.0	0.0
12	15.5	13.5	14.5	11.0	9.5	10.0	2.0	0.0	1.0	1.0	0.0	0.5
13	15.0	13.0	14.5	9.5	8.5	9.0	3.0	2.0	2.5	0.5	0.0	0.0
14	13.0	10.5	12.0	9.5	7.5	8.5	3.0	3.0	3.0	0.0	0.0	0.0
15	12.0	8.5	10.5	9.0	7.5	8.5	3.0	2.0	2.0	0.0	0.0	0.0
16	11.0	10.5	10.5	7.5	5.0	6.0	2.0	1.0	1.5	0.0	0.0	0.0
17	11.5	10.5	11.0	5.0	4.5	5.0	1.5	0.5	1.0	0.0	0.0	0.0
18	11.0	9.5	10.5	5.0	4.5	4.5	0.5	0.0	0.5	0.0	0.0	0.0
19	11.5	10.0	10.5	4.5	4.0	4.5	2.5	0.5	1.5	0.0	0.0	0.0
20	11.5	10.0	10.5	7.0	4.5	5.5	4.0	2.5	3.5	0.0	0.0	0.0
21	12.0	9.5	10.0	6.5	5.5	6.0	3.5	2.5	3.0	0.0	0.0	0.0
22	10.0	8.5	9.0	6.5	6.0	6.5	3.5	2.5	3.0	0.0	0.0	0.0
23	9.5	8.5	9.0	6.5	5.0	5.0	3.0	2.0	2.5	0.0	0.0	0.0
24	9.0	7.5	8.5	5.5	4.5	5.0	2.5	1.5	2.0	0.0	0.0	0.0
25	8.5	6.5	7.5	6.0	5.5	5.5	2.0	0.0	0.5	0.0	0.0	0.0
26	9.5	7.5	8.5	5.5	3.5	5.0	0.5	---	0.0	0.0	0.0	0.0
27	10.5	9.0	9.5	4.5	3.0	3.5	1.0	0.5	1.0	0.0	0.0	0.0
28	9.5	8.5	9.0	3.5	2.0	2.5	1.5	1.0	1.5	0.0	0.0	0.0
29	9.0	8.0	8.0	3.0	2.5	2.5	2.5	1.5	2.0	0.0	0.0	0.0
30	10.0	8.0	9.0	4.5	3.0	3.5	2.5	---	2.0	0.0	0.0	0.0
31	8.5	6.5	7.5	---	---	---	4.0	2.5	3.5	0.0	0.0	0.0
MONTH	21.0	6.5	12.1	12.5	2.0	6.3	4.0	0.0	1.5	3.5	0.0	0.5

0423205025 IRONDEQUOIT CREEK AT EMPIRE BOULEVARD, ROCHESTER, NY—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	0.0	0.0	0.0	2.0	0.0	0.5	4.0	3.0	3.5	15.5	13.0	14.5
2	0.0	0.0	0.0	2.5	1.0	2.0	5.0	4.0	4.5	15.5	13.0	14.5
3	0.0	0.0	0.0	1.0	0.0	0.0	4.5	3.5	4.0	15.0	11.5	13.0
4	0.5	0.0	0.5	0.5	0.0	0.0	3.5	1.5	2.5	15.5	11.0	13.5
5	0.5	0.0	0.0	1.0	0.0	0.5	2.5	1.5	2.0	14.0	11.5	12.5
6	0.5	---	0.0	2.0	0.5	1.0	3.0	1.0	2.0	16.0	11.0	13.5
7	1.0	0.0	0.5	1.0	0.0	0.5	3.0	1.5	2.5	15.0	13.5	14.5
8	0.5	0.0	0.0	3.5	0.5	2.0	2.5	1.5	2.0	16.0	13.5	14.5
9	0.0	0.0	0.0	3.5	0.0	1.5	3.5	2.5	3.0	16.5	13.0	14.5
10	0.0	0.0	0.0	0.5	0.0	0.0	7.0	3.0	4.5	17.0	14.0	15.5
11	0.0	0.0	0.0	0.0	0.0	0.0	7.0	5.0	6.0	16.5	15.0	16.0
12	0.0	0.0	0.0	1.5	0.0	1.0	9.5	5.5	7.5	15.0	13.0	14.0
13	0.0	0.0	0.0	2.0	0.5	1.0	10.0	7.0	8.5	13.0	11.5	12.0
14	0.0	0.0	0.0	3.0	0.0	1.5	11.5	---	9.0	13.0	11.0	12.0
15	0.0	0.0	0.0	5.5	1.5	3.5	15.5	9.5	12.5	14.5	11.0	13.0
16	0.0	0.0	0.0	5.5	2.5	4.0	14.0	10.0	12.5	14.0	12.5	13.0
17	0.0	0.0	0.0	3.5	2.0	3.0	10.0	8.0	9.0	15.0	12.0	13.5
18	0.0	0.0	0.0	4.0	2.5	3.0	11.5	7.5	9.5	18.0	13.5	15.5
19	0.0	0.0	0.0	4.5	2.0	3.5	14.5	10.0	12.0	19.0	14.5	17.0
20	0.5	0.0	0.0	4.5	4.0	4.5	17.0	12.5	14.5	18.0	16.0	17.0
21	0.5	0.0	0.0	5.0	4.0	4.5	15.0	13.0	14.0	17.5	15.0	16.0
22	0.5	0.0	0.0	6.0	5.0	5.5	13.0	10.5	12.0	17.0	13.5	15.5
23	0.5	0.0	0.5	6.0	5.0	5.5	10.5	8.0	9.0	16.0	14.0	15.0
24	0.0	0.0	0.0	7.5	4.5	6.0	11.5	6.5	9.0	15.5	14.0	14.5
25	0.0	0.0	0.0	9.0	6.5	8.0	13.5	8.5	11.0	15.5	13.5	14.5
26	0.0	0.0	0.0	9.0	7.5	8.5	12.0	10.0	11.0	16.5	14.5	15.0
27	0.5	0.0	0.0	9.0	7.0	8.0	14.0	9.5	11.5	16.5	14.0	15.0
28	0.5	0.0	0.0	11.0	7.5	9.5	16.5	11.0	13.5	16.0	14.0	15.0
29	---	---	---	10.5	9.0	10.0	16.5	12.5	14.5	17.0	14.5	15.5
30	---	---	---	9.0	5.5	7.5	15.0	12.5	14.0	19.0	15.5	17.0
31	---	---	---	6.0	4.0	5.0	---	---	---	17.5	14.5	16.0
MONTH	1.0	0.0	0.1	11.0	0.0	3.6	17.0	1.0	8.4	19.0	11.0	14.6

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	14.5	12.5	13.5	24.0	21.0	22.0	22.5	21.5	22.0	---	---	---
2	15.0	12.0	13.5	24.5	21.5	23.0	22.5	20.5	21.5	---	---	---
3	15.0	13.5	14.5	25.5	22.5	23.5	22.0	20.5	21.5	---	---	---
4	15.5	14.0	15.0	26.0	23.0	24.5	24.5	20.5	22.5	---	---	---
5	15.5	14.5	15.0	26.5	24.0	25.0	23.0	21.0	22.0	---	---	---
6	18.5	14.5	16.5	27.0	23.5	25.0	21.5	20.5	21.0	---	---	---
7	18.0	16.5	17.0	25.5	23.0	24.0	23.0	20.5	21.5	---	---	---
8	19.0	15.5	17.5	25.5	22.0	23.5	24.5	21.0	22.5	---	---	---
9	19.5	17.5	18.5	25.0	22.5	23.5	23.5	22.0	23.0	---	---	---
10	19.5	17.5	18.5	23.5	21.5	22.5	22.5	22.0	22.5	---	---	---
11	19.5	18.0	19.0	23.0	20.5	21.5	23.0	21.5	22.0	---	---	---
12	19.0	17.5	18.0	21.5	19.5	20.5	23.0	21.0	22.0	---	---	---
13	18.0	17.0	17.5	22.0	18.5	20.0	24.5	21.0	22.5	---	---	---
14	19.0	17.0	18.0	23.5	20.0	21.5	---	---	---	---	---	---
15	21.0	17.5	19.0	24.0	21.0	22.5	---	---	---	---	---	---
16	21.0	18.0	19.5	23.0	21.5	22.5	---	---	---	---	---	---
17	21.5	18.0	19.5	23.5	20.5	22.0	---	---	---	---	---	---
18	21.0	19.5	20.0	24.5	21.5	22.5	---	---	---	---	---	---
19	20.0	18.5	19.0	24.0	21.5	22.5	---	---	---	---	---	---
20	19.5	17.5	18.5	22.5	21.0	21.5	---	---	---	---	---	---
21	18.5	17.0	17.5	21.0	20.0	20.5	---	---	---	---	---	---
22	20.0	16.5	18.0	22.5	19.5	21.0	---	---	---	---	---	---
23	21.5	18.5	20.0	22.0	20.0	21.0	---	---	---	---	---	---
24	23.5	20.0	21.5	21.5	19.5	20.5	---	---	---	---	---	---
25	25.0	21.5	23.0	22.5	18.5	20.5	---	---	---	---	---	---
26	25.5	22.5	24.0	22.5	20.5	21.5	---	---	---	---	---	---
27	25.0	22.0	23.5	22.0	21.0	21.5	---	---	---	---	---	---
28	23.5	21.0	22.0	23.0	20.5	21.5	---	---	---	---	---	---
29	22.5	21.0	22.0	22.5	20.0	21.5	---	---	---	---	---	---
30	23.5	21.0	22.0	23.5	19.5	21.5	---	---	---	---	---	---
31	---	---	---	23.0	20.5	22.0	---	---	---	---	---	---
MONTH	25.5	12.0	18.7	27.0	18.5	22.1	24.5	20.5	22.0	---	---	---
YEAR	27.0	0.0	9.4									

0423205025 IRONDEQUOIT CREEK AT EMPIRE BOULEVARD, ROCHESTER, NY—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Ending time	Dis-charge, cfs (00060)	Tur-bidity, NTU (00076)	Chlor-ide, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Residue total at 105 deg. C, sus-pended, mg/L (00530)	Residue vola-tile, sus-pended, mg/L (00535)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water unfltrd mg/L as N (00630)	Ortho-phos-phate, water, fltrd, mg/L as P (00671)	Phos-phorus, water, unfltrd mg/L (00665)
OCT													
03-07	0920	0819	50	21	155	223	--	--	.57	<.01	.75	.021	.108
07-11	0850	0749	42	8.3	155	238	--	--	.52	<.01	.82	.028	.073
11-15	0840	0739	43	11	140	215	--	--	.47	<.01	.72	.018	.083
15-17	0840	0840	51	8.5	139	202	--	--	.45	.01	.77	.019	.064
17-19	0855	0354	57	9.3	112	158	--	--	.49	.01	.68	.018	.074
19-20	0055	0754	77	17	98	122	--	--	.54	.01	.65	.018	.091
19-19	0455	2355	--	16	121	157	--	--	.61	.02	.73	.020	.096
21-24	0855	0754	57	5.3	137	186	--	--	.41	<.01	.76	.017	.063
24-28	0855	0854	81	9.0	126	175	--	--	.45	<.01	.69	.019	.051
28-31	1000	0859	92	7.1	143	171	--	--	.50	.01	.62	.015	.049
OCT 31-													
NOV 04	0945	0844	77	2.8	136	185	--	--	.43	<.01	.71	.015	.061
04-08	1015	0815	91	5.9	122	162	--	--	.42	<.01	.67	.013	.046
08-12	0855	0754	62	8.2	131	188	--	--	.45	<.10	.70	.013	.055
12-14	1000	0900	52	4.6	143	202	--	--	.41	.01	.65	.012	.054
14-18	1010	0909	133	16	144	174	--	--	.65	.01	.67	.017	.105
18-19	1110	1010	172	15	139	115	--	--	.65	<.01	.68	.018	.093
21-22	1010	0910	111	8.6	156	160	--	--	.56	<.01	.94	.022	.088
22-23	1010	0110	158	12	150	162	--	--	.60	.01	.97	.020	.114
23-25	0210	0909	148	21	139	127	--	--	.62	<.01	.87	.022	.109
25-27	1005	1005	86	7.4	--q	--q	--	--	.45	<.01	1.1	.022	.060
NOV 27-													
DEC 02	1015	0914	94	4.9	258	177	--	--	.40	.02	1.2	.019	.050
02-05	1000	0859	80	11	176	327	--	--	.44	<.01	1.2	.017	.061
05-09	1005	0904	66	8.7	299	198	--	--	.40	<.01	1.4	.018	.049
09-12	1005	0904	68	3.1	257	194	--	--	.42	.01	1.4	.018	.071
12-14	1010	1709	256	21	518	155	--	--	.27	<.01	1.2	.013	.121
14-16	1810	0910	479	140	248	86	338	40	1.4	<.01	1.3	.013	.533
16-19	1000	0859	203	37	267	122	--	--	.87	<.01	2.0	.021	.170
19-23	0935	0735	187	20	310	140	--	--	.74	<.01	1.9	.020	.111
23-26	0825	0724	138	11	324	146	--	--	.66	<.01	1.8	.019	.104
26-30	0855	0754	126	13	293	157	--	--	.67	<.01	1.7	.015	.107
DEC 30													
JAN 01	0830	0130	308	50	294	142	--	--	.81	<.01	1.8	.018	.219
01-02	0230	0729	592	120	221	95	--	--	1.4	<.01	1.9	.016	.478
02-06	0930	0829	210	22	327	116	--	--	.65	<.01	1.8	.016	.135
06-09	1010	0810	167	20	457	143	--	--	.73	.01	1.8	.013	.104
09-13	0910	0809	210	21	452	118	--	--	.85	<.01	1.7	.012	.122
13-17	0910	0809	121	16	316	139	--	--	.77	<.01	1.8	.011	.094
17-21	0940	0839	102	5.6	262	147	--	--	.49	<.01	1.8	.010	.055
21-23	0935	0835	86	5.2	247	153	--	--	.54	.02	1.8	.010	.032
23-27	0935	0834	80	6.4	249	172	--	--	.57	<.10	1.8	.009	.081
27-30	0910	0809	77	3.5	258	171	--	--	.52	<.01	1.7	.010	.059
JAN 30-													
FEB 03	0845	0744	97	6.5	425	162	--	--	.46	<.01	1.7	.011	.060
03-04	0910	2010	307	19	575	131	--	--	.67	.01	1.5	.009	.135
04-06	2110	0810	372	57	450	101	134	15	1.0	<.01	1.6	.011	.231
06-10	0920	0819	176	15	289	123	--	--	.72	<.02	1.8	.011	.109
10-14	0905	0804	101	4.6	281	166	--	--	.58	<.01	1.8	.010	.040
14-18	0845	0744	77	7.2	251	170	--	--	.56	<.01	1.7	.007	.057
22-23	1340	1240	413	--	405	98	153	--	1.1	.02	1.4	.006	.331
23-24	1340	0840	489	--	427	102	121	--	1.0	.02	1.6	.010	.234
FEB 25-													
MAR 01	0925	1724	176	--	298	116	36	--	.77	.01	1.7	.015	.125
08-11	1035	0735	381	--	282	95	85	--	.73	.03	1.7	.011	.241
14-18	0655	0755	506	--	230	96	116	--	1.2	.02	1.6	.013	.254
18-25	0850	0750	671	--	149	64	126	--	1.1	.01	1.6	.019	.253
APR													
03-06	1725	0024	703	--	312	80	72	--	.91	.06	1.4	.013	.155
06-08	0125	0724	916	--	189	55	97	--	.93	.02	1.4	.019	.203
08-14	0820	1120	380	--	--	--	--	--	.61	<.01	1.5	.014	.068
MAY													
01-06	0930	0730	199	--	178	119	61	--	.83	.03	.90	.009	.153
23-27	2100	0700	514	--	126	76	118	--	1.3	.03	.79	.016	.269
JUL													
21-25	1215	0915	123	--	127	137	--q	--	.85	.02	.71	.030	.153

0423205025 IRONDEQUOIT CREEK AT EMPIRE BOULEVARD, ROCHESTER, NY—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Zinc, water, unfltrd recover -able, ug/L (01092)
JAN 30-	
FEB 03	--
03-04	--
04-06	--
06-10	--
10-14	--
14-18	--
FEB	
22-23	61
23-24	41
FEB 25-	
MAR 01	--
08-11	46
14-18	43
18-25	49
APR	
03-06	43
06-08	30
08-14	--
MAY	
01-06	26
23-27	49
JUL	
21-25	23

Remark codes used in this table:
< -- Less than

Null value qualifier codes used in this table:
q -- Sample discarded: holding time exceeded

04232400 SENECA LAKE AT WATKINS GLEN, NY

LOCATION.--Lat 42°23'00", long 76°52'05", Schuyler County, Hydrologic Unit 04140201, on east bank about 300 ft from lake on shorter of two boat slips at Watkins Glen.

DRAINAGE AREA.--704 mi^2.

PERIOD OF RECORD.--October 1956 to current year.

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929 (1.59 ft Barge Canal datum). To convert elevations to NAVD 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 mi^2. Diversion from Susquehanna River basin enters lake through Keuka Lake Outlet at Dresden. 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 elevation, 442.64 ft, Mar. 14, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 445.83 ft, Apr. 11; minimum elevation, 443.62 ft, Mar. 8.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	444.49	444.28	444.25	444.62	443.92	443.85	445.28	445.23	445.54	445.27	445.43	444.90
2	444.51	444.27	444.25	444.71	443.95	443.88	445.31	445.29	445.57	445.20	445.45	445.08
3	444.57	444.27	444.24	444.71	443.93	443.89	445.33	445.30	445.55	445.17	445.44	445.01
4	444.51	444.22	444.18	444.73	443.94	443.81	445.39	445.30	445.53	445.17	445.51	445.03
5	444.50	444.22	444.17	444.72	444.00	443.83	445.63	445.28	445.52	445.16	445.50	445.10
6	444.56	444.24	444.15	444.74	443.97	443.85	445.78	445.26	445.49	445.17	445.51	445.04
7	444.46	444.23	444.10	444.68	443.99	443.78	445.78	445.27	445.46	445.16	445.49	445.02
8	444.53	444.15	444.14	444.63	443.96	443.79	445.78	445.25	445.46	445.14	445.47	445.08
9	444.43	444.13	444.10	444.61	443.97	443.88	445.78	445.24	445.46	445.17	445.44	445.05
10	444.40	444.14	444.07	444.59	443.98	443.88	445.78	445.22	445.42	445.10	445.47	445.01
11	444.46	444.16	444.08	444.51	443.95	443.86	445.78	445.25	445.37	445.07	445.51	445.04
12	444.44	444.19	444.12	444.45	443.92	443.87	445.78	445.28	445.37	445.08	445.52	444.99
13	444.42	444.20	444.12	444.37	443.88	443.90	445.74	445.30	445.34	445.10	445.49	444.98
14	444.44	444.16	444.28	444.33	443.85	443.88	445.67	445.28	445.37	445.07	445.46	444.99
15	444.37	444.16	444.38	444.28	443.86	443.89	445.63	445.26	445.39	444.99	445.43	444.94
16	444.36	444.22	444.48	444.24	443.85	443.96	445.62	445.25	445.39	445.02	445.36	445.00
17	444.47	444.27	444.45	444.22	443.86	444.15	445.55	445.26	445.33	445.06	445.40	445.01
18	444.38	444.26	444.41	444.15	443.88	444.35	445.42	445.27	445.31	445.02	445.33	445.02
19	444.33	444.22	444.38	444.15	443.83	444.45	445.42	445.26	445.30	445.03	445.25	444.95
20	444.40	444.22	444.44	444.16	443.81	444.52	445.39	445.21	445.33	444.99	445.21	444.95
21	444.40	444.22	444.50	444.14	443.76	444.73	445.37	445.25	445.38	444.96	445.14	444.98
22	444.36	444.28	444.55	444.12	443.79	444.94	445.38	445.22	445.41	445.15	445.15	444.86
23	444.40	444.31	444.56	444.11	443.88	445.08	445.39	445.21	445.41	445.34	445.17	444.89
24	444.36	444.29	444.57	444.08	443.93	445.16	445.35	445.22	445.38	445.41	445.11	444.93
25	444.32	444.28	444.63	444.04	443.94	445.19	445.31	445.25	445.37	445.43	445.00	444.84
26	444.35	444.29	444.63	444.05	443.91	445.30	445.30	445.30	445.33	445.40	445.04	444.90
27	444.36	444.33	444.57	444.04	443.89	445.34	445.31	445.33	445.32	445.42	444.99	444.85
28	444.36	444.28	444.51	443.99	443.87	445.30	445.29	445.32	445.29	445.49	445.02	444.95
29	444.33	444.23	444.53	443.98	---	445.31	445.30	445.30	445.26	445.44	444.90	445.00
30	444.33	444.24	444.50	443.94	---	445.34	445.26	445.30	445.28	445.38	445.00	444.93
31	444.30	---	444.48	443.90	---	445.33	---	445.34	---	445.40	444.95	---
MEAN	444.42	444.23	444.35	444.32	443.90	444.40	445.50	445.27	445.40	445.19	445.29	444.98
MAX	444.57	444.33	444.63	444.74	444.00	445.34	445.78	445.34	445.57	445.49	445.52	445.10
MIN	444.30	444.13	444.07	443.90	443.76	443.78	445.26	445.21	445.26	444.96	444.90	444.84

CAL YR 2002 MEAN 444.66 MAX 446.08 MIN 443.74
WTR YR 2003 MEAN 444.78 MAX 445.78 MIN 443.76

04232482 KEUKA LAKE OUTLET AT DRESDEN, NY

LOCATION.--Lat 42°40'49", long 76°57'15", Yates County, Hydrologic Unit 04140201, on right bank at upstream side of bridge on Milo Street in Dresden, and 0.4 mi upstream from mouth.

DRAINAGE AREA.--207 mi^2.

PERIOD OF RECORD.--April 1965 to current year.

REVISED RECORD.--WDR NY-86-3: 1984 (P).

GAGE.--Water-stage recorder. Datum of gage is 445.35 ft above NGVD of 1929. 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 mi^2 of Mud Creek drainage area (Susquehanna River basin) is diverted into Keuka Lake (Oswego River basin) for power development.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,000 ft^3/s, Jun. 22, 1972, gage height 8.37 ft, datum then in use, from rating curve extended above 730 ft^3/s on basis of contracted-opening measurement at Mays Mill, adjusted for intervening area; minimum discharge, 3.2 ft^3/s, part or all of each day, Sept. 6-10, 1982, gage height, 1.47 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,510 ft^3/s, Apr. 5, gage height, 4.97 ft, from rating curve extended as explained above; minimum discharge, 12 ft^3/s, Nov. 8, 13, gage height, 1.40 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	17	22	474	295	48	831	26	489	21	329	23
2	19	17	22	418	278	51	827	37	708	21	330	44
3	20	17	e22	397	96	207	793	30	847	21	343	200
4	19	16	e22	392	152	270	942	92	829	21	358	350
5	121	16	e23	387	130	226	1,220	31	797	21	348	338
6	126	17	e23	381	113	176	887	30	615	20	358	407
7	16	16	e22	380	e75	149	833	29	391	21	339	332
8	15	16	e21	382	e44	e160	831	29	386	21	156	146
9	15	22	e22	408	e35	e150	835	28	383	22	36	146
10	88	22	e23	402	e38	260	857	28	373	25	35	145
11	22	23	e100	382	e35	295	832	97	374	28	45	144
12	22	23	200	373	e35	157	793	32	372	21	102	142
13	22	21	111	e360	e35	64	764	31	376	20	45	142
14	21	21	237	355	e35	158	748	30	373	20	35	161
15	21	21	211	349	e37	333	727	29	369	20	31	194
16	24	22	223	337	e50	438	697	34	192	22	29	387
17	59	32	272	e320	70	476	545	35	26	20	27	480
18	21	28	260	e315	96	442	344	32	26	24	26	464
19	22	25	257	e310	90	405	331	30	26	21	25	222
20	21	23	311	e300	77	443	326	29	25	20	25	62
21	21	23	306	e290	68	628	167	31	31	26	24	62
22	20	24	277	e285	65	776	37	29	85	37	24	20
23	21	25	273	301	140	707	35	28	30	158	23	20
24	20	24	259	323	107	665	33	34	27	377	23	19
25	20	23	253	336	78	647	31	93	26	367	23	19
26	23	22	254	331	e78	846	31	30	25	358	23	18
27	68	22	251	328	84	888	30	29	25	357	23	190
28	19	22	249	328	74	860	63	27	25	347	22	324
29	18	22	245	321	---	841	28	26	79	341	22	154
30	18	22	240	310	---	836	27	240	21	333	22	20
31	17	---	375	308	---	829	---	440	---	327	21	---
TOTAL	977	644	5,386	10,883	2,510	13,431	15,445	1,746	8,351	3,458	3,272	5,375
MEAN	31.5	21.5	174	351	89.6	433	515	56.3	278	112	106	179
MAX	126	32	375	474	295	888	1,220	440	847	377	358	480
MIN	15	16	21	285	35	48	27	26	21	20	21	18

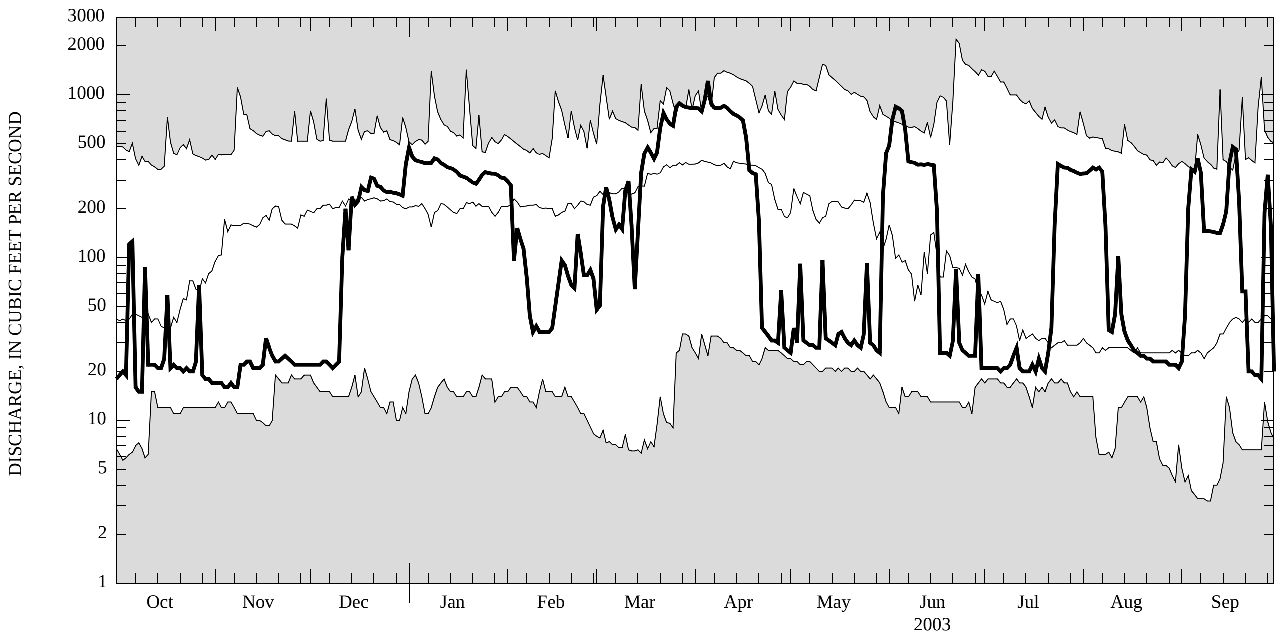
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	106	175	221	204	198	300	336	266	185	107	80.6	81.1
MAX	404	534	532	523	421	601	831	1,003	676	892	450	256
(WY)	(1978)	(1978)	(1978)	(1998)	(1978)	(1976)	(2001)	(1996)	(1972)	(1972)	(1972)	(1987)
MIN	14.6	14.5	14.6	18.3	19.2	31.8	34.9	22.2	17.2	21.1	13.7	7.14
(WY)	(1989)	(2002)	(2002)	(1966)	(1967)	(1989)	(1995)	(1988)	(1980)	(1985)	(1983)	(1982)

04232482 KEUKA LAKE OUTLET AT DRESDEN, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1965 - 2003	
ANNUAL TOTAL	44,486.4		71,478			
ANNUAL MEAN	122		196		190	
HIGHEST ANNUAL MEAN					362	1978
LOWEST ANNUAL MEAN					81.1	1981
HIGHEST DAILY MEAN	1,120	May 16	1,220	Apr 5	2,200	Jun 22, 1972
LOWEST DAILY MEAN	6.3	Mar 15	15	Oct 8	3.2	Sep 9, 1982
ANNUAL SEVEN-DAY MINIMUM	6.7	Mar 11	16	Nov 2	3.4	Sep 4, 1982
10 PERCENT EXCEEDS	339		475		444	
50 PERCENT EXCEEDS	23		68		121	
90 PERCENT EXCEEDS	14		21		21	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

04233000 CAYUGA INLET NEAR ITHACA, NY

LOCATION.--Lat 42°23'35", long 76°32'43", Tompkins County, Hydrologic Unit 04140201, on left bank 0.8 mi upstream from Enfield (formerly Butternut) Creek, and 5.0 mi south of Ithaca.

DRAINAGE AREA.--35.2 mi^2.

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

REVISED RECORDS.--WSP 2112: Drainage area. WDR NY 1974: 1973.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 437.16 ft above NGVD of 1929 (levels by Corps of Engineers).

REMARKS.--Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,800 ft^3/s, Jun. 23, 1972, gage height, 8.10 ft, from rating curve extended above 1,600 ft^3/s on basis of slope-area measurements at gage heights 5.5 ft and 7.58 ft; minimum discharge, 1.7 ft^3/s, July 22, 1955.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jul 22	0300	*575	*2.65				

Minimum discharge, 5.3 ft^3/s, Oct. 8, 9, 10, gage height, 0.41 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.3	11	29	91	e20	e55	99	36	258	18	49	25
2	6.8	11	27	97	e22	e50	124	39	115	17	34	98
3	11	12	23	67	e26	e40	122	36	83	15	27	51
4	8.4	12	e25	62	e70	e35	155	33	78	14	27	45
5	6.9	11	25	56	56	e37	317	33	70	13	25	32
6	6.2	14	24	53	46	e36	157	33	56	16	24	25
7	5.7	13	24	50	39	e35	126	32	55	17	21	20
8	5.5	12	23	51	e30	e38	117	31	50	13	20	17
9	5.4	11	e19	57	e32	e40	112	30	44	14	37	15
10	5.3	11	e22	55	e30	e37	116	29	37	14	59	14
11	5.9	11	22	48	e28	e35	105	41	40	19	32	14
12	7.8	12	28	e42	e26	40	92	60	40	13	27	15
13	6.7	15	29	e38	e24	39	82	52	44	11	23	12
14	6.2	14	100	e34	e23	36	74	45	37	9.9	20	12
15	5.9	12	83	e32	e22	48	68	40	32	9.1	18	11
16	25	14	67	e30	e20	113	64	39	28	28	19	12
17	30	82	53	e28	e21	276	59	36	25	13	19	11
18	16	65	46	e27	e22	271	56	33	33	33	16	11
19	14	50	47	e25	e22	194	55	31	30	22	14	11
20	14	44	101	e23	e22	212	52	33	35	14	13	13
21	12	43	74	e22	e22	299	49	32	103	55	12	11
22	10	48	61	e21	e40	220	55	29	85	258	11	10
23	9.9	51	55	e20	e150	168	55	28	55	120	10	68
24	9.0	42	48	e20	e120	134	49	54	46	164	9.5	26
25	8.9	40	46	e20	e100	121	44	77	38	77	9.2	22
26	32	37	45	e19	e80	149	44	58	31	55	9.5	19
27	23	35	41	e19	e70	127	42	53	34	50	9.4	16
28	18	31	39	e19	e60	103	40	45	26	48	8.7	29
29	14	30	38	e20	---	113	38	40	23	35	10	23
30	13	31	37	e19	---	121	36	36	22	28	13	19
31	12	---	56	e20	---	112	---	55	---	24	11	---
TOTAL	361.8	825	1,357	1,185	1,243	3,334	2,604	1,249	1,653	1,237.0	637.3	707
MEAN	11.7	27.5	43.8	38.2	44.4	108	86.8	40.3	55.1	39.9	20.6	23.6
MAX	32	82	101	97	150	299	317	77	258	258	59	98
MIN	5.3	11	19	19	20	35	36	28	22	9.1	8.7	10
CFSM	0.33	0.78	1.24	1.09	1.26	3.06	2.47	1.14	1.57	1.13	0.58	0.67
IN.	0.38	0.87	1.43	1.25	1.31	3.52	2.75	1.32	1.75	1.31	0.67	0.75

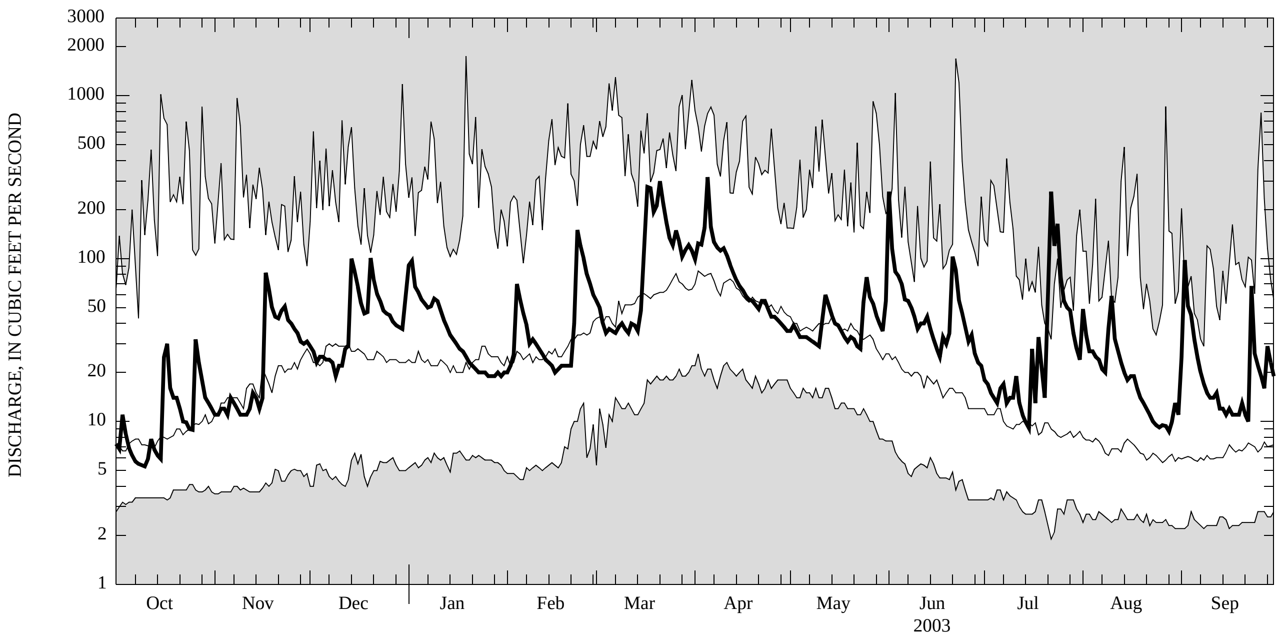
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	19.6	30.7	39.2	37.1	47.7	88.0	86.7	51.3	27.8	14.9	11.6	11.7
MAX	106	112	118	131	113	182	310	132	162	57.4	66.2	61.0
(WY)	(1956)	(1997)	(1973)	(1998)	(1976)	(1945)	(1993)	(1984)	(1972)	(1972)	(1942)	(1975)
MIN	3.76	4.56	6.09	6.32	11.8	25.0	21.8	15.7	5.47	3.77	3.24	2.98
(WY)	(1965)	(1965)	(1961)	(1961)	(1980)	(1965)	(1946)	(2001)	(1955)	(1955)	(1966)	(1964)

04233000 CAYUGA INLET NEAR ITHACA, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1937 - 2003	
ANNUAL TOTAL	11,462.1		16,393.1			
ANNUAL MEAN	31.4		44.9		38.7	
HIGHEST ANNUAL MEAN					61.7	1978
LOWEST ANNUAL MEAN					15.3	1965
HIGHEST DAILY MEAN	256	May 14	317	Apr 5	1,750	Jan 19, 1996
LOWEST DAILY MEAN	2.3	Sep 9	5.3	Oct 10	1.9	Jul 22, 1955
ANNUAL SEVEN-DAY MINIMUM	2.4	Sep 7	5.8	Oct 5	2.2	Aug 28, 1939
ANNUAL RUNOFF (CFSM)	0.89		1.28		1.10	
ANNUAL RUNOFF (INCHES)	12.11		17.32		14.92	
10 PERCENT EXCEEDS	61		100		84	
50 PERCENT EXCEEDS	26		32		20	
90 PERCENT EXCEEDS	4.7		11		5.4	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

04233286 SIXMILE CREEK AT BROOKTONDALE, NY

LOCATION.--Lat 42°25'53", long 76°23'41", Tompkins County, Hydrologic Unit 04140201, on left bank 1,000 ft upstream of bridge on Valley Road and 6.5 mi southeast of Ithaca.

DRAINAGE AREA.--27.0 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 2002 to September 2003.

GAGE.--Water-stage recorder. Elevation of gage is 900 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair. Telephone gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,100 ft^3/s, July 22, 2003, gage height, 2.30 ft; minimum discharge, 9.0 ft^3/s, July 15, 16, and Sept. 18, 2003, gage height, 0.40 ft.

EXTREMES FOR CURRENT PERIOD.--November 2002 to September 2003: Maximum discharge, 1,110 ft^3/s, July 22, gage height, 2.30 ft; minimum discharge, 9.0 ft^3/s, July 15, 16, Sept. 18, gage height, 0.40 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

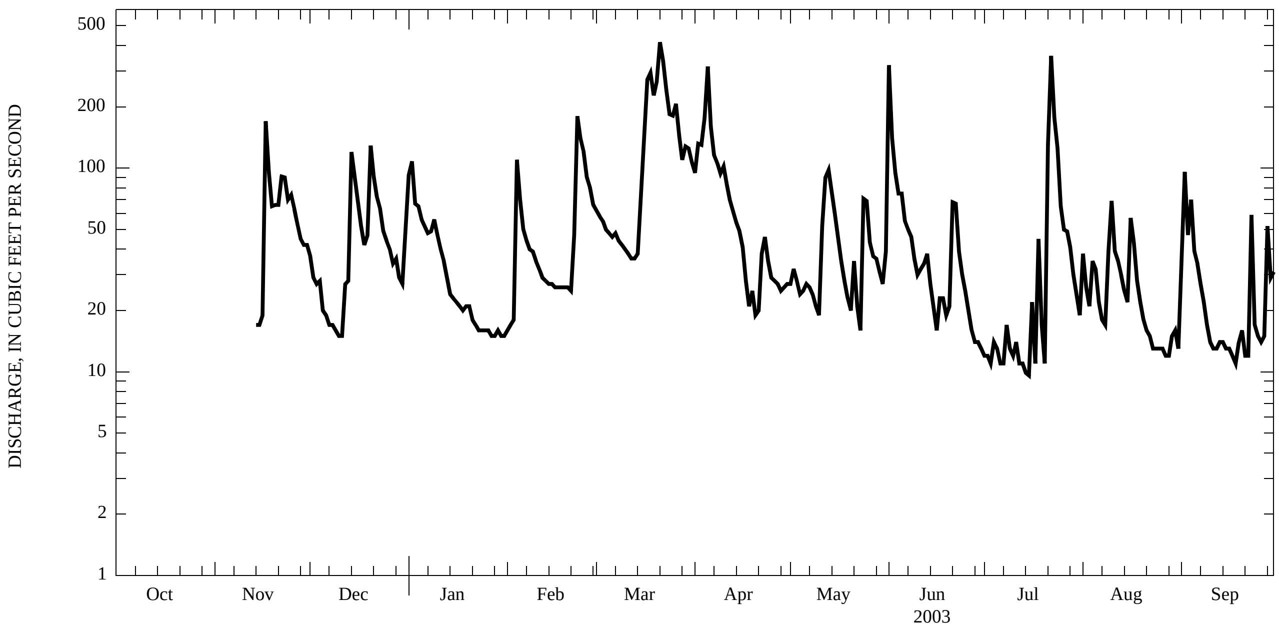
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	37	93	16	e62	95	27	320	12	38	29
2	---	---	29	108	17	e58	132	32	e140	12	26	96
3	---	---	27	67	18	e55	130	28	e95	11	21	47
4	---	---	e28	65	e110	e50	177	24	e75	14	35	70
5	---	---	20	56	e70	e48	316	25	e75	13	32	39
6	---	---	19	52	e50	e46	160	27	e55	11	22	34
7	---	---	17	48	e44	e48	116	26	e50	11	18	27
8	---	---	17	49	e40	e44	106	24	e46	17	17	22
9	---	---	e16	56	39	e42	94	21	e36	13	39	17
10	---	---	e15	47	e35	e40	102	19	e30	12	69	14
11	---	---	15	e40	e32	e38	83	52	e32	14	39	13
12	---	---	27	35	e29	e36	69	90	e34	11	35	13
13	---	---	28	e29	e28	e36	61	98	e38	11	30	14
14	---	17	120	e24	e27	e38	54	75	27	9.9	25	14
15	---	17	90	e23	e27	66	49	59	21	9.6	22	13
16	---	19	68	e22	e26	139	41	45	16	22	57	13
17	---	170	52	e21	e26	272	28	35	23	11	43	12
18	---	95	e42	e20	e26	294	21	28	23	45	28	11
19	---	65	47	e21	e26	228	25	23	19	17	22	14
20	---	66	129	21	e26	267	19	20	21	11	18	16
21	---	66	91	e18	e25	415	20	35	68	130	16	12
22	---	91	72	e17	47	335	38	21	67	356	15	12
23	---	90	63	e16	e180	242	46	16	39	177	13	59
24	---	70	49	e16	e140	184	35	71	30	125	13	17
25	---	74	44	16	e120	181	29	69	25	65	13	15
26	---	63	40	e16	e90	207	28	43	20	50	13	14
27	---	53	34	e15	e80	145	27	37	16	49	12	15
28	---	45	36	e15	e66	110	25	36	14	41	12	52
29	---	42	29	16	---	128	26	31	14	30	15	29
30	---	42	27	e15	---	125	27	27	13	24	16	31
31	---	---	47	15	---	107	---	39	---	19	13	---
TOTAL	---	---	1,375	1,072	1,460	4,086	2,179	1,203	1,482	1,353.5	787	784
MEAN	---	---	44.4	34.6	52.1	132	72.6	38.8	49.4	43.7	25.4	26.1
MAX	---	---	129	108	180	415	316	98	320	356	69	96
MIN	---	---	15	15	16	36	19	16	13	9.6	12	11
CFSM	---	---	1.64	1.28	1.93	4.88	2.69	1.44	1.83	1.62	0.94	0.97
IN.	---	---	1.89	1.48	2.01	5.63	3.00	1.66	2.04	1.86	1.08	1.08

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2003 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	---	---	44.4	34.6	52.1	132	72.6	38.8	49.4	43.7	25.4	26.1
MAX	---	---	44.4	34.6	52.1	132	72.6	38.8	49.4	43.7	25.4	26.1
(WY)	---	---	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)
MIN	---	---	44.4	34.6	52.1	132	72.6	38.8	49.4	43.7	25.4	26.1
(WY)	---	---	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)

e Estimated

04233286 SIXMILE CREEK AT BROOKTONDALE, NY—Continued



2003 WATER YEAR DAILY MEAN DISCHARGE.

04233286 SIXMILE CREEK AT BROOKTONDALE, NY—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 2003.
CHEMICAL DATA: Water year 2003 (b).
NUTRIENT DATA: Water year 2003 (b).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instan-taneous dis-charge, cfs (00061)	Dis-solved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conduc-tance, wat unf uS/cm 25 degC (00095)	Temper-ature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Magnes-ium, water, fltrd, mg/L (00925)	Potas-sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alka-linity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicar-bonate, wat flt incrm. titr., field, mg/L (00453)	Chlor-ide, water, fltrd, mg/L (00940)
FEB													
11...	1000	26	13.2	7.4	353	.0	34.1	6.33	1.12	16.1	72	88	32.8
MAY													
20...	1000	21	13.4	8.0	298	12.3	32.6	6.18	1.07	13.9	72	88	25.1
AUG													
18...	0900	29	11.2	8.0	334	16.6	40.9	7.25	1.29	13.1	74	90	22.1

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Fluor-ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phos-phate, water, fltrd, mg/L as P (00671)	Phos-phorus, water, fltrd, mg/L (00666)	Phos-phorus, water, unfltrd mg/L (00665)	Iron, water, fltrd, ug/L (01046)
FEB													
11...	.04	5.07	14.3	173	.25	.13	<.04	.80	<.008	<.02	.007	.008	E9
MAY													
20...	<.2	4.22	11.6	142	E.09	.13	<.04	.30	<.008	<.02	.006	.007	22
AUG													
18...	<.2	5.13	10.2	176	.16	.12	.007	.265	<.008	.005	.008	.006	15

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Mangan-ese, water, fltrd, ug/L (01056)
FEB	
11...	4.9
MAY	
20...	7.4
AUG	
18...	5.3

Remark codes used in this table:
< -- Less than
E -- Estimated value

04233300 SIXMILE CREEK AT BETHEL GROVE, NY

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 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1995 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 700 ft above NGVD of 1929, from topographic map.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,200 ft^3/s, Jan. 19, 1996, gage height, 9.78 ft; minimum discharge, 1.5 ft^3/s, Aug. 2, 1995.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jun 1	0900	1,040	4.65	Jul 22	0245	*1,280	*4.95

Minimum discharge, 7.3 ft^3/s, Oct. 9, 10, 15.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	20	53	147	e22	e88	128	34	534	19	55	25
2	9.2	20	45	191	e24	e80	183	39	201	17	34	153
3	21	21	e42	100	e28	e74	175	36	127	15	28	65
4	16	21	e40	93	e160	e68	242	32	102	16	37	97
5	13	21	e30	78	e110	e64	522	30	103	18	43	51
6	11	33	e28	72	e70	e62	209	32	75	15	30	40
7	9.4	31	e24	67	e64	e66	151	32	72	14	25	32
8	8.2	26	e24	68	e56	e60	130	30	63	20	22	28
9	7.8	24	e23	77	e52	e56	121	29	51	17	60	24
10	7.6	23	e21	71	e48	e54	128	27	44	16	100	22
11	8.3	27	e21	66	e44	e50	119	68	46	19	41	19
12	10	27	e40	e56	e40	e48	99	105	48	14	35	18
13	9.4	35	47	e48	e38	e48	82	131	54	12	29	17
14	9.1	28	174	e40	e36	e55	71	108	45	10	25	17
15	8.1	25	141	e38	e36	e60	65	77	38	9.0	22	16
16	45	28	99	e34	e34	e180	59	65	31	21	62	17
17	55	220	69	e32	e34	428	53	55	28	12	48	14
18	27	140	e64	e30	e34	564	49	48	37	45	29	13
19	24	90	62	e29	e33	374	49	41	32	21	24	15
20	24	90	204	e27	e33	384	45	37	33	12	21	18
21	19	91	141	e24	e32	657	43	51	92	140	19	14
22	17	119	97	e23	e70	459	57	39	90	502	18	13
23	16	141	80	e22	e260	303	64	35	49	239	16	70
24	15	100	66	e22	e200	219	54	95	39	183	15	24
25	14	97	62	e22	e170	211	47	96	33	100	14	21
26	54	83	62	e21	e130	268	46	63	29	66	14	20
27	35	70	54	e20	e110	197	44	56	26	60	14	18
28	27	61	54	e20	e94	149	40	52	23	58	13	56
29	24	57	51	e21	---	171	38	44	22	45	14	36
30	22	56	49	e20	---	175	35	41	21	40	18	35
31	21	---	72	e21	---	149	---	55	---	39	14	---
TOTAL	597.1	1,825	2,039	1,600	2,062	5,821	3,148	1,683	2,188	1,814.0	939	1,008
MEAN	19.3	60.8	65.8	51.6	73.6	188	105	54.3	72.9	58.5	30.3	33.6
MAX	55	220	204	191	260	657	522	131	534	502	100	153
MIN	7.6	20	21	20	22	48	35	27	21	9.0	13	13
CFSM	0.49	1.55	1.67	1.31	1.87	4.78	2.67	1.38	1.86	1.49	0.77	0.85
IN.	0.57	1.73	1.93	1.51	1.95	5.51	2.98	1.59	2.07	1.72	0.89	0.95

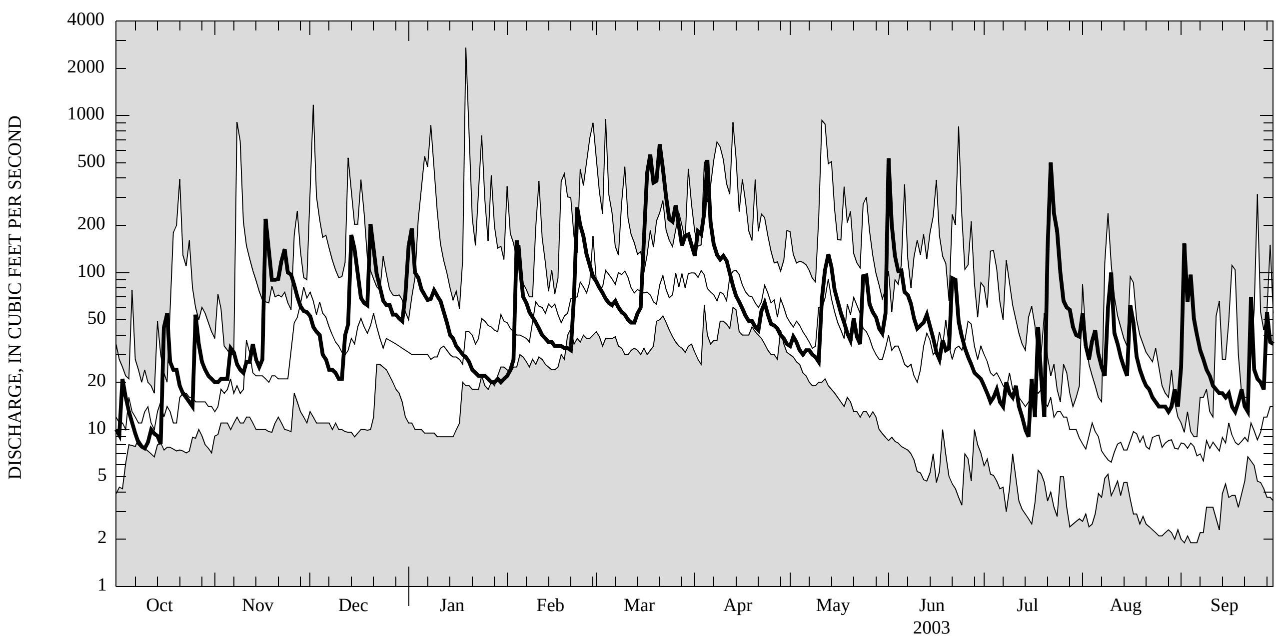
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	21.5	46.4	62.4	78.9	88.9	115	109	74.6	52.5	24.3	14.8	16.2
MAX	52.9	125	184	186	134	188	197	165	94.2	58.5	47.4	33.6
(WY)	(1997)	(1997)	(1997)	(1996)	(2000)	(2003)	(2001)	(1996)	(2002)	(2003)	(1996)	(2003)
MIN	9.19	11.5	14.8	26.5	51.8	60.6	51.5	19.5	6.77	4.10	3.93	4.38
(WY)	(1998)	(1999)	(1999)	(2001)	(2001)	(2002)	(1995)	(1999)	(1999)	(1999)	(1999)	(1995)

04233300 SIXMILE CREEK AT BETHEL GROVE, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1995 - 2003	
ANNUAL TOTAL	19,914.8		24,724.1			
ANNUAL MEAN	54.6		67.7		60.4	
HIGHEST ANNUAL MEAN					81.3	1996
LOWEST ANNUAL MEAN					38.1	1999
HIGHEST DAILY MEAN	510	May 14	657	Mar 21	2,700	Jan 19, 1996
LOWEST DAILY MEAN	3.8	Sep 9	7.6	Oct 10	1.9	Sep 2, 1999
ANNUAL SEVEN-DAY MINIMUM	3.9	Sep 8	8.6	Oct 9	2.0	Aug 31, 1999
ANNUAL RUNOFF (CFSM)	1.39		1.72		1.54	
ANNUAL RUNOFF (INCHES)	18.85		23.40		20.89	
10 PERCENT EXCEEDS	114		148		126	
50 PERCENT EXCEEDS	37		41		33	
90 PERCENT EXCEEDS	5.8		16		8.5	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

04233300 SIXMILE CREEK AT BETHEL GROVE, NY—Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--
SUSPENDED-SOLIDS CONCENTRATION: October 1996 to September 1998.
SUSPENDED-SOLIDS DISCHARGE: October 1996 to September 1998.
SUSPENDED-SEDIMENT CONCENTRATION: December 1998 to current year. Records for October 2002 to March 2003 are in the files of the U.S. Geological Survey but considered unreliable.
SUSPENDED-SEDIMENT DISCHARGE: December 1998 to current year.

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 sediment (mg/L) furnished by the City of Ithaca Environmental Laboratories.

EXTREMES FOR PERIOD OF RECORD.--
SUSPENDED-SOLIDS CONCENTRATION: Maximum daily mean, 1,480 mg/L, Nov. 8, 1996; minimum daily mean, 1 mg/L, many days during the 1998 water year.
SUSPENDED-SOLIDS DISCHARGE: Maximum daily mean, 7,050 tons, Nov. 8, 1996; minimum daily mean, 0.02 tons, several days in October 1997 and September 1998.
SUSPENDED-SEDIMENT CONCENTRATION: Maximum daily mean, 2,330 mg/L, June 23, 2001; minimum daily mean, 3 mg/L, Apr. 28 to May 2, 1999.
SUSPENDED-SEDIMENT DISCHARGE: Maximum daily mean, 8,410 tons, June 23, 2001; minimum daily mean, 0.09 tons, Sept. 22, 2003.

EXTREMES FOR CURRENT YEAR.--
SUSPENDED-SEDIMENT CONCENTRATION: Maximum daily mean, 772 mg/L July 22, but may have been higher during period of no concentration record, Oct. 1 to Mar. 20; minimum daily mean, 2 mg/L, May 9, 10, Sept. 22, but may have been lower during period of no concentration record, Oct.1 to Mar 20.
SUSPENDED-SEDIMENT DISCHARGE: Maximum daily mean, 1,530 tons, July 22; minimum daily mean 0.09 tons Sept. 22.

SUSPENDED SEDIMENT CONCENTRATION, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	e17	e3	523	e6	e23	e16
2	---	---	---	---	---	---	e39	e3	50	6	e11	99
3	---	---	---	---	---	---	e34	e3	29	e5	e7	29
4	---	---	---	---	---	---	e148	e3	22	e6	e10	35
5	---	---	---	---	---	---	e345	3	e24	e6	e9	16
6	---	---	---	---	---	---	e46	e4	22	e5	3	e12
7	---	---	---	---	---	---	e26	4	e21	5	e3	e9
8	---	---	---	---	---	---	e20	e3	e19	e8	4	6
9	---	---	---	---	---	---	16	2	e15	7	49	e5
10	---	---	---	---	---	---	e17	e2	e12	e8	35	5
11	---	---	---	---	---	---	18	51	e15	10	9	e5
12	---	---	---	---	---	---	e16	46	e19	e9	e13	e4
13	---	---	---	---	---	---	e14	33	24	e8	16	e4
14	---	---	---	---	---	---	12	22	e20	7	e12	e3
15	---	---	---	---	---	---	e12	e17	e16	e8	8	3
16	---	---	---	---	---	---	12	e14	e11	e47	55	e3
17	---	---	---	---	---	---	e10	e11	e7	e13	e23	3
18	---	---	---	---	---	---	8	e8	10	97	e14	e4
19	---	---	---	---	---	---	e9	5	e8	e43	e8	6
20	---	---	---	---	---	---	e9	e5	8	e19	4	e4
21	---	---	---	---	---	226	10	e17	e35	408	e5	e3
22	---	---	---	---	---	128	e11	e7	37	772	5	2
23	---	---	---	---	---	e76	12	5	12	205	e4	72
24	---	---	---	---	---	46	e11	e56	e9	48	e4	15
25	---	---	---	---	---	44	10	e53	e8	21	3	e4
26	---	---	---	---	---	56	e10	e19	7	17	e4	3
27	---	---	---	---	---	e31	e11	14	e7	e16	6	e4
28	---	---	---	---	---	e27	10	e13	e7	e16	e6	e14
29	---	---	---	---	---	e39	e7	e12	e7	e15	5	e6
30	---	---	---	---	---	e28	3	e11	7	14	e5	e4
31	---	---	---	---	---	e22	---	e19	---	e13	e5	---
MEAN	---	---	---	---	---	---	31	15	34	60	12	13
MAX	---	---	---	---	---	---	345	56	523	772	55	99
MIN	---	---	---	---	---	---	3	2	7	5	3	2

e Estimated

04233300 SIXMILE CREEK AT BETHEL GROVE, NY—Continued

SUSPENDED SEDIMENT DISCHARGE, TONS PER DAY
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	e5.8	e0.28	1,050	e0.32	e3.7	e2.0
2	---	---	---	---	---	---	e21	e0.32	28	0.27	e1.1	53
3	---	---	---	---	---	---	e16	e0.29	10	e0.23	e0.54	5.0
4	---	---	---	---	---	---	e153	e0.26	6.2	e0.26	e1.0	10
5	---	---	---	---	---	---	e603	0.25	e6.6	e0.31	e1.2	2.2
6	---	---	---	---	---	---	e27	e0.31	4.5	e0.20	0.23	e1.3
7	---	---	---	---	---	---	e11	0.33	e4.1	0.19	e0.20	e0.76
8	---	---	---	---	---	---	e7.1	e0.24	e3.2	e0.42	0.23	0.42
9	---	---	---	---	---	---	5.1	0.16	e2.1	0.33	19	e0.33
10	---	---	---	---	---	---	e5.8	e0.14	e1.4	e0.37	13	0.29
11	---	---	---	---	---	---	5.6	24	e1.8	0.50	0.96	e0.24
12	---	---	---	---	---	---	e4.2	16	e2.5	e0.33	e1.2	e0.20
13	---	---	---	---	---	---	e3.1	12	3.6	e0.26	1.3	e0.18
14	---	---	---	---	---	---	2.3	6.5	e2.4	0.20	e0.83	e0.15
15	---	---	---	---	---	---	e2.1	e3.6	e1.6	e0.20	0.49	0.13
16	---	---	---	---	---	---	1.9	e2.5	e0.94	e3.1	19	e0.13
17	---	---	---	---	---	---	e1.4	e1.6	e0.52	e0.43	e3.4	0.12
18	---	---	---	---	---	---	1.1	e1.0	1.0	18	e1.1	e0.16
19	---	---	---	---	---	---	e1.2	0.58	e0.72	e2.7	e0.54	0.23
20	---	---	---	---	---	---	e1.1	e0.52	0.79	e0.61	0.25	e0.22
21	---	---	---	---	---	230	1.2	e2.4	e8.9	538	e0.23	e0.12
22	---	---	---	---	---	160	e1.7	e0.74	9.4	1,530	0.23	0.09
23	---	---	---	---	---	e64	2.0	0.51	1.6	172	e0.19	17
24	---	---	---	---	---	28	e1.6	e19	e0.94	25	e0.14	1.1
25	---	---	---	---	---	25	1.3	e14	e0.72	5.9	0.13	e0.21
26	---	---	---	---	---	42	e1.3	e3.2	0.56	3.1	e0.17	0.17
27	---	---	---	---	---	e16	e1.3	2.1	e0.49	e2.7	0.21	e0.22
28	---	---	---	---	---	e11	1.1	e1.8	e0.44	e2.4	e0.19	e2.2
29	---	---	---	---	---	e19	e0.70	e1.4	e0.41	e1.8	0.19	e0.64
30	---	---	---	---	---	e13	0.33	e1.2	0.38	1.5	e0.24	e0.37
31	---	---	---	---	---	e8.8	---	e3.5	---	e1.3	e0.19	---
TOTAL	---	---	---	---	---	---	891.33	120.73	1,155.81	2,312.93	71.38	99.18
MEAN	---	---	---	---	---	---	30	3.9	39	75	2.3	3.3
MAX	---	---	---	---	---	---	603	24	1,050	1,530	19	53
MIN	---	---	---	---	---	---	0.33	0.14	0.38	0.19	0.13	0.09

e Estimated

04233500 CAYUGA INLET (CAYUGA LAKE) AT ITHACA, NY

(Formerly published as Cayuga Lake at Ithaca)

LOCATION.--Lat 42°26'45", long 76°30'45", Tompkins County, Hydrologic Unit 04140201, on left bank in restaurant 200 ft upstream from flood-control channel of Cayuga Inlet, at north end of Taughannock Boulevard, and 1.0 mi upstream from mouth of Inlet, at Ithaca.

DRAINAGE AREA.--Cayuga Inlet 143 mi^2; Cayuga Lake at mouth 1,564 mi^2; Cayuga Lake portion 785 mi^2.

PERIOD OF RECORD.--August 1905 to December 1909, August 1956 to current year in reports of Geological Survey. January 1910 to September 1925 in reports of State Engineer and Surveyor.

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929 (1.43 ft Barge Canal datum). To convert elevations to NAVD 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 mi^2. Seneca River (Cayuga and Seneca Canal) enters lake 0.5 mi upstream from Mud Lock and is included in second drainage area given above. Telephone gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--(1905-25 and since 1956): Maximum elevation, 386.46 ft, April 26, 1993; minimum elevation not determined; minimum daily elevation, 377.64 ft, present datum, Mar. 28, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 383.35 ft, July 24; minimum elevation, 378.95 ft, Mar. 14.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	382.39	381.57	380.58	379.73	379.22	379.53	381.76	382.16	382.94	382.46	382.72	382.47
2	382.40	381.53	380.51	379.85	379.25	379.49	381.91	382.26	382.95	382.40	382.66	382.62
3	382.42	381.49	380.47	379.90	379.24	379.44	382.03	382.24	382.96	382.41	382.60	382.57
4	382.26	381.40	380.32	379.98	379.37	379.34	382.15	382.18	383.00	382.41	382.60	382.69
5	382.29	381.38	380.25	379.94	379.60	379.38	382.49	382.15	383.01	382.38	382.59	382.76
6	382.24	381.36	380.19	379.91	379.65	379.38	382.75	382.22	382.99	382.40	382.65	382.70
7	382.16	381.33	380.10	379.88	379.76	379.28	382.77	382.34	382.93	382.35	382.66	382.72
8	382.17	381.18	380.15	379.87	379.78	379.25	382.82	382.39	382.81	382.36	382.69	382.77
9	382.00	381.11	379.91	379.91	379.82	379.29	382.87	382.45	382.71	382.41	382.70	382.74
10	382.00	381.02	379.81	379.95	379.88	379.22	382.90	382.47	382.69	382.34	382.72	382.72
11	381.99	381.04	379.76	379.91	379.93	379.16	382.92	382.51	382.66	382.36	382.69	382.74
12	381.96	381.03	379.75	379.90	379.97	379.16	382.94	382.63	382.69	382.44	382.69	382.69
13	381.92	380.99	379.69	379.84	380.01	379.17	382.90	382.77	382.70	382.46	382.68	382.72
14	381.94	380.89	379.91	379.83	380.04	379.11	382.80	382.88	382.67	382.42	382.63	382.69
15	381.79	380.89	380.03	379.75	380.04	379.07	382.74	382.94	382.63	382.40	382.59	382.69
16	381.84	380.87	380.19	379.72	379.95	379.12	382.76	382.98	382.55	382.52	382.61	382.72
17	381.94	380.93	380.13	379.72	379.91	379.42	382.61	382.97	382.47	382.58	382.68	382.64
18	381.84	380.97	380.04	379.61	379.88	379.75	382.44	382.90	382.46	382.59	382.58	382.57
19	381.79	380.89	379.99	379.55	379.78	379.87	382.42	382.82	382.47	382.64	382.57	382.39
20	381.86	380.89	380.06	379.50	379.68	380.00	382.35	382.76	382.50	382.59	382.54	382.45
21	381.83	380.86	380.10	379.45	379.59	380.36	382.34	382.80	382.55	382.62	382.52	382.42
22	381.78	380.91	380.08	379.41	379.54	380.63	382.36	382.72	382.55	382.92	382.56	382.27
23	381.80	380.97	380.04	379.36	379.64	380.79	382.39	382.66	382.54	383.18	382.61	382.40
24	381.73	380.89	380.00	379.29	379.67	380.88	382.34	382.63	382.56	383.29	382.50	382.39
25	381.66	380.85	380.00	379.21	379.69	380.95	382.34	382.63	382.55	383.30	382.45	382.31
26	381.70	380.83	379.93	379.21	379.64	381.11	382.35	382.64	382.53	383.23	382.48	382.33
27	381.73	380.84	379.86	379.19	379.61	381.25	382.33	382.68	382.56	383.15	382.50	382.18
28	381.72	380.73	379.78	379.13	379.59	381.28	382.28	382.70	382.53	383.16	382.51	382.29
29	381.67	380.62	379.71	379.15	---	381.45	382.28	382.69	382.45	383.00	382.40	382.26
30	381.66	380.61	379.56	379.17	---	381.65	382.21	382.69	382.48	382.90	382.57	382.18
31	381.61	---	379.55	379.18	---	381.74	---	382.70	---	382.79	382.47	---
MEAN	381.94	381.03	380.01	379.61	379.70	379.98	382.49	382.60	382.67	382.66	382.59	382.54
MAX	382.42	381.57	380.58	379.98	380.04	381.74	382.94	382.98	383.01	383.30	382.72	382.77
MIN	381.61	380.61	379.55	379.13	379.22	379.07	381.76	382.15	382.45	382.34	382.40	382.18

WTR YR 2003 MEAN 381.49 MAX 383.30 MIN 379.07

0423368620 VIRGIL CREEK AT STATE HIGHWAY 13 AT DRYDEN, NY

LOCATION.--Lat 42°29'25", long 76°18'23", Tompkins County, Hydrologic Unit 04140201, on left bank, 150 ft upstream from bridge on State Highway 13, and 0.4 mi east of Dryden.

DRAINAGE AREA.--29.7 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 2002 to September 2003.

GAGE.--Water-stage recorder. Elevation of gage is 1,070 ft above NGVD of 1929, from topographic map.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 890 ft^3/s, July 22, 2003, gage height, 3.98 ft; minimum discharge, 4.0 ft^3/s, Sept. 11, 2003, gage height, 1.13 ft.

EXTREMES FOR CURRENT PERIOD.--October 2002 to September 2003: Maximum discharge, 890 ft^3/s, July 22, gage height, 3.98 ft; minimum discharge, 4.0 ft^3/s, Sept. 11, gage height, 1.13 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

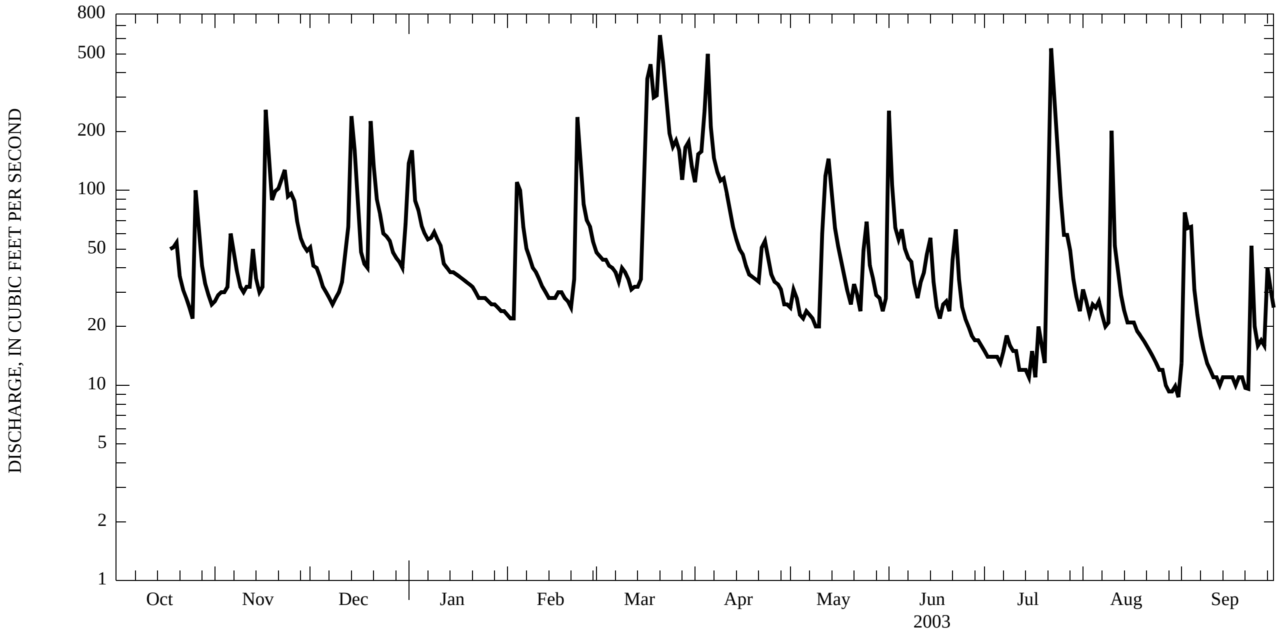
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	e27	e51	138	e23	48	110	25	255	15	31	13
2	---	e29	e41	160	e22	e46	153	31	106	14	27	77
3	---	e30	40	88	22	e44	158	28	64	14	23	64
4	---	e30	36	79	e110	e44	256	23	56	14	26	65
5	---	e32	e32	66	e100	41	500	22	63	14	25	31
6	---	e60	e30	60	e65	e40	211	24	50	13	27	23
7	---	e48	e28	56	e50	e38	145	23	45	15	23	18
8	---	e38	e26	57	e45	34	124	22	43	18	20	15
9	---	e32	e28	61	e40	e40	112	20	33	16	21	13
10	---	e30	e30	56	e38	e38	115	20	28	15	202	12
11	---	e32	e34	e52	e35	e35	96	60	34	15	52	11
12	---	e32	e48	e42	e32	31	79	118	38	12	38	11
13	---	e50	e65	e40	e30	32	64	145	48	12	29	10
14	---	e35	e240	e38	e28	e32	56	94	57	12	24	11
15	---	e30	e160	e38	e28	35	50	64	34	11	21	11
16	---	32	e90	e37	e28	119	47	52	25	15	21	11
17	---	258	e48	e36	e30	375	41	43	22	11	21	11
18	50	148	e42	e35	e30	442	37	36	26	20	19	10
19	51	89	40	e34	e28	299	36	30	27	16	18	11
20	54	99	226	e33	e27	306	35	26	24	13	17	11
21	36	102	133	e32	25	624	34	33	44	81	16	9.7
22	31	114	89	e30	35	450	51	29	63	533	15	9.6
23	28	127	75	e28	237	298	55	24	35	314	14	52
24	25	93	60	e28	e140	194	45	49	25	184	13	20
25	e22	96	58	e28	e85	167	37	69	22	92	12	16
26	e100	e88	55	e27	e70	e180	34	41	20	59	12	17
27	e65	68	48	e26	e65	e160	33	35	18	59	10	16
28	e41	e57	45	e26	54	113	31	29	17	49	9.3	40
29	e33	e52	43	e25	---	166	26	28	17	35	9.3	31
30	e29	e49	40	e24	---	177	26	24	16	28	9.9	25
31	26	---	67	e24	---	133	---	28	---	24	8.7	---
TOTAL	---	2,007	2,048	1,504	1,522	4,781	2,797	1,295	1,355	1,743	814.2	675.3
MEAN	---	66.9	66.1	48.5	54.4	154	93.2	41.8	45.2	56.2	26.3	22.5
MAX	---	258	240	160	237	624	500	145	255	533	202	77
MIN	---	27	26	24	22	31	26	20	16	11	8.7	9.6
CFSM	---	2.25	2.22	1.63	1.83	5.19	3.14	1.41	1.52	1.89	0.88	0.76
IN.	---	2.51	2.57	1.88	1.91	5.99	3.50	1.62	1.70	2.18	1.02	0.85

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2003 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	---	66.9	66.1	48.5	54.4	154	93.2	41.8	45.2	56.2	26.3	22.5
MAX	---	66.9	66.1	48.5	54.4	154	93.2	41.8	45.2	56.2	26.3	22.5
(WY)	---	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)
MIN	---	66.9	66.1	48.5	54.4	154	93.2	41.8	45.2	56.2	26.3	22.5
(WY)	---	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)

e Estimated

0423368620 VIRGIL CREEK AT STATE HIGHWAY 13 AT DRYDEN, NY—Continued



2003 WATER YEAR DAILY MEAN DISCHARGE.

0423368620 VIRGIL CREEK AT STATE HIGHWAY 13 AT DRYDEN, NY—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 2003.
CHEMICAL DATA: Water year 2003 (b).
NUTRIENT DATA: Water year 2003 (b).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instan-taneous dis-charge, cfs (00061)	Dis-solved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conduc-tance, wat unf uS/cm 25 degC (00095)	Temper-ature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Magnes-ium, water, fltrd, mg/L (00925)	Potas-sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alka-linity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicar-bonate, wat flt incrm. titr., field, mg/L (00453)	Chlor-ide, water, fltrd, mg/L (00940)
FEB													
11...	0800	32	13.2	8.2	440	.0	40.7	8.15	1.43	29.3	92	112	50.3
MAY													
20...	0800	27	12.9	8.2	367	13.4	41.4	8.71	1.31	17.8	94	115	30.1
AUG													
18...	0800	19	10.8	8.0	364	17.0	44.7	9.27	1.50	13.6	98	128	24.1
20...	1000	--	--	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Fluor-ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phos-phate, water, fltrd, mg/L as P (00671)	Phos-phorus, water, fltrd, mg/L (00666)	Phos-phorus, water, unfltrd mg/L (00665)	Iron, water, fltrd, ug/L (01046)
FEB													
11...	.03	4.73	17.8	226	.15	.22	.04	1.37	E.004	<.02	.007	.014	31
MAY													
20...	<.2	1.75	14.2	188	.22	.30	<.04	.77	.008	<.02	.009	.021	60
AUG													
18...	<.2	3.78	12.5	198	.25	.29	<.04	.74	<.008	<.02	.008	.008	53
20...	--	--	--	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Mangan-ese, water, fltrd, ug/L (01056)
FEB	
11...	34.2
MAY	
20...	12.0
AUG	
18...	9.4
20...	--

Remark codes used in this table:
< -- Less than
E -- Estimated value

0423368620 VIRGIL CREEK AT STATE HIGHWAY 13 AT DRYDEN, NY—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	2,6-Diethylaniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	Acetochlor, water, fltrd, ug/L (49260)	Alachlor, water, fltrd, ug/L (46342)	alpha-HCH, water, fltrd, ug/L (34253)	Atrazine, water, fltrd, ug/L (39632)	Azinphos-methyl, water, fltrd 0.7u GF ug/L (82686)	Benfluralin, water, fltrd 0.7u GF ug/L (82673)	Butylate, water, fltrd, ug/L (04028)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)	Carbofuran, water, fltrd 0.7u GF ug/L (82674)	Chlorpyrifos water, fltrd, ug/L (38933)
FEB													
11...	0800	<.006	E.009	<.006	<.004	<.005	.010	<.050	<.010	<.002	<.041	<.020	<.005
MAY													
20...	0800	<.006	E.006	<.006	<.004	<.005	.009	<.050	<.010	<.002	<.041	<.020	<.005
AUG													
18...	0800	--	--	--	--	--	--	--	--	--	--	--	--
20...	1000	<.006	E.009	<.006	<.004	<.005	.009	<.050	<.010	<.002	<.041	<.020	<.005

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Cyanazine, water, fltrd, ug/L (04041)	DCPA, water fltrd 0.7u GF ug/L (82682)	Diazinon, water, fltrd, ug/L (39572)	Dieldrin, water, fltrd, ug/L (39381)	Disulfoton, water, fltrd 0.7u GF ug/L (82677)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethalfluralin, water, fltrd 0.7u GF ug/L (82663)	Ethoprop, water, fltrd 0.7u GF ug/L (82672)	Fonofos water, fltrd, ug/L (04095)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (82666)	Malathion, water, fltrd, ug/L (39532)
FEB													
11...	<.006	<.018	<.003	<.005	<.005	<.02	<.002	<.009	<.005	<.003	<.004	<.035	<.027
MAY													
20...	<.006	<.018	<.003	<.005	<.005	<.02	<.002	<.009	<.005	<.003	<.004	<.035	<.027
AUG													
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	<.006	<.018	<.003	<.005	<.005	<.02	<.002	<.009	<.005	<.003	<.004	<.035	<.027

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Methyl parathion, water, fltrd 0.7u GF ug/L (82667)	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)	Molinate, water, fltrd 0.7u GF ug/L (82671)	Napropamide, water, fltrd 0.7u GF ug/L (82684)	p,p'-DDE, water, fltrd, ug/L (34653)	Parathion, water, fltrd, ug/L (39542)	Pebulate, water, fltrd 0.7u GF ug/L (82669)	Pendimethalin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Prometon, water, fltrd, ug/L (04037)	Pronamide, water, fltrd 0.7u GF ug/L (82676)	Propachlor, water, fltrd, ug/L (04024)
FEB													
11...	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.010
MAY													
20...	<.006	E.007n	<.006	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.010
AUG													
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.010

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Propanil, water, fltrd 0.7u GF ug/L (82679)	Propargite, water, fltrd 0.7u GF ug/L (82685)	Simazine, water, fltrd, ug/L (04035)	Tebuthiuron water fltrd 0.7u GF ug/L (82670)	Terbacil, water, fltrd 0.7u GF ug/L (82665)	Terbufos, water, fltrd 0.7u GF ug/L (82675)	Thiobencarb water fltrd 0.7u GF ug/L (82681)	Triallate, water, fltrd 0.7u GF ug/L (82678)	Trifluralin, water, fltrd 0.7u GF ug/L (82661)
FEB									
11...	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002	<.009
MAY									
20...	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002	<.009
AUG									
18...	--	--	--	--	--	--	--	--	--
20...	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002	<.009

Remark codes used in this table:
< -- Less than
E -- Estimated value

Value qualifier codes used in this table:
n -- Below the NDV

04234000 FALL CREEK NEAR ITHACA, NY

LOCATION.--Lat 42°27'12", long 76°28'23", Tompkins County, Hydrologic Unit 04140201, on left bank in Forest Home, 0.2 mi east of Ithaca, 0.5 mi upstream from Cornell University dam, and 2.2 mi upstream from mouth.

DRAINAGE AREA.--126 mi^2.

PERIOD OF RECORD.--July 1908 to June 1909 (gage heights only), February 1925 to current year.

REVISED RECORDS.--WSP 874: 1935-38. WSP 1912: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 795.13 ft above NGVD of 1929. July 1908 to June 1909, nonrecording gage at bridge 1.2 mi downstream at different datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Diversion from point about 1 mi upstream from station by Cornell University for water supply and at several sites for irrigation purposes. Records of diversion from Fall Creek are in files of Cornell University. Telephone gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,500 ft^3/s, July 8, 1935, gage height, 9.52 ft, from average of computed flow over each of four dams; maximum gage height, 11.16 ft, Feb. 21, 1971 (ice jam); minimum discharge, 2.1 ft^3/s, Sept. 6, 7, 1999, gage height, 0.12 ft.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr 5	0900	*1,900	*3.67	No other peak greater than base discharge.			

Minimum discharge, 30 ft^3/s, July 15, Aug. 28, 29, gage height, 0.57 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	97	218	487	e100	e180	541	116	863	53	131	48
2	65	107	183	597	e105	e180	589	164	470	48	136	272
3	72	108	153	347	e110	e150	683	180	244	44	96	192
4	80	109	e145	302	e300	e150	907	132	191	46	109	253
5	69	117	e140	276	509	e155	1,640	115	206	53	94	137
6	60	145	e140	247	339	e160	852	126	180	44	92	96
7	50	162	e135	228	281	e130	575	128	151	45	87	79
8	43	130	e130	e220	e180	e160	504	115	155	65	82	68
9	41	114	e105	e215	e170	e175	472	110	123	56	211	58
10	39	103	e105	e210	e160	e150	474	100	106	61	630	52
11	38	104	e115	e185	e150	e130	424	e120	107	71	e230	48
12	44	104	e170	e175	e140	e140	361	e600	153	59	e180	45
13	47	129	221	e150	e130	e140	300	544	172	45	121	41
14	43	115	e570	e150	e125	e130	259	461	197	39	95	43
15	41	102	626	e150	e120	e160	233	279	141	35	82	41
16	76	102	390	e150	e110	e400	218	207	106	57	83	44
17	329	567	275	e145	e110	e950	193	172	91	71	104	41
18	165	614	e185	e140	e110	1,210	177	149	98	77	88	43
19	123	340	e220	e140	e110	927	177	125	105	85	73	38
20	176	289	506	e135	e105	887	173	109	98	53	63	43
21	124	316	537	e130	e100	1,510	159	135	180	97	56	41
22	101	329	325	e120	e115	1,410	188	124	263	1,150	50	37
23	94	460	272	e115	e350	1,120	251	105	160	852	46	320
24	90	323	229	e110	e500	775	232	156	106	571	42	172
25	82	309	e190	e110	e350	661	190	355	86	312	39	98
26	198	306	e200	e110	e250	760	168	209	78	179	38	102
27	220	254	e210	e105	e230	724	166	180	72	154	38	85
28	144	220	e190	e105	e200	521	147	141	66	162	33	210
29	120	203	e190	e100	---	541	131	123	60	118	32	191
30	106	205	177	e100	---	781	120	108	57	97	53	136
31	97	---	247	e95	---	603	---	110	---	83	43	---
TOTAL	3,057	6,583	7,499	5,849	5,559	16,070	11,504	5,798	5,085	4,882	3,257	3,074
MEAN	98.6	219	242	189	199	518	383	187	170	157	105	102
MAX	329	614	626	597	509	1,510	1,640	600	863	1,150	630	320
MIN	38	97	105	95	100	130	120	100	57	35	32	37
CFSM	0.78	1.74	1.92	1.50	1.58	4.11	3.04	1.48	1.35	1.25	0.83	0.81
IN.	0.90	1.94	2.21	1.73	1.64	4.74	3.40	1.71	1.50	1.44	0.96	0.91

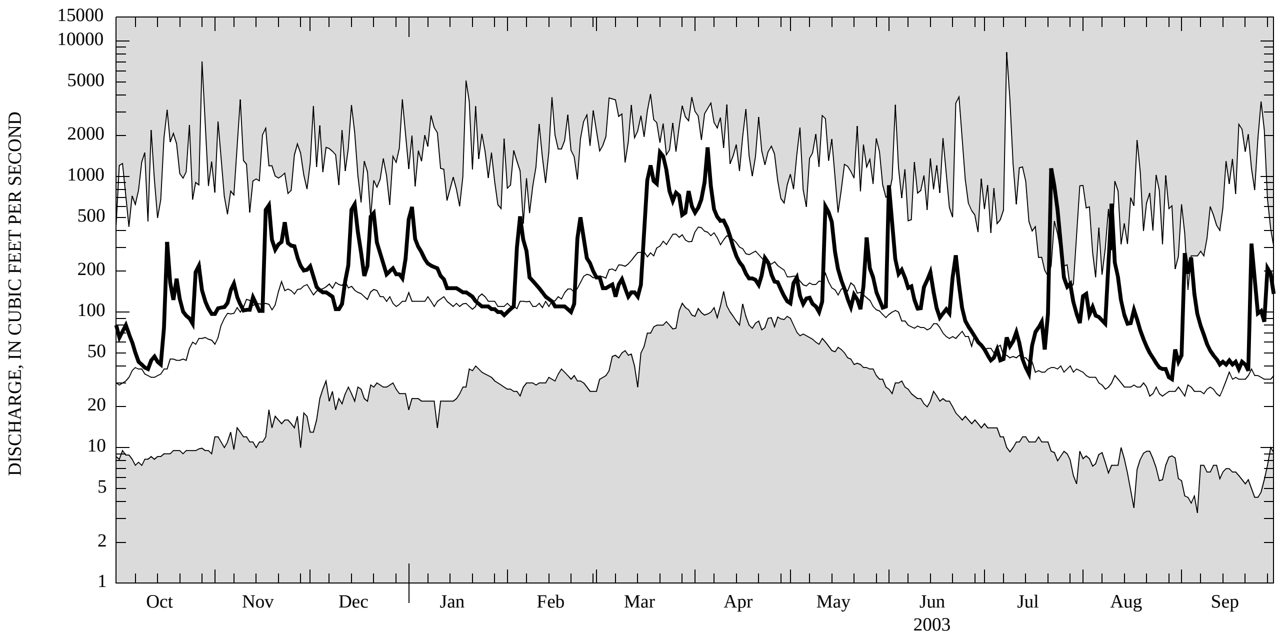
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	101	175	205	191	220	410	410	212	122	72.4	51.1	64.5
MAX	594	497	555	575	595	1,037	1,313	532	615	608	269	561
(WY)	(1982)	(1928)	(1997)	(1998)	(1981)	(1936)	(1993)	(1996)	(1972)	(1935)	(1994)	(1977)
MIN	9.57	16.5	31.9	38.4	44.1	160	100	62.0	25.6	14.9	8.93	7.09
(WY)	(1965)	(1965)	(1961)	(1961)	(1934)	(1965)	(1946)	(1934)	(1999)	(1999)	(1965)	(1964)

04234000 FALL CREEK NEAR ITHACA, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1925 - 2003	
ANNUAL TOTAL	70,878		78,217			
ANNUAL MEAN	194		214		186	
HIGHEST ANNUAL MEAN					271	1978
LOWEST ANNUAL MEAN					83.6	1965
HIGHEST DAILY MEAN	1,890	May 14	1,640	Apr 5	8,280	Jul 8, 1935
LOWEST DAILY MEAN	10	Sep 13	32	Aug 29	3.3	Sep 6, 1999
ANNUAL SEVEN-DAY MINIMUM	12	Sep 8	38	Aug 23	4.6	Aug 31, 1999
ANNUAL RUNOFF (CFSM)	1.54		1.70		1.48	
ANNUAL RUNOFF (INCHES)	20.93		23.09		20.09	
10 PERCENT EXCEEDS	360		507		416	
50 PERCENT EXCEEDS	153		140		100	
90 PERCENT EXCEEDS	26		48		23	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

04234232 GREAT BROOK BELOW VICTOR, NY

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 mi^2.

PERIOD OF RECORD.--November 1993 to current year.

REVISED RECORDS.--WDR NY-96-3: 1994-95 (M). WDR NY-98-3: 1994-97.

GAGE.--Water-stage recorder and double V-notch sharp-crested weir as control. Elevation of gage is 560 ft above NGVD of 1929, from topographic map.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 350 ft^3/s, Jan. 8, 1998, gage height, 7.09 ft, from rating curve extended above 250 ft^3/s; minimum discharge 0.83 ft^3/s, Aug. 3, 1999, gage height, 1.22 ft.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr 5	1645	*a269	*5.60	No other peak greater than base discharge.			

Minimum discharge, 1.2 ft^3/s, Sept. 12, 13, 14, gage height, 1.45 ft.

a From rating curve extended above 250 ft^3/s.

REVISIONS.--Revised peak discharges above base of 200 ft^3/s (revised) and annual maximums (*) for the period of record, revised daily discharges, in cubic feet per second, for high water periods, revised monthly discharges, and revised yearly discharges are given below. These figures supercede those published in corresponding annual reports.

Peak discharges greater than base discharge of 200 ft^3/s (revised) and maximum (*):

Water Year	Date	Discharge (ft^3/s)	Gage height (ft)	Water Year	Date	Discharge (ft^3/s)	Gage height (ft)
1994	Feb 20, 1994	224	4.88	1998	Jan 8, 1998	*350	*7.09
	Mar 21, 1994	*233	*5.01		May 26, 1998	214	4.72
1995	Jan 20, 1995	*183	*4.28	1999	Jan 23, 1999	*295	*6.06
1996	Jan 19, 1996	*303	*6.21	2000	May 13, 2000	*286	*5.89
	Apr 13, 1996	233	5.02		Jun 13, 2000	245	5.21
	May 12, 1996	250	5.29	2001	Apr 8, 2001	*166	*4.06
	Jun 22, 1996	283	5.85	2002	Feb 1, 2002	212	4.69
1997	Oct 20, 1996	*297	*6.09		Apr 14, 2002	*220	*4.82
	Nov 8, 1996	275	5.71		May 14, 2002	210	4.66
	Dec 1, 1996	235	5.04				

Daily discharges:

Date	Discharge (ft^3/s)	Date	Discharge (ft^3/s)	Date	Discharge (ft^3/s)	Date	Discharge (ft^3/s)
Feb 20, 1994	e130	Apr 13, 1996	151	Oct 20, 1996	177	Jan 7, 1998	128
Mar 21, 1994	78	May 12, 1996	176	Nov 8, 1996	171	Jan 8, 1998	323
Mar 22, 1994	166	Jun 22, 1996	106	Nov 9, 1996	151	Jan 9, 1998	156
Jan 19, 1996	225	Oct 19, 1996	144	Dec 1, 1996	163		

MONTH	TOTAL	MEAN	MAX	MIN
February 1994	474.7	17.0	130	4.2
March 1994	1159.0	37.4	166	8.0
Cal Year 1994	4021.2	11.0	166	1.3
January 1996	673.1	21.7	225	2.4
April 1996	890.2	29.7	151	8.0
May 1996	725.7	23.4	176	4.3
June 1996	373.7	12.4	106	3.2
Wtr Year 1996	4776.7	13.0	225	e1.1

MONTH	TOTAL	MEAN	MAX	MIN
October 1996	615.9	19.9	177	2.7
November 1996	666.4	22.2	171	6.5
December 1996	799.1	25.8	163	7.8
Cal Year 1996	6134.6	16.8	225	1.3
Wtr Year 1997	5208.6	14.3	177	1.7
January 1998	1111.6	35.8	323	8.6
Wtr Year 1998	5259.6	14.4	323	2.3
Cal Year 1998	4528.5	12.4	323	1.4

04234232 GREAT BROOK BELOW VICTOR, NY—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	1.9	7.5	47	e6.5	7.6	12	7.8	68	2.2	8.5	2.4
2	2.2	2.2	5.7	18	9.3	11	12	15	20	2.1	3.5	8.0
3	3.1	2.2	4.7	14	9.1	14	13	11	12	2.0	8.9	3.6
4	2.3	2.2	4.4	13	37	9.8	39	7.9	10	1.8	10	2.5
5	2.1	2.1	4.2	9.9	e28	e11	181	9.1	12	1.7	9.3	2.0
6	1.7	3.9	4.3	9.4	e15	e10	50	11	9.9	1.6	11	1.8
7	1.5	2.9	4.0	9.6	11	9.9	25	7.9	9.5	2.1	6.6	1.7
8	1.5	2.3	4.2	12	9.3	14	23	7.9	9.3	2.0	4.2	1.6
9	1.5	2.2	3.7	20	8.0	e65	22	7.0	9.6	2.0	4.5	1.5
10	1.4	2.1	3.3	20	7.4	e23	34	6.2	6.8	3.4	5.8	1.4
11	1.5	2.8	3.4	14	6.8	11	31	19	11	4.1	8.7	1.4
12	1.6	2.4	6.2	e9.5	6.4	13	20	16	10	2.5	42	1.3
13	1.8	2.1	7.5	e8.0	5.6	18	15	14	15	2.0	57	1.2
14	1.8	2.2	65	e7.5	4.9	12	13	11	12	1.7	9.9	1.3
15	1.7	2.0	41	e7.0	4.6	24	12	8.8	8.2	1.6	5.0	2.8
16	3.4	2.7	22	e6.5	3.9	83	9.7	16	6.2	1.8	4.0	2.9
17	3.9	20	13	e6.0	3.8	88	8.7	20	5.2	1.8	3.5	1.7
18	2.4	11	8.5	e6.0	4.5	53	8.5	11	4.7	1.6	2.8	1.4
19	3.9	6.0	9.0	5.7	5.4	29	8.4	8.1	4.7	1.4	2.1	1.5
20	3.0	4.5	32	5.6	5.5	42	8.3	8.2	4.5	1.4	1.9	1.7
21	2.1	3.9	19	5.0	6.1	108	8.5	12	6.1	3.3	1.8	1.4
22	1.9	6.8	11	4.9	13	68	8.9	7.9	5.6	13	1.9	1.5
23	4.0	12	8.6	4.8	47	34	9.3	6.6	4.3	7.3	1.6	4.7
24	2.8	6.6	7.3	4.8	e24	24	8.6	37	3.4	7.7	1.4	3.7
25	2.3	5.3	6.6	4.6	e13	21	7.4	43	3.0	4.6	1.4	2.3
26	7.8	4.3	9.0	4.7	9.9	64	7.0	17	2.7	2.9	1.6	1.8
27	3.7	4.7	7.1	4.5	e9.0	28	6.7	12	2.4	3.1	1.6	5.8
28	2.7	4.3	6.6	4.3	8.1	19	6.6	9.9	2.2	2.6	1.4	16
29	2.3	4.8	6.7	4.5	---	17	5.8	8.8	2.2	2.1	1.9	6.1
30	2.1	6.5	6.7	4.2	---	17	5.4	7.3	2.8	1.8	2.0	4.2
31	2.0	---	62	4.2	---	14	---	19	---	1.7	1.7	---
TOTAL	78.0	138.9	404.2	299.2	322.1	962.3	619.8	403.4	283.3	90.9	227.5	91.2
MEAN	2.52	4.63	13.0	9.65	11.5	31.0	20.7	13.0	9.44	2.93	7.34	3.04
MAX	7.8	20	65	47	47	108	181	43	68	13	57	16
MIN	1.4	1.9	3.3	4.2	3.8	7.6	5.4	6.2	2.2	1.4	1.4	1.2
CFSM	0.15	0.28	0.78	0.57	0.68	1.85	1.23	0.77	0.56	0.17	0.44	0.18
IN.	0.17	0.31	0.90	0.66	0.71	2.13	1.37	0.89	0.63	0.20	0.50	0.20

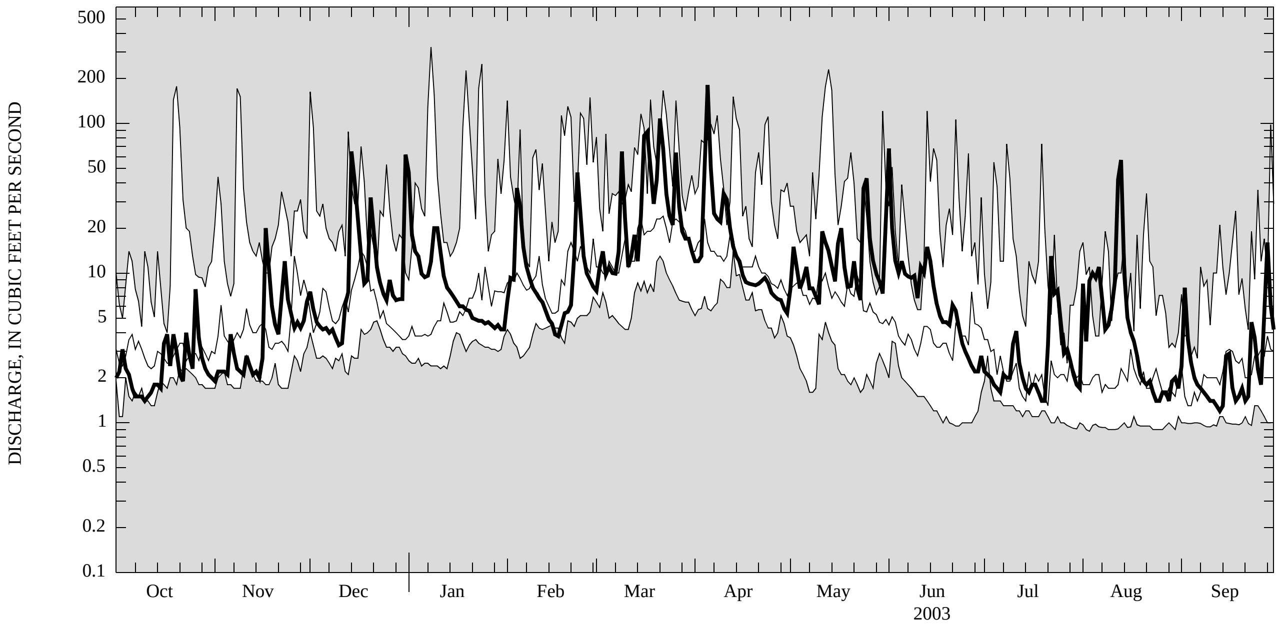
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5.37	7.94	10.2	13.5	15.9	23.7	19.6	12.5	7.88	3.99	3.40	3.69
MAX	19.9	22.2	25.8	35.9	25.2	37.4	28.7	28.2	14.3	12.6	7.34	7.66
(WY)	(1997)	(1997)	(1997)	(1998)	(1998)	(1994)	(1996)	(2002)	(2002)	(1998)	(2003)	(1997)
MIN	2.52	3.31	3.42	4.95	8.70	13.0	7.19	2.80	1.53	1.60	1.20	1.22
(WY)	(2003)	(1999)	(1999)	(2002)	(1995)	(2000)	(1995)	(1995)	(1995)	(1999)	(1995)	(1995)

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1994 - 2003	
ANNUAL TOTAL	3,824.12		3,920.8			
ANNUAL MEAN	10.5		10.7		10.5	
HIGHEST ANNUAL MEAN					14.4	1998
LOWEST ANNUAL MEAN					6.01	1995
HIGHEST DAILY MEAN	167	May 14	181	Apr 5	323	Jan 8, 1998
LOWEST DAILY MEAN	0.94	Sep 9	1.2	Sep 13	0.88	Aug 3, 1999
ANNUAL SEVEN-DAY MINIMUM	0.97	Sep 4	1.4	Sep 8	0.92	Aug 6, 2001
ANNUAL RUNOFF (CFSM)	0.62		0.64		0.63	
ANNUAL RUNOFF (INCHES)	8.47		8.68		8.52	
10 PERCENT EXCEEDS	21		22		21	
50 PERCENT EXCEEDS	5.6		6.2		5.0	
90 PERCENT EXCEEDS	1.3		1.7		1.6	

e Estimated

04234232 GREAT BROOK BELOW VICTOR, NY—Continued



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

04234500 CANANDAIGUA LAKE AT CANANDAIGUA, NY

LOCATION.--Lat 42°53'30", long 77°17'22", Ontario County, Hydrologic Unit 04140201, at comfort station in middle of city pier at northern end of Canandaigua Lake, 1 mi southeast of Canandaigua.

DRAINAGE AREA.--184 mi^2.

PERIOD OF RECORD.--November 1939 to current year. December 1927 to November 1939, records for site on west side of E. T. Waldorf's boathouse collected by, and in files of, city of Canandaigua.

REVISED RECORDS.--WSP 2112: Drainage area. WDR NY 1971: 1970. WDR NY-86-3: 1985.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929. To convert elevations to NAVD 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 mi^2.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 692.11 ft, present datum, June 24, 1972; minimum daily, 685.62 ft, present datum, Jan. 30, 1942.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 689.16 ft, Mar. 28; minimum elevation, 686.40 ft, Dec. 8.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	687.21	686.76	686.59	686.73	686.63	687.03	688.89	688.55	688.78	688.67	688.52	688.26
2	687.19	686.75	686.57	686.80	686.64	687.05	688.83	688.60	688.86	688.66	688.55	688.32
3	687.19	686.72	686.57	686.86	686.64	687.06	688.78	688.64	688.85	688.66	688.57	688.34
4	687.28	686.72	686.56	686.88	686.69	687.07	688.79	688.66	688.83	688.66	688.58	688.32
5	687.19	686.70	686.55	686.88	686.74	687.08	688.95	688.72	688.81	688.64	688.72	688.30
6	687.20	686.69	686.54	686.87	686.76	687.10	689.02	688.73	688.77	688.61	688.78	688.30
7	687.15	686.68	686.53	686.87	686.78	687.11	689.03	688.71	688.74	688.61	688.74	688.28
8	687.10	686.70	686.50	686.86	686.79	687.12	689.03	688.72	688.72	688.61	688.68	688.24
9	687.09	686.66	686.51	686.86	686.80	687.21	688.99	688.73	688.69	688.60	688.65	688.23
10	687.06	686.67	686.48	686.86	686.80	687.26	688.96	688.74	688.64	688.62	688.66	688.21
11	687.03	686.65	686.48	686.88	686.82	687.28	688.94	688.79	688.66	688.67	688.66	688.20
12	687.04	686.63	686.51	686.86	686.83	687.29	688.90	688.85	688.65	688.65	688.64	688.18
13	687.03	686.62	686.51	686.85	686.83	687.32	688.85	688.84	688.69	688.59	688.64	688.16
14	686.99	686.63	686.60	686.83	686.82	687.34	688.81	688.79	688.71	688.57	688.59	688.17
15	687.00	686.59	686.69	686.82	686.81	687.37	688.75	688.74	688.70	688.59	688.54	688.18
16	686.96	686.59	686.69	686.79	686.81	687.44	688.66	688.71	688.71	688.56	688.53	688.20
17	686.97	686.65	686.71	686.76	686.82	687.67	688.62	688.69	688.72	688.54	688.50	688.16
18	686.96	686.66	686.72	686.75	686.85	687.99	688.60	688.65	688.72	688.52	688.50	688.08
19	686.99	686.69	686.71	686.73	686.85	688.22	688.56	688.62	688.70	688.52	688.49	688.07
20	686.92	686.65	686.71	686.70	686.85	688.38	688.58	688.64	688.69	688.51	688.47	688.01
21	686.90	686.66	686.74	686.66	686.85	688.60	688.57	688.65	688.72	688.52	688.46	688.00
22	686.88	686.63	686.74	686.65	686.86	688.84	688.56	688.66	688.74	688.56	688.43	688.03
23	686.87	686.65	686.74	686.64	686.92	688.96	688.55	688.67	688.73	688.66	688.39	687.98
24	686.86	686.64	686.71	686.64	686.95	688.98	688.55	688.73	688.73	688.71	688.37	687.98
25	686.86	686.63	686.71	686.63	686.99	688.98	688.54	688.78	688.72	688.70	688.35	687.95
26	686.86	686.62	686.74	686.63	687.00	689.03	688.53	688.77	688.72	688.65	688.34	687.92
27	686.85	686.62	686.72	686.63	687.01	689.05	688.53	688.74	688.71	688.60	688.32	687.99
28	686.82	686.62	686.70	686.62	687.02	689.08	688.54	688.71	688.70	688.53	688.29	688.09
29	686.80	686.64	686.68	686.62	---	689.01	688.52	688.67	688.69	688.52	688.31	688.10
30	686.77	686.60	686.70	686.62	---	688.96	688.53	688.62	688.68	688.50	688.27	688.10
31	686.77	---	686.70	686.62	---	688.92	---	688.60	---	688.49	688.26	---
MEAN	686.99	686.66	686.63	686.75	686.83	687.93	688.73	688.70	688.73	688.60	688.51	688.14
MAX	687.28	686.76	686.74	686.88	687.02	689.08	689.03	688.85	688.86	688.71	688.78	688.34
MIN	686.77	686.59	686.48	686.62	686.63	687.03	688.52	688.55	688.64	688.49	688.26	687.92

CAL YR 2002 MEAN 687.63 MAX 688.79 MIN 686.48
WTR YR 2003 MEAN 687.77 MAX 689.08 MIN 686.48

04235000 CANANDAIGUA OUTLET AT CHAPIN, NY

LOCATION.--Lat 42°55'05", long 77°13'59", Ontario County, Hydrologic Unit 04140201, on right bank at Chapin, 25 ft upstream from bridge on State Highway 488, and 4.1 mi downstream from Canandaigua Lake.

DRAINAGE AREA.--195 mi^2.

PERIOD OF RECORD.--November 1939 to current year. Prior to October 1964, published as "Canandaigua Lake Outlet."

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 671.44 ft above NGVD of 1929. Prior to June 25, 1974, at site 0.1 mi upstream at datum 676.90 ft above NGVD of 1929.

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.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,710 ft^3/s, June 24, 1972, gage height, 11.08 ft, present datum, at site then in use; minimum discharge, 4.4 ft^3/s, Sept. 24, 1991.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 957 ft^3/s, Apr. 5, gage height, 5.80 ft; minimum discharge, 31 ft^3/s, Dec. 11.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	37	37	205	82	67	767	57	654	58	78	52
2	42	38	37	184	53	74	753	70	538	57	70	64
3	44	37	e36	191	53	77	736	61	513	59	71	56
4	43	37	e35	194	86	72	e780	57	499	54	76	54
5	42	37	35	194	84	73	898	60	492	53	152	58
6	41	39	34	192	e65	78	813	63	476	52	289	57
7	42	36	34	191	63	e68	788	58	469	53	467	57
8	40	36	34	194	63	78	785	52	462	51	461	57
9	39	36	e33	203	59	134	781	53	457	54	453	56
10	39	36	e33	207	61	94	780	51	368	51	454	56
11	39	36	32	e150	59	81	765	66	109	37	463	56
12	40	36	35	170	59	80	746	151	97	34	457	56
13	41	36	42	e140	e60	87	723	477	102	33	468	56
14	40	36	71	116	e55	84	701	623	98	33	451	56
15	40	35	81	e180	e52	96	674	613	95	37	338	59
16	42	36	62	172	e53	144	632	611	93	46	83	65
17	42	48	52	172	e53	164	610	616	91	45	66	164
18	39	41	77	e150	e53	157	481	585	e83	45	64	350
19	40	39	134	e160	56	144	e160	378	e70	45	62	280
20	39	37	200	e155	56	218	e160	80	e60	45	61	54
21	39	37	170	e135	57	626	e155	75	64	48	60	39
22	38	41	166	e90	64	802	e150	72	62	61	59	39
23	39	45	168	e75	92	819	e150	72	60	66	54	44
24	38	e42	161	e100	e80	817	e145	95	e60	e155	53	43
25	38	e39	160	e100	75	811	e140	302	64	e400	53	43
26	43	e37	163	e95	71	858	111	464	74	e450	54	42
27	39	38	161	e90	69	842	109	457	59	e450	52	48
28	38	37	159	e90	66	829	90	444	58	e240	51	91
29	38	36	155	e90	---	813	57	432	58	70	53	51
30	38	37	154	e90	---	798	55	425	59	62	53	47
31	38	---	201	e85	---	784	---	466	---	61	51	---
TOTAL	1,242	1,138	2,952	4,560	1,799	10,869	14,695	8,086	6,444	3,005	5,677	2,250
MEAN	40.1	37.9	95.2	147	64.2	351	490	261	215	96.9	183	75.0
MAX	44	48	201	207	92	858	898	623	654	450	468	350
MIN	38	35	32	75	52	67	55	51	58	33	51	39

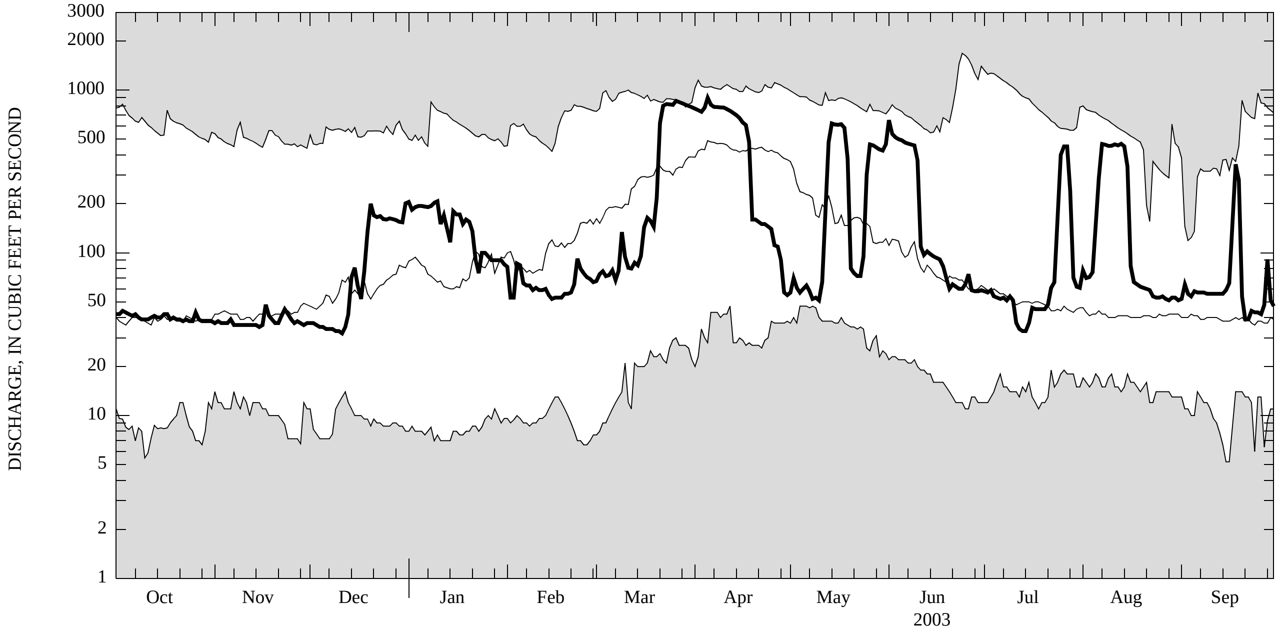
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	74.2	92.8	128	145	157	287	401	266	148	87.9	62.9	52.0
MAX	613	419	521	522	518	748	1,036	725	566	852	483	363
(WY)	(1978)	(1978)	(1973)	(1998)	(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)

04235000 CANANDAIGUA OUTLET AT CHAPIN, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1940 - 2003	
ANNUAL TOTAL	44,592		62,717			
ANNUAL MEAN	122		172		157	
HIGHEST ANNUAL MEAN					302	1993
LOWEST ANNUAL MEAN					57.7	1965
HIGHEST DAILY MEAN	830	May 14	898	Apr 5	1,680	Jun 24, 1972
LOWEST DAILY MEAN	32	Dec 11	32	Dec 11	5.2	Sep 15, 1948
ANNUAL SEVEN-DAY MINIMUM	34	Dec 5	34	Dec 5	7.1	Feb 23, 1967
10 PERCENT EXCEEDS	390		505		450	
50 PERCENT EXCEEDS	48		66		62	
90 PERCENT EXCEEDS	38		37		26	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

04235250 FLINT CREEK AT PHELPS, NY

LOCATION.--Lat 42°57'28", long 77°04'06", Ontario County, Hydrologic Unit 04140201, on right bank 25 ft downstream from bridge on Eagle Street at Phelps, and 1.1 mi upstream from Canandaigua Outlet.

DRAINAGE AREA.--102 mi^2.

PERIOD OF RECORD.--October 1959 to March 1995, June 2002 to current year.

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 523.14 ft above NGVD of 1929.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Small diversion (during periods of low ground-water level) by Phelps Cement Products, Inc., located about 0.2 mi upstream. Since 1967, flow from Canandaigua Lake diverted into Flint Creek for municipal supply of village of Gorham; presently not exceeding 0.3 ft^3/s. Telephone and satellite gage-height telemeters at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,940 ft^3/s, Mar. 30, 1960, gage height, 5.83 ft; maximum gage height, 6.20 ft, Mar. 17, 1963 (ice jam); no flow for many days 1962-65, 1969.

EXTREMES FOR CURRENT PERIOD.--June 2002 to Sept. 2002: Maximum discharge, 55 ft^3/s, June 21, gage height, 1.72 ft; minimum discharge, 0.01 ft^3/s, Sept. 7, 9, 10, 12, 13.

Water year 2003:Peak discharges greater than base discharge of 800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 16	2245	ice jam	*4.10	Apr 5	1515	1,190	3.88
Mar 22	0745	*1,340	3.97				

Minimum daily discharge, about 2.0 ft^3/s, Oct. 9, 10, 11.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	20	4.0	0.17
2	---	---	---	---	---	---	---	---	---	18	2.8	0.09
3	---	---	---	---	---	---	---	---	---	15	2.2	0.05
4	---	---	---	---	---	---	---	---	---	13	1.6	0.03
5	---	---	---	---	---	---	---	---	---	12	0.96	0.03
6	---	---	---	---	---	---	---	---	---	11	0.62	0.03
7	---	---	---	---	---	---	---	---	---	10	0.31	0.02
8	---	---	---	---	---	---	---	---	---	9.9	0.22	0.03
9	---	---	---	---	---	---	---	---	---	9.1	0.14	0.02
10	---	---	---	---	---	---	---	---	---	8.5	0.10	0.02
11	---	---	---	---	---	---	---	---	---	7.8	0.08	0.05
12	---	---	---	---	---	---	---	---	---	6.5	0.07	0.02
13	---	---	---	---	---	---	---	---	---	5.6	0.07	0.02
14	---	---	---	---	---	---	---	---	---	4.6	0.07	0.04
15	---	---	---	---	---	---	---	---	---	3.6	0.07	0.13
16	---	---	---	---	---	---	---	---	---	2.8	0.08	0.17
17	---	---	---	---	---	---	---	---	---	2.6	0.47	0.39
18	---	---	---	---	---	---	---	---	---	2.3	0.37	1.9
19	---	---	---	---	---	---	---	---	---	1.7	0.14	2.1
20	---	---	---	---	---	---	---	---	---	1.1	0.09	1.2
21	---	---	---	---	---	---	---	---	---	0.72	0.06	1.0
22	---	---	---	---	---	---	---	---	44	0.82	0.05	0.84
23	---	---	---	---	---	---	---	---	38	3.3	0.06	1.5
24	---	---	---	---	---	---	---	---	33	4.7	0.12	1.4
25	---	---	---	---	---	---	---	---	35	4.9	0.68	1.1
26	---	---	---	---	---	---	---	---	29	7.8	1.0	0.38
27	---	---	---	---	---	---	---	---	28	5.1	0.71	4.8
28	---	---	---	---	---	---	---	---	38	7.4	0.37	8.1
29	---	---	---	---	---	---	---	---	29	4.9	0.23	4.5
30	---	---	---	---	---	---	---	---	22	4.4	0.11	e3.0
31	---	---	---	---	---	---	---	---	---	4.5	0.06	---
TOTAL	---	---	---	---	---	---	---	---	---	213.64	17.91	33.13
MEAN	---	---	---	---	---	---	---	---	---	6.89	0.58	1.10
MAX	---	---	---	---	---	---	---	---	---	20	4.0	8.1
MIN	---	---	---	---	---	---	---	---	---	0.72	0.05	0.02
CFSM	---	---	---	---	---	---	---	---	---	0.07	0.01	0.01
IN.	---	---	---	---	---	---	---	---	---	0.08	0.01	0.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	38.0	68.5	99.3	76.4	114	230	223	101	61.2	23.3	15.5	21.1
MAX	257	249	330	189	455	484	618	259	502	167	131	249
(WY)	(1978)	(1978)	(1973)	(1993)	(1976)	(1978)	(1993)	(1989)	(1972)	(1972)	(1992)	(1977)
MIN	0.16	2.85	4.08	3.66	19.1	69.0	52.1	31.1	8.73	0.94	0.023	0.030
(WY)	(1965)	(1965)	(1961)	(1961)	(1989)	(1965)	(1981)	(1987)	(1965)	(1965)	(1965)	(1965)

04235250 FLINT CREEK AT PHELPS, NY—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e2.5	e4.0	14	286	e48	e95	199	45	346	18	19	9.1
2	e2.5	e4.0	14	e240	e50	e90	201	76	423	15	e20	19
3	e4.0	e4.0	8.2	e180	e55	e85	193	102	320	12	e20	36
4	e3.5	e4.5	15	149	e80	e80	299	84	176	11	e40	33
5	e3.0	3.9	e16	138	e180	91	886	69	135	9.7	105	22
6	e2.4	5.1	e14	112	e180	e100	673	71	118	8.9	151	21
7	e2.2	5.2	e13	97	e130	e90	406	67	98	9.3	111	14
8	e2.2	5.3	e13	109	e100	89	294	60	89	8.4	61	11
9	e2.0	6.5	e11	119	e85	e200	255	55	80	9.7	59	9.9
10	e2.0	5.6	12	141	e75	e270	271	51	65	12	102	8.8
11	e2.0	5.2	13	96	e65	203	320	128	59	16	142	8.2
12	e2.5	5.2	14	e110	e60	e130	274	237	53	18	125	7.5
13	e2.5	5.0	16	e100	e55	e130	211	201	67	15	133	6.9
14	e2.5	5.0	e45	94	e52	e110	165	162	78	11	84	6.7
15	e2.2	4.9	e110	85	e50	e125	140	128	69	9.1	54	7.9
16	e3.5	5.3	e115	78	e46	e250	120	116	52	9.7	46	13
17	e4.5	11	e75	76	e46	e700	103	174	42	7.4	37	10
18	e2.5	15	e55	e65	e46	e1,100	92	167	36	5.5	28	11
19	2.8	20	63	e65	e46	926	84	121	34	7.8	24	9.3
20	3.4	16	e130	e60	e48	690	79	94	33	11	19	7.4
21	3.9	13	e250	e60	e48	924	73	91	41	13	16	6.6
22	3.8	14	214	e55	e52	1,230	73	85	48	15	15	6.5
23	4.9	20	159	e52	e100	879	73	74	46	36	12	8.3
24	4.4	31	111	e50	e150	491	68	83	33	59	10	7.7
25	4.0	26	88	e50	e170	355	61	133	28	62	9.3	8.9
26	6.1	20	57	e48	e140	444	57	177	24	47	9.1	9.4
27	5.0	18	e70	e46	e110	470	54	186	21	28	8.8	10
28	4.2	17	66	e46	e100	329	50	146	18	22	8.1	43
29	4.6	14	60	e46	---	261	46	111	18	18	8.2	65
30	e4.4	15	55	e44	---	248	43	89	19	15	9.1	48
31	e4.2	---	106	e44	---	226	---	94	---	12	7.8	---
TOTAL	104.2	328.7	2,002.2	2,941	2,367	11,411	5,863	3,477	2,669	551.5	1,493.4	485.1
MEAN	3.36	11.0	64.6	94.9	84.5	368	195	112	89.0	17.8	48.2	16.2
MAX	6.1	31	250	286	180	1,230	886	237	423	62	151	65
MIN	2.0	3.9	8.2	44	46	80	43	45	18	5.5	7.8	6.5
CFSM	0.03	0.11	0.63	0.93	0.83	3.61	1.92	1.10	0.87	0.17	0.47	0.16
IN.	0.04	0.12	0.73	1.07	0.86	4.16	2.14	1.27	0.97	0.20	0.54	0.18

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2003, BY WATER YEAR (WY)

MEAN	37.1	67.0	98.3	76.9	113	234	222	101	62.0	23.1	16.4	21.0
MAX	257	249	330	189	455	484	618	259	502	167	131	249
(WY)	(1978)	(1978)	(1973)	(1993)	(1976)	(1978)	(1993)	(1989)	(1972)	(1972)	(1992)	(1977)
MIN	0.16	2.85	4.08	3.66	19.1	69.0	52.1	31.1	8.73	0.94	0.023	0.030
(WY)	(1965)	(1965)	(1961)	(1961)	(1989)	(1965)	(1981)	(1987)	(1965)	(1965)	(1965)	(1965)

04235250 FLINT CREEK AT PHELPS, NY—Continued

SUMMARY STATISTICS	FOR 2003 WATER YEAR		WATER YEARS 1960 - 2003	
ANNUAL TOTAL	93.1			
ANNUAL MEAN	92.3		89.8	
HIGHEST ANNUAL MEAN			162	1978
LOWEST ANNUAL MEAN			32.2	1965
HIGHEST DAILY MEAN	1230	Mar 22	2,670	Jun 24, 1972
LOWEST DAILY MEAN	2.0	Oct 9	0.00	Sep 16, 1962
ANNUAL SEVEN-DAY MINIMUM	2.2	Oct 6	0.00	Sep 16, 1962
MAXIMUM PEAK FLOW			2,940	Mar 30, 1960
MAXIMUM PEAK STAGE			6.20	Mar 17, 1963
INSTANTANEOUS LOW FLOW			0.00	Jul 1, 1962
ANNUAL RUNOFF (CFSM)	0.90		0.88	
ANNUAL RUNOFF (INCHES)	12.29		11.96	
10 PERCENT EXCEEDS	02		230	
50 PERCENT EXCEEDS	48		36	
90 PERCENT EXCEEDS	5.0		3.6	

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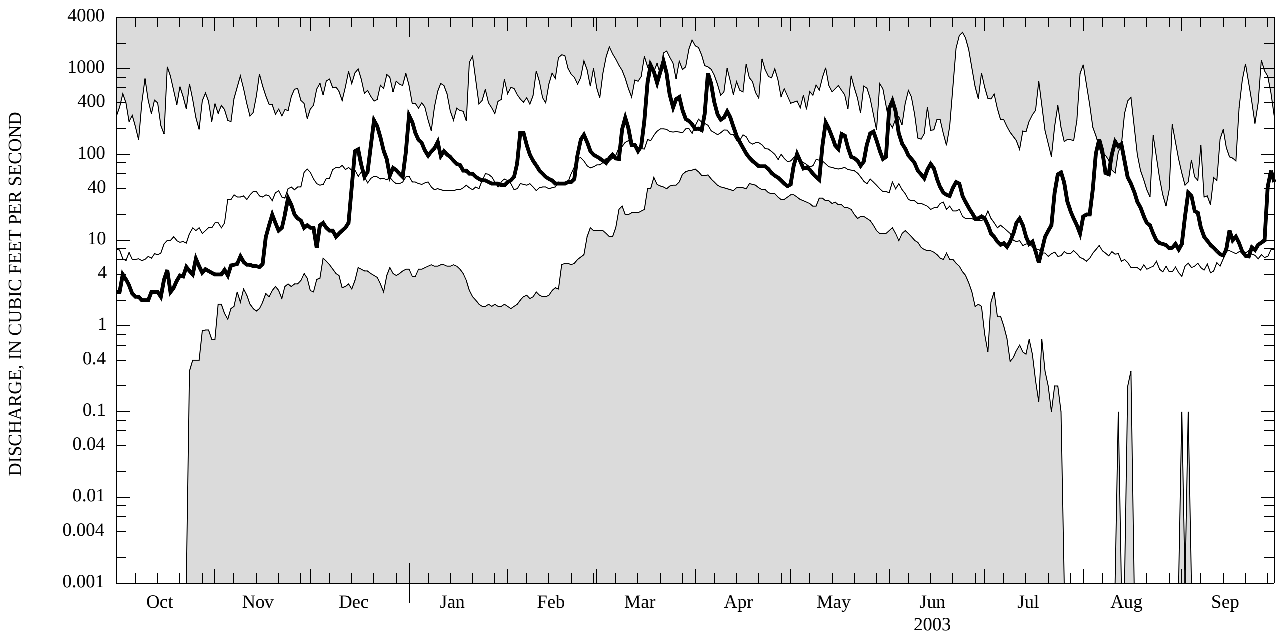


2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.
ZERO FLOWS ARE PLOTTED AS 0.001 DISCHARGE, WHICH MAY INCLUDE THE LOWEST DAILY MEAN FOR PERIOD OF RECORD.

04235396 OWASCO LAKE NEAR AUBURN, NY

LOCATION.--Lat 42°54'14", long 76°32'22", Cayuga County, Hydrologic Unit 04140201, on right bank near downstream side of bridge in Emerson Park, 0.2 mi south of city limits of Auburn, and 1.0 mi upstream from State dam.

DRAINAGE AREA.--205 mi^2.

PERIOD OF RECORD.--October 1967 to current year. Records since 1912 collected by, and in files of, city of Auburn.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929. 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 NGVD of 1929.

REMARKS.--Lake elevation regulated by gates on outlet at State dam. Area of water surface, 10.6 mi^2. Telephone gage-height telemeter at station.

COOPERATION.--Records furnished by city of Auburn until April 30, 1982.

EXTREMES FOR PERIOD OF RECORD.--Maximum observed elevation, 716.48 ft, June 25, 1972; minimum observed elevation, 708.45 ft, Mar. 22, 23, 1993.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum observed elevation since l9l2, 7l6.9l ft, Mar. 23, l936, Apr. 9, l940.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 713.20 ft, May 11; minimum elevation, 709.78 ft, Feb. 21.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	711.51	711.60	712.14	711.13	709.99	710.24	712.63	712.63	712.81	712.85	712.63	712.53
2	711.51	711.61	712.10	711.27	709.96	710.23	712.52	712.72	712.94	712.82	712.66	712.66
3	711.53	711.62	712.04	711.29	709.92	710.18	712.52	712.78	712.93	712.80	712.69	712.70
4	711.58	711.63	711.98	711.25	710.02	710.23	712.63	712.83	712.89	712.77	712.71	712.68
5	711.53	711.63	711.89	711.17	710.22	710.32	712.92	712.88	712.83	712.76	712.70	712.68
6	711.54	711.67	711.80	711.08	710.29	710.35	713.06	712.92	712.77	712.76	712.71	712.71
7	711.51	711.68	711.71	711.07	710.32	710.30	712.93	712.94	712.72	712.75	712.72	712.68
8	711.48	711.71	711.60	711.05	710.30	710.25	712.85	712.98	712.65	712.74	712.71	712.65
9	711.47	711.72	711.53	710.98	710.31	710.23	712.91	713.00	712.62	712.73	712.72	712.63
10	711.44	711.75	711.41	710.91	710.41	710.21	712.88	713.01	712.64	712.75	712.86	712.61
11	711.42	711.75	711.31	710.83	710.48	710.16	712.88	713.07	712.70	712.79	712.91	712.58
12	711.44	711.76	711.35	710.75	710.54	710.11	712.81	713.08	712.73	712.74	712.90	712.58
13	711.43	711.77	711.36	710.68	710.58	710.09	712.73	713.06	712.81	712.70	712.87	712.58
14	711.42	711.79	711.41	710.65	710.57	710.04	712.63	712.92	712.88	712.69	712.84	712.58
15	711.41	711.78	711.64	710.59	710.51	710.00	712.58	712.77	712.94	712.68	712.79	712.58
16	711.42	711.80	711.68	710.53	710.50	710.02	712.64	712.84	712.95	712.70	712.76	712.47
17	711.47	711.95	711.68	710.48	710.50	710.32	712.69	712.87	712.95	712.69	712.75	712.31
18	711.44	712.18	711.60	710.43	710.46	710.85	712.76	712.88	712.95	712.69	712.72	712.17
19	711.46	712.27	711.54	710.35	710.20	711.26	712.80	712.91	712.94	712.70	712.72	712.17
20	711.48	712.24	711.54	710.26	709.94	711.52	712.87	712.95	712.91	712.67	712.75	712.13
21	711.49	712.22	711.67	710.18	709.93	711.86	712.84	712.96	712.96	712.71	712.73	712.09
22	711.49	712.22	711.68	710.11	709.95	712.27	712.78	712.92	713.01	712.81	712.70	712.09
23	711.50	712.30	711.63	710.04	710.00	712.52	712.74	712.90	713.02	712.80	712.65	712.19
24	711.50	712.32	711.58	709.99	710.18	712.56	712.73	712.93	713.00	712.80	712.61	712.23
25	711.50	712.32	711.54	710.06	710.25	712.52	712.69	712.98	712.97	712.80	712.59	712.25
26	711.55	712.31	711.46	710.08	710.27	712.52	712.63	713.04	712.91	712.73	712.58	712.25
27	711.58	712.30	711.33	710.10	710.27	712.51	712.57	713.01	712.85	712.64	712.56	712.29
28	711.60	712.26	711.21	710.12	710.26	712.57	712.52	712.93	712.85	712.59	712.55	712.31
29	711.61	712.23	711.09	710.13	---	712.59	712.53	712.88	712.85	712.62	712.55	712.36
30	711.60	712.17	710.98	710.10	---	712.72	712.57	712.80	712.85	712.61	712.51	712.34
31	711.61	---	710.97	710.05	---	712.73	---	712.73	---	712.62	712.50	---
MEAN	711.50	711.95	711.56	710.57	710.25	711.11	712.73	712.91	712.86	712.73	712.70	712.44
MAX	711.61	712.32	712.14	711.29	710.58	712.73	713.06	713.08	713.02	712.85	712.91	712.71
MIN	711.41	711.60	710.97	709.99	709.92	710.00	712.52	712.63	712.62	712.59	712.50	712.09

WTR YR 2003 MEAN 711.95 MAX 713.08 MIN 709.92

04235440 OWASCO OUTLET AT GENESEE STREET, AUBURN, NY

LOCATION.--Lat 42°55'56", long 76°33'55", Cayuga County, Hydrologic Unit 04140201, on left bank in city of Auburn combined sewer overflow building, approximately 200 ft upstream from Genesee Street, and 2.5 mi downstream from State Dam at outlet of Owasco Lake.

DRAINAGE AREA.--207 mi^2.

PERIOD OF RECORD.--October 1998 to current year. Records for November 1912 to September 1966, published as "Owasco Lake Outlet" and October 1966 to September 1998, published as "Owasco Outlet near Auburn" (station 04235500) at site 2.6 mi downstream, are not equivalent because of regulation between sites.

GAGE.--Water-stage recorder. Elevation of gage is 670 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Diurnal fluctuation caused by mills in Auburn; regulation at State Dam at outlet of lake. Telephone gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,340 ft^3/s, Apr. 10, 2001, gage height, 5.43 ft; minimum discharge, 1.6 ft^3/s, Mar. 30, 31, July 22, 1999.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,910 ft^3/s, Apr. 7, gage height, 4.97 ft; minimum discharge, 3.0 ft^3/s, Mar. 28.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

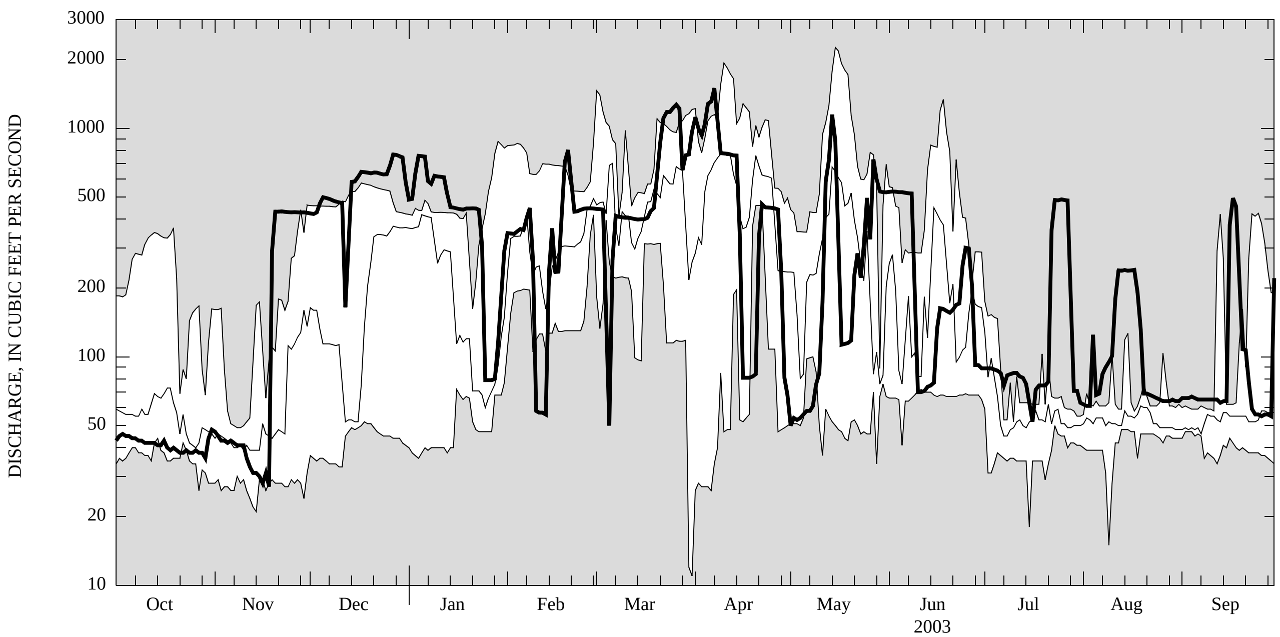
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	47	424	488	348	444	1,120	50	527	89	62	66
2	45	45	422	491	347	443	996	54	529	89	61	66
3	46	43	429	634	345	441	934	53	528	89	61	66
4	45	43	471	758	354	203	1,050	54	526	88	125	67
5	45	42	500	756	363	50	1,280	56	526	87	68	66
6	44	43	496	752	359	266	1,310	58	522	85	69	65
7	44	42	491	588	408	415	1,500	58	520	75	84	65
8	43	41	484	572	449	410	1,060	61	519	83	90	65
9	43	41	479	620	266	408	779	76	247	84	95	65
10	42	41	475	616	58	406	776	85	70	85	101	65
11	42	36	471	614	57	406	774	174	70	85	179	65
12	42	33	165	611	57	404	769	587	71	82	239	65
13	42	31	314	516	56	401	762	727	74	81	238	63
14	41	31	583	452	235	399	760	1,150	75	76	240	64
15	41	30	586	450	365	400	344	882	77	63	238	64
16	43	28	613	447	235	400	81	268	133	52	239	378
17	40	31	645	443	236	406	81	113	163	72	240	495
18	39	27	643	441	404	435	81	114	162	75	192	454
19	40	291	640	446	716	449	82	115	159	75	132	214
20	39	432	636	446	805	619	84	118	156	75	69	108
21	38	432	641	447	577	866	337	228	161	78	69	107
22	38	433	640	446	432	1,110	466	284	169	359	68	78
23	39	431	634	440	434	1,180	451	222	171	486	67	59
24	38	430	629	307	440	1,180	450	308	251	484	66	56
25	38	429	630	79	445	1,230	449	496	300	489	65	56
26	39	430	687	79	447	1,270	447	327	298	486	64	55
27	38	429	768	79	447	1,220	442	732	205	483	64	56
28	38	428	765	80	446	657	238	597	92	203	64	56
29	36	429	755	115	---	763	81	530	92	71	65	55
30	44	427	747	191	---	769	68	526	89	71	64	221
31	48	---	580	291	---	973	---	525	---	63	64	---
TOTAL	1,283	5,696	17,443	13,695	10,131	19,023	18,052	9,628	7,482	4,863	3,542	3,425
MEAN	41.4	190	563	442	362	614	602	311	249	157	114	114
MAX	48	433	768	758	805	1,270	1,500	1,150	529	489	240	495
MIN	36	27	165	79	56	50	68	50	70	52	61	55

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	82.8	100	300	276	372	527	569	368	243	77.1	64.0	80.4
MAX	201	190	563	442	580	614	779	756	399	157	114	166
(WY)	(2001)	(2003)	(2003)	(2003)	(2002)	(2003)	(2000)	(2002)	(2000)	(2003)	(2003)	(2000)
MIN	39.0	28.7	64.0	177	278	245	211	88.1	67.4	45.5	43.8	40.2
(WY)	(2000)	(2002)	(1999)	(2001)	(2001)	(2002)	(1999)	(2001)	(1999)	(1999)	(1999)	(1999)

04235440 OWASCO OUTLET AT GENESEE STREET, AUBURN, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1998 - 2003	
ANNUAL TOTAL	111,106		114,263			
ANNUAL MEAN	304		313		255	
HIGHEST ANNUAL MEAN					322	2000
LOWEST ANNUAL MEAN					162	1999
HIGHEST DAILY MEAN	2,260	May 15	1,500	Apr 7	2,260	May 15, 2002
LOWEST DAILY MEAN	15	Aug 9	27	Nov 18	11	Mar 31, 1999
ANNUAL SEVEN-DAY MINIMUM	30	Nov 12	30	Nov 12	23	Mar 30, 1999
10 PERCENT EXCEEDS	647		720		632	
50 PERCENT EXCEEDS	213		235		92	
90 PERCENT EXCEEDS	41		43		40	



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

04235600 SENECA RIVER NEAR PORT BYRON, NY

LOCATION.--Lat 43°04'43", long 76°38'45", Cayuga County, Hydrologic Unit 04140201, on right bank , 50 ft upstream of Rt. 38 bridge, 3.0 mi north of Port Byron, and 10.1 mi upstream from Cross Lake.

DRAINAGE AREA.-- 2,815 mi^2.

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

GAGE.--Acoustic velocity meter, water-stage recorder, and crest-stage gage. Elevation of gage is 375 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair. 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 the year, entire flow from 45.5 mi^2 of Mud Creek drainage area may be diverted from Chemung River basin into Keuka Lake in Oswego River basin. Telephone and satellite gage-height telemeters at station.

COOPERATION.--Records of gate openings, lockages, and elevations of water surface in Erie (Barge) Canal above and below Lock 24 & 25, furnished by New York State Thruway Authority, Office of Canals.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 13,600 ft^3/s, Jan. 11, 1998; minimum daily discharge, 258 ft^3/s, Jan. 22, 2002. Maximum and minimun instantaneous discharges not determined.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 11,100 ft^3/s, Apr. 8; minimum daily discharge, 634 ft^3/s, July 21. Maximum and minimun instantaneous discharges not determined.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,470	1,430	2,720	4,640	1,620	4,550	7,410	2,760	4,850	1,770	3,910	731
2	1,510	1,450	2,750	5,150	1,820	4,500	7,360	2,830	5,700	1,770	3,510	758
3	1,610	1,390	2,920	5,070	1,930	3,960	7,310	2,910	5,690	1,870	3,000	741
4	1,720	1,500	3,270	4,810	2,250	3,290	7,750	1,620	5,340	1,950	2,860	818
5	1,760	1,750	3,230	4,680	2,730	3,550	9,120	888	5,420	1,660	2,820	822
6	1,650	1,870	3,250	5,180	3,150	3,570	10,200	719	5,870	1,480	3,460	665
7	1,530	1,900	3,190	5,210	3,060	3,650	10,900	1,080	5,960	1,380	4,240	657
8	1,580	1,900	3,250	5,200	2,380	3,630	11,100	1,130	5,930	1,370	4,150	744
9	e1,500	1,860	3,090	5,270	1,990	3,770	10,200	1,110	5,520	1,390	3,620	726
10	e1,250	1,750	3,060	5,320	1,400	4,090	9,840	1,110	4,940	1,110	3,520	707
11	1,110	1,740	3,030	5,470	992	4,150	9,590	1,150	4,690	883	3,640	672
12	1,120	1,820	2,940	5,300	1,080	4,020	9,330	2,810	4,020	928	3,790	667
13	1,150	1,850	2,930	5,210	1,080	3,810	e8,900	2,630	3,540	923	3,970	691
14	1,150	2,420	3,590	4,890	1,450	3,690	8,530	3,240	3,780	873	3,990	698
15	1,040	2,450	4,440	4,370	e2,230	3,700	e8,200	4,080	3,930	779	3,610	981
16	1,240	2,030	4,990	3,940	e2,540	4,020	e7,300	3,480	3,540	783	3,010	2,280
17	1,360	2,030	4,690	3,910	e2,660	5,260	7,160	3,910	3,100	698	2,580	3,800
18	1,260	1,970	4,200	3,640	3,410	e6,600	6,910	4,400	3,090	740	2,350	3,740
19	1,180	2,180	4,160	3,620	4,380	e7,500	e6,000	4,410	3,030	705	1,650	3,480
20	1,190	2,390	4,470	3,580	4,630	e8,000	4,730	4,210	2,820	649	1,550	1,900
21	1,170	2,550	4,720	3,880	4,010	e8,200	4,440	3,990	2,560	634	1,530	1,700
22	1,150	e2,810	5,030	3,740	3,670	e8,600	4,410	3,840	2,470	859	1,500	1,520
23	1,160	e2,840	4,880	3,580	3,950	e9,100	4,330	3,860	2,400	1,830	1,380	1,720
24	1,100	e2,780	4,860	3,450	4,310	e9,300	3,740	4,300	2,400	3,570	1,020	1,740
25	1,070	2,870	4,720	2,490	4,700	8,740	2,900	4,630	2,430	4,110	751	1,930
26	1,130	2,950	4,760	2,120	4,740	e8,100	2,720	4,890	2,340	4,580	749	2,260
27	1,130	2,920	4,810	2,250	4,680	e8,000	2,640	5,190	2,320	4,640	758	2,130
28	1,130	2,790	4,840	2,170	4,640	e7,500	3,220	4,870	1,960	4,460	760	2,240
29	1,100	2,810	4,880	1,840	---	e7,500	3,280	4,430	1,980	4,260	669	2,570
30	1,130	2,810	4,850	1,470	---	e7,300	2,970	4,330	2,000	4,180	707	2,680
31	1,320	---	4,790	1,500	---	e7,300	---	4,570	---	3,920	735	---
TOTAL	39,970	65,810	123,310	122,950	81,482	178,950	202,490	99,377	113,620	60,754	75,789	46,768
MEAN	1,289	2,194	3,978	3,966	2,910	5,773	6,750	3,206	3,787	1,960	2,445	1,559
MAX	1,760	2,950	5,030	5,470	4,740	9,300	11,100	5,190	5,960	4,640	4,240	3,800
MIN	1,040	1,390	2,720	1,470	992	3,290	2,640	719	1,960	634	669	657

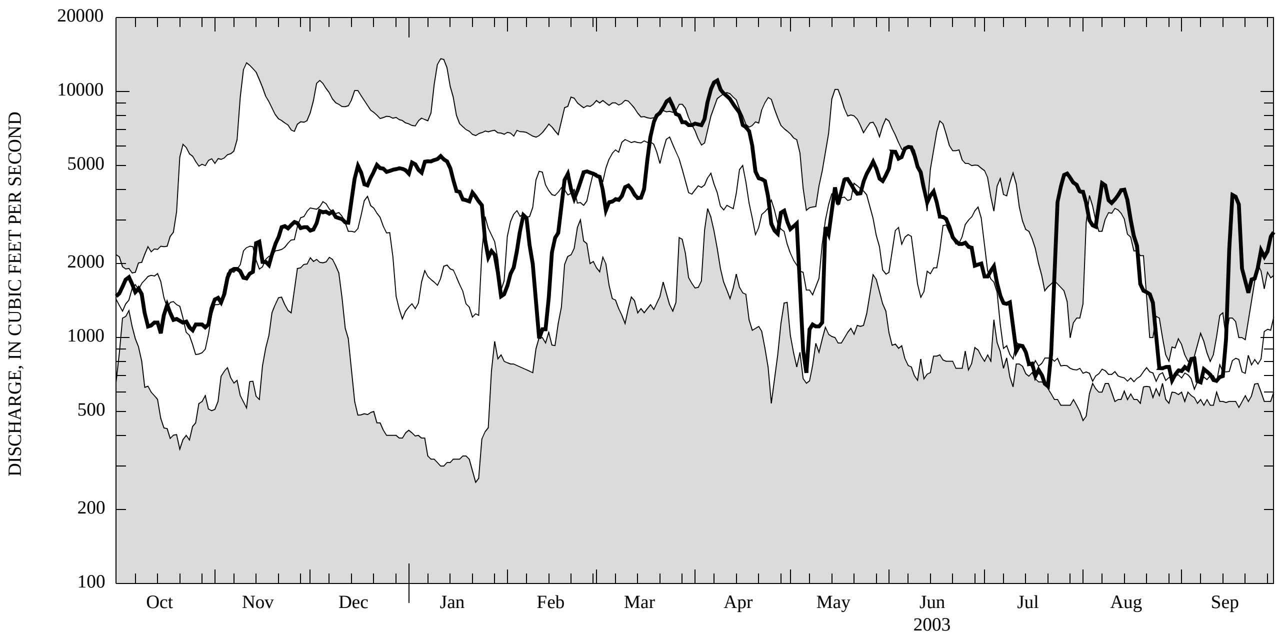
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1,557	2,939	3,697	3,200	3,807	5,371	4,554	3,401	3,003	1,401	1,148	926
MAX	3,013	8,247	8,876	7,671	7,590	8,483	7,416	6,274	5,302	2,634	2,445	1,559
(WY)	(1997)	(1997)	(1997)	(1998)	(1998)	(1998)	(2001)	(2000)	(2002)	(1998)	(2003)	(2003)
MIN	810	1,287	1,186	676	2,134	1,684	2,126	1,234	998	786	602	611
(WY)	(2002)	(2000)	(1999)	(2002)	(1997)	(2002)	(1997)	(1999)	(1999)	(2001)	(2001)	(1998)

04235600 SENECA RIVER NEAR PORT BYRON, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1997 - 2003	
ANNUAL TOTAL	900,848		1,211,270			
ANNUAL MEAN	2,468		3,319		2,911	
HIGHEST ANNUAL MEAN					3,873	1998
LOWEST ANNUAL MEAN					1,840	1999
HIGHEST DAILY MEAN	8,710	May 16	11,100	Apr 8	13,600	Jan 11, 1998
LOWEST DAILY MEAN	258	Jan 22	634	Jul 21	258	Jan 22, 2002
ANNUAL SEVEN-DAY MINIMUM	343	Jan 20	691	Sep 6	310	Jan 8, 1999
10 PERCENT EXCEEDS	5,600		5,770		6,800	
50 PERCENT EXCEEDS	1,630		2,970		1,980	
90 PERCENT EXCEEDS	646		988		663	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

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 mi^2.

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

GAGE.--Water-stage recorder. Elevation of gage is 380 ft above NGVD of 1929, 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 mi^2 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, 6.31 ft, Jan. 12, 1998; minimum recorded gage height, 0.02 ft, Jan. 28, 2003 (minimum recordable) but was lower during the period of Jan. 28 to Feb. 21, 2003, result of regulation

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 5.10 ft, Apr. 8; minimum recorded gage height, 0.02 ft, Jan. 28 (minimum recordable) but was lower during the period of Jan. 28 to Feb. 21, result of regulation.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.25	1.43	1.27	2.00	---	1.99	3.61	0.75	1.45	1.44	1.70	1.05
2	1.32	1.35	1.34	2.15	---	1.93	3.57	0.73	1.81	1.37	1.64	1.08
3	1.33	1.33	1.38	2.22	---	1.85	3.52	0.94	2.17	1.36	1.32	1.10
4	1.27	1.38	1.55	2.13	---	1.54	3.80	1.71	2.26	1.35	1.32	1.14
5	1.20	1.45	1.65	1.97	---	1.47	4.46	1.53	2.26	1.30	1.31	1.16
6	1.00	1.47	1.62	1.94	---	1.49	4.88	1.18	2.22	1.14	1.36	1.11
7	1.25	1.37	1.58	2.01	---	1.54	5.05	1.03	2.35	1.04	1.29	1.02
8	1.36	1.29	1.56	2.07	---	1.56	5.08	1.22	2.45	1.23	1.36	0.97
9	1.26	1.18	1.49	2.13	---	1.58	4.98	1.29	2.47	1.33	1.30	0.95
10	1.15	1.18	1.45	2.19	---	1.64	4.83	1.14	2.24	1.26	1.33	0.94
11	1.10	1.31	1.40	2.22	---	1.72	4.63	1.12	1.94	1.26	1.29	0.98
12	1.35	1.28	1.39	2.22	---	1.60	4.47	1.58	1.74	1.23	1.32	1.13
13	1.35	1.27	1.39	2.17	---	1.50	4.32	1.51	1.51	1.20	1.37	1.11
14	1.32	1.33	1.73	2.23	---	1.47	4.18	1.28	1.61	1.18	1.52	1.10
15	1.28	1.50	2.28	2.27	---	1.44	4.05	1.37	1.50	1.16	1.57	1.13
16	1.27	1.29	2.42	1.84	---	1.51	3.84	1.60	1.43	1.18	1.29	1.33
17	1.08	1.38	2.34	1.64	---	2.06	3.62	1.66	1.24	1.12	1.03	1.40
18	0.86	1.46	2.10	1.49	---	2.87	3.47	1.83	1.34	1.07	1.10	1.39
19	0.90	1.42	1.76	1.64	---	3.39	3.24	1.92	1.39	1.04	1.11	1.24
20	1.00	1.12	1.78	1.72	---	3.71	2.79	1.71	1.40	1.04	1.12	1.13
21	1.05	1.22	2.15	1.71	---	4.14	2.33	1.60	1.30	1.05	1.08	0.78
22	1.10	1.56	2.12	1.64	2.04	4.38	2.13	1.60	1.22	1.13	1.02	0.79
23	1.18	1.70	2.10	1.55	1.95	4.52	2.02	1.41	1.27	1.34	0.93	1.13
24	1.26	1.74	2.01	1.46	1.92	4.55	1.90	1.51	1.26	1.70	0.91	1.20
25	1.28	1.68	1.92	1.18	1.97	4.44	1.51	1.98	1.26	1.75	0.91	1.22
26	1.34	1.63	1.80	0.61	2.07	4.24	1.25	2.09	1.24	1.86	0.91	1.12
27	1.12	1.56	1.72	0.23	2.12	4.07	1.01	2.29	1.24	1.96	0.92	1.03
28	0.90	1.41	1.73	---	2.08	3.92	0.84	2.24	1.31	1.92	0.91	1.11
29	0.95	1.24	1.85	---	---	3.79	0.91	2.00	1.38	1.74	0.97	1.26
30	1.11	1.17	1.78	---	---	3.77	0.90	1.67	1.49	1.58	1.11	1.32
31	1.26	---	1.82	---	---	3.68	---	1.42	---	1.71	1.07	---
MEAN	1.18	1.39	1.76	---	---	2.69	3.24	1.51	1.66	1.36	1.21	1.11
MAX	1.36	1.74	2.42	---	---	4.55	5.08	2.29	2.47	1.96	1.70	1.40
MIN	0.86	1.12	1.27	---	---	1.44	0.84	0.73	1.22	1.04	0.91	0.78

CAL YR 2002 MEAN 1.60 MAX 4.54 MIN 0.30

04237500 SENECA RIVER AT BALDWINSVILLE, NY

LOCATION.--Lat 43°09'25", long 76°19'55", Onondaga County, Hydrologic Unit 04140201, on left bank 200 ft downstream from bridge on State Highways 31 and 48 in Baldwinsville, and 400 ft downstream from navigation dam at Lock 24 of New York State Erie (Barge) Canal.

DRAINAGE AREA.--3,138 mi^2.

PERIOD OF RECORD.--November 1949 to current year in reports of Geological Survey. November 1898 to December 1908, prior to construction of Erie (Barge) Canal, not equivalent to later records at same site because of extensive development of Erie (Barge) Canal system. January 1909 to September 1925 (gage heights only) in reports of State Engineer and Surveyor.

REVISED RECORDS.--WDR NY-78-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 361.38 ft above NGVD of 1929 (362.60 ft Erie (Barge) Canal Datum). Prior to Dec. 31, 1908, nonrecording gage at same site at different datum. Auxiliary water-stage recorder 1,500 ft downstream from base gage at same datum.

REMARKS.--Records good 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 mi^2 of Mud Creek drainage area may be diverted from Chemung River basin into Keuka Lake in Oswego River basin. Telephone and satellite gage-height telemeters at station.

COOPERATION.--Records of lockages at Lock 24 furnished by New York State Thruway Authority, Office of Canals.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 18,100 ft^3/s, Apr. 27, 1993, maximum gage height, 9.63 ft, Apr. 26, 27, 1993; minimum daily discharge, 34 ft^3/s, Sept. 17, 1985, result of extreme regulation. Maximum and minimum instantaneous discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 11,500 ft^3/s, Apr.7, 8, maximum gage height, 5.96 ft, Apr. 7; minimum daily discharge, 448 ft^3/s, Aug. 29. Maximum and minimum instantaneous discharge not determined.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,790	1,450	3,060	5,910	2,060	4,910	8,830	3,250	4,610	1,850	3,720	941
2	1,770	1,710	3,040	6,170	2,000	4,820	8,700	3,250	4,930	1,740	3,680	955
3	2,140	1,730	3,040	6,170	1,990	4,780	8,540	2,590	5,360	1,700	3,150	964
4	1,880	1,440	3,140	5,900	2,340	4,050	9,170	1,580	5,540	1,790	2,420	949
5	2,500	1,930	3,610	5,450	2,760	3,700	10,300	1,930	5,580	1,830	2,470	1,030
6	1,690	2,300	3,700	5,520	e3,500	3,710	11,200	1,630	5,490	1,820	2,970	1,130
7	1,120	2,360	3,650	5,750	e4,000	3,530	11,500	1,340	5,700	1,310	3,930	1,100
8	1,660	2,260	3,600	5,750	e4,200	3,590	11,500	1,130	5,970	1,020	3,860	970
9	1,760	2,240	3,540	5,930	e3,600	3,730	11,300	1,420	5,990	1,470	3,660	945
10	1,690	1,960	3,440	6,090	e3,100	3,880	10,900	1,530	5,550	1,490	3,570	991
11	898	1,950	3,400	6,110	e2,500	4,150	10,500	1,520	5,190	1,200	3,530	541
12	1,020	2,090	3,430	6,060	e2,000	4,350	10,100	2,880	4,640	1,160	3,480	783
13	1,330	2,090	2,920	5,930	e1,600	3,980	9,790	3,780	3,950	1,170	3,430	1,050
14	1,230	2,180	4,140	5,000	e1,100	3,630	9,590	3,610	4,250	1,150	3,080	1,060
15	1,240	2,870	6,610	5,440	1,370	3,580	9,370	3,700	4,460	946	3,480	1,050
16	1,610	2,550	7,280	5,160	2,110	3,620	9,020	3,790	4,220	976	3,130	2,280
17	2,010	2,410	6,950	4,460	2,720	4,890	8,710	4,050	3,500	1,000	2,420	4,770
18	1,570	2,460	5,660	4,080	3,340	7,160	8,350	4,380	2,970	943	1,950	5,170
19	1,190	3,110	5,250	3,560	3,670	8,520	7,790	4,860	2,940	845	1,690	4,540
20	1,280	3,360	4,830	3,710	3,820	9,020	6,970	5,210	2,890	790	1,600	2,610
21	1,290	2,310	5,740	4,130	4,140	9,640	5,720	4,560	2,880	787	1,630	2,080
22	1,210	2,850	6,230	3,940	4,350	10,200	5,110	4,280	2,550	857	1,650	1,140
23	1,250	3,450	5,910	4,130	4,780	10,400	4,990	4,180	2,290	1,200	1,560	1,340
24	1,280	3,410	5,890	4,480	5,040	10,400	4,780	4,070	2,360	3,330	1,130	1,570
25	1,290	3,500	5,790	3,950	4,980	10,200	3,970	4,830	2,270	4,040	871	1,870
26	1,860	3,540	5,600	3,180	4,970	9,950	3,470	5,090	2,130	4,710	853	2,470
27	1,980	3,650	5,550	3,150	5,040	9,610	3,300	5,210	1,880	4,980	873	2,250
28	1,590	3,650	5,120	2,990	5,130	9,280	3,280	5,160	1,720	4,710	923	2,080
29	1,030	3,550	5,270	2,670	---	9,060	3,370	4,930	1,470	5,070	448	2,300
30	1,030	3,260	5,500	2,420	---	9,050	3,300	4,640	1,840	3,990	722	2,770
31	1,130	---	5,600	2,230	---	8,970	---	4,470	---	3,550	953	---
TOTAL	46,318	77,620	146,490	145,420	92,210	200,360	233,420	108,850	115,120	63,424	72,833	53,699
MEAN	1,494	2,587	4,725	4,691	3,293	6,463	7,781	3,511	3,837	2,046	2,349	1,790
MAX	2,500	3,650	7,280	6,170	5,130	10,400	11,500	5,210	5,990	5,070	3,930	5,170
MIN	898	1,440	2,920	2,230	1,100	3,530	3,280	1,130	1,470	787	448	541

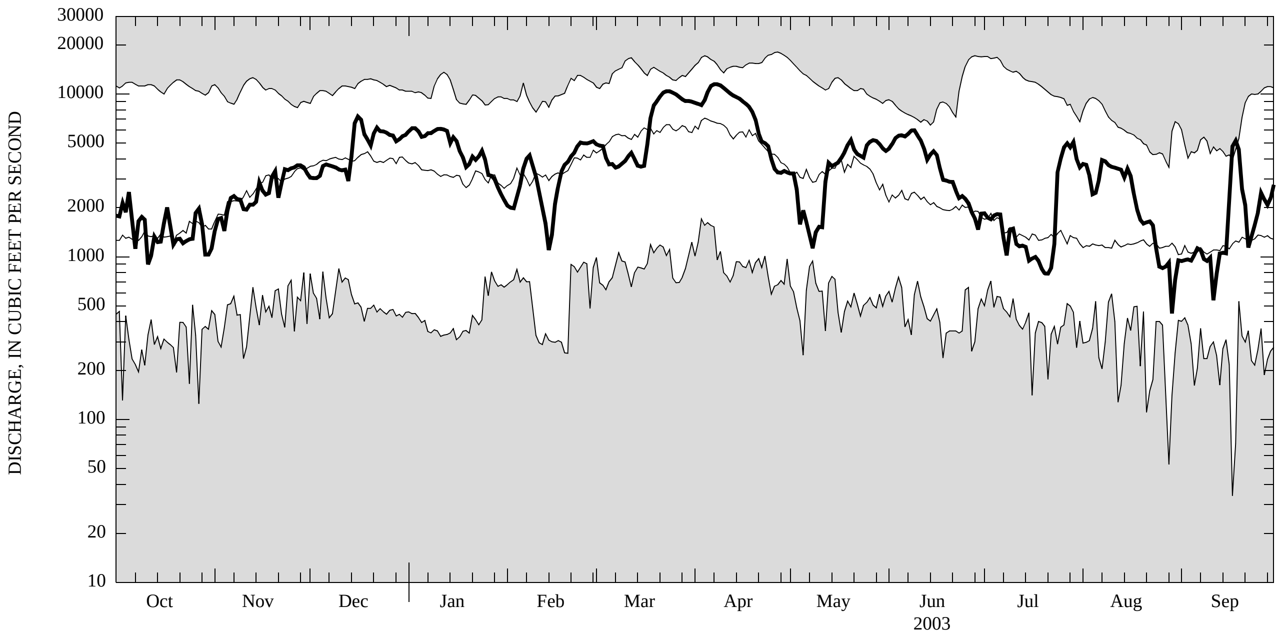
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2,133	3,307	4,342	3,873	3,914	5,844	5,981	4,019	2,725	1,911	1,523	1,421
MAX	11,020	9,491	10,330	8,807	8,313	11,650	15,610	9,778	6,456	12,100	6,214	4,760
(WY)	(1978)	(1978)	(1978)	(1978)	(1976)	(1956)	(1993)	(1996)	(1972)	(1972)	(1992)	(1977)
MIN	572	675	778	805	965	1,606	1,317	719	592	621	576	421
(WY)	(1986)	(1958)	(1961)	(1954)	(1980)	(1965)	(1981)	(1995)	(1995)	(1985)	(2001)	(1995)

04237500 SENECA RIVER AT BALDWINSVILLE, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1950 - 2003	
ANNUAL TOTAL	1,039,985		1,355,764			
ANNUAL MEAN	2,849		3,714		3,410	
HIGHEST ANNUAL MEAN					5,998	1978
LOWEST ANNUAL MEAN					1,357	1965
HIGHEST DAILY MEAN	9,800	May 17	11,500	Apr 7	18,100	Apr 27, 1993
LOWEST DAILY MEAN	299	Sep 21	448	Aug 29	34	Sep 17, 1985
ANNUAL SEVEN-DAY MINIMUM	537	Jan 19	806	Aug 25	283	Sep 23, 1988
10 PERCENT EXCEEDS	6,610		6,750		7,600	
50 PERCENT EXCEEDS	1,950		3,430		2,330	
90 PERCENT EXCEEDS	643		1,130		837	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

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

LOCATION.--Lat 42°51'18", long 76°08'24", Onondaga County, Hydrologic Unit 04140201, on right side of 9-in flume, 250 ft downstream from main depression area, about 2,100 ft east of Tully Farms Road, 1,500 ft south of Otisco Road, 400 ft upstream from mouth, and 4.2 mi northwest of Tully.

DRAINAGE AREA.--0.32 mi^2 (0.70 mi^2 diverted to Trib. No. 5 on June 12, 1992).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1991 to June 1999, October 1999 to current year.

REVISED RECORD.--WDR NY-93-3: 1992 (M).

GAGE.--Water stage recorder and flume. Datum of gage is 555.93 ft above NGVD of 1929. Prior to Aug. 16, 2000 at datum 0.15 ft lower.

REMARKS.--Records fair. Flow may include inflow from depressurizing wells, some originating outside the basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge prior to flow being diverted to Tributary No. 5 on June 12, 1992, 45 ft^3/s, Mar. 27, 1992, gage height, 2.08 ft; maximum gage height, 2.90 ft, Jan. 19, 1996; no flow part of each day, July 29, 1993, June 20, 1994, result of dam construction. Maximum discharge since diversion to Tributary No. 5 on June 12, 1992, 23 ft^3/s, Mar. 24, 1994, gage height 1.96 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5.0 ft^3/s, Aug. 8, gage height, 1.37 ft; minimum discharge, 0.24 ft^3/s, Oct. 1, 2, 9, gage height, 0.19 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.27	0.39	0.93	2.0	0.75	0.93	1.6	0.88	1.5	0.61	0.57	0.61
2	0.31	0.41	0.81	1.7	0.81	1.2	1.5	1.0	0.98	0.60	0.52	0.82
3	0.37	0.41	0.74	1.4	0.78	1.1	1.5	0.84	0.87	0.58	0.52	0.59
4	0.36	0.40	0.74	1.3	2.8	1.0	3.0	0.81	0.86	e0.58	0.55	0.67
5	0.31	0.39	0.74	1.2	1.8	1.2	3.5	0.84	0.89	e0.66	1.0	0.55
6	0.28	0.49	0.73	1.1	1.3	1.2	2.4	0.88	0.85	0.63	0.72	0.52
7	0.29	0.43	0.72	1.1	1.2	1.0	2.0	0.87	0.85	0.57	0.59	0.51
8	0.27	0.39	0.72	1.1	1.0	1.1	1.8	0.84	0.80	0.54	1.5	0.50
9	0.29	0.39	0.64	1.3	0.96	1.6	1.7	0.80	0.79	0.56	1.1	0.47
10	0.28	0.39	0.66	1.2	0.93	1.1	1.5	0.80	0.75	0.59	1.2	0.47
11	0.33	0.40	0.69	1.1	0.87	1.0	1.4	1.1	0.79	0.71	0.81	0.46
12	0.35	0.42	0.74	1.00	0.84	1.1	1.3	1.1	0.72	0.56	0.73	e0.44
13	0.32	0.43	0.73	0.94	0.81	1.0	1.2	1.3	0.86	0.53	0.68	e0.46
14	0.30	0.42	1.9	0.91	0.79	0.96	1.1	1.1	0.83	0.51	0.64	e0.46
15	0.29	0.42	1.8	0.87	0.75	1.3	1.1	0.92	0.71	0.52	0.62	e0.44
16	0.67	0.46	1.5	0.86	0.72	1.8	1.0	0.83	0.67	0.63	1.2	e0.50
17	0.52	1.5	1.2	0.83	0.75	2.1	0.98	0.82	0.66	0.53	0.87	0.39
18	0.35	1.0	1.0	0.78	0.80	2.1	0.97	0.81	0.75	0.57	0.72	0.38
19	0.56	0.79	1.0	0.81	0.79	1.9	0.99	0.78	0.73	e0.49	0.69	0.37
20	0.40	0.73	1.8	0.76	0.76	2.0	0.95	0.77	0.69	e0.48	0.66	0.36
21	0.36	0.71	1.4	0.73	0.77	2.3	0.97	0.82	1.0	0.76	0.64	0.34
22	0.35	0.75	1.2	0.72	0.91	2.1	1.0	0.77	0.98	0.91	0.62	0.35
23	0.39	0.90	1.1	0.72	1.9	2.0	1.0	0.79	0.77	0.65	0.59	0.68
24	0.35	0.79	1.0	0.69	1.4	1.7	0.95	1.00	0.72	0.80	0.58	0.40
25	0.35	0.75	1.1	0.71	1.1	1.5	0.90	0.90	0.71	0.62	0.59	0.45
26	0.53	0.72	1.00	0.75	1.0	1.9	0.91	0.88	0.73	0.58	e0.58	0.40
27	0.41	0.71	0.91	0.67	0.97	1.6	0.90	0.77	0.69	0.60	e0.58	0.41
28	0.40	0.67	0.90	0.65	0.95	1.4	0.85	0.76	0.66	0.56	e0.54	0.53
29	0.39	0.69	0.89	0.69	---	1.7	0.83	0.77	0.64	e0.55	e0.56	0.49
30	0.39	0.86	0.88	0.64	---	1.8	0.84	0.75	0.74	e0.51	e0.54	0.44
31	0.38	---	1.8	0.65	---	1.8	---	0.91	---	0.51	e0.52	---
TOTAL	11.42	18.21	31.97	29.88	29.21	46.49	40.64	27.21	24.19	18.50	22.23	14.46
MEAN	0.37	0.61	1.03	0.96	1.04	1.50	1.35	0.88	0.81	0.60	0.72	0.48
MAX	0.67	1.5	1.9	2.0	2.8	2.3	3.5	1.3	1.5	0.91	1.5	0.82
MIN	0.27	0.39	0.64	0.64	0.72	0.93	0.83	0.75	0.64	0.48	0.52	0.34
CFSM	1.15	1.90	3.22	3.01	3.26	4.69	4.23	2.74	2.52	1.86	2.24	1.51
IN.	1.33	2.12	3.72	3.47	3.40	5.40	4.72	3.16	2.81	2.15	2.58	1.68

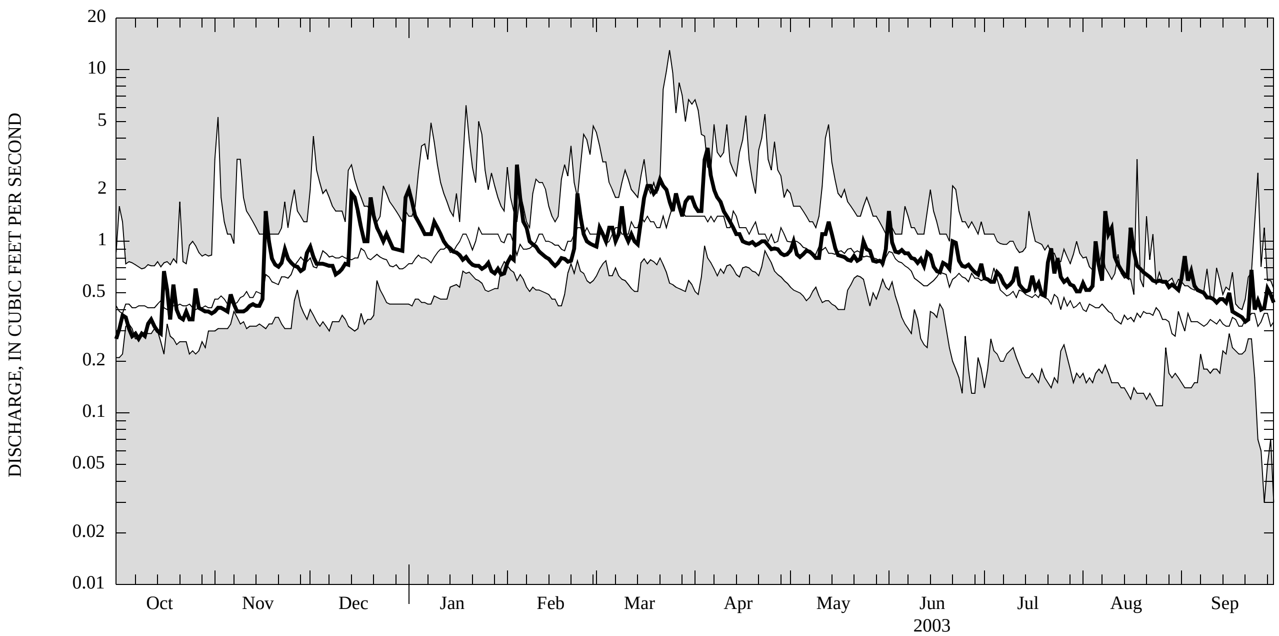
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.45	0.69	0.88	1.10	1.13	1.59	1.51	0.97	0.70	0.52	0.43	0.37
MAX	0.78	1.24	1.84	1.78	1.63	3.31	3.13	1.56	1.25	0.95	0.72	0.51
(WY)	(1993)	(1997)	(1997)	(1998)	(1998)	(1994)	(1993)	(2000)	(2000)	(2000)	(2003)	(1994)
MIN	0.29	0.35	0.39	0.63	0.66	0.90	0.73	0.51	0.31	0.21	0.15	0.23
(WY)	(1994)	(1999)	(1999)	(2001)	(1995)	(2002)	(1999)	(1999)	(1999)	(1999)	(1999)	(1999)

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

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1993 - 2003	
ANNUAL TOTAL	282.45		314.41			
ANNUAL MEAN	0.77		0.86		0.86	
HIGHEST ANNUAL MEAN					1.04	1994
LOWEST ANNUAL MEAN					0.57	1999
HIGHEST DAILY MEAN	3.6	Jan 9	3.5	Apr 5	13	Mar 24, 1994
LOWEST DAILY MEAN	0.21	Sep 8	0.27	Oct 1	0.03	Sep 27, 1996
ANNUAL SEVEN-DAY MINIMUM	0.22	Sep 6	0.29	Oct 5	0.07	Sep 24, 1996
ANNUAL RUNOFF (CFSM)	2.42		2.69		2.69	
ANNUAL RUNOFF (INCHES)	32.83		36.55		36.50	
10 PERCENT EXCEEDS	1.3		1.5		1.5	
50 PERCENT EXCEEDS	0.73		0.77		0.70	
90 PERCENT EXCEEDS	0.28		0.40		0.32	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1991 to current year.
CHEMICAL DATA: Water years 1991 (c), 1992-2002 (b), 2003 (a).
SEDIMENT DATA: Water years 1991 (c), 1992 to 2003 (e).

PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT CONCENTRATION: October 1991 to June 1999, October 1999 to September 2002.
SUSPENDED-SEDIMENT DISCHARGE: October 1991 to June 1999, October 1999 to September 2002.

EXTREMES FOR PERIOD OF DAILY 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.

REMARKS.--Unpublished records of daily suspended-sediment concentration and daily suspended-sediment discharge for the 2003 water year are available in files of the U. S. Geological Survey. For the 2003 water year, the suspended-sediment sampling location was moved further downstream to include a new area of additional mudboil activity. The 2003 water year records are not equivilent to previously published records because of the difference in sampling areas.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instan- taneous dis- charge, cfs (00061)	Dis- solved oxygen, mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, unfltrd mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alka- linity, wat flt inc tit field, mg/L as CaCO3 (39086)
NOV													
08...	0830	.39	10.8	87	7.9	7,030	5.8	710	164	72.8	3.50	1,120	170

Date	Bicar- bonate, wat flt incrm. titr., field, mg/L (00453)	Bromide water, fltrd, mg/L (71870)	Chlor- ide, water, fltrd, mg/L (00940)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Iron, water, fltrd, ug/L (01046)	Mangan- ese, water, fltrd, ug/L (01056)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment load, tons/d (80155)
NOV										
08...	207	3.07	1,950	10.0	256	3,880	<50	91.6	649	.68

Remark codes used in this table:
< -- Less than

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	Suspnd. sediment, sieve diametr percent <.063mm (70331)	Suspended sediment concentration mg/L (80154)	Suspended sediment load, tons/d (80155)
OCT					
07...	1600	.28	--	666	.50
15...	1800	.28	100	748	.57
21...	1800	.35	--	820	.77
31...	1700	.37	--	817	.82
NOV					
06...	1700	.46	99	580	.72
08...	0830	.39	--	649	.68
12...	1700	.44	--	790	.94
20...	1700	.73	--	593	1.2
29...	1700	.70	--	547	1.0
DEC					
05...	1700	.76	--	644	1.3
13...	1700	.76	--	495	1.0
21...	1600	1.4	99	733	2.8
28...	1700	1.4	--	390	1.5
JAN					
04...	1700	1.3	--	402	1.4
12...	1700	1.0	--	589	1.6
19...	1600	.85	--	659	1.5
FEB					
02...	1600	.82	99	836	1.9
09...	1400	.97	98	575	1.5
18...	1700	.82	--	777	1.7
23...	1800	2.2	98	409	2.4
MAR					
04...	1800	1.1	--	730	2.2
18...	1730	2.1	98	495	2.8
27...	1730	1.5	--	537	2.2
APR					
25...	1730	.88	--	451	1.1
MAY					
03...	1730	.79	--	534	1.1
10...	1700	.79	99	643	1.4
19...	1900	.76	--	659	1.4
26...	1800	.97	--	540	1.4
JUN					
03...	0955	.88	--	906	2.2
08...	1900	.76	--	622	1.3
16...	1800	.65	--	707	1.2
23...	1800	.67	--	673	1.2
30...	1800	.62	--	576	.96
JUL					
07...	1900	.56	--	702	1.1
26...	1300	.56	--	781	1.2
AUG					
04...	1930	.49	94	737	.98
11...	1900	.79	92	405	.86
21...	1800	.59	--	526	.84
SEP					
07...	1700	.46	--	647	.80
22...	1800	.35	--	765	.72
30...	1900	.46	--	466	.58

04237962 ONONDAGA CREEK NEAR CARDIFF, SYRACUSE, NY

LOCATION.--Lat 42°54'00", long 76°10'10", Onondaga County, Hydrologic Unit 04140201, on left bank 10 ft upstream from bridge on State Highway 20, 0.7 mi west of Tully Farms road, and 4.2 mi upstream from Onondaga Reservoir.

DRAINAGE AREA.--33.9 mi^2.

PERIOD OF RECORD.--October 2001 to current year.

GAGE.--Acoustic velocity meter, water-stage recorder and crest-stage gage. Elevation of gage is 500 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Telephone and satellite gage-height and precipitation telemeters at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 503 ft^3/s, Apr. 5, 2003, maximum gage height, 4.66 ft, Apr. 15, 2002; minimum daily discharge, 3.8 ft^3/s, Sept. 14, 2002. Maximum and minimum instantaneous discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 503 ft^3/s, Apr. 5, maximum gage height, 4.42 ft, Mar. 21; minimum daily discharge, 8.9 ft^3/s, Oct. 1. Maximum and minimum instantaneous discharge not determined.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.9	14	45	185	e38	57	165	50	171	27	21	20
2	11	15	36	118	e44	76	173	78	80	23	20	46
3	21	15	31	85	e44	53	177	54	61	23	19	26
4	18	15	31	79	180	62	367	45	55	21	21	27
5	15	15	29	69	112	68	503	43	63	21	70	22
6	12	24	31	65	68	65	267	45	61	35	48	20
7	11	22	29	61	66	47	194	45	51	22	27	18
8	11	19	30	66	43	60	176	42	47	21	86	18
9	10	18	23	77	54	80	162	39	42	23	76	16
10	10	18	26	68	e48	50	165	37	41	21	124	15
11	11	20	26	57	e44	51	152	70	42	37	45	15
12	12	20	31	54	e49	55	141	104	41	24	38	13
13	11	19	34	48	e47	52	113	105	63	20	34	14
14	10	17	155	e45	e49	46	101	70	77	20	30	15
15	9.6	16	143	e58	e41	66	112	58	47	18	28	14
16	27	16	99	62	e36	122	101	56	36	28	84	18
17	48	113	71	50	e36	324	76	50	34	21	42	13
18	21	74	55	e44	e41	363	71	48	33	24	30	13
19	31	45	63	e49	e36	276	73	44	33	19	27	11
20	28	42	227	e47	e34	265	72	41	31	17	25	15
21	19	43	153	e44	e34	499	67	44	73	37	24	12
22	15	46	104	43	e46	476	73	39	92	92	24	13
23	18	58	89	e43	127	324	69	37	47	46	22	49
24	15	44	72	e39	87	245	66	60	38	72	22	24
25	14	44	59	e40	66	257	61	62	35	37	21	21
26	26	42	63	e39	60	346	59	49	32	26	20	21
27	23	37	59	e37	68	241	58	48	29	25	20	18
28	18	34	56	e34	61	202	53	39	26	24	18	29
29	16	33	57	e36	---	263	52	37	24	20	19	30
30	15	42	54	e32	---	247	45	38	40	18	19	23
31	14	---	124	e34	---	195	---	40	---	18	18	---
TOTAL	529.5	980	2,105	1,808	1,659	5,533	3,964	1,617	1,545	880	1,122	609
MEAN	17.1	32.7	67.9	58.3	59.2	178	132	52.2	51.5	28.4	36.2	20.3
MAX	48	113	227	185	180	499	503	105	171	92	124	49
MIN	8.9	14	23	32	34	46	45	37	24	17	18	11

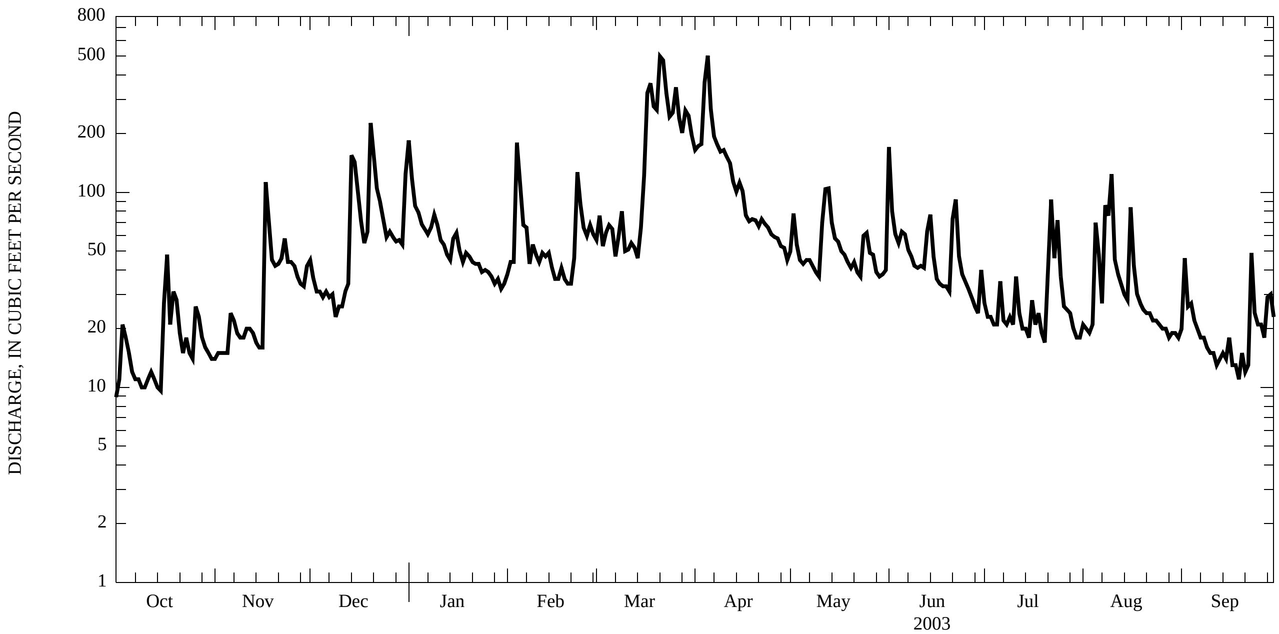
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	17.9	30.4	62.7	52.6	86.2	127	129	77.5	53.6	23.1	23.0	13.9
MAX	18.8	32.7	67.9	58.3	113	178	132	103	55.8	28.4	36.2	20.3
(WY)	(2002)	(2003)	(2003)	(2003)	(2002)	(2003)	(2003)	(2002)	(2002)	(2003)	(2003)	(2003)
MIN	17.1	28.1	57.5	46.8	59.2	75.4	125	52.2	51.5	17.9	9.73	7.57
(WY)	(2003)	(2002)	(2002)	(2002)	(2003)	(2002)	(2002)	(2003)	(2003)	(2002)	(2002)	(2002)

04237962 ONONDAGA CREEK NEAR CARDIFF, SYRACUSE, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 2002 - 2003	
ANNUAL TOTAL	20,270.9		22,351.5			
ANNUAL MEAN	55.5		61.2		57.8	
HIGHEST ANNUAL MEAN					61.2	2003
LOWEST ANNUAL MEAN					54.4	2002
HIGHEST DAILY MEAN	473	Apr 15	503	Apr 5	503	Apr 5, 2003
LOWEST DAILY MEAN	3.8	Sep 14	8.9	Oct 1	3.8	Sep 14, 2002
ANNUAL SEVEN-DAY MINIMUM	4.2	Sep 8	11	Oct 9	4.2	Sep 8, 2002
10 PERCENT EXCEEDS	108		124		113	
50 PERCENT EXCEEDS	41		42		41	
90 PERCENT EXCEEDS	9.0		16		12	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE.

04237962 ONONDAGA CREEK NEAR CARDIFF, NY—Continued

QUANTITY OF PRECIPITATION

PERIOD OF RECORD.--August 2002 to current year.

PERIOD OF DAILY RECORD.--August 2002 to current year.

INSTRUMENTATION.--Tipping bucket rain gage. 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, 1.30 inches, Oct. 16, 2002.

EXTREMES FOR CURRENT YEAR.-- Maximum daily precipitation, 1.30 inches, Oct. 16.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.03	0.01	0.06	0.09	0.00	0.01	0.31	0.52	0.00	0.20	0.58
2	0.35	0.22	0.05	0.02	0.00	0.24	0.00	0.39	0.00	0.00	0.05	0.43
3	0.19	0.05	0.01	0.40	0.00	0.00	0.53	0.00	0.00	0.00	0.07	0.03
4	0.00	0.07	0.06	0.00	0.00	0.00	0.69	0.00	0.12	0.00	0.25	0.00
5	0.04	0.17	0.01	0.00	0.00	0.14	0.17	0.10	0.27	0.46	0.52	0.05
6	0.00	0.19	0.04	0.05	0.00	0.00	0.00	0.00	0.04	0.00	0.01	0.00
7	0.01	0.07	0.01	0.02	0.02	0.00	0.16	0.00	0.02	0.04	0.00	0.00
8	0.00	0.00	0.03	0.09	0.00	0.00	0.03	0.00	0.00	0.01	0.24	0.00
9	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.16	0.57	0.00
10	0.00	0.00	0.00	0.01	0.04	0.00	0.00	0.00	0.00	0.54	0.02	0.00
11	0.09	0.06	0.15	0.00	0.00	0.00	0.08	1.03	0.02	0.04	0.03	0.00
12	0.08	0.10	0.06	0.01	0.00	0.11	0.00	0.36	0.13	0.00	0.01	0.00
13	0.05	0.00	0.02	0.02	0.03	0.07	0.00	0.14	0.39	0.00	0.00	0.06
14	0.00	0.00	0.22	0.00	0.06	0.00	0.00	0.00	0.02	0.00	0.00	0.00
15	0.00	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.25
16	1.30	0.38	0.01	0.00	0.00	0.00	0.00	0.02	0.00	0.27	1.03	0.01
17	0.06	1.04	0.00	0.00	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.10	0.00	0.00	0.10	0.00	0.00	0.00	0.03	0.23	0.00	0.00
19	0.54	0.10	0.00	0.00	0.00	0.00	0.11	0.00	0.01	0.00	0.00	0.06
20	0.00	0.00	0.01	0.00	0.00	0.43	0.00	0.15	0.24	0.00	0.00	0.00
21	0.00	0.05	0.00	0.01	0.00	0.08	0.05	0.08	0.90	1.20	0.00	0.00
22	0.11	0.34	0.01	0.00	0.18	0.13	0.24	0.00	0.02	0.57	0.00	0.04
23	0.08	0.06	0.02	0.00	0.23	0.00	0.14	0.00	0.00	0.12	0.00	1.03
24	0.00	0.01	0.00	0.00	0.02	0.00	0.00	0.68	0.00	0.39	0.00	0.00
25	0.17	0.03	0.35	0.01	0.01	0.26	0.00	0.02	0.00	0.00	0.00	0.26
26	0.17	0.05	0.00	0.02	0.00	0.24	0.05	0.20	0.00	0.00	0.01	0.00
27	0.01	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.32
28	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.36
29	0.00	0.00	0.00	0.00	---	0.53	0.00	0.17	0.00	0.00	0.22	0.06
30	0.00	0.21	0.08	0.01	---	0.38	0.00	0.00	0.49	0.00	0.00	0.02
31	0.00	---	0.04	0.00	---	0.05	---	0.44	---	0.00	0.00	---
TOTAL	3.25	3.52	1.21	0.73	1.41	2.70	2.26	4.09	3.22	4.12	3.23	3.56
MAX	1.30	1.04	0.35	0.40	0.63	0.53	0.69	1.03	0.90	1.20	1.03	1.03

WTR YR 2003 TOTAL 33.30 MAX 1.30

04239000 ONONDAGA CREEK AT DORWIN AVENUE, SYRACUSE, NY

LOCATION.--Lat 42°59'00", long 76°09'04", Onondaga County, Hydrologic Unit 04140201, on left bank 550 ft upstream from bridge on Dorwin Avenue, at Syracuse, and 4.0 mi downstream from Onondaga Reservoir.

DRAINAGE AREA.--88.5 mi^2.

PERIOD OF RECORD.--May l951 to current year.

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 414.19 ft above NGVD of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. High flows regulated by Onondaga Reservoir. Telephone and satellite gage-height telemeters at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,260 ft^3/s, July 3, 1974, gage height, 6.48 ft; minimum discharge not determined; minimum gage height, 1.15 ft, Sept. 16, 1959.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 931 ft^3/s, Apr. 5, gage height, 4.16 ft; minimum discharge, 21 ft^3/s, Oct. 8, 11, gage height, 1.44 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	35	146	441	e88	144	350	e125	275	63	44	38
2	25	36	120	395	e100	172	321	e165	262	55	47	91
3	34	41	102	267	e98	e165	329	150	172	50	44	66
4	32	39	e95	214	270	e150	572	120	135	47	48	57
5	29	40	e92	190	380	168	855	112	147	45	60	49
6	26	59	92	175	e250	e185	756	112	155	57	108	44
7	24	68	e90	163	e200	e140	586	106	135	46	65	40
8	22	59	87	168	e145	147	429	103	121	48	69	40
9	22	52	e75	193	e140	187	353	99	107	47	253	37
10	22	45	e65	183	e125	e148	318	94	98	50	242	35
11	22	44	e76	154	e120	e136	302	124	94	77	129	33
12	26	42	84	144	e115	136	280	229	96	62	103	32
13	26	44	95	e130	e105	132	240	234	108	50	142	31
14	25	42	312	e125	e105	e120	210	208	139	45	94	33
15	23	41	480	e115	e100	135	196	157	110	41	72	31
16	41	41	366	e115	e90	236	182	138	91	52	116	36
17	98	197	223	e110	e95	577	168	126	80	47	112	32
18	53	241	e140	e100	e98	804	159	114	76	47	81	31
19	58	149	160	e110	100	731	159	103	78	46	67	29
20	66	125	331	e105	98	653	151	95	76	38	58	30
21	49	132	500	e100	99	785	e140	103	137	57	53	30
22	40	151	325	e98	115	854	e150	97	191	192	49	30
23	43	174	218	e96	261	785	e170	92	126	136	46	99
24	39	143	178	e92	e290	624	e160	123	94	122	42	71
25	36	128	153	e94	e220	482	e150	164	82	96	44	52
26	49	121	151	e92	e150	488	e135	141	73	66	41	53
27	54	112	149	e86	e155	463	e125	147	67	59	43	44
28	46	101	141	e84	157	360	e120	123	62	55	37	61
29	42	98	138	e86	---	337	e115	108	58	48	36	68
30	39	111	131	e84	---	416	e110	106	78	44	37	58
31	36	---	222	e82	---	394	---	101	---	40	34	---
TOTAL	1,174	2,711	5,537	4,591	4,269	11,254	8,291	4,019	3,523	1,928	2,416	1,381
MEAN	37.9	90.4	179	148	152	363	276	130	117	62.2	77.9	46.0
MAX	98	241	500	441	380	854	855	234	275	192	253	99
MIN	22	35	65	82	88	120	110	92	58	38	34	29

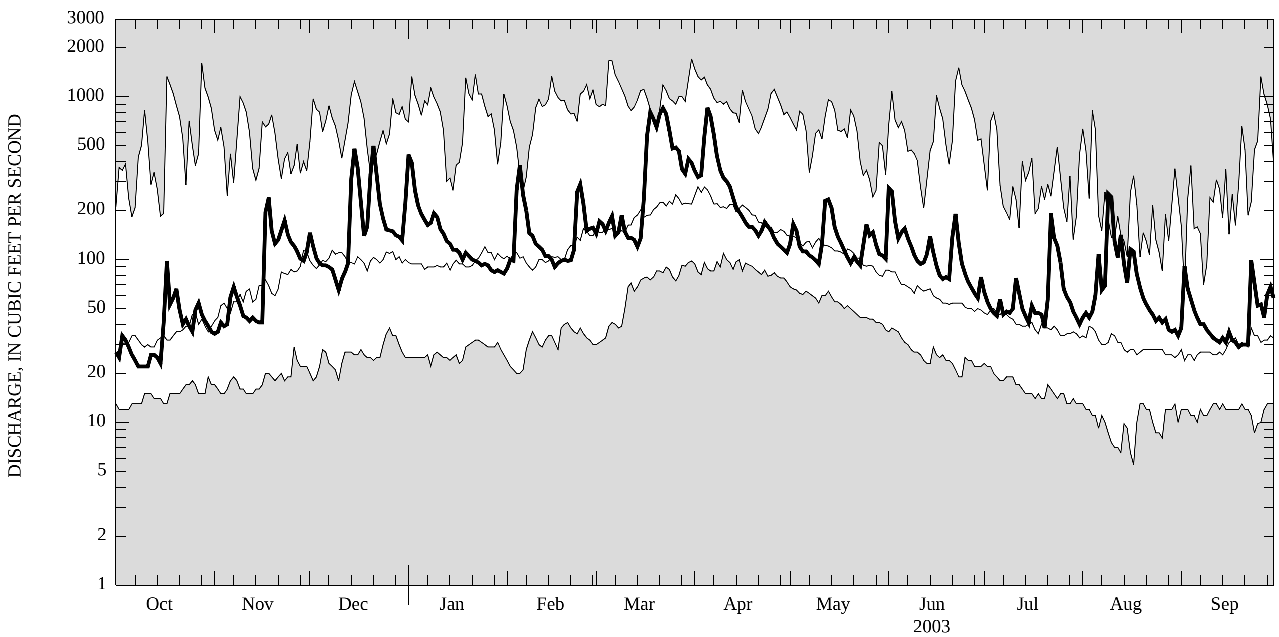
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	61.8	102	140	138	168	262	266	142	94.2	57.9	40.7	43.4
MAX	328	312	365	355	390	535	758	330	563	166	125	216
(WY)	(1978)	(1969)	(1973)	(1998)	(1990)	(1979)	(1993)	(2000)	(1972)	(1992)	(1992)	(1975)
MIN	15.3	19.3	31.7	33.7	40.8	93.3	112	58.1	28.1	19.5	10.7	13.2
(WY)	(1965)	(1965)	(1961)	(1961)	(1963)	(1983)	(1981)	(1995)	(1999)	(1962)	(1965)	(1964)

04239000 ONONDAGA CREEK AT DORWIN AVENUE, SYRACUSE, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1951 - 2003	
ANNUAL TOTAL	46,678		51,094			
ANNUAL MEAN	128		140		126	
HIGHEST ANNUAL MEAN					198	1978
LOWEST ANNUAL MEAN					58.8	1965
HIGHEST DAILY MEAN	665	May 14	855	Apr 5	1,710	Mar 31, 1960
LOWEST DAILY MEAN	14	Sep 13	22	Oct 8	5.5	Aug 17, 1965
ANNUAL SEVEN-DAY MINIMUM	16	Sep 7	23	Oct 6	7.4	Aug 11, 1965
10 PERCENT EXCEEDS	246		284		260	
50 PERCENT EXCEEDS	112		101		80	
90 PERCENT EXCEEDS	22		37		24	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

04240010 ONONDAGA CREEK AT SPENCER STREET, SYRACUSE, NY

LOCATION.--Lat 43°03'27", long 76°09'46", Onondaga County, Hydrologic Unit 04140201, on right bank 250 ft upstream from bridge on Spencer Street in Syracuse, 1,000 ft upstream from Erie (Barge) Canal terminal, and 1.0 mi upstream from mouth.

DRAINAGE AREA.--110 mi^2.

PERIOD OF RECORD.--Occasional discharge measurements, water years 1958-70. September 1970 to current year.

REVISED RECORDS.--WDR NY 1972: 1971(M). WDR NY 1975: 1972(M), 1974(M). WDR NY-81-3: Drainage area. WDR NY-89-3: 1971-72(M), 1974-80(M), 1982-84(M), 1986(M), 1988(M).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 362.29 ft above NGVD of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. High flows regulated by Onondaga Reservoir. Flow may be affected by backwater from Onondaga Lake at times when the lake elevation exceeds 365.00 ft. Telephone and satellite gage-height telemeters at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,050 ft^3/s, July 3, 1974, gage height, 8.73 ft, from rating curve extended above 1,600 ft^3/s on basis of runoff comparisons with nearby stations; minimum, 20 ft^3/s, Sept. 26, 1985, gage height, 2.16 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,200 ft^3/s, July 21, gage height, 5.85 ft; minimum discharge, 38 ft^3/s, Oct. 2, gage height, 2.42 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	56	176	503	118	180	442	172	361	87	73	64
2	67	59	153	455	133	213	408	223	326	81	76	120
3	56	62	134	327	131	207	431	216	223	76	73	91
4	55	60	127	269	e320	182	736	173	185	74	73	80
5	52	61	124	239	416	213	977	157	197	71	125	75
6	49	82	126	222	e300	234	871	156	201	80	139	69
7	48	93	122	208	254	173	e700	150	176	90	88	65
8	45	80	121	213	e180	192	e585	144	161	73	100	65
9	45	73	e105	237	184	233	501	136	144	73	309	61
10	45	67	e96	228	162	193	435	129	132	117	281	60
11	45	66	e105	198	e150	178	395	237	128	98	158	58
12	49	64	119	187	e145	183	367	297	130	85	176	57
13	48	63	130	170	e135	178	321	304	146	74	171	56
14	46	63	e380	e165	e130	154	286	268	174	69	121	58
15	44	60	529	e155	e125	177	267	209	145	65	97	57
16	99	66	423	e155	120	286	248	185	123	74	189	60
17	121	226	280	e145	125	646	230	169	112	71	141	57
18	71	274	185	e130	127	851	216	155	106	68	107	56
19	88	177	208	e145	129	799	216	142	106	70	92	55
20	82	151	392	e140	129	761	208	133	106	65	84	55
21	68	150	542	137	130	877	196	139	175	181	79	55
22	63	186	384	132	155	912	203	133	225	231	75	54
23	64	204	273	129	299	845	225	125	160	163	72	195
24	60	171	228	123	332	712	225	196	123	149	69	89
25	73	155	202	125	271	595	202	207	108	124	69	73
26	77	147	195	123	190	598	184	188	99	92	66	71
27	75	141	196	116	199	569	177	187	93	90	69	66
28	67	131	187	113	196	459	164	160	88	82	63	77
29	63	127	182	117	---	442	154	145	83	75	63	81
30	59	140	175	113	---	524	149	140	97	71	63	73
31	57	---	275	111	---	495	---	142	---	68	61	---
TOTAL	1,923	3,455	6,874	5,830	5,285	13,261	10,719	5,517	4,633	2,887	3,422	2,153
MEAN	62.0	115	222	188	189	428	357	178	154	93.1	110	71.8
MAX	121	274	542	503	416	912	977	304	361	231	309	195
MIN	42	56	96	111	118	154	149	125	83	65	61	54

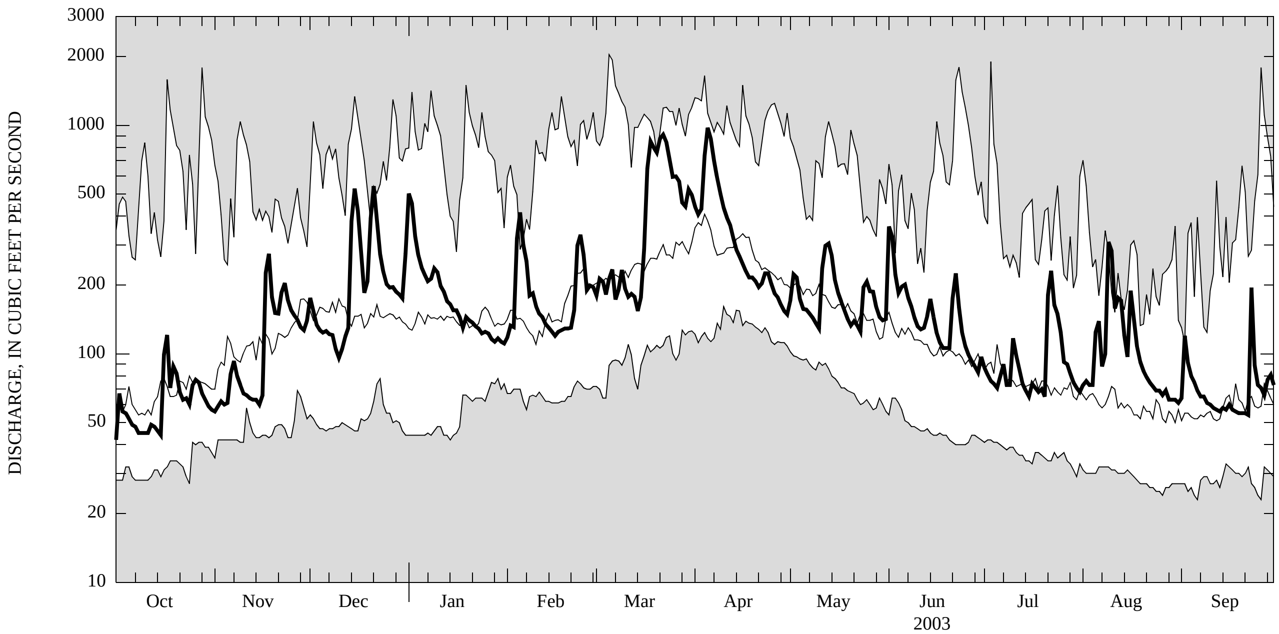
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	106	150	195	187	218	326	353	204	144	99.5	75.7	83.2
MAX	424	324	452	425	457	653	935	390	617	237	171	275
(WY)	(1978)	(1978)	(1973)	(1998)	(1976)	(1979)	(1993)	(2000)	(1972)	(1974)	(1992)	(1975)
MIN	39.2	48.9	53.9	73.6	70.4	123	153	78.8	49.3	39.6	30.4	36.2
(WY)	(1984)	(1999)	(1999)	(1981)	(1980)	(1983)	(1995)	(1995)	(1995)	(1995)	(1999)	(1995)

04240010 ONONDAGA CREEK AT SPENCER STREET, SYRACUSE, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1970 - 2003	
ANNUAL TOTAL	62,517		65,959			
ANNUAL MEAN	171		181		178	
HIGHEST ANNUAL MEAN					273	1976
LOWEST ANNUAL MEAN					100	1995
HIGHEST DAILY MEAN	770	May 14	977	Apr 5	2,040	Mar 5, 1979
LOWEST DAILY MEAN	35	Sep 13	42	Oct 1	23	Sep 26, 1985
ANNUAL SEVEN-DAY MINIMUM	37	Sep 8	46	Oct 9	26	Aug 31, 1999
10 PERCENT EXCEEDS	314		363		355	
50 PERCENT EXCEEDS	150		137		124	
90 PERCENT EXCEEDS	46		61		48	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

04240100 HARBOR BROOK AT SYRACUSE, NY

LOCATION.--Lat 43°02'09", long 76°10'55", Onondaga County, Hydrologic Unit 04140201, on left bank 160 ft upstream from bridge on Holden Street at Syracuse, 220 ft downstream from gated outlet of Velasko Road Detention Basin, and 2.6 mi upstream from mouth.

DRAINAGE AREA.--10.0 mi^2.

PERIOD OF RECORD.--June 1959 to current year.

REVISED RECORDS.--WSP 2112: Drainage area. WDR NY-82-3: 1981 (M), WDR-NY-88-3: 1986-87 (M).

GAGE.--Water-stage recorder. Datum of gage is 391.16 ft above NGVD of 1929. Prior to Sept. 30, l978, at site 1,660 ft upstream and Oct. 1, 1978 to May 31, 1980, at site 1,800 ft upstream at datum 3.63 ft higher.

REMARKS.--Records fair. Flow includes some sewage and storm sewer inflow, some originating outside the basin. Flows can be regulated at detention basin by Onondaga County. Telephone and satellite gage-height telemeters at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 726 ft^3/s, July 3, 1974, gage height, 8.34 ft, datum then in use, from rating curve extended above 180 ft^3/s on basis of slope-area measurements of peak flow; no flow for part of each day July 14, 16, 18, 1997, Aug. 20, 26, 1998, Sept. 11, 14, 1998, result of regulation for maintenance work in the channel.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 133 ft^3/s, Aug. 8, gage height, 3.04 ft; minimum discharge not determined.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	4.3	7.9	29	7.8	9.7	23	12	38	6.8	6.7	e6.5
2	5.1	4.6	6.6	19	8.0	13	23	16	17	6.7	4.9	10
3	4.4	5.1	6.2	13	7.8	11	26	11	13	6.7	4.7	6.5
4	3.8	4.7	6.0	12	27	10	57	9.9	12	6.6	4.5	6.2
5	4.5	4.6	6.1	11	21	12	63	10	17	6.5	8.8	6.0
6	4.1	6.9	6.0	11	11	12	35	9.5	14	6.5	5.1	5.9
7	4.2	7.1	6.1	11	9.9	11	29	9.5	11	9.0	4.7	5.9
8	3.9	5.0	6.2	12	9.8	11	28	9.3	10	7.0	34	e5.9
9	4.0	4.8	6.0	13	9.6	13	27	9.2	9.5	7.4	21	e5.8
10	4.0	4.8	5.9	12	9.5	11	25	9.1	9.2	11	17	e5.6
11	4.3	4.9	6.0	10	9.6	11	23	20	9.3	8.8	6.9	e5.4
12	4.8	4.9	6.4	9.9	10	10	21	15	9.3	7.0	12	e5.4
13	4.6	4.7	6.3	9.7	9.9	10	19	17	13	6.6	8.0	e5.5
14	4.3	4.6	45	9.3	9.7	10	18	10	10	6.3	5.7	e5.6
15	4.3	4.5	27	9.1	9.7	11	16	8.7	9.0	6.1	5.5	e5.8
16	12	5.4	19	8.9	9.7	20	15	9.6	8.6	6.7	23	e5.7
17	5.6	19	13	8.8	9.7	59	14	8.3	8.4	5.8	9.0	e5.6
18	4.7	12	9.9	8.5	10	46	14	8.0	8.3	5.8	6.5	e5.6
19	7.3	8.4	9.7	8.4	10	33	14	7.8	8.2	5.5	6.1	e5.6
20	5.0	8.0	43	8.2	11	38	13	8.0	8.4	5.3	5.7	e5.6
21	4.8	6.3	22	8.1	12	56	12	8.5	16	16	5.7	e5.6
22	4.7	9.2	15	7.9	14	48	13	7.5	12	14	5.8	e5.6
23	5.9	11	13	7.9	18	37	13	7.5	8.3	6.7	5.6	e17
24	4.7	7.5	11	7.6	12	32	13	22	7.9	6.4	5.5	e6.0
25	4.9	7.1	10	7.5	11	31	12	12	7.7	5.8	5.4	e6.5
26	10	5.9	9.0	7.7	11	34	11	15	7.4	5.6	e5.4	e5.8
27	5.0	6.1	8.5	7.6	10	27	11	11	7.3	7.5	e5.4	e6.2
28	4.8	5.8	8.4	7.5	9.9	23	10	9.1	7.1	5.7	e5.4	e6.6
29	4.6	5.8	8.5	7.4	---	28	10	10	6.9	5.4	e5.6	e6.0
30	4.4	8.0	8.8	7.4	---	29	10	9.0	7.0	6.0	e5.6	e5.8
31	4.4	---	26	7.4	---	25	---	13	---	5.2	e5.4	---
TOTAL	156.9	201.0	388.5	317.8	318.6	731.7	618	342.5	330.8	222.4	260.6	191.2
MEAN	5.06	6.70	12.5	10.3	11.4	23.6	20.6	11.0	11.0	7.17	8.41	6.37
MAX	12	19	45	29	27	59	63	22	38	16	34	17
MIN	3.8	4.3	5.9	7.4	7.8	9.7	10	7.5	6.9	5.2	4.5	5.4

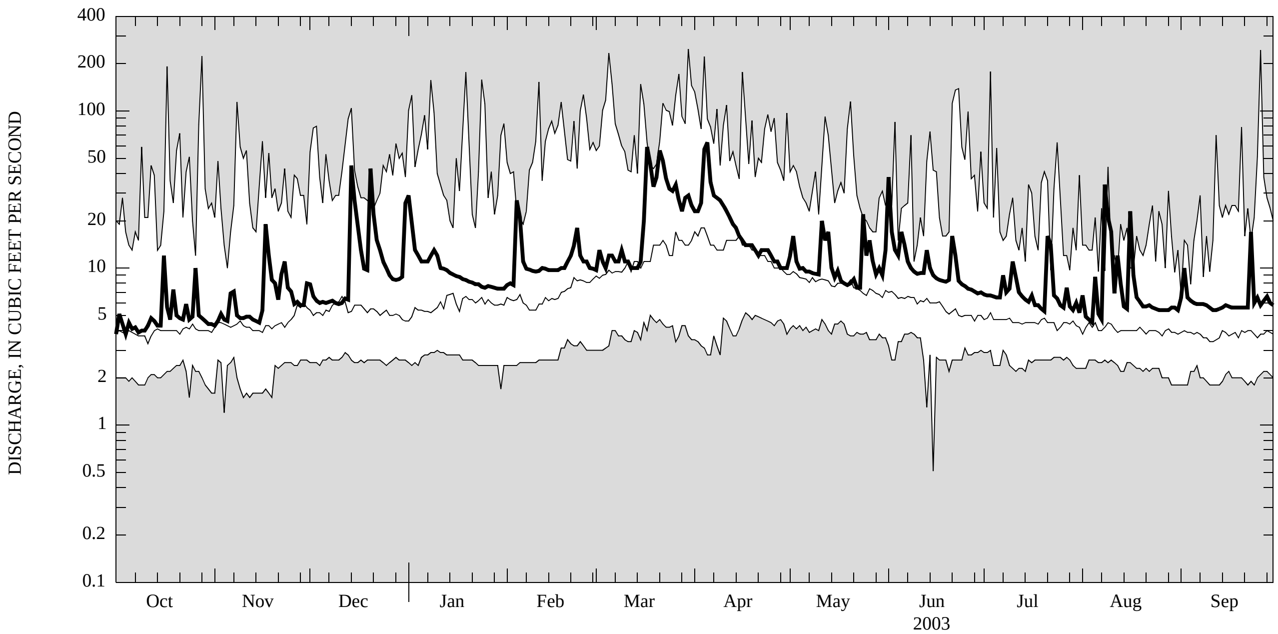
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5.58	6.59	8.16	8.65	10.6	17.1	17.5	9.97	7.46	5.90	4.80	5.02
MAX	21.7	21.6	26.0	27.9	33.5	39.6	59.4	22.6	32.2	13.5	11.4	20.7
(WY)	(1978)	(1969)	(1978)	(1998)	(1976)	(1979)	(1993)	(1976)	(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)

04240100 HARBOR BROOK AT SYRACUSE, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1959 - 2003	
ANNUAL TOTAL	3,421.0		4,080.0			
ANNUAL MEAN	9.37		11.2		8.94	
HIGHEST ANNUAL MEAN					15.7	1976
LOWEST ANNUAL MEAN					4.53	1967
HIGHEST DAILY MEAN	74	Jun 14	63	Apr 5	248	Mar 30, 1960
LOWEST DAILY MEAN	3.5	Sep 10	3.8	Oct 1	0.51	Jun 15, 1984
ANNUAL SEVEN-DAY MINIMUM	3.6	Sep 8	4.1	Oct 4	1.6	Nov 10, 1988
10 PERCENT EXCEEDS	18		22		17	
50 PERCENT EXCEEDS	6.8		8.5		5.7	
90 PERCENT EXCEEDS	4.1		4.9		3.2	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

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.--12.1 mi^2.

PERIOD OF RECORD.--Occasional discharge measurements, water years 1958-70. October 1970 to current year.

REVISED RECORDS.--WDR NY-76-1: 1971-75 (P). WDR NY-2001-3: Drainage area.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 365.86 ft above NGVD of 1929.

REMARKS.--Records fair. Flow includes some sewage and storm sewer inflow, some originating outside the basin. Flow can be regulated at Velasko Road Detention Basin 2.1 mi upstream. Telephone and satellite gage-height telemeters at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 824 ft^3/s, July 3, 1974, gage height, 7.91 ft, from rating curve extended above 190 ft^3/s on basis of step-backwater computations; maximum gage height, 8.15 ft, Sept. 26, 1975 (backwater from debris jam); no flow for part of each day Oct. 26, 27, 1987, result of regulation for maintenance work in the channel.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 448 ft^3/s, July 21, gage height 6.01 ft, from rating curve extended as explained above; minimum discharge, 3.2 ft^3/s, Oct. 10, 11, 16, gage height 1.81 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	3.8	7.4	e45	7.2	8.8	24	15	43	5.5	8.3	e5.6
2	11	4.1	6.2	18	7.3	13	24	16	17	5.5	5.1	10
3	4.1	4.7	6.0	12	7.0	10	30	10	13	5.5	4.9	5.2
4	3.4	4.0	5.8	11	e45	9.2	80	9.4	12	5.2	4.7	4.7
5	4.6	3.9	5.8	10	e20	12	90	9.8	17	5.2	22	4.7
6	3.7	6.6	5.8	10	10	11	41	9.1	13	5.1	5.5	4.6
7	4.0	6.7	5.7	9.8	8.9	9.6	33	8.9	10	11	4.4	4.5
8	3.4	4.4	5.9	10	8.7	9.8	32	8.8	9.4	5.7	48	4.5
9	3.3	4.2	5.6	12	8.6	12	29	8.5	8.8	6.2	29	4.5
10	3.3	4.1	5.4	10	8.5	10	28	8.4	8.5	17	20	4.3
11	3.5	4.1	5.2	9.1	8.5	9.6	25	29	8.7	8.4	7.3	4.2
12	4.1	4.2	5.8	8.7	8.8	9.5	23	16	8.8	5.8	20	4.2
13	3.7	4.0	5.7	8.5	8.6	9.3	20	17	14	5.6	8.9	4.3
14	3.3	3.9	e80	8.2	8.6	9.2	19	10	9.7	5.6	5.5	4.4
15	3.3	3.8	e35	8.0	8.6	10	18	8.6	8.4	5.2	5.1	4.5
16	15	5.2	17	7.8	8.5	23	16	9.7	7.9	6.2	42	4.4
17	5.4	18	12	7.5	8.6	e100	15	8.3	7.4	5.0	9.5	4.4
18	4.2	11	9.2	7.4	8.8	e65	14	8.0	7.3	5.1	5.9	4.5
19	7.2	8.5	8.9	7.3	9.1	e35	14	7.8	7.2	5.0	5.6	4.6
20	5.5	7.4	e70	7.1	9.5	e42	13	8.2	7.6	4.9	5.2	4.5
21	3.9	6.0	e22	7.0	10	e90	13	8.7	15	39	5.1	4.5
22	3.8	9.0	14	6.9	14	e76	13	7.5	10	18	5.4	4.5
23	5.3	10	12	6.9	26	e46	14	7.3	7.1	6.5	4.9	35
24	3.7	7.0	10	6.7	12	e35	13	26	6.7	6.0	4.9	4.9
25	4.0	6.6	9.3	6.7	11	34	11	12	6.4	5.0	e4.9	5.8
26	12	5.7	8.5	6.8	10	39	11	15	6.2	4.7	e4.8	4.5
27	4.5	6.0	7.9	6.7	9.3	30	10	11	6.0	7.7	e4.8	4.9
28	4.2	5.7	7.8	6.7	9.0	25	9.8	8.6	6.1	4.8	e4.8	5.8
29	4.0	5.6	7.8	6.7	---	32	9.6	9.8	5.9	4.7	e5.0	4.7
30	3.8	7.5	7.6	6.6	---	32	9.8	8.6	6.0	5.5	e5.0	4.5
31	3.7	---	e30	6.5	---	26	---	13	---	4.8	e4.9	---
TOTAL	152.7	185.7	445.3	301.6	320.1	883.0	702.2	354.0	314.1	235.4	321.4	175.7
MEAN	4.93	6.19	14.4	9.73	11.4	28.5	23.4	11.4	10.5	7.59	10.4	5.86
MAX	15	18	80	45	45	100	90	29	43	39	48	35
MIN	3.3	3.8	5.2	6.5	7.0	8.8	9.6	7.3	5.9	4.7	4.4	4.2

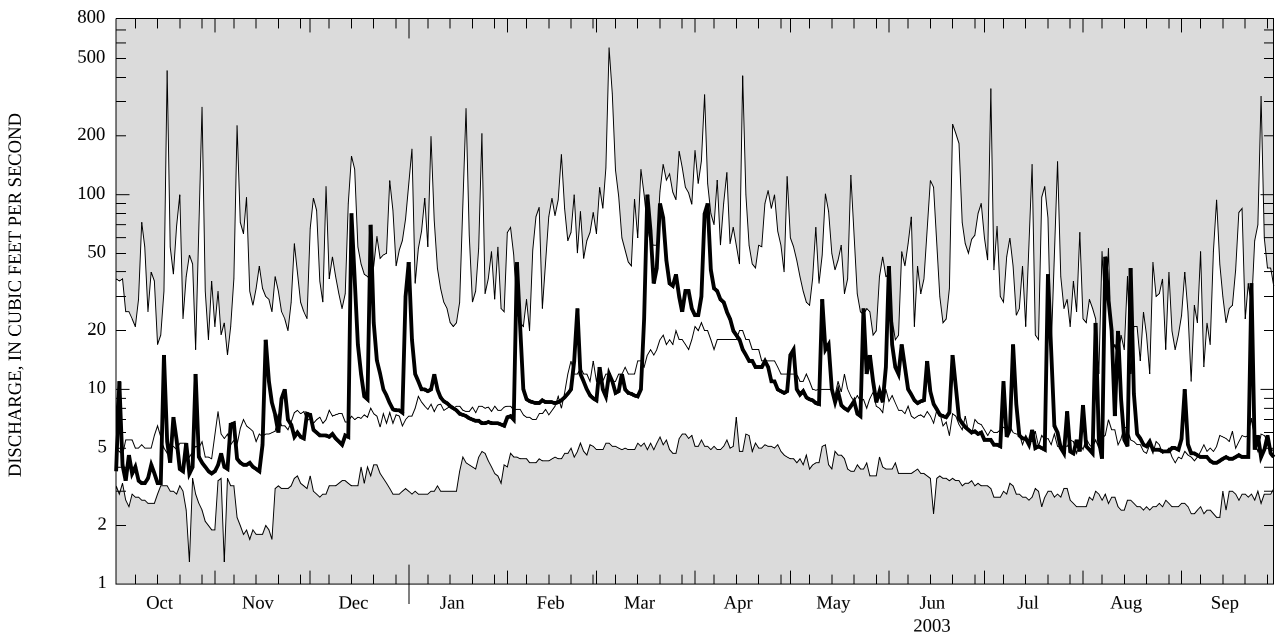
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	8.06	8.83	11.2	11.6	13.1	21.8	22.4	12.9	10.6	8.86	6.85	7.66
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	3.44	3.68	3.54	4.43	4.99	6.04	6.09	4.80	3.79	3.44	3.08	3.70
(WY)	(1998)	(1999)	(1999)	(1983)	(1995)	(1983)	(1981)	(1981)	(1995)	(1995)	(1999)	(1997)

04240105 HARBOR BROOK AT HIAWATHA BOULEVARD, SYRACUSE, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1971 - 2003	
ANNUAL TOTAL	3,507.7		4,391.2			
ANNUAL MEAN	9.61		12.0		12.0	
HIGHEST ANNUAL MEAN					21.3	1973
LOWEST ANNUAL MEAN					5.54	1995
HIGHEST DAILY MEAN	118	Jun 14	100	Mar 17	567	Mar 5, 1979
LOWEST DAILY MEAN	3.2	Sep 9	3.3	Oct 9	1.3	Nov 4, 1988
ANNUAL SEVEN-DAY MINIMUM	3.3	Sep 4	3.5	Oct 9	1.8	Nov 10, 1988
INSTANTANEOUS LOW FLOW					0.00	Oct 26, 1987
10 PERCENT EXCEEDS	18		26		23	
50 PERCENT EXCEEDS	6.3		8.0		7.6	
90 PERCENT EXCEEDS	3.7		4.3		4.0	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

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.--25.5 mi^2.

PERIOD OF RECORD.--Occasional discharge measurements water years 1959-72. December 1972 to current year.

REVISED RECORDS.--WDR NY 76-1: 1975 (M). WDR NY-2001-3: Drainage area.

GAGE.--Water-stage recorder, crest-stage gage, and, since July 9, 1984, steel "I" beam control. Datum of gage is 362.76 ft above NGVD of 1929. Prior to Oct. 1, 1978, at same site at datum 0.08 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow may be affected by backwater from Onondaga Lake at times when the lake elevation exceeds 364.0 ft. Telephone and satellite gage-height telemeters at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,310 ft^3/s, Sep. 26, 1975, gage height, 6.17 ft, datum then in use, from rating curve extended above 530 ft^3/s; maximum gage height, 7.02 ft, Apr. 26, 1993 (backwater from Onondaga Lake); minimum discharge not determined; minimum gage height, 0.28 ft, Feb. 6-8, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 21	0300	473	3.33	Apr 4	0600	*519	*3.48

Minimum discharge, 6.4 ft^3/s, July 20, gage height, 0.95 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	15	54	126	24	43	e75	36	121	11	35	15
2	70	17	47	110	31	88	e65	78	67	11	16	51
3	56	26	40	69	30	75	86	47	e39	11	19	20
4	26	20	33	57	211	55	411	30	e27	10	30	16
5	21	22	31	47	122	66	e420	26	e71	9.4	86	16
6	14	63	32	45	88	63	e340	25	e40	9.2	77	10
7	16	59	30	43	76	47	e260	22	e29	16	36	8.3
8	13	36	32	51	57	43	e220	20	e26	23	28	9.0
9	12	27	30	81	47	73	e170	20	e22	19	38	8.7
10	11	22	26	67	39	53	e130	19	e19	20	59	7.9
11	12	21	24	53	33	42	e100	126	23	82	30	7.3
12	23	21	34	45	29	39	e85	186	21	18	47	7.2
13	15	24	39	39	27	39	e70	129	59	12	52	8.1
14	14	20	275	35	25	35	e60	65	75	11	28	8.5
15	11	18	198	31	23	44	e46	42	41	9.8	20	8.9
16	97	20	148	29	21	98	e36	43	27	19	19	14
17	91	166	80	27	21	178	e35	32	21	11	17	9.2
18	34	131	46	24	22	214	34	26	16	9.0	13	9.2
19	50	93	34	23	26	193	37	e23	16	8.0	12	9.4
20	29	68	73	22	32	194	30	e20	15	7.1	11	8.2
21	20	46	70	21	37	325	27	e23	82	58	11	7.3
22	17	74	56	20	70	e260	32	e20	62	100	11	7.7
23	40	98	48	20	130	e200	39	e19	33	36	8.6	140
24	21	67	40	20	86	e150	36	e50	23	27	8.3	27
25	17	51	33	20	68	e140	29	e86	17	e17	9.2	22
26	118	41	35	20	56	e130	24	e60	15	13	9.5	15
27	46	41	33	19	49	e95	22	e70	14	19	8.8	12
28	29	36	33	18	45	e60	21	e50	13	14	8.0	37
29	22	32	33	18	---	e105	20	e34	11	11	8.2	21
30	18	51	33	19	---	e130	19	e30	11	e10	11	14
31	16	---	89	19	---	e100	---	46	---	9.0	7.8	---
TOTAL	991	1,426	1,809	1,238	1,525	3,377	2,979	1,503	1,056	640.5	774.4	554.9
MEAN	32.0	47.5	58.4	39.9	54.5	109	99.3	48.5	35.2	20.7	25.0	18.5
MAX	118	166	275	126	211	325	420	186	121	100	86	140
MIN	11	15	24	18	21	35	19	19	11	7.1	7.8	7.2
CFSM	1.25	1.86	2.29	1.57	2.14	4.27	3.89	1.90	1.38	0.81	0.98	0.73
IN.	1.45	2.08	2.64	1.81	2.22	4.93	4.35	2.19	1.54	0.93	1.13	0.81

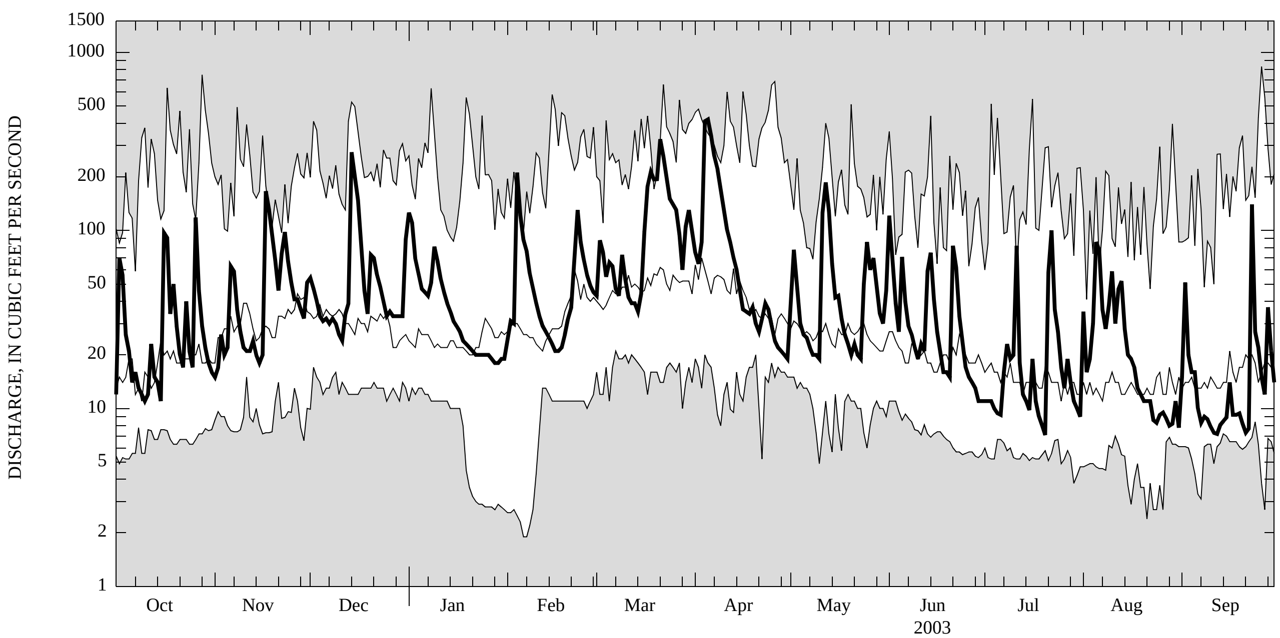
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	33.4	46.2	52.0	41.8	51.9	74.9	73.5	41.3	31.4	26.1	22.5	29.0
MAX	129	102	145	107	125	154	334	94.8	71.4	61.6	46.7	99.1
(WY)	(1978)	(1978)	(1978)	(1998)	(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)

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

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1973 - 2003	
ANNUAL TOTAL	15,102.6		17,873.8			
ANNUAL MEAN	41.4		49.0		43.1	
HIGHEST ANNUAL MEAN					69.8	1978
LOWEST ANNUAL MEAN					24.8	1995
HIGHEST DAILY MEAN	440	Jun 14	420	Apr 5	831	Sep 26, 1975
LOWEST DAILY MEAN	6.7	Aug 14	7.1	Jul 20	1.9	Feb 6, 1977
ANNUAL SEVEN-DAY MINIMUM	7.1	Aug 10	8.1	Sep 7	2.3	Feb 2, 1977
ANNUAL RUNOFF (CFSM)	1.62		1.92		1.69	
ANNUAL RUNOFF (INCHES)	22.03		26.07		22.97	
10 PERCENT EXCEEDS	93		100		93	
50 PERCENT EXCEEDS	28		30		24	
90 PERCENT EXCEEDS	9.5		11		9.9	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

0424014980 SPAFFORD CREEK TRIBUTARY NEAR SAWMILL ROAD, NEAR SPAFFORD, NY

LOCATION.--Lat 42°49'35", long 76°13'56", Onondaga County, Hydrologic Unit 04140201, on right bank, 200 ft behind farmers house, 500 ft upstream from Spafford Creek, and approximately 0.4 mi south of Sawmill Road.

DRAINAGE AREA.--0.11 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1997 to September 2003 (discontinued).

GAGE.--Water-stage recorder, V-notch sharp-crested compound weir, and crest-stage gage. Elevation of gage is 820 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair. Telephone gage-height and precipitation telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 0.50 ft^3/s, Jan. 12, 1998; minimum daily discharge, 0.005 ft^3/s, Dec. 10, 11, 14, 15, 1998. Maximum and minimum instantaneous discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 0.31 ft^3/s, Feb. 4; minimum daily discharge, 0.007 ft^3/s, Oct. 14, 15, Nov. 9, 10.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.008	0.014	0.072	e0.24	0.081	0.14	0.19	0.090	0.11	0.040	0.025	0.029
2	0.015	0.010	0.079	e0.20	0.081	0.17	0.19	0.099	0.084	0.035	0.024	0.045
3	0.014	0.016	0.082	e0.18	0.078	0.14	0.19	0.086	0.087	0.030	0.031	0.035
4	0.014	0.011	0.082	0.17	0.31	0.14	0.26	0.083	0.092	0.032	0.024	0.033
5	0.011	0.012	0.083	0.18	0.15	0.15	0.27	0.081	0.087	0.032	0.019	e0.030
6	0.008	0.015	0.079	0.18	0.13	0.15	0.20	0.074	0.083	0.031	0.017	e0.028
7	0.008	0.010	0.075	0.16	0.13	0.14	0.19	0.072	0.082	0.030	0.015	e0.028
8	0.008	0.011	0.074	0.17	0.12	0.14	0.19	0.062	0.075	0.029	0.039	e0.027
9	0.010	0.007	0.066	0.18	0.12	0.15	0.19	0.059	0.064	0.024	0.035	e0.026
10	0.008	0.007	0.070	0.17	0.12	0.14	0.19	0.059	0.055	0.030	0.033	e0.024
11	0.009	0.008	0.079	0.16	0.12	0.13	0.18	0.071	0.052	0.033	0.025	e0.023
12	0.012	0.008	0.094	0.16	0.11	0.14	0.17	0.064	0.049	0.026	0.024	e0.022
13	0.011	0.008	0.11	0.16	0.11	0.14	0.17	0.083	0.054	0.023	0.025	0.020
14	0.007	0.008	0.23	0.16	0.11	0.13	0.17	0.074	0.052	0.023	0.029	0.025
15	0.007	0.010	0.17	0.16	0.11	0.12	0.17	0.080	0.050	0.020	0.030	0.028
16	0.029	0.015	0.16	0.16	0.10	0.13	0.16	0.080	0.046	0.026	0.037	0.028
17	0.015	0.092	0.14	0.16	0.11	0.15	0.16	0.074	0.044	0.022	0.031	0.030
18	0.010	0.060	0.13	0.16	0.11	0.16	0.15	0.066	0.041	0.032	0.029	0.024
19	0.028	0.053	0.13	0.15	0.11	0.15	0.15	0.066	0.040	0.020	0.029	0.026
20	0.013	0.053	0.17	0.15	0.11	0.17	0.15	0.066	0.043	0.017	0.041	0.021
21	0.011	0.048	0.15	0.14	0.11	0.18	0.14	0.064	0.061	0.039	0.046	0.024
22	0.010	0.056	0.15	0.12	0.14	0.18	0.14	0.059	0.061	0.053	0.034	0.025
23	0.010	0.061	0.15	0.11	0.22	0.18	0.13	0.058	0.060	0.035	0.028	0.053
24	0.010	0.060	0.14	0.11	0.14	0.17	0.13	0.070	0.053	0.053	0.029	0.022
25	0.011	0.058	0.15	0.097	0.14	0.17	0.12	0.059	0.050	0.030	0.027	0.035
26	0.022	0.052	0.15	0.092	0.14	0.19	0.12	0.053	0.049	0.026	0.022	0.025
27	0.011	0.055	0.15	0.084	0.14	0.18	0.11	0.052	0.046	0.026	0.021	0.034
28	0.011	0.054	0.15	0.082	0.14	0.17	0.11	0.052	0.045	0.025	0.022	0.041
29	0.013	0.055	0.15	0.078	---	0.20	0.10	0.050	0.044	0.022	0.027	0.037
30	0.016	0.073	0.15	0.074	---	0.19	0.089	0.048	0.046	0.022	0.021	0.030
31	0.018	---	e0.24	0.069	---	0.19	---	0.059	---	0.022	0.021	---
TOTAL	0.388	1.000	3.905	4.466	3.590	4.88	4.879	2.113	1.805	0.908	0.860	0.878
MEAN	0.013	0.033	0.13	0.14	0.13	0.16	0.16	0.068	0.060	0.029	0.028	0.029
MAX	0.029	0.092	0.24	0.24	0.31	0.20	0.27	0.099	0.11	0.053	0.046	0.053
MIN	0.007	0.007	0.066	0.069	0.078	0.12	0.089	0.048	0.040	0.017	0.015	0.020

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.013	0.022	0.070	0.10	0.12	0.14	0.14	0.090	0.053	0.034	0.019	0.022
MAX	0.015	0.033	0.13	0.18	0.16	0.16	0.16	0.15	0.12	0.066	0.028	0.030
(WY)	(2002)	(2003)	(2002)	(1998)	(2002)	(2003)	(2003)	(2000)	(2000)	(1998)	(2003)	(1999)
MIN	0.010	0.011	0.011	0.042	0.10	0.13	0.12	0.052	0.013	0.012	0.011	0.013
(WY)	(1998)	(1999)	(1999)	(2001)	(2001)	(1998)	(1998)	(2001)	(1999)	(1999)	(1999)	(1998)

0424014980 SPAFFORD CREEK TRIBUTARY NEAR SAWMILL ROAD, NEAR SPAFFORD, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1998 - 2003	
ANNUAL TOTAL	30.700		29.630			
ANNUAL MEAN	0.084		0.081		0.069	
HIGHEST ANNUAL MEAN					0.084	2002
LOWEST ANNUAL MEAN					0.047	1999
HIGHEST DAILY MEAN	0.24	Dec 31	0.31	Feb 4	0.50	Jan 12, 1998
LOWEST DAILY MEAN	0.010	Jul 11	0.007	Oct 14	0.005	Dec 10, 1998
ANNUAL SEVEN-DAY MINIMUM	0.01	Jul 13	0.01	Oct 3	0.01	Oct 6, 1997
10 PERCENT EXCEEDS	0.16		0.17		0.16	
50 PERCENT EXCEEDS	0.08		0.06		0.05	
90 PERCENT EXCEEDS	0.01		0.01		0.01	

e Estimated

2003 WATER YEAR DAILY MEAN DISCHARGE.

0424014980 SPAFFORD CREEK TRIBUTARY NEAR SAWMILL ROAD, NEAR SPAFFORD, NY—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1999 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1999 to current year.

INSTRUMENTATION.--Water temperature recorder since October 1999.

EXTREMES FOR PERIOD OF RECORD.--
WATER TEMPERATURES: Maximum, 26.0°C, Aug. 12, 2002; minimum 1.0°C, Jan. 23, Feb. 2, 9, 18, 2000.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 22.5°C, Oct. 1; minimum 1.5°C, Mar. 4.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	22.5	14.0	17.5	11.5	6.0	8.5	8.5	6.0	7.0	---	---	---
2	21.5	15.5	17.5	10.0	5.5	7.5	7.5	5.5	6.5	---	---	---
3	18.0	14.5	16.0	10.5	6.0	8.0	9.0	5.5	6.5	---	---	5.5
4	18.0	14.0	16.5	9.0	5.5	7.5	9.0	5.0	6.5	7.5	5.5	6.0
5	17.5	13.0	15.5	11.5	7.0	8.5	6.5	5.0	5.5	7.0	5.0	5.5
6	19.5	11.0	14.5	9.5	6.5	8.0	9.5	5.0	6.5	6.5	5.0	5.5
7	17.0	12.0	14.0	10.5	5.0	7.5	7.5	3.5	5.5	8.5	4.5	5.5
8	17.5	10.5	13.0	13.0	5.5	8.5	8.0	5.5	6.5	6.5	4.5	5.5
9	16.0	9.5	12.5	12.5	8.0	9.5	8.0	2.5	5.5	6.5	5.0	5.5
10	18.0	11.5	14.0	13.5	9.0	11.5	8.5	4.0	5.5	8.0	5.0	6.0
11	15.0	13.0	14.0	14.0	9.0	12.5	7.5	5.0	6.0	6.5	4.5	5.5
12	18.5	13.0	15.0	11.0	9.0	10.0	7.5	5.5	6.5	6.0	5.0	5.5
13	14.5	10.5	13.0	10.0	8.0	9.0	7.5	5.5	6.0	6.0	3.5	5.0
14	16.0	9.0	11.0	13.0	6.5	9.5	6.0	4.5	5.5	6.5	4.5	5.5
15	13.5	6.5	10.0	10.5	7.0	9.0	7.0	6.0	6.0	6.0	4.5	5.0
16	12.5	10.0	11.5	9.0	5.5	7.5	6.5	5.5	6.0	6.5	4.5	5.0
17	14.5	11.0	12.5	9.0	6.5	8.0	8.5	5.5	6.5	6.0	4.5	5.0
18	16.5	10.0	12.0	9.0	8.0	9.0	8.0	4.5	6.0	6.5	2.5	4.5
19	13.5	9.5	11.5	9.0	8.0	8.5	7.5	5.5	6.0	6.0	3.0	4.5
20	15.0	10.5	12.0	12.0	8.0	9.5	7.0	6.0	6.5	5.0	3.5	4.5
21	14.5	8.5	11.0	10.5	8.5	9.0	7.5	6.0	6.5	5.5	3.5	4.5
22	12.5	8.0	10.0	10.0	8.0	9.5	9.0	6.0	6.5	5.0	4.0	4.0
23	13.0	8.0	10.0	9.0	7.5	8.5	7.0	6.0	6.5	5.0	3.5	4.0
24	13.5	7.0	10.0	9.5	8.0	9.0	7.5	5.5	6.5	5.5	4.0	4.5
25	13.0	7.0	9.0	9.5	8.0	8.5	6.5	5.5	6.0	5.5	3.5	4.5
26	12.0	8.5	10.5	9.5	8.0	8.5	7.0	5.5	6.0	5.0	3.5	4.0
27	13.0	9.0	11.0	9.0	6.5	8.0	7.0	5.5	6.0	5.5	3.5	4.5
28	11.5	8.5	9.5	8.5	6.5	7.5	7.0	5.0	6.0	5.0	2.5	4.0
29	11.0	8.0	9.0	7.5	2.5	6.0	7.5	5.5	6.5	5.0	2.5	4.0
30	11.5	6.5	9.0	8.5	7.0	7.5	7.0	4.5	5.5	6.5	3.0	4.0
31	12.5	5.5	8.5	---	---	---	---	---	5.5	6.0	2.0	3.5
MONTH	22.5	5.5	12.3	14.0	2.5	8.7	9.5	2.5	6.1	8.5	2.0	4.8

0424014980 SPAFFORD CREEK TRIBUTARY NEAR SAWMILL ROAD, NEAR SPAFFORD, NY—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	5.5	4.0	4.5	7.0	3.5	4.0	5.0	2.0	4.5	14.0	8.0	9.5
2	4.5	4.0	4.5	4.0	2.5	3.5	6.0	5.0	5.5	10.0	7.5	8.5
3	6.5	3.5	4.5	5.5	2.0	3.5	5.5	4.5	5.5	12.5	7.5	9.0
4	4.0	2.0	3.0	6.0	1.5	3.5	5.5	4.5	5.0	12.5	7.0	9.5
5	5.0	3.5	4.0	4.5	3.5	3.5	7.0	4.5	5.0	10.5	7.5	8.5
6	6.5	3.5	4.5	5.0	3.0	3.5	7.0	4.5	5.5	14.5	7.5	9.5
7	5.0	3.5	4.0	5.5	3.0	3.5	6.0	4.5	5.0	11.5	8.5	9.5
8	6.5	3.0	4.0	7.0	3.5	4.5	6.0	5.0	5.5	11.5	8.0	9.5
9	5.5	3.0	4.0	4.5	3.0	3.5	6.0	5.0	5.0	13.5	8.0	10.0
10	5.0	3.0	4.0	5.0	2.5	3.5	8.0	5.0	6.0	14.5	8.0	10.5
11	6.0	2.5	4.0	5.5	2.0	3.5	7.5	4.5	5.5	15.0	9.0	11.0
12	4.5	2.0	3.5	6.0	3.0	4.0	8.0	5.0	6.0	11.0	9.0	10.0
13	5.0	3.0	3.5	4.5	3.0	3.5	8.0	5.0	6.0	10.0	9.0	9.5
14	5.0	3.0	4.0	7.5	3.0	4.0	9.0	5.0	6.5	11.0	8.5	9.5
15	5.0	3.0	4.0	7.0	3.0	4.5	9.0	5.5	6.5	14.0	8.5	10.5
16	5.0	3.5	4.0	7.5	3.5	4.5	7.5	5.5	6.5	12.5	9.0	10.0
17	4.5	3.0	3.5	7.0	3.5	4.5	8.5	5.5	6.5	15.0	8.5	10.5
18	6.0	3.5	4.0	5.5	3.5	4.5	9.5	5.0	7.0	14.0	9.0	11.0
19	5.5	3.5	4.0	7.5	3.5	4.5	9.0	6.0	7.0	15.0	8.5	11.0
20	6.5	3.0	4.5	5.0	3.5	4.0	9.5	6.0	7.5	14.5	9.0	11.0
21	7.0	3.0	4.5	7.0	4.0	5.0	9.0	6.5	7.0	12.5	9.0	10.5
22	4.0	3.0	4.0	6.5	4.5	5.0	8.0	6.5	7.0	14.0	8.5	11.0
23	3.5	3.0	3.0	5.5	4.5	4.5	7.5	6.0	6.5	11.5	9.5	10.5
24	6.0	3.0	4.0	8.0	4.5	5.5	9.5	6.0	7.5	13.0	10.0	11.0
25	5.5	2.5	4.0	8.0	4.5	5.5	10.5	6.0	7.5	13.5	10.0	11.5
26	6.5	2.5	4.0	6.0	5.0	5.0	8.5	7.0	7.5	11.5	10.0	10.5
27	6.5	2.0	3.5	8.0	4.5	6.0	10.5	6.5	8.0	14.5	10.0	11.5
28	5.5	3.0	4.0	8.0	4.5	6.0	10.5	6.5	8.0	13.5	10.0	11.5
29	---	---	---	7.0	5.5	6.0	10.5	7.0	8.0	14.0	10.0	11.5
30	---	---	---	6.0	5.0	5.5	11.5	7.0	8.5	13.0	10.0	11.5
31	---	---	---	7.5	5.0	5.5	---	---	---	12.0	10.0	11.0
MONTH	7.0	2.0	4.0	8.0	1.5	4.4	11.5	2.0	6.4	15.0	7.0	10.3

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	11.5	10.0	11.0	17.0	12.5	14.0	17.0	14.5	15.5	16.0	14.0	15.0
2	13.5	10.0	11.0	17.0	12.5	14.5	20.0	14.5	16.5	16.0	15.0	16.0
3	12.0	9.5	11.0	17.0	13.5	15.0	20.5	14.5	17.0	16.5	15.0	15.5
4	12.0	10.5	11.0	18.0	13.5	15.0	21.0	16.0	17.5	16.5	14.5	15.5
5	12.0	10.5	11.0	17.0	14.0	15.0	20.0	16.0	17.0	16.0	13.5	15.0
6	13.0	10.5	11.5	18.0	13.5	15.5	19.0	15.5	17.0	16.0	13.0	14.5
7	12.0	10.5	11.0	16.0	13.5	14.5	20.0	15.5	17.0	16.0	13.0	14.0
8	13.5	11.0	12.0	18.5	13.5	15.0	20.5	15.5	17.0	16.0	13.5	15.0
9	13.5	11.0	11.5	17.0	13.0	14.5	18.0	15.5	16.5	15.5	12.0	14.0
10	14.0	10.5	12.0	18.0	13.0	15.0	19.0	15.5	17.0	16.5	12.5	14.0
11	13.0	11.0	11.5	21.0	14.0	16.0	17.5	15.5	16.5	16.0	12.0	14.0
12	13.0	11.0	11.5	16.5	13.5	14.5	18.5	15.5	16.5	16.0	14.0	14.5
13	14.0	11.5	12.5	18.0	13.0	15.0	19.5	15.5	17.0	16.0	14.0	15.0
14	13.0	11.0	12.0	18.5	13.0	15.5	18.5	15.0	16.0	16.5	14.5	15.5
15	16.0	11.0	12.5	19.5	13.5	16.0	19.0	14.0	16.0	16.0	14.5	15.5
16	15.5	10.5	12.5	18.5	14.5	16.5	18.5	15.0	16.0	16.0	13.5	14.5
17	15.0	11.0	12.5	20.0	14.5	16.5	17.5	14.5	16.0	16.0	12.5	14.0
18	13.5	11.5	12.5	20.0	13.5	16.5	18.0	14.5	15.5	16.0	12.5	14.0
19	13.5	11.5	12.0	19.5	13.0	15.5	17.5	14.0	15.5	16.0	14.0	15.0
20	14.5	11.0	12.5	19.5	12.5	15.5	17.5	14.5	15.5	16.0	13.5	15.0
21	14.0	12.0	13.0	17.5	14.0	15.5	17.0	15.0	15.5	16.0	12.0	14.0
22	15.5	12.0	13.0	17.5	15.5	16.5	17.0	14.5	15.5	15.0	12.5	14.0
23	16.0	11.5	13.5	18.5	15.5	16.5	17.0	14.0	15.5	16.5	14.0	15.5
24	16.5	11.5	13.5	17.0	15.0	16.0	17.0	13.0	14.5	17.0	13.5	14.5
25	16.5	12.0	14.0	19.5	14.0	16.5	16.5	14.5	15.5	15.5	13.0	14.0
26	16.5	12.0	14.0	18.0	15.0	16.5	16.5	14.5	15.5	16.0	11.5	14.0
27	15.5	12.0	13.5	17.5	15.5	16.0	17.5	14.5	15.5	16.0	14.5	15.0
28	16.5	12.0	13.5	19.5	14.5	16.5	17.0	13.0	14.5	15.5	14.0	15.0
29	16.0	12.5	13.5	20.0	13.5	16.0	16.5	14.0	15.5	14.5	12.5	14.0
30	16.5	12.5	14.0	18.5	14.0	16.0	16.0	13.0	15.0	15.0	11.5	13.0
31	---	---	---	19.0	14.5	16.0	16.5	12.0	14.0	---	---	---
MONTH	16.5	9.5	12.3	21.0	12.5	15.6	21.0	12.0	16.0	17.0	11.5	14.6
YEAR	22.5	1.5	9.7									

0424014980 SPAFFORD CREEK TRIBUTARY NEAR SAWMILL ROAD, NEAR SPAFFORD, NY—Continued

QUANTITY OF PRECIPITATION

PERIOD OF RECORD.--February 1998 to current year.

PERIOD OF DAILY RECORD.--February 1998y to current year.

INSTRUMENTATION.--Tipping bucket rain gage since February 1998. 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, 2.75 inches, Sep. 16, 1999.

EXTREMES FOR CURRENT YEAR.-- Maximum daily precipitation, 1.25 inches, Oct. 16.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.04	0.00	---	0.09	0.00	0.00	0.15	0.45	0.00	0.13	0.31
2	0.56	0.02	0.00	---	0.01	0.19	0.00	0.43	0.05	0.00	0.07	0.33
3	0.26	0.03	0.00	0.00	0.15	0.00	0.41	0.00	0.00	0.00	0.31	0.28
4	0.26	0.08	0.00	0.01	0.60	0.00	0.51	0.00	0.09	0.00	0.04	0.00
5	0.07	0.22	0.00	0.00	0.00	0.06	0.15	0.13	0.02	0.17	0.05	0.06
6	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.01	0.06	0.00	0.00	0.00
7	0.02	0.03	0.00	0.00	0.02	0.00	0.16	0.00	0.02	0.05	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.01	0.62	0.00
9	0.00	0.00	0.00	0.02	0.00	0.05	0.00	0.00	0.00	0.16	0.39	0.00
10	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.34	0.01	0.00
11	0.09	0.10	0.47	0.00	0.00	0.00	0.02	0.75	0.03	0.29	0.05	0.00
12	0.04	0.14	0.12	0.00	0.00	0.03	0.00	0.34	0.14	0.02	0.13	0.00
13	0.04	0.01	0.16	0.00	0.00	0.01	0.00	0.23	0.39	0.00	0.01	0.08
14	0.00	0.00	0.59	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00
15	0.00	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.09
16	1.25	0.35	0.02	0.00	0.00	0.00	0.00	0.04	0.00	0.55	0.49	0.00
17	0.02	0.96	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.01	0.00
18	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.03	0.47	0.00	0.00
19	0.63	0.01	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.08
20	0.00	0.00	0.17	0.00	0.00	0.41	0.00	0.18	0.19	0.00	0.00	0.00
21	0.00	0.07	0.01	0.00	0.00	0.11	0.06	0.02	0.64	0.86	0.00	0.01
22	0.08	0.38	0.00	0.00	0.14	0.19	0.17	0.00	0.13	0.50	0.00	0.04
23	0.05	0.00	0.01	0.00	0.16	0.00	0.03	0.00	0.00	0.15	0.00	1.23
24	0.00	0.00	---	0.00	0.00	0.00	0.00	0.78	0.00	0.66	0.00	0.00
25	0.26	0.04	0.00	0.00	0.00	0.33	0.00	0.01	0.00	0.01	0.00	0.16
26	0.18	0.04	0.00	0.01	0.00	0.19	0.01	0.14	0.00	0.00	0.02	0.00
27	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.26
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23
29	0.00	0.00	0.09	0.00	---	0.54	0.00	0.05	0.00	0.00	0.06	0.06
30	0.00	0.30	0.09	0.00	---	0.10	0.00	0.00	0.23	0.00	0.00	0.02
31	0.01	---	0.00	0.00	---	0.04	---	0.65	---	0.00	0.00	---
TOTAL	3.83	2.96	---	---	1.78	2.25	1.59	3.91	2.53	4.39	2.39	3.24
MAX	1.25	0.96	---	---	0.60	0.54	0.51	0.78	0.64	0.86	0.62	1.23

04240180 NINEMILE CREEK NEAR MARIETTA, NY

LOCATION.--Lat 42°55'15", long 76°19'47", Onondaga County, Hydrologic Unit 04140201, on right bank 25 ft upstream from bridge on Schuyler Road, 0.9 mi north of Marietta, and 1.8 mi downstream from Otisco Lake.

DRAINAGE AREA.--45.1 mi^2.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1955, 1963. June 1964 to current year.

REVISED RECORDS.--WDR NY l971: 1966(M), 1968, 1969. WDR NY-82-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 748.25 ft above NGVD of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated by Otisco Lake from which water is diverted by the Onondaga County Water Authority for water supply.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,030 ft^3/s, June 23, 1972, gage height, 8.65 ft; minimum discharge, 0.58 ft^3/s, July 16, 17, 18, 19, 20, 1999.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 306 ft^3/s, Apr. 5, gage height, 4.70 ft; minimum discharge, 3.0 ft^3/s, Oct. 1, gage height, 0.87 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	e4.0	e12	37	92	85	141	39	61	10	7.6	6.4
2	e3.3	e4.2	e11	22	91	87	149	48	62	9.3	7.4	8.3
3	e3.8	e4.4	e10	12	77	97	165	45	57	8.9	8.0	6.8
4	e3.4	e4.4	e9.5	10	83	65	232	40	54	8.6	7.5	6.6
5	3.8	e4.4	e9.5	9.1	70	29	289	42	55	8.4	9.6	6.4
6	e3.6	e5.8	e9.0	8.5	81	28	265	38	53	8.3	8.6	6.4
7	e3.6	e5.6	e9.0	8.0	64	e27	246	31	51	8.3	8.0	6.1
8	e3.8	e5.0	e8.6	8.7	83	27	231	30	47	8.1	9.5	5.9
9	e3.7	e4.4	e8.0	24	61	29	228	27	41	8.3	12	6.0
10	e3.6	e4.2	e8.0	41	59	27	225	24	33	9.1	12	5.9
11	e3.8	e4.4	e7.8	40	33	18	195	39	32	9.3	10	5.7
12	e4.3	e4.2	e8.5	39	28	8.6	166	47	28	7.7	8.1	5.9
13	e3.9	e4.2	e9.0	56	e28	8.3	152	62	31	7.6	7.4	5.6
14	3.8	e4.1	e40	75	e28	9.2	141	59	30	7.5	7.3	5.9
15	e4.0	e4.0	35	74	28	9.3	130	56	28	7.4	7.0	6.0
16	e5.4	e4.2	26	85	e29	16	99	54	24	7.8	7.3	5.9
17	e7.4	e16	17	100	30	48	76	48	22	7.4	6.9	5.7
18	e5.2	e15	13	122	49	42	74	43	19	7.6	6.8	e5.7
19	e6.4	e11	14	e100	92	25	65	39	16	7.5	6.6	e5.6
20	e6.4	e10	45	e100	86	26	61	37	15	7.3	6.5	e5.6
21	e5.3	e9.2	31	e98	85	41	58	33	22	14	6.4	e5.6
22	e4.9	e10	19	e98	88	35	54	30	26	11	6.3	e6.4
23	e5.6	e14	16	e98	100	20	58	28	22	10	6.3	e15
24	e5.0	e11	13	e96	91	21	59	38	19	9.1	6.2	e6.0
25	e4.6	e11	12	e98	90	35	56	40	17	8.0	6.1	e5.8
26	e7.0	e10	11	e98	121	67	52	46	15	7.6	6.4	e5.6
27	e5.6	e9.8	10	e96	92	85	48	44	13	7.8	6.3	e5.6
28	e4.8	e9.6	10	e106	86	94	44	38	12	7.6	6.1	e7.0
29	e4.4	e9.0	10	96	---	108	38	34	11	7.4	5.9	e6.5
30	e4.2	e10	10	96	---	133	36	32	12	7.3	5.7	e5.8
31	e4.2	---	32	102	---	141	---	30	---	7.1	5.6	---
TOTAL	142.1	227.1	483.9	2,053.3	1,945	1,491.4	3,833	1,241	928	261.3	231.4	191.7
MEAN	4.58	7.57	15.6	66.2	69.5	48.1	128	40.0	30.9	8.43	7.46	6.39
MAX	7.4	16	45	122	121	141	289	62	62	14	12	15
MIN	3.3	4.0	7.8	8.0	28	8.3	36	24	11	7.1	5.6	5.6

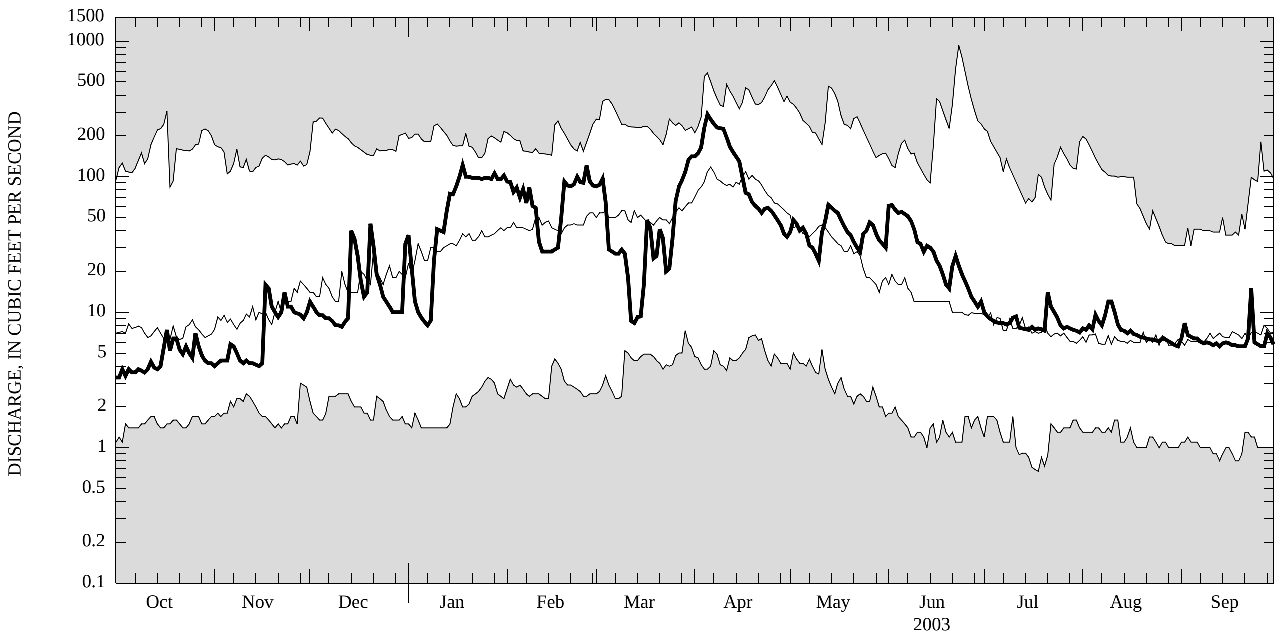
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	21.0	28.5	40.6	49.5	53.1	66.3	102	50.7	28.6	16.3	10.6	10.8
MAX	147	125	160	157	143	180	352	151	278	74.0	76.2	36.2
(WY)	(1978)	(1978)	(1997)	(1973)	(1990)	(1998)	(1993)	(2000)	(1972)	(1972)	(1992)	(1989)
MIN	1.52	2.47	2.90	2.75	3.10	5.23	5.80	3.24	1.45	1.65	1.28	1.16
(WY)	(1967)	(1967)	(1999)	(1981)	(1967)	(1965)	(1965)	(1965)	(1999)	(1981)	(1966)	(1966)

04240180 NINEMILE CREEK NEAR MARIETTA, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1964 - 2003	
ANNUAL TOTAL	12,770.0		13,029.2			
ANNUAL MEAN	35.0		35.7		39.7	
HIGHEST ANNUAL MEAN					76.3	1976
LOWEST ANNUAL MEAN					3.95	1965
HIGHEST DAILY MEAN	235	May 16	289	Apr 5	931	Jun 23, 1972
LOWEST DAILY MEAN	3.3	Oct 1	3.3	Oct 1	0.67	Jul 18, 1999
ANNUAL SEVEN-DAY MINIMUM	3.5	Sep 29	3.5	Oct 1	0.77	Jul 15, 1999
10 PERCENT EXCEEDS	83		96		106	
50 PERCENT EXCEEDS	10		13		14	
90 PERCENT EXCEEDS	4.4		5.1		3.2	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

04240300 NINEMILE CREEK AT LAKELAND, NY

LOCATION.--Lat 43°04'51", long 76°13'36", Onondaga County, Hydrologic Unit 04140201, on left bank 30 ft downstream from bridge on State Highway 48, 0.6 mi downstream from Geddes Brook, and 0.7 mi upstream from mouth.

DRAINAGE AREA.--115 mi^2.

PERIOD OF RECORD.--Occasional measurements, water years 1959-70. November 1970 to September 1973, July 1975 to current year.

REVISED RECORDS.--WDR NY-83-3: 1972 (M), 1976 (M), 1979 (M), 1982 (M). WDR NY 1997: 1976, 1977, 1978, 1979, 1980, 1981.

GAGE.--Doppler velocity meter, water-stage recorder, and crest-stage gage. Datum of gage is 360.67 ft above NGVD of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. 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 2003 water year. Estimated water-discharge data is based on records for Ninemile Creek at Camillus (04240200) (not published). Telephone and satellite gage-height telemeters at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,110 ft^3/s, June 23, 1972; maximum gage height, 9.63 ft, Apr. 27, 1993, (backwater from Onondaga Lake); minimum daily discharge, about 13 ft^3/s, Aug. 18, 1985; maximum and minimum instantaneous discharges not determined.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 915 ft^3/s, Apr. 5, maximum gage height, 6.22 ft, Apr. 5 (backwater from Onondaga Lake); minimum discharge, 36 ft^3/s, Oct. 6.Maximum and minimum instantaneous discharges not determined.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	44	e125	372	207	220	401	159	367	97	75	66
2	53	45	e105	271	213	254	388	215	325	92	72	98
3	54	63	e95	199	214	250	435	197	228	89	71	80
4	43	62	e92	167	325	232	742	174	197	86	83	73
5	46	52	e92	155	339	193	915	161	213	82	115	72
6	36	77	e90	147	270	204	802	168	200	80	134	70
7	40	89	e90	136	250	172	607	158	185	85	89	65
8	41	71	e86	142	208	170	544	154	177	89	90	66
9	38	55	e80	164	202	204	508	146	162	86	89	62
10	38	49	e80	181	191	184	500	141	145	89	95	61
11	e42	56	e78	166	162	166	454	186	142	116	84	62
12	e47	55	e85	160	158	140	390	240	139	92	80	58
13	e44	49	e95	154	155	136	343	253	171	86	71	61
14	e46	42	346	183	159	130	311	226	198	82	64	59
15	e43	45	426	180	155	143	291	193	172	81	60	61
16	e62	49	288	180	152	206	274	188	142	85	87	53
17	87	159	191	210	157	469	223	172	129	80	76	48
18	60	173	141	199	151	714	207	158	122	79	72	47
19	72	134	134	207	182	511	210	145	120	77	70	50
20	69	e115	237	208	195	446	200	136	115	77	68	51
21	53	e105	270	201	195	667	194	146	162	88	65	47
22	43	e115	177	205	221	625	195	133	176	130	65	52
23	60	e160	147	205	328	459	206	127	146	119	61	144
24	53	e130	130	199	316	332	207	227	126	101	60	82
25	42	e125	126	210	280	301	195	249	117	87	61	72
26	90	e105	116	200	242	360	191	283	113	78	63	63
27	70	e100	114	195	237	354	183	308	106	79	64	63
28	61	e95	114	195	227	320	169	220	102	e78	63	79
29	58	e90	114	206	---	352	159	185	106	e72	60	73
30	52	e100	114	197	---	441	151	172	105	e70	65	64
31	53	---	183	198	---	421	---	175	---	67	61	---
TOTAL	1,638	2,609	4,561	5,992	6,091	9,776	10,595	5,795	4,908	2,699	2,333	2,002
MEAN	52.8	87.0	147	193	218	315	353	187	164	87.1	75.3	66.7
MAX	90	173	426	372	339	714	915	308	367	130	134	144
MIN	36	42	78	136	151	130	151	127	102	67	60	47

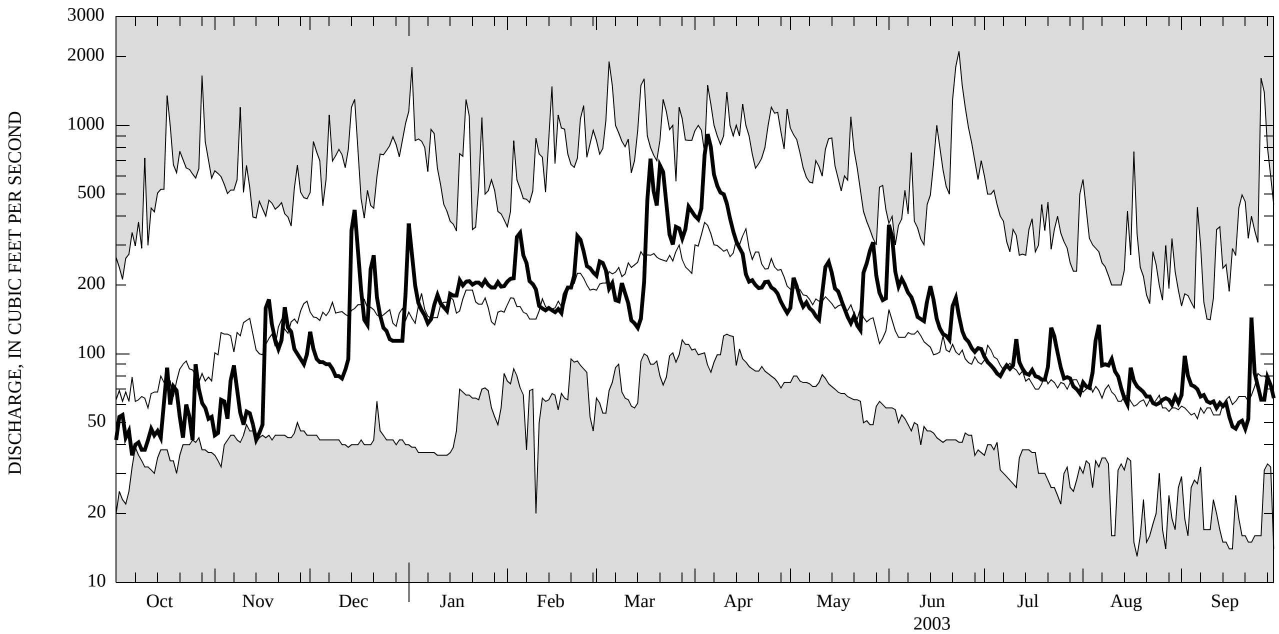
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	116	156	198	199	222	308	337	207	147	101	84.6	88.1
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	40.9	45.0	42.7	81.8	86.0	112	100	69.1	47.7	40.5	28.6	33.0
(WY)	(1998)	(1999)	(1999)	(1984)	(1989)	(1983)	(1995)	(1995)	(1999)	(1999)	(1985)	(1985)

04240300 NINEMILE CREEK AT LAKELAND, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1971 - 2003	
ANNUAL TOTAL	51,348		58,999			
ANNUAL MEAN	141		162		176	
HIGHEST ANNUAL MEAN					310	1973
LOWEST ANNUAL MEAN					91.2	1995
HIGHEST DAILY MEAN	778	May 14	915	Apr 5	2,110	Jun 23, 1972
LOWEST DAILY MEAN	35	Sep 20	36	Oct 6	13	Aug 18, 1985
ANNUAL SEVEN-DAY MINIMUM	40	Oct 5	40	Oct 5	16	Sep 20, 1985
10 PERCENT EXCEEDS	249		313		357	
50 PERCENT EXCEEDS	115		134		128	
90 PERCENT EXCEEDS	47		55		50	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

04240495 ONONDAGA LAKE AT LIVERPOOL, NY

LOCATION.--Lat 43°06'01", long 76°12'34", Onondaga County, Hydrologic Unit 04140201, on north shore of Onondaga Lake at Onondaga Park Marina basin, 200 ft southwest of Onondaga Lake Parkway, and 1.9 mi upstream from outlet of lake.

DRAINAGE AREA.--285 mi^2.

PERIOD OF RECORD.--October 1970 to current year. Elevation records, at Barge Canal datum, since February 1927 collected by, and in files of, New York State Department of Transportation at Syracuse.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. To convert elevations to NAVD adjustment of 1988, subtract 0.59 ft.

REMARKS.--Lake elevation regulated by operation of Erie (Barge) Canal. Area of water surface, 4.60 mi^2. Telephone and satellite gage-height telemeters at station.

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, 365.99 ft, Apr. 7; minimum elevation, 362.56 ft, Feb. 15.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	363.20	363.15	363.46	363.96	362.81	363.67	364.35	363.48	364.02	363.17	363.47	362.76
2	363.25	363.22	363.46	363.99	362.83	363.66	364.21	363.51	364.08	363.09	363.49	362.81
3	363.33	363.30	363.41	363.90	362.81	363.72	364.14	363.42	364.08	363.05	363.44	362.78
4	363.22	363.15	363.42	363.79	363.17	363.52	364.77	363.22	364.10	363.06	363.20	362.75
5	363.29	363.22	363.51	363.56	363.42	363.49	365.43	363.35	364.12	363.09	363.26	362.81
6	363.21	363.32	363.48	363.70	363.25	363.53	365.88	363.29	364.03	363.13	363.39	362.88
7	363.01	363.33	363.50	363.84	363.56	363.47	365.96	363.24	363.98	363.07	363.60	362.80
8	363.17	363.27	363.48	363.79	363.60	363.42	365.91	363.14	363.98	362.99	363.62	362.75
9	363.13	363.24	363.49	363.89	363.48	363.49	365.78	363.23	363.97	363.06	363.67	362.81
10	363.13	363.38	363.47	363.95	363.27	363.51	365.55	363.22	363.90	363.07	363.68	362.87
11	363.01	363.33	363.45	363.90	363.16	363.48	365.28	363.21	363.77	363.08	363.65	362.86
12	363.00	363.36	363.52	363.87	363.07	363.59	365.00	363.40	363.70	363.00	363.65	362.81
13	363.12	363.35	363.42	363.82	362.93	363.58	364.75	363.66	363.56	363.05	363.63	362.90
14	363.04	363.42	363.74	363.72	362.78	363.41	364.66	363.55	363.63	363.00	363.56	362.88
15	363.08	363.40	364.15	363.66	362.60	363.39	364.54	363.55	363.75	362.95	363.57	362.90
16	363.21	363.42	364.25	363.68	362.73	363.37	364.39	363.54	363.70	362.98	363.50	363.10
17	363.32	363.47	364.11	363.51	362.81	363.70	364.28	363.60	363.66	363.03	363.32	363.34
18	363.19	363.42	363.55	363.53	362.94	364.22	364.10	363.63	363.51	363.02	363.01	363.41
19	363.18	363.43	363.22	363.34	363.01	364.42	363.98	363.68	363.49	362.99	362.90	363.43
20	363.31	363.53	363.52	363.27	363.31	364.46	363.92	363.83	363.46	362.94	362.86	363.07
21	363.31	363.37	363.85	363.35	363.51	364.70	363.67	363.78	363.46	362.96	362.89	363.11
22	363.20	363.44	363.92	363.25	363.62	365.10	363.58	363.66	363.40	363.09	362.89	362.91
23	363.28	363.58	363.84	363.36	363.71	365.29	363.62	363.58	363.35	363.06	362.86	363.05
24	363.27	363.55	363.79	363.65	363.79	365.22	363.59	363.62	363.41	363.32	362.82	362.94
25	363.27	363.54	363.84	363.50	363.70	365.11	363.54	363.71	363.32	363.48	362.77	362.97
26	363.43	363.52	363.77	363.30	363.70	365.02	363.34	363.94	363.12	363.55	362.75	363.17
27	363.35	363.53	363.80	363.13	363.71	364.84	363.29	364.10	363.15	363.63	362.75	363.06
28	363.25	363.53	363.72	363.07	363.75	364.58	363.43	364.08	363.11	363.60	362.81	363.10
29	363.05	363.46	363.67	363.02	---	364.37	363.53	364.06	363.08	363.58	362.80	363.09
30	363.11	363.47	363.75	362.93	---	364.43	363.44	363.96	363.14	363.53	362.76	363.23
31	363.17	---	363.83	362.85	---	364.44	---	363.89	---	363.31	362.78	---
MEAN	363.20	363.39	363.66	363.55	363.25	364.07	364.40	363.58	363.63	363.16	363.20	362.98
MAX	363.43	363.58	364.25	363.99	363.79	365.29	365.96	364.10	364.12	363.63	363.68	363.43
MIN	363.00	363.15	363.22	362.85	362.60	363.37	363.29	363.14	363.08	362.94	362.75	362.75

CAL YR 2002 MEAN 363.37 MAX 364.79 MIN 362.75
WTR YR 2003 MEAN 363.51 MAX 365.96 MIN 362.60

04243500 ONEIDA CREEK AT ONEIDA, NY

LOCATION.--Lat 43°05'51", long 75°38'22", Oneida County, Hydrologic Unit 04140202, on right bank 70 ft upstream from bridge on Sconondoa Street at Oneida, and 500 ft downstream from Sconondoa Creek.

DRAINAGE AREA.--113 mi^2.

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

REVISED RECORDS.--WSP 2112: Drainage area. WDR NY-78-1: 1951, 1956, 1958, 1961, 1963, 1964, 1972, 1976 (P). WDR NY-83-3: 1950 (M), 1977 (M), 1979 (M).

GAGE.--Water-stage recorder. Datum of gage is 409.33 ft above NGVD of 1929.

REMARKS.--Records fair. Occasional regulation by small mills upstream from station. Telephone and satellite gage-height telemeters at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,110 ft^3/s, Oct. 9, 1976, gage height, 15.01 ft; minimum discharge, 9.5 ft^3/s, Sept. 6, 7, 1999; minimum gage height, 1.30 ft, Aug. 3, 6, 1955, Aug. 17, 1964.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 18	2200	1,940	7.87	Apr 5	2100	2,010	8.14
Mar 21	0700	*2,220	*8.85				

Minimum discharge, 31 ft^3/s, Oct. 10, 11, gage height, 1.85 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	72	270	791	e125	209	481	136	1,020	89	117	47
2	41	69	216	641	e125	e240	439	339	554	82	99	91
3	67	70	e190	392	e125	e210	500	228	295	77	77	67
4	56	71	e180	354	e360	e210	1,480	168	220	74	99	78
5	46	78	e170	316	617	224	1,610	147	290	72	100	64
6	38	131	163	284	372	268	1,170	149	273	76	89	54
7	37	200	e160	262	e290	221	722	135	200	70	96	50
8	36	155	e150	268	e190	197	569	128	175	75	92	47
9	34	123	e125	307	e180	295	499	120	147	75	148	44
10	32	119	e130	285	e170	233	460	110	130	75	302	41
11	33	103	e130	e230	e160	219	432	265	126	119	193	39
12	44	97	140	e220	e150	183	376	949	131	92	199	38
13	43	124	152	e200	e140	173	318	570	136	73	197	36
14	40	113	543	e190	e135	167	276	389	268	67	149	40
15	36	101	675	e180	e130	178	253	274	189	63	116	43
16	164	97	444	e190	e125	377	235	220	138	121	109	122
17	434	480	e290	e180	e120	1,150	209	188	116	88	105	58
18	153	510	e260	e170	e120	1,500	192	163	107	75	93	47
19	159	383	e250	e180	e120	1,250	197	143	108	71	83	42
20	162	479	818	e170	e120	1,090	180	131	105	63	77	46
21	108	365	727	e160	e115	1,880	182	164	210	73	71	42
22	88	459	454	e140	e130	1,770	189	143	791	228	72	40
23	113	799	359	e135	e380	1,270	227	126	269	404	58	158
24	109	469	289	e130	503	872	237	182	180	220	54	83
25	85	388	232	e140	371	854	199	281	144	140	52	64
26	244	339	e230	e140	300	949	179	206	124	101	51	61
27	183	289	e240	e135	291	715	170	203	122	92	50	55
28	124	244	232	e130	232	541	151	161	102	88	45	87
29	101	221	220	e125	---	632	137	140	93	75	44	82
30	88	235	207	e120	---	781	126	128	100	68	45	73
31	79	---	360	e120	---	602	---	119	---	63	43	---
TOTAL	3,018	7,383	9,006	7,285	6,196	19,460	12,395	6,805	6,863	3,149	3,125	1,839
MEAN	97.4	246	291	235	221	628	413	220	229	102	101	61.3
MAX	434	799	818	791	617	1,880	1,610	949	1,020	404	302	158
MIN	32	69	125	120	115	167	126	110	93	63	43	36
CFSM	0.86	2.18	2.57	2.08	1.96	5.56	3.66	1.94	2.02	0.90	0.89	0.54
IN.	0.99	2.43	2.96	2.40	2.04	6.41	4.08	2.24	2.26	1.04	1.03	0.61

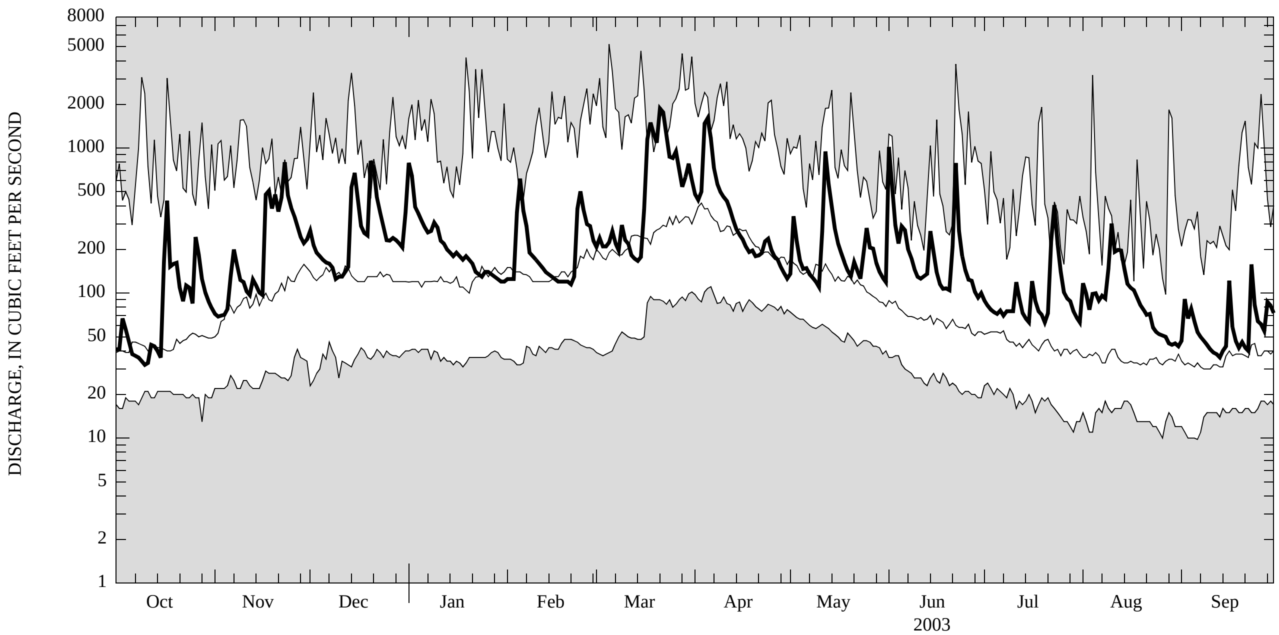
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	85.6	149	190	195	224	368	346	171	107	66.3	52.8	60.7
MAX	472	382	481	452	589	781	915	495	539	225	253	297
(WY)	(1978)	(1973)	(1974)	(1998)	(1976)	(1977)	(1993)	(2000)	(1972)	(1951)	(1976)	(1977)
MIN	21.5	30.5	39.6	38.9	50.5	131	109	61.0	28.4	23.2	14.8	18.0
(WY)	(1964)	(1965)	(1961)	(1981)	(1980)	(1981)	(1981)	(1995)	(1999)	(1962)	(1999)	(1964)

04243500 ONEIDA CREEK AT ONEIDA, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1950 - 2003	
ANNUAL TOTAL	71,206		86,524			
ANNUAL MEAN	195		237		168	
HIGHEST ANNUAL MEAN					284	1976
LOWEST ANNUAL MEAN					89.7	1988
HIGHEST DAILY MEAN	1,290	May 14	1,880	Mar 21	5,210	Mar 5, 1979
LOWEST DAILY MEAN	20	Sep 14	32	Oct 10	9.8	Sep 6, 1999
ANNUAL SEVEN-DAY MINIMUM	22	Sep 8	36	Oct 6	11	Sep 1, 1999
ANNUAL RUNOFF (CFSM)	1.73		2.10		1.48	
ANNUAL RUNOFF (INCHES)	23.44		28.48		20.16	
10 PERCENT EXCEEDS	394		499		360	
50 PERCENT EXCEEDS	155		150		96	
90 PERCENT EXCEEDS	31		54		30	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

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.--3.06 mi^2.

PERIOD OF RECORD.--December 1970 to March 1973, April 1973 to September 1978 (annual maximum only), October 1978 to current year.

REVISED RECORDS.--WDR NY-75-1: 1974 (M). WDR NY-78-1: 1977 (M). WDR-NY-90-3: 1971-89 (P). WDR NY-2001-3: Drainage area.

GAGE.--Water-stage recorder, crest-stage gage, and artificial control. Datum of gage is 511.50 ft above NGVD of 1929.

REMARKS.--Records fair. Flow includes storm sewer inflow, some originating outside the basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 418 ft^3/s, July 3, 1974, gage height 6.51 ft, from rating curve extended above 62 ft^3/s on basis of computation of peak flow through culvert at gage height 6.36 ft; minimum discharge, 0.02 ft^3/s, Sept. 11, 1972, Aug. 24, 1990.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jul 21	1845	*92	*2.89				

Minimum discharge, 0.47 ft^3/s, Sept. 8, 9, 11, 12, 13, 14, 17, 18, 19, 21, 22, gage height, 1.12 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.59	0.97	1.9	5.4	1.9	1.7	2.9	3.9	8.0	0.79	1.3	e1.1
2	1.6	1.5	1.7	3.1	1.9	5.0	3.0	4.1	1.9	0.70	1.1	3.6
3	1.4	1.7	1.3	2.3	1.9	2.4	6.0	1.7	1.5	0.83	1.7	1.2
4	0.87	1.1	1.3	2.2	16	1.9	18	1.5	2.2	0.79	1.1	0.91
5	0.81	1.2	1.2	2.0	3.5	3.6	15	1.7	3.1	0.79	2.7	0.86
6	0.59	3.2	1.3	1.9	2.2	2.3	4.2	1.6	1.6	0.72	1.3	0.68
7	1.1	2.6	1.2	1.9	2.1	1.8	3.2	1.5	1.4	2.1	0.85	0.63
8	0.66	1.2	1.3	2.3	1.8	2.0	3.4	1.4	1.4	1.1	0.93	0.57
9	0.61	0.97	1.2	3.0	1.8	3.5	3.0	1.3	1.3	1.0	3.6	0.54
10	0.62	0.92	1.1	2.5	1.8	1.9	2.7	1.3	1.3	3.7	2.6	0.69
11	0.75	0.97	1.1	2.0	3.4	1.7	2.7	10	1.5	2.6	0.93	0.60
12	1.3	1.3	1.6	1.8	1.6	1.7	2.5	4.4	1.7	0.71	2.7	0.50
13	1.1	1.3	1.7	1.8	1.7	1.8	2.2	3.0	2.3	0.61	1.3	0.49
14	0.77	1.1	15	1.7	1.6	1.7	2.1	1.7	1.7	0.61	0.84	0.53
15	0.71	1.0	4.7	1.6	1.7	2.7	2.1	1.4	1.2	0.60	0.77	0.69
16	8.1	2.2	2.9	1.6	3.8	5.7	2.0	1.7	1.1	1.0	8.3	0.59
17	2.6	12	2.0	1.7	4.7	8.1	2.0	1.3	1.1	0.65	1.4	0.51
18	0.81	3.6	1.6	1.6	3.0	5.5	1.9	1.2	1.1	0.71	0.92	0.47
19	3.0	2.2	1.6	1.6	1.9	3.3	2.3	1.1	1.0	0.61	0.89	0.63
20	1.1	1.6	4.2	1.4	1.8	6.6	1.9	1.4	1.3	0.61	0.79	0.59
21	0.70	1.3	2.2	1.6	2.0	9.7	1.9	1.6	5.4	9.3	0.67	0.52
22	0.64	2.9	1.8	1.6	4.6	6.6	2.6	1.1	2.1	6.8	0.67	0.51
23	1.8	3.3	1.7	1.7	7.0	3.6	2.5	1.1	0.91	2.1	0.66	8.6
24	0.89	1.8	1.6	1.7	2.6	2.7	2.0	7.9	0.81	1.8	0.67	0.72
25	1.1	1.4	2.1	1.5	2.0	2.8	1.8	2.3	0.76	0.97	0.69	0.97
26	5.3	1.2	1.7	1.6	1.8	4.0	1.8	2.8	0.76	0.84	e0.68	0.60
27	1.3	1.7	1.5	2.1	1.7	2.5	1.7	1.7	0.75	1.8	e0.68	1.3
28	0.98	1.5	1.5	3.2	1.6	2.4	1.7	1.3	0.76	1.1	e0.67	2.3
29	0.86	1.4	1.6	1.5	---	6.4	1.6	1.3	0.75	0.84	e0.70	0.95
30	0.84	2.1	1.6	1.4	---	5.0	1.6	1.2	0.80	0.81	e0.69	0.62
31	0.86	---	7.2	1.4	---	3.6	---	3.0	---	0.76	e0.68	---
TOTAL	44.36	61.23	74.4	62.7	83.4	114.2	102.3	72.5	51.50	48.35	43.48	33.47
MEAN	1.43	2.04	2.40	2.02	2.98	3.68	3.41	2.34	1.72	1.56	1.40	1.12
MAX	8.1	12	15	5.4	16	9.7	18	10	8.0	9.3	8.3	8.6
MIN	0.59	0.92	1.1	1.4	1.6	1.7	1.6	1.1	0.75	0.60	0.66	0.47

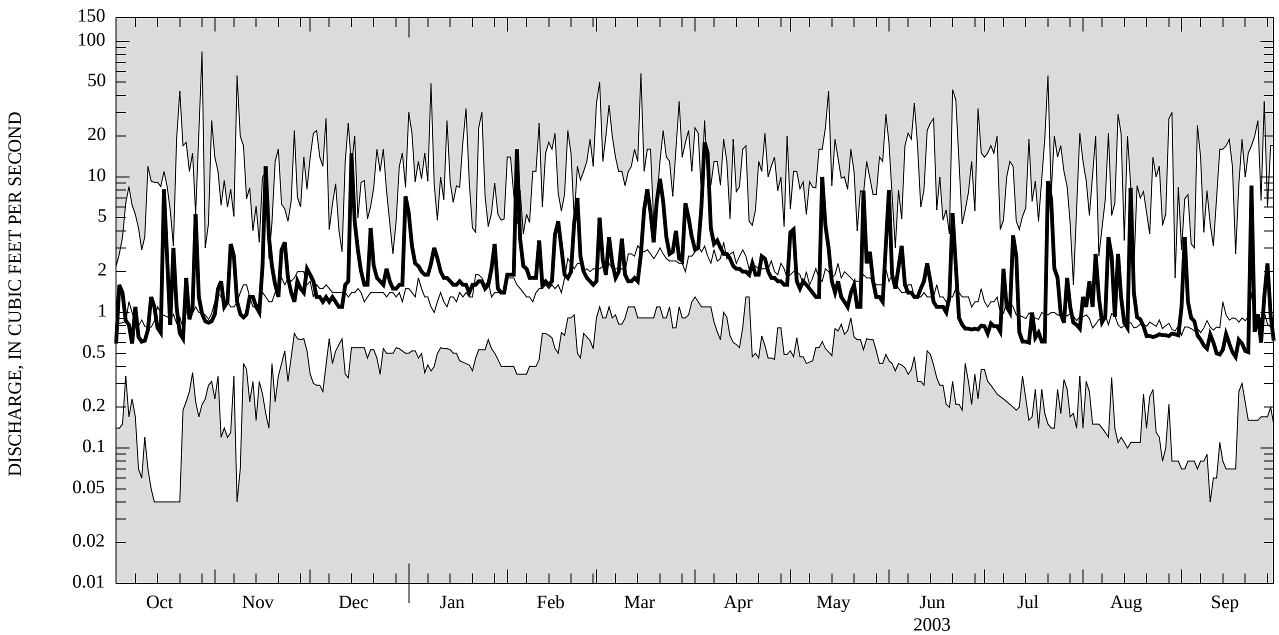
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.59	2.02	2.10	2.11	2.46	3.64	3.15	2.59	2.28	1.76	1.41	1.62
MAX	4.73	4.46	4.66	5.56	4.38	6.93	7.51	5.56	6.12	5.04	5.16	3.03
(WY)	(1982)	(1997)	(1991)	(1998)	(1990)	(1972)	(1993)	(2000)	(1972)	(1988)	(1990)	(1989)
MIN	0.19	0.71	1.04	0.67	1.12	1.38	1.34	1.08	0.86	0.48	0.32	0.31
(WY)	(1972)	(1979)	(1971)	(1981)	(1993)	(1981)	(1981)	(1971)	(1981)	(1980)	(1971)	(1971)

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

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1971 - 2003	
ANNUAL TOTAL	737.40		791.89			
ANNUAL MEAN	2.02		2.17		2.24	
HIGHEST ANNUAL MEAN					3.27	1990
LOWEST ANNUAL MEAN					1.27	1981
HIGHEST DAILY MEAN	25	Jun 14	18	Apr 4	84	Oct 28, 1981
LOWEST DAILY MEAN	0.55	Sep 26	0.47	Sep 18	0.04	Oct 13, 1971
ANNUAL SEVEN-DAY MINIMUM	0.61	Sep 7	0.54	Sep 12	0.04	Oct 13, 1971
10 PERCENT EXCEEDS	3.5		3.9		4.0	
50 PERCENT EXCEEDS	1.3		1.6		1.4	
90 PERCENT EXCEEDS	0.76		0.68		0.60	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

04246000 ONEIDA LAKE AT BREWERTON, NY

LOCATION.--Lat 43°14'25", long 76°08'30", Onondaga County, Hydrologic Unit 04140202, at west end of Oneida Lake, 100 ft west of bridge on U.S. Highway 11, at Brewerton.

DRAINAGE AREA.--1,382 mi^2, at dam at Caughdenoy.

PERIOD OF RECORD.--November 1951 to current year. April 1904 to September 1925 in reports of State Engineer and Surveyor, published as "Oneida River at Brewerton."

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929 (1.01 ft Barge Canal datum). November 1951 to September 1975, at datum 360.99 ft higher.

REMARKS.--Lake elevation regulated by taintor-gate dam on Oneida River at Caughdenoy and gates on Oneida Canal and Erie (Barge) Canal. Lake volume at elevation 369 ft NGVD of 1929, 1.135 million acre-ft. Area of water surface, 79.8 mi^2; axes, 20.9 mi by 5.5 mi; shoreline length, 54.7 mi.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 373.14 ft, Apr. 24,1993; minimum daily, 366.12 ft, Feb. 11, 1984.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 29, 1936, reached a water surface elevation of 373.5 ft, from Corps of Engineers report "Flood Plain Information, Oneida Creek, New York."

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 371.57 ft, Apr. 7; minimum elevation, 367.50 ft, Feb. 4.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	369.68	369.32	369.10	368.54	367.63	367.94	371.19	369.69	369.75	369.62	369.99	369.85
2	369.65	369.41	369.16	368.66	367.60	367.94	371.12	369.74	369.81	369.65	369.93	369.93
3	369.63	369.43	369.08	368.78	367.58	367.96	371.04	369.79	369.83	369.65	369.93	369.92
4	369.74	369.42	369.03	368.73	367.64	367.97	371.21	369.83	369.81	369.66	369.96	369.84
5	369.47	369.53	368.97	368.73	367.72	367.96	371.38	369.88	369.72	369.65	370.01	369.83
6	369.60	369.52	368.85	368.70	367.83	367.95	371.44	369.82	369.69	369.64	370.09	369.87
7	369.45	369.47	368.80	368.67	367.88	367.95	371.50	369.68	369.74	369.71	370.11	369.86
8	369.54	369.56	368.64	368.63	367.94	367.93	371.44	369.70	369.74	369.66	370.04	369.86
9	369.60	369.56	368.66	368.62	367.96	367.90	371.32	369.69	369.65	369.68	369.99	369.91
10	369.57	369.55	368.57	368.60	367.96	367.90	371.21	369.73	369.72	369.80	370.03	369.85
11	369.72	369.49	368.50	368.56	367.96	367.89	371.10	369.80	369.73	369.82	370.09	369.85
12	369.80	369.53	368.44	368.52	367.96	367.87	370.97	369.88	369.78	369.74	370.08	369.92
13	369.59	369.50	368.41	368.48	367.98	367.85	370.88	369.96	369.96	369.77	370.02	369.97
14	369.54	369.46	368.41	368.43	367.98	367.83	370.81	370.19	370.01	369.83	369.93	369.90
15	369.66	369.37	368.53	368.38	367.93	367.80	370.67	370.26	370.09	369.85	369.88	369.85
16	369.62	369.49	368.60	368.34	367.91	367.78	370.63	370.33	370.10	369.79	369.84	369.77
17	369.59	369.34	368.66	368.28	367.87	367.82	370.68	370.16	370.03	369.83	369.82	369.71
18	369.65	369.23	368.66	368.24	367.86	367.98	370.63	370.01	369.89	369.83	369.84	369.75
19	369.66	369.46	368.62	368.18	367.82	368.24	370.46	369.88	369.75	369.84	369.87	369.89
20	369.70	369.46	368.60	368.14	367.79	368.51	370.37	369.78	369.64	369.86	369.89	369.45
21	369.74	369.48	368.65	368.10	367.76	368.84	370.29	369.60	369.65	369.89	369.91	369.47
22	369.74	369.43	368.71	368.05	367.75	369.28	370.18	369.58	369.65	370.02	369.84	369.57
23	369.63	369.34	368.69	368.01	367.75	369.70	370.04	369.62	369.63	370.06	369.82	369.54
24	369.56	369.45	368.76	367.96	367.82	369.98	370.03	369.72	369.57	370.07	369.84	369.67
25	369.59	369.50	368.78	367.92	367.88	370.17	370.01	369.72	369.51	370.08	369.84	369.72
26	369.55	369.47	368.69	367.87	367.91	370.36	369.94	369.83	369.54	370.05	369.86	369.78
27	369.42	369.43	368.69	367.83	367.93	370.55	369.81	369.93	369.50	370.00	369.78	369.80
28	369.45	369.35	368.65	367.79	367.94	370.67	369.74	369.95	369.59	369.97	369.84	369.77
29	369.47	369.31	368.60	367.74	---	370.74	369.63	369.93	369.60	369.95	369.84	369.74
30	369.46	369.21	368.59	367.70	---	370.98	369.70	369.88	369.55	369.95	369.79	369.72
31	369.43	---	368.53	367.67	---	371.15	---	369.85	---	369.95	369.82	---
MEAN	369.60	369.44	368.70	368.29	367.84	368.75	370.65	369.85	369.74	369.83	369.92	369.79
MAX	369.80	369.56	369.16	368.78	367.98	371.15	371.50	370.33	370.10	370.08	370.11	369.97
MIN	369.42	369.21	368.41	367.67	367.58	367.78	369.63	369.58	369.50	369.62	369.78	369.45

CAL YR 2002 MEAN 369.26 MAX 370.76 MIN 367.40
WTR YR 2003 MEAN 369.37 MAX 371.50 MIN 367.58

04247000 ONEIDA RIVER NEAR EUCLID, NY

LOCATION.--Lat 43°12'18", long 76°13'05", Oswego County, Hydrologic Unit 04140202, on right bank, 50 ft downstream of Morgan Road bridge, 9.2 mi downstream from Oneida Lake, 1.3 mi north of Euclid, and 7.7 mi upstream from mouth at Three Rivers.

DRAINAGE AREA.-- 1,439 mi^2.

PERIOD OF RECORD.--November 1996 to current year. Records for September 1902 to December 1909, published as "Oneida River near Eucild", and January 1910 to December 1912 and October 1947 to September 1998, published as "Oneida River at Caughdenoy" (station 04246500) at site 7.6 mi upstream, are not equivalent because of regulation between sites.

GAGE.--Acoustic velocity meter, water-stage recorder, and crest-stage gage. Elevation of gage is 370 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Considerable seasonal regulation by operation of gates in Oneida and Erie (Barge) Canals with a large amount of natural storage in Oneida Lake. Water may be diverted into or received from Mohawk River basin through summit level of Erie (Barge) Canal between New London and Utica. Nearly all of flow from 14 mi^2 of Tioughnioga River basin may be diverted into De Ruyter Reservoir, in Oswego River basin. Telephone and satellite gage-height telemeters at station.

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 Thruway Authority, Office of Canals.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 9,380 ft^3/s, Apr. 15, 16, 2001; minimum daily discharge, 130 ft^3/s, June 9, 1999. Maximum and minimun instantaneous discharges not determined.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 9,100 ft^3/s, Apr. 5; minimum daily discharge, about 210 ft^3/s, Aug. 19. Maximum and minimum instantaneous discharge not determined.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,700	1,740	4,040	3,830	2,690	2,960	8,580	2,330	5,170	395	1,200	e430
2	1,680	1,710	4,180	3,990	2,570	2,990	8,440	2,300	5,280	421	1,220	e430
3	1,670	1,680	4,250	4,250	2,460	3,140	8,270	2,380	5,240	454	1,260	e420
4	e1,700	1,690	4,410	4,310	2,670	3,200	9,070	2,930	5,140	487	1,280	e370
5	1,320	1,620	4,310	4,050	2,980	3,100	9,100	3,850	e4,720	477	1,210	e400
6	516	1,690	4,140	3,970	3,080	3,050	9,000	3,860	3,750	488	1,770	e450
7	297	1,710	4,060	4,040	3,010	3,140	8,960	3,160	3,180	535	2,680	e480
8	482	1,730	3,820	3,900	3,130	3,020	8,780	2,160	2,880	431	3,290	e430
9	e555	2,360	3,850	3,850	3,150	3,020	8,540	2,170	2,220	385	3,600	e420
10	281	3,000	3,710	3,920	3,160	3,100	8,270	1,870	1,650	521	3,690	e420
11	388	2,960	3,570	3,940	e3,150	3,060	8,010	1,420	1,210	534	4,240	e430
12	324	2,510	3,510	3,760	e3,150	2,920	7,760	2,720	853	541	4,510	535
13	349	3,230	3,470	3,740	e3,200	2,880	7,500	4,400	531	502	e4,500	489
14	316	3,580	3,730	3,740	e3,250	2,920	7,420	e5,430	1,860	464	4,420	471
15	937	3,540	4,150	3,600	e3,200	2,810	7,220	5,900	3,900	496	3,230	1,220
16	1,670	3,650	4,030	3,520	e3,150	2,810	7,000	5,910	4,670	537	2,340	2,320
17	1,800	3,630	4,170	3,390	e3,100	3,000	7,100	5,690	5,250	476	e1,800	2,900
18	1,770	3,620	4,210	3,340	e3,100	3,500	7,050	5,470	5,280	496	e760	2,860
19	2,080	3,830	4,040	3,320	e2,980	3,950	6,650	5,250	5,050	496	e210	2,220
20	2,860	3,930	3,960	e3,100	e2,890	4,520	6,550	5,130	3,990	532	e310	1,120
21	3,510	4,110	4,140	e3,150	2,740	5,360	6,390	4,790	3,240	516	e340	1,120
22	3,900	4,250	4,130	e3,050	2,670	6,090	6,170	4,610	3,290	548	e370	657
23	4,050	4,210	4,110	e3,000	2,740	6,630	5,950	3,650	3,840	1,320	e430	374
24	3,850	4,340	4,100	e3,000	3,020	6,870	5,930	2,550	4,340	1,960	e460	397
25	3,540	4,360	4,120	e3,000	3,050	7,090	5,910	2,750	3,320	1,960	e430	601
26	3,300	4,380	3,980	2,990	3,070	7,350	5,780	3,930	977	2,010	e430	1,010
27	2,830	4,460	3,940	2,900	3,100	7,520	5,510	4,830	437	2,000	e380	1,050
28	2,810	4,470	3,930	2,880	2,990	7,700	5,390	5,020	531	1,970	e430	1,020
29	2,420	4,440	3,810	2,820	---	7,890	4,240	5,410	524	1,580	e420	1,450
30	1,690	4,280	3,780	2,790	---	8,280	2,630	5,340	415	e1,260	e410	2,320
31	1,720	---	3,690	2,760	---	8,510	---	5,290	---	1,220	e500	---
TOTAL	56,315	96,710	123,340	107,900	83,450	142,380	213,170	122,500	92,738	26,012	52,120	28,814
MEAN	1,817	3,224	3,979	3,481	2,980	4,593	7,106	3,952	3,091	839	1,681	960
MAX	4,050	4,470	4,410	4,310	3,250	8,510	9,100	5,910	5,280	2,010	4,510	2,900
MIN	281	1,620	3,470	2,760	2,460	2,810	2,630	1,420	415	385	210	370

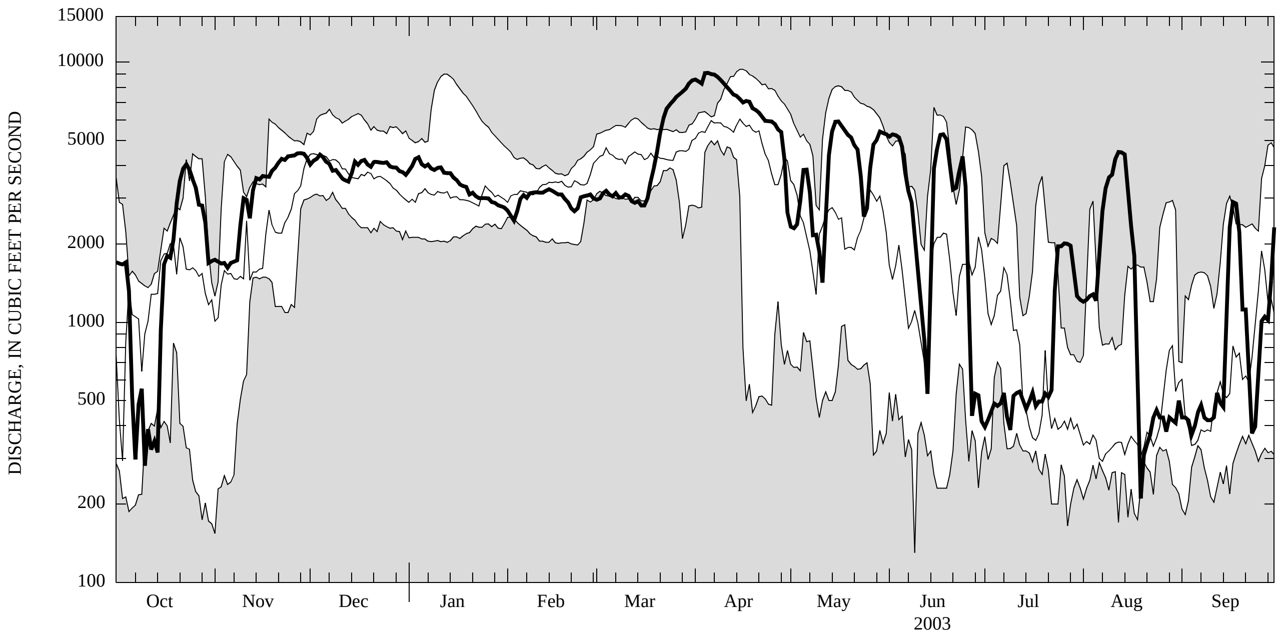
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1,391	2,313	3,942	3,561	3,244	4,389	5,335	3,177	2,096	906	756	954
MAX	1,906	3,224	5,835	6,199	3,934	5,562	7,638	5,336	3,122	1,194	1,681	1,413
(WY)	(2002)	(2003)	(1997)	(1998)	(1998)	(1998)	(2001)	(2002)	(2002)	(2000)	(2003)	(2001)
MIN	688	1,832	2,578	2,519	2,443	3,524	3,135	1,146	469	549	261	516
(WY)	(1999)	(1999)	(1999)	(2002)	(2000)	(1999)	(1998)	(1999)	(1999)	(2002)	(1999)	(1998)

04247000 ONEIDA RIVER NEAR EUCLID, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1997 - 2003	
ANNUAL TOTAL	1,059,119		1,145,449			
ANNUAL MEAN	2,902		3,138		2,650	
HIGHEST ANNUAL MEAN					3,138	2003
LOWEST ANNUAL MEAN					1,839	1999
HIGHEST DAILY MEAN	7,280	Apr 17	9,100	Apr 5	9,380	Apr 15, 2001
LOWEST DAILY MEAN	264	Jul 31	210	Aug 19	130	Jun 9, 1999
ANNUAL SEVEN-DAY MINIMUM	319	Jul 29	364	Aug 19	187	Oct 26, 1998
10 PERCENT EXCEEDS	5,460		5,900		5,360	
50 PERCENT EXCEEDS	3,160		3,080		2,520	
90 PERCENT EXCEEDS	359		458		352	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

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.

DRAINAGE AREA.--5,100 mi^2.

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 NGVD of 1929. 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 mi^2 of Mud Creek drainage area may be diverted from Chemung River basin into Keuka Lake in Oswego River basin. Nearly all of the flow from 14 mi^2 of the Tioughnioga River basin may be diverted into De Ruyter Reservoir, in Oswego River basin. Telephone gage-height telemeter at station.

COOPERATION.--Records of lockages at Lock 7 furnished by New York State Thruway Authority, record of elevations of Lake Ontario by U.S. Army Corps of Engineers, daily discharge records for Oswego River High Dam upstream by Niagara Mohawk Power Corp.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,500 ft^3/s, Mar. 28, 1936, includes daily mean discharge of canals; maximum gage height, 13.46 ft, Apr. 10, 1940; minimum discharge (river only), 30 ft^3/s, Nov. 6, 1944.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 25,500 ft^3/s, Apr. 7, gage height, 10.71 ft; minimum discharge, 276 ft^3/s, Oct. 7, 11.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,340	3,130	7,530	10,500	4,660	8,850	18,700	6,090	10,700	e2,600	4,790	1,640
2	2,740	2,800	7,700	10,900	4,600	8,710	18,300	6,520	11,200	e2,620	5,350	1,400
3	3,640	3,270	7,620	10,800	4,930	8,890	17,500	6,450	11,100	e2,480	5,080	1,600
4	3,640	4,070	7,670	10,800	5,390	8,440	18,400	4,220	11,000	e2,340	4,670	1,570
5	3,140	3,170	7,840	10,300	6,920	7,780	20,900	6,610	10,900	e2,300	3,790	1,050
6	2,950	4,270	8,250	9,440	7,060	7,830	22,000	6,420	10,200	e2,070	4,790	1,350
7	1,630	4,340	7,840	9,760	7,620	7,350	23,500	5,400	9,140	e2,780	6,480	1,980
8	1,040	4,580	7,760	9,790	8,020	7,870	23,200	3,320	9,120	e1,340	6,990	1,320
9	2,850	4,460	7,460	9,980	7,710	7,470	22,300	3,800	8,400	e1,250	7,380	939
10	1,860	5,280	7,430	10,100	7,430	7,800	21,700	3,900	7,960	e2,200	7,860	1,310
11	1,690	5,020	7,430	10,200	6,340	7,810	20,700	3,760	7,160	e1,830	7,800	1,120
12	840	4,910	7,290	9,930	6,130	7,830	19,900	6,720	6,360	e1,720	8,300	904
13	1,650	5,390	7,310	9,760	6,160	7,870	18,500	9,740	5,750	e1,270	8,180	1,130
14	1,610	5,750	7,930	9,360	5,660	7,610	17,900	10,200	6,510	e1,300	7,780	1,480
15	1,360	6,300	11,500	9,070	4,220	7,310	17,400	10,600	8,300	e1,670	7,530	1,550
16	3,100	6,520	11,800	8,910	4,490	7,560	16,400	10,800	8,970	e1,240	6,330	3,310
17	4,260	6,820	12,100	8,490	5,290	8,710	15,900	10,100	9,000	e1,270	5,400	6,280
18	3,590	7,020	11,700	7,790	5,540	12,100	15,800	9,930	8,540	e1,290	3,240	6,250
19	3,180	6,950	10,200	8,040	5,490	14,200	14,300	9,960	8,080	e1,290	e2,290	6,960
20	3,630	7,460	8,670	7,330	5,690	16,200	14,200	9,440	7,520	e1,340	e2,120	3,720
21	5,010	7,010	10,500	7,380	6,500	18,400	12,800	9,610	6,540	e1,100	e1,980	3,200
22	5,010	7,210	10,600	7,590	7,560	19,800	11,500	9,100	6,760	e2,050	e2,100	2,480
23	5,460	8,220	10,600	7,270	8,110	20,700	11,400	8,430	6,150	e2,030	e1,820	2,000
24	5,320	8,310	10,100	e7,200	8,930	20,700	11,200	7,650	7,130	4,440	e1,820	2,470
25	4,650	8,050	9,970	e7,100	9,060	20,400	10,800	7,630	6,540	5,400	e1,470	1,620
26	5,450	8,180	9,860	6,860	e9,000	20,700	9,970	9,530	e3,330	5,930	e1,250	3,630
27	5,200	8,220	9,500	6,320	e8,900	20,000	9,200	11,500	e2,640	6,480	e1,050	3,530
28	4,870	8,310	9,600	e6,100	e8,850	19,400	8,650	11,300	e2,440	6,340	e1,030	3,380
29	4,040	8,070	9,070	e5,900	---	18,800	8,340	11,200	e2,480	6,260	e1,200	3,410
30	2,220	7,870	9,300	5,140	---	19,000	6,680	10,900	e1,980	5,820	e1,120	4,100
31	2,590	---	9,360	4,980	---	19,000	---	10,600	---	5,070	1,230	---
TOTAL	101,560	180,960	281,490	263,090	186,260	395,090	478,040	251,430	221,900	87,120	132,220	76,683
MEAN	3,276	6,032	9,080	8,487	6,652	12,740	15,930	8,111	7,397	2,810	4,265	2,556
MAX	5,460	8,310	12,100	10,900	9,060	20,700	23,500	11,500	11,200	6,480	8,300	6,960
MIN	840	2,800	7,290	4,980	4,220	7,310	6,680	3,320	1,980	1,100	1,030	904

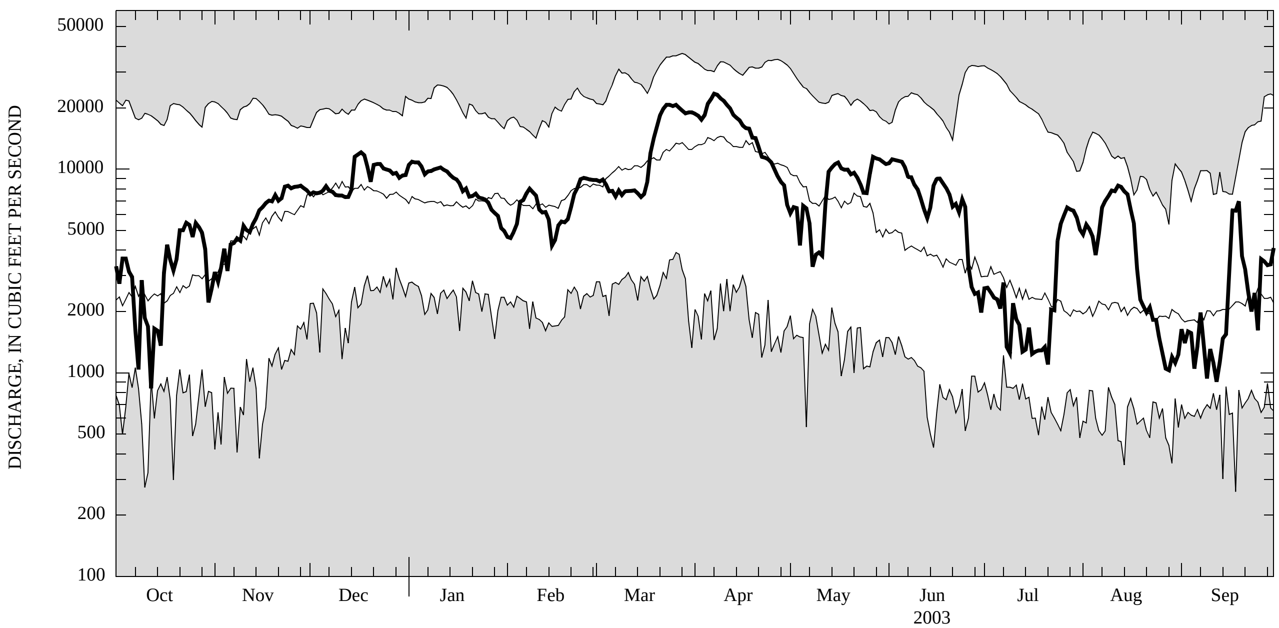
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3,803	6,082	8,407	7,843	7,837	11,590	13,110	8,241	5,111	3,366	2,490	2,644
MAX	17,950	16,070	17,920	16,970	15,130	21,720	30,250	20,350	17,000	19,660	8,951	8,702
(WY)	(1978)	(1978)	(1978)	(1998)	(1976)	(1979)	(1993)	(1943)	(1947)	(1972)	(1992)	(1977)
MIN	1,173	1,167	2,917	2,610	2,547	3,914	2,757	1,993	1,383	1,113	836	760
(WY)	(1940)	(1965)	(1940)	(1963)	(1963)	(1983)	(1995)	(1995)	(1995)	(1995)	(1934)	(1995)

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

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1934 - 2003	
ANNUAL TOTAL	2,235,821		2,655,843			
ANNUAL MEAN	6,126		7,276		6,742	
HIGHEST ANNUAL MEAN					11,030	1976
LOWEST ANNUAL MEAN					3,433	1965
HIGHEST DAILY MEAN	19,100	May 17	23,500	Apr 7	37,000	Mar 28, 1936
LOWEST DAILY MEAN	630	Aug 6	840	Oct 12	261	Sep 18, 1985
ANNUAL SEVEN-DAY MINIMUM	999	Sep 9	1,170	Sep 8	697	Sep 4, 1995
10 PERCENT EXCEEDS	11,800		11,900		14,300	
50 PERCENT EXCEEDS	6,130		7,020		5,170	
90 PERCENT EXCEEDS	1,140		1,640		1,590	

e Estimated



2003 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

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).

04240495 ONONDAGA LAKE AT LIVERPOOL, NY (see station for daily mean elevation).

04246000 ONEIDA LAKE AT BREWERTON, NY (see station for daily mean elevation).

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 2003 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
SUSQUEHANNA RIVER BASIN								
Little Elk Creek near Westford, NY (01497805)	Lat 42°38’01", long 74°47’45", Otsego County, Hydrologic Unit 02050101, at culvert on Greenbush Road, 1.2 mi south of Westford, and 2.2 mi upstream from mouth. Elevation of gage is 1,520 feet above NGVD of 1929, from topographic map. Drainage area is 3.73 mi^2.	1978-03	3-22-03	16.06	105	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. Datum of gage is 997.25 ft above NGVD of 1929 (Corps of Engineers benchmark). Drainage area is 982 mi^2.	1938-95‡ 1996-03	3-22-03	11.47	14,300	3-18-36 3-14-77	16.6 14.64	j31,300 23,500
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. Datum of gage is 956.55 ft above NGVD of 1929. Drainage area is 1,610 mi^2.	1988-03	3-22-03	17.63	29,200	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. Datum of gage is 900.00 ft above NGVD of 1929. Drainage area is 1,820 mi^2.	1988-03	3-23-03	17.09	30,000	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.

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

Station name and number	Location and drainage area	Period of record	Water year 2003 maximum Date	Gage height (ft)	Dis-charge (ft^3/s)	Period of record maximum 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. Elevation of gage is 1,180 ft above mean NGVD of 1929, from topographic map. Drainage area is 24.3 mi^2.	1964-65, 1967-03	3-21-03	7.25	774	3- 6-64 1-19-96	8.12 8.51	2,350 a
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. Datum of gage is 1,037.16 ft above NGVD of 1929. Drainage area is 263 mi^2.	1938-95‡, 1996-03	3-21-03	9.08	4,880	3-18-36 3- 6-79 1-19-96	k10.60 9.94 10.47	e12,500 10,400 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. Datum of gage is 892.58 ft above NGVD of 1929. Drainage area is 593 mi^2.	1937-70‡, 1971-03	3-22-03	13.15	9,780	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. Datum of gage is 956.52 ft above NGVD of 1929. Drainage area is 453 mi^2.	1988-03	3-22-03	7.02	9,080	1-19-96 1-20-96	10.50 --	a 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. Elevation of gage is 1,150 ft above NGVD of 1929, from topographic map. Drainage area is 5.32 mi^2.	1976-81, 1983-03	3-21-03 9-28-02	1.43 1.62	332 R374	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 upstream from mouth. Datum of gage is 917.97 ft above NGVD of 1929. Drainage area is 730 mi^2.	1930-67‡, 1968-03	4- 5-03	7.19	8,520	7- 8-35 2-26-61	i16.61 11.15	m61,100 22,600

‡ 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.

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

Station name and number	Location and drainage area	Period of record	Water year 2003 maximum Date	Gage height (ft)	Dis-charge (ft^3/s)	Period of record maximum Date	Gage height (ft)	Dis-charge (ft^3/s)
SUSQUEHANNA RIVER BASIN--Continued								
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. Datum of gage is 799.19 ft above NGVD of 1929 (levels of U. S. Army Corps of Engineers). Drainage area is 3,941 mi^2.	1936, 1937-67‡, 1968-72, 1974-03	3-23-03	21.01	51,800	e3-18-36	e30.50	107,000
Susquehanna River at Owego, NY (01513831)	Lat 42°05’50", long 76°16’06", Tioga County, Hydrologic Unit 02050103, on right bank in pumphouse for village sewage treatment plant, 0.4 mi downstream from bridge on State Highway 96, at Owego. Datum of gage is 776.64 ft above NGVD of 1929. Drainage area is 4,216 mi^2.	1988-96, 1999-03	3-23-03	26.57	48,200	3-18-36 1-20-96	g 32.97	107,000 81,400
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. Datum of gage is 819.82 ft above NGVD of 1929. Drainage area is 185 mi^2.	1930-78‡, 1979-03	3-21-03	6.08	4,120	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. Elevation of gage is 810 ft above NGVD of 1929, from topographic map. Drainage area is 151 mi^2.	1988-03	3-21-03	8.73	2,870	1-20-96	14.83	9,740
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. Datum of gage is 964.50 ft above NGVD of 1929. Drainage area is 771 mi^2.	1930-95‡ 1996-03	3-24-03	12.66	11,600	6-23-72 10-23-90 8-18-94	i26.27 13.37 13.38	m128,000 13,900 13,900

‡ Operated as a continuous-record gaging station.
a Ice jam.
e Estimated.
g None available.
i From floodmark.
m Prior to current degree of regulation.

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

Station name and number	Location and drainage area	Period of record	Water year 2003 maximum Date	Gage height (ft)	Dis-charge (ft^3/s)	Period of record maximum Date	Gage height (ft)	Dis-charge (ft^3/s)
			SUSQUEHANNA RIVER BASIN--Continued					
Big Creek near Howard, NY (01521596)	Lat 42°22'01", long 77°34'33", Steuben County, Hydrologic Unit 02050104, at culvert on town road, 0.1 mi south of State Highway 70, 1.3 mi north of Butcher Corner, 3.4 mi west of Howard, and 6.2 miupstream from mouth. Elevation of gage is 810 ft above NGVD of 1929, from topographic map. Drainage area is 6.32 mi^2.	1977-03	3-22-03	---	e500	1-19-96	16.23	Re1,600
Canacadea Creek at Alfred, NY (01522075)	Lat 42°15'13", long 77°47'24", Steuben County, Hydrologic Unit 02050104, at culvert off Saxon Road, on Alfred University campus, at Alfred. Elevation of gage is 1720 ft above NGVD of 1929, from topographic map. Drainage area is 1.28 mi^2.	1999-03	3-20-03	4.85	c	6-14-00 3-20-03	2.58 4.85	160 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. Datum of gage is 1,037 ft above NGVD of 1929, (levels from Corps of Engineers, datum 1912). Drainage area is 340 mi^2.	1930-31‡, 1937-70‡, 1971-72, 1974-03	3-22-03	12.49	7,560	6-23-72	23.48	43,000
Cohocton River at Bath, NY (01528320)	Lat 42°20'36", long 77°20'39", Steuben County, Hydrologic Unit 02050104, on left bank 150 ft upstream from bridge on Veterans Avenue at Bath, and 0.6 mi down-stream from Harrisburg Hollow Creek. Datum of gage is 1,100.00 ft above NGVD of 1929. Drainage area is 316 mi^2.	1988-96, 1999-03	3-22-03	9.13	5,910	4- 1-93 1-23-99	10.18 10.70	7,000 a
Cuthrie Run near Big Flats, NY (01530301)	Lat 42°10'43", long 75°55'32", Chemung County, Hydrologic Unit 02050105, at culvert on Breed Hollow Road, 0.9 mi north of intersection of Eacher Hollow Road and Breed Hollow Road, 2.3 mi north of State Highway 17, and 3.0 mi north of Big Flats. Elevation of gage is 925 ft above NGVD of 1929, from topographic map. Drainage area is 5.39 mi^2.	1976, 1979-81, 1983-03	8-10-03	13.93	178	6-19-76	18.52	800

‡ Operated as a continuous-record gaging station.

a Ice jam.
c Discharge not determined.
e Estimated.
R Revised.

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

Station name and number	Location and drainage area	Period of record	Water year 2003 maximum Date	Gage height (ft)	Dis-charge (ft³/s)	Period of record maximum Date	Gage height (ft)	Dis-charge (ft³/s)
SUSQUEHANNA RIVER BASIN--Continued								
Chemung River at Elmira, NY (01530332)	Lat 42°05’11", long 76°48’05", Chemung County, Hydrologic Unit 02050105, on right bank 350 ft upstream from bridge on Pennsylvania Avenue at the north end of George Place, 1.0 mi downstream from Hoffman Brook, at Elmira. Datum of gage is 833.65 ft above NGVD of 1929. Drainage area is 2,162 mi².	1988-03	7-23-03	12.23	37,400	1-20-96	i18.51	e71,000
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. Elevation of gage is 1,680 ft above NGVD of 1929, from topographic map. Drainage area is 5.12 mi².	1978-81, 1983-03	3-22-03	8.95	108	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. Elevation of gage is 1,330 ft above NGVD of 1929, from topographic map. Drainage area is 9.58 mi².	1955-64§, 1965, 1967-68b, 1974‡, 1975-03	7- 22-03	14.82	843	9-14-79	21.88	2,000
STREAMS TRIBUTARY TO LAKE ERIE								
Canadaway Creek at Fredonia, NY (04213376)	Lat 42°27’02", long 79°21’03", Chautauqua County, Hydrologic Unit 04120101, at bridge on Van Buren Road (Matteson Street), 0.8 mi northwest of Fredonia corporate boundary, and 1.2 mi upstream from Beaver Creek. Elevation of gage is 650 ft above NGVD of 1929, from topographic map. Drainage area is 32.9 mi².	1962-63b, 1987-03	7-24-03	5.83	2,950	5-19-97 8- 7-79	9.50 --	6,690 12,000
STREAMS TRIBUTARY TO NIAGARA RIVER								
Little Tonawanda Creek at Linden, NY (04216500)	Lat 42°52’37", long 78°09’48", Genesee County, Hydrologic Unit 04120104, on right bank at upstream side of bridge on, County Highway 13A (Depot Road) in Linden and 9.3 mi upstream from mouth. Datum of gage is 1,081.62 ft above NGVD of 1929. Drainage area is 22.1 mi².	1913-68‡, 1970-72‡, 1977-92‡, 1993-03	3-20-03	6.84	812	6-23-89	i16.99	2,900

‡ Operated as a continuous-record gaging station.
§ Operated as a low-flow partial-record station.
b Miscellaneous measurements made.
e Estimated.
i From floodmark.

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

Station name and number	Location and drainage area	Period of record	Water year 2003 maximum Date	Gage height (ft)	Dis-charge (ft^3/s)	Period of record maximum Date	Gage height (ft)	Dis-charge (ft^3/s)
	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. Elevation of gage is 260 ft above NGVD of 1929, from topographic map. Drainage area is 95.1 mi^2.	1962-70, 1972-73, 1976-03	3-18-03	6.85	1,800	2-17-54 3-12-62	g 10.29	5,430 3,540
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. Elevation of gage is 1,400 ft above NGVD of 1929, from topographic map. Drainage area is 3.15 mi^2.	1977-82, 1984-91, 1996-03	7-22-03	14.70	660	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. Elevation of gage is 420 ft above NGVD of 1929, from topographic map. Drainage area is 6.74 mi^2.	1971-73, 1975-03	3-20-03	11.80	80	1- 8-98	13.38	238
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. Elevation of gage is 490 ft above NGVD of 1929, from topographic map. Drainage area is 41.1 mi^2.	1957-62§, 1964-66§, 1970§, 1976-77‡, 1987-03	3-17-03 4- 4-00 3-30-01 6-27-02	5.38 5.24 5.23 5.64	811 R735 R728 R977	11- 8-96	8.48	e4,700
Kendig Creek near MacDougall, NY (04232630)	Lat 42°50'57", long 76°53'33", Seneca County, Hydrologic Unit 04140201, at downstream side of bridge on County Highway 120, 3.0 mi north of MacDougall, 3.5 mi southwest of Waterloo, and 4.6 mi upstream from mouth. Elevation of gage is 530 ft above NGVD of 1929, from topographic map. Drainage area is 13.8 mi^2.	1966-03	3-22-03 4-15-02	13.95 13.93	310 R308	7-31-92 3-15-78	n6.32 n6.72	1,000 c

‡ Operated as a continuous-record gaging station.
§ Operated as a low-flow partial-record station.
c Discharge not determined.
e Estimated.
g None available.
n Datum prior to Oct. 1991.
R Revised.

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

Station name and number	Location and drainage area	Period of record	Water year 2003 maximum Date	Water year 2003 maximum Gage height (ft)	Water year 2003 maximum Discharge (ft^3/s)	Period of record maximum Date	Period of record maximum Gage height (ft)	Period of record maximum Discharge (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. Datum of gage is 379.97 ft above NGVD of 1929. Drainage area is 86.7 mi^2.	1971-72, 1975-03	7-22-03	<7.94	c	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. Datum of gage is 380.00 ft above NGVD of 1929. Drainage area is 3.56 mi^2.	1983-03	3-17-03	18.18	83.8	1-19-96	22.23	820
Trumansburg Creek near Trumansburg, NY (0423403092)	Lat 42°32’16", long 76°41’06", Tompkins County, Hydrologic Unit 04140201, at bridge on Curry Road, 1.0 mi west of Trumansburg and 4.2 mi upstream from mouth. Elevation of gage is 1,040 ft above NGVD of 1929, from topographic map. Drainage area is 2.52 mi^2.	2002-03	3-17-03	2.53	121	3-17-03	2.53	121
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. Elevation of gage is 860 ft above NGVD of 1929, from topographic map. Drainage area is 7.84 mi^2.	1980-03	6- 2-03	11.64	241	3- 5-79 4-11-90 1- 8-98	g 12.88 12.88	e520 336 336
Mud Creek at East Victor, NY (04234200)	Lat 42°58’28", long 77°22’58", Ontario County, Hydrologic Unit 04140201, on left bank, 25 ft downstream from bridge on State Highway 96 at East Victor, 0.3 mi upstream from Fish Creek, and 0.5 mi upstream from mouth. Elevation of gage is 580 ft above NGVD of 1929, from topographic map. Drainage area is 64.2 mi^2.	1958-68‡, 1972, 1976-03	8-12-03	5.95	1,220	6-22-72 4-21-91	7.85 7.22	1,800 1,880

‡ Operated as a continuous-record gaging station.
e Estimated.
c Discharge not determined.
g None available.
< Less than.

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

Station name and number	Location and drainage area	Period of record	Water year 2003 maximum: Date	Water year 2003 maximum: Gage height (ft)	Water year 2003 maximum: Discharge (ft³/s)	Period of record maximum: Date	Period of record maximum: Gage height (ft)	Period of record maximum: Discharge (ft³/s)
	STREAMS TRIBUTARY TO LAKE ONTARIO--Continued							
Canandaigua Outlet tributary near Alloway, NY (04235255)	Lat 43°00’21", long 77°00’54", Ontario County, Hydrologic Unit 04140201, at bridge on Pre-emption Road, 0.5 mi south of Wayne-Ontario County line, 1.8 mi southwest of Alloway, and 2.9 mi upstream from mouth. Elevation of gage is 490 ft above NGVD of 1929, from topographic map. Drainage area is 2.94 mi².	1978-03	3-16-03	5.92	50.8	5-30-02	8.39	155
Butternut Creek near Jamesville, NY (04245200)	Lat 42°56’02", long 76°03’44", Onondaga County, Hydrologic Unit 04140202, on left bank, 15 ft down-stream from bridge on Walberger Road, 125 ft downstream from tributary from Stebbins Gulf, 2.2 mi upstream from Jamesville Reservoir, and 4.0 mi south of Jamesville. Datum of gage is 717.93 ft above NGVD of 1929. Drainage area is 32.2 mi².	1955-58b, 1958-99‡, 2000-03	3-21-03	8.17	527	7- 3-74 1-19-96	7.84 a9.20	2,820 e1,850
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. Elevation of gage is 410 ft above NGVD of 1929, from topographic map. Drainage area is 38.4 mi².	1966-68‡, 1969, 1971-03	3-21-03	6.70	1,150	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. Elevation of gage is 350 ft above NGVD of 1929, from topographic map. Drainage area is 31.7 mi².	1962-66, 1968-03	3-21-03	5.33	531	3-18-73	7.85	1,350

‡ Operated as a continuous-record gaging station.
a Ice jam.
b Miscellaneous measurements made.
e Estimated.

Discharge measurements made at miscellaneous sites during water year 2002

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		SUSQUEHANNA RIVER BASIN				
01497819 Schenevus Creek above Maryland, NY	Susquehanna River	Lat 42°32’05", long 74°52’33", Otsego County, Hydrologic Unit 02050101, 0.25 mi south of State Highway 7, 0.5 mi upstream from bridge on town road in Maryland, and 1.3 mi downstream from bridge on town road in Chaseville.	93.0	2002	8-30-02	10.7*
					10-29-02	168
					3-21-03	2,360
					5-16-03	280
					8- 5-03	55.6
01498500 Charlotte Creek at West Davenport, NY	Susquehanna River	Lat 42°26’42", long 74°57’50", Delaware County, Hydrologic Unit 02050101, on right bank on County Highway 11 at West Davenport, 700 ft upstream from small tributary, and 1.7 mi downstream from Pumpkin Hollow.	167	1938-76‡	12- 5-01	24.1*
					4- 5-02	452
					4-23-02	224
					6-11-02	395
					8-23-02	16.2*
					5-16-03	401
					6-20-03	149
					8- 5-03	143
					9-23-03	1,000

* Base flow.
‡ Operated as a continuous-record gaging station.

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.-- Water years 1989 to current year.
CHEMICAL DATA: Water years 1989-91 (d), 1992 (c), 1993 (b), 1994 (d), 1995 (b), 1996-97 (a), 1998 (b), 1999 - 2002 (d), 2003 (c).
NUTRIENT DATA: Water years 1989-91 (d), 1992 (c), 1993 (b), 1994 (d), 1995 (b), 1996-97 (a), 1998 (b), 1999 - 2002 (d), 2003 (c).

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

REMARKS.--Records for October 1998 to September 1993 are published in "Water Resources of Monroe County New York, Water Years 1989-93 with Emphasis on Water Quality in the Irondequoit Creek Basin", U.S. Geological Survey Open-File Report 97-587.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instan-taneous dis-charge, cfs (00061)	Tur-bidity, NTU (00076)	Dis-solved oxygen, mg/L (00300)	Chlor-ide, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Residue total at 105 deg. C, sus-pended, mg/L (00530)	Residue vola-tile, sus-pended, mg/L (00535)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water unfltrd mg/L as N (00630)	Ortho-phos-phate, water, fltrd, mg/L as P (00671)	Phos-phorus, water, unfltrd mg/L (00665)
OCT													
08	0825	2.1	3.4	11.4	43	100	3	<2	.28	<.01	.72	.023	.047
16	0740	2.5	3.7	9.4	29	58	6	<2	.38	.03	.60	.026	.062
30	0830	2.1	1.7	11.2	36	74	<2	<2	.33	<.01	.56	.015	.035
NOV													
06	1105	2.0	1.3	11.7	44	74	<2	<2	.46	<.01	.73	.015	.041
MAY													
20	0815	2.9	--	9.7	100	--	12	--	.68	.05	.69	.017	.065
JUN													
23	0755	.80	--	8.0	41	--	19	--	.37	.03	.80	.025	.074
JUL													
30	0820	4.4	--	7.7	26	--	46	--	.61	.07	.70	.026	.315
AUG													
27	0715	--	--	6.8	30	--	21	--	.44	.02	.75	.027	.096
SEP													
30	0820	--	--	9.8	43	--	5	--	.39	.02	.77	.020	.050

Remark codes used in this table:
< -- Less than

STREAMS TRIBUTARY TO LAKE ONTARIO

430526077315201 EAST BRANCH ALLEN CREEK ABOVE ERIE CANAL SIPHON NEAR PITTSFORD, NY

LOCATION.--Lat 43°05'26", long 77°31'52", Hydrologic Unit 04140101, at north bank of Erie Canal, 0.5 mi west of State Highway 31.

PERIOD OF RECORD.--Water years 1985, 1988-96, 1998-2001, 2003.
CHEMICAL DATA: Water years 1985 (a), 1987 (a), 1988 (d), 1989 (c), 1990 (d), 1991-92 (c), 1993 (a), 1994 (c), 1995 (b), 1996 (a), 1998 (b), 1999 (c), 2000-01 (a), 2003 (b).
NUTRIENT DATA: Water years 1985 (a), 1987 (a), 1988 (d), 1989 (c), 1990 (d), 1991-92 (c), 1993 (a), 1994 (c), 1995 (b), 1996 (a), 1998 (b), 1999 (c), 2000-01 (a), 2003 (b).

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

REMARKS.--Records for October 1988 to September 1993 are published in "Water Resources of Monroe County New York, Water Years 1989-93 with Emphasis on Water Quality in the Irondequoit Creek Basin", U.S. Geological Survey Open-File Report 97-587. Prior to October 1988, unpublished records are available in the files of the U. S. Geological Survey.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instan- taneous dis- charge, cfs (00061)	Dis- solved oxygen, mg/L (00300)	Chlor- ide, water, fltrd, mg/L (00940)	Residue total at 105 deg. C, sus- pended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water unfltrd mg/L as N (00630)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, unfltrd mg/L (00665)
MAY										
20	0955	6.4	8.1	158	9	1.2	.04	.87	.006	.063
JUN										
23	0945	1.6	9.8	149	19	1.0	.06	.38	.015	.088
JUL										
30	1005	--	7.3	160	5	1.1	.04	.08	.041	.141

STREAMS TRIBUTARY TO LAKE ONTARIO

430526077315202 EAST BRANCH ALLEN CREEK BELOW ERIE CANAL SIPHON NEAR PITTSFORD, NY

LOCATION.--Lat 43°05'26", long 77°31'52", Hydrologic Unit 04140101, at north bank of Erie Canal, 0.5 mi west of State Highway 31.

PERIOD OF RECORD.--Water years 1985, 1987-96, 1998 to current year.
CHEMICAL DATA: Water years 1985 (b), 1987 (a), 1988 (d), 1989 (c), 1990 (d), 1991-92 (c), 1993 (a), 1994-95 (c), 1996 (a), 1998 (b), 1999 (c), 2000-02 (b), 2003 (c).
NUTRIENT DATA: Water years 1985 (b), 1987 (a), 1988 (d), 1989 (c), 1990 (d), 1991-92 (c), 1993 (a), 1994-95 (c), 1996 (a), 1998 (b), 1999 (c), 2000-02 (b) 2003 (c).

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

REMARKS.--Records for October 1988 to September 1993 are published in "Water Resources of Monroe County New York, Water Years 1989-93 with Emphasis on Water Quality in the Irondequoit Creek Basin", U.S. Geological Survey Open-File Report 97-587. Prior to October 1988, unpublished records are available in the files of the U.S. Geological Survey.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instan-taneous dis-charge, cfs (00061)	Tur-bidity, NTU (00076)	Dis-solved oxygen, mg/L (00300)	Chlor-ide, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Residue total at 105 deg. C, sus-pended, mg/L (00530)	Residue vola-tile, sus-pended, mg/L (00535)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water unfltrd mg/L as N (00630)	Ortho-phos-phate, water, fltrd, mg/L as P (00671)	Phos-phorus, water, unfltrd mg/L (00665)
OCT													
16	0900	3.0	4.6	9.4	36	62	5	<2	.30	.03	.67	.025	.065
30	0940	3.0	2.2	11.2	39	70	2	<2	.37	.03	.65	.017	.033
NOV													
06	1035	2.7	6.5	11.9	43	70	6	<4	.41	.03	.70	.021	.060
MAY													
20	0910	7.3	--	9.0	137	--	12	--	.89	<.01	.83	.009	.063
JUN													
23	0855	4.0	--	7.4	79	--	11	--	.53	.05	.68	.019	.057
JUL													
30	0915	2.1	--	8.0	26	--	149	--	.83	.05	.44	.019	.761
SEP													
30	0920	--	--	9.7	43	--	16	--	.33	.02	.81	.020	.070

Remark codes used in this table:
< -- Less than

STREAMS TRIBUTARY TO LAKE ONTARIO

430526077315203 EAST BRANCH ALLEN CREEK ERIE CANAL SIPHON NEAR PITTSFORD, NY

LOCATION.--Lat 43°05'26", long 77°31'52", Hydrologic Unit 04140101, at north bank of Erie Canal, 0.5 mi west of State Highway 31.

PERIOD OF RECORD.--Water years 1988-95, 1998 to current year.
CHEMICAL DATA: Water years 1988 (d), 1989 (c), 1990 (d), 1991-92 (c), 1993 (a), 1994 (c), 1995 (b), 1998 (b), 1999 (c), 2000-02 (a), 2003 (c).
NUTRIENT DATA: Water years 1988 (d), 1989 (c), 1990 (d), 1991-92 (c), 1993 (a), 1994 (c), 1995 (b), 1998 (b), 1999 (c), 2000-02 (a), 2003 (c).

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

REMARKS.--Records for October 1988 to September 1993 are published in "Water Resources of Monroe County New York, Water Years 1989-93 with Emphasis on Water Quality in the Irondequoit Creek Basin", U.S. Geological Survey Open-File Report 97-587. Prior to October 1988, unpublished records are available in the files of the U.S. Geological Survey.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instan-taneous dis-charge, cfs (00061)	Tur-bidity, NTU (00076)	Dis-solved oxygen, mg/L (00300)	Chlor-ide, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Residue total at 105 deg. C, sus-pended, mg/L (00530)	Residue vola-tile, sus-pended, mg/L (00535)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water unfltrd mg/L as N (00630)	Ortho-phos-phate, water, fltrd, mg/L as P (00671)	Phos-phorus, water, unfltrd mg/L (00665)
OCT													
16	0855	2.5	3.5	9.1	35	63	4	<2	.33	.03	.69	.025	.049
30	0945	2.5	2.3	11.1	36	71	64	7	.38	.03	.67	.018	.027
NOV													
06	1040	2.5	5.0	11.7	41	72	6	<2	.39	.04	.74	.022	.060
MAY													
20	0915	.90	--	9.6	92	--	13	--	.76	.04	.88	.017	.055
JUN													
23	0900	.40	--	8.1	50	--	10	--	.39	.03	.83	.017	.046
JUL													
30	0920	--	--	6.8	16	--	148	--	.93	.06	.47	.020	.778
SEP													
30	0925	--	--	9.5	42	--	13	--	.28	.02	.83	.020	.060

Remark codes used in this table:
< -- Less than

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.--Water years 1985 to current year.
CHEMICAL DATA: Water years 1985 (a), 1986 (b), 1987 (a), 1988 (d), 1989 (c), 1990 (d), 1991-92 (c), 1993 (b), 1994 (d), 1995 (a), 1996-97 (a), 1998 (b), 1999 (c), 2000-02 (d), 2003 (c).
NUTRIENT DATA: Water years 1985 (a), 1986 (b), 1987 (a), 1988 (d), 1989 (c), 1990 (d), 1991-92 (c), 1993 (b), 1994 (d), 1995 (a), 1996-97 (a), 1998 (b), 1999 (c), 2000-02 (d), 2003 (c).

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

REMARKS.--Records for October 1988 to September 1993 are published in "Water Resources of Monroe County New York, Water Years 1989-93", U.S. Geological Survey Open-File Report 97-587. Prior to October 1988, unpublished records are available in the files of the U.S. Geological Survey.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instan- taneous dis- charge, cfs (00061)	Tur- bidity, NTU (00076)	Dis- solved oxygen, mg/L (00300)	Chlor- ide, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Residue total at 105 deg. C, sus- pended, mg/L (00530)	Residue vola- tile, sus- pended, mg/L (00535)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water unfltrd mg/L as N (00630)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, unfltrd mg/L (00665)
OCT													
08	0955	.30	9.5	10.0	193	58	6	3	.88	.15	.16	.005	.059
16	0930	.70	6.9	8.9	138	58	5	3	.37	.06	.28	.009	.068
30	1020	.50	15	10.6	166	53	14	10	1.2	.04	.29	.004	.073
MAY													
20	1120	2.0	--	14.2	282	--	6	--	.96	.01	.40	.006	.028
JUN													
23	1100	.94	--	8.5	338	--	12	--	.74	.07	.41	.022	.074
JUL													
30	1130	--	--	8.9	234	--	<2	--	.58	.10	.17	.034	.075
AUG													
27	0930	--	--	8.3	182	--	5	--	.90	.07	.46	.017	.061
SEP													
30	1020	--	--	8.0	354	--	12	--	1.3	.05	.18	.003	.040

Remark codes used in this table:
< -- Less than

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.--Water years 1985 to current year.
CHEMICAL DATA: Water years 1985 (a), 1986 (b), 1987 (a), 1988 (d), 1989 (c), 1990 (d), 1991-93 (c), 1994 (d), 1995 (c), 1996-97 (a), 1998 (b), 1999 (c), 2000-02 (d), 2003 (c).
NUTRIENT DATA: Water years 1985 (a), 1986 (b), 1987 (a), 1988 (d), 1989 (c), 1990 (d), 1991-93 (c), 1994 (d), 1995 (c), 1996-97 (a), 1998 (b), 1999 (c), 2000-02 (d), 2003 (c).

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

REMARKS.--Records for October 1988 to September 1993 are published in "Water Resources of Monroe County New York, Water Years 1989-93", U.S. Geological Survey Open-File Report 97-587. Prior to October 1988, unpublished records are available in the files of the U.S. Geological Survey.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity, NTU (00076)	Dissolved oxygen, mg/L (00300)	Chloride, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Residue total at 105 deg. C, suspended, mg/L (00530)	Residue volatile, suspended, mg/L (00535)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water unfltrd mg/L as N (00630)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)
OCT													
08	0925	.80	5.5	9.7	106	75	6	<2	.60	.13	.50	.022	.066
16	0920	1.7	5.8	8.4	95	53	7	<2	.47	.04	.37	<.001	.060
30	1005	1.6	12	10.3	113	65	10	5	.72	.04	.42	<.003	.044
MAY													
20	1045	6.0	--	10.3	201	--	11	--	.89	.03	.68	.007	.041
JUN													
23	1050	7.7	--	7.3	145	--	10	--	.50	.04	.71	.018	.045
JUL													
30	1045	--	--	6.5	50	--	187	--	.97	.05	.39	.016	.852
AUG													
27	0920	--	--	6.5	49	--	23	--	.45	.05	.76	.024	.102
SEP													
30	1015	--	--	8.2	93	--	20	--	.51	.03	.72	.005	.050

Remark codes used in this table:
< -- Less than

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.--Water years 1986 to current year.
CHEMICAL DATA: Water years 1986-1987 (a), 1988 (d), 1989 (c), 1990 (d), 1991-93 (c), 1994 (d), 1995 (c), 1996 (b), 1997 (a), 1998 (b), 1999 (c), 2000-02 (d), 2003 (c).
NUTRIENT DATA: Water years 1986-1987 (a), 1988 (d), 1989 (c), 1990 (d), 1991-93 (c), 1994 (d), 1995 (c), 1996 (b), 1997 (a), 1998 (b), 1999 (c), 2000-02 (d), 2003 (c).

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

REMARKS.--Records for October 1988 to September 1993 are published in "Water Resources of Monroe County New York, Water Years 1989-93 with Emphasis on Water Quality in the Irondequoit Creek Basin", U.S. Geological Survey Open-File Report 97-587. Prior to October 1988, unpublished records are available in the files of the U.S. Geological Survey.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity, NTU (00076)	Dissolved oxygen, mg/L (00300)	Chloride, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Residue total at 105 deg. C, suspended, mg/L (00530)	Residue volatile, suspended, mg/L (00535)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water unfltrd mg/L as N (00630)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)
OCT													
08	0950	.50	7.2	9.2	61	92	9	<4	.43	.12	.70	.033	.080
16	0935	1.0	5.9	8.9	40	63	10	<2	.35	.03	.59	.023	.059
30	1015	1.0	3.9	11.1	43	83	3	<2	.43	.06	.73	.017	.033
MAY													
20	1035	4.0	--	9.6	95	--	9	--	.50	<.01	.91	.014	.060
JUN													
23	1055	6.7	--	7.0	79	--	9	--	.42	.03	.94	.016	.051
JUL													
30	1055	--	--	7.0	15	--	200	--	.95	.04	.42	.016	.838
AUG													
27	0935	--	--	7.1	37	--	24	--	.43	.05	.81	.025	.107
SEP													
30	1025	--	--	9.5	47	--	--r	--	.39	.02	.87	.010	.060

Remark codes used in this table:
< -- Less than

Null value qualifier codes used in this table:
r -- Sample ruined in preparation

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 NewYork State Highway 250, and 0.05 mi north of Erie canal.

PERIOD OF RECORD.-- Water years 1989 to current year.
CHEMICAL DATA: Water years 1989 (d), 1990 (c), 1991 (a), 1992-94 (c), 1995 (b), 1996-98 (a), 1999-2000 (c), 2001-02 (d), 2003 (c).
NUTRIENT DATA: Water years 1989 (d), 1990 (c), 1991 (a), 1992-94 (c), 1995 (b), 1996-98 (a), 1999-2000 (c), 2001-02 (d), 2003 (c).

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

REMARKS.--Records for October 1988 to September 1993 are published in "Water Resources of Monroe County New York, Water Years 1989-93 with Emphasis on Water Quality in the Irondequoit Creek Basin", U.S. Geological Survey Open-File Report 97-587.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity, NTU (00076)	Dissolved oxygen, mg/L (00300)	Chloride, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Residue total at 105 deg. C, suspended, mg/L (00530)	Residue volatile, suspended, mg/L (00535)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water unfltrd mg/L as N (00630)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)
OCT													
08	0755	.25	3.7	6.1	144	471	4	<2	.37	.03	.61	.010	.051
NOV													
06	1215	11	2.2	11.7	34	63	<2	<2	.30	.02	.63	.016	.044
MAY													
20	0735	5.7	--	9.7	122	--	8	--	.52	.02	.73	.007	.032
JUN													
23	0715	5.7	--	7.1	41	--	16	--	.40	.05	.70	.023	.080
JUL													
30	0740	5.5	--	6.9	18	--	129	--	.82	.04	.56	.025	.642
AUG													
27	0640	--	--	7.2	18	--	18	--	.51	.04	.66	.021	.108
SEP													
30	0730	--	--	8.8	37	--	8	--	.57	.03	.65	.020	.050

Remark codes used in this table:
< -- Less than

STREAMS TRIBUTARY TO LAKE ONTARIO

431132077475301 NORTHRUP CREEK ABOVE SPENCERPORT WASTE CHANNEL AT SPENCERPORT, NY

LOCATION.--Lat 43°11'32", long 77°47'53", Hydrologic Unit 04140101, 300 ft north of Erie (Barge) at Canal Street and 800 ft east of State Highway 259.

PERIOD OF RECORD.--Water years 2001 to current year.
CHEMICAL DATA: Water years 2001 (c), 2002 (d), 2003 (c).
NUTRIENT DATA: Water years 2001 (c), 2002 (d), 2003 (c).

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity, NTU (00076)	Dissolved oxygen, mg/L (00300)	Chloride, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Residue total at 105 deg. C, suspended, mg/L (00530)	Residue volatile, suspended, mg/L (00535)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water unfltrd mg/L as N (00630)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)
OCT													
09	1015	.50	4.2	8.6	240	49	<2	<2	.40	.09	1.5	.039	.080
23	1020	.30	4.1	10.6	95	65	<4	<4	.46	.02	.76	.032	.059
NOV													
13	1035	.50	3.0	--	216	75	2	<2	.51	.09	.70	.022	.059
MAY													
15	0850	4.1	--	11.5	157	--	6	--	.74	.04	1.3	.010	.047
JUN													
16	0855	2.2	--	9.4	133	--	7	--	.68	.05	1.1	.039	.080
JUL													
16	1050	.50	--	7.6	91	--	18	--	.71	.06	1.0	.055	.147
AUG													
26	1050	--	--	7.0	54	--	29	--	1.7	.30	1.1	.097	.283
SEP													
24	1015	--	--	M	161	--	<2	--	.79	.06	.79	.042	.092

Remark codes used in this table:
< -- Less than
M -- Presence verified, not quantified

STREAMS TRIBUTARY TO LAKE ONTARIO

431133077474901 SPENCERPORT WASTE CHANNEL AT SPENCERPORT, NY

LOCATION.--Lat 43°11'33", long 77°47'49", Hydrologic Unit 04140101, 600 ft north of Erie (Barge) and 0.25 mi east of State Highway 259.

PERIOD OF RECORD.--Water years 2001 to current year.
CHEMICAL DATA: Water years 2001 (c), 2002 (d), 2003 (c).
NUTRIENT DATA: Water years 2001 (c), 2002 (d), 2003 (c).

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instan- taneous dis- charge, cfs (00061)	Tur- bidity, NTU (00076)	Dis- solved oxygen, mg/L (00300)	Chlor- ide, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Residue total at 105 deg. C, sus- pended, mg/L (00530)	Residue vola- tile, sus- pended, mg/L (00535)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water unfltrd mg/L as N (00630)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, unfltrd mg/L (00665)
OCT													
09	1005	4.2	4.6	8.3	29	54	6	<2	.30	.02	.73	.036	.061
23	1005	5.9	8.0	9.2	27	51	10	<2	.31	.02	.82	.030	.061
NOV													
13	1025	3.2	1.9	--	34	60	2	<2	.32	<.01	.73	.013	.029
MAY													
15	0835	6.7	--	9.5	109	--	17	--	.56	.04	.87	.008	.072
JUN													
16	0835	5.5	--	8.7	71	--	13	--	.67	.05	.98	.042	.080
JUL													
16	1040	5.6	--	7.1	37	--	13	--	.36	.03	.87	.051	.091
AUG													
26	1040	--	--	6.8	37	--	12	--	.44	.07	.90	.055	.087
SEP													
24	0940	--	--	9.2	36	--	8	--	.36	.04	.69	.042	.068

Remark codes used in this table:
< -- Less than

STREAMS TRIBUTARY TO LAKE ONTARIO

431142077473401 NORTHRUP CREEK BELOW WASTE CHANNEL AT BIG RIDGE ROAD NEAR SPENCERPORT, NY

LOCATION.--Lat 43°11'42", long 77°47'34", Hydrologic Unit 04140101, 50 ft south of bridge on Big Ridge Road and 0.35 mi east of State Highway 259.

PERIOD OF RECORD.--Water years 2001 to current year.
CHEMICAL DATA: Water years 2001-02 (d), 2003 (c).
NUTRIENT DATA: Water years 2001-02 (d), 2003 (c).

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instan- taneous dis- charge, cfs (00061)	Tur- bidity, NTU (00076)	Dis- solved oxygen, mg/L (00300)	Chlor- ide, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Residue total at 105 deg. C, sus- pended, mg/L (00530)	Residue vola- tile, sus- pended, mg/L (00535)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water unfltrd mg/L as N (00630)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, unfltrd mg/L (00665)
OCT													
09	0935	4.7	4.8	8.7	38	55	5	<2	.34	.06	1.1	.066	.063
23	0930	6.2	6.8	10.4	44	51	7	<2	.35	.02	.78	.029	.079
NOV													
13	0935	4.3	2.1	--	48	60	3	<2	.35	.03	.77	.017	.040
MAY													
15	0815	11	--	10.7	132	--	6	--	.67	.23	1.1	.016	.051
JUN													
16	0755	7.6	--	8.0	97	--	12	--	.70	.14	1.0	.044	.079
JUL													
16	1030	6.1	--	7.1	48	--	23	--	.53	.08	.93	.057	.092
AUG													
26	0955	--	--	7.5	47	--	40	--	.96	.21	1.0	.085	.198
SEP													
24	0905	--	--	9.7	45	--	6	--	.47	.08	.83	.051	.063

Remark codes used in this table:
< -- Less than

STREAMS TRIBUTARY TO LAKE ONTARIO

431216077470901 NORTHRUP CREEK AT OGDEN PARMA TOWNLINE ROAD NEAR SPENCERPORT, NY

LOCATION.--Lat 43°12'16", long 77°47'09", Hydrologic Unit 04140101, 60 ft north of bridge on Odgen Parma Townline Road and 0.55 mi east of State Highway 259.

PERIOD OF RECORD.--Water years 2001 to current year.
CHEMICAL DATA: Water years 2001-02 (d), 2003 (c).
NUTRIENT DATA: Water years 2001-02 (d), 2003 (c).

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instan- taneous dis- charge, cfs (00061)	Tur- bidity, NTU (00076)	Dis- solved oxygen, mg/L (00300)	Chlor- ide, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Residue total at 105 deg. C, sus- pended, mg/L (00530)	Residue vola- tile, sus- pended, mg/L (00535)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water unfltrd mg/L as N (00630)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, unfltrd mg/L (00665)
OCT													
09	0850	5.9	6.0	8.3	47	52	10	<2	.91	.24	2.2	.156	.236
23	0825	6.7	5.2	9.5	56	51	7	<2	.87	.28	2.0	.137	.182
NOV													
13	0835	3.7	2.4	--	51	55	4	<2	.77	.23	1.3	.066	.105
MAY													
15	0730	11	--	8.7	134	--	10	--	2.0	1.2	1.2	.055	.115
JUN													
16	0715	8.5	--	7.2	88	--	5	--	1.5	.61	1.2	.106	.166
JUL													
16	0910	7.9	--	6.3	68	--	22	--	.89	.22	2.1	.131	.281
AUG													
26	0915	--	--	7.0	44	--	78	--	1.6	.40	1.6	.140	.355
SEP													
24	0820	--	--	8.3	55	--	7	--	1.3	.52	2.2	.168	.226

Remark codes used in this table:
< -- Less than

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 mi^2 at station 04232000.

PERIOD OF RECORD.--Water years 1990 to current year.
CHEMICAL DATA: Water years 1990 to 2003 (e).
NUTRIENT DATA: Water years 1990 to 2003 (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 2002 TO SEPTEMBER 2003

Date	Time	Ending time	Discharge, cfs (00060)	Turbidity, NTU (00076)	Chloride, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Residue total at 105 deg. C, suspended, mg/L (00530)	Residue volatile, suspended, mg/L (00535)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water unfltrd mg/L as N (00630)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)
OCT													
01-02	1545	2044	753	8.5	58	134	--	--	.67	.16	.73	.019	.057
11-13	0920	0820	428	8.2	68	119	--	--	.83	.34	.82	.024	.069
13-15	0920	0820	442	7.6	52	84	--	--	.71	.30	.72	.037	.083
16-17	0945	0845	523	6.5	51	91	--	--	.50	.16	.79	.039	.067
17-19	0930	0830	553	7.0	57	93	--	--	.82	.37	.96	.036	.066
19-21	0930	0830	804	9.4	50	82	--	--	.79	.32	.82	.042	.084
21-22	0920	2020	1,010	5.7	63	134	--	--	.46	.11	.83	.046	.073
24-27	0930	0130	1,000	6.3	46	75	--	--	.54	.23	.80	.072	.080
28-30	1030	0330	871	7.2	42	72	--	--	.56	.16	.70	.032	.055
OCT 31-													
NOV 02	1020	0920	686	5.1	44	94	--	--	.73	.27	.77	.024	.060
02-04	1020	0920	625	3.8	46	82	--	--	.79	.29	.85	.027	.065
04-05	1040	1340	656	3.8	42	74	--	--	.64	.26	.81	.038	.061
08-10	0925	0825	644	2.5	60	115	--	--	.56	.17	.82	.032	.058
10-12	0925	0825	534	2.6	59	101	--	--	.42	.11	.70	.029	.044
12-14	1030	1030	703	3.3	51	112	--	--	.61	.20	.68	.021	.035
14-16	1045	0945	682	4.7	50	90	--	--	.58	.17	.78	.017	.049
18-19	1145	2245	1,790	5.5	65	92	--	--	.41	.10	.55	.012	.047
19-21	2345	0944	1,600	5.7	70	89	--	--	.51	.02	.66	.021	.048
21-23	1040	0940	2,190	18	36	98	--	--	.55	.09	.82	.020	.093
23-25	1040	0940	2,960	17	44	58	--	--	.43	.05	.77	.015	.067
25-27	1040	0940	1,990	29	--q	--q	--	--	.43	.08	.72	.018	.068
27-29	1040	2140	1,880	13	42	58	--	--	.39	.09	.74	.019	.045
NOV 29-													
DEC 02	2240	0940	1,380	11	38	44	--	--	.30	.03	.70	.011	.038
02-03	1035	2135	1,070	7.7	66	58	--	--	.38	.06	.76	.015	.035
03-05	2235	0935	630	5.7	93	74	--	--	.55	.15	.97	.018	.034
05-07	1025	0925	801	4.1	73	89	--	--	.58	.23	1.1	.023	.039
07-09	1025	0925	811	5.8	71	110	--	--	.58	.23	1.3	.015	.032
12-14	1035	0935	903	4.6	94	115	--	--	.50	.14	1.2	.029	.059
DEC 31-													
JAN 02	1300	0900	4,710	19	64	56	--	--	.76	.05	1.8	.019	.085
02-04	1005	2105	4,420	85	67	55	84	<12	1.1	.07	2.5	.023	.254
06-09	1050	0850	3,340	28	69	60	--	--	.47	.05	1.8	.014	.103
09-13	0945	0844	3,750	19	95	67	--	--	.46	.06	2.3	.015	.081
13-17	0935	0834	2,520	12	69	65	--	--	.43	.08	2.2	.014	.049
17-21	1015	0914	1,420	6.3	71	78	--	--	.78	.05	2.2	.014	.030
21-23	1000	0900	1,210	4.3	77	97	--	--	.45	.07	2.2	.016	.062
23-27	1000	0859	1,180	3.0	86	110	--	--	.48	.14	2.4	.022	.048
27-30	0935	0834	1,270	2.2	84	114	--	--	.49	.13	2.4	.028	.049
JAN 30-													
FEB 03	0920	0819	1,110	2.0	117	104	--	--	.56	.16	2.3	.023	.051
03-06	0935	0834	2,040	5.9	128	109	--	--	.51	.10	2.1	.018	.034

ANALYSIS 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 2002 TO SEPTEMBER 2003

Date	Time	Ending time	Dis-charge, cfs (00060)	Tur-bidity, NTU (00076)	Chlor-ide, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Residue total at 105 deg. C, sus-pended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water unfltrd mg/L as N (00630)	Ortho-phos-phate, water, fltrd, mg/L as P (00671)	Phos-phorus, water, unfltrd mg/L (00665)
FEB												
06-10	0955	0854	2,680	9.4	102	75	--	.50	.12	2.1	.025	.061
10-14	0925	0824	1,600	5.3	80	82	--	.57	.14	1.9	.015	.043
14-18	0925	0824	1,370	4.0	80	104	--	.56	.19	1.9	.015	.033
20-24	0950	1650	1,660	--	68	80	<5	.36	.11	1.7	.011	.024
FEB 25-												
MAR 04	1005	0705	2,780	--	109	69	6	.54	.12	1.7	.021	.064
04-05	0900	1559	1,890	--	83	77	<5	.49	.11	1.7	.012	.037
19-25	1530	0830	11,500	--	59	42	325	1.4	.09	2.0	.020	.626
25-27	0945	1445	10,600	--	60	44	201	.92	.08	1.8	.019	.520
APR												
01-08	1010	0010	9,870	--	90	38	169	1.1	.05	1.6	.018	.360
16-22	0735	1235	7,520	--	35	35	--	.56	.05	1.3	.013	.256
22-29	1255	0855	5,750	--	34	36	54	.44	.05	1.4	.012	.165
APR 29-												
MAY 06	0925	0825	2,250	--	59	66	26	.48	.07	1.4	.010	.068
06-13	0925	0825	2,110	--	65	78	32	.57	.09	1.0	.012	.106
13-20	0905	0805	3,730	--	56	64	30	.53	.08	.94	.017	.075
20-27	0925	0825	3,320	--	59	62	21	.62	.04	.94	.021	.096
MAY 27-												
JUN 03	0810	0710	3,170	--	62	62	30	.64	.08	1.1	.021	.110
03-10	0845	1145	4,020	--	53	48	29	.57	.07	1.0	.021	.111
10-12	1150	0649	3,390	--	47	53	30	.48	.07	.96	.019	.080
17-24	0930	1230	2,720	--	46	56	30	.44	.08	.89	.024	.093
JUL												
18-22	1200	1300	1,000	--	48	72	23	.60	.11	.67	.022	.083
JUL 29-												
AUG 06	0930	0630	6,020	--	19	23	179	.80	.04	.60	.019	.670
08-09	0930	1629	5,480	--	25	27	176	.98	.06	.61	.024	.552
19-26	1000	0900	4,710	--	23	29	161	.58	.05	.70	.019	.226
19	1010		6,350	--	18	24	85	.76	.06	.63	.022	.517
26-27	0920	1519	1,030	--	32	52	35	.51	.08	.82	.023	.079
SEP												
15-17	0920	0820	987	--	42	54	30	.66	.09	.74	.027	.100
19-22	1005	1905	958	--	55	58	21	.57	.10	.79	.026	.083

Remark codes used in this table:
< -- Less than

Null value qualifier codes used in this table:
q -- Sample discarded: holding time exceeded

PESTICIDE ANALYSES, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Statewide Pesticide Monitoring Project

In June, 1997, the New York State Department of Environmental Conservation and the U.S. Geological Survey (USGS) began a cooperative effort to monitor pesticides in order to assess the presence and distribution of pesticides and their residues in the waters of the State. The initial monitoring effort included a statewide survey of pesticide concentrations in surface water, particularly in areas where pesticides are used and areas where surface water provides water supply. In the 2003 water year, water samples were collected from 6 public-water-supply intake sites and 2 community-water-system well sites in western New York State and analyzed for as many as 180 pesticides or pesticide degradates. Samples were analyzed for pesticide compounds using the USGS National Water Quality Laboratory (NWQL) SH2001/2010 method (Zaugg and others, 1995), NWQL SH2060 method (Furlong and others, 2001), and the Kansas District Organic Geochemistry Laboratory LCAA method (Lee and others, 2001). The pesticide schedules include 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 and liquid chromatography. Results are also reported for the determination of caffeine, although not a pesticide, as part of the SH2060 analyses. Samples were filtered through a glass-fiber membrane filter with openings that are 0.7 microns in size to remove sediment and microorganisms. Therefore, all results are for compounds dissolved in water.

The sites shown in figures 9-10 were sampled as part of the state-wide monitoring project for pesticides. The sampling network included sites in eastern New York excluding Long Island (vol. 1) and Long Island (vol. 2), as well as those reported herein for western New York (vol. 3). Pesticide data from other sites located in eastern New York and Long Island are published in their respective volumes.

Laboratory Reporting Levels

The data tables list the pesticides analyzed for, the unit of measure (micrograms per liter, ug/L), the USGS National Water Information System parameter code, and the reported values for concentration or Laboratory Reporting Levels (LRL). The LRL may vary for particular pesticide compounds; it provides a quantitative index that indicates uncertainty in the measurement of low concentrations. When an analyte is detected and all criteria for a positive result are met, the concentration is reported. If the concentration is quantified but is less than the LRL, 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 LRL. 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 LRL preceded by a less-than sign (<).

References Cited

Furlong, E.T., Anderson, B.D., Werner, S.L., Soliven, P.P., Coffey, L.J., and Burkhardt, M.R., 2001, Methods of analysis by the U.S. Geological Survey National Water Quality Laboratory-Determination of pesticides in water by graphitized carbon-based solid-phase extraction and high-performance liquid chromatography/mass spectrometry: U.S. Geological Survey Water-Resources Investigations Report 01-4134, 73 p.

Lee, E.A., Kish, J.L., Zimmerman, L.R., and Thurman, E.M., 2001, Methods of Analysis by the U.S Geological Survey Organic Geochemistry Research Group- Update and Additions to the Determination of Chloroacetanilide Herbicide Degradation Compounds in Water Using High-Performance Liquid Chromatography/Mass Spectrometry: U.S. Geological Survey Open File Report 01-10, 17 p.

Zaugg, S.D., Sandstrom, M.W., Smith, S.G., and Fehlberg, K.M., 1995, Methods of analysis by the U.S. Geological Survey National Water Quality Laboratory - Determination of pesticides in water by C-18 solid-phase extraction and capillary-column gas chromatography with selective-ion monitoring: U.S. Geological Survey Open-File Report 95-181, 49 p.

PESTICIDE ANALYSES, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Statewide Pesticide Monitoring Project
Monitoring at Water-Supply Intake Sites at Lakes and Reservoirs in Western New York

Raw, untreated water from 6 surface-water intake sites (fig. 9) was sampled as part of the Statewide Pesticide Monitoring Project in cooperation with New York State Department of Environmental Conservation. All samples were analyzed by the USGS for the SH2001/2010 and LCAA pesticide schedules and selected samples were also analyzed for the SH2060 schedule. Additional samples of raw water and finished water at the Leroy Reservoir intake were sampled as part of the USGS National Water Quality Assessment Program; results for the finished-water samples are not included herein. Concentrations in all samples did not exceed Federal or State maximum contaminant levels (MCLs) for drinking water for any compound.

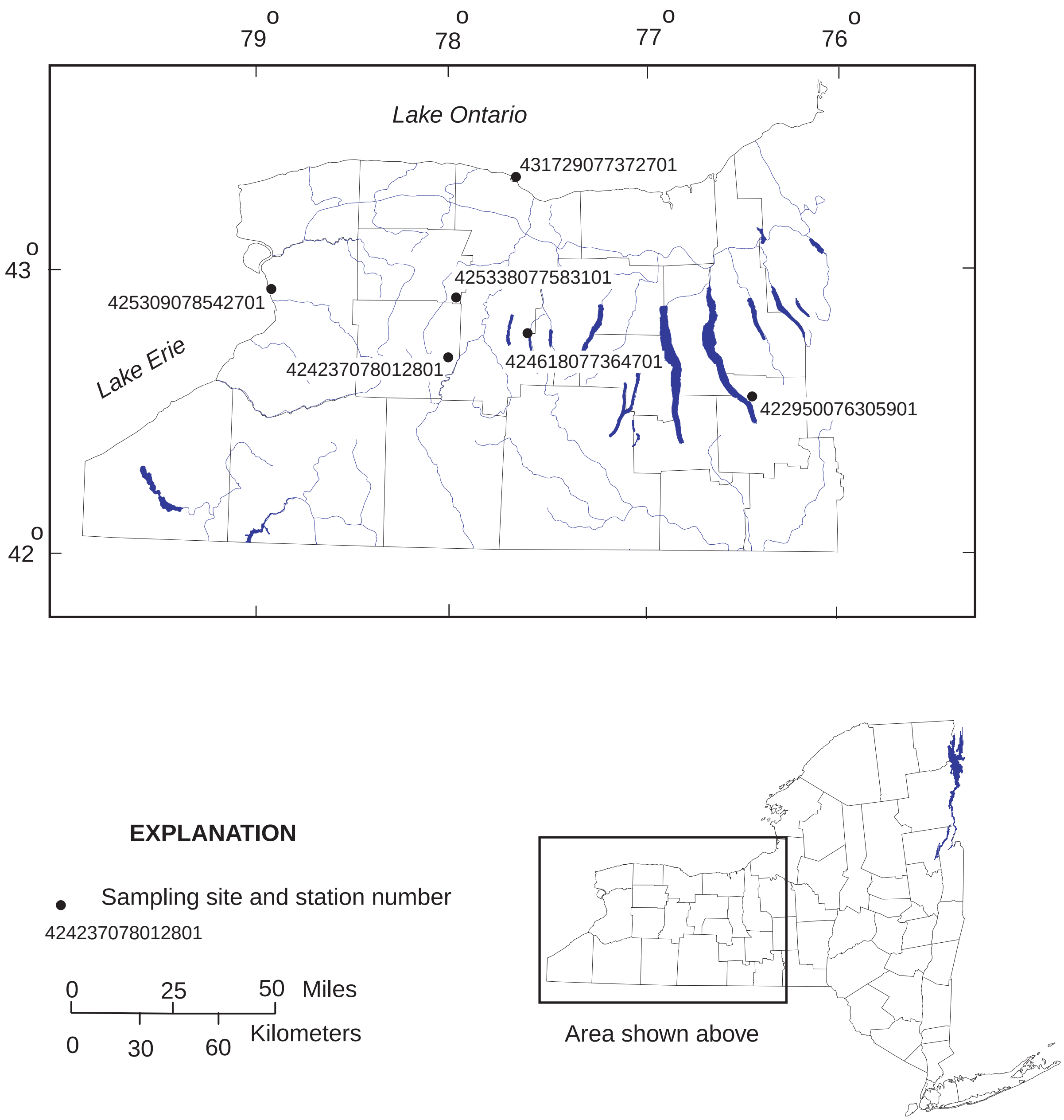


Figure 9. -- Location of public-water-supply intake sites that were sampled in western New York for pesticide analysis in water year 2003.

ANALYSES OF SAMPLES AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

PESTICIDE ANALYSES

WATER QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	2,6-Di- ethyl- aniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	Aceto- chlor ESA, water, fltrd 0.7u GF ug/L (61029)	Aceto- chlor OA, water, fltrd 0.7u GF ug/L (61030)	Aceto- chlor, water, fltrd, ug/L (49260)	Ala- chlor ESA, water, fltrd 0.7u GF ug/L (50009)	Ala- chlor OA, water, fltrd 0.7u GF ug/L (61031)	Ala- chlor, water, fltrd, ug/L (46342)	alpha- HCH, water, fltrd, ug/L (34253)	Atra- zine, water, fltrd, ug/L (39632)	Azin- phos- methyl, water, fltrd 0.7u GF ug/L (82686)	Ben- flur- alin, water, fltrd 0.7u GF ug/L (82673)
422950076305901 CAYUGA LAKE, BOLTON PT., WATER-SUPPLY INTAKE, NY (LAT 42 29 50N LONG 076 30 59W)													
JAN													
22...	1530	<.006	E.128	<.05	<.05	<.006	<.05	<.05	<.004	<.005	.157	<.050	<.010
JUN													
09...	1000	<.006	E.096	<.05	<.05	<.006	<.05	<.05	<.004	<.005	.149	<.050	<.010
424237078012801 SILVER LAKE WATER-SUPPLY INTAKE AT PERRY, NY (LAT 42 42 37N LONG 078 01 28W)													
JAN													
22...	1200	<.006	E.061	.06	<.05	<.006	.08	<.05	<.004	<.005	.185	<.050	<.010
JUN													
09...	1330	<.006	E.033	.05	<.05	<.006	<.05	<.05	<.004	<.005	.161	<.050	<.010
424618077364701 HEMLOCK LAKE WATER-SUPPLY INTAKE, NY (LAT 42 46 18N LONG 077 36 47W)													
JAN													
22...	1300	<.006	E.013	<.05	<.05	<.006	<.05	<.05	<.004	<.005	.019	<.050	<.010
AUG													
28...	1400	<.006	E.009	<.05	<.05	<.006	.07	<.05	<.004	<.005	.020	<.050	<.010
425309078542701 CITY OF BUFFALO, LAKE ERIE INTAKE, NY (LAT 42 53 09N LONG 078 54 27W)													
JAN													
21...	1100	<.006	E.046	<.05	<.05	<.006	<.05	<.05	<.004	<.005	.091	<.050	<.010
JUN													
09...	1030	<.006	E.044	<.05	<.05	<.006	<.05	<.05	<.004	<.005	.071	<.050	<.010
425338077583101 LEROY RESERVOIR, RAW WATER SUPPLY, LEROY, NY (LAT 42 53 38N LONG 077 58 31W)													
OCT													
08...	0900	<.006	E.081	<.05	<.05	<.006	1.02	.19	<.004	<.005	.338	<.050	<.010
JAN													
21...	0900	<.006	E.081	<.05	<.05	<.006	.83	.20	<.004	<.005	.240	<.050	<.010
21...	0905	<.006	E.058	<.05	<.05	<.006	.82	.19	<.004	<.005	.220	<.050	<.010
JUN													
09...	1230	<.006	E.053	.24	<.05	<.006	.37	.08	.077	<.005	.443	<.050	<.010
AUG													
28...	1200	<.006	E.095	<.05	<.05	<.006	.80	.28	.030	<.005	.359	<.050	<.010
28...	1205	<.006	E.100	<.05	<.05	<.006	.83	.29	.030	<.005	.366	<.050	<.010

ANALYSES OF SAMPLES AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

PESTICIDE ANALYSES—Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Butyl-ate, water, fltrd, ug/L (04028)	Car-baryl, water, fltrd 0.7u GF ug/L (82680)	Carbo-furan, water, fltrd 0.7u GF ug/L (82674)	Chlor-pyrifos water, fltrd, ug/L (38933)	cis-Per-methrin water fltrd 0.7u GF ug/L (82687)	Cyana-zine, water, fltrd, ug/L (04041)	DCPA, water fltrd 0.7u GF ug/L (82682)	Diazi-non, water, fltrd, ug/L (39572)	Diel-drin, water, fltrd, ug/L (39381)	Dimeth-enamid ESA, water, fltrd, ug/L (61951)	Dimeth-enamid OA, water, fltrd, ug/L (62482)	Disul-foton, water, fltrd 0.7u GF ug/L (82677)	EPTC, water, fltrd 0.7u GF ug/L (82668)
422950076305901 CAYUGA LAKE, BOLTON PT., WATER-SUPPLY INTAKE, NY (LAT 42 29 50N LONG 076 30 59W)													
JAN 22...	<.002	<.041	<.020	<.005	<.006	E.012n	<.003	<.005	<.005	<.05	<.05	<.02	<.002
JUN 09...	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.005	<.05	<.05	<.02	<.002
424237078012801 SILVER LAKE WATER-SUPPLY INTAKE AT PERRY, NY (LAT 42 42 37N LONG 078 01 28W)													
JAN 22...	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.005	<.05	<.05	<.02	<.002
JUN 09...	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.005	<.05	<.05	<.02	<.002
424618077364701 HEMLOCK LAKE WATER-SUPPLY INTAKE, NY (LAT 42 46 18N LONG 077 36 47W)													
JAN 22...	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.005	<.05	<.05	<.02	<.002
AUG 28...	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.005	<.05	<.05	<.02	<.002
425309078542701 CITY OF BUFFALO, LAKE ERIE INTAKE, NY (LAT 42 53 09N LONG 078 54 27W)													
JAN 21...	<.002	<.041	<.020	<.005	<.006	E.009n	<.003	<.005	<.005	<.05	<.05	<.02	<.002
JUN 09...	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.005	<.05	<.05	<.02	<.002
425338077583101 LEROY RESERVOIR, RAW WATER SUPPLY, LEROY, NY (LAT 42 53 38N LONG 077 58 31W)													
OCT 08...	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.005	<.05	<.05	<.02	<.002
JAN 21...	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.005	<.05	<.05	<.02	<.002
21...	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.005	<.05	<.05	<.02	<.002
JUN 09...	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.005	<.05	<.05	<.02	<.002
AUG 28...	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.005	.07	<.05	<.02	E.002n
28...	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.005	.07	<.05	<.02	.002

ANALYSES OF SAMPLES AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

PESTICIDE ANALYSES—Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Ethal-flur-alin, water, fltrd 0.7u GF ug/L (82663)	Etho-prop, water, fltrd 0.7u GF ug/L (82672)	Flufen-acet ESA, water, fltrd, ug/L (61952)	Flufe-nacet OA, water, fltrd, ug/L (62483)	Fonofos water, fltrd, ug/L (04095)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (82666)	Mala-thion, water, fltrd, ug/L (39532)	Methyl para-thion, water, fltrd 0.7u GF ug/L (82667)	Metola-chlor ESA, water, fltrd 0.7u GF ug/L (61043)	Metola-chlor OA, water, fltrd 0.7u GF ug/L (61044)	Metola-chlor, water, fltrd, ug/L (39415)	Metri-buzin, water, fltrd, ug/L (82630)
422950076305901 CAYUGA LAKE, BOLTON PT., WATER-SUPPLY INTAKE, NY (LAT 42 29 50N LONG 076 30 59W)													
JAN													
22...	<.009	<.005	<.05	<.05	<.003	<.004	<.035	<.027	<.006	.30	.16	.052	<.006
JUN													
09...	<.009	<.005	<.05	<.05	<.003	<.004	<.035	<.027	<.006	.31	.13	.055	<.006
424237078012801 SILVER LAKE WATER-SUPPLY INTAKE AT PERRY, NY (LAT 42 42 37N LONG 078 01 28W)													
JAN													
22...	<.009	<.005	<.05	<.05	<.003	<.004	<.035	<.027	<.006	.08	.32	.032	<.006
JUN													
09...	<.009	<.005	<.05	<.05	<.003	<.004	<.035	<.027	<.006	.65	.24	.061	<.006
424618077364701 HEMLOCK LAKE WATER-SUPPLY INTAKE, NY (LAT 42 46 18N LONG 077 36 47W)													
JAN													
22...	<.009	<.005	<.05	<.05	<.003	<.004	<.035	<.027	<.006	.06	<.05	E.011n	<.006
AUG													
28...	<.009	<.005	<.05	<.05	<.003	<.004	<.035	<.027	<.006	.07	<.05	E.011n	<.006
425309078542701 CITY OF BUFFALO, LAKE ERIE INTAKE, NY (LAT 42 53 09N LONG 078 54 27W)													
JAN													
21...	<.009	<.005	<.05	<.05	<.003	<.004	<.035	<.027	<.006	.07	.05	.019	<.006
JUN													
09...	<.009	<.005	<.05	<.05	<.003	<.004	<.035	<.027	<.006	.06	<.05	.016	<.006
425338077583101 LEROY RESERVOIR, RAW WATER SUPPLY, LEROY, NY (LAT 42 53 38N LONG 077 58 31W)													
OCT													
08...	<.009	<.005	<.05	<.05	<.003	<.004	<.035	<.027	<.006	2.38	.92	.052	<.006
JAN													
21...	<.009	<.005	<.05	<.05	<.003	<.004	<.035	<.027	<.006	2.37	1.10	.044	<.006
21...	<.009	<.005	<.05	<.05	<.003	<.004	<.035	<.027	<.006	2.23	1.03	.042	<.006
JUN													
09...	<.009	<.005	<.05	<.05	<.003	<.004	<.035	<.027	<.006	1.45	.47	.320	<.006
AUG													
28...	<.009	<.005	<.05	<.05	<.003	<.004	<.035	<.027	<.006	1.40	.56	.171	<.006
28...	<.009	<.005	<.05	<.05	<.003	<.004	<.035	<.027	<.006	1.43	.58	.172	<.006

ANALYSES OF SAMPLES AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

PESTICIDE ANALYSES—Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Moli-nate, water, fltrd 0.7u GF ug/L (82671)	Naprop-amide, water, fltrd 0.7u GF ug/L (82684)	p,p'-DDE, water, fltrd, ug/L (34653)	Para-thion, water, fltrd, ug/L (39542)	Peb-ulate, water, fltrd 0.7u GF ug/L (82669)	Pendi-meth-alin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Prome-ton, water, fltrd, ug/L (04037)	Pron-amide, water, fltrd 0.7u GF ug/L (82676)	Propa-chlor, water, fltrd, ug/L (04024)	Pro-panil, water, fltrd 0.7u GF ug/L (82679)	Propar-gite, water, fltrd 0.7u GF ug/L (82685)	Sima-zine, water, fltrd, ug/L (04035)
422950076305901 CAYUGA LAKE, BOLTON PT., WATER-SUPPLY INTAKE, NY (LAT 42 29 50N LONG 076 30 59W)													
JAN													
22...	<.002	<.007	<.003	<.010	<.004	<.022	<.011	E.01n	<.004	<.010	<.011	<.02	.014
JUN													
09...	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005
424237078012801 SILVER LAKE WATER-SUPPLY INTAKE AT PERRY, NY (LAT 42 42 37N LONG 078 01 28W)													
JAN													
22...	<.002	<.007	<.003	<.010	<.004	<.022	<.011	E.01n	<.004	<.010	<.011	<.02	.013
JUN													
09...	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005
424618077364701 HEMLOCK LAKE WATER-SUPPLY INTAKE, NY (LAT 42 46 18N LONG 077 36 47W)													
JAN													
22...	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.010
AUG													
28...	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	.007
425309078542701 CITY OF BUFFALO, LAKE ERIE INTAKE, NY (LAT 42 53 09N LONG 078 54 27W)													
JAN													
21...	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	.015
JUN													
09...	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005
425338077583101 LEROY RESERVOIR, RAW WATER SUPPLY, LEROY, NY (LAT 42 53 38N LONG 077 58 31W)													
OCT													
08...	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	.005
JAN													
21...	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005
21...	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005
JUN													
09...	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005
AUG													
28...	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	.018
28...	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	.017

ANALYSES OF SAMPLES AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

PESTICIDE ANALYSES—Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Tebu-thiuron water fltrd 0.7u GF ug/L (82670)	Terba-cil, water, fltrd 0.7u GF ug/L (82665)	Terbu-fos, water, fltrd 0.7u GF ug/L (82675)	Thio-bencarb water fltrd 0.7u GF ug/L (82681)	Tri-allate, water, fltrd 0.7u GF ug/L (82678)	Tri-flur-alin, water, fltrd 0.7u GF ug/L (82661)
422950076305901 CAYUGA LAKE, BOLTON PT., WATER-SUPPLY INTAKE, NY (LAT 42 29 50N LONG 076 30 59W)						
JAN						
22...	<.02	<.034	<.02	<.005	<.002	<.009
JUN						
09...	<.02	<.034	<.02	<.005	<.002	<.009
424237078012801 SILVER LAKE WATER-SUPPLY INTAKE AT PERRY, NY (LAT 42 42 37N LONG 078 01 28W)						
JAN						
22...	<.02	<.034	<.02	<.005	<.002	<.009
JUN						
09...	<.02	<.034	<.02	<.005	<.002	<.009
424618077364701 HEMLOCK LAKE WATER-SUPPLY INTAKE, NY (LAT 42 46 18N LONG 077 36 47W)						
JAN						
22...	<.02	<.034	<.02	<.005	<.002	<.009
AUG						
28...	<.02	<.034	<.02	<.005	<.002	<.009
425309078542701 CITY OF BUFFALO, LAKE ERIE INTAKE, NY (LAT 42 53 09N LONG 078 54 27W)						
JAN						
21...	<.02	<.034	<.02	<.005	<.002	<.009
JUN						
09...	<.02	<.034	<.02	<.005	<.002	<.009
425338077583101 LEROY RESERVOIR, RAW WATER SUPPLY, LEROY, NY (LAT 42 53 38N LONG 077 58 31W)						
OCT						
08...	<.02	<.034	<.02	<.005	<.002	<.009
JAN						
21...	<.02	<.034	<.02	<.005	<.002	<.009
21...	<.02	<.034	<.02	<.005	<.002	<.009
JUN						
09...	<.02	<.034	<.02	<.005	<.002	<.009
AUG						
28...	<.02	<.034	<.02	<.005	<.002	<.009
28...	<.02	<.034	<.02	<.005	<.002	<.009

Remark codes used in this table:
< -- Less than
E -- Estimated value

Value qualifier codes used in this table:
n -- Below the NDV

ANALYSES OF SAMPLES AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

PESTICIDE ANALYSES—Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	2,4-DB water, fltrd 0.7u GF ug/L (38746)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	3-Hydroxy carbo-furan, wat flt 0.7u GF ug/L (49308)	3-Keto-carbo-furan, water, fltrd, ug/L (50295)	Aci-fluor-fen, water, fltrd 0.7u GF ug/L (49315)	Aldi-carb sulfone water, fltrd 0.7u GF ug/L (49313)	Aldi-carb sulf-oxide, wat flt 0.7u GF ug/L (49314)	Aldi-carb, water, fltrd 0.7u GF ug/L (49312)
425338077583101 LEROY RESERVOIR, RAW WATER SUPPLY, LEROY, NY (LAT 42 53 38N LONG 077 58 31W)													
OCT 2002													
08...	0910	<.009	<.02	<.02	E.06	E.03	E.211	<.006	<2	<.007	<.02	<.008	<.04
JAN 2003													
21...	0910	<.009	<.02	<.02	E.05	E.01	E.199	<.006	<2	<.007	<.02	<.008	<.04
21...	0915	<.009	<.02	<.02	E.05	E.01	E.190	<.006	<2	<.007	<.02	<.008	<.04
JUN													
09...	1240	<.009	<.02	<.02	E.03	E.01	E.095	<.006	<2	<.007	<.02	<.008	<.04
JUL													
22...	0820	<.009	<.02	<.02	E.05	E.02	E.157	<.006	<2	<.007	<.02	<.008	<.04
22...	0825	<.009	<.02	<.02	E.06	E.03	E.162	<.006	<2	<.007	<.02	<.008	<.04
AUG													
28...	1210	<.009	<.02	<.02	E.09	E.04	E.220	<.006	<2	<.007	<.02	<.008	<.04

Date	Atra-zine, water, fltrd, ug/L (39632)	Bendio-carb, water, fltrd, ug/L (50299)	Benomyl water, fltrd, ug/L (50300)	Bensul-furon, water, fltrd, ug/L (61693)	Ben-tazon, water, fltrd 0.7u GF ug/L (38711)	Broma-cil, water, fltrd, ug/L (04029)	Brom-oxynil, water, fltrd 0.7u GF ug/L (49311)	Caf-feine, water, fltrd, ug/L (50305)	Car-baryl, water, fltrd 0.7u GF ug/L (49310)	Carbo-furan, water, fltrd 0.7u GF ug/L (49309)	Chlor-amben methyl ester, water, fltrd, ug/L (61188)	Chlori-muron, water, fltrd, ug/L (50306)	Chloro-di-amino-s-tri-azine, wat flt ug/L (04039)
425338077583101 LEROY RESERVOIR, RAW WATER SUPPLY, LEROY, NY (LAT 42 53 38N LONG 077 58 31W)													
OCT 2002													
08...	.254	<.03	<.004	<.02	<.01	<.03	<.02	<.0,096	<.03	<.006	<.02	<.010	<.01
JAN 2003													
21...	.170	<.03	<.004	<.02	<.01	<.03	<.02	<.0,096	<.03	<.006	<.02	<.010	<.01
21...	.167	<.03	<.004	<.02	<.01	<.03	<.02	<.0,096	<.03	<.006	<.02	<.010	<.01
JUN													
09...	.236	<.03	<.004	<.02	<.01	<.03	<.02	<.0,096	<.03	<.006	<.02	<.010	<.01
JUL													
22...	.383	<.03	<.004	<.02	<.01	<.03	<.02	<.0,096	<.03	<.006	<.02	<.010	<.01
22...	.383	<.03	<.004	<.02	<.01	<.03	<.02	<.0,096	<.03	<.006	<.02	<.010	<.01
AUG													
28...	.351	<.03	<.004	<.02	E.05	<.03	<.02	<.0,096	<.03	<.006	<.02	<.010	<.01

Date	Chloro-thalo-nil, water, fltrd 0.7u GF ug/L (49306)	Clopyr-alid, water, fltrd 0.7u GF ug/L (49305)	Cyclo-ate, water, fltrd, ug/L (04031)	Dacthal mono-acid, water, fltrd 0.7u GF ug/L (49304)	Dicamba water fltrd 0.7u GF ug/L (38442)	Di-chlor-prop, water, fltrd 0.7u GF ug/L (49302)	Dinoseb water, fltrd 0.7u GF ug/L (49301)	Diphen-amid, water, fltrd, ug/L (04033)	Diuron, water, fltrd 0.7u GF ug/L (49300)	Fenuron water, fltrd 0.7u GF ug/L (49297)	Flumet-sulam, water, fltrd, ug/L (61694)	Fluo-meturon water fltrd 0.7u GF ug/L (38811)	Imaza-quin, water, fltrd, ug/L (50356)
425338077583101 LEROY RESERVOIR, RAW WATER SUPPLY, LEROY, NY (LAT 42 53 38N LONG 077 58 31W)													
OCT 2002													
08...	<.04	<.01	<.01	<.01	<.01	<.01	<.01	<.03	<.01	<.03	<.01	<.03	<.02
JAN 2003													
21...	<.04	<.01	<.01	<.01	<.01	<.01	<.01	<.03	<.01	<.03	<.01	<.03	<.02
21...	<.04	<.01	<.01	<.01	<.01	<.01	<.01	<.03	<.01	<.03	<.01	<.03	M
JUN													
09...	<.04	<.01	<.01	<.01	<.01	<.01	<.01	<.03	<.01	<.03	<.01	<.03	<.02
JUL													
22...	<.04	<.01	<.01	<.01	<.01	<.01	<.01	<.03	<.01	<.03	<.02c	<.03	<.02
22...	<.04	<.01	<.01	<.01	<.01	<.01	<.01	<.03	<.01	<.03	<.02c	<.03	<.02
AUG													
28...	<.04	<.01	<.01	<.01	<.01	<.01	<.01	<.03	<.01	<.03	<.01	<.03	<.02

ANALYSES OF SAMPLES AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

PESTICIDE ANALYSES—Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Imaze-thapyr, water, fltrd, ug/L (50407)	Imida-cloprid water, fltrd, ug/L (61695)	Linuron water fltrd 0.7u GF ug/L (38478)	MCPA, water, fltrd 0.7u GF ug/L (38482)	MCPB, water, fltrd 0.7u GF ug/L (38487)	Meta-laxyl, water, fltrd, ug/L (50359)	Methio-carb, water, fltrd 0.7u GF ug/L (38501)	Meth-omyl, water, fltrd 0.7u GF ug/L (49296)	Metsul-furon, water, fltrd, ug/L (61697)	N-(4-Chloro-phenyl) -N-' methyl-urea, ug/L (61692)	Neburon water, fltrd 0.7u GF ug/L (49294)	Nico-sul-furon, water, fltrd, ug/L (50364)	Norflur azon, water, fltrd 0.7u GF ug/L (49293)
425338077583101 LEROY RESERVOIR, RAW WATER SUPPLY, LEROY, NY (LAT 42 53 38N LONG 077 58 31W)													
OCT 2002													
08...	<.02	<.007	<.01	<.02	<.01	<.02	<.008	<.004	<.03	<.02	<.01	<.01	<.02
JAN 2003													
21...	<.02	<.007	<.01	<.02	<.01	<.02	<.008	<.004	<.03	<.02	<.01	<.01	<.02
21...	<.02	<.007	<.01	<.02	<.01	<.02	<.008	<.004	<.03	<.02	<.01	<.01	<.02
JUN													
09...	<.02	<.007	<.01	<.02	<.01	<.02	<.008	<.004	<.03	<.02	<.01	<.01	<.02
JUL													
22...	<.02	<.007	<.01	<.02	<.01	<.02	<.008	<.004	--u	<.02	<.01	<.01	<.02
22...	<.02	<.007	<.01	<.02	<.01	<.02	<.008	<.004	--u	<.02	<.01	<.01	<.02
AUG													
28...	<.02	<.007	<.01	<.02	<.01	<.02	<.008	<.004	<.03	<.02	<.01	E.04	<.02

Date	Ory-zalin, water, fltrd 0.7u GF ug/L (49292)	Oxamyl, water, fltrd 0.7u GF ug/L (38866)	Pic-loram, water, fltrd 0.7u GF ug/L (49291)	Propham water fltrd 0.7u GF ug/L (49236)	Propi-cona-zole, water, fltrd, ug/L (50471)	Pro-poxur, water, fltrd 0.7u GF ug/L (38538)	Siduron water, fltrd, ug/L (38548)	Sulfo-met-ruron, water, fltrd, ug/L (50337)	Tebu-thiuron water fltrd 0.7u GF ug/L (82670)	Terba-cil, water, fltrd, ug/L (04032)	Tri-benuron water, fltrd, ug/L (61159)	Tri-clopyr, water, fltrd 0.7u GF ug/L (49235)
425338077583101 LEROY RESERVOIR, RAW WATER SUPPLY, LEROY, NY (LAT 42 53 38N LONG 077 58 31W)												
OCT 2002												
08...	<.02	<.01	<.02	<.010	<.02	<.008	<.02	<.009	<.006	<.010	--u	<.02
JAN 2003												
21...	<.02	<.01	<.02	<.010	<.02	<.008	<.02	<.009	<.006	<.010	--u	<.02
21...	<.02	<.01	<.02	<.010	<.02	<.008	<.02	<.009	<.006	<.010	--u	<.02
JUN												
09...	<.02	<.01	<.02	<.010	<.02	<.008	<.02	<.009	<.006	<.010	--u	<.02
JUL												
22...	<.02	<.01	<.02	<.010	<.02	<.008	<.02	<.009	<.006	<.010	--u	<.02
22...	<.02	<.01	<.02	<.010	<.02	<.008	<.02	<.009	<.006	<.010	--u	<.02
AUG												
28...	<.02	<.01	<.02	<.010	<.02	<.008	<.02	<.009	<.006	<.010	--u	<.02

Remark codes used in this table:
- < -- Less than
- E -- Estimated value
- M -- Presence verified, not quantified

Value qualifier codes used in this table:
- c -- See laboratory comment

Null value qualifier codes used in this table:
- u -- Unable to determine-matrix interference

ALLEGANY COUNTY

421512077472801. Local number, Ag 261.

LOCATION.--Lat 42°15'12", long 77°47'28", Hydrologic Unit 02050104, behind Crandall Hall at Alfred University, Alfred. Owner: Alfred University.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Driven unused well, diameter 2 inch, depth 20 ft, cased to 9.5 ft, screened from 9.5 ft to 19.5 ft.

INSTRUMENTATION.--Electronic data recorder--hourly; monthly measurements by USGS personnel.

DATUM.--Elevation of land-surface datum is 1,770 ft above NGVD of 1929, from topographic map. Measuring point: Top of pipe, 1.66 ft above land-surface datum.

PERIOD OF RECORD.--November 2002 to September 2003.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.50 ft below land-surface datum, Mar. 21, 2003; lowest, 6.83 ft below land-surface datum, July 8, 9, 2003.

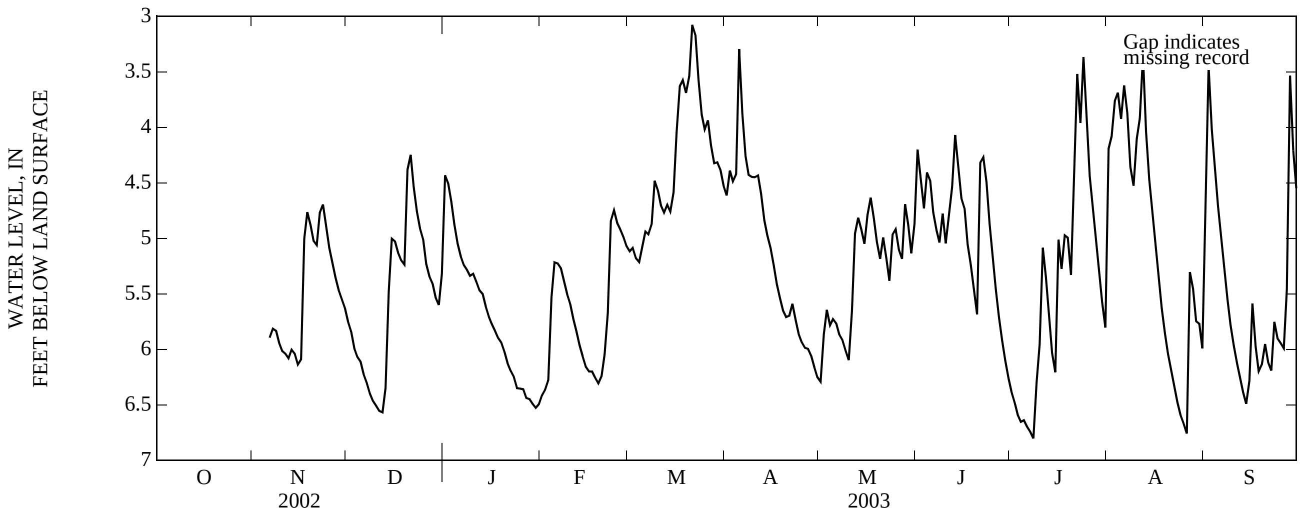
EXTREMES FOR CURRENT PERIOD.--November 2002 to September 2003: Highest water level, 2.50 ft below land-surface datum, Mar. 21, 2003; lowest, 6.83 below land-surface datum, July 8, 9, 2003.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	5.75	4.43	6.41	5.12	4.61	6.29	4.20	6.38	4.19	4.93
2	---	---	5.84	4.50	6.36	5.09	4.39	5.87	4.47	6.48	4.08	3.45
3	---	---	5.99	4.67	6.28	5.18	4.49	5.64	4.73	6.59	3.76	4.02
4	---	---	6.07	4.87	5.53	5.21	4.42	5.78	4.41	6.65	3.69	4.39
5	---	z6.12	6.11	5.04	5.22	5.08	3.30	5.73	4.48	6.64	3.92	4.71
6	---	5.89	6.22	5.16	5.23	4.94	3.88	5.77	4.77	6.70	3.62	4.99
7	---	5.81	6.30	5.24	5.27	4.96	4.26	5.87	4.92	6.74	3.87	5.26
8	---	5.83	6.40	5.28	5.38	4.88	4.43	5.92	5.04	6.80	4.36	5.55
9	---	5.94	6.46	5.34	5.50	4.48	4.45	6.01	4.78	6.30	4.53	5.78
10	---	6.02	6.51	5.32	5.59	4.57	4.45	6.10	5.04	5.96	4.10	5.96
11	---	6.04	6.56	5.39	5.73	4.70	4.43	5.65	4.78	5.09	3.92	6.12
12	---	6.08	6.57	5.47	5.84	4.77	4.60	4.96	4.54	5.35	3.36	6.25
13	---	6.00	6.35	5.50	5.97	4.70	4.83	4.82	4.07	5.72	4.04	6.39
14	---	6.04	5.48	5.61	6.06	4.76	4.97	4.92	4.36	6.03	4.47	6.49
15	---	6.13	5.00	5.71	6.16	4.59	5.09	5.05	4.64	6.21	4.79	6.28
16	---	6.09	5.03	5.77	6.20	4.04	5.24	4.79	4.73	5.01	5.06	5.59
17	---	5.00	5.13	5.83	6.20	3.63	5.41	4.63	5.05	5.28	5.37	5.98
18	---	4.76	5.20	5.90	6.26	3.58	5.54	4.82	5.24	4.97	5.63	6.20
19	---	4.88	5.24	5.94	6.31	3.69	5.65	5.04	5.45	4.99	5.85	6.13
20	---	5.02	4.38	6.02	6.24	3.54	5.71	5.18	5.68	5.33	6.04	5.95
21	---	5.06	4.25	6.13	6.05	3.08	5.70	4.99	4.32	4.64	6.19	6.11
22	---	4.77	4.54	6.20	5.67	3.17	5.59	5.18	4.27	3.52	6.33	6.19
23	---	4.70	4.76	6.25	4.85	3.57	5.73	5.38	4.50	3.96	6.47	5.75
24	z6.22	4.90	4.91	6.35	4.75	3.89	5.86	4.97	4.87	3.37	6.59	5.90
25	---	5.08	5.01	6.35	4.86	4.02	5.94	4.92	5.17	3.95	6.67	5.94
26	---	5.22	5.23	6.36	4.92	3.94	5.99	5.10	5.46	4.44	6.76	5.99
27	---	5.35	5.34	6.44	4.99	4.16	6.00	5.18	5.71	4.70	5.30	5.46
28	---	5.46	5.41	6.45	5.07	4.32	6.06	4.69	5.92	4.96	5.45	3.54
29	---	5.55	5.53	6.49	---	4.32	6.16	4.88	6.10	5.27	5.75	4.21
30	---	5.63	5.60	6.53	---	4.38	6.25	5.13	6.26	5.58	5.77	4.55
31	---	---	5.32	6.49	---	4.53	---	4.87	---	5.80	5.99	---
MEAN	---	---	5.56	5.71	5.67	4.35	5.11	5.29	4.93	5.46	5.03	5.47
MAX	---	---	6.57	6.53	6.41	5.21	6.25	6.29	6.26	6.80	6.76	6.49
MIN	---	---	4.25	4.43	4.75	3.08	3.30	4.63	4.07	3.37	3.36	3.45

z Measured by USGS personnel.

ALLEGANY COUNTY—Continued



ALLEGANY COUNTY—Continued

421544078021301. Local number, Ag 262.

LOCATION.--Lat 42°15'44", long 78°02'13", Hydrologic Unit 04130002, in the Allegany County landfill on County Route 48 near Belmont. Owner: Allegany County.

AQUIFER.--Shales of Silurian age.

WELL CHARACTERISTICS.--Driven unused well, diameter 2 inch, depth 29.5 ft, screened from 23.5 ft to 29.1 ft.

INSTRUMENTATION.--Electronic data recorder--hourly; monthly measurements by USGS personnel.

DATUM.--Elevation of land-surface datum is 1,456.13 ft above NGVD of 1929. Measuring point: Top of pipe, 1.74 ft above land-surface datum.

PERIOD OF RECORD.--November 1995 to September 2002 and November 2002 to September 2003. Records for November 1995 to September 2002 are unpublished and available in the files of the U.S. Geological Survey.

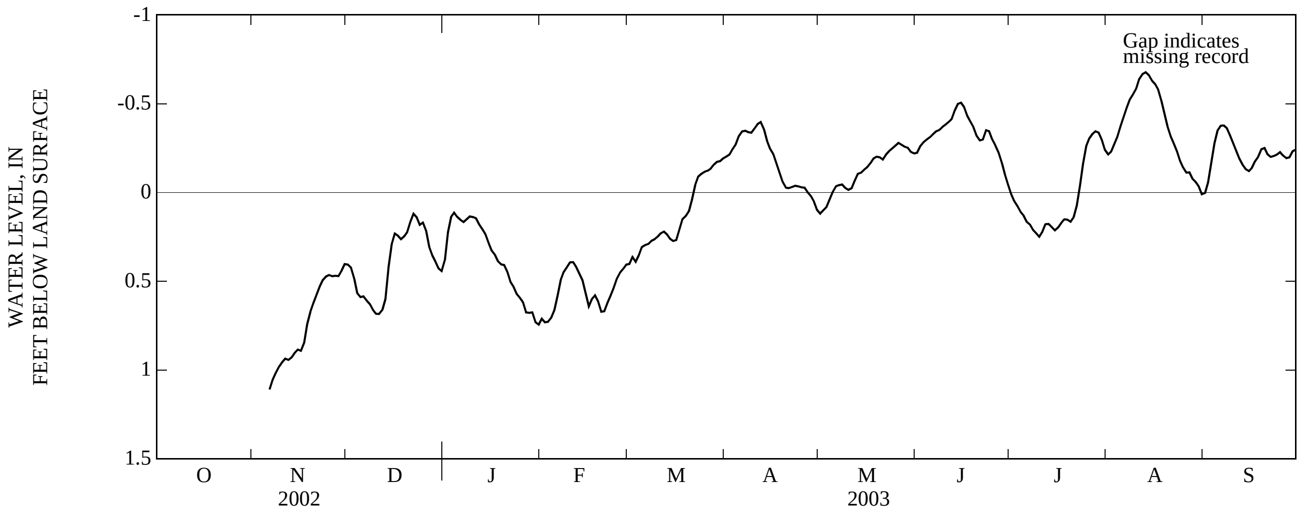
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.24 ft above land-surface datum, Jan. 20, 1998; lowest measured, 2.44 ft below land-surface datum, Jan. 29, 1996.

EXTREMES FOR CURRENT PERIOD.--November 2002 to September 2003: Highest water level, 0.69 ft above land-surface datum, Aug. 13; lowest, 1.19 ft below land-surface datum, Nov. 5.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	0.41	0.38	0.71	0.40	-0.20	0.12	-0.23	0.01	-0.21	0.00
2	---	---	0.42	0.22	0.73	0.36	-0.21	0.10	-0.26	0.05	-0.23	-0.06
3	---	---	0.48	0.14	0.73	0.39	-0.25	0.08	-0.28	0.08	-0.27	-0.17
4	---	---	0.57	0.11	0.71	0.35	-0.27	0.04	-0.30	0.11	-0.31	-0.28
5	---	1.17	0.59	0.14	0.66	0.31	-0.32	0.00	-0.31	0.13	-0.37	-0.35
6	---	1.11	0.58	0.15	0.58	0.30	-0.34	-0.03	-0.33	0.17	-0.43	-0.38
7	---	1.05	0.61	0.17	0.49	0.29	-0.35	-0.04	-0.34	0.18	-0.48	-0.38
8	---	1.01	0.63	0.15	0.45	0.27	-0.34	-0.05	-0.35	0.21	-0.53	-0.36
9	---	0.98	0.66	0.14	0.42	0.26	-0.34	-0.03	-0.37	0.23	-0.55	-0.32
10	---	0.96	0.68	0.14	0.39	0.25	-0.36	-0.01	-0.38	0.25	-0.59	-0.28
11	---	0.94	0.68	0.15	0.39	0.23	-0.39	-0.02	-0.40	0.22	-0.64	-0.23
12	---	0.94	0.66	0.18	0.42	0.22	-0.40	-0.07	-0.41	0.18	-0.67	-0.19
13	---	0.93	0.60	0.21	0.46	0.24	-0.36	-0.10	-0.46	0.18	-0.68	-0.16
14	---	0.90	0.42	0.23	0.49	0.26	-0.29	-0.11	-0.50	0.19	-0.66	-0.13
15	---	0.88	0.29	0.28	0.57	0.27	-0.25	-0.13	-0.51	0.21	-0.63	-0.12
16	---	0.89	0.23	0.33	0.64	0.27	-0.22	-0.14	-0.48	0.20	-0.61	-0.14
17	---	0.85	0.24	0.35	0.60	0.21	-0.16	-0.16	-0.43	0.17	-0.58	-0.18
18	---	0.74	0.26	0.39	0.58	0.15	-0.11	-0.19	-0.40	0.15	-0.52	-0.20
19	---	0.67	0.25	0.41	0.61	0.13	-0.06	-0.20	-0.37	0.15	-0.44	-0.24
20	---	0.62	0.22	0.41	0.67	0.10	-0.03	-0.20	-0.32	0.16	-0.37	-0.25
21	---	0.58	0.16	0.45	0.67	0.04	-0.02	-0.19	-0.29	0.14	-0.32	-0.21
22	---	0.53	0.12	0.51	0.62	-0.04	-0.03	-0.21	-0.30	0.07	-0.28	-0.20
23	---	0.49	0.14	0.53	0.58	-0.09	-0.04	-0.23	-0.35	-0.04	-0.23	-0.21
24	---	0.47	0.18	0.57	0.54	-0.11	-0.03	-0.25	-0.34	-0.16	-0.18	-0.21
25	---	0.47	0.17	0.59	0.48	-0.12	-0.03	-0.26	-0.30	-0.26	-0.14	-0.23
26	---	0.47	0.21	0.62	0.45	-0.12	-0.03	-0.28	-0.27	-0.31	-0.11	-0.21
27	---	0.47	0.31	0.68	0.43	-0.13	0.00	-0.27	-0.23	-0.33	-0.11	-0.19
28	---	0.47	0.35	0.68	0.41	-0.16	0.02	-0.26	-0.17	-0.34	-0.08	-0.20
29	---	0.44	0.39	0.67	---	-0.17	0.05	-0.25	-0.10	-0.34	-0.06	-0.23
30	---	0.40	0.43	0.73	---	-0.18	0.10	-0.23	-0.05	-0.30	-0.03	-0.24
31	---	---	0.44	0.74	---	-0.19	---	-0.22	---	-0.24	0.01	---
MEAN	---	---	0.40	0.37	0.55	0.13	-0.18	-0.12	-0.33	0.04	-0.36	-0.22
MAX	---	---	0.68	0.74	0.73	0.40	0.10	0.12	-0.05	0.25	0.01	0.00
MIN	---	---	0.12	0.11	0.39	-0.19	-0.40	-0.28	-0.51	-0.34	-0.68	-0.38

ALLEGANY COUNTY—Continued



BROOME COUNTY

421138075511301. Local number, Bm 128.

LOCATION.--Lat 42°11'38", long 75°51'13", Hydrologic Unit 02050102, at end of Jeffery Drive on Chenango Forks School District property at Kattelville. Owner: U.S. Geological Survey.

AQUIFER.--Unconfined aquifer in sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 inch, depth 53 ft, cased to 48.5 ft, screened 48.5 to 53 ft.

INSTRUMENTATION.--Electronic data recorder--hourly; monthly measurements by USGS personnel.

DATUM.--Elevation of land-surface datum is 908.58 ft above NGVD of 1929. Measuring point: Double file mark on top of coupling, 3.20 ft above land-surface datum.

REMARKS.--Water level may be affected by pumping in nearby village and school wells.

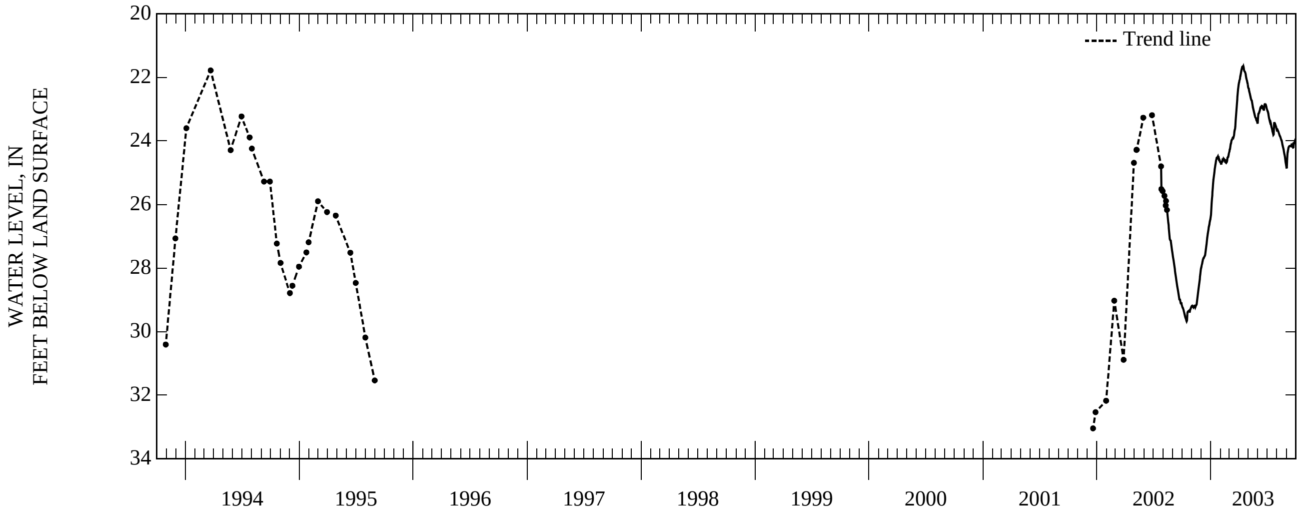
PERIOD OF RECORD.--September 1980 to August 1995 and October 2002 to September 2003. Records for September 1980 to February 1982 are unpublished and available in files of the U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.17 ft below land-surface datum, April 16, 1984; lowest measured, 33.05 ft below land-surface datum, Dec. 19, 2001.

EXTREMES FOR CURRENT YEAR.--Highest water level, 21.64 ft below land-surface datum, April 11, 12; lowest, 29.72 ft below land-surface datum, Oct. 16.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29.21	29.20	27.99	26.32	24.67	24.35	22.17	22.33	23.27	23.05	23.63	24.87
2	29.24	29.19	27.94	26.13	24.71	24.26	22.13	22.35	23.15	23.07	23.64	24.58
3	29.26	29.21	27.90	25.95	24.74	24.25	22.09	22.42	23.15	23.11	23.67	24.42
4	29.28	29.21	27.85	25.82	24.67	24.18	22.05	22.46	23.13	23.16	23.69	24.36
5	29.31	29.23	27.79	25.72	24.65	24.11	21.97	22.49	23.08	23.20	23.70	24.31
6	29.36	29.19	27.75	25.60	24.66	24.08	21.92	22.52	23.06	23.26	23.73	24.26
7	29.39	29.22	27.72	25.48	24.60	24.05	21.87	22.56	23.02	23.30	23.76	24.21
8	29.44	29.21	27.70	25.34	24.61	23.99	21.80	22.61	22.97	23.34	23.79	24.18
9	29.48	29.21	27.69	25.23	24.60	23.97	21.75	22.66	22.95	23.39	23.83	24.17
10	29.53	29.20	27.66	25.15	24.57	23.96	21.72	22.69	22.96	23.42	23.84	24.16
11	29.57	29.22	27.64	25.07	24.59	23.93	21.67	22.71	22.92	23.41	23.86	24.16
12	29.58	29.24	27.62	25.00	24.58	23.90	21.66	22.73	22.92	23.45	23.89	24.16
13	29.61	29.21	27.60	24.90	24.60	23.90	21.70	22.80	22.90	23.51	23.93	24.16
14	29.65	29.18	27.53	24.83	24.62	23.91	21.69	22.86	22.90	23.56	23.96	24.16
15	29.68	29.17	27.45	24.76	24.65	23.87	21.67	22.91	22.94	23.59	23.98	24.17
16	29.66	29.15	27.37	24.71	24.66	23.83	21.68	22.97	22.97	23.63	23.99	24.14
17	29.45	29.07	27.33	24.64	24.61	23.72	21.76	23.01	22.99	23.69	24.05	24.15
18	29.41	28.99	27.26	24.60	24.62	23.66	21.79	23.05	22.98	23.72	24.10	24.15
19	29.38	28.91	27.16	24.55	24.65	23.64	21.81	23.10	23.00	23.76	24.15	24.13
20	29.37	28.83	27.07	24.53	24.67	23.55	21.83	23.14	23.05	23.80	24.19	24.18
21	29.36	28.74	26.99	24.53	24.66	23.36	21.84	23.18	22.92	23.79	24.23	24.21
22	29.35	28.66	26.92	24.51	24.61	23.23	21.88	23.22	22.85	23.49	24.27	24.21
23	29.36	28.58	26.86	24.50	24.53	23.11	21.95	23.26	22.85	23.41	24.34	24.11
24	29.37	28.51	26.79	24.54	24.51	22.98	22.01	23.27	22.87	23.45	24.40	24.07
25	29.38	28.43	26.71	24.54	24.51	22.84	22.05	23.28	22.88	23.50	24.44	24.05
26	29.33	28.35	26.67	24.53	24.47	22.71	22.08	23.31	22.87	23.51	24.50	24.06
27	29.31	28.27	26.62	24.59	24.42	22.61	22.14	23.34	22.90	23.49	24.57	24.05
28	29.28	28.20	26.55	24.59	24.38	22.50	22.18	23.36	22.95	23.52	24.66	23.99
29	29.26	28.10	26.50	24.61	---	22.38	22.23	23.38	22.98	23.56	24.72	23.95
30	29.23	28.03	26.46	24.66	---	22.30	22.30	23.43	23.02	23.61	24.78	23.95
31	29.21	---	26.40	24.67	---	22.22	---	23.45	---	23.64	24.84	---
MEAN	29.40	28.90	27.27	24.99	24.60	23.53	21.91	22.93	22.98	23.46	24.10	24.19
MAX	29.68	29.24	27.99	26.32	24.74	24.35	22.30	23.45	23.27	23.80	24.84	24.87
MIN	29.21	28.03	26.40	24.50	24.38	22.22	21.66	22.33	22.85	23.05	23.63	23.95


WATER LEVEL, IN
FEET BELOW LAND SURFACE
20
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Trend line
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2001
2002
2003

BROOME COUNTY—Continued

421157075535401. Local number, Bm 129.

LOCATION.--Lat 42°11'57", long 75°53'54", Hydrologic Unit 02050102, near Castle Creek. Owner: New York State Department of Transportation.

AQUIFER.--Shales of Middle to Upper Devonian age.

WELL CHARACTERISTICS.--Drilled water supply-well, diameter 6 inch, depth 252 ft.

INSTRUMENTATION.--Electronic data recorder--hourly; monthly measurements by USGS personnel.

DATUM.--Elevation of land-surface datum is 1,105.75 ft above NGVD of 1929. Measuring point: Top of coupling, 2.00 ft above land-surface datum.

REMARKS.--Well drilled by New York State Department of Transportation, originally intended as water-supply well for proposed rest area on Interstate Highway I-81.

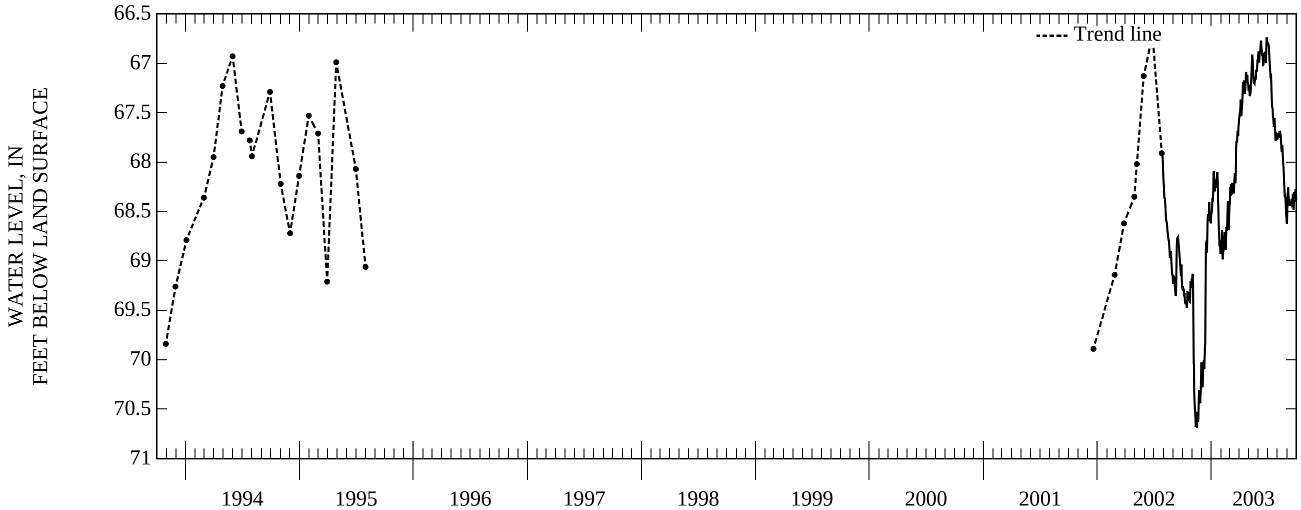
PERIOD OF RECORD.--November 1985 to August 1995 and October 2002 to September 2003.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 66.70 ft below land-surface datum, June 27, 2003; lowest measured, 75.83 ft below land-surface datum, Nov. 1, 1985.

EXTREMES FOR CURRENT YEAR.--Highest water level, 66.70 ft below land-surface datum, June 27; lowest, 70.73 ft below land- surface datum, Nov. 12, 15, 16.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69.26	69.15	70.12	68.52	68.81	68.42	67.53	67.24	66.88	66.82	67.72	68.44
2	69.26	69.13	70.14	68.51	68.79	68.25	67.50	67.22	66.97	66.80	67.72	68.32
3	69.29	69.24	70.27	68.45	68.82	68.34	67.50	67.30	66.99	66.81	67.75	68.31
4	69.29	69.72	70.28	68.36	68.69	68.33	67.44	67.33	66.94	66.84	67.75	68.26
5	69.30	70.03	70.13	68.40	68.88	68.23	67.37	67.31	66.88	66.88	67.75	68.33
6	69.36	70.07	70.07	68.36	68.98	68.27	67.51	67.27	66.90	66.95	67.73	68.38
7	69.32	70.33	70.02	68.32	68.89	68.33	67.53	67.27	66.85	66.99	67.68	68.39
8	69.42	70.41	70.00	68.12	68.89	68.27	67.47	67.23	66.80	67.04	67.69	68.42
9	69.42	70.50	70.09	68.09	68.86	68.21	67.43	67.13	66.77	67.11	67.73	68.44
10	69.44	70.52	69.97	68.17	68.76	68.27	67.39	67.07	66.84	67.15	67.72	68.42
11	69.41	70.59	69.88	68.24	68.75	68.27	67.28	66.97	66.87	67.10	67.74	68.41
12	69.40	70.68	69.84	68.30	68.71	68.24	67.19	66.91	66.92	67.21	67.79	68.42
13	69.41	70.65	69.49	68.23	68.75	68.29	67.29	66.96	66.91	67.34	67.86	68.42
14	69.47	70.64	68.89	68.25	68.78	68.32	67.31	67.03	66.92	67.42	67.89	68.42
15	69.43	70.66	68.83	68.25	68.84	68.22	67.21	67.11	66.97	67.44	67.87	68.38
16	69.31	70.69	68.80	68.25	68.89	68.17	67.17	67.16	67.01	67.45	67.83	68.37
17	69.35	70.53	68.91	68.18	68.74	68.11	67.27	67.20	67.01	67.55	67.87	68.43
18	69.40	70.58	68.92	68.21	68.65	68.13	67.31	67.20	66.93	67.55	67.94	68.43
19	69.31	70.63	68.77	68.13	68.68	68.21	67.30	67.21	66.89	67.60	68.02	68.32
20	69.35	70.59	68.56	68.10	68.69	68.11	67.24	67.17	66.93	67.64	68.04	68.43
21	69.38	70.48	68.55	68.19	68.61	67.86	67.15	67.16	66.90	67.60	68.13	68.48
22	69.36	70.31	68.53	68.38	68.47	67.80	67.09	67.17	66.90	67.56	68.19	68.42
23	69.41	70.35	68.56	68.47	68.39	67.79	67.12	67.15	66.92	67.61	68.28	68.31
24	69.42	70.41	68.59	68.63	68.60	67.79	67.15	67.08	66.99	67.68	68.35	68.39
25	69.36	70.43	68.41	68.70	68.69	67.72	67.14	67.07	67.00	67.77	68.34	68.38
26	69.21	70.44	68.52	68.73	68.66	67.68	67.12	67.08	66.82	67.79	68.36	68.40
27	69.26	70.36	68.60	68.85	68.49	67.72	67.19	67.08	66.74	67.71	68.41	68.34
28	69.26	70.31	68.53	68.83	68.44	67.72	67.20	67.02	66.77	67.71	68.53	68.27
29	69.23	70.13	68.56	68.84	---	67.64	67.22	66.96	66.78	67.72	68.54	68.32
30	69.18	70.03	68.62	68.93	---	67.60	67.28	66.96	66.80	67.77	68.61	68.38
31	69.19	---	68.54	68.90	---	67.56	---	66.92	---	67.77	68.63	---
MEAN	69.34	70.29	69.23	68.42	68.72	68.06	67.30	67.13	66.89	67.37	68.01	68.38
MAX	69.47	70.69	70.28	68.93	68.98	68.42	67.53	67.33	67.01	67.79	68.63	68.48
MIN	69.18	69.13	68.41	68.09	68.39	67.56	67.09	66.91	66.74	66.80	67.68	68.26


WATER LEVEL, IN
FEET BELOW LAND SURFACE
66.5
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67.5
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69.5
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70.5
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1994
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1997
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1999
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2001
2002
2003
Trend line

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 inch, depth 53 ft, cased to 53 ft, open end.

INSTRUMENTATION.--Electronic data recorder--30 minute; monthly measurements by USGS personnel.

DATUM.--Elevation of land-surface datum is 1,467.08 ft above NGVD of 1929. Measuring point: Top of casing, 2.29 ft above land- surface.

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. Prior to Mar. 5, 1990, weekly float tape readings by observer.

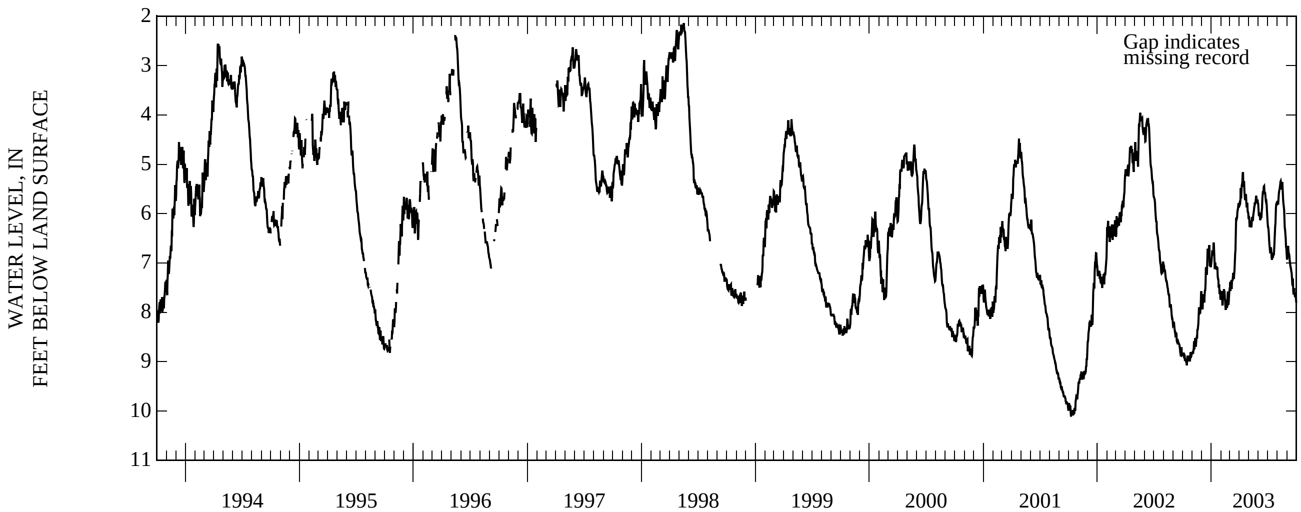
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.97 ft, below land-surface datum, June 26, 1989; lowest measured, 34.87 ft below land-surface datum, Nov. 21, 1972.

EXTREMES FOR CURRENT YEAR.--Highest water level, 5.11 ft below land-surface datum, Apr. 12; lowest, 9.09 ft below land-surface datum, Oct. 14.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.85	8.81	7.77	6.97	7.61	7.56	5.80	6.05	5.92	6.27	5.78	6.91
2	8.85	8.80	7.76	6.88	7.71	7.39	5.82	6.10	6.03	6.28	5.79	6.80
3	8.86	8.84	7.94	6.78	7.74	7.57	5.80	6.24	6.03	6.34	5.79	6.71
4	8.82	8.77	7.91	6.78	7.57	7.47	5.72	6.27	5.98	6.44	5.70	6.65
5	8.84	8.76	7.69	6.84	7.84	7.35	5.49	6.19	6.01	6.52	5.60	6.75
6	8.93	8.59	7.66	6.83	7.86	7.46	5.69	6.15	6.13	6.62	5.54	6.82
7	8.86	8.75	7.63	6.82	7.66	7.52	5.56	6.24	6.12	6.69	5.52	6.82
8	8.98	8.67	7.66	6.59	7.65	7.39	5.43	6.25	6.09	6.76	5.48	6.86
9	8.96	8.63	7.80	6.63	7.62	7.34	5.41	6.28	6.05	6.81	5.43	6.95
10	8.97	8.52	7.65	6.85	7.53	7.36	5.36	6.22	6.09	6.78	5.36	7.00
11	8.99	8.57	7.56	7.00	7.60	7.28	5.20	6.09	5.96	6.68	5.34	7.06
12	8.98	8.69	7.55	7.12	7.60	7.20	5.16	6.07	5.88	6.76	5.38	7.08
13	8.99	8.61	7.42	6.99	7.71	7.25	5.39	6.15	5.70	6.89	5.48	7.12
14	9.07	8.53	7.11	7.06	7.78	7.32	5.46	6.12	5.61	6.93	5.51	7.17
15	8.96	8.51	7.10	7.09	7.87	7.22	5.36	6.04	5.57	6.89	5.46	7.20
16	8.88	8.53	7.09	7.13	7.95	7.15	5.36	5.99	5.58	6.83	5.36	7.29
17	8.94	8.34	7.24	7.06	7.79	6.97	5.56	5.95	5.55	6.89	5.44	7.42
18	8.99	8.36	7.16	7.14	7.75	6.81	5.64	5.87	5.45	6.83	5.61	7.46
19	8.88	8.29	6.96	7.08	7.83	6.74	5.73	5.85	5.44	6.84	5.73	7.31
20	8.90	8.22	6.71	7.11	7.91	6.45	5.69	5.77	5.55	6.83	5.80	7.57
21	8.92	8.05	6.74	7.28	7.83	6.09	5.60	5.80	5.57	6.72	5.85	7.64
22	8.91	7.90	6.75	7.32	7.64	6.09	5.63	5.78	5.58	6.56	5.92	7.55
23	8.96	8.02	6.84	7.33	7.58	6.10	5.79	5.72	5.63	6.40	6.12	7.51
24	8.99	8.02	6.87	7.50	7.84	6.08	5.87	5.64	5.72	6.26	6.28	7.64
25	8.92	8.01	6.64	7.46	7.83	5.96	5.80	5.68	5.76	6.19	6.33	7.62
26	8.81	8.01	6.98	7.43	7.71	5.92	5.78	5.73	5.75	6.07	6.42	7.69
27	8.88	7.92	7.07	7.63	7.59	5.92	5.95	5.78	5.81	5.87	6.51	7.61
28	8.89	7.86	6.96	7.55	7.55	5.86	5.97	5.75	5.96	5.81	6.67	7.65
29	8.86	7.62	7.02	7.58	---	5.79	6.00	5.71	6.06	5.79	6.70	7.73
30	8.81	7.57	7.09	7.74	---	5.88	6.11	5.79	6.18	5.82	6.82	7.80
31	8.85	---	7.02	7.71	---	5.84	---	5.80	---	5.81	6.93	---
MEAN	8.91	8.36	7.27	7.14	7.72	6.78	5.64	5.97	5.83	6.49	5.86	7.25
MAX	9.07	8.84	7.94	7.74	7.95	7.57	6.11	6.28	6.18	6.93	6.93	7.80
MIN	8.81	7.57	6.64	6.59	7.53	5.79	5.16	5.64	5.44	5.79	5.34	6.65

CATTARAUGUS COUNTY—Continued



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.--Electronic data recorder--hourly; monthly measurements by USGS personnel.

DATUM.--Elevation of land-surface datum is 1,252.52 ft above NGVD of 1929. Measuring point: Top of well casing, 5.46 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. Weekly measurements by City of Jamestown personnel until Oct. 13, 1999. 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.

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

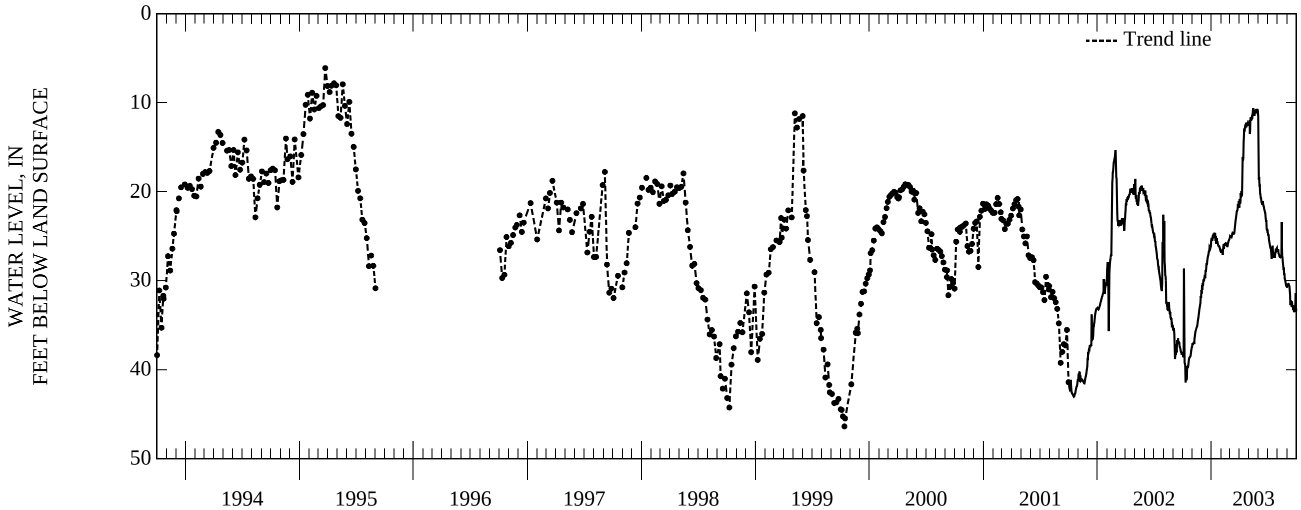
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.2 ft above land-surface datum, Mar. 14, 1942; lowest measured 66.6 ft below land-surface datum, Nov. 3, 1971

EXTREMES FOR CURRENT YEAR.--Highest water level, 7.98 ft below land-surface datum, May 16; lowest, 43.54 ft below land-surface datum, Oct. 14.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38.06	37.04	31.43	25.33	26.73	25.18	21.49	12.57	15.02	24.70	26.45	30.68
2	38.22	37.22	30.52	25.18	26.64	24.95	20.79	12.36	18.63	24.94	26.70	30.57
3	38.62	37.10	31.05	25.52	26.68	24.98	21.33	11.97	18.32	24.81	26.48	30.47
4	37.90	37.03	30.29	25.35	26.69	25.05	21.22	13.52	19.31	25.31	26.92	30.38
5	28.64	37.02	30.60	25.00	26.67	25.07	20.16	12.93	19.29	25.48	26.97	30.36
6	35.35	36.88	30.04	24.95	27.12	25.10	20.60	11.95	20.16	25.69	27.09	30.39
7	39.19	37.12	29.84	25.24	26.54	25.11	19.92	11.65	20.35	25.90	27.27	30.45
8	39.28	36.51	30.06	25.05	26.24	24.99	20.41	12.05	20.70	26.11	27.33	30.57
9	39.59	36.26	29.74	25.01	25.92	24.74	20.35	11.82	20.72	26.30	27.33	31.05
10	41.45	35.95	29.53	25.02	26.43	24.64	17.87	11.69	21.09	26.34	27.36	31.51
11	40.61	35.73	29.57	24.95	25.98	24.66	16.09	11.79	21.16	26.45	27.33	32.77
12	40.60	35.63	29.72	24.72	25.91	24.66	16.47	11.74	21.44	27.03	27.22	32.22
13	41.20	35.50	28.81	24.61	25.89	24.68	16.22	11.27	21.35	27.51	27.24	32.73
14	41.08	35.36	28.98	25.57	25.92	24.71	14.40	10.88	21.20	27.21	23.43	32.31
15	39.70	35.26	28.63	24.96	25.91	24.68	13.70	10.62	21.04	26.81	26.01	32.94
16	39.64	35.16	28.02	25.76	25.80	24.45	12.89	10.93	21.43	26.05	27.23	32.32
17	39.84	34.96	28.24	25.75	25.80	24.05	13.27	10.96	21.57	26.71	27.43	32.77
18	39.73	34.64	28.15	25.17	25.92	23.72	13.05	10.97	21.64	26.90	27.93	32.93
19	39.54	34.38	27.71	25.62	26.03	23.36	12.69	11.47	21.90	27.15	28.26	32.98
20	39.19	34.18	27.45	25.62	25.83	23.10	12.48	11.12	22.02	27.23	28.75	33.27
21	38.87	33.90	27.27	25.79	26.23	22.85	12.44	10.92	22.18	27.46	28.53	33.07
22	38.71	33.60	27.12	25.91	26.13	22.57	12.50	10.78	22.29	27.26	29.35	33.41
23	38.62	33.30	26.94	26.00	25.81	22.27	12.23	11.16	22.56	27.42	29.15	33.43
24	38.56	33.03	26.64	26.15	25.65	22.17	12.39	10.70	23.01	26.97	29.78	32.76
25	38.53	32.81	26.74	26.16	25.58	22.10	12.53	10.90	23.27	26.82	29.88	33.44
26	38.47	32.62	26.21	26.07	25.47	21.82	12.43	10.77	23.26	26.64	30.11	33.42
27	38.24	32.44	26.29	26.17	25.38	21.40	12.34	11.09	24.16	26.66	30.31	32.73
28	37.93	31.72	26.23	26.35	25.30	21.69	12.48	10.68	24.29	26.45	30.51	31.37
29	37.69	31.97	26.32	26.49	---	21.58	12.47	11.06	24.17	26.44	30.59	33.05
30	37.47	31.06	26.19	26.64	---	21.02	12.13	11.01	24.45	26.37	30.63	33.37
31	37.44	---	25.56	26.74	---	21.81	---	11.46	---	26.72	30.69	---
MEAN	38.64	34.85	28.38	25.58	26.08	23.65	15.64	11.44	21.40	26.45	28.07	32.12
MAX	41.45	37.22	31.43	26.74	27.12	25.18	21.49	13.52	24.45	27.51	30.69	33.44
MIN	28.64	31.06	25.56	24.61	25.30	21.02	12.13	10.62	15.02	24.70	23.43	30.36

CHAUTAUQUA COUNTY—Continued



CHEMUNG COUNTY

420828076484601. Local number, Cm 622.

LOCATION.--Lat 42°08'28", long 76°48'46", Hydrologic Unit 02050105, on NYS Route 14, 1.0 mi south of intersection of Routes 17 and 14, behind the "Church of Love", near Horseheads. Owner: U.S. Geological Survey.

AQUIFER.--Unconfined aquifer in sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled unused well, diameter 2 inch PVC, depth 44 ft, screened from 29 ft to 39 ft.

INSTRUMENTATION.--Electronic data recorder--hourly; monthly measurements by USGS personnel.

DATUM.--Elevation of land-surface datum is 885.15 ft above NGVD of 1929. Measuring point: Top of pipe, 2.77ft above land-surface datum. Prior to October 2002, water levels were measured at Cm 46, located about 30 ft southeast at datum 0.54 ft higher.

REMARKS.--Water level affected by stage of Newtown Creek. This well is a replacement for 420829076484801 (local number Cm 46), which has a period of record from October 1955 to September 2002.

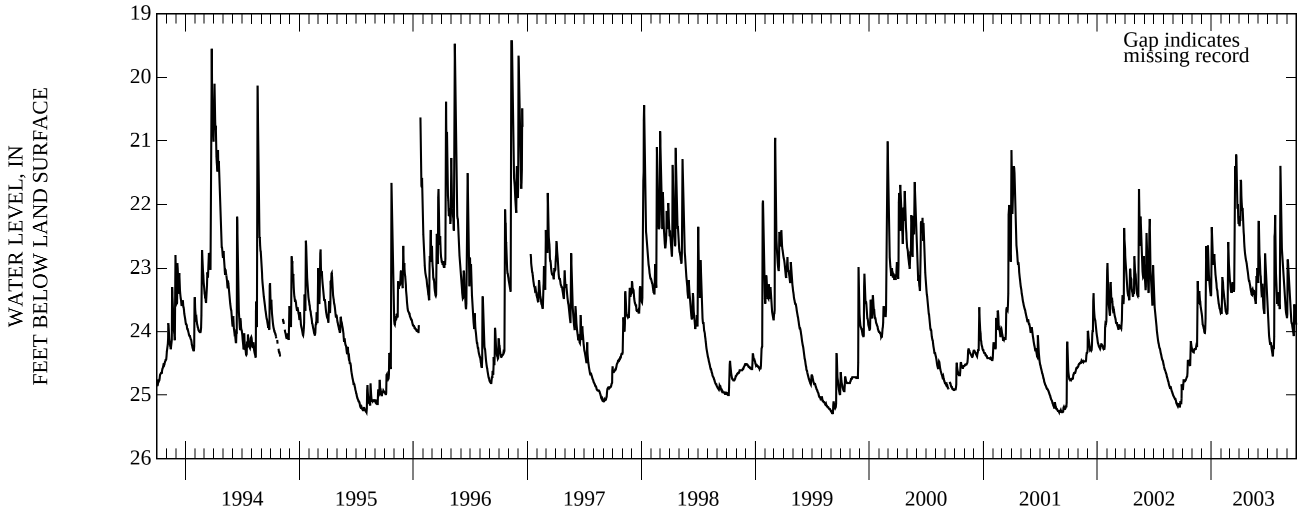
PERIOD OF RECORD.--October 2002 to September 2003.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.58 ft below land-surface datum, April 25, 1961; lowest measured, 25.95 ft below land-surface datum, July 18, 1980.

EXTREMES FOR CURRENT YEAR.--Highest water level, 21.14 ft below land-surface datum, Mar. 22; lowest, 24.90 ft below land- surface datum, Oct. 1, 2, 3.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.90	24.30	23.72	23.09	23.70	23.19	22.34	23.20	22.27	23.85	23.43	23.72
2	24.90	24.31	23.76	22.36	23.70	23.23	22.32	23.20	22.26	23.91	23.38	22.87
3	24.83	24.31	23.82	22.54	23.70	23.30	22.18	23.23	22.61	23.97	23.51	22.89
4	24.76	24.33	23.89	22.68	23.47	23.34	22.26	23.26	22.78	24.02	23.60	22.97
5	24.77	24.33	23.90	22.79	23.14	23.34	21.61	23.28	22.86	24.07	23.55	23.11
6	24.78	24.29	23.92	22.86	23.20	23.31	21.64	23.31	23.00	24.11	23.48	23.26
7	24.77	24.29	23.94	22.92	23.23	23.39	21.87	23.34	23.11	24.16	23.57	23.38
8	24.78	24.28	23.96	22.95	23.34	23.37	21.98	23.36	23.14	24.19	23.65	23.48
9	24.77	24.28	24.00	22.93	23.37	23.27	22.06	23.39	23.24	24.19	23.38	23.56
10	24.77	24.28	24.02	22.78	23.42	23.22	22.08	23.42	23.36	24.20	21.39	23.63
11	24.76	24.28	24.02	22.85	23.48	23.29	22.08	23.42	23.43	24.17	21.82	23.69
12	24.75	24.28	23.96	22.94	23.51	23.32	22.20	23.35	23.43	24.23	22.08	23.74
13	24.73	24.24	23.80	23.02	23.56	23.32	22.33	23.34	23.25	24.27	22.33	23.80
14	24.72	24.21	23.17	23.10	23.61	23.37	22.43	23.36	23.33	24.31	22.53	23.84
15	24.71	24.22	22.66	23.15	23.64	23.33	22.49	23.39	23.44	24.34	22.70	23.87
16	24.65	24.22	22.83	23.20	23.68	22.92	22.57	23.39	23.55	24.37	22.82	23.87
17	24.47	23.70	23.00	23.24	23.69	21.98	22.66	23.34	23.63	24.39	22.94	23.91
18	24.45	23.20	23.15	23.32	23.71	21.40	22.73	23.39	23.66	24.26	23.04	23.95
19	24.48	23.37	23.21	23.34	23.72	21.63	22.78	23.44	23.70	24.21	23.14	23.98
20	24.47	23.50	22.97	23.36	23.72	21.74	22.81	23.48	23.72	24.28	23.22	24.01
21	24.46	23.53	22.65	23.43	23.72	21.21	22.85	23.50	23.10	24.08	23.30	24.05
22	24.49	23.54	22.87	23.47	23.65	21.27	22.88	23.53	22.77	22.50	23.36	24.07
23	24.52	23.36	23.00	23.51	23.04	21.57	22.90	23.56	22.95	22.45	23.43	23.59
24	24.53	23.44	23.11	23.55	22.59	21.86	22.93	23.42	23.17	22.17	23.50	23.57
25	24.53	23.51	23.18	23.58	22.76	22.05	22.97	23.13	23.32	22.53	23.56	23.71
26	24.31	23.53	23.25	23.60	22.94	22.07	23.01	23.18	23.45	22.88	23.61	23.76
27	24.15	23.57	23.31	23.63	23.02	22.00	23.05	23.23	23.55	23.09	23.65	23.81
28	24.20	23.62	23.36	23.64	23.10	22.20	23.08	23.00	23.64	23.20	23.70	23.83
29	24.24	23.65	23.40	23.66	---	22.31	23.13	23.04	23.73	23.33	23.73	23.86
30	24.26	23.68	23.44	23.69	---	22.27	23.17	23.19	23.80	23.46	23.75	23.89
31	24.28	---	23.42	23.71	---	22.30	---	23.24	---	23.56	23.79	---
MEAN	24.59	23.92	23.44	23.19	23.41	22.59	22.51	23.32	23.24	23.77	23.19	23.66
MAX	24.90	24.33	24.02	23.71	23.72	23.39	23.17	23.56	23.80	24.39	23.79	24.07
MIN	24.15	23.20	22.65	22.36	22.59	21.21	21.61	23.00	22.26	22.17	21.39	22.87


WATER LEVEL, IN
FEET BELOW LAND SURFACE
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1996
1997
1998
1999
2000
2001
2002
2003
Gap indicates
missing record

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: Private.

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--hourly; monthly measurements by USGS personnel.

DATUM.--Elevation of land-surface datum is 979.28 ft above NGVD of 1929. Measuring point: File mark at top of shelter base, 1.37 ft above land-surface datum.

REMARKS.--This well drilled April 1974 as a replacement for 421556075281601 (local number Cn 11), located 90 ft north, which had a period of record from October 1965 to September 1972 (unpublished).

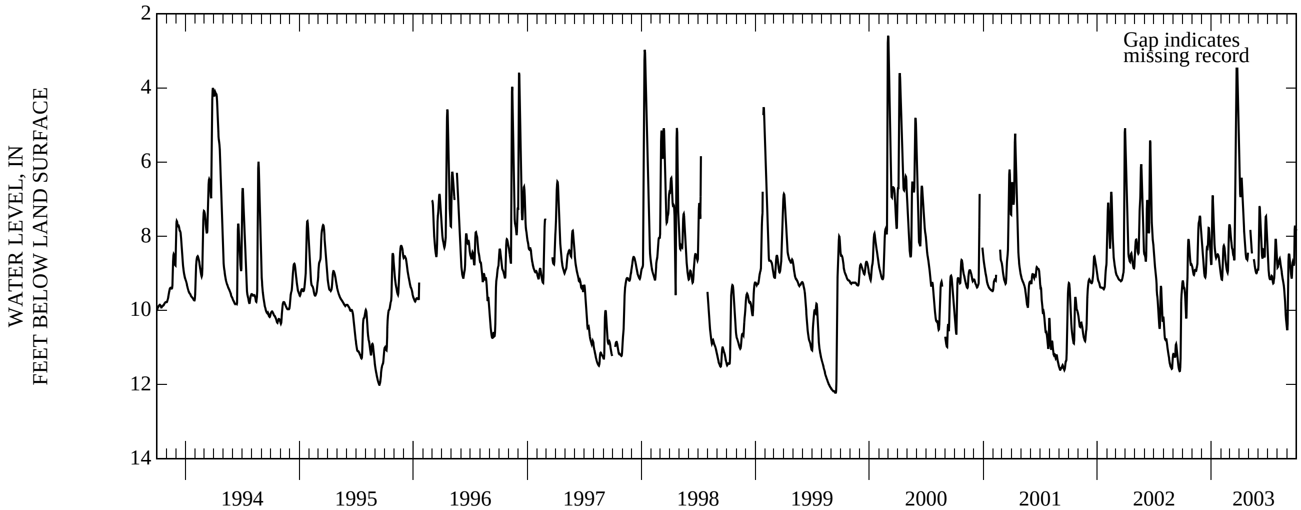
PERIOD OF RECORD.--April 1975 to current year. Records for April 1975 to September 1976 are unpublished and available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.45 ft below land-surface datum, Apr. 3-4, 1993; lowest, 12.22 ft below land-surface datum, Sept. 13, 14, 15, 16, 1999.

EXTREMES FOR CURRENT YEAR.--Highest water level, 3.03 ft below land-surface datum, Mar. 23; lowest, 10.55 ft below land-surface datum, Sept. 1.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.22	8.85	8.26	8.77	9.08	7.72	6.48	---	8.77	8.69	8.84	10.53
2	9.22	8.90	8.39	8.28	9.13	7.79	6.70	---	8.09	8.82	8.83	10.37
3	9.27	8.96	8.51	7.54	9.17	7.89	6.85	---	7.48	8.91	8.76	9.75
4	9.36	9.00	8.61	7.04	9.17	7.99	6.94	---	7.19	9.00	8.75	9.08
5	9.40	9.04	8.70	6.90	9.07	8.11	6.91	---	7.21	9.06	8.71	8.68
6	9.40	9.05	8.78	7.01	8.80	8.18	6.63	7.83	7.44	9.11	8.66	8.50
7	9.43	9.03	8.85	7.26	8.52	8.23	6.44	7.95	7.69	9.15	8.63	8.47
8	9.52	8.97	8.93	7.54	8.34	8.31	6.45	8.09	7.92	9.16	8.61	8.51
9	9.66	8.93	9.00	7.81	8.27	8.33	6.61	8.23	8.11	9.16	8.66	8.60
10	9.85	8.90	9.06	8.04	8.25	8.37	6.85	8.35	8.27	9.16	8.73	8.71
11	10.05	8.90	9.10	8.21	8.28	8.45	7.10	8.46	8.42	9.16	8.80	8.82
12	10.22	8.93	9.11	8.33	8.34	8.51	7.31	---	8.53	9.11	8.85	8.92
13	10.14	8.93	9.07	8.42	8.43	8.52	7.47	---	8.59	9.07	8.90	9.01
14	9.63	8.89	8.99	8.50	8.53	8.57	7.61	---	8.60	9.08	8.95	9.09
15	9.30	8.84	8.82	8.55	8.62	8.65	7.73	---	8.45	9.13	9.01	9.14
16	9.12	8.80	8.58	8.59	8.70	8.62	7.87	---	8.35	9.19	9.07	9.07
17	8.74	8.75	8.39	8.56	8.77	8.19	8.01	8.62	8.35	9.24	9.13	8.84
18	8.33	8.50	8.28	8.54	8.84	7.24	8.15	8.68	8.42	9.27	9.17	8.72
19	8.11	8.13	8.27	8.53	8.89	6.15	8.27	8.75	8.50	9.26	9.22	8.68
20	8.08	7.80	8.29	8.51	8.93	5.23	8.38	8.81	8.57	9.17	9.27	8.71
21	8.15	7.65	8.21	8.49	8.96	4.17	8.48	8.87	8.53	9.13	9.33	8.74
22	8.26	7.61	7.95	8.49	8.98	3.43	8.56	8.92	8.14	8.98	9.41	8.80
23	8.40	7.58	7.78	8.52	8.93	3.06	8.61	8.95	7.69	8.58	9.52	8.72
24	8.53	7.48	7.78	8.56	8.67	3.18	8.61	8.99	7.47	8.30	9.64	8.22
25	8.64	7.45	7.89	8.61	8.25	3.53	8.62	9.00	7.46	8.11	9.76	7.82
26	8.72	7.51	8.07	8.65	7.88	4.00	8.63	9.00	7.61	8.07	9.94	7.71
27	8.77	7.62	8.26	8.72	7.71	4.51	8.58	8.98	7.85	8.12	10.12	7.81
28	8.76	7.77	8.40	8.80	7.68	5.05	8.44	8.91	8.11	8.26	10.24	7.90
29	8.76	7.93	8.53	8.87	---	5.61	---	8.90	8.34	8.42	10.32	7.85
30	8.77	8.10	8.65	8.95	---	6.03	---	8.90	8.54	8.58	10.41	7.81
31	8.81	---	8.75	9.02	---	6.27	---	8.90	---	8.73	10.49	---
MEAN	9.05	8.43	8.52	8.28	8.61	6.71	---	---	8.09	8.88	9.25	8.72
MAX	10.22	9.05	9.11	9.02	9.17	8.65	---	---	8.77	9.27	10.49	10.53
MIN	8.08	7.45	7.78	6.90	7.68	3.06	---	---	7.19	8.07	8.61	7.71


WATER LEVEL, IN FEET BELOW LAND SURFACE
2
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12
14
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
Gap indicates missing record

CORTLAND COUNTY

424452076081902. Local number, C 998.

LOCATION.--Lat 42°44'52", long 76°08'19", Hydrologic Unit 02050102, at end of Currie Road, Cortland. Owner: U.S. Geological Survey.

AQUIFER.--Unconfined aquifer in sand and gravel outwash of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 2 inch PVC, depth 25 ft, screened 15-25 ft.

INSTRUMENTATION.--Electronic data recorder--hourly; monthly measurements by USGS personnel.

DATUM.--Elevation of land-surface datum is 1,184.20 ft above NGVD of 1929. Measuring point: Top of PVC pipe, 3.15 ft above land-surface datum.

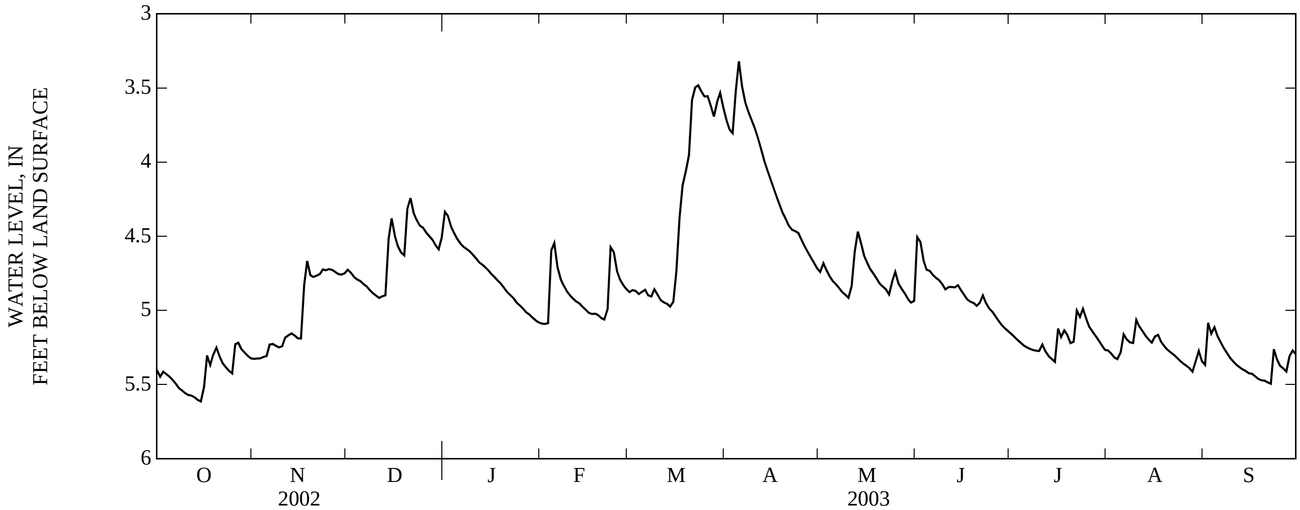
PERIOD OF RECORD.--July 2002 to September 2003.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.27 ft below land-surface datum, Apr. 5, 2003; lowest, 5.79 ft below land-surface datum, Sept. 13, 14, 15, 2002.

EXTREMES FOR CURRENT YEAR.--Highest water level, 3.27 ft below land-surface datum, Apr. 5; lowest, 5.62 ft below land- surface datum, Oct. 15, 16.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.40	5.33	4.73	4.34	5.09	4.88	3.71	4.74	4.51	5.16	5.27	5.37
2	5.45	5.33	4.75	4.36	5.09	4.86	3.78	4.68	4.54	5.18	5.29	5.08
3	5.41	5.32	4.78	4.43	5.09	4.87	3.81	4.73	4.66	5.20	5.32	5.16
4	5.43	5.32	4.79	4.48	4.60	4.89	3.52	4.77	4.73	5.22	5.33	5.11
5	5.45	5.31	4.80	4.52	4.55	4.88	3.32	4.80	4.73	5.24	5.29	5.17
6	5.47	5.23	4.82	4.55	4.71	4.86	3.49	4.82	4.76	5.25	5.16	5.22
7	5.50	5.23	4.84	4.57	4.79	4.90	3.60	4.85	4.78	5.26	5.20	5.25
8	5.53	5.24	4.86	4.59	4.83	4.91	3.66	4.88	4.80	5.27	5.22	5.29
9	5.54	5.25	4.88	4.60	4.87	4.86	3.71	4.90	4.82	5.27	5.22	5.32
10	5.56	5.24	4.90	4.63	4.90	4.89	3.77	4.92	4.86	5.27	5.06	5.34
11	5.57	5.18	4.92	4.65	4.92	4.93	3.83	4.84	4.84	5.23	5.11	5.37
12	5.57	5.17	4.91	4.68	4.94	4.95	3.90	4.61	4.84	5.28	5.14	5.38
13	5.59	5.16	4.90	4.69	4.95	4.96	3.98	4.47	4.85	5.31	5.17	5.40
14	5.60	5.17	4.52	4.71	4.97	4.98	4.05	4.54	4.83	5.33	5.20	5.41
15	5.61	5.19	4.38	4.73	5.00	4.94	4.11	4.63	4.86	5.35	5.22	5.42
16	5.52	5.19	4.50	4.76	5.02	4.74	4.17	4.68	4.90	5.12	5.18	5.43
17	5.30	4.83	4.57	4.78	5.02	4.38	4.23	4.72	4.93	5.18	5.17	5.44
18	5.37	4.67	4.61	4.80	5.02	4.16	4.29	4.75	4.94	5.14	5.21	5.46
19	5.30	4.76	4.63	4.82	5.03	4.06	4.34	4.79	4.95	5.17	5.24	5.47
20	5.25	4.78	4.32	4.85	5.05	3.95	4.38	4.82	4.97	5.22	5.26	5.47
21	5.31	4.77	4.24	4.88	5.06	3.58	4.43	4.84	4.95	5.21	5.28	5.49
22	5.36	4.76	4.34	4.90	4.99	3.50	4.46	4.86	4.90	5.00	5.30	5.50
23	5.38	4.72	4.39	4.92	4.57	3.48	4.47	4.89	4.95	5.04	5.32	5.26
24	5.41	4.73	4.43	4.95	4.61	3.52	4.48	4.81	4.99	4.99	5.34	5.33
25	5.42	4.72	4.44	4.97	4.73	3.56	4.52	4.74	5.01	5.06	5.36	5.37
26	5.23	4.73	4.47	4.99	4.79	3.56	4.57	4.82	5.04	5.11	5.37	5.39
27	5.22	4.74	4.50	5.01	4.83	3.62	4.61	4.86	5.07	5.14	5.39	5.41
28	5.26	4.76	4.52	5.03	4.86	3.69	4.64	4.88	5.10	5.17	5.41	5.31
29	5.29	4.76	4.56	5.05	---	3.60	4.68	4.92	5.12	5.20	5.35	5.27
30	5.31	4.75	4.59	5.07	---	3.53	4.72	4.95	5.14	5.24	5.27	5.30
31	5.32	---	4.51	5.08	---	3.63	---	4.94	---	5.27	5.34	---
MEAN	5.42	5.01	4.63	4.75	4.89	4.33	4.11	4.79	4.88	5.20	5.26	5.34
MAX	5.61	5.33	4.92	5.08	5.09	4.98	4.72	4.95	5.14	5.35	5.41	5.50
MIN	5.22	4.67	4.24	4.34	4.55	3.48	3.32	4.47	4.51	4.99	5.06	5.08


WATER LEVEL, IN FEET BELOW LAND SURFACE
3
3.5
4
4.5
5
5.5
6
O N D J F M A M J J A S
2002
2003

GENESEE COUNTY

425913078085501. Local number, Gs 190.

LOCATION.--Lat 42°59'13", long 78°08'55", Hydrologic Unit 04120104, on Genesee County fairgrounds, east of Batavia. Owner: City of Batavia.

AQUIFER.--Sand and gravel outwash of Pleistocene age.

WELL CHARACTERISTICS.--Driven unused well, diameter 2 inch PVC, depth 75 ft, screened 55-75 ft.

INSTRUMENTATION.--Electronic data logger--hourly; monthly measurements by USGS personnel.

DATUM.--Elevation of land-surface datum is 890 ft above NGVD of 1929, from topographic map. Measuring point: Top of pipe, 2.63 ft above land-surface datum.

PERIOD OF RECORD.-- September 1997 to current year. Records for September 1997 to September 2002 are unpublished and in the files of the U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.29 ft below land-surface datum, Apr. 7, 1998; lowest measured, 39.82 ft below land-surface datum, Feb. 11, 2000.

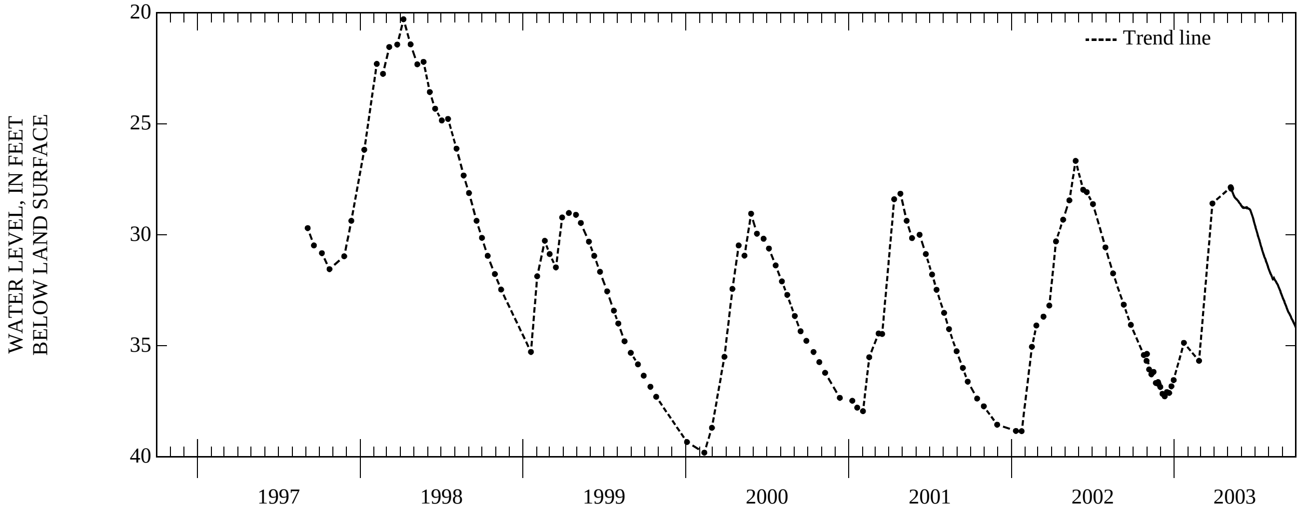
EXTREMES FOR CURRENT YEAR.--Highest water level measured, 27.42 ft below land-surface datum, Apr. 30; lowest measured, 36.72 ft below land-surface datum, Nov. 26.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	28.70	29.61	31.57	32.85
2	---	---	---	---	---	---	---	---	28.75	29.68	31.63	32.89
3	---	---	---	---	---	---	---	---	28.78	29.74	31.69	32.94
4	---	---	---	---	---	---	---	---	28.79	29.82	31.74	32.99
5	---	z35.96	---	---	---	---	---	---	28.76	29.89	31.77	33.04
6	---	---	---	---	---	---	---	z27.79	28.80	29.97	31.81	33.09
7	---	---	---	---	---	---	---	27.86	28.79	30.03	31.86	33.14
8	---	---	---	---	---	---	---	27.92	28.78	30.09	31.91	33.20
9	---	---	---	---	---	---	---	27.98	28.77	30.16	31.97	33.25
10	---	---	---	---	---	---	---	28.03	28.78	30.23	32.01	33.30
11	---	---	---	---	---	---	---	28.06	28.77	30.28	32.00	33.35
12	---	---	---	---	---	---	---	28.12	28.79	30.36	31.95	33.41
13	---	---	---	---	---	---	---	28.18	28.77	30.44	31.99	33.46
14	---	---	---	---	---	---	---	28.23	28.79	30.51	32.04	33.51
15	---	---	---	---	---	---	---	28.28	28.81	30.57	32.07	33.53
16	---	---	---	---	---	---	---	28.31	28.83	30.64	32.09	33.55
17	---	---	---	---	---	---	---	28.33	28.83	30.71	32.13	33.61
18	---	---	---	---	---	---	---	28.36	28.84	30.77	32.16	33.66
19	---	---	---	---	---	---	---	28.38	28.86	30.84	32.20	33.69
20	---	---	---	---	---	---	---	28.40	28.90	30.90	32.24	33.74
21	---	---	---	---	---	---	---	28.42	28.93	30.96	32.27	33.79
22	---	---	---	z34.87	---	---	---	28.44	28.99	31.02	32.32	33.83
23	---	---	---	---	---	---	---	28.46	29.04	31.06	32.37	33.86
24	z35.42	---	---	---	---	---	---	28.48	29.11	31.11	32.42	33.90
25	---	---	---	---	z35.68	---	---	28.52	29.18	31.17	32.47	33.94
26	---	z36.72	---	---	---	---	---	28.55	29.24	31.23	32.52	33.99
27	---	---	---	---	---	z28.59	---	28.58	29.31	31.27	32.57	34.03
28	---	---	---	---	---	---	---	28.60	29.39	31.33	32.63	34.07
29	---	---	---	---	---	---	---	28.62	29.47	31.39	32.68	34.12
30	z35.68	---	z36.57	---	---	---	z27.42	28.66	29.54	31.46	32.74	34.17
31	---	---	---	---	---	---	---	28.69	---	31.51	32.80	---
MEAN	---	---	---	---	---	---	---	---	28.94	30.60	32.15	33.53
MAX	---	---	---	---	---	---	---	---	29.54	31.51	32.80	34.17
MIN	---	---	---	---	---	---	---	---	28.70	29.61	31.57	32.85

z Made by USGS personnel.

GENESEE COUNTY—Continued



MADISON COUNTY

430056075354102. Local number, M 178.

LOCATION.--Lat 43°00'56", long 75°35'41", Hydrologic Unit 04140202, at Valley Mills. Owner: Private.

AQUIFER.--Unconfined aquifer in gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 inch, depth 16 ft, cased to 16 ft, open end.

INSTRUMENTATION.--Electronic data recorder--hourly; monthly measurements by USGS personnel.

DATUM.--Elevation of land-surface datum is 573.76 ft above NGVD of 1929. 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 had 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. April 1975 to May 1986, digital recorder at same site and datum. Weekly observer readings May 1986 to Dec. 1988. Electronic data recorder at same site and datum Dec. 1988 to Feb. 1991. Periodic measurements with chalked tape Feb. 1991 to Aug. 1995 and Oct. 1996 to Feb. 1997.

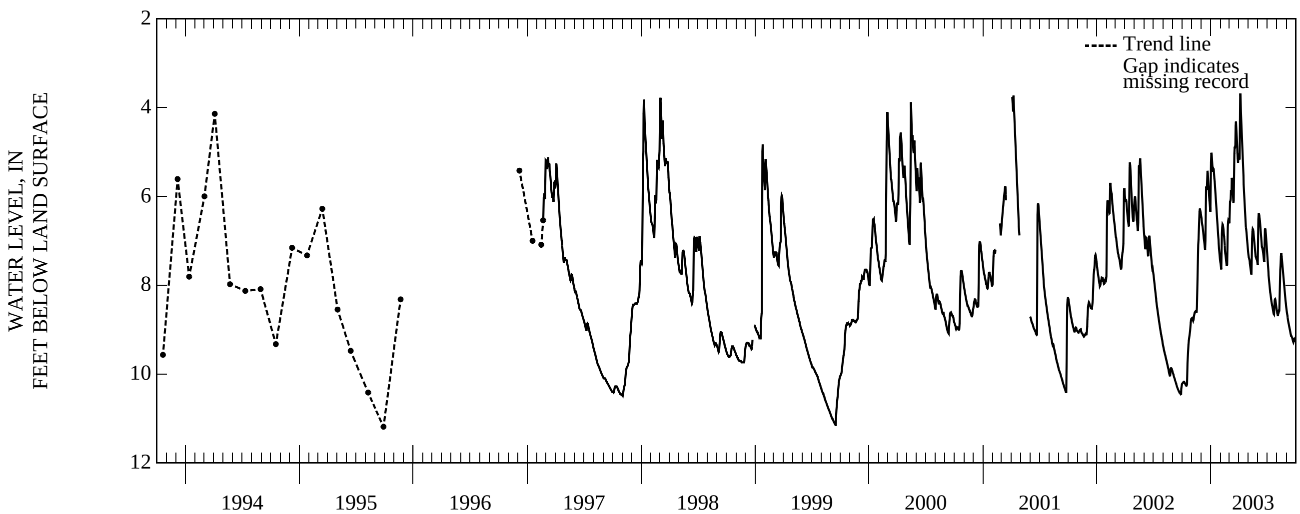
REVISED RECORDS.--WDR NY-91-3: 1990 water level; WDR NY-99-3: 1995 water level.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.60 ft below land-surface datum, Mar. 5, 1979; lowest measured, 11.19 ft below land-surface datum, Sept. 27, 1995.

EXTREMES FOR CURRENT YEAR.--Highest water level, 3.35 ft below land-surface datum, Apr. 5; lowest, 10.27 ft below land-surface datum, Oct. 14, 15, 16.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.22	8.74	6.46	5.24	7.52	6.61	5.08	7.32	7.14	7.42	8.60	8.60
2	10.21	8.76	6.50	5.02	7.58	6.39	5.16	7.37	6.52	7.51	8.64	8.65
3	10.20	8.79	6.58	5.05	7.65	6.12	5.17	7.39	6.40	7.60	8.68	8.69
4	10.19	8.79	6.64	5.14	7.39	6.11	4.17	7.42	6.40	7.70	8.68	8.73
5	10.18	8.81	6.67	5.26	6.84	6.06	3.48	7.47	6.43	7.78	8.61	8.78
6	10.18	8.78	6.74	5.34	6.69	5.86	3.82	7.51	6.50	7.87	8.59	8.82
7	10.18	8.75	6.80	5.41	6.63	5.94	4.10	7.58	6.56	7.95	8.60	8.86
8	10.19	8.69	6.87	5.44	6.64	5.96	4.26	7.63	6.64	8.03	8.58	8.90
9	10.20	8.65	6.95	5.37	6.70	5.58	4.39	7.69	6.73	8.10	8.36	8.93
10	10.22	8.61	7.00	5.39	6.74	5.63	4.55	7.74	6.85	8.16	7.91	8.97
11	10.23	8.60	7.07	5.49	6.85	5.77	4.72	7.74	6.93	8.21	7.65	9.00
12	10.24	8.62	7.15	5.60	6.91	5.89	4.91	7.23	7.05	8.26	7.54	9.04
13	10.26	8.61	7.21	5.67	7.01	6.01	5.18	6.95	7.14	8.32	7.35	9.08
14	10.27	8.59	7.01	5.79	7.11	6.14	5.38	6.79	7.15	8.37	7.28	9.11
15	10.26	8.60	6.28	5.89	7.20	6.10	5.54	6.74	7.16	8.41	7.30	9.15
16	10.24	8.62	5.86	6.00	7.28	5.60	5.73	6.75	7.20	8.45	7.36	9.15
17	9.97	8.49	5.78	6.10	7.33	5.04	5.93	6.79	7.25	8.49	7.46	9.16
18	9.75	8.05	5.81	6.22	7.40	4.88	6.09	6.87	7.30	8.54	7.56	9.18
19	9.61	7.63	5.86	6.31	7.46	4.92	6.24	6.95	7.37	8.57	7.65	9.20
20	9.46	7.31	5.62	6.43	7.53	4.86	6.36	7.03	7.44	8.61	7.73	9.24
21	9.34	7.09	5.43	6.56	7.57	4.41	6.47	7.13	7.48	8.65	7.81	9.26
22	9.26	6.97	5.49	6.67	7.54	4.32	6.59	7.22	7.01	8.66	7.89	9.28
23	9.20	6.74	5.61	6.77	7.17	4.45	6.70	7.29	6.75	8.52	7.98	9.25
24	9.15	6.50	5.75	6.89	6.69	4.62	6.75	7.36	6.72	8.35	8.06	9.22
25	9.10	6.35	5.83	6.98	6.56	4.76	6.82	7.37	6.77	8.32	8.14	9.21
26	9.04	6.29	5.98	7.07	6.52	4.88	6.90	7.39	6.85	8.31	8.21	9.23
27	8.95	6.29	6.09	7.18	6.52	5.01	6.99	7.41	6.96	8.34	8.28	9.24
28	8.85	6.32	6.16	7.25	6.58	5.15	7.07	7.41	7.08	8.40	8.35	9.26
29	8.79	6.35	6.26	7.33	---	5.24	7.16	7.45	7.20	8.45	8.41	9.26
30	8.76	6.41	6.35	7.41	---	5.14	7.25	7.50	7.31	8.51	8.49	9.27
31	8.75	---	6.07	7.48	---	5.04	---	7.55	---	8.56	8.55	---
MEAN	9.72	7.86	6.32	6.12	7.06	5.44	5.63	7.29	6.94	8.24	8.07	9.06
MAX	10.27	8.81	7.21	7.48	7.65	6.61	7.25	7.74	7.48	8.66	8.68	9.28
MIN	8.75	6.29	5.43	5.02	6.52	4.32	3.48	6.74	6.40	7.42	7.28	8.60


WATER LEVEL, IN FEET BELOW LAND SURFACE
2
4
6
8
10
12
Trend line
Gap indicates missing record
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003

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 NGVD of 1929. 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.

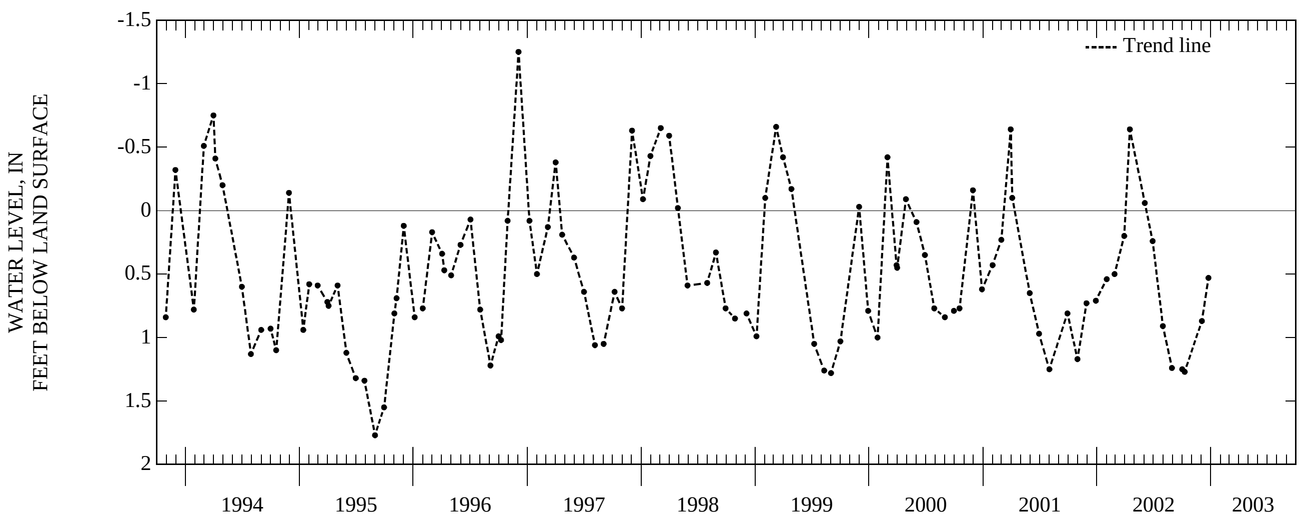
PERIOD OF RECORD.--September 1984 to December 2002 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.25 ft above land-surface datum, Dec. 3, 1996; lowest measured, 1.77 ft below land-surface datum, Aug. 31, 1995.

EXTREMES FOR CURRENT PERIOD.--October 2002 to December 2002: Highest water level measured, 0.53 ft below land-surface datum, Dec. 24; lowest measured, 1.27 ft below land-surface datum, Oct. 9.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01	1.25	OCT 09	1.27	DEC 03	.87	DEC 24	.53



MONROE COUNTY—Continued

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 NGVD of 1929. 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.

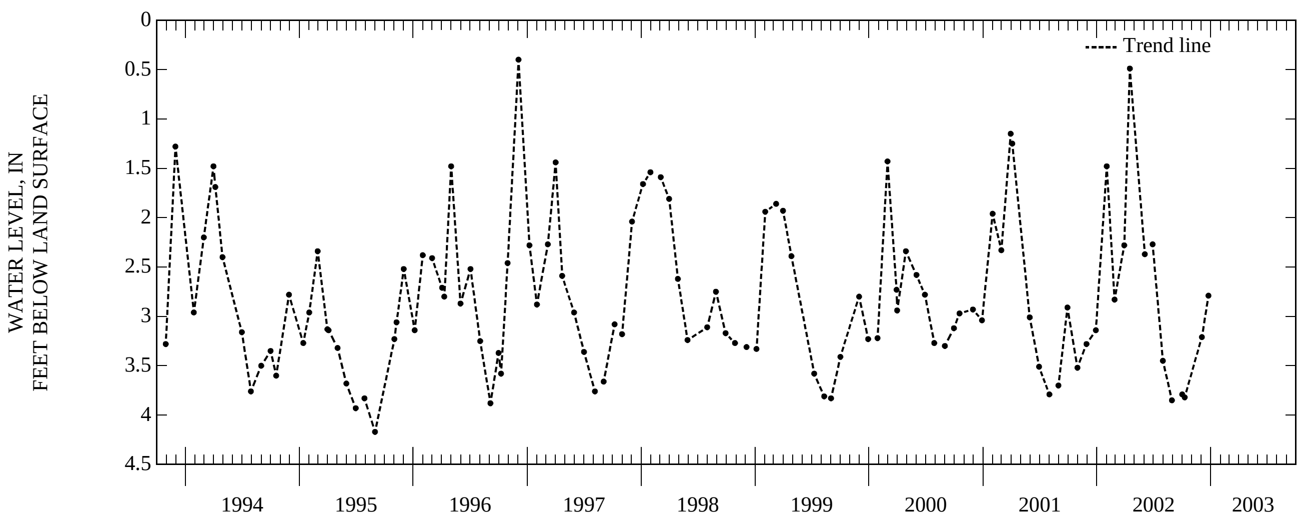
PERIOD OF RECORD.--September 1984 to December 2002 (discontinued).

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 PERIOD.--October 2002 to December 2002: Highest water level measured, 2.79 ft below land-surface datum, Dec. 24; lowest measured, 3.82 ft below land-surface datum, Oct. 9.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01	3.79	OCT 09	3.82	DEC 03	3.21	DEC 24	2.79



MONROE COUNTY—Continued

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 NGVD of 1929. 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.

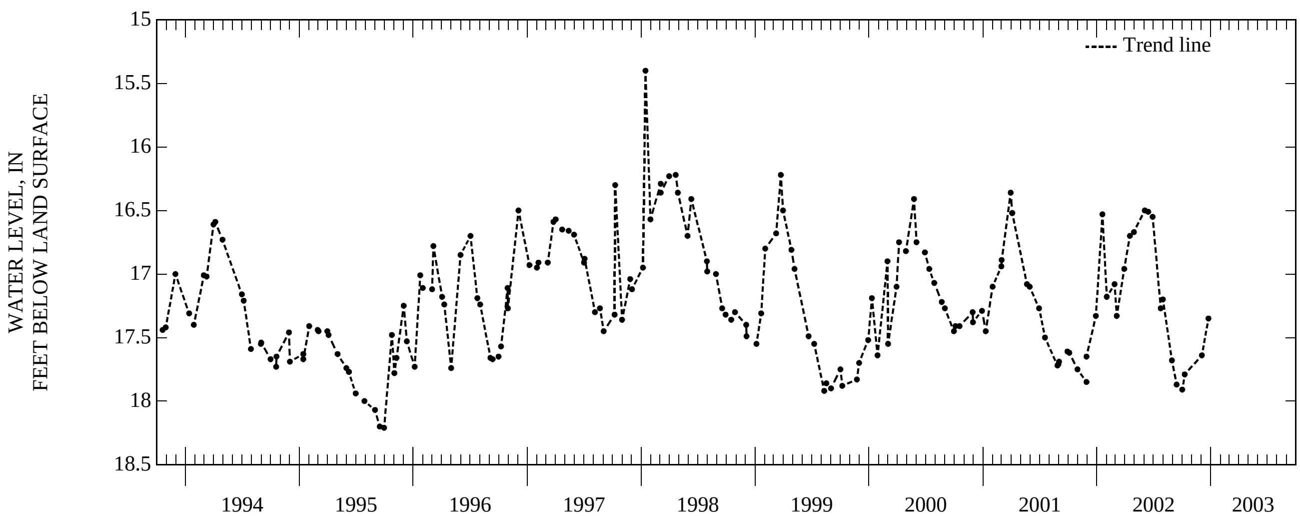
PERIOD OF RECORD.--December 1986 to December 2002 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.40 ft below land-surface datum, Jan. 14, 1998; lowest measured, 18.21 ft below land-surface datum, Sept. 29, 1995.

EXTREMES FOR CURRENT PERIOD.--October 2002 to December 2002: Highest water level measured, 17.35 ft below land-surface datum, Dec. 24; lowest measured, 17.91 ft below land-surface datum, Oct. 1.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01	17.91	OCT 09	17.79	DEC 03	17.64	DEC 24	17.35



MONROE COUNTY—Continued

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 inch, 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 NGVD of 1929. 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.

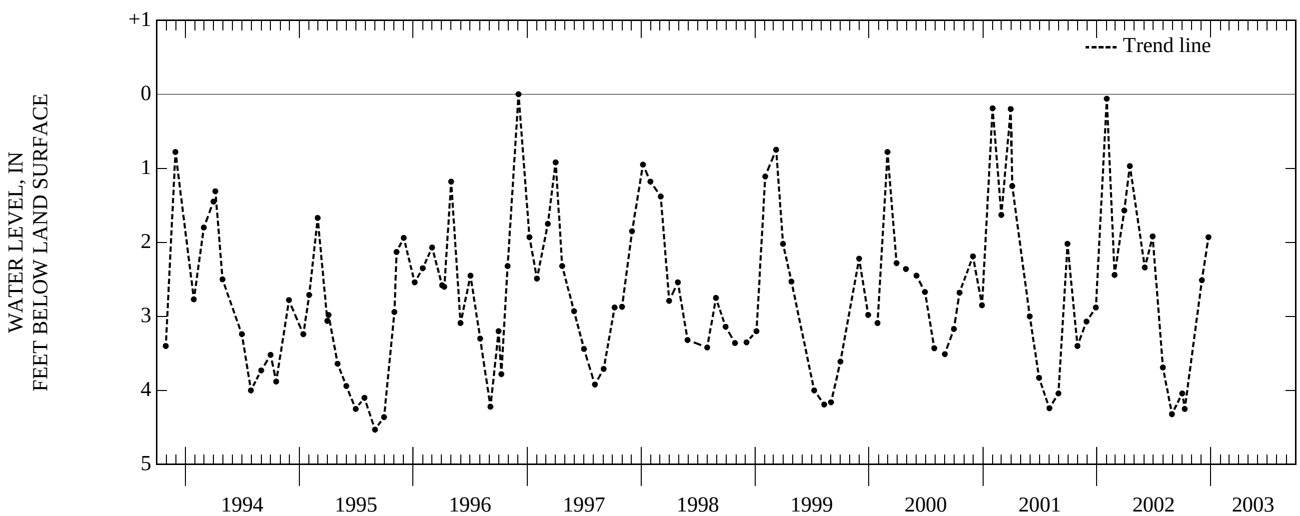
PERIOD OF RECORD.--September 1988 to December 2002 (discontinued).

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 PERIOD.--October 2002 to December 2002: Highest water level measured, 1.93 ft, below land-surface datum, Dec. 24; lowest measured, 4.25 ft below land-surface datum, Oct. 9.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01	4.04	OCT 09	4.25	DEC 03	2.51	DEC 24	1.93



MONROE COUNTY—Continued

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 NGVD of 1929. 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.

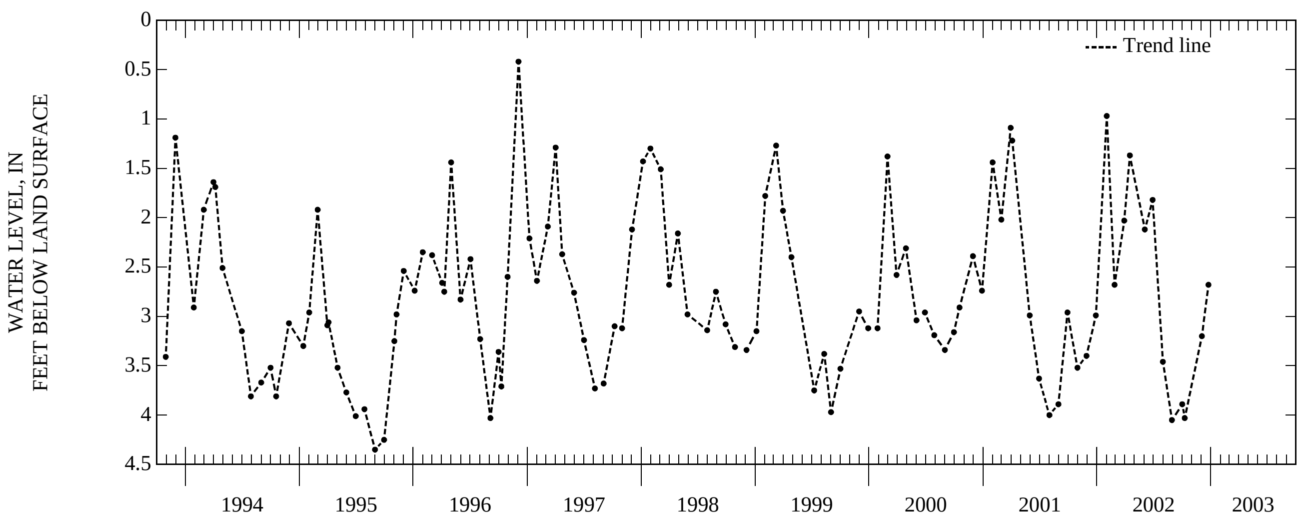
PERIOD OF RECORD.--September 1988 to current year.

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 PERIOD.--October 2002 to December 2002: Highest water level measured, 2.68 ft below land-surface datum, Dec. 24; lowest measured, 4.03 ft below land-surface datum, Oct. 9.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01	3.89	OCT 09	4.03	DEC 03	3.20	DEC 24	2.68



MONROE COUNTY—Continued

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 NGVD of 1929. 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.

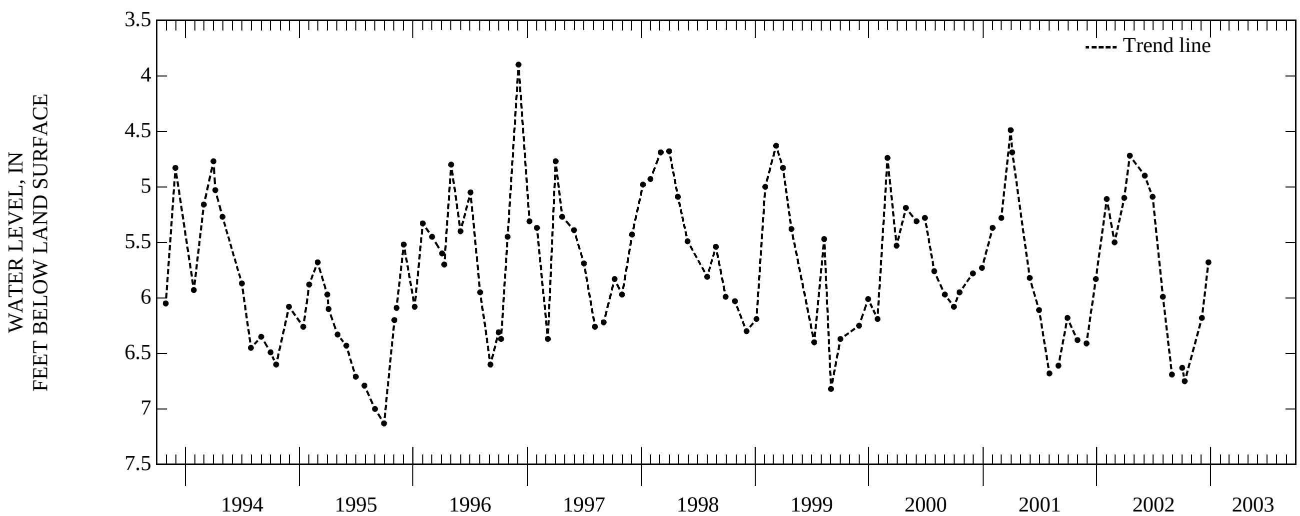
PERIOD OF RECORD.--September 1988 to current year.

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 PERIOD.--October 2002 to December 2002: Highest water level measured, 5.68 ft below land-surface datum, Dec. 24; lowest measured, 6.75 ft below land-surface datum, Oct. 9.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01	6.63	OCT 09	6.75	DEC 03	6.18	DEC 24	5.68



MONROE COUNTY—Continued

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 NGVD of 1929. 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.

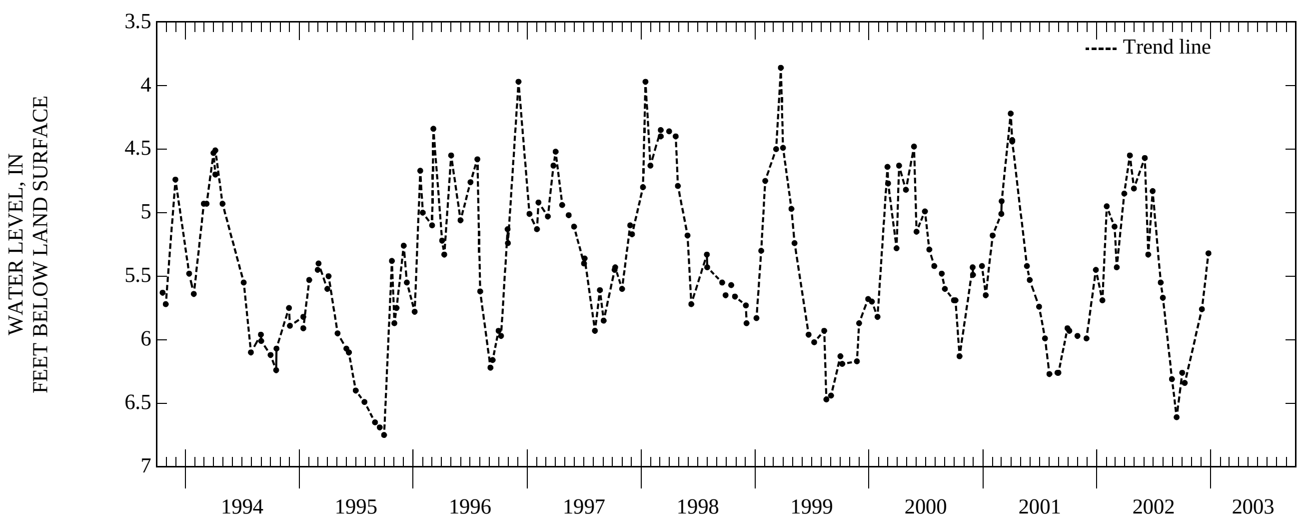
PERIOD OF RECORD.--September 1988 to December 2002 (discontinued).

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 PERIOD.--October 2002 to December 2002: Highest water level measured, 5.32 ft below land-surface datum, Dec. 24; lowest measured, 6.34 ft below land-surface datum, Oct 9.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01	6.26	OCT 09	6.34	DEC 03	5.76	DEC 24	5.32



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 NGVD of 1929. 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.

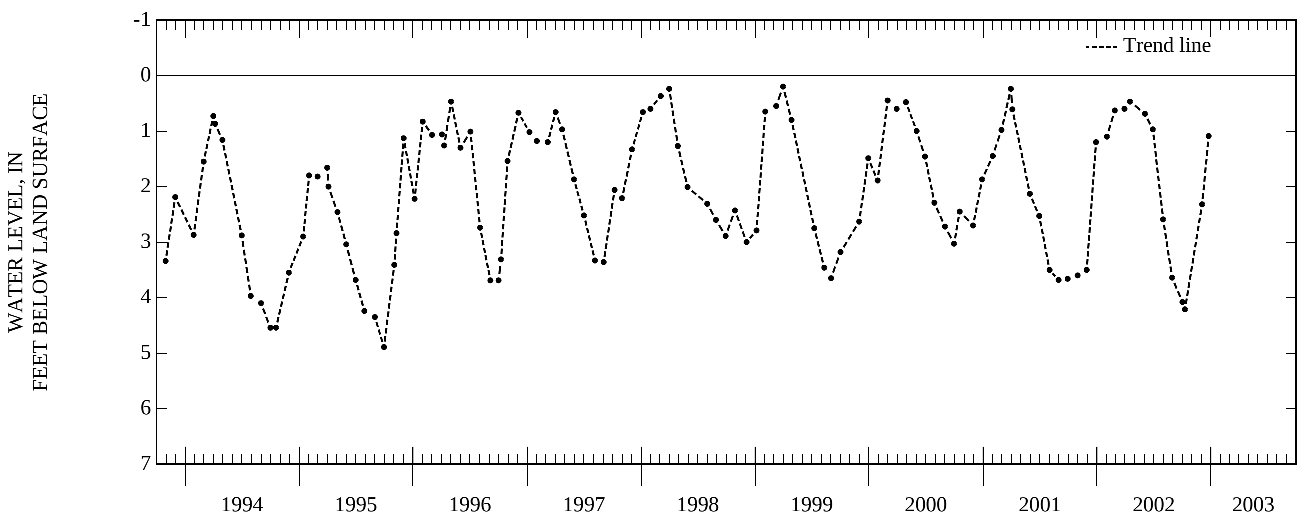
PERIOD OF RECORD.--September 1988 to December 2002 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.20 ft below land-surface datum, Mar. 31, 1999; lowest measured, 6.06 ft below land-surface datum, Oct. 29, 1991.

EXTREMES FOR CURRENT PERIOD.--October 2002 to December 2002: Highest water level measured, 1.09 ft below land-surface datum, Dec. 24; lowest measured, 4.21 ft below land-surface datum, Oct. 9.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01	4.08	OCT 09	4.21	DEC 03	2.32	DEC 24	1.09



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 NGVD of 1929. 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.

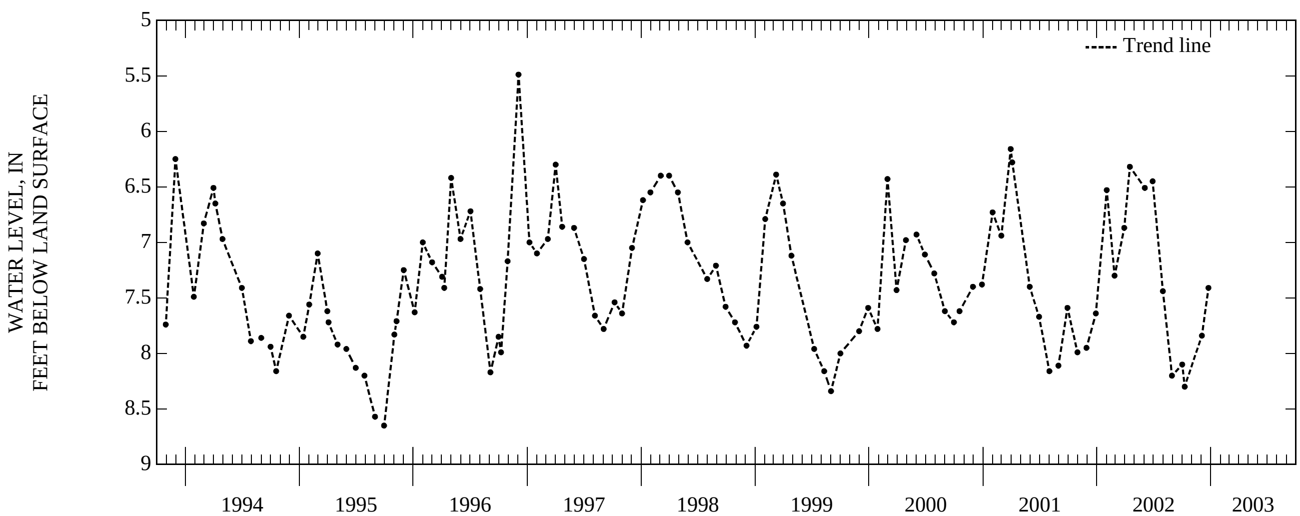
PERIOD OF RECORD.--September 1988 to December 2002 (discontinued).

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, Sep. 29, 1995.

EXTREMES FOR CURRENT PERIOD.--October 2002 to December 2002: Highest water level measured, 7.41 ft below land-surface datum, Dec.24; lowest measured, 8.30 ft below land-surface datum, Oct 9.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01	8.10	OCT 09	8.30	DEC 03	7.84	DEC 24	7.41



425840077133901. Local number, Ot 900.

LOCATION.--Lat 42°58'40", long 77°13'39", Hydrologic Unit 04140201, at New York State Thruway Interchange 43, near Manchester. Owner: New York Thruway Authority.

AQUIFER.--Confined zones in Camillus Shale of the Salina Group of Late Silurian age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 inch, depth 139 ft, cased to 11 ft, open hole.

INSTRUMENTATION.--Monthly measurements by USGS personnel.

DATUM.--Elevation of land-surface datum is 556.70 ft above NGVD of 1929. Measuring point: Top of instrument shelf, 11.63 ft above land-surface datum.

REMARKS.--Water in well casing above land surface is subject to freezing during extreme cold periods.

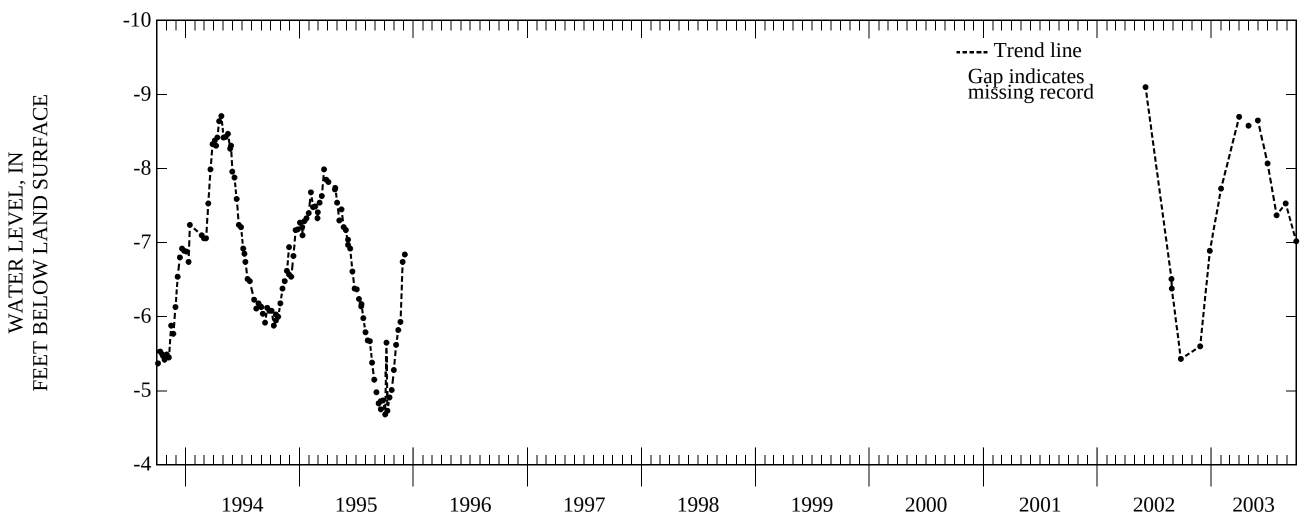
PERIOD OF RECORD.--May 1955 to August 1995 and October 2002 to September 2003.

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

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 8.70 ft above land-surface datum, Mar. 31; lowest measured 5.60 ft above land-surface datum, Nov. 26.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM (READINGS ABOVE LAND-SURFACE INDICATED BY "-"), WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 26	-5.60	FEB 01	-7.73	APR 30	-8.58	JUN 30	-8.07	AUG 27	-7.53		
DEC 27	-6.89	MAR 31	-8.70	MAY 30	-8.65	JUL 29	-7.37	SEP 30	-7.02		



ONTARIO COUNTY

425803077151201. Local number, Ot 1133.

LOCATION.--Lat 42°58'03", long 77°15'12", Hydrologic Unit 04140201, at village of Manchester pumphouse, on State Street, 1.1 miles east of intersection with NYS Route 21, Manchester. Owner: U.S. Geological Survey.

AQUIFER.--Unconfined aquifer in gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 2 inch PVC, depth 20 ft, screened from 10 ft to 20 ft.

INSTRUMENTATION.--Electronic data recorder--hourly; monthly measurements by USGS personnel.

DATUM.--Elevation of land-surface datum is 605 ft above NGVD of 1929, from topographic map. Measuring point: Top of pipe, 3.26 ft above land-surface datum.

PERIOD OF RECORD.--August 2002 to September 2003.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.38 ft below land-surface datum, Apr. 5, 2003; lowest, 4.94 ft below land-surface datum, Sept. 25, 2002. EXTREMES FOR CURRENT YEAR.--Highest water level, 2.38 ft below land-surface datum, Apr. 5; lowest, 4.56 ft below land- surface datum, Oct. 30

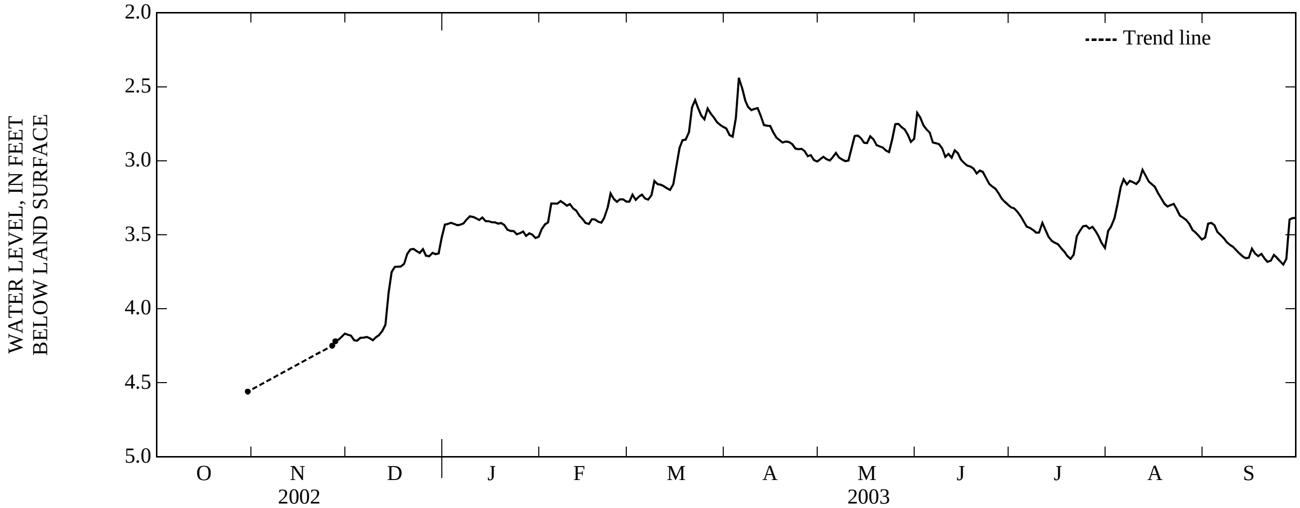
EXTREMES FOR CURRENT YEAR.--Highest water level, 2.38 ft below land-surface datum, Apr. 5; lowest, 4.56 ft below land-surface datum, Oct. 30.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	4.18	3.43	3.46	3.28	2.78	2.99	2.68	3.31	3.47	3.52
2	---	---	4.18	3.43	3.43	3.23	2.83	2.97	2.71	3.32	3.44	3.43
3	---	---	4.21	3.42	3.42	3.26	2.84	2.99	2.76	3.34	3.39	3.42
4	---	---	4.22	3.43	3.29	3.24	2.71	3.00	2.79	3.37	3.29	3.44
5	---	---	4.20	3.44	3.29	3.23	2.44	2.98	2.81	3.41	3.18	3.48
6	---	---	4.20	3.43	3.29	3.26	2.51	2.95	2.88	3.45	3.13	3.50
7	---	---	4.19	3.42	3.27	3.26	2.59	2.98	2.88	3.45	3.16	3.52
8	---	---	4.20	3.40	3.29	3.23	2.64	2.99	2.89	3.47	3.14	3.55
9	---	---	4.21	3.38	3.30	3.14	2.66	3.00	2.92	3.49	3.15	3.57
10	---	---	4.19	3.38	3.29	3.16	2.65	3.00	2.97	3.48	3.16	3.58
11	---	---	4.18	3.39	3.32	3.16	2.64	2.91	2.95	3.42	3.13	3.60
12	---	---	4.15	3.40	3.34	3.17	2.70	2.83	2.98	3.47	3.06	3.63
13	---	---	4.11	3.38	3.37	3.19	2.76	2.83	2.93	3.51	3.10	3.65
14	---	---	3.89	3.41	3.39	3.20	2.76	2.85	2.95	3.54	3.14	3.66
15	---	---	3.75	3.41	3.42	3.16	2.76	2.88	2.99	3.55	3.16	3.66
16	---	---	3.72	3.42	3.43	3.04	2.81	2.88	3.02	3.56	3.18	3.59
17	---	---	3.72	3.42	3.39	2.91	2.84	2.84	3.03	3.59	3.22	3.63
18	---	---	3.71	3.42	3.40	2.86	2.86	2.86	3.04	3.61	3.25	3.64
19	---	---	3.70	3.42	3.41	2.86	2.88	2.89	3.05	3.64	3.29	3.63
20	---	---	3.63	3.43	3.42	2.81	2.87	2.90	3.09	3.66	3.31	3.66
21	---	---	3.60	3.47	3.38	2.64	2.87	2.91	3.07	3.64	3.30	3.68
22	---	---	3.60	3.47	3.32	2.59	2.89	2.93	3.08	3.51	3.29	3.68
23	---	---	3.61	3.47	3.22	2.64	2.92	2.94	3.12	3.47	3.33	3.64
24	---	---	3.62	3.50	3.26	2.70	2.92	2.85	3.16	3.44	3.37	3.66
25	---	---	3.60	3.49	3.28	2.72	2.92	2.75	3.17	3.44	3.38	3.68
26	---	z4.25	3.64	3.48	3.26	2.65	2.93	2.75	3.19	3.46	3.40	3.70
27	---	z4.22	3.65	3.51	3.26	2.68	2.97	2.77	3.22	3.45	3.43	3.66
28	---	4.21	3.62	3.49	3.28	2.71	2.96	2.79	3.26	3.48	3.47	3.40
29	---	4.19	3.63	3.50	---	2.74	3.00	2.82	3.28	3.51	3.49	3.39
30	z4.56	4.17	3.63	3.52	---	2.76	3.00	2.87	3.30	3.56	3.51	3.39
31	---	---	3.52	3.51	---	2.77	---	2.85	---	3.59	3.53	---
MEAN	---	---	3.88	3.44	3.34	2.98	2.80	2.90	3.01	3.49	3.29	3.57
MAX	---	---	4.22	3.52	3.46	3.28	3.00	3.00	3.30	3.66	3.53	3.70
MIN	---	---	3.52	3.38	3.22	2.59	2.44	2.75	2.68	3.31	3.06	3.39

z Measured by USGS personnel.

ONTARIO COUNTY—Continued



OSWEGO COUNTY

432148076225101. Local number, Ow 5013.

LOCATION.--Lat 43°21'48", long 76°22'51", Hydrologic Unit 04140203, in gravel pit adjacent to Oswego County landfill, near Volney. Owner: Oswego County.

AQUIFER.--Confined aquifer in bedrock of the Medina group and Queenston formation of Upper Ordovician and Lower Silurian age.

WELL CHARACTERISTICS.--Drilled unused well, diameter 2.0 inch, depth 83 ft, screened 64-83 ft.

INSTRUMENTATION.--Electronic data logger--hourly; monthly measurements by USGS personnel.

DATUM.--Elevation of land-surface datum is 475 ft above NGVD of 1929, from topographic map. Measuring point: Top of pipe, 1.77 ft above land-surface datum.

PERIOD OF RECORD.--September 1999 to current year. Records for September 1999 to September 2002 are unpublished and available in the files of the U.S. Geological Survey.

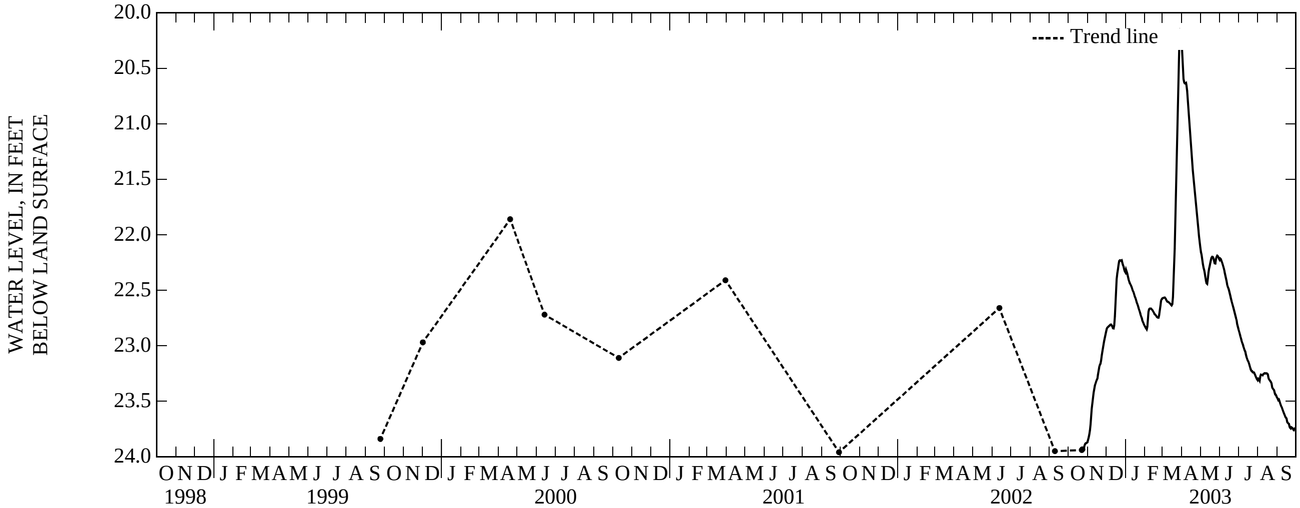
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.15 ft below land-surface datum, Mar. 29, 30, 2003; lowest measured, 23.96 ft below land-surface datum, Sept. 28, 2001.

EXTREMES FOR CURRENT YEAR.--Highest water level recorded, 20.15 ft below land-surface datum, Mar. 29, 30; lowest, 23.95 ft below land-surface datum, Oct. 22.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	23.85	22.85	22.31	22.83	22.57	20.35	22.15	22.21	22.87	23.30	23.48
2	---	23.83	22.84	22.33	22.84	22.57	20.48	22.18	22.22	22.89	23.30	23.49
3	---	23.80	22.83	22.35	22.85	22.57	20.59	22.22	22.24	22.91	23.31	23.48
4	---	23.76	22.83	22.38	22.83	22.57	20.62	22.26	22.25	22.93	23.28	23.50
5	---	23.71	22.82	22.40	22.75	22.57	20.64	22.29	22.27	22.95	23.26	23.52
6	---	23.63	22.82	22.42	22.70	22.58	20.64	22.32	22.29	22.97	23.26	23.54
7	---	23.57	22.81	22.44	22.67	22.59	20.63	22.35	22.31	22.99	23.26	23.55
8	---	23.52	22.81	22.45	22.66	22.60	20.66	22.38	22.34	23.00	23.27	23.56
9	---	23.47	22.82	22.46	22.66	22.60	20.71	22.41	22.36	23.02	23.26	23.58
10	---	23.42	22.83	22.47	22.67	22.61	20.77	22.44	22.39	23.04	23.25	23.59
11	---	23.39	22.84	22.49	22.67	22.61	20.84	22.44	22.42	23.05	23.25	23.61
12	---	23.36	22.84	22.51	22.68	22.62	20.93	22.40	22.45	23.08	23.25	23.62
13	---	23.34	22.81	22.52	22.69	22.62	21.02	22.34	22.47	23.10	23.25	23.64
14	---	23.32	22.74	22.54	22.70	22.63	21.10	22.31	22.48	23.12	23.25	23.65
15	---	23.31	22.58	22.56	22.71	22.64	21.18	22.28	22.50	23.13	23.25	23.65
16	---	23.30	22.47	22.57	22.72	22.63	21.26	22.25	22.53	23.14	23.26	23.68
17	---	23.26	22.40	22.58	22.72	22.56	21.34	22.22	22.55	23.16	23.29	23.69
18	---	23.23	22.35	22.61	22.73	22.42	21.42	22.21	22.57	23.18	23.30	23.70
19	---	23.19	22.31	22.62	22.74	22.26	21.49	22.20	22.59	23.20	23.31	23.70
20	---	23.17	22.27	22.64	22.74	22.12	21.56	22.20	22.61	23.22	23.32	23.73
21	---	23.16	22.24	22.66	22.75	21.89	21.63	22.21	22.64	23.23	23.32	23.74
22	23.94	23.13	22.23	22.68	22.75	21.55	21.70	22.23	22.66	23.23	23.34	23.75
23	23.93	23.09	22.23	22.69	22.72	21.20	21.76	22.26	22.68	23.24	23.37	23.74
24	23.93	23.05	22.23	22.72	22.68	20.94	21.81	22.26	22.71	23.24	23.38	23.74
25	23.93	23.02	22.23	22.73	22.64	20.75	21.87	22.22	22.73	23.24	23.39	23.74
26	23.91	22.99	22.25	22.75	22.60	20.55	21.92	22.20	22.75	23.25	23.40	23.76
27	23.89	22.96	22.27	22.77	22.58	20.33	21.97	22.19	22.77	23.27	23.42	23.76
28	23.88	22.93	22.28	22.78	22.57	20.22	22.02	22.19	22.80	23.28	23.44	23.75
29	23.88	22.90	22.31	22.80	---	20.17	22.06	22.20	22.83	23.29	23.44	23.74
30	23.88	22.87	22.33	22.81	---	20.18	22.11	22.22	22.85	23.30	23.45	23.75
31	23.87	---	22.34	22.82	---	20.25	---	22.23	---	23.31	23.47	---
MEAN	---	23.32	22.54	22.58	22.71	21.90	21.24	22.27	22.52	23.12	23.32	23.65
MAX	---	23.85	22.85	22.82	22.85	22.64	22.11	22.44	22.85	23.31	23.47	23.76
MIN	---	22.87	22.23	22.31	22.57	20.17	20.35	22.15	22.21	22.87	23.25	23.48

OSWEGO COUNTY—Continued



OSWEGO COUNTY

432148076225102. Local number, Ow 5014.

LOCATION.--Lat 43°21'48", long 76°22'51", Hydrologic Unit 04140203, in gravel pit adjacent to Oswego County landfill, near Volney. Owner: Oswego County.

AQUIFER.--Unconfined aquifer in sand and gravel outwash of Pleistocene age.

WELL CHARACTERISTICS.--Drilled unused well, diameter 2 inch PVC, depth 30 ft, screened 20-30 ft.

INSTRUMENTATION.--Electronic data logger--hourly; monthly measurements by USGS personnel.

DATUM.--Elevation of land-surface datum is 475 ft above NGVD of 1929, from topographic map. Measuring point: Top of pipe, 2.07 ft above land-surface datum.

PERIOD OF RECORD.--September 1999 to current year. Records for September 1999 to October 2002 are unpublished and available in the files of the U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 20.91 ft below land-surface datum, Mar. 29, 2003; lowest measured, 24.08 ft below land-surface datum, Sept. 9, 2002.

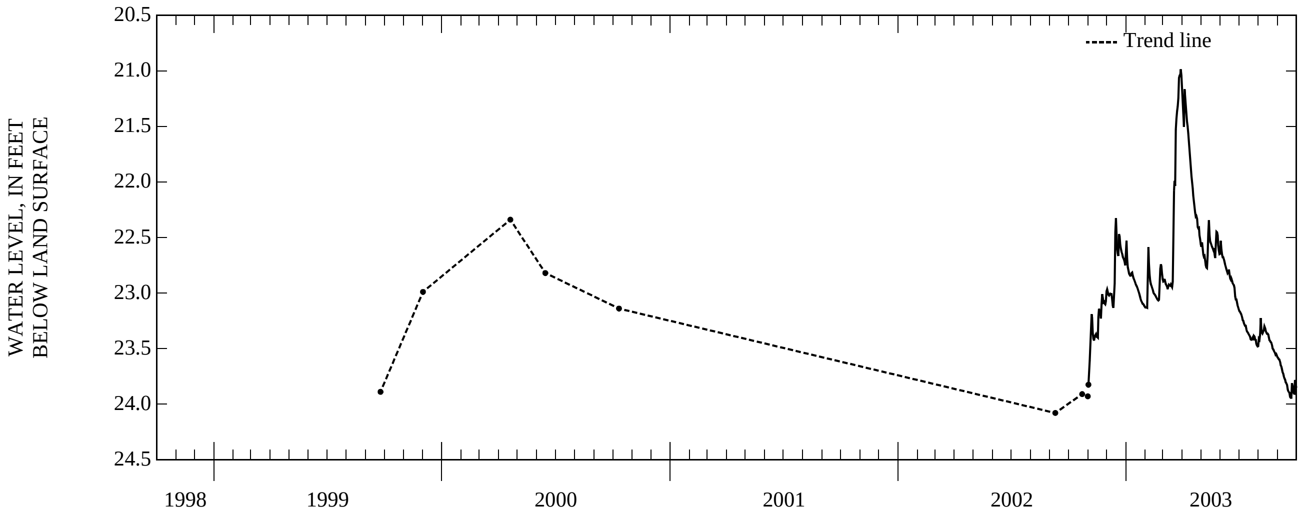
EXTREMES FOR CURRENT YEAR.--Highest water level, 20.91 ft below land-surface datum, Mar. 29; lowest, 23.95 ft below land-surface datum. Sept. 21, 22, 23.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	23.83	22.97	22.53	23.13	22.90	21.29	22.58	22.53	23.16	23.41	23.58
2	---	23.71	22.99	22.69	23.13	22.89	21.41	22.54	22.61	23.17	23.42	23.60
3	---	23.61	23.02	22.77	23.13	22.87	21.50	22.60	22.65	23.18	23.37	23.60
4	---	23.45	23.02	22.79	22.95	22.90	21.16	22.65	22.68	23.19	23.23	23.62
5	---	23.31	23.01	22.82	22.59	22.92	21.24	22.68	22.68	23.21	23.33	23.65
6	---	23.19	23.01	22.84	22.73	22.93	21.33	22.67	22.70	23.24	23.36	23.66
7	---	23.22	23.01	22.84	22.83	22.94	21.40	22.71	22.72	23.25	23.37	23.68
8	---	23.36	23.01	22.84	22.89	22.97	21.46	22.75	22.74	23.27	23.35	23.71
9	---	23.41	23.05	22.82	22.92	22.95	21.50	22.77	22.76	23.28	23.34	23.72
10	---	23.43	23.11	22.81	22.93	22.92	21.56	22.78	22.79	23.29	23.30	23.75
11	---	23.40	23.13	22.84	22.95	22.93	21.64	22.66	22.80	23.29	23.31	23.77
12	---	23.38	23.01	22.86	22.97	22.93	21.73	22.46	22.82	23.32	23.34	23.78
13	---	23.37	22.91	22.87	22.99	22.92	21.81	22.34	22.81	23.34	23.35	23.80
14	---	23.39	22.45	22.89	23.01	22.93	21.88	22.48	22.79	23.35	23.37	23.81
15	---	23.40	22.33	22.91	23.01	22.95	21.95	22.54	22.83	23.36	23.37	23.82
16	---	23.40	22.50	22.93	23.02	22.90	22.00	22.55	22.87	23.38	23.37	23.86
17	---	23.22	22.60	22.93	23.03	22.60	22.06	22.57	22.88	23.38	23.40	23.88
18	---	23.14	22.64	22.94	23.04	22.08	22.12	22.58	22.87	23.39	23.42	23.89
19	---	23.16	22.67	22.96	23.05	21.99	22.18	22.59	22.88	23.42	23.43	23.90
20	---	23.17	22.47	22.98	23.06	22.04	22.22	22.61	22.91	23.42	23.44	23.93
21	---	23.23	22.49	23.00	23.07	21.53	22.28	22.60	22.92	23.42	23.45	23.94
22	z23.91	23.10	22.57	23.02	23.06	21.43	22.31	22.65	22.93	23.40	23.47	23.94
23	---	23.01	22.60	23.04	22.92	21.36	22.31	22.68	22.95	23.43	23.50	23.81
24	---	23.04	22.63	23.06	22.78	21.32	22.33	22.56	23.03	23.39	23.51	23.84
25	---	23.08	22.65	23.08	22.74	21.24	22.40	22.45	23.06	23.39	23.52	23.88
26	---	23.08	22.67	23.09	22.76	21.06	22.42	22.45	23.06	23.42	23.53	23.91
27	---	23.09	22.68	23.10	22.83	21.04	22.41	22.48	23.09	23.42	23.54	23.91
28	---	23.10	22.70	23.10	22.87	21.04	22.48	22.57	23.11	23.45	23.56	23.78
29	---	23.07	22.72	23.11	---	20.98	22.52	22.62	23.13	23.47	23.55	23.81
30	---	22.99	22.75	23.12	---	21.04	22.56	22.65	23.15	23.48	23.56	23.85
31	z23.93	---	22.66	23.13	---	21.17	---	22.65	---	23.48	23.58	---
MEAN	---	23.28	22.78	22.93	22.94	22.22	21.92	22.60	22.86	23.34	23.42	23.79
MAX	---	23.83	23.13	23.13	23.13	22.97	22.56	22.78	23.15	23.48	23.58	23.94
MIN	---	22.99	22.33	22.53	22.59	20.98	21.16	22.34	22.53	23.16	23.23	23.58

z Measured by USGS personnel.

OSWEGO COUNTY—Continued



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: Private.

AQUIFER.--Till of Pleistocene age.

WELL CHARACTERISTICS.--Dug unused well, diameter 36 inch, depth 15 ft, stone lined.

INSTRUMENTATION.--Electronic data recorder--hourly; monthly measurement by USGS personnel.

DATUM.--Elevation of land-surface datum is 1,432.44 ft above NGVD of 1929. Measuring point: Top edge of hole drilled through concrete well cover, at land-surface datum.

PERIOD OF RECORD.--May 1953 to August 1995, December 1996 to current year. Records for May 1953 to September 1976 are unpublished and available in files of the Geological Survey. Weekly measurement with chalked tape by observer Oct. 1976 to Feb. 1999.

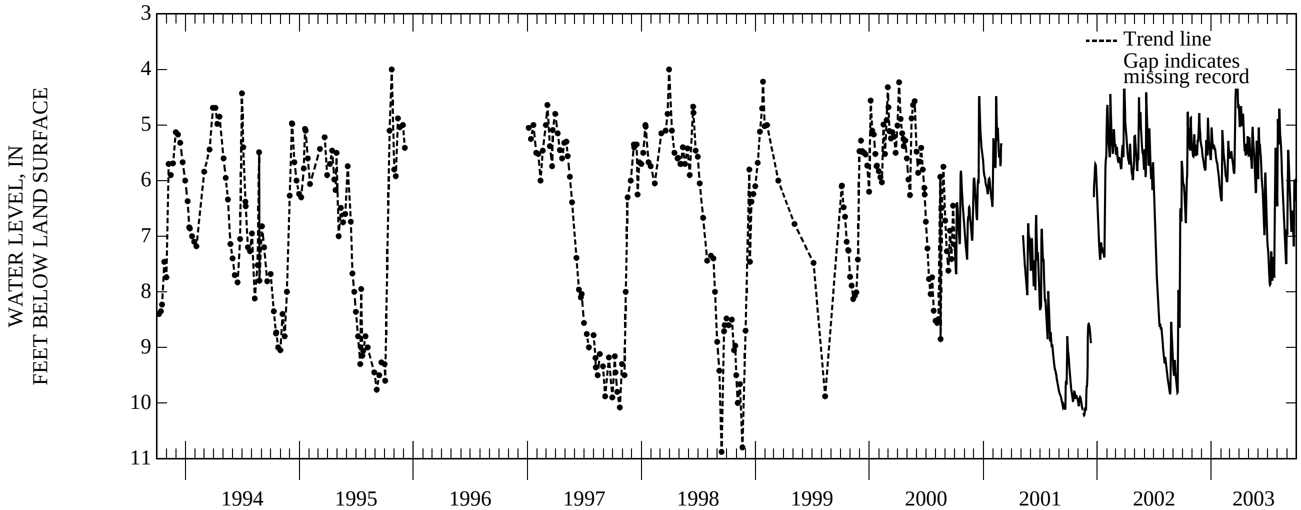
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.98 ft below land-surface datum, Apr. 2, 1960, Sept. 19, 1977; lowest measured, 12.66 ft below land-surface datum, Nov. 14, 1964.

EXTREMES FOR CURRENT YEAR.--Highest water level, 3.72 ft below land-surface datum, Mar. 21; lowest 7.90 ft below land- surface datum, July 9.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.89	5.45	5.39	5.04	6.31	5.61	4.91	5.51	5.20	7.22	5.44	6.97
2	6.01	5.51	5.45	5.09	6.35	5.56	5.03	5.22	5.05	7.30	4.89	5.96
3	6.07	5.56	5.52	5.22	6.37	5.49	5.00	5.28	5.26	7.41	5.16	5.70
4	6.07	5.57	5.57	5.30	5.66	5.55	4.67	5.39	5.36	7.54	5.35	5.45
5	6.08	5.52	5.59	5.38	5.09	5.55	4.75	5.50	5.34	7.65	5.27	5.51
6	6.19	5.29	5.63	5.41	5.22	5.47	4.66	5.48	5.41	7.76	4.72	5.72
7	6.26	5.17	5.66	5.42	5.33	5.53	4.79	5.53	5.51	7.85	4.71	5.94
8	6.40	5.29	5.71	5.38	5.43	5.58	4.94	5.60	5.55	7.88	5.02	6.16
9	6.53	5.39	5.76	5.37	5.52	5.62	5.02	5.63	5.67	7.86	5.19	6.34
10	6.67	5.45	5.76	5.38	5.57	5.65	5.00	5.75	5.85	7.80	5.21	6.48
11	6.76	5.50	5.79	5.41	5.63	5.69	4.87	5.78	5.96	7.37	5.32	6.61
12	6.37	5.56	5.82	5.44	5.67	5.74	4.79	5.18	6.03	7.28	5.41	6.72
13	6.13	5.36	5.77	5.44	5.73	5.81	4.89	5.03	6.13	7.47	5.55	6.82
14	5.97	5.37	5.48	5.49	5.79	5.85	5.05	5.14	6.17	7.65	5.70	6.90
15	5.92	5.46	5.27	5.55	5.85	5.87	5.18	5.28	6.24	7.80	5.85	6.90
16	5.56	5.54	5.32	5.60	5.91	5.76	5.29	5.37	6.38	7.53	5.97	6.54
17	4.76	5.42	5.42	5.63	5.93	5.23	5.39	5.44	6.56	7.37	6.11	6.57
18	5.02	5.26	5.50	5.67	5.95	4.79	5.47	5.53	6.73	7.45	6.24	6.67
19	5.07	5.30	5.55	5.68	6.00	4.51	5.42	5.65	6.86	7.46	6.36	6.78
20	5.08	5.23	5.24	5.70	6.03	4.40	5.49	5.82	6.98	7.64	6.48	6.92
21	5.25	5.08	4.87	5.77	6.00	3.81	5.55	5.99	6.79	7.75	6.61	7.06
22	5.35	4.95	5.06	5.82	5.88	4.11	5.46	6.12	5.96	6.82	6.73	7.18
23	5.40	4.78	5.20	5.85	5.47	4.25	5.34	6.22	5.86	6.34	6.87	6.39
24	5.42	4.99	5.31	5.91	5.29	4.43	5.43	6.18	6.00	5.64	7.02	5.99
25	5.46	5.10	5.35	5.95	5.38	4.32	5.52	5.79	6.21	5.41	7.14	6.08
26	4.87	5.17	5.44	6.00	5.46	4.35	5.47	5.28	6.44	5.57	7.26	6.22
27	4.87	5.25	5.51	6.07	5.51	4.55	5.20	5.31	6.68	5.76	7.35	6.36
28	5.11	5.31	5.55	6.12	5.56	4.70	5.33	5.48	6.91	5.94	7.48	6.07
29	5.24	5.35	5.59	6.17	---	4.63	5.46	5.66	7.08	6.11	7.50	5.96
30	5.33	5.39	5.63	6.24	---	4.66	5.57	5.84	7.18	6.29	6.91	6.02
31	5.40	---	5.48	6.29	---	4.81	---	5.97	---	6.46	6.92	---
MEAN	5.69	5.32	5.49	5.64	5.71	5.09	5.16	5.58	6.11	7.08	6.06	6.37
MAX	6.76	5.57	5.82	6.29	6.37	5.87	5.57	6.22	7.18	7.88	7.50	7.18
MIN	4.76	4.78	4.87	5.04	5.09	3.81	4.66	5.03	5.05	5.41	4.71	5.45

OTSEGO COUNTY—Continued



STEUBEN COUNTY

422445077203301. Local number, Sb 472.

LOCATION.--Lat 42°24'45", long 77°20'33", Hydrologic Unit 02050105, near Kanona. Owner: Private.

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.--Electronic data recorder--hourly; monthly measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 1,209.78 ft above NGVD of 1929. Measuring point: Top of casing, 2.99 ft above land-surface datum.

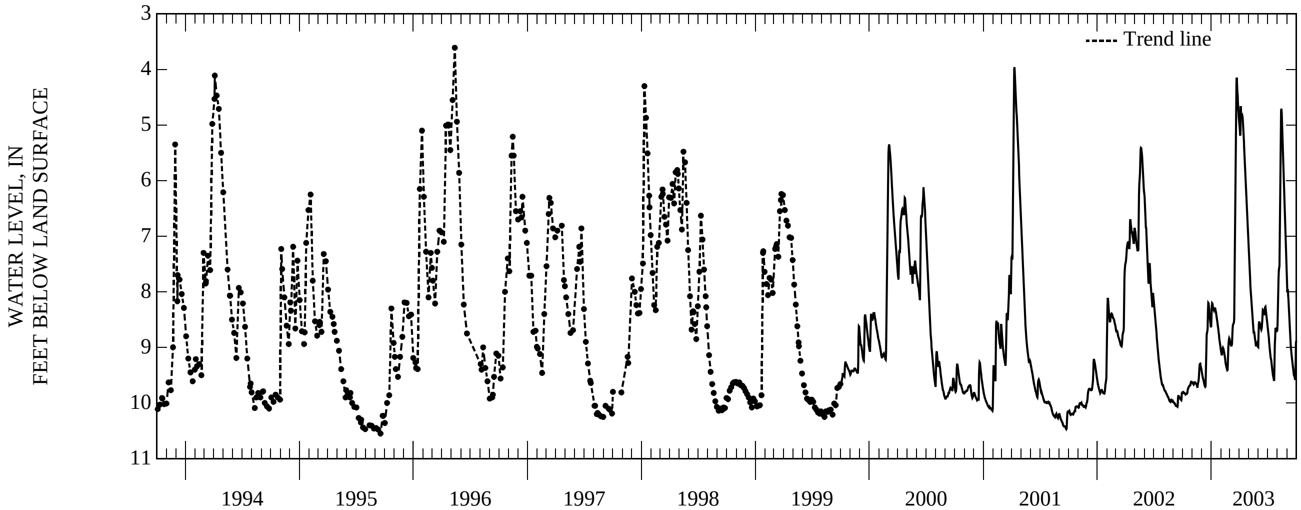
PERIOD OF RECORD.--November 1965 to current year. Records for November 1965 to September 1976 are unpublished and available in files of the Geological Survey. Weekly measurement with chalked tape by observer Nov. 1965 to Dec. 1997.

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, 4.08 ft below land-surface datum, Mar. 22, 23; lowest, 9.85 ft below land-surface datum, Oct. 10, 11.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.81	9.63	9.43	8.45	9.07	8.88	5.00	7.36	8.80	8.67	8.59	7.99
2	9.82	9.64	9.46	8.27	9.11	8.90	5.07	7.48	8.59	8.72	8.39	7.96
3	9.82	9.65	9.50	8.21	9.14	8.94	5.17	7.58	8.53	8.78	8.07	7.99
4	9.81	9.66	9.53	8.21	9.12	8.95	5.19	7.69	8.55	8.84	7.77	8.06
5	9.82	9.67	9.56	8.25	9.06	8.97	4.66	7.79	8.57	8.90	7.62	8.13
6	9.82	9.66	9.57	8.28	9.03	8.98	4.84	7.89	8.60	8.96	7.57	8.25
7	9.82	9.64	9.60	8.31	9.01	8.96	4.85	8.00	8.63	9.02	7.54	8.37
8	9.83	9.63	9.63	8.31	9.02	8.95	4.85	8.10	8.65	9.08	7.14	8.50
9	9.84	9.63	9.66	8.33	9.04	8.80	4.86	8.20	8.66	9.14	6.27	8.63
10	9.85	9.63	9.68	8.30	9.07	8.67	4.84	8.30	8.68	9.18	5.67	8.74
11	9.84	9.64	9.70	8.30	9.11	8.60	4.88	8.38	8.66	9.20	5.08	8.85
12	9.83	9.65	9.71	8.30	9.14	8.59	4.97	8.46	8.59	9.24	4.76	8.95
13	9.83	9.65	9.70	8.30	9.18	8.57	5.10	8.53	8.49	9.29	4.71	9.02
14	9.83	9.66	9.50	8.33	9.22	8.56	5.20	8.59	8.36	9.35	4.78	9.08
15	9.83	9.67	9.06	8.35	9.25	8.48	5.29	8.66	8.32	9.40	4.87	9.15
16	9.80	9.69	8.84	8.39	9.29	8.10	5.40	8.72	8.33	9.45	4.97	9.20
17	9.76	9.73	8.77	8.43	9.32	7.44	5.52	8.71	8.35	9.49	5.12	9.25
18	9.75	9.68	8.74	8.47	9.35	6.87	5.64	8.72	8.37	9.52	5.28	9.31
19	9.74	9.64	8.72	8.51	9.37	6.51	5.77	8.77	8.39	9.55	5.45	9.36
20	9.72	9.63	8.65	8.55	9.39	6.18	5.89	8.82	8.42	9.58	5.62	9.41
21	9.71	9.59	8.34	8.60	9.41	5.40	6.01	8.87	8.38	9.58	5.83	9.45
22	9.70	9.51	8.20	8.64	9.41	4.26	6.14	8.90	8.28	9.30	6.02	9.50
23	9.69	9.39	8.21	8.68	9.21	4.15	6.28	8.95	8.27	8.93	6.23	9.50
24	9.68	9.31	8.27	8.74	9.02	4.30	6.41	8.98	8.31	8.82	6.46	9.52
25	9.68	9.30	8.32	8.78	8.92	4.42	6.55	8.94	8.36	8.65	6.65	9.54
26	9.66	9.29	8.41	8.82	8.87	4.47	6.68	8.93	8.41	8.65	6.85	9.57
27	9.63	9.32	8.47	8.87	8.84	4.58	6.82	8.94	8.46	8.69	7.05	9.59
28	9.62	9.34	8.52	8.91	8.85	4.69	6.95	8.92	8.51	8.71	7.26	9.23
29	9.62	9.37	8.57	8.95	---	4.77	7.09	8.95	8.57	8.70	7.45	8.91
30	9.63	9.40	8.62	8.99	---	4.87	7.24	8.99	8.62	8.71	7.65	8.88
31	9.63	---	8.64	9.03	---	4.94	---	8.99	---	8.70	7.83	---
MEAN	9.76	9.56	9.02	8.51	9.14	7.02	5.64	8.49	8.49	9.06	6.47	8.93
MAX	9.85	9.73	9.71	9.03	9.41	8.98	7.24	8.99	8.80	9.58	8.59	9.59
MIN	9.62	9.29	8.20	8.21	8.84	4.15	4.66	7.36	8.27	8.65	4.71	7.96


WATER LEVEL, IN
FEET BELOW LAND SURFACE
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Trend line
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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--hourly; periodic measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 1,606.76 ft above NGVD of 1929. 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.

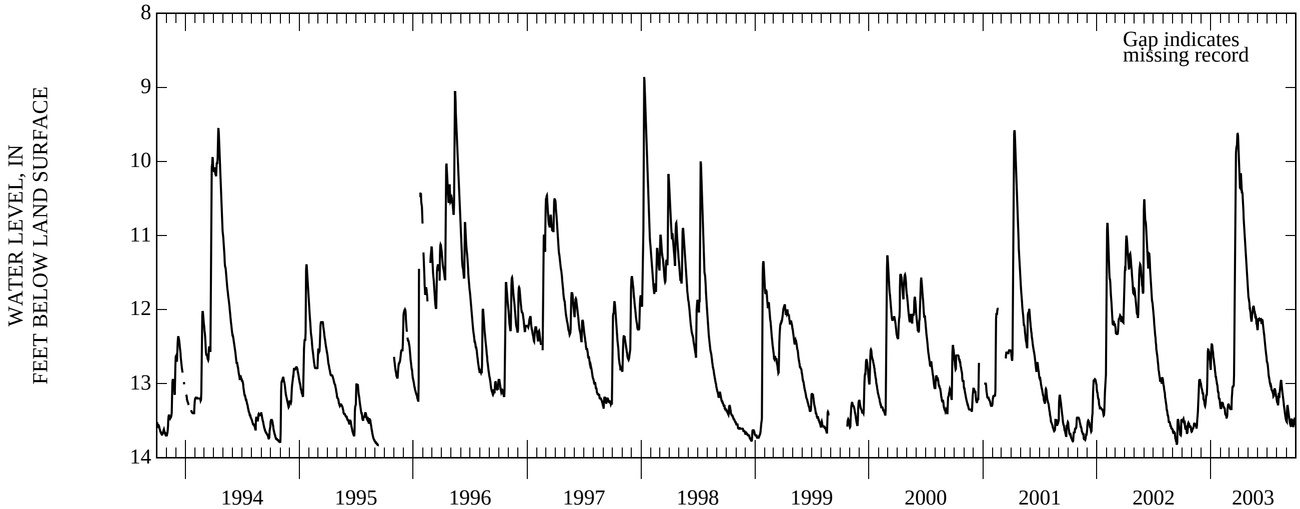
REVISED RECORDS.--WDR NY-91-3: 1990.

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, 9.59 ft below land-surface datum, Mar. 27, 28, 29; lowest, 13.69 ft below land-surface datum, Sept. 15, 16.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.49	13.64	13.04	12.67	13.33	13.32	10.01	11.83	12.17	12.72	13.21	13.52
2	13.52	13.63	13.06	12.53	13.33	13.32	10.13	11.85	12.13	12.76	13.24	13.33
3	13.51	13.61	13.07	12.47	13.33	13.33	10.26	11.88	12.13	12.80	13.27	13.29
4	13.49	13.61	13.09	12.47	13.29	13.34	10.36	11.91	12.13	12.85	13.29	13.30
5	13.48	13.61	13.13	12.48	13.26	13.34	10.36	11.98	12.12	12.88	13.26	13.33
6	13.51	13.59	13.13	12.52	13.26	13.33	10.18	11.98	12.13	12.91	13.16	13.37
7	13.53	13.58	13.13	12.56	13.26	13.34	10.16	12.01	12.14	12.93	13.17	13.40
8	13.54	13.54	13.21	12.58	13.27	13.34	10.24	12.04	12.16	12.96	13.19	13.44
9	13.53	13.54	13.22	12.65	13.29	13.19	10.33	12.10	12.13	12.99	13.13	13.47
10	13.59	13.54	13.22	12.66	13.30	13.14	10.43	12.13	12.13	13.01	13.08	13.50
11	13.61	13.55	13.26	12.70	13.32	13.06	10.42	12.16	12.15	12.99	13.04	13.52
12	13.61	13.55	13.29	12.75	13.33	13.04	10.44	12.14	12.20	13.02	12.99	13.54
13	13.61	13.56	13.30	12.77	13.33	13.04	10.52	12.06	12.15	13.04	12.97	13.56
14	13.60	13.57	13.28	12.83	13.34	13.04	10.61	12.06	12.14	13.07	12.95	13.57
15	13.65	13.59	13.24	12.86	13.37	13.03	10.69	12.02	12.14	13.09	12.98	13.57
16	13.68	13.61	13.18	12.91	13.41	12.89	10.77	11.97	12.15	13.09	13.02	13.47
17	13.65	13.56	13.16	12.91	13.42	12.43	10.86	11.96	12.21	13.11	13.06	13.48
18	13.65	13.48	13.16	12.94	13.42	11.82	10.94	11.96	12.24	13.12	13.11	13.51
19	13.60	13.44	13.15	12.97	13.44	11.37	11.04	11.99	12.28	13.13	13.14	13.53
20	13.54	13.38	13.03	13.00	13.46	10.90	11.12	12.03	12.32	13.17	13.18	13.55
21	13.53	13.28	12.74	13.01	13.46	10.20	11.19	12.03	12.35	13.17	13.22	13.57
22	13.54	13.18	12.57	13.05	13.45	9.89	11.26	12.06	12.40	13.11	13.25	13.59
23	13.54	13.05	12.54	13.10	13.35	9.83	11.32	12.11	12.45	13.08	13.29	13.53
24	13.57	12.96	12.54	13.12	13.32	9.80	11.40	12.11	12.49	13.07	13.33	13.50
25	13.58	12.95	12.56	13.12	13.28	9.80	11.46	12.10	12.53	13.08	13.36	13.49
26	13.58	12.95	12.59	13.18	13.28	9.69	11.52	12.11	12.57	13.08	13.40	13.51
27	13.58	12.95	12.62	13.20	13.28	9.63	11.60	12.19	12.61	13.11	13.43	13.53
28	13.58	12.97	12.66	13.21	13.29	9.63	11.67	12.20	12.64	13.14	13.46	13.52
29	13.61	12.99	12.70	13.21	---	9.65	11.72	12.22	12.70	13.17	13.48	13.54
30	13.64	13.00	12.78	13.27	---	9.77	11.78	12.26	12.71	13.19	13.50	13.54
31	13.65	---	12.81	13.30	---	9.89	---	12.28	---	13.22	13.51	---
MEAN	13.57	13.38	12.98	12.87	13.34	11.79	10.83	12.06	12.29	13.03	13.22	13.49
MAX	13.68	13.64	13.30	13.30	13.46	13.34	11.78	12.28	12.71	13.22	13.51	13.59
MIN	13.48	12.95	12.54	12.47	13.26	9.63	10.01	11.83	12.12	12.72	12.95	13.29


WATER LEVEL, IN FEET BELOW LAND SURFACE
8
9
10
11
12
13
14
Gap indicates missing record
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003

Statewide Pesticide Monitoring Project
Monitoring at Community-Water-System Wells in Western New York

In 1999, the U.S. Geological Survey, in cooperation with the New York State Department of Environmental Conservation, began a monitoring program to determine the occurrence and trends of pesticide residues in selected community water-supply wells in western New York (fig. 10). Samples of raw, untreated water from these wells were analyzed for the pesticide compounds using the USGS SH2001/2010 and LCAA methods. Concentrations did not exceed Federal or State maximum contaminant levels (MCLs) for drinking water for any compound. Additional data on pesticide residues in selected water-supply wells are published for eastern New York excluding Long Island (vol 1.) and for Long Island (vol. 2)

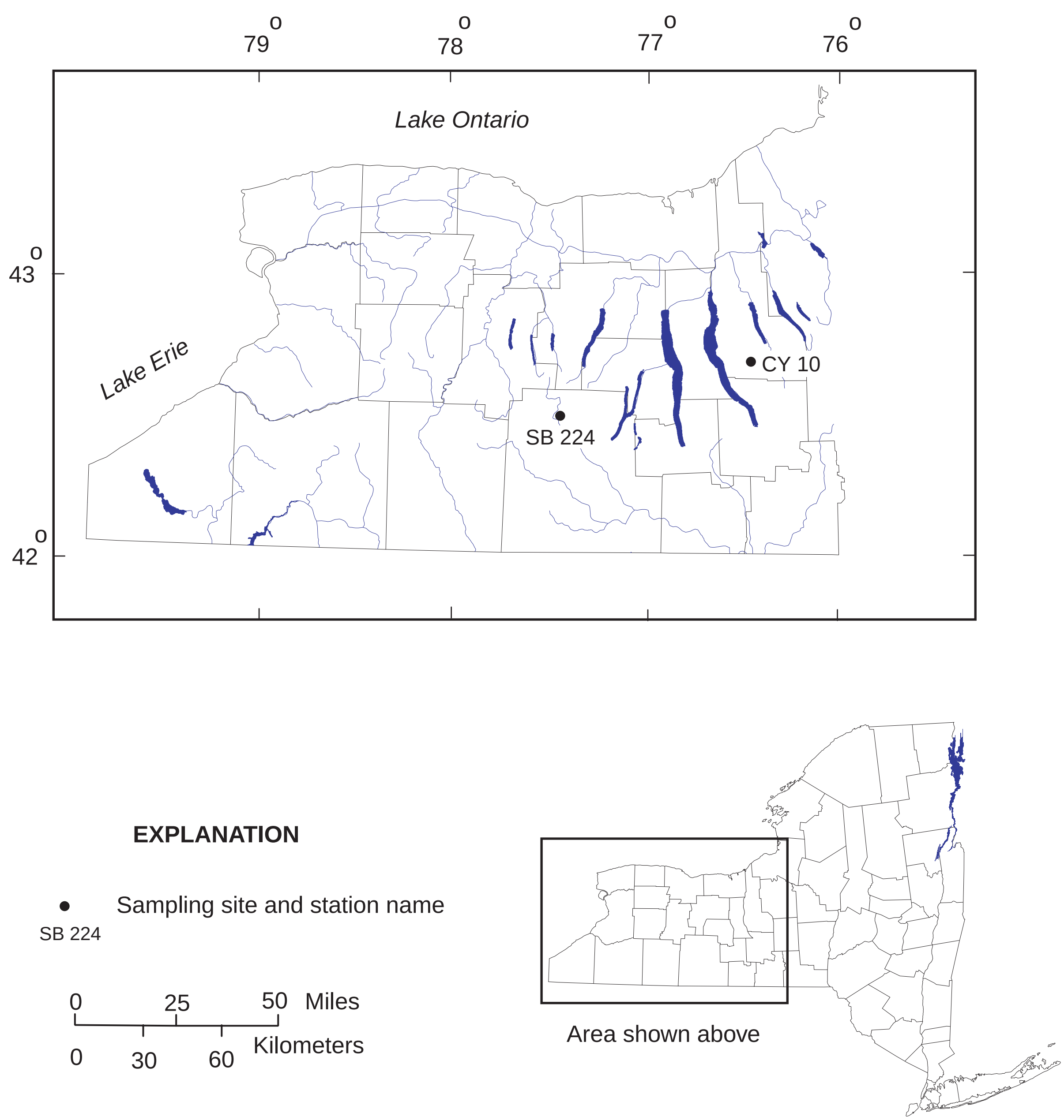


Figure 10.-- Location of community water-supply wells in western New York that were sampled in water year 2003 for pesticide analysis.

QUALITY OF GROUND WATER

PESTICIDE ANALYSES

WATER QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Local identifier	Date	Time	Propa-chlor, water, fltrd, ug/L (04024)	Butyl-ate, water, fltrd, ug/L (04028)	Sima-zine, water, fltrd, ug/L (04035)	Prome-ton, water, fltrd, ug/L (04037)	CIAT, water, fltrd, ug/L (04040)	Cyana-zine, water, fltrd, ug/L (04041)	Fonofos water, fltrd, ug/L (04095)	alpha-HCH, water, fltrd, ug/L (34253)	p,p'-DDE, water, fltrd, ug/L (34653)
CAYUGA COUNTY											
CY 10	12-10-02	0800	<.010	<.002	E.005n	.02	E.062	<.018	<.003	<.005	<.003
	06-09-03	0830	<.010	<.002	<.005	.02	E.048	<.018	<.003	<.005	<.003
	09-03-03	0830	<.010	<.002	.006	.02	E.088	<.018	<.003	<.005	<.003
STEUBEN COUNTY											
SB 224	12-10-02	1100	<.010	<.002	<.005	.06	E.011	<.018	<.003	<.005	<.003
	12-10-02	1105	<.010	<.002	<.005	.06	E.013	<.018	<.003	<.005	<.003
	06-09-03	1430	<.010	<.002	<.005	.08	E.018	<.018	<.003	<.005	<.003
	08-28-03	1100	<.010	<.002	<.005	.05	E.013	<.018	<.003	<.005	<.003
	08-28-03	1115	<.010	<.002	<.005	.05	E.012	<.018	<.003	<.005	<.003

Local identifier	Date	Chlor-pyrifos water, fltrd, ug/L (38933)	Lindane water, fltrd, ug/L (39341)	Diel-drin, water, fltrd, ug/L (39381)	Metola-chlor, water, fltrd, ug/L (39415)	Mala-thion, water, fltrd, ug/L (39532)	Para-thion, water, fltrd, ug/L (39542)	Diazi-non, water, fltrd, ug/L (39572)	Atra-zine, water, fltrd, ug/L (39632)	Ala-chlor, water, fltrd, ug/L (46342)	Aceto-chlor, water, fltrd, ug/L (49260)
CAYUGA COUNTY											
CY 10	12-10-02	<.005	<.004	<.005	E.007n	<.027	<.010	<.005	.074	<.004	<.006
	06-09-03	<.005	<.004	<.005	<.013	<.027	<.010	<.005	.065	<.004	<.006
	09-03-03	<.005	<.004	<.005	E.011n	<.027	<.010	<.005	.097	<.004	<.006
STEUBEN COUNTY											
SB 224	12-10-02	<.005	<.004	<.005	E.009n	<.027	<.010	<.005	.036	<.004	<.006
	12-10-02	<.005	<.004	<.005	E.009n	<.027	<.010	<.005	.033	<.004	<.006
	06-09-03	<.005	<.004	<.005	E.010n	<.027	<.010	<.005	.038	<.004	<.006
	08-28-03	<.005	<.004	<.005	E.011n	<.027	<.010	<.005	.030	<.004	<.006
	08-28-03	<.005	<.004	<.005	E.011n	<.027	<.010	<.005	.030	<.004	<.006

Local identifier	Date	Metri-buzin, water, fltrd, ug/L (82630)	2,6-Di-ethyl-aniline water fltrd 0.7u GF ug/L (82660)	Tri-flur-alin, water, fltrd 0.7u GF ug/L (82661)	Ethal-flur-alin, water, fltrd 0.7u GF ug/L (82663)	Phorate water fltrd 0.7u GF ug/L (82664)	Terba-cil, water, fltrd 0.7u GF ug/L (82665)	Linuron water fltrd 0.7u GF ug/L (82666)	Methyl para-thion, water, fltrd 0.7u GF ug/L (82667)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Peb-ulate, water, fltrd 0.7u GF ug/L (82669)
CAYUGA COUNTY											
CY 10	12-10-02	<.006	<.006	<.009	<.009	<.011	<.034	<.035	<.006	<.002	<.004
	06-09-03	<.006	<.006	<.009	<.009	<.011	<.034	<.035	<.006	<.002	<.004
	09-03-03	<.006	<.006	<.009	<.009	<.011	<.034	<.035	<.006	<.002	<.004
STEUBEN COUNTY											
SB 224	12-10-02	.079	<.006	<.009	<.009	<.011	<.034	<.035	<.006	<.002	<.004
	12-10-02	.080	<.006	<.009	<.009	<.011	<.034	<.035	<.006	<.002	<.004
	06-09-03	.074	<.006	<.009	<.009	<.011	<.034	<.035	<.006	<.002	<.004
	08-28-03	.054	<.006	<.009	<.009	<.011	<.034	<.035	<.006	<.002	<.004
	08-28-03	.057	<.006	<.009	<.009	<.011	<.034	<.035	<.006	<.002	<.004

WATER QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Local identifier	Date	Tebuthiuron water fltrd 0.7u GF ug/L (82670)	Molinate, water, fltrd 0.7u GF ug/L (82671)	Ethoprop, water, fltrd 0.7u GF ug/L (82672)	Benfluralin, water, fltrd 0.7u GF ug/L (82673)	Carbofuran, water, fltrd 0.7u GF ug/L (82674)	Terbufos, water, fltrd 0.7u GF ug/L (82675)	Pronamide, water, fltrd 0.7u GF ug/L (82676)	Disulfoton, water, fltrd 0.7u GF ug/L (82677)	Triallate, water, fltrd 0.7u GF ug/L (82678)	Propanil, water, fltrd 0.7u GF ug/L (82679)
CAYUGA COUNTY											
CY 10	12-10-02	<.02	<.002	<.005	<.010	<.020	<.02	<.004	<.02	<.002	<.011
	06-09-03	<.02	<.002	<.005	<.010	<.020	<.02	<.004	<.02	<.002	<.011
	09-03-03	<.02	<.002	<.005	<.010	<.020	<.02	<.004	<.02	<.002	<.011
STEUBEN COUNTY											
SB 224	12-10-02	<.02	<.002	<.005	<.010	<.020	<.02	<.004	<.02	<.002	<.011
	12-10-02	<.02	<.002	<.005	<.010	<.020	<.02	<.004	<.02	<.002	<.011
	06-09-03	<.02	<.002	<.005	<.010	<.020	<.02	<.004	<.02	<.002	<.011
	08-28-03	<.02	<.002	<.005	<.010	<.020	<.02	<.004	<.02	<.002	<.011
	08-28-03	<.02	<.002	<.005	<.010	<.020	<.02	<.004	<.02	<.002	<.011

Local identifier	Date	Carbaryl, water, fltrd 0.7u GF ug/L (82680)	Thiobencarb water fltrd 0.7u GF ug/L (82681)	DCPA, water fltrd 0.7u GF ug/L (82682)	Pendimethalin, water, fltrd 0.7u GF ug/L (82683)	Napropamide, water, fltrd 0.7u GF ug/L (82684)	Propargite, water, fltrd 0.7u GF ug/L (82685)	Azinphos-methyl, water, fltrd 0.7u GF ug/L (82686)	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Acetochlor ESA, water, fltrd 0.7u GF ug/L (61029)	Acetochlor OA, water, fltrd 0.7u GF ug/L (61030)
CAYUGA COUNTY											
CY 10	12-10-02	<.041	<.005	<.003	<.022	<.007	<.02	<.050	<.006	<.05	<.05
	06-09-03	<.041	<.005	<.003	<.022	<.007	<.02	<.050	<.006	<.05	<.05
	09-03-03	<.041	<.005	<.003	<.022	<.007	<.02	<.050	<.006	<.05	<.05
STEUBEN COUNTY											
SB 224	12-10-02	<.041	<.005	<.003	<.022	<.007	<.02	<.050	<.006	<.05	<.05
	12-10-02	<.041	<.005	<.003	<.022	<.007	<.02	<.050	<.006	<.05	<.05
	06-09-03	<.041	<.005	<.003	<.022	<.007	<.02	<.050	<.006	<.05	<.05
	08-28-03	<.041	<.005	<.003	<.022	<.007	<.02	<.050	<.006	<.05	<.05
	08-28-03	<.041	<.005	<.003	<.022	<.007	<.02	<.050	<.006	<.05	<.05

Local identifier	Date	Alachlor ESA, water, fltrd 0.7u GF ug/L (50009)	Alachlor OA, water, fltrd 0.7u GF ug/L (61031)	Dimethenamid ESA, water, fltrd, ug/L (61951)	Dimethenamid OA, water, fltrd, ug/L (62482)	Flufenacet ESA, water, fltrd, ug/L (61952)	Flufenacet OA, water, fltrd, ug/L (62483)	Metolachlor ESA, water, fltrd 0.7u GF ug/L (61043)	Metolachlor OA, water, fltrd 0.7u GF ug/L (61044)
CAYUGA COUNTY									
CY 10	12-10-02	<.05	<.05	<.05	<.05	<.05	<.05	1.33	.12
	06-09-03	<.05	<.05	<.05	<.05	<.05	<.05	.43	<.05
	09-03-03	<.05	<.05	<.05	<.05	<.05	<.05	1.57	.16
STEUBEN COUNTY									
SB 224	12-10-02	.10	.20	<.05	<.05	<.05	<.05	.92	2.56
	12-10-02	.08	.20	<.05	<.05	<.05	<.05	.79	2.41
	06-09-03	<.05	.07	<.05	<.05	<.05	<.05	.43	1.05
	08-28-03	.09	.11	<.05	<.05	<.05	<.05	.48	1.12
	08-28-03	.09	.11	<.05	<.05	<.05	<.05	.49	1.18

Remark codes used in this table:
< -- Less than
E -- Estimated value

Value qualifier codes used in this table:
n -- Below the NDV

PESTICIDE ANALYSES—Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Local identifier	Date	Time	Bromacil, water, fltrd, ug/L (04029)	Cycloate, water, fltrd, ug/L (04031)	Terbacil, water, fltrd, ug/L (04032)	Diphenamid, water, fltrd, ug/L (04033)	CEAT, water, fltrd, ug/L (04038)	Chlorodiamino-s-triazine, wat flt ug/L (04039)	CIAT, water, fltrd, ug/L (04040)	Dicamba water fltrd 0.7u GF ug/L (38442)	Linuron water fltrd 0.7u GF ug/L (38478)
STEUBEN COUNTY											
SB 224	12-10-02	1110	<.03	<.01	<.010	<.03	M	<.01	E.02	--u	<.01
	12-10-02	1115	<.03	<.01	<.010	<.03	M	<.01	E.02	--u	<.01
	06-09-03	1440	<.03	<.01	<.010	<.03	<.04	<.01	E.01	<.01	<.01
	08-28-03	1125	<.03	<.01	<.010	<.03	M	<.01	E.01	<.01	<.01
	08-28-03	1110	<.03	<.01	<.010	<.03	M	<.01	E.01	<.01	<.01

Local identifier	Date	MCPA, water, fltrd 0.7u GF ug/L (38482)	MCPB, water, fltrd 0.7u GF ug/L (38487)	Methiocarb, water, fltrd 0.7u GF ug/L (38501)	Propoxur, water, fltrd 0.7u GF ug/L (38538)	Siduron water, fltrd, ug/L (38548)	Bentazon, water, fltrd 0.7u GF ug/L (38711)	2,4-DB water, fltrd 0.7u GF ug/L (38746)	Fluometuron water fltrd 0.7u GF ug/L (38811)	Oxamyl, water, fltrd 0.7u GF ug/L (38866)	Atrazine, water, fltrd, ug/L (39632)
STEUBEN COUNTY											
SB 224	12-10-02	<.02	<.01	<.008	<.008	<.02	<.01	<.02	<.03	<.01	.032
	12-10-02	<.02	<.01	<.008	<.008	<.02	<.01	<.02	<.03	<.01	.030
	06-09-03	<.02	<.01	<.008	<.008	<.02	<.01	<.02	<.03	<.01	.030
	08-28-03	<.02	<.01	<.008	<.008	<.02	<.01	<.02	<.03	<.01	.033
	08-28-03	<.02	<.01	<.008	<.008	<.02	<.01	<.02	<.03	<.01	.034

Local identifier	Date	2,4-D water, fltrd, ug/L (39732)	Triclopyr, water, fltrd 0.7u GF ug/L (49235)	Propham water fltrd 0.7u GF ug/L (49236)	Picloram, water, fltrd 0.7u GF ug/L (49291)	Oryzalin, water, fltrd 0.7u GF ug/L (49292)	Norflurazon, water, fltrd 0.7u GF ug/L (49293)	Neburon water, fltrd 0.7u GF ug/L (49294)	Methomyl, water, fltrd 0.7u GF ug/L (49296)	Fenuron water, fltrd 0.7u GF ug/L (49297)	Diuron, water, fltrd 0.7u GF ug/L (49300)
STEUBEN COUNTY											
SB 224	12-10-02	<.02	<.02	<.010	<.02	<.02	<.02	<.01	<.004	<.03	<.01
	12-10-02	<.02	<.02	<.010	<.02	<.02	<.02	<.01	<.004	<.03	<.01
	06-09-03	<.02	<.02	<.010	<.02	<.02	<.02	<.01	<.004	<.03	<.01
	08-28-03	<.02	<.02	<.010	<.02	<.02	<.02	<.01	<.004	<.03	<.01
	08-28-03	<.02	<.02	<.010	<.02	<.02	<.02	<.01	<.004	<.03	<.01

Local identifier	Date	Dinoseb water, fltrd 0.7u GF ug/L (49301)	Dichlorprop, water, fltrd 0.7u GF ug/L (49302)	Dacthal monoacid, water, fltrd 0.7u GF ug/L (49304)	Clopyralid, water, fltrd 0.7u GF ug/L (49305)	Chlorothalonil, water, fltrd 0.7u GF ug/L (49306)	3-Hydroxy carbofuran, wat flt 0.7u GF ug/L (49308)	Carbofuran, water, fltrd 0.7u GF ug/L (49309)	Carbaryl, water, fltrd 0.7u GF ug/L (49310)	Bromoxynil, water, fltrd 0.7u GF ug/L (49311)	Aldicarb, water, fltrd 0.7u GF ug/L (49312)
STEUBEN COUNTY											
SB 224	12-10-02	<.01	<.01	<.01	<.01	<.04	<.006	<.006	<.03	<.02	<.04
	12-10-02	<.01	<.01	<.01	<.01	<.04	<.006	<.006	<.03	<.02	<.04
	06-09-03	<.01	<.01	<.01	<.01	<.04	<.006	<.006	<.03	<.02	<.04
	08-28-03	<.01	<.01	<.01	<.01	<.04	<.006	<.006	<.03	<.02	<.04
	08-28-03	<.01	<.01	<.01	<.01	<.04	<.006	<.006	<.03	<.02	<.04

PESTICIDE ANALYSES—Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Local identifier	Date	Aldicarb sulfone water, fltrd 0.7u GF ug/L (49313)	Aldicarb sulfoxide, wat flt 0.7u GF ug/L (49314)	Acifluorfen, water, fltrd 0.7u GF ug/L (49315)	3-Ketocarbofuran, water, fltrd, ug/L (50295)	Bendiocarb, water, fltrd, ug/L (50299)	Benomyl water, fltrd, ug/L (50300)	Caffeine, water, fltrd, ug/L (50305)	Chlorimuron, water, fltrd, ug/L (50306)	Sulfometruron, water, fltrd, ug/L (50337)	OIET, water, fltrd, ug/L (50355)
STEUBEN COUNTY											
SB 224	12-10-02	<.02	<.008	<.007	<2	<.03	<.004	<.010	<.010	<.009	<.008
	12-10-02	<.02	<.008	<.007	<2	<.03	<.004	<.010	<.010	<.009	<.008
	06-09-03	<.02	<.008	<.007	<2	<.03	<.004	<.010	<.010	<.009	<.008
	08-28-03	<.02	<.008	<.007	<2	<.03	<.004	<.010	<.010	<.009	<.008
	08-28-03	<.02	<.008	<.007	<2	<.03	<.004	<.010	<.010	<.009	<.008

Local identifier	Date	Imazaquin, water, fltrd, ug/L (50356)	Metalaxyl, water, fltrd, ug/L (50359)	Nicosulfuron, water, fltrd, ug/L (50364)	Imazethapyr, water, fltrd, ug/L (50407)	2,4-D methyl ester, water, fltrd, ug/L (50470)	Propiconazole, water, fltrd, ug/L (50471)	Tribenuron water, fltrd, ug/L (61159)	Chloramben methyl ester, water, fltrd, ug/L (61188)	N-(4-Chlorophenyl)-N-'methylurea, ug/L (61692)	Bensulfuron, water, fltrd, ug/L (61693)
STEUBEN COUNTY											
SB 224	12-10-02	<.02	M	<.01	<.02	<.009	<.02	--u	<.02	<.02	<.02
	12-10-02	<.02	M	<.01	<.02	<.009	<.02	--u	<.02	<.02	<.02
	06-09-03	<.02	M	<.01	<.02	<.009	<.02	--u	<.02	<.02	<.02
	08-28-03	<.02	E.01	<.01	<.02	<.009	<.02	--u	<.02	<.02	<.02
	08-28-03	<.02	E.01	<.01	<.02	<.009	<.02	--u	<.02	<.02	<.02

Local identifier	Date	Flumetsulam, water, fltrd, ug/L (61694)	Imidacloprid water, fltrd, ug/L (61695)	Metsulfuron, water, fltrd, ug/L (61697)	Tebuthiuron water fltrd 0.7u GF ug/L (82670)
STEUBEN COUNTY					
SB 224	12-10-02	<.01	<.007	<.03	<.006
	12-10-02	<.01	<.007	<.03	<.006
	06-09-03	<.01	<.007	<.03	<.006
	08-28-03	<.01	<.007	<.03	<.006
	08-28-03	<.01	<.007	<.03	<.006

Remark codes used in this table:
- < -- Less than
- E -- Estimated value
- M -- Presence verified, not quantified

Null value qualifier codes used in this table:
- u -- Unable to determine-matrix interference

In 2003, the U.S. Geological Survey, in cooperation with the New York State Department of Environmental Conservation, collected and analyzed water samples from 24 public-supply wells and 13 private residential wells to describe the chemical quality of ground water throughout the Chemung River basin, upgradient of Waverly, NY (fig. 11). Samples of raw, untreated water from these wells were analyzed for physical properties, inorganic constituents, nutrients, metals, radionuclides, pesticides, and volatile organic compounds.

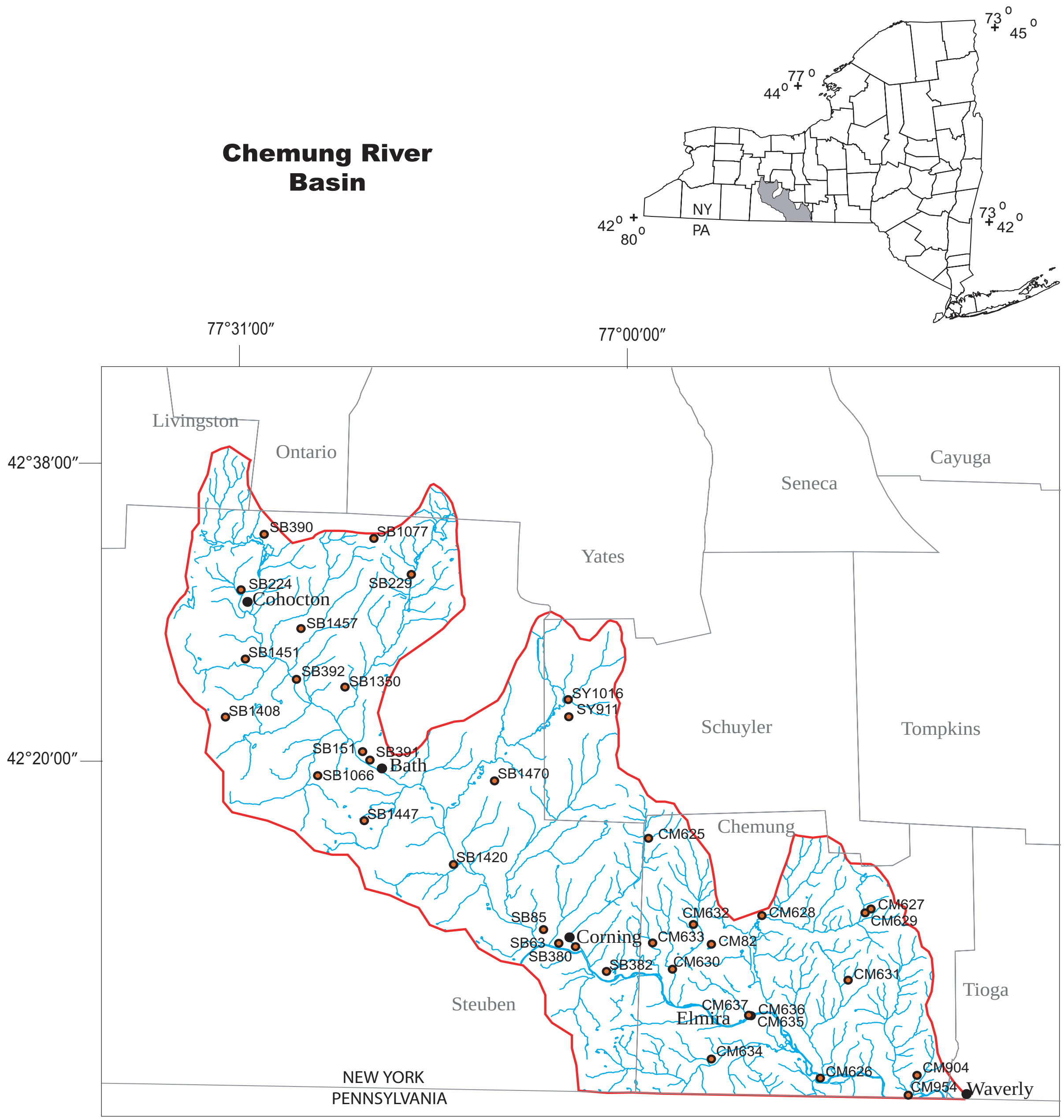


Figure 11.-- Location of public and private water-supply wells in the Chemung River Basin that were sampled during the 2003 water year.

Aquifers within the Chemung River Basin

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Local identifier	Date	Time	Color, water, fltrd, Pt-Co units (00080)	pH, water, unfltrd field, std units (00400)	Specif. conduc-tance, wat unf uS/cm 25 degC (00095)	Calcium water, fltrd, mg/L (00915)	Magnes-ium, water, fltrd, mg/L (00925)	Potas-sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	Alka-linity, wat flt fxd end lab, mg/L as CaCO3 (29801)
CHEMUNG COUNTY											
CM 954	07-08-03	0900	5	8.2	460	69.8	14.0	1.21	7.49	154	153
	07-08-03	0915	5	8.2	460	69.0	14.1	1.23	7.45	153	153
CM 626	07-02-03	1200	--	8.2	1,010	64.7	13.0	1.94	119	171	171
	07-15-03	1100	2	--	--	--	--	--	--	--	--
CM 904	07-02-03	0900	--	7.9	690	66.7	18.0	1.03	51.5	293	294
	07-15-03	0900	18	--	--	--	--	--	--	--	--
CM 634	07-31-03	0900	2	7.9	453	51.9	9.65	2.31	28.1	117	117
CM 637	08-12-03	0900	<1	7.8	750	83.8	17.1	2.11	53.3	182	181
CM 635	08-12-03	0800	2	7.8	419	50.3	10.5	2.34	25.3	126	126
CM 636	08-12-03	1000	5	7.5	530	64.3	12.7	2.48	31.8	152	153
CM 631	07-10-03	0900	2	8.4	650	19.2	3.94	.88	123	151	152
CM 630	07-30-03	0700	<1	7.6	816	96.3	19.0	3.26	47.4	214	192
CM 82	07-30-03	0800	5	8.0	1,450	102	20.9	1.70	169	167	174
CM 633	08-06-03	1100	8	8.3	410	16.2	3.36	.58	76.9	198	197
CM 627	08-06-03	1200	88	7.6	601	46.8	9.75	.71	54.1	103	102
CM 632	07-30-03	1000	2	8.0	351	48.0c	10.3	1.10	9.14	115	115
CM 628	07-22-03	1300	2	8.0	393	43.0	8.41	1.64	21.2	119	119
CM 629	07-23-03	0900	12	8.0	1,100	80.1	19.8	.86	110	170	170
CM 625	08-13-03	0900	5	8.0	440	56.1	11.7	1.02	20.4	157	157
SCHUYLER COUNTY											
SY 911	09-04-03	1100	5	8.3	969	8.58	1.78	.75	173	305	307
SY1016	06-26-03	0900	25	9.0	575	81.1	22.4	.95	7.19	235	245
STEUBEN COUNTY											
SB 382	07-01-03	0900	2	8.3	705	72.8	13.8	2.22	43.8	173	173
SB 63	06-25-03	0900	<1	7.4	898	93.9	22.1	3.19	53.3	251	250
SB 380	06-25-03	1100	2	7.5	586	61.1	13.8	2.33	38.7	153	153
SB 85	07-01-03	1100	5	8.1	709	83.8	18.9	1.92	31.2	228	228
SB1420	07-08-03	1030	35	7.8	650	37.8	9.26	1.52	80.7	188	189
SB1447	07-10-03	1100	8	7.6	590	83.9	12.3	2.05	37.2	319	319
SB1470	06-26-03	1130	<1	8.4	374	50.3	11.4	1.48	6.98	121	120
SB1066	07-23-03	1200	200	7.3	204	32.8	5.55	.92	4.12	89	88
	08-19-03	1000	10	7.4	240	36.3	6.30	.96	3.94	110	110
SB 391	08-20-03	1000	5	8.0	540	67.4	15.8	1.84	23.9	175	178
SB 151	08-20-03	0900	12	7.5	1,080	105	25.8	2.16	80.9	234	246
SB1408	07-23-03	1000	5	8.0	1,280	97.2	19.6	7.28	133	211	211
	08-14-03	0900	8	7.8	1,130	89.6	18.8	7.18	118	215	215
SB1350	07-17-03	0900	20	8.1	520	44.9	10.3	1.16	48.0	231	231
SB 392	09-03-03	0659	<1	--	--	E.01n	<.008	<.16	<.10	<2	<2
	09-03-03	0700	5	8.4	719	81.7	21.0	1.39	25.2	183	186
SB1451	07-16-03	1000	2	8.0	385	50.1	9.41	1.38	14.9	135	135
SB1457	07-16-03	1200	5	7.9	277	34.4	7.03	.98	20.0	136	125
SB 224	07-24-03	1100	2	8.1	850	71.8	18.2	4.53	72.2	232	238
	07-24-03	1115	<1	8.1	850	72.0	18.3	4.51	72.6	241	236
	07-24-03	1130	2	--	--	.06	<.008	<.16	.13	2	2
SB 229	07-09-03	0900	25	8.1	608	68.2	17.7	1.26	32.8	190	190
SB1077	07-09-03	1100	2	7.8	260	42.5	11.0	1.11	4.68	135	132
SB 390	07-24-03	1200	2	7.3	740	103	24.0	1.62	18.3	193	254

Aquifers within the Chemung River Basin—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Local identifier	Date	Chlor-ide, water, fltrd, mg/L (00940)	Fluor-ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phos-phate, water, fltrd, mg/L as P (00671)
CHEMUNG COUNTY											
CM 954	07-08-03	26.4	<.2	15.1	46.2	272	E.05	.04	<.06	<.008	<.02
	07-08-03	26.3	<.2	15.1	46.0	270	<.10	.04	<.06	<.008	<.02
CM 626	07-02-03	201	<.2	11.4	13.6	562	--	--	--	--	--
	07-15-03	--	--	--	--	--	.16	.17	<.06	<.008	<.02
CM 904	07-02-03	15.6	<.2	16.0	38.8	386	--	--	--	--	--
	07-15-03	--	--	--	--	--	.20	.22	<.06	<.008	<.02
CM 634	07-31-03	57.3	<.2	6.80	22.4	252	<.10	<.04	.92	<.008	<.02
CM 637	08-12-03	111	<.2	9.37	30.6	426	E.08n	<.04	2.69	<.008	<.02
CM 635	08-12-03	44.5	<.2	6.67	19.8	241	.14	<.04	.64	<.008	.02
CM 636	08-12-03	62.9	<.2	7.83	24.1	299	.20	.09	.96	<.008	<.02
CM 631	07-10-03	117	.3	9.95	10.1	379	.28	.24	<.06	<.008	.02
CM 630	07-30-03	103	<.2	10.2	27.9	466	E.05	<.04	5.99	<.008	<.02
CM 82	07-30-03	335d	<.2	7.98	20.0	812	<.10	<.04	1.12	<.008	<.02
CM 633	08-06-03	4.40	.2	10.6	20.7	258	<.10	<.04	.22	<.008	.02
CM 627	08-06-03	118	<.2	9.81	11.0	357	<.10	<.04	<.06	<.008	<.02
CM 632	07-30-03	19.2	<.2	8.86	32.8	212	<.10	<.04	1.03	<.008	<.02
CM 628	07-22-03	41.7	<.2	5.54	15.0	224	E.07	<.04	.23	<.008	<.02
CM 629	07-23-03	235	<.2	12.3	13.0	642	.27	.23	<.06	<.008	.04
CM 625	08-13-03	47.8	<.2	8.67	8.7	271	<.10	E.02n	.06	<.008	<.18d
SCHUYLER COUNTY											
SY 911	09-04-03	115	1.3	7.07	2.0	529	.42	.33	<.06	<.008	.03
SY1016	06-26-03	24.3	<.2	14.5	28.7	327	<.10	<.04	<.06	<.008	<.02
STEUBEN COUNTY											
SB 382	07-01-03	102	<.2	7.28	21.4	429	E.07	<.04	1.63	<.008	<.02
SB 63	06-25-03	121	<.2	10.6	30.2	498	<.10	<.04	1.81	<.008	<.02
SB 380	06-25-03	76.6	<.2	6.66	24.4	318	<.10	<.04	.99	<.008	<.02
SB 85	07-01-03	70.9	<.2	12.3	35.5	431	E.07	<.04	<.06	<.008	<.02
SB1420	07-08-03	86.1	.3	11.0	.4	339	.35	.33	<.06	<.008	.05
SB1447	07-10-03	10.0	<.2	16.3	2.4	353	.22	.20	<.06	<.008	<.02
SB1470	06-26-03	10.1	<.2	13.3	24.1	217	.10	<.04	7.45	<.008	<.02
SB1066	07-23-03	3.66	<.2	7.96	15.8	129	.11	<.04	.26	<.008	<.02
	08-19-03	2.37	<.2	8.49	15.6	144	<.10	<.04	.15	<.008	<.02
SB 391	08-20-03	55.1	<.2	7.55	26.0	322	<.10	<.04	1.14	<.008	<.02
SB 151	08-20-03	183	1.8	11.0	45.6	615	<.10	<.04	.54	<.008	<.02
SB1408	07-23-03	255	<.2	7.48	29.9	714	.20	<.04	3.05	<.008	E.01
	08-14-03	223	<.2	7.69	32.0	670	.13	<.04	1.98	.009	<.18d
SB1350	07-17-03	6.45	.2	9.93	45.2	309	<.10	.08	<.06	<.008	<.02
SB 392	09-03-03	<.20	<.2	<.02	<.2	<10	<.10	<.04	<.06	<.008	<.02
	09-03-03	74.7	<.2	9.55	52.1	413	E.06n	<.04	.58	.013	<.02
SB1451	07-16-03	32.2	<.2	6.30	12.2	204	<.10	<.04	.63	<.008	<.02
SB1457	07-16-03	9.67	<.2	10.1	7.5	153	<.10	<.04	<.06	<.008	<.02
SB 224	07-24-03	98.0	<.2	9.44	29.7	474	E.06	<.04	5.21	<.008	<.02
	07-24-03	95.8	<.2	9.52	29.9	475	E.06	<.04	5.21	<.008	<.02
	07-24-03	<.20	<.2	.48	<.2	<10	<.10	<.04	<.06	<.008	<.02
SB 229	07-09-03	62.0	<.2	14.6	27.8	341	.14	.08	<.06	<.008	<.02
SB1077	07-09-03	1.46	<.2	11.4	20.5	158	<.10	<.04	E.03	<.008	<.02
SB 390	07-24-03	37.6	<.2	10.7	63.4	445	E.05	<.04	3.95	<.008	<.02

Aquifers within the Chemung River Basin—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Local identifier	Date	Organic carbon, water, unfltrd mg/L (00680)	Aluminum, water, unfltrd recover -able, ug/L (01105)	Antimony, water, unfltrd ug/L (01097)	Barium, water, unfltrd recover -able, ug/L (01007)	Beryllium, water, unfltrd recover -able, ug/L (01012)	Boron, water, fltrd, ug/L (01020)	Cadmium water, unfltrd ug/L (01027)	Chromium, water, unfltrd recover -able, ug/L (01034)	Cobalt water, unfltrd recover -able, ug/L (01037)	Copper, water, unfltrd recover -able, ug/L (01042)
CHEMUNG COUNTY											
CM 954	07-08-03	.7	E1n	<.6	122	<.06	16	<.04	<.8	.279	.6
	07-08-03	4.3	E1n	<.6	123	<.06	17	<.04	<.8	.271	E.6n
CM 626	07-02-03	--	3	<.6	155	<.06	75	<.04	<.8	.225	1.3
	07-15-03	1.2	--	--	--	--	--	--	--	--	--
CM 904	07-02-03	--	64	<.6	93	<.06	114	<.04	1.1	.246	1.0
	07-15-03	2.6	--	--	--	--	--	--	--	--	--
CM 634	07-31-03	1.7	5	<.6	67	<.06	30	<.04	<.8	.265	32.3
CM 637	08-12-03	2.7	E2n	<.6	156	<.06	64	<.04	<.8	.415	3.3
CM 635	08-12-03	2.4	3	<.6	93	<.06	49	<.04	<.8	.278	13.0
CM 636	08-12-03	2.3	3	<.6	134	<.06	45	<.04	<.8	.433	5.4
CM 631	07-10-03	.6	116	<.6	197	<.06	187	<.04	<.8	.179	E.4n
CM 630	07-30-03	1.5	<2	<.6	169	<.06	52	<.04	<.8	.446	.6
CM 82	07-30-03	1.5	16	<.6	220	<.06	52	<.04	E.6n	.487	1.6
CM 633	08-06-03	3.1	83	<.6	108	<.06	236	<.04	<.8	.139	3.8
CM 627	08-06-03	1.1	23	<.6	900	<.06	38	<.04	<.8	.220	2.5
CM 632	07-30-03	1.8	E2n	<.6	121	<.06	14	<.04	<.8	.223	<.6
CM 628	07-22-03	1.4	4	<.6	129	<.06	21	<.04	<.8	.137	1.3
CM 629	07-23-03	.8	E1n	<.6	446	<.06	206	<.04	<.8	.224	1.5
CM 625	08-13-03	1.3	E2n	<.6	280	<.06	38	<.04	<.8	.270	E.4n
SCHUYLER COUNTY											
SY 911	09-04-03	1.4	79	<.6	233	<.06	431	<.04	<.8	.096	<.6
SY1016	06-26-03	9.3	6	<.6	551	<.06	19	<.04	<.8	.292	.9
STEUBEN COUNTY											
SB 382	07-01-03	2.0	<2	<.6	147	<.06	464	<.04	<.8	.284	3.3
SB 63	06-25-03	1.1	<2	<.6	278	<.06	96	<.04	<.8	.352	2.1
SB 380	06-25-03	1.1	E2	<.6	100	<.06	287	<.04	<.8	.218	2.1
SB 85	07-01-03	1.3	9	<.6	426	<.06	78	<.04	<.8	.324	1.1
SB1420	07-08-03	1.1	22	<.6	406	<.06	136	<.04	<.8	.205	E.6n
SB1447	07-10-03	1.4	4	<.6	7,970	<.06	145	<.04	<.8	.234	1.4
SB1470	06-26-03	1.2	4	<.6	77	<.06	34	<.04	<.8	.230	18.6
SB1066	07-23-03	2.9	8090d	<.6	212	.22	22	E.03n	3.7	1.95	64.3
	08-19-03	1.1	72	<.6	169	<.06	15	<.04	<.8	.191	38.1
SB 391	08-20-03	5.9	E1n	<.6	151	<.06	18	<.04	<.8	.322	1.7
SB 151	08-20-03	2.6	E2n	<.6	215	<.06	20	<.04	<.8	.421	4.5
SB1408	07-23-03	2.4	8	<.6	320	<.06	41	<.04	<.8	.359	2.5
	08-14-03	1.9	4	<.6	296	<.06	44	<.04	<.8	.544	2.5
SB1350	07-17-03	1.0	22	<.6	110	<.06	164	<.04	E.5n	.212	1.3
SB 392	09-03-03	.6	<2	<.6	<.16	<.06	<7.0	<.04	<.8	<.017	<.6
	09-03-03	1.4	E1n	<.6	149	<.06	18	<.04	<.8	.393	2.1
SB1451	07-16-03	2.7	33	<.6	37	<.06	12	<.04	<.8	.189	4.8
SB1457	07-16-03	1.2	4	<.6	128	<.06	83	<.04	<.8	.125	<.6
SB 224	07-24-03	1.4	<2	<.6	165	<.06	27	<.04	<.8	.226	3.6
	07-24-03	.9	2	<.6	164	<.06	26	<.04	<.8	.262	3.4
	07-24-03	.7	2	<.6	<.16	<.06	<7.0	<.04	<.8	<.017	<.6
SB 229	07-09-03	1.2	E1n	<.6	247	<.06	35	E.02n	<.8	.214	E.5n
SB1077	07-09-03	1.0	134	<.6	81	<.06	16	<.04	<.8	.350	.9
SB 390	07-24-03	1.0	<2	<.6	112	<.06	13	<.04	<.8	.285	1.1

Aquifers within the Chemung River Basin—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Local identifier	Date	Iron, water, fltrd, ug/L (01046)	Iron, water, unfltrd recover -able, ug/L (01045)	Lead, water, unfltrd recover -able, ug/L (01051)	Lithium water unfltrd recover -able, ug/L (01132)	Mangan- ese, water, fltrd, ug/L (01056)	Mangan- ese, water, unfltrd recover -able, ug/L (01055)	Mercury water, unfltrd recover -able, ug/L (71900)	Molyb- denum, water, unfltrd recover -able, ug/L (01062)	Nickel, water, unfltrd recover -able, ug/L (01067)	Selen- ium, water, unfltrd ug/L (01147)
CHEMUNG COUNTY											
CM 954	07-08-03	197	260	.60	7.6	271	261	<.02	.3	1.31	<.5
	07-08-03	185	210	.60	7.7	269	261	<.02	.3	1.21	<.5
CM 626	07-02-03	11	20	.19	8.6	439	414	<.02	.9	1.68	.8
	07-15-03	--	--	--	--	--	--	--	--	--	--
CM 904	07-02-03	527	670	.73	77.9	215	157	<.02	E.1n	1.64	<.5
	07-15-03	--	--	--	--	--	--	--	--	--	--
CM 634	07-31-03	31	70	.54	2.1	1.4	2	<.02	<.2	1.10	<.5
CM 637	08-12-03	<8	Mn	.29	6.8	3.4	3.0	<.02	E.2n	3.34	.9
CM 635	08-12-03	<8	M	.54	3.1	91.1	78.9	<.02	.5	2.38	.6
CM 636	08-12-03	E5n	M	.57	3.1	801	681	<.02	.7	4.74	.8
CM 631	07-10-03	<8	320	.21	45.9	86.8	86	<.02	.6	.89	<.5
CM 630	07-30-03	<8	<6	<.06	4.4	E.4n	Mn	<.02	<.2	1.70	E.4n
CM 82	07-30-03	<8	30	.21	5.5	.6	1	<.02	E.1n	1.86	<.5
CM 633	08-06-03	<8	140	.26	32.1	.8	20	<.02	.2	.99	E.3n
CM 627	08-06-03	26	1,020	7.76	9.0	293	504	<.02	.2	1.89	1.0
CM 632	07-30-03	<8	Mn	<.06	4.5	<.4	Mn	<.02	E.1n	.81	E.3n
CM 628	07-22-03	<8	<6	.18	1.2	<.4	<.22	<.02	E.1n	1.20	<.5
CM 629	07-23-03	316	330	.12	34.3	383	388	<.02	.3	1.97	.8
CM 625	08-13-03	317	290	.06	6.8	278	253	<.02	.8	2.11	E.4n
SCHUYLER COUNTY											
SY 911	09-04-03	E6n	150	.10	93.9	13.0	15	<.02	<.2	.67	.8
SY1016	06-26-03	953	940	.94	8.8	133	115	<.02	1.5	2.09	<.5
STEUBEN COUNTY											
SB 382	07-01-03	<8	M	.33	3.3	<.4	Mn	<.02	<.2	2.20	E.4n
SB 63	06-25-03	<8	<6	.17	4.6	4.9	5	<.02	<.2	2.98	E.3
SB 380	06-25-03	<8	<6	.24	3.4	<.4	M	<.02	.2	1.49	.9
SB 85	07-01-03	16	30	.23	7.0	328	317	<.02	.3	2.46	<.5
SB1420	07-08-03	1,510	1,530	2.54	25.7	371	367	<.02	1.8	1.27	E.5n
SB1447	07-10-03	339	320	.14	26.7	360	342	<.02	E.1	1.30	<.5
SB1470	06-26-03	<8	M	.26	11.5	4.2	5	<.02	E.2	1.80	<.5
SB1066	07-23-03	<8	5,980	2.87	10.8	.8	50	E.01n	E.1n	7.03	<.5
	08-19-03	<8	270	.32	5.7	2.5	5	<.02	E.2n	1.34	E.3n
SB 391	08-20-03	<8	M	<.06	3.1	26.2	27	<.02	.4	2.39	E.3n
SB 151	08-20-03	20	30	<.06	10.1	24.2	24	<.02	.4	3.46	<.5
SB1408	07-23-03	20	80	<.06	4.4	3.9	4	<.02	E.1n	2.78	E.4n
	08-14-03	13	190	.48	5.2	7.8	36.5	<.02	E.1n	4.13	E.4n
SB1350	07-17-03	803	1,220	.17	21.7	469	454	<.02	.8	1.38	<.5
SB 392	09-03-03	<8	M	<.06	--	<.4	<.6	<.02	<.2	<.16	<.5
	09-03-03	<8	30	.42	5.1	139	137	<.02	E.2n	2.30	.5
SB1451	07-16-03	<8	100	.81	2.0	2.1	3	<.02	E.2n	1.19	E.3n
SB1457	07-16-03	E7n	50	.25	8.7	99.5	85.1	<.02	1.6	.74	<.5
SB 224	07-24-03	<8	<6	<.06	5.0	E.4n	<.22	<.02	.3	2.25	<.5
	07-24-03	<8	<6	.21	6.7	E.4n	<.22	<.02	.3	2.25	E.3n
	07-24-03	<8	<6	<.06	<.5	<.4	<.22	<.02	<.2	<.16	<.5
SB 229	07-09-03	588	530	.08	11.2	233	225	<.02	4.7	1.23	<.5
SB1077	07-09-03	<8	320	.60	9.9	<.4	320	<.02	E.1n	1.12	<.5
SB 390	07-24-03	<8	Mn	.07	9.6	1.0	M	<.02	1.6	2.81	E.3n

Aquifers within the Chemung River Basin—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Local identifier	Date	Silver, water, unfltrd recover -able, ug/L (01077)	Zinc, water, unfltrd recover -able, ug/L (01092)	Phen- olic com- pounds, water, unfltrd ug/L (32730)	Rn-222, water, unfltrd pCi/L (82303)	Tritium water unfltrd pCi/L (07000)	Uranium natural water unfltrd ug/L (28011)
CHEMUNG COUNTY							
CM 954	07-08-03	<.16	80	<16	100	28	.097
	07-08-03	<.16	80	<16	90	28	.100
CM 626	07-02-03	<.16	3	--	540	13	.606
	07-15-03	--	--	<16	--	--	--
CM 904	07-02-03	<.16	17	--	450	M	.030
	07-15-03	--	--	<16	--	--	--
CM 634	07-31-03	<.16	<2	<16	670	33	.088
CM 637	08-12-03	<.16	18	<16	750	32	.220
CM 635	08-12-03	<.16	9	<16	840	37	.098
CM 636	08-12-03	<.16	7	<16	740	35	.146
CM 631	07-10-03	<.16	2	<16	160	17	.087
CM 630	07-30-03	<.16	E1n	<16	760	39	.202
CM 82	07-30-03	<.16	3	<16	950	34	.281
CM 633	08-06-03	<.16	E2n	<16	300	8	.036
CM 627	08-06-03	<.16	19	<16	390	28	E.010n
CM 632	07-30-03	<.16	<2	<16	580	32	.205
CM 628	07-22-03	<.16	6	<16	570	36	.138
CM 629	07-23-03	<.16	<2	<16	810	2	.156
CM 625	08-13-03	<.16	3	<16	570	30	.301
SCHUYLER COUNTY							
SY 911	09-04-03	<.16	5	<16	300	4	E.007n
SY1016	06-26-03	<.16	<2	<16	210	32	.292
STEUBEN COUNTY							
SB 382	07-01-03	<.16	5	<16	550	32	.127
SB 63	06-25-03	<.16	3	<16	630	30	.284
SB 380	06-25-03	<.16	3	<16	730	35	.172
SB 85	07-01-03	<.16	<2	<16	1,700	31	1.17
SB1420	07-08-03	<.16	28	<16	520	8	.029
SB1447	07-10-03	<.16	151	<16	2,130	M	.171
SB1470	06-26-03	<.16	3	<16	2,580	20	.102
SB1066	07-23-03	<.16	40	<16	1,010	35	.311
	08-19-03	<.16	13	--r	1,580	35	.360
SB 391	08-20-03	<.16	14	<16	610	38	.322
SB 151	08-20-03	<.16	<2	<16	760	37	.955
SB1408	07-23-03	<.16	5	<16	1,140	41	.642
	08-14-03	<.16	22	<16	630	43	.862
SB1350	07-17-03	<.16	2	<16	1,540	2	1.01
SB 392	09-03-03	<.16	<2	<16	-10	--	<.012
	09-03-03	<.16	<2	<16	490	40	.373
SB1451	07-16-03	<.16	60	<16	1,030	36	.119
SB1457	07-16-03	<.16	3	<16	2,420	10	.587
SB 224	07-24-03	<.16	5	<16	760	36	.290
	07-24-03	<.16	5	--r	740	37	.287
	07-24-03	<.16	<2	<16	--	31	<.012
SB 229	07-09-03	<.16	<2	<16	250	37	.600
SB1077	07-09-03	<.16	13	<16	2,180	25	.281
SB 390	07-24-03	<.16	3	<16	490	40	.509

Remark codes used in this table:
- < -- Less than
- E -- Estimated value
- M -- Presence verified, not quantified

Value qualifier codes used in this table:
- c -- See laboratory comment
- d -- Diluted sample: method hi range exceeded
- n -- Below the NDV

Null value qualifier codes used in this table:
- r -- Sample ruined in preparation

Aquifers within the Chemung River Basin—Continued

ORGANIC COMPOUNDS

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Local identifier	Date	Time	1,1,1-Tri-chloro-ethane, water, unfltrd ug/L (34506)	CFC-113 water unfltrd ug/L (77652)	1,1-Di-chloro-ethane, water unfltrd ug/L (34496)	1,1-Di-chloro-ethene, water, unfltrd ug/L (34501)	1,2-Di-chloro-benzene water unfltrd ug/L (34536)	1,2-Di-chloro-ethane, water, unfltrd ug/L (32103)	1,2-Di-chloro-ethane-d4, sur Sch2090 wat unf pct rcv (99832)	1,2-Di-chloro-propane water unfltrd ug/L (34541)	1,3-Di-chloro-benzene water unfltrd ug/L (34566)
CHEMUNG COUNTY											
CM 626	07-15-03	1100	<.1	<.1	<.1	<.1	<.1	<.2	136	<.1	<.1
CM 954	07-08-03	0900	<.1	<.1	<.1	<.1	<.1	<.2	108	<.1	<.1
CM 904	07-15-03	0900	<.1	<.1	<.1	<.1	<.1	<.2	129	<.1	<.1
CM 634	07-31-03	0900	<.1	<.1	<.1	<.1	<.1	<.2	122	<.1	<.1
CM 637	08-12-03	0900	<.1	<.1	<.1	<.1	<.1	<.2	133	<.1	<.1
CM 635	08-12-03	0800	<.1	<.1	<.1	<.1	<.1	<.2	133	<.1	<.1
CM 636	08-12-03	1000	<.1	<.1	<.1	<.1	<.1	<.2	133	<.1	<.1
CM 631	07-10-03	0900	<.1	<.1	<.1	<.1	<.1	<.2	126	<.1	<.1
CM 630	07-30-03	0700	<.1	<.1	<.1	<.1	<.1	<.2	131	<.1	<.1
CM 82	07-30-03	0800	2.1	<.1	<.1	<.1	<.1	<.2	125	<.1	<.1
CM 633	08-06-03	1100	<.1	<.1	<.1	<.1	<.1	<.2	119	<.1	<.1
CM 627	08-06-03	1200	<.1	<.1	<.1	<.1	<.1	<.2	119	<.1	<.1
CM 632	07-30-03	1000	<.1	<.1	<.1	<.1	<.1	<.2	128	<.1	<.1
CM 628	07-22-03	1300	<.1	<.1	<.1	<.1	<.1	<.2	111	<.1	<.1
CM 629	07-23-03	0900	<.1	<.1	<.1	<.1	<.1	<.2	123	<.1	<.1
CM 625	08-13-03	0900	<.1	<.1	<.1	<.1	<.1	<.2	132	<.1	<.1
SCHUYLER COUNTY											
SY 911	09-04-03	1100	<.1	<.1	<.1	<.1	<.1	<.2	101	<.1	<.1
SY1016	06-26-03	0900	<.1	<.1	<.1	<.1	<.1	<.2	137	<.1	<.1
STEUBEN COUNTY											
SB 382	07-01-03	0900	<.1	<.1	<.1	<.1	<.1	<.2	126	<.1	<.1
SB 63	06-25-03	0900	.4	<.1	<.1	<.1	<.1	<.2	109	<.1	<.1
SB 380	06-25-03	1100	<.1	<.1	<.1	<.1	<.1	<.2	105	<.1	<.1
SB 85	07-01-03	1100	.3	<.1	.2	<.1	<.1	<.2	123	<.1	<.1
SB1420	07-08-03	1030	<.1	<.1	<.1	<.1	<.1	<.2	104	<.1	<.1
SB1447	07-10-03	1100	<.1	<.1	<.1	<.1	<.1	<.2	126	<.1	<.1
SB1470	06-26-03	1130	<.1	<.1	<.1	<.1	<.1	<.2	136	<.1	<.1
SB1066	07-23-03	1200	<.1	<.1	<.1	<.1	<.1	<.2	119	<.1	<.1
	08-19-03	1000	<.1	<.1	<.1	<.1	<.1	<.2	127	<.1	<.1
SB 391	08-20-03	1000	<.1	<.1	<.1	<.1	<.1	<.2	120	<.1	<.1
SB 151	08-20-03	0900	<.1	<.1	<.1	<.1	<.1	<.2	117	<.1	<.1
SB1408	07-23-03	1000	<.1	<.1	<.1	<.1	<.1	<.2	121	<.1	<.1
	08-14-03	0900	<.1	<.1	<.1	<.1	<.1	<.2	134	<.1	<.1
SB1350	07-17-03	0900	<.1	<.1	<.1	<.1	<.1	<.2	113	<.1	<.1
SB 392	09-03-03	0700	<.1	<.1	<.1	<.1	<.1	<.2	99.9	<.1	<.1
SB1451	07-16-03	1000	<.1	<.1	<.1	<.1	<.1	<.2	142	<.1	<.1
SB1457	07-16-03	1200	<.1	<.1	<.1	<.1	<.1	<.2	139	<.1	<.1
SB 224	07-24-03	1100	.1	<.1	<.1	<.1	<.1	<.2	125	<.1	<.1
SB 229	07-09-03	0900	<.1	<.1	<.1	<.1	<.1	<.2	115	<.1	<.1
SB1077	07-09-03	1100	<.1	<.1	<.1	<.1	<.1	<.2	116	<.1	<.1
SB 390	07-24-03	1200	<.1	<.1	<.1	<.1	<.1	<.2	124	<.1	<.1

Aquifers within the Chemung River Basin—Continued

ORGANIC COMPOUNDS

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Local identifier	Date	1,4-Di-chloro-benzene water unfltrd ug/L (34571)	14Bromo fluoro-benzene surrog. VOC Sch wat unf pct rcv (99834)	Benzene water unfltrd ug/L (34030)	Bromo-di-chloro-methane water unfltrd ug/L (32101)	Chloro-benzene water unfltrd ug/L (34301)	cis-1,2-Di-chloro-ethene, water, unfltrd ug/L (77093)	Di-bromo-chloro-methane water unfltrd ug/L (32105)	Di-chloro-di-fluoro-methane wat unf ug/L (34668)	Di-chloro-methane water unfltrd ug/L (34423)	Di-ethyl ether, water, unfltrd ug/L (81576)
					CHEMUNG COUNTY						
CM 626	07-15-03	<.1	82.3	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2
CM 954	07-08-03	<.1	99.3	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2
CM 904	07-15-03	<.1	109	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2
CM 634	07-31-03	<.1	92.7	<.1	<.1	<.1	<.1	<.2	<.2mc	<.2	<.2
CM 637	08-12-03	<.1	77.2	<.1	<.1	<.1	<.1	<.2	<.2mc	<.2	<.2
CM 635	08-12-03	<.1	81.5	<.1	<.1	<.1	<.1	<.2	<.2mc	<.2	<.2
CM 636	08-12-03	<.1	82.9	<.1	<.1	<.1	.2	<.2	<.2mc	<.2	<.2
CM 631	07-10-03	<.1	77.2	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2
CM 630	07-30-03	<.1	74.0	<.1	<.1	<.1	<.1	<.2	<.2mc	<.2	<.2
CM 82	07-30-03	<.1	72.2	<.1	<.1	<.1	<.1	<.2	<.2mc	<.2	<.2
CM 633	08-06-03	<.1	84.5	<.1	<.1	<.1	<.1	<.2	<.2mc	<.2	<.2
CM 627	08-06-03	<.1	81.3	<.1	<.1	<.1	<.1	<.2	<.2mc	<.2	<.2
CM 632	07-30-03	<.1	74.6	<.1	<.1	<.1	<.1	<.2	<.2mc	<.2	<.2
CM 628	07-22-03	<.1	97.0	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2
CM 629	07-23-03	<.1	75.0	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2
CM 625	08-13-03	<.1	70.2	<.1	<.1	<.1	<.1	<.2	<.2mc	<.2	<.2
					SCHUYLER COUNTY						
SY 911	09-04-03	<.1	95.5	<.1	<.1	<.1	<.1	<.2	<.2mc	<.2	<.2
SY1016	06-26-03	<.1	112	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2
					STEUBEN COUNTY						
SB 382	07-01-03	<.1	77.6	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2
SB 63	06-25-03	<.1	85.3	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2
SB 380	06-25-03	<.1	90.9	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2
SB 85	07-01-03	<.1	77.0	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2
SB1420	07-08-03	<.1	97.4	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2
SB1447	07-10-03	<.1	90.0	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2
SB1470	06-26-03	<.1	112	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2
SB1066	07-23-03	<.1	76.6	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2
	08-19-03	<.1	76.2	<.1	<.1	<.1	<.1	<.2	<.2mc	<.2	<.2
SB 391	08-20-03	<.1	87.8	<.1	.3	<.1	<.1	.2	<.2mc	<.2	<.2
SB 151	08-20-03	<.1	88.3	<.1	.2	<.1	<.1	.2	<.2mc	<.2	<.2
SB1408	07-23-03	<.1	76.0	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2
	08-14-03	<.1	68.7	<.1	.2	<.1	<.1	<.2	<.2mc	<.2	<.2
SB1350	07-17-03	<.1	77.9	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2
SB 392	09-03-03	<.1	87.3	<.1	<.1	<.1	<.1	<.2	<.2mc	<.2	<.2
SB1451	07-16-03	<.1	84.2	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2
SB1457	07-16-03	<.1	84.5	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2
SB 224	07-24-03	<.1	78.8	<.1	.2	<.1	<.1	.3	<.2	<.2	<.2
SB 229	07-09-03	<.1	99.8	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2
SB1077	07-09-03	<.1	98.8	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2
SB 390	07-24-03	<.1	79.8	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2

Aquifers within the Chemung River Basin—Continued

ORGANIC COMPOUNDS

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Local identifier	Date	Diiso-propyl ether, water, unfltrd ug/L (81577)	Ethyl-benzene water unfltrd ug/L (34371)	Methyl tert-pentyl ether, water, unfltrd ug/L (50005)	meta- + para-Xylene, water, unfltrd ug/L (85795)	o-Xylene, water, unfltrd ug/L (77135)	Styrene water unfltrd ug/L (77128)	t-Butyl ethyl ether, water, unfltrd ug/L (50004)	Methyl t-butyl ether, water, unfltrd ug/L (78032)	Tetra-chloro-ethene, water, unfltrd ug/L (34475)	Tetra-chloro-methane water unfltrd ug/L (32102)
CHEMUNG COUNTY											
CM 626	07-15-03	<.2	<.1	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2
CM 954	07-08-03	<.2	<.1	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2
CM 904	07-15-03	<.2	<.1	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2
CM 634	07-31-03	<.2	<.1	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2
CM 637	08-12-03	<.2	<.1	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2
CM 635	08-12-03	<.2	<.1	<.2	<.2	<.1	<.1	<.1	<.2	.4	<.2
CM 636	08-12-03	<.2	<.1	<.2	<.2	<.1	<.1	<.1	<.2	1.7	<.2
CM 631	07-10-03	<.2	<.1	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2
CM 630	07-30-03	<.2	<.1	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2
CM 82	07-30-03	<.2	<.1	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2
CM 633	08-06-03	<.2	<.1	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2
CM 627	08-06-03	<.2	<.1	<.2	<.2	<.1	<.1	<.1	E.2	<.1	<.2
CM 632	07-30-03	<.2	<.1	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2
CM 628	07-22-03	<.2	<.1	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2
CM 629	07-23-03	<.2	<.1	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2
CM 625	08-13-03	<.2	<.1	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2
SCHUYLER COUNTY											
SY 911	09-04-03	<.2	<.1	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2
SY1016	06-26-03	<.2	<.1	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2
STEUBEN COUNTY											
SB 382	07-01-03	<.2	<.1	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2
SB 63	06-25-03	<.2	<.1	<.2	<.2	<.1	<.1	<.1	<.2	1.4	<.2
SB 380	06-25-03	<.2	<.1	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2
SB 85	07-01-03	<.2	<.1	<.2	<.2	<.1	<.1	<.1	.4	<.1	<.2
SB1420	07-08-03	<.2	<.1	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2
SB1447	07-10-03	<.2	<.1	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2
SB1470	06-26-03	<.2	<.1	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2
SB1066	07-23-03	<.2	<.1	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2
	08-19-03	<.2	<.1	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2
SB 391	08-20-03	<.2	<.1	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2
SB 151	08-20-03	<.2	<.1	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2
SB1408	07-23-03	<.2	<.1	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2
	08-14-03	<.2	<.1	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2
SB1350	07-17-03	<.2	<.1	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2
SB 392	09-03-03	<.2	<.1	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2
SB1451	07-16-03	<.2	<.1	<.2	<.2	<.1	<.1	<.1	<.2	.1	<.2
SB1457	07-16-03	<.2	<.1	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2
SB 224	07-24-03	<.2	<.1	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2
SB 229	07-09-03	<.2	<.1	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2
SB1077	07-09-03	<.2	<.1	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2
SB 390	07-24-03	<.2	<.1	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2

Aquifers within the Chemung River Basin—Continued

ORGANIC COMPOUNDS

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Local identifier	Date	Toluene water unfltrd ug/L (34010)	Toluene -d8, surrog, Sch2090 wat unf percent recovry (99833)	trans-1,2-Dichloroethene, water, unfltrd ug/L (34546)	Tribromomethane water unfltrd ug/L (32104)	Trichloroethene, water, unfltrd ug/L (39180)	Trichlorofluoromethane water unfltrd ug/L (34488)	Trichloromethane water unfltrd ug/L (32106)	Vinyl chloride, water, unfltrd ug/L (39175)
CHEMUNG COUNTY									
CM 626	07-15-03	<.1	103	<.1	<.2	<.1	<.2	<.1	<.2
CM 954	07-08-03	<.1	98.3	<.1	<.2	<.1	<.2	<.1	<.2
CM 904	07-15-03	.3	103	<.1	<.2	<.1	<.2	<.1	<.2
CM 634	07-31-03	<.1	101	<.1	<.2	<.1	<.2	<.1	<.2
CM 637	08-12-03	<.1	99.1	<.1	<.2	<.1	<.2	.1	<.2
CM 635	08-12-03	<.1	101	<.1	<.2	<.1	<.2	.2	<.2
CM 636	08-12-03	<.1	100	<.1	<.2	.2	<.2	.3	<.2
CM 631	07-10-03	<.1	106	<.1	<.2	<.1	<.2	<.1	<.2
CM 630	07-30-03	<.1	98.1	<.1	<.2	.1	<.2	<.1	<.2
CM 82	07-30-03	<.1	95.5	<.1	<.2	<.1	<.2	<.1	<.2
CM 633	08-06-03	<.1	102	<.1	<.2	<.1	<.2	<.1	<.2
CM 627	08-06-03	<.1	101	<.1	<.2	<.1	<.2	<.1	<.2
CM 632	07-30-03	<.1	98.7	<.1	<.2	<.1	<.2	<.1	<.2
CM 628	07-22-03	<.1	96.5	<.1	<.2	<.1	<.2	<.1	<.2
CM 629	07-23-03	<.1	100	<.1	<.2	<.1	<.2	<.1	<.2
CM 625	08-13-03	<.1	96.7	<.1	<.2	<.1	<.2	<.1	<.2
SCHUYLER COUNTY									
SY 911	09-04-03	<.1	99.4	<.1	<.2	<.1	<.2	<.1	<.2
SY1016	06-26-03	<.1	104	<.1	<.2	<.1	<.2	<.1	<.2
STEUBEN COUNTY									
SB 382	07-01-03	<.1	99.0	<.1	<.2	<.1	<.2	<.1	<.2
SB 63	06-25-03	<.1	98.0	<.1	<.2	.7	<.2	<.1	<.2
SB 380	06-25-03	<.1	97.1	<.1	<.2	<.1	<.2	<.1	<.2
SB 85	07-01-03	<.1	97.9	<.1	<.2	<.1	<.2	<.1	<.2
SB1420	07-08-03	<.1	97.6	<.1	<.2	<.1	<.2	<.1	<.2
SB1447	07-10-03	<.1	101	<.1	<.2	<.1	<.2	<.1	<.2
SB1470	06-26-03	<.1	102	<.1	<.2	<.1	<.2	<.1	<.2
SB1066	07-23-03	<.1	99.3	<.1	<.2	<.1	<.2	<.1	<.2
	08-19-03	<.1	98.5	<.1	<.2	<.1	<.2	<.1	<.2
SB 391	08-20-03	<.1	94.9	<.1	<.2	<.1	<.2	.6	<.2
SB 151	08-20-03	<.1	91.6	<.1	<.2	<.1	<.2	.8	<.2
SB1408	07-23-03	<.1	99.2	<.1	<.2	<.1	<.2	.1	<.2
	08-14-03	<.1	96.8	<.1	<.2	<.1	<.2	1.9	<.2
SB1350	07-17-03	<.1	97.0	<.1	<.2	<.1	<.2	<.1	<.2
SB 392	09-03-03	<.1	98.1	<.1	<.2	<.1	<.2	<.1	<.2
SB1451	07-16-03	<.1	104	<.1	<.2	<.1	<.2	<.1	<.2
SB1457	07-16-03	<.1	104	<.1	<.2	<.1	<.2	<.1	<.2
SB 224	07-24-03	<.1	101	<.1	.3	<.1	<.2	<.1	<.2
SB 229	07-09-03	<.1	99.7	<.1	<.2	<.1	<.2	<.1	<.2
SB1077	07-09-03	<.1	99.0	<.1	<.2	<.1	<.2	.1	<.2
SB 390	07-24-03	<.1	101	<.1	<.2	<.1	<.2	<.1	<.2

Remark codes used in this table:
< -- Less than
E -- Estimated value

Value qualifier codes used in this table:
c -- See laboratory comment
m -- Highly var comp using method, ? prec

Aquifers within the Chemung River Basin—Continued

PESTICIDE ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Local identifier	Date	Time	2,6-Diethyl-aniline water fltrd 0.7u GF ug/L (82660)	Acetochlor ESA, water, fltrd 0.7u GF ug/L (61029)	Acetochlor OA, water, fltrd 0.7u GF ug/L (61030)	Acetochlor SAA, water, fltrd, ug/L (62847)	Acetochlor, water, fltrd, ug/L (49260)	Alachlor ESA, water, fltrd 0.7u GF ug/L (50009)	Alachlor OA, water, fltrd 0.7u GF ug/L (61031)	Alachlor, water, fltrd, ug/L (46342)	alpha-HCH, water, fltrd, ug/L (34253)
CHEMUNG COUNTY											
CM 626	07-02-03	1200	<.006	<.05	<.05	<.05	<.006	<.05	<.05	<.004	<.005
CM 634	07-31-03	0900	<.006	<.05	<.05	<.05	<.006	<.05	<.05	<.004	<.005
CM 637	08-12-03	0900	<.006	<.05	<.05	<.05	<.006	<.05	<.05	<.004	<.005
CM 635	08-12-03	0800	<.006	<.05	<.05	<.05	<.006	<.05	<.05	<.004	<.005
CM 636	08-12-03	1000	<.006	<.05	<.05	<.05	<.006	<.05	<.05	<.004	<.005
CM 630	07-30-03	0700	<.006	<.05	<.05	<.05	<.006	.22	<.05	<.004	<.005
CM 82	07-30-03	0800	<.006	<.05	<.05	<.05	<.006	<.05	<.05	<.004	<.005
CM 633	08-06-03	1100	<.006	<.05	<.05	<.05	<.006	<.05	<.05	<.004	<.005
CM 627	08-06-03	1200	<.006	<.05	<.05	<.05	<.006	<.05	<.05	<.004	<.005
CM 626	07-15-03	1100	--	--	--	--	--	--	--	--	--
CM 632	07-30-03	1000	<.006	<.05	<.05	<.05	<.006	<.05	<.05	<.004	<.005
CM 628	07-22-03	1300	<.006	<.05	<.05	<.05	<.006	<.05	<.05	<.004	<.005
CM 625	08-13-03	0900	<.006	<.05	<.05	<.05	<.006	.75	<.05	<.004	<.005
SCHUYLER COUNTY											
SY1016	06-26-03	0900	<.006	<.05	<.05	<.05	<.006	<.05	<.05	<.004	<.005
STEUBEN COUNTY											
SB 382	07-01-03	0900	<.006	<.05	<.05	<.05	<.006	<.05	<.05	<.004	<.005
SB 63	06-25-03	0900	<.006	<.05	<.05	<.05	<.006	<.05	<.05	<.004	<.005
SB 380	06-25-03	1100	<.006	<.05	<.05	<.05	<.006	<.05	<.05	<.004	<.005
SB 85	07-01-03	1100	<.006	<.05	<.05	<.05	<.006	<.05	<.05	<.004	<.005
SB1420	07-08-03	1030	<.006	<.05	<.05	<.05	<.006	<.05	<.05	<.004	<.005
SB1470	06-26-03	1130	<.006	<.05	<.05	<.05	<.006	<.05	<.05	<.004	<.005
SB1066	08-19-03	1000	--	<.05	<.05	<.05	--	<.05	<.05	--	--
SB 391	08-20-03	1000	<.006	<.05	<.05	<.05	<.006	<.05	<.05	<.004	<.005
SB 151	08-20-03	0900	<.006	<.05	<.05	<.05	<.006	.05	<.05	<.004	<.005
SB1408	07-23-03	1000	--r	<.05	<.05	<.05	--r	<.05	<.05	--r	--r
	08-14-03	0900	<.006	<.05	<.05	<.05	<.006	<.05	<.05	<.004	<.005
SB 392	09-03-03	0700	<.006	<.05	<.05	<.05	<.006	<.05	<.05	<.004	<.005
SB1451	07-16-03	1000	<.006	<.05	<.05	<.05	<.006	<.05	<.05	<.004	<.005
SB 224	07-24-03	1100	--r	.06	<.05	<.05	--r	<.05	.08	--r	--r
SB 229	07-09-03	0900	<.006	<.05	<.05	<.05	<.006	<.05	<.05	<.004	<.005
SB 390	07-24-03	1200	--r	<.05	<.05	<.05	--r	<.05	<.05	--r	--r
	08-28-03	1030	<.006	<.05	<.05	<.05	<.006	<.05	<.05	<.004	<.005

Aquifers within the Chemung River Basin—Continued

PESTICIDE ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Local identifier	Date	Azinphos-methyl, water, fltrd 0.7u GF ug/L (82686)	Benflur-alin, water, fltrd 0.7u GF ug/L (82673)	Butylate, water, fltrd, ug/L (04028)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)	Carbofuran, water, fltrd 0.7u GF ug/L (82674)	Chlorpyrifos water, fltrd, ug/L (38933)	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Cyanazine, water, fltrd, ug/L (04041)	DCPA, water fltrd 0.7u GF ug/L (82682)	Diazinon, water, fltrd, ug/L (39572)
CHEMUNG COUNTY											
CM 626	07-02-03	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.005
CM 634	07-31-03	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.005
CM 637	08-12-03	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.005
CM 635	08-12-03	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.005
CM 636	08-12-03	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.005
CM 630	07-30-03	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.005
CM 82	07-30-03	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.005
CM 633	08-06-03	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.005
CM 627	08-06-03	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.005
CM 626	07-15-03	--	--	--	--	--	--	--	--	--	--
CM 632	07-30-03	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.005
CM 628	07-22-03	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.005
CM 625	08-13-03	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.005
SCHUYLER COUNTY											
SY1016	06-26-03	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.005
STEUBEN COUNTY											
SB 382	07-01-03	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.005
SB 63	06-25-03	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.005
SB 380	06-25-03	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.005
SB 85	07-01-03	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.005
SB1420	07-08-03	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.005
SB1470	06-26-03	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.005
SB1066	08-19-03	--	--	--	--	--	--	--	--	--	--
SB 391	08-20-03	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.005
SB 151	08-20-03	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.005
SB1408	07-23-03	--r	--r	--r	--r	--r	--r	--r	--r	--r	--r
	08-14-03	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.005
SB 392	09-03-03	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.005
SB1451	07-16-03	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.005
SB 224	07-24-03	--r	--r	--r	--r	--r	--r	--r	--r	--r	--r
SB 229	07-09-03	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.005
SB 390	07-24-03	--r	--r	--r	--r	--r	--r	--r	--r	--r	--r
	08-28-03	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.005

Aquifers within the Chemung River Basin—Continued

PESTICIDE ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Local identifier	Date	Dieldrin, water, fltrd, ug/L (39381)	Dimethenamid ESA, water, fltrd, ug/L (61951)	Dimethenamid OA, water, fltrd, ug/L (62482)	Disulfoton, water, fltrd 0.7u GF ug/L (82677)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethalfluralin, water, fltrd 0.7u GF ug/L (82663)	Ethoprop, water, fltrd 0.7u GF ug/L (82672)	Flufenacet ESA, water, fltrd, ug/L (61952)	Flufenacet OA, water, fltrd, ug/L (62483)	Fonofos water, fltrd, ug/L (04095)
CHEMUNG COUNTY											
CM 626	07-02-03	<.005	<.05	<.05	<.02	<.002	<.009	<.005	<.05	<.05	<.003
CM 634	07-31-03	<.005	<.05	<.05	<.02	<.002	<.009	<.005	<.05	<.05	<.003
CM 637	08-12-03	<.005	<.05	<.05	<.02	<.002	<.009	<.005	<.05	<.05	<.003
CM 635	08-12-03	<.005	<.05	<.05	<.02	<.002	<.009	<.005	<.05	<.05	<.003
CM 636	08-12-03	<.005	<.05	<.05	<.02	<.002	<.009	<.005	<.05	<.05	<.003
CM 630	07-30-03	<.005	<.05	<.05	<.02	<.002	<.009	<.005	<.05	<.05	<.003
CM 82	07-30-03	<.005	<.05	<.05	<.02	<.002	<.009	<.005	<.05	<.05	<.003
CM 633	08-06-03	<.005	<.05	<.05	<.02	<.002	<.009	<.005	<.05	<.05	<.003
CM 627	08-06-03	<.005	<.05	<.05	<.02	<.002	<.009	<.005	<.05	<.05	<.003
CM 626	07-15-03	--	--	--	--	--	--	--	--	--	--
CM 632	07-30-03	<.005	<.05	<.05	<.02	<.002	<.009	<.005	<.05	<.05	<.003
CM 628	07-22-03	<.005	<.05	<.05	<.02	<.002	<.009	<.005	<.05	<.05	<.003
CM 625	08-13-03	<.005	<.05	<.05	<.02	<.002	<.009	<.005	<.05	<.05	<.003
SCHUYLER COUNTY											
SY1016	06-26-03	<.005	<.05	<.05	<.02	<.002	<.009	<.005	<.05	<.05	<.003
STEUBEN COUNTY											
SB 382	07-01-03	<.005	<.05	<.05	<.02	<.002	<.009	<.005	<.05	<.05	<.003
SB 63	06-25-03	<.005	<.05	<.05	<.02	<.002	<.009	<.005	<.05	<.05	<.003
SB 380	06-25-03	<.005	<.05	<.05	<.02	<.002	<.009	<.005	<.05	<.05	<.003
SB 85	07-01-03	<.005	<.05	<.05	<.02	<.002	<.009	<.005	<.05	<.05	<.003
SB1420	07-08-03	<.005	<.05	<.05	<.02	<.002	<.009	<.005	<.05	<.05	<.003
SB1470	06-26-03	<.005	<.05	<.05	<.02	<.002	<.009	<.005	<.05	<.05	<.003
SB1066	08-19-03	--	<.05	<.05	--	--	--	--	<.05	<.05	--
SB 391	08-20-03	<.005	<.05	<.05	<.02	<.002	<.009	<.005	<.05	<.05	<.003
SB 151	08-20-03	<.005	<.05	<.05	<.02	<.002	<.009	<.005	<.05	<.05	<.003
SB1408	07-23-03	--r	<.05	<.05	--r	--r	--r	--r	<.05	<.05	--r
	08-14-03	<.005	<.05	<.05	<.02	<.002	<.009	<.005	<.05	<.05	<.003
SB 392	09-03-03	<.005	<.05	<.05	<.02	<.002	<.009	<.005	<.05	<.05	<.003
SB1451	07-16-03	<.005	<.05	<.05	<.02	<.002	<.009	<.005	<.05	<.05	<.003
SB 224	07-24-03	--r	<.05	<.05	--r	--r	--r	--r	<.05	<.05	--r
SB 229	07-09-03	<.005	<.05	<.05	<.02	<.002	<.009	<.005	<.05	<.05	<.003
SB 390	07-24-03	--r	<.05	<.05	--r	--r	--r	--r	<.05	<.05	--r
	08-28-03	<.005	<.05	<.05	<.02	<.002	<.009	<.005	<.05	<.05	<.003

Aquifers within the Chemung River Basin—Continued

PESTICIDE ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Local identifier	Date	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (82666)	Malathion, water, fltrd, ug/L (39532)	Methyl parathion, water, fltrd 0.7u GF ug/L (82667)	Metolachlor ESA, water, fltrd 0.7u GF ug/L (61043)	Metolachlor OA, water, fltrd 0.7u GF ug/L (61044)	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)	Molinate, water, fltrd 0.7u GF ug/L (82671)	Napropamide, water, fltrd 0.7u GF ug/L (82684)
CHEMUNG COUNTY											
CM 626	07-02-03	<.004	<.035	<.027	<.006	<.05	<.05	<.013	<.006	<.002	<.007
CM 634	07-31-03	<.004	<.035	<.027	<.006	<.05	<.05	<.013	<.006	<.002	<.007
CM 637	08-12-03	<.004	<.035	<.027	<.006	.05	<.05	<.013	<.006	<.002	<.007
CM 635	08-12-03	<.004	<.035	<.027	<.006	.17	.17	E.009n	<.006	<.002	<.007
CM 636	08-12-03	<.004	<.035	<.027	<.006	.13	.05	<.013	<.006	<.002	<.007
CM 630	07-30-03	<.004	<.035	<.027	<.006	1.49	<.05	<.013	<.006	<.002	<.007
CM 82	07-30-03	<.004	<.035	<.027	<.006	<.05	<.05	<.013	<.006	<.002	<.007
CM 633	08-06-03	<.004	<.035	<.027	<.006	<.05	<.05	<.013	<.006	<.002	<.007
CM 627	08-06-03	<.004	<.035	<.027	<.006	<.05	<.05	<.013	<.006	<.002	<.007
CM 626	07-15-03	--	--	--	--	--	--	--	--	--	--
CM 632	07-30-03	<.004	<.035	<.027	<.006	<.05	<.05	<.013	<.006	<.002	<.007
CM 628	07-22-03	<.004	<.035	<.027	<.006	<.05	<.05	<.013	<.006	<.002	<.007
CM 625	08-13-03	<.004	<.035	<.027	<.006	.14	<.05	<.013	<.006	<.002	<.007
SCHUYLER COUNTY											
SY1016	06-26-03	<.004	<.035	<.027	<.006	<.05	<.05	<.013	<.006	<.002	<.007
STEUBEN COUNTY											
SB 382	07-01-03	<.004	<.035	<.027	<.006	<.05	<.05	<.013	<.006	<.002	<.007
SB 63	06-25-03	<.004	<.035	<.027	<.006	<.05	<.05	<.013	<.006	<.002	<.007
SB 380	06-25-03	<.004	<.035	<.027	<.006	.15	.05	<.013	<.006	<.002	<.007
SB 85	07-01-03	<.004	<.035	<.027	<.006	<.05	<.05	<.013	<.006	<.002	<.007
SB1420	07-08-03	<.004	<.035	<.027	<.006	<.05	<.05	<.013	<.006	<.002	<.007
SB1470	06-26-03	<.004	<.035	<.027	<.006	<.05	<.05	<.013	<.006	<.002	<.007
SB1066	08-19-03	--	--	--	--	<.05	<.05	--	--	--	--
SB 391	08-20-03	<.004	<.035	<.027	<.006	.23	<.05	<.013	<.006	<.002	<.007
SB 151	08-20-03	<.004	<.035	<.027	<.006	<.05	<.05	<.013	<.006	<.002	<.007
SB1408	07-23-03	--r	--r	--r	--r	.08	<.05	--r	--r	--r	--r
	08-14-03	<.004	<.035	<.027	<.006	.16	.11	.019	<.006	<.002	<.007
SB 392	09-03-03	<.004	<.035	<.027	<.006	.41	.12	<.013	<.006	<.002	<.007
SB1451	07-16-03	<.004	<.035	<.027	<.006	.23	<.05	<.013	<.006	<.002	<.007
SB 224	07-24-03	--r	--r	--r	--r	.53	1.50	--r	--r	--r	--r
SB 229	07-09-03	<.004	<.035	<.027	<.006	<.05	<.05	<.013	<.006	<.002	<.007
SB 390	07-24-03	--r	--r	--r	--r	.08	<.05	--r	--r	--r	--r
	08-28-03	<.004	<.035	<.027	<.006	<.05	<.05	<.013	<.006	<.002	<.007

Aquifers within the Chemung River Basin—Continued

PESTICIDE ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Local identifier	Date	p,p'-DDE, water, fltrd, ug/L (34653)	Para-thion, water, fltrd, ug/L (39542)	Peb-ulate, water, fltrd 0.7u GF ug/L (82669)	Pendi-meth-alin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Prome-ton, water, fltrd, ug/L (04037)	Pron-amide, water, fltrd 0.7u GF ug/L (82676)	Propa-chlor ESA, water, fltrd 0.7u GF ug/L (62766)	Propa-chlor OA, water, fltrd 0.7u GF ug/L (62767)	Propa-chlor, water, fltrd, ug/L (04024)
CHEMUNG COUNTY											
CM 626	07-02-03	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.05	<.05	<.010
CM 634	07-31-03	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.05	<.05	<.010
CM 637	08-12-03	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.05	<.05	<.010
CM 635	08-12-03	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.05	<.05	<.010
CM 636	08-12-03	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.05	<.05	<.010
CM 630	07-30-03	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.05	<.05	<.010
CM 82	07-30-03	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.05	<.05	<.010
CM 633	08-06-03	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.05	<.05	<.010
CM 627	08-06-03	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.05	<.05	<.010
CM 626	07-15-03	--	--	--	--	--	--	--	--	--	--
CM 632	07-30-03	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.05	<.05	<.010
CM 628	07-22-03	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.05	<.05	<.010
CM 625	08-13-03	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.05	<.05	<.010
SCHUYLER COUNTY											
SY1016	06-26-03	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.05	<.05	<.010
STEUBEN COUNTY											
SB 382	07-01-03	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.05	<.05	<.010
SB 63	06-25-03	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.05	<.05	<.010
SB 380	06-25-03	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.05	<.05	<.010
SB 85	07-01-03	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.05	<.05	<.010
SB1420	07-08-03	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.05	<.05	<.010
SB1470	06-26-03	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.05	<.05	<.010
SB1066	08-19-03	--	--	--	--	--	--	--	<.05	<.05	--
SB 391	08-20-03	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.05	<.05	<.010
SB 151	08-20-03	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.05	<.05	<.010
SB1408	07-23-03	--r	--r	--r	--r	--r	--r	--r	<.05	<.05	--r
	08-14-03	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.05	<.05	<.010
SB 392	09-03-03	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.05	<.05	<.010
SB1451	07-16-03	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.05	<.05	<.010
SB 224	07-24-03	--r	--r	--r	--r	--r	--r	--r	<.05	<.05	--r
SB 229	07-09-03	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.05	<.05	<.010
SB 390	07-24-03	--r	--r	--r	--r	--r	--r	--r	<.05	<.05	--r
	08-28-03	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.05	<.05	<.010

Aquifers within the Chemung River Basin—Continued

PESTICIDE ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Local identifier	Date	Pro- panil, water, fltrd 0.7u GF ug/L (82679)	Propar- gite, water, fltrd 0.7u GF ug/L (82685)	Sima- zine, water, fltrd, ug/L (04035)	Terba- cil, water, fltrd 0.7u GF ug/L (82665)	Terbu- fos, water, fltrd 0.7u GF ug/L (82675)	Thio- bencarb water fltrd 0.7u GF ug/L (82681)	Tri- allate, water, fltrd 0.7u GF ug/L (82678)	Tri- flur- alin, water, fltrd 0.7u GF ug/L (82661)
				CHEMUNG COUNTY					
CM 626	07-02-03	<.011	<.02	<.005	<.034	<.02	<.005	<.002	<.009
CM 634	07-31-03	<.011	<.02	<.005	<.034	<.02	<.005	<.002	<.009
CM 637	08-12-03	<.011	<.02	<.005	<.034	<.02	<.005	<.002	<.009
CM 635	08-12-03	<.011	<.02	<.005	<.034	<.02	<.005	<.002	<.009
CM 636	08-12-03	<.011	<.02	<.005	<.034	<.02	<.005	<.002	<.009
CM 630	07-30-03	<.011	<.02	<.005	<.034	<.02	<.005	<.002	<.009
CM 82	07-30-03	<.011	<.02	<.005	<.034	<.02	<.005	<.002	<.009
CM 633	08-06-03	<.011	<.02	<.005	<.034	<.02	<.005	<.002	<.009
CM 627	08-06-03	<.011	<.02	<.005	<.034	<.02	<.005	<.002	<.009
CM 626	07-15-03	--	--	--	--	--	--	--	--
CM 632	07-30-03	<.011	<.02	<.005	<.034	<.02	<.005	<.002	<.009
CM 628	07-22-03	<.011	<.02	<.005	<.034	<.02	<.005	<.002	<.009
CM 625	08-13-03	<.011	<.02	<.005	<.034	<.02	<.005	<.002	<.009
				SCHUYLER COUNTY					
SY1016	06-26-03	<.011	<.02	<.005	<.034	<.02	<.005	<.002	<.009
				STEUBEN COUNTY					
SB 382	07-01-03	<.011	<.02	<.005	<.034	<.02	<.005	<.002	<.009
SB 63	06-25-03	<.011	<.02	<.005	<.034	<.02	<.005	<.002	<.009
SB 380	06-25-03	<.011	<.02	<.005	<.034	<.02	<.005	<.002	<.009
SB 85	07-01-03	<.011	<.02	<.005	<.034	<.02	<.005	<.002	<.009
SB1420	07-08-03	<.011	<.02	<.005	<.034	<.02	<.005	<.002	<.009
SB1470	06-26-03	<.011	<.02	<.005	<.034	<.02	<.005	<.002	<.009
SB1066	08-19-03	--	--	--	--	--	--	--	--
SB 391	08-20-03	<.011	<.02	<.005	<.034	<.02	<.005	<.002	<.009
SB 151	08-20-03	<.011	<.02	<.005	<.034	<.02	<.005	<.002	<.009
SB1408	07-23-03	--r	--r	--r	--r	--r	--r	--r	--r
	08-14-03	<.011	<.02	<.005	<.034	<.02	<.005	<.002	<.009
SB 392	09-03-03	<.011	<.02	<.005	<.034	<.02	<.005	<.002	<.009
SB1451	07-16-03	<.011	<.02	<.005	<.034	<.02	<.005	<.002	<.009
SB 224	07-24-03	--r	--r	--r	--r	--r	--r	--r	--r
SB 229	07-09-03	<.011	<.02	<.005	<.034	<.02	<.005	<.002	<.009
SB 390	07-24-03	--r	--r	--r	--r	--r	--r	--r	--r
	08-28-03	<.011	<.02	<.005	<.034	<.02	<.005	<.002	<.009

Remark codes used in this table:
< -- Less than
E -- Estimated value

Value qualifier codes used in this table:
n -- Below the NDV

Null value qualifier codes used in this table:
r -- Sample ruined in preparation

Aquifers within the Chemung River Basin—Continued

PESTICIDE ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Local identifier	Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	2,4-DB water, fltrd 0.7u GF ug/L (38746)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	3-Hydroxy carbo-furan, wat flt 0.7u GF ug/L (49308)	3-Keto-carbo-furan, water, fltrd, ug/L (50295)	Aci-fluor-fen, water, fltrd 0.7u GF ug/L (49315)
CHEMUNG COUNTY											
CM 626	07-02-03	1210	<.009	<.02	<.02	<.03	<.04	<.008	<.006	<2	<.007
SCHUYLER COUNTY											
SY1016	06-26-03	0910	<.009	<.02	<.02	<.03	<.04	<.008	<.006	<2	<.007
STEUBEN COUNTY											
SB 382	07-15-03	1200	<.009	<.02	<.02	E.01	M	<.008	<.006	<2	<.007
SB 380	06-25-03	1110	<.009	<.02	<.02	M	<.04	E.008	<.006	<2	<.007
SB 224	06-09-03	1440	<.009	<.02	<.02	E.01	<.04	<.008	<.006	<2	<.007
	07-24-03	1110	<.009	<.02	<.02	E.01	<.04	<.008	<.006	<2	<.007
	08-28-03	1106	<.009	<.02	<.02	<.03	<.04	<.008	<.006	<2	<.007
	08-28-03	1110	<.009	<.02	<.02	E.01	M	<.008	<.006	<2	<.007
	08-28-03	1125	<.009	<.02	<.02	E.01	M	<.008	<.006	<2	<.007
SB 229	07-09-03	0910	<.009	<.02	<.02	<.03	<.04	<.008	<.006	<2	<.007

Local identifier	Date	Aldi-carb sulfone water, fltrd 0.7u GF ug/L (49313)	Aldi-carb sulf-oxide, wat flt 0.7u GF ug/L (49314)	Aldi-carb, water, fltrd 0.7u GF ug/L (49312)	Atra-zine, water, fltrd, ug/L (39632)	Bendio-carb, water, fltrd, ug/L (50299)	Benomyl water, fltrd, ug/L (50300)	Bensul-furon, water, fltrd, ug/L (61693)	Ben-tazon, water, fltrd 0.7u GF ug/L (38711)	Broma-cil, water, fltrd, ug/L (04029)	Brom-oxynil, water, fltrd 0.7u GF ug/L (49311)
CHEMUNG COUNTY											
CM 626	07-02-03	<.02	<.008	<.04	<.009	<.03	<.004	<.02	<.01	<.03	<.02
SCHUYLER COUNTY											
SY1016	06-26-03	<.02	<.008	<.04	<.009	<.03	<.004	<.02	<.01	<.03	<.02
STEUBEN COUNTY											
SB 382	07-15-03	<.02	<.008	<.04	<.009	<.03	<.004	<.02	<.01	<.03	<.02
SB 380	06-25-03	<.02	<.008	<.04	E.009	<.03	<.004	<.02	<.01	<.03	<.02
SB 224	06-09-03	<.02	<.008	<.04	.030	<.03	<.004	<.02	<.01	<.03	<.02
	07-24-03	<.02	<.008	<.04	.030	<.03	<.004	<.02	<.01	<.03	<.02
	08-28-03	<.02	<.008	<.04	<.009	<.03	<.004	<.02	<.01	<.03	<.02
	08-28-03	<.02	<.008	<.04	.034	<.03	<.004	<.02	<.01	<.03	<.02
	08-28-03	<.02	<.008	<.04	.033	<.03	<.004	<.02	<.01	<.03	<.02
SB 229	07-09-03	<.02	<.008	<.04	<.009	<.03	<.004	<.02	<.01	<.03	<.02

Aquifers within the Chemung River Basin—Continued

PESTICIDE ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Local identifier	Date	Caf- feine, water, fltrd, ug/L (50305)	Car- baryl, water, fltrd 0.7u GF ug/L (49310)	Carbo- furan, water, fltrd 0.7u GF ug/L (49309)	Chlor- amben methyl ester, water, fltrd, ug/L (61188)	Chlori- muron, water, fltrd, ug/L (50306)	Chloro- di- amino- s-tri- azine, wat flt ug/L (04039)	Chloro- thalo- nil, water, fltrd 0.7u GF ug/L (49306)	Clopyr- alid, water, fltrd 0.7u GF ug/L (49305)	Cyclo- ate, water, fltrd, ug/L (04031)	Dacthal mono- acid, water, fltrd 0.7u GF ug/L (49304)
					CHEMUNG COUNTY						
CM 626	07-02-03	<.0,096	<.03	<.006	<.02	<.010	--u	<.04	<.01	<.01	<.01
					SCHUYLER COUNTY						
SY1016	06-26-03	<.0,096	<.03	<.006	<.02	<.010	<.01	<.04	<.01	<.01	<.01
					STEUBEN COUNTY						
SB 382	07-15-03	<.0,096	<.03	<.006	<.02	<.010	<.01	<.04	<.01	<.01	<.01
SB 380	06-25-03	<.0,096	<.03	<.006	<.02	<.010	<.01	<.04	<.01	<.01	<.01
SB 224	06-09-03	<.0,096	<.03	<.006	<.02	<.010	<.01	<.04	<.01	<.01	<.01
	07-24-03	<.0,100	<.03	<.006	<.02	<.010	<.01	<.04	<.01	<.01	<.01
	08-28-03	<.0,096	<.03	<.006	<.02	<.010	<.01	<.04	<.01	<.01	<.01
	08-28-03	<.0,096	<.03	<.006	<.02	<.010	<.01	<.04	<.01	<.01	<.01
	08-28-03	<.0,096	<.03	<.006	<.02	<.010	<.01	<.04	<.01	<.01	<.01
SB 229	07-09-03	<.0,096	<.03	<.006	<.02	<.010	<.01	<.04	<.01	<.01	<.01

Local identifier	Date	Dicamba water fltrd 0.7u GF ug/L (38442)	Di- chlor- prop, water, fltrd 0.7u GF ug/L (49302)	Dinoseb water, fltrd 0.7u GF ug/L (49301)	Diphen- amid, water, fltrd, ug/L (04033)	Diuron, water, fltrd 0.7u GF ug/L (49300)	Fenuron water, fltrd 0.7u GF ug/L (49297)	Flumet- sulam, water, fltrd, ug/L (61694)	Fluo- meturon water fltrd 0.7u GF ug/L (38811)	Imaza- quin, water, fltrd, ug/L (50356)	Imaze- thapyr, water, fltrd, ug/L (50407)
					CHEMUNG COUNTY						
CM 626	07-02-03	<.01	<.01	<.01	<.03	<.01	<.03	<.01	<.03	<.02	<.02
					SCHUYLER COUNTY						
SY1016	06-26-03	<.01	<.01	<.01	<.03	<.01	<.03	<.01	<.03	<.02	<.02
					STEUBEN COUNTY						
SB 382	07-15-03	<.01	<.01	<.01	<.03	<.01	<.03	<.01	<.03	<.02	<.02
SB 380	06-25-03	<.01	<.01	<.01	<.03	<.01	<.03	<.01	<.03	<.02	<.02
SB 224	06-09-03	<.01	<.01	<.01	<.03	<.01	<.03	<.01	<.03	<.02	<.02
	07-24-03	<.01	<.01	<.01	<.03	<.01	<.03	<.01	<.03	<.02	<.02
	08-28-03	<.01	<.01	<.01	<.03	<.01	<.03	<.01	<.03	<.02	<.02
	08-28-03	<.01	<.01	<.01	<.03	<.01	<.03	<.01	<.03	<.02	<.02
	08-28-03	<.01	<.01	<.01	<.03	<.01	<.03	<.01	<.03	<.02	<.02
SB 229	07-09-03	<.01	<.01	<.01	<.03	<.01	<.03	<.01	<.03	<.02	M

Aquifers within the Chemung River Basin—Continued

PESTICIDE ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Local identifier	Date	Imidacloprid water, fltrd, ug/L (61695)	Linuron water fltrd 0.7u GF ug/L (38478)	MCPA, water, fltrd 0.7u GF ug/L (38482)	MCPB, water, fltrd 0.7u GF ug/L (38487)	Metalaxyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd 0.7u GF ug/L (38501)	Methomyl, water, fltrd 0.7u GF ug/L (49296)	Metsulfuron, water, fltrd, ug/L (61697)	N-(4-Chlorophenyl)-N-'methylurea, ug/L (61692)	Neburon water, fltrd 0.7u GF ug/L (49294)
CHEMUNG COUNTY											
CM 626	07-02-03	<.007	<.01	<.02	<.01	<.02	<.008	<.004	<.03	<.02	<.01
SCHUYLER COUNTY											
SY1016	06-26-03	<.007	<.01	<.02	<.01	<.02	<.008	<.004	<.03	<.02	<.01
STEUBEN COUNTY											
SB 382	07-15-03	<.007	<.01	<.02	<.01	<.02	<.008	<.004	<.03	<.02	<.01
SB 380	06-25-03	<.007	<.01	<.02	<.01	<.02	<.008	<.004	<.03	<.02	<.01
SB 224	06-09-03	<.007	<.01	<.02	<.01	M	<.008	<.004	<.03	<.02	<.01
	07-24-03	<.007	<.01	<.02	<.01	<.02	<.008	<.004	<.03	<.02	<.01
	08-28-03	<.007	<.01	<.02	<.01	<.02	<.008	<.004	<.03	<.02	<.01
	08-28-03	<.007	<.01	<.02	<.01	E.01	<.008	<.004	<.03	<.02	<.01
	08-28-03	<.007	<.01	<.02	<.01	E.01	<.008	<.004	<.03	<.02	<.01
SB 229	07-09-03	<.007	<.01	<.02	<.01	<.02	<.008	<.004	<.03	<.02	<.01

Local identifier	Date	Nicosulfuron, water, fltrd, ug/L (50364)	Norflurazon, water, fltrd 0.7u GF ug/L (49293)	Oryzalin, water, fltrd 0.7u GF ug/L (49292)	Oxamyl, water, fltrd 0.7u GF ug/L (38866)	Picloram, water, fltrd 0.7u GF ug/L (49291)	Propham water fltrd 0.7u GF ug/L (49236)	Propiconazole, water, fltrd, ug/L (50471)	Propoxur, water, fltrd 0.7u GF ug/L (38538)	Siduron water, fltrd, ug/L (38548)	Sulfometruron, water, fltrd, ug/L (50337)
CHEMUNG COUNTY											
CM 626	07-02-03	<.01	<.02	<.02	<.01	<.02	<.010	<.02	<.008	<.02	<.009
SCHUYLER COUNTY											
SY1016	06-26-03	<.01	<.02	<.02	<.01	<.02	<.010	<.02	<.008	<.02	<.009
STEUBEN COUNTY											
SB 382	07-15-03	<.01	<.02	<.02	<.01	<.02	<.010	<.02	<.008	<.02	<.009
SB 380	06-25-03	<.01	<.02	<.02	<.01	<.02	<.010	<.02	<.008	<.02	<.009
SB 224	06-09-03	<.01	<.02	<.02	<.01	<.02	<.010	<.02	<.008	<.02	<.009
	07-24-03	<.01	<.02	<.02	<.01	<.02	<.010	<.02	<.008	<.02	<.009
	08-28-03	<.01	<.02	<.02	<.01	<.02	<.010	<.02	<.008	<.02	<.009
	08-28-03	<.01	<.02	<.02	<.01	<.02	<.010	<.02	<.008	<.02	<.009
	08-28-03	<.01	<.02	<.02	<.01	<.02	<.010	<.02	<.008	<.02	<.009
SB 229	07-09-03	<.01	<.02	<.02	<.01	<.02	<.010	<.02	<.008	<.02	<.009

Aquifers within the Chemung River Basin—Continued

PESTICIDE ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Local identifier	Date	Tebu-thiuron water fltrd 0.7u GF ug/L (82670)	Terba-cil, water, fltrd, ug/L (04032)	Tri-benuron water, fltrd, ug/L (61159)	Tri-clopyr, water, fltrd 0.7u GF ug/L (49235)
CHEMUNG COUNTY					
CM 626	07-02-03	<.006	<.010	--u	<.02
SCHUYLER COUNTY					
SY1016	06-26-03	<.006	<.010	--u	<.02
STEUBEN COUNTY					
SB 382	07-15-03	<.006	<.010	--u	<.02
SB 380	06-25-03	<.006	<.010	--u	<.02
SB 224	06-09-03	<.006	<.010	--u	<.02
	07-24-03	<.006	<.010	--u	<.02
	08-28-03	<.006	<.010	--u	<.02
	08-28-03	<.006	<.010	--u	<.02
	08-28-03	<.006	<.010	--u	<.02
SB 229	07-09-03	<.006	<.010	--u	<.02

Remark codes used in this table:
< -- Less than
E -- Estimated value
M -- Presence verified, not quantified

Null value qualifier codes used in this table:
u -- Unable to determine-matrix interference

MONROE COUNTY

WATER-QUALITY DATA, WATER YEAR, OCTOBER 2002 TO SEPTEMBER 2003

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

Local identifier	Station number	Date	Tur-bidity, NTU (00076)	Specif. conduc-tance, wat unf uS/cm 25 degC (00095)	Dis-solved oxygen, mg/L (00300)	pH, water, unfltrd lab, std units (00403)	Carbon dioxide water, unfltrd mg/L (00405)	ANC, wat unf fixed end pt, field, mg/L as CaCO3 (00410)	Ammonia water, fltrd, mg/L as N (00608)	Ammonia + org-N, water, unfltrd mg/L as N (00625)
MO 2	430855077304202	10-09-02	84	946	.4	7.2	10	177	.35	.36
MO 3	430854077304601	10-09-02	.25	1,340	.6	7.5	17	222	<.01	.13
MO 659	430932077311501	10-09-02	76	759	6.5	7.5	10	2	.05	.99
		10-09-02	54	703	1.0	7.6	5.8	2	<.01	.12
MO 663	430912077313301	10-09-02	27	1,010	--	6.9	104	425	.26	1.2
MO 664	430912077313302	10-09-02	59	>10,000	<.1	6.9	94	176	2.1	2.0
MO 665	430928077313802	10-09-02	160	2,120	1.2	6.9	185	2	1.5	3.6
MO 666	430928077313803	10-09-02	200	1,390	<.1	7.0	218	637	7.9	8.8
MO 667	430928077314001	10-09-02	370	2,560	1.1	7.0	141	2	8.9	9.7
MO 668	430928077314002	10-09-02	210	2,510	<.1	6.9	163	590	5.4	5.6

Local identifier	Date	Nitrite + nitrate water unfltrd mg/L as N (00630)	Phos-phorus, water, unfltrd mg/L (00665)	Ortho-phos-phate, water, fltrd, mg/L as P (00671)	Organic carbon, water, unfltrd mg/L (00680)	Hard-ness, water, unfltrd mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes-ium, water, fltrd, mg/L (00925)	Sodium, water, fltrd, mg/L (00930)	Potas-sium, water, fltrd, mg/L (00935)	Chlor-ide, water, fltrd, mg/L (00940)
MO 2	10-09-02	.03	.268	.008	<1.0	360	105	20.9	82.4	1.50	148
MO 3	10-09-02	.96	.005	.008	<1.0	370	142	25.8	132	2.36	225
MO 659	10-09-02	<.02	.118	.004	1.5	290	37.6	56.7	44.8	2.19	140
	10-09-02	<.02	.029	.004	<1.0	250	21.9	50.9	44.0	2.00	130
MO 663	10-09-02	.03	.356	.009	9.6	530	224	19.0	41.5	1.20	115
MO 664	10-09-02	<.02	.388	.240	<1.0	4,300	2,100	535	3,700	21.9	6,640
MO 665	10-09-02	<.02	.378	.020	18.6	680	333	49.2	242	.63	234
MO 666	10-09-02	.10	.300	.065	7.2	1,000	215	45.9	60.1	10.7	76
MO 667	10-09-02	.03	2.41	.021	9.2	730	319	49.7	257	22.3	428
MO 668	10-09-02	<.02	.604	.095	7.7	680	213	57.7	262	7.42	499

Local identifier	Sulfate water, fltrd, mg/L (00945)	Iron, water, unfltrd recover -able, ug/L (01045)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue water, fltrd, sum of consti-tuents mg/L (70301)
MO 2	95	3,940	541	559
MO 3	99	100	775	759
MO 659	18	10,000	358	300
	2	9,870	327	252
MO 663	41	2,250	634	697
MO 664	515	20,000	11,400	13,600
MO 665	<1	10,000	1,290	--
MO 666	2	30,000	780	803
MO 667	<1	30,000	1,420	--
MO 668	<1	20,000	1,330	--

Remark codes used in this table:
< -- Less than

ONONDAGA COUNTY

WATER-QUALITY DATA, WATER YEAR, OCTOBER 2002 TO SEPTEMBER 2003

Local identifier	Station number	Date	Time	Dis- solved oxygen, mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)	pH, water, unfltrd field, std units (00400)	Salin- ity, water, unfltrd ppt (00480)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, unfltrd mg/L as CaCO3 (00900)
OD 471	425121076082501	04-10-03	1140	5.8	60	7.0	13.2	17,200	11.9	--
		06-08-03	0800	--	--	--	--	--	--	--
		06-09-03	0800	--	--	7.4	10.0	17,100	12.8	--
OD 683	424812076085001	04-10-03	1040	6.2	67	7.9	.3	543	11.2	--
OD1806	430701076143801	11-12-02	1100	1.2	32	--	--	--	11.7	--
OD1805	430701076143802	11-12-02	1100	--	--	--	--	--	--	--
		11-12-02	1130	1.0	42	7.1	--	--	12.8	7,800
OD1819	430332076094901	11-08-02	1330	2.6	53	7.0	--	148,000	13.3	5,600
		04-10-03	1315	2.9	56	6.5	>30.0	>140,000	11.9	--
OD1808	425238076092001	11-08-02	0945	2.7	28	7.0	19.3	31,000	11.8	2,100
		04-10-03	0940	4.5	52	6.6	20.0	32,400	11.4	--
OD 457	425257076090301	11-08-02	1040	3.2	37	7.2	33.2	50,600	11.7	3,800
OD1804	430004076085401	11-08-02	1150	2.3	53	6.7	--	>150,000	13.6	6,200
OD1810	430326076095601	11-12-02	0815	2.0	40	6.8	--	158,000	12.9	5,800
OD1809	430326076095602	11-12-02	0900	1.4	42	6.9	--	--	12.8	7,000
OD1807	425350076093501	11-08-02	1030	3.2	28	8.0	1.5	2,820	12.7	470
OD1812	430458076110901	11-08-02	1430	5.8	56	7.2	12.9	21,600	12.6	2,200
		04-10-03	1400	3.6	33	6.9	11.4	19,200	12.1	--
OD1815	425903076093101	04-10-03	0915	14.1	116	7.4	.6	1,170	8.4	--
OD1824	425551076124801	08-06-03	1200	--	--	--	--	--	--	--

Local identifier	Date	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, field, mg/L as CaCO3 (00410)	Alka- linity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicar- bonate, wat flt incrm. titr., field, mg/L (00453)	Carbon- ate, wat flt incrm. titr., field, mg/L (00452)	Bromide water, fltrd, mg/L (71870)	Chlor- ide, water, fltrd, mg/L (00940)
OD 471	04-10-03	--	--	--	--	--	--	--	--	--	--
	06-08-03	--	--	--	--	--	--	--	--	--	--
	06-09-03	--	--	--	--	--	142	173	--	--	--
OD 683	04-10-03	--	--	--	--	--	134	164	--	--	--
OD1806	11-12-02	2,250	<1.20	375	57,500	--	--	--	--	87.2	91,800
OD1805	11-12-02	--	--	--	--	--	--	--	--	--	--
	11-12-02	2,300	512	349	78,300	31	34	41	.0	117	126,000
OD1819	11-08-02	1,770	274	92.0	43,000	116	118	144	.0	39.9	68,000
	04-10-03	--	--	--	--	--	--	--	--	--	--
OD1808	11-08-02	509	213	16.0	6,550	282	290	354	.0	11.0	10,600
	04-10-03	--	--	--	--	--	--	--	--	--	--
OD 457	11-08-02	866	389	19.0	10,800	138	140	171	.0	16.1	18,600
OD1804	11-08-02	1,980	299	110	50,700	155	158	193	.0	47.1	82,400
OD1810	11-12-02	1,860	279	107	46,500	117	118	144	.0	45.4	74,800
OD1809	11-12-02	2,110	416	155	69,500	88	96	117	.0	85.7	117,000
OD1807	11-08-02	105	50.4	2.44	424	44	44	54	.0	1.96	387
OD1812	11-08-02	754	86.7	22.0	4,280	220	224	273	.0	8.74	6,660
	04-10-03	--	--	--	--	--	--	--	--	--	--
OD1815	04-10-03	--	--	--	--	--	--	--	--	--	--
OD1824	08-06-03	--	--	--	--	--	--	--	--	--	--

ONONDAGA COUNTY—Continued

WATER-QUALITY DATA, WATER YEAR, OCTOBER 2002 TO SEPTEMBER 2003

Local identifier	Date	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Iron, water, fltrd, ug/L (01046)	Mangan-ese, water, fltrd, ug/L (01056)	Tritium 2-sigma water unfltrd pCi/L (75985)	Tritium water unfltrd pCi/L (07000)
OD 471	04-10-03	--	--	--	--	--	2.6	29
	06-08-03	--	--	--	--	--	--	--
	06-09-03	--	--	--	2,480	57.4	--	--
OD 683	04-10-03	--	--	--	270	96.7	1.6	.0
OD1806	11-12-02	1.0	1,070	145,000	<1,500	E125n	2.6	15
OD1805	11-12-02	--	--	--	--	--	3.2	1
	11-12-02	3.3	3,070	193,000	E2800n	914	--	--
OD1819	11-08-02	5.9	4,400	112,000	26,000	651	--	--
	04-10-03	--	--	--	--	--	--	--
OD1808	11-08-02	E10.1	1,410	20,000	<300	<48.0	--	--
	04-10-03	--	--	--	--	--	2.6	28
OD 457	11-08-02	E10.9	1,700	33,800	<300	72.2	--	--
OD1804	11-08-02	<21.0	4,660	130,000	13,300	1,060	2.6	3
OD1810	11-12-02	7.7	4,390	122,000	6,790	887	2.6	3
OD1809	11-12-02	4.9	4,060	178,000	13,500	1,160	2.6	M
OD1807	11-08-02	4.3	805	1,940	283	67.4	--	--
OD1812	11-08-02	7.4	2,080	14,400	1,890	275	--	--
	04-10-03	--	--	--	--	--	2.6	36
OD1815	04-10-03	--	--	--	--	--	3.2	49
OD1824	08-06-03	--	--	--	--	--	1.9	3

Remark codes used in this table:
< -- Less than
> -- Greater than
E -- Estimated value
M -- Presence verified, not quantified

Value qualifier codes used in this table:
n -- Below the NDV

425129076082701 AT OTISCO ROAD NEAR TULLY, NY

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

PERIOD OF RECORD.--October 1991 to July 1999, October 1999 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.

EXTREMES FOR PERIOD OF RECORD.--Maximum recorded daily precipitation, 3.92 inches, November 8, 1996.

EXTREMES FOR CURRENT YEAR.--Maximum daily precipitation, 1.68 inches, August 8.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.04	0.05	0.53	0.16	0.00	0.00	0.40	0.53	0.00	0.24	0.57
2	0.32	0.16	0.03	0.04	0.02	0.14	0.00	0.51	0.00	0.00	0.03	0.51
3	0.20	0.06	0.00	0.51	0.17	0.00	0.52	0.00	0.00	0.03	0.04	0.21
4	0.17	0.03	0.02	0.09	0.50	0.00	0.61	0.00	0.07	0.00	0.27	0.01
5	0.06	0.18	0.07	0.01	0.00	0.09	0.13	0.09	0.02	0.72	1.17	0.05
6	0.00	0.09	0.00	0.05	0.00	0.00	0.00	0.01	0.02	0.00	0.01	0.00
7	0.01	0.05	0.00	0.00	0.01	0.00	0.17	0.00	0.02	0.01	0.00	0.00
8	0.00	0.00	0.03	0.09	0.00	0.03	0.01	0.00	0.01	0.01	1.68	0.00
9	0.01	0.00	0.00	0.06	0.00	0.05	0.00	0.01	0.00	0.14	0.59	0.00
10	0.00	0.00	0.00	0.02	0.03	0.00	0.00	0.00	0.00	0.46	0.02	0.00
11	0.07	0.06	0.47	0.00	0.00	0.00	0.06	0.76	0.02	0.41	0.03	0.00
12	0.03	0.11	0.11	0.00	0.00	0.08	0.00	0.34	0.12	0.00	0.00	0.00
13	0.01	0.01	0.18	0.11	0.00	0.05	0.00	0.17	0.61	0.00	0.00	0.08
14	0.00	0.00	0.65	0.02	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00
15	0.00	0.01	0.02	0.00	0.00	0.00	0.00	0.01	0.00	0.05	0.00	0.26
16	1.25	0.44	0.04	0.01	0.00	0.00	0.00	0.01	0.00	0.38	0.85	0.01
17	0.04	1.00	0.00	0.00	0.41	0.00	0.00	0.00	0.00	0.00	0.01	0.00
18	0.01	0.22	0.00	0.00	0.01	0.00	0.00	0.00	0.03	0.19	0.00	0.00
19	0.43	0.05	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.07
20	0.00	0.00	0.16	0.00	0.00	0.41	0.00	0.13	0.22	0.00	0.00	---
21	0.00	0.03	0.02	0.00	0.00	0.12	0.07	0.04	0.90	0.97	0.00	---
22	0.11	0.28	0.01	0.00	0.12	0.19	0.24	0.00	0.05	0.48	0.00	---
23	0.05	0.05	0.02	0.00	0.23	0.00	0.11	0.00	0.00	0.15	0.00	---
24	0.00	0.01	0.01	0.00	0.01	0.00	0.05	0.65	0.00	0.27	0.00	---
25	0.25	0.03	0.72	0.03	0.01	0.33	0.00	0.01	0.00	0.00	0.00	---
26	0.11	0.09	0.01	0.00	0.00	0.23	0.01	0.21	0.00	0.00	0.01	---
27	0.03	0.07	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.05	0.00	---
28	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	---
29	0.00	0.00	0.00	0.00	---	0.55	0.00	0.09	0.00	0.00	0.07	---
30	0.00	0.26	0.03	0.00	---	0.33	0.00	0.00	0.45	0.00	0.00	---
31	0.00	---	0.11	0.00	---	0.04	---	0.55	---	0.00	0.00	---
TOTAL	3.16	3.33	2.77	1.58	1.68	2.64	2.00	4.00	3.11	4.32	5.02	---
MAX	1.25	1.00	0.72	0.53	0.50	0.55	0.61	0.76	0.90	0.97	1.68	---

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.--Water years 1980 to current year.
Dustfall data: Water years 1980 to January 2003, monthly.
Wetfall data: Water years 1980 to December 2002, monthly.
Bulk data: Water years 1980 to current year, monthly.

INSTRUMENTATION.--The composite sample collector is a straight-sided polyethlyene funnel approximately 6.5 inches in diameter that drains into a Teflon receiving bottle. A looped plastic tubing connects the funnel with the receiving bottle to retard evaporation. The polyethlyene 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 polyethlyene 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.--Records for October 1983 to September 1993 are 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. Prior to October 1983, unpublished records are available in the files of the Monroe County Environmental Health Laboratory. Records of monthly precipitation totals are collected by the National Oceanic and Atmospheric Administration at the Rochester-Monroe County airport.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	pH, water, unfltrd lab, std units (00403)	Specif. conduc-tance, wat unf uS/cm 25 degC (00095)	Calcium water unfltrd recover -able, mg/L (00916)	Magnes-ium, water, fltrd, mg/L (00925)	Potas-sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Acidity water, unfltrd mg/L as CaCO3 (00435)	Chlor-ide, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water unfltrd mg/L as N (00630)	Ortho-phos-phate, water, fltrd, mg/L as P (00671)
							MONTHLY DUSTFALL						
OCT 01-NOV 01	6.0	80	3.3	2.73	9.70	.14	21	3	6	2.3	.04	.11	1.79
NOV 01-DEC 03	4.0	32	.7	.18	.40	.63	7.6	3	1	.89	.42	.86	.086
DEC 03-31	4.0	64	.8	.18	.06	4.00	8.6	5	5	1.5	1.3	1.6	.009
DEC 31-JAN 31	4.4	35	.6	.13	.02	3.14	5.6	5	2	.43	.38	.86	.005
							MONTHLY WETFALL						
NOV 01-DEC 03	4.7	21	1.2	.23	.07	.93	7.9	2	1	.64	.37	.86	.011
DEC 03-31	4.3	21	<0.2	.04	.02	1.23	4.0	2	2	.44	.27	.54	.003
							MONTHLY BULK						
OCT 01-NOV 01	4.5	17	.8	.27	.67	.04	36	.4	1	.49	<.01	.70	.293
NOV 01-DEC 03	4.9	18	.7	.20	.40	.52	3.2	2	1	.56	.36	.65	.017
DEC 03-31	4.6	18	.3	.12	.25	1.23	4.9	2	1	.53	.42	.52	.016
DEC 31-JAN 31	5.1	27	.7	.22	.06	2.82	3.2	4	1	.48	.42	.79	.021
JAN 31-MAR 06	4.3	17	--	--	--	--	4.6	2	2	.35	.24	.59	.005
FEB 28-APR 01	4.4	16	--	--	--	--	5.0	.5	2	.60	.48	.72	.008
APR 01-MAY 13	6.2	17	--	--	--	--	6.8	1	3	1.00	.61	.59	.006
MAY 13-JUN 27	6.9	12	--	--	--	--	6.7	<1	3	.64	.50	.41	.049
JUN 27-AUG 08	5.5	20	--	--	--	--	7.1	<1	3	.50	.34	.41	.048
AUG 08-OCT 06	5.1	20	--	--	--	--	6.2	<.5	2	3.2	1.3	1.6	.419

Note; Monthly dustfall samples are dissolved in one liter of deionized water for analysis and concentrations 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.

GENESEE RIVER BASIN

430117077350101 AT MENDON PONDS, ROCHESTER, NY—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Phos-phorus, water, unfltrd mg/L (00665)	Lead, water, unfltrd recover-able, ug/L (01051)	Zinc, water, unfltrd recover-able, ug/L (01092)
	MONTHLY DUSTFALL		
OCT 01-NOV 01	2.54	2.6	8.0
NOV 01-DEC 03	.133	3.9	8.0
DEC 03-31	.029	13	19
DEC 31-JAN 31	.054	5.3	9.0
	MONTHLY WETFALL		
NOV 01-DEC 03	.031	8.5	18
DEC 03-31	.006	4.1	9.0
	MONTHLY BULK		
OCT 01-NOV 01	.390	2.0	6.0
NOV 01-DEC 03	.033	3.0	7.0
DEC 03-31	.025	2.4	<.5.0
DEC 31-JAN 31	.047	3.8	20
JAN 31-MAR 06	<.020	2.2	--
FEB 28-APR 01	.021	1.2	--
APR 01-MAY 13	.050	2.4	--
MAY 13-JUN 27	.065	<1.0	--
JUN 27-AUG 08	.086	3.8	--
AUG 08-OCT 06	.539	2.0	--

Remark codes used in this table:
< -- Less than

CALENDAR FOR WATER YEAR 2003

2002

OCTOBER

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

NOVEMBER

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

DECEMBER

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

2003

JANUARY

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

FEBRUARY

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	

MARCH

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

APRIL

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

MAY

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

JUNE

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

JULY

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

AUGUST

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

SEPTEMBER

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

Conversion Factors

Multiply	By	To obtain
	Length	
inch (in.)	2.54×10^{1}	millimeter (mm)
	2.54×10^{-2}	meter
foot (ft)	3.048×10^{-1}	meter (m)
mile (mi)	1.609×10^{0}	kilometer (km)
	Area	
acre	4.047×10^{3}	square meter (m^2)
	4.047×10^{-1}	square hectometer (hm^2)
	4.047×10^{-3}	square kilometer (km^2)
square mile (mi^2)	2.590×10^{0}	square kilometer (km^2)
	Volume	
gallon (gal)	3.785×10^{0}	liter (L)
	3.785×10^{-3}	cubic meter (m^3)
	3.785×10^{0}	cubic decimeter (dm^3)
million gallons (Mgal)	3.785×10^{3}	cubic meter (m^3)
	3.785×10^{-3}	cubic hectometer (hm^3)
cubic foot (ft^3)	2.832×10^{-2}	cubic meter (m^3)
	2.832×10^{1}	cubic decimeter (dm^3)
cubic-foot-per-second-per-day [(ft^3/s/d]	2.447×10^{3}	cubic meter (m^3)
	2.447×10^{-3}	cubic hectometer (hm^3)
acre-foot (acre-ft)	1.223×10^{3}	cubic meter (m^3)
	1.223×10^{-3}	cubic hectometer (hm^3)
	1.223×10^{-6}	cubic kilometer (km^3)
	Flow rate	
cubic foot per second (ft^3/s)	2.832×10^{1}	liter (L/s)
	2.832×10^{-2}	cubic meter per second (m^3/s)
	2.832×10^{1}	cubic decimeter per second (dm^3/s)
gallon per minute (gal/min)	6.309×10^{-2}	liter per second (L/s)
	6.309×10^{-5}	cubic meter per second (m^3/s)
	6.309×10^{-2}	cubic decimeter per second (dm^3/s)
million gallons per day (Mgal/d)	4.381×10^{-2}	cubic meter per second
	4.381×10^{1}	cubic decimeter per second (dm^3/s)
	Mass	
ton, short (2,000 lb)	9.072×10^{-1}	megagram (Mg) or metric ton

Temperature in degrees Celsius (˚C) may be converted to degrees Fahrenheit (˚F) as follows:

$$^{\circ}F = (1.8 \times {}^{\circ}C) + 32$$