

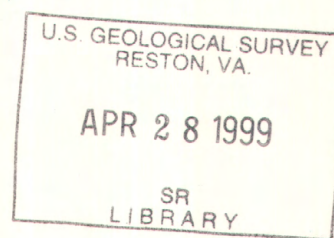
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Water Resources Data New York Water Year 1998

Volume 3. Western New York

Water-Data Report NY-98-3



U.S. Department of the Interior
U.S. Geological Survey



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

CALENDAR FOR WATER YEAR 1998

1997

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1998

JANUARY							FEBRUARY							MARCH						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
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11	12	13	14	15	16	17	15	16	17	18	19	20	21	15	16	17	18	19	20	21
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Water Resources Data New York Water Year 1998

Volume 3. Western New York

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

Water-Data Report NY-98-3



U.S. DEPARTMENT OF THE INTERIOR

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<http://www.usgs.gov> or <http://www.dnyalb.er.usgs.gov>
or <http://ny.usgs.gov>

1998

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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 1998 water year for New York consist of records of stage, discharge, and water quality of streams; stage and contents of lakes and reservoirs; water levels and water quality of ground-water wells; and quantity and chemical quality of precipitation. This volume contains records for water discharge at 69 gaging stations; stage only at 14 gaging stations; stage and contents at 6 gaging stations; water quality at 22 gaging stations, 17 wells, and 63 partial record stations; water levels at 19 observation wells; daily precipitation totals at 3 sites, and chemical quality of precipitation at 2 sites. Also included are data for 44 crest-stage partial record stations. Locations of these sites are shown on figure 1. Additional water data were collected at various sites not involved in the systematic data collection program and are published as miscellaneous measurements. These data together with the data in Volumes 1 and 2 represent that part of the National Water Data System operated by the U. S. Geological Survey and cooperating State, local, and Federal agencies in New York.				
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SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE
PUBLISHED IN THIS VOLUME

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

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

	Station number	Page
NORTH ATLANTIC SLOPE BASINS		
SUSQUEHANNA RIVER BASIN		
Susquehanna River:		
Ouleout Creek at East Sidney (d)	01500000	38
Susquehanna River at Conklin (d)	01503000	40
Tioughnioga River at Cortland (d)	01509000	42
Otselic River at Cincinnatus (d)	01510000	44
Chenango River near Chenango Forks (d)	01512500	46
Canisteo River at Arkport (d)	01521500	48
Canacadea Creek near Hornell (d)	01523500	50
Canisteo River below Canacadea Creek, at Hornell (d)	01524500	52
Tioga River near Erwins (d)	01526500	54
Cohocton River:		
Cohocton River near Campbell (d)	01529500	56
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Chemung River at Chemung (d)	01531000	62
Lakes and reservoirs in Susquehanna River basin (d,e)		64
* * * * * *		*
OHIO RIVER BASIN		
ALLEGHENY RIVER BASIN		
Allegheny River (head of Ohio River) at Salamanca (d)	03011020	67
Cassadaga Creek:		
Chautauqua Lake (head of Chadakoin River) at Bemus Point (e)	03013946	69
Chadakoin River at Falconer (d)	03014500	70
Lakes in Allegheny River basin (e)		72
* * * * * *		*
ST. LAWRENCE RIVER BASIN		
Lake Erie:		
STREAMS TRIBUTARY TO LAKE ERIE		
Cattaraugus Creek at Gowanda (d,c,m,n,p,s)	04213500	73
Buffalo Creek (head of Buffalo River) at Gardenville (d)	04214500	78
Cayuga Creek near Lancaster (d)	04215000	80
Buffalo River:		
Cazenovia Creek at Ebenezer (d)	04215500	82
Lake Erie at Buffalo (e)	04215900	84
Niagara River at Buffalo (d)	04216000	85
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STREAMS TRIBUTARY TO NIAGARA RIVER		
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Tonawanda Creek at Batavia (d)	04217000	90
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Tonawanda Creek at Rapids (d)	04218000	94
Ellicott Creek below Williamsville (d)	04218518	96
Erie (Barge) Canal at Lock 30, Macedon (d)	04219000	98
ST. LAWRENCE RIVER MAIN STEM		
Lake Ontario:		
STREAMS TRIBUTARY TO LAKE ONTARIO		
Northrup Creek at North Greece (d,c,n,pr,t)	0422026250	99
Genesee River at Wellsville (d)	04221000	106
Genesee River at Portageville (d)	04223000	108

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

	Station number	Page
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ST. LAWRENCE RIVER MAIN STEM--Continued		
Lake Ontario--Continued		
STREAMS TRIBUTARY TO LAKE ONTARIO--Continued		
Mount Morris Lake near Mount Morris (e)	04224000	110
Canaseraga Creek above Dansville (d)	04224775	111
Canaseraga Creek at Shakers Crossing (d,p,c)	04227000	113
Genesee River near Mount Morris (d)	04227500	118
Conesus Lake near Lakeville (e)	04227980	120
Conesus Creek near Lakeville (d)	04227995	121
Genesee River at Avon (d,p,c)	04228500	123
Honeoye Creek at Honeoye Falls (d,n,c)	04229500	128
Oatka Creek at Warsaw (d)	04230380	133
Oatka Creek at Garbutt (d,n,c)	04230500	135
Genesee River at Ballantyne Bridge near Mortimer (e)	04230650	143
Black Creek at Churchville (d,n,c)	04231000	144
Genesee River at Rochester (d)	04232000	149
Irondequoit Creek at Railroad Mills, near Fishers, N.Y. (d,c,n,t)	04232034	151
Allen Creek:		
East Branch Allen Creek at Pittsford (d,c,n,t)	0423204920	157
Allen Creek near Rochester (d,c,n,t)	04232050	163
Irondequoit Creek at Blossom Road, Rochester (d,c,n,t)	0423205010	169
Irondequoit Creek at Empire Boulevard, Rochester (d,c,n,t)	0423205025	179
Seneca River (head of Oswego River):		
Seneca Lake at Watkins Glen (e)	04232400	190
Keuka Lake Outlet at Dresden (d)	04232482	191
Cayuga Inlet near Ithaca (d)	04233000	193
Sixmile Creek at Bethel Grove (d,s)	04233300	195
Cayuga Inlet (Cayuga Lake) at Ithaca (e)	04233500	199
Fall Creek near Ithaca (d,p,c)	04234000	200
Clyde River:		
Great Brook below Victor (d)	04234232	206
Canandaigua Lake at Canandaigua (e)	04234500	209
Canandaigua Outlet at Chapin (dc)	04235000	210
Owasco Lake near Auburn (e)	04235396	212
Owasco Outlet near Auburn (d)	04235500	213
Skaneateles Lake:		
Grout Brook Trib. southeast of Fair Haven (d,pr,t)	04235820	215
Seneca River, mouth of State Ditch near Jordan(e)	04237411	220
Seneca River at Baldwinsville (d,c,p)	04237500	221
Onondaga Creek (head of Onondaga Lake Outlet):		
Tributary #6 below main mudboil depression area (d,c,s)	04237946	226
Onondaga Reservoir near Nedrow (e)	04238500	232
Onondaga Creek at Dorwin Avenue, Syracuse (d)	04239000	233
Onondaga Creek at Spencer Street, Syracuse (d)	04240010	235
Onondaga Lake:		
Harbor Brook at Syracuse (d)	04240100	237
Harbor Brook at Hiawatha Boulevard, Syracuse (d)	04240105	239
Ley Creek at Park Street, Syracuse (d)	04240120	241
Otisco Lake:		
Spafford Creek:		
Spafford Creek Trib. near Sawmill Rd. near Spafford (d,pr)	04235820	243
Ninemile Creek near Marietta (d)	04240180	246
Ninemile Creek at Camillus (d)	04240200	248
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Oneida Creek at Oneida (d)	04243500	253
Chittenango Creek:		
Limestone Creek:		
Butternut Creek near Jamesville (d)	04245200	255

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

ST. LAWRENCE RIVER MAIN STEM--Continued

ST. LAWRENCE RIVER BASIN--Continued

Lake Ontario--Continued

STREAMS TRIBUTARY TO LAKE ONTARIO--Continued

	Station number	Page
Oswego River		
Meadow Brook at Hurlburt Road, Syracuse (d)	04245236	257
Oneida Lake at Brewerton (e)	04246000	259
Oneida River at Caughdenoy (d)	04246500	260
Oneida River near Euclid (d)	04247000	262
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GROUND-WATER WELLS, BY COUNTY OR INDEPENDENT CITY, FOR WHICH RECORDS ARE
PUBLISHED IN THIS VOLUME

GROUND-WATER LEVELS

Broome County		
Local well number Bm 121	420657075583501	328
Cattaraugus County		
Local well number Ct 121	420530078445201	330
Chautauqua County		
Local well number Cu 10	420815079121401	332
Chemung County		
Local well number Cm 46	420829076484801	333
Chenango County		
Local well number Cn 12	421556075281602	335
Cortland County		
Local well number C 102	423541076114701	337
Madison County		
Local well number M 178	430056075354102	339
Monroe County		
Local well number Mo 2	430855077304202	341
Local well number Mo 3	430854077304601	342
Local well number Mo 659	430932077311501	343
Local well number Mo 663	430912077313301	344
Local well number Mo 664	430912077313302	345
Local well number Mo 665	430928077313802	346
Local well number Mo 666	430928077313803	347
Local well number Mo 667	430928077314001	348
Local well number Mo 668	430928077314002	349
Otsego County		
Local well number Og 23	424136075025101	350
Steuben County		
Local well number Sb 472	422445077203301	351
Wyoming County		
Local well number Wo 4	423743078070802	353

Quality of ground water	355
Quantity of precipitation at miscellaneous sites	357
Quality of precipitation at miscellaneous sites	358

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

‡ No winter record.

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

Station name	Station number	Drainage ² area (mi)	Period of record (water years)
SUSQUEHANNA RIVER BASIN--continued			
Tioga River at Lindley, NY (d)	01520500 *	771.0	1930-95
Canisteo River at Hornell, NY (d)	01522000	93.7	1938-43
Karr Valley Creek at Almond, NY (d)	01522500	27.4	1937-68
			1973-86
Canacadea Creek at Hornell, NY (d)	01524000	58.5	1925-29
Bennett Creek at Canisteo, NY (d)	01525000	95.3	1938-47
Canisteo River at West Cameron, NY (d)	01525500 *	340.0	1930-31,
			1937-70
Tuscarora Creek Tributary near Woodhull, NY (d)	01525750	9.43	1966-68
Tuscarora Creek near South Addison, NY (d)	01526000	114.0	1937-70
Mulholland Creek near Erwins, NY (d)	01526495	5.06	1966-68
Kirkwood Creek near Atlanta, NY (d)	01526980	4.65	1966-68
Cohocton River at Cohocton, NY (d)	01527000 *	52.2	1951-82
Switzer Creek near Cohocton, NY (d)	01527050	3.45	1979-81
Cohocton River at Avoca, NY (d)	01527500	157.0	1938-45
			1996-97
Fivemile Creek near Kanona, NY (d)	01528000	66.8	1937-95
Mud Creek near Savona, NY (d)	01529000	76.6	1918-20,
			1937-82
Newtown Creek at Breesport, NY (d)	01530380	20.6	1975-79‡
ALLEGHENY RIVER BASIN			
Olean Creek near Olean, NY (d)	03010800	198.0	1958-68‡,
			1976-81
Great Valley Creek near Salamanca, NY (d)	03011000	137.0	1951-68
Quaker Run near Quaker Bridge, NY (d)	03011550	28.5	1963-64‡
Conewango Creek below South Dayton, NY (d)	03012834	63.3	1975-78‡
Conewango Creek at Waterboro, NY (d)	03013000	290.0	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 Tributary No. 2 to Tributary No. 4 near West Valley, NY (d)	04213442	.002	1976-77
Franks Creek Tributary No. 3 to Tributary No. 4 near West Valley, NY (d)	04213443	.004	1976-77
Buttermilk Creek near Springville, NY (d)	04213450	30.0	1962-68
South Branch Cattaraugus Creek near Cattaraugus, NY (d)	04213492	70.4	1969,
			1980-82
Cattaraugus Creek at Versailles, NY (d)	04214000	466.0	1915-23
Cattaraugus Creek below Irving, NY (e)	0421402001	554	1985-93
Eighteenmile Creek at North Boston, NY (d)	04214200	37.2	1963-68
Buffalo Creek near Wales Hollow, NY (d)	04214400	76.9	1963-68
ST. LAWRENCE MAINSTEM			
Black Rock Canal at Porter Avenue, Buffalo, NY (e)	04216052	263,700.0	1984-94

‡ No winter record.

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

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

‡ No winter record.

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

Station name	Station number	Drainage ² area (mi)	Period of record (water years)
STREAMS TRIBUTARY TO LAKE ONTARIO--continued			
Dryden Lake Inlet near Harford, NY (d)	04233678	2.73	1973-75
Virgil Creek at Freeville, NY (d)	04233700	40.3	1973-76
Salmon Creek at Ludlowville, NY (d)	04234018	81.7	1965-68
Canoga Creek at Canoga, NY (d)	04234055	3.20	1965-68
Mud Creek at East Victor, NY (d)	04234200 *	64.2	1958-68
Red Creek near Walworth, NY (d)	04234270	23.8	1965-69
Flint Creek at Potter, NY (d)	04235150	31.0	1964-68 , 1971-79
Flint Creek at Phelps, NY (d)	04235250	102.0	1960-95
Clyde River at Lock 26 Clyde, NY (d)	04235271	845.0	1935-67
Black Brook at Tyre, NY (d)	04235276	19.0	1985-95
Owasco Inlet at Moravia, NY (d)	04235300	106.0	1960-68
Skaneateles Lake at Skaneateles, NY (e)	04236000	72.7	1968-95
Skaneateles Creek at Willow Glen, NY (d)	04236500	75.8	1895-1908
Onondaga Creek Trib. #6 above main mudboil depression area (d)	04237944	0.32	1991-94
Onondaga Creek at Syracuse, NY (d)	04239500	95.0	1940-49
Onondaga Creek at Temple Street Syracuse, NY (d)	04240000	104.0	1949-51
Spafford Creek at Bromley Road near Spafford, NY (d)	04240145	3.14	1982-84
Spafford Creek at Sawmill Road near Spafford, NY (d)	04240150	8.06	1982-83, 1986
Rice Brook at Rice Grove, NY (d)	0424015305	2.64	1982-83
Willow Brook at Lader Point, NY (d)	0424016205	3.73	1982-83
Amber Brook at Amber, NY (d)	0424016825	3.75	1982-83
Van Benthuyssen Brook near Amber, NY (d)	0424016975	5.84	1982-83
West Branch Fish Creek at Blossvale, NY (d)	04241200	204.0	1966-68
East Branch Fish Creek at Fish Creek near Constableville, NY (d)	04241500	74.3	1924-32
East Branch Fish Creek at Taberg, NY (d)	04242500	188.0	1923-95
Chittenango Creek near Chittenango, NY (d)	04244000	66.3	1950-68
Limestone Creek at Fayetteville, NY (d)	04245000	85.5	1940-86
Butternut Creek below Dewitt, NY (d)	04245250	58.6	1964-66
Scriba Creek near Constantia, NY (d)	04245840 *	38.4	1966-68
Lake Ontario at Oswego, NY (e)	04249010	295,800.0	1860-1995

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 ² area (mi ²)	Type of record	Period of record (water years)
SUSQUEHANNA RIVER BASIN				
Unadilla River at Rockdale, NY	01502500	520.0	Temp.	1957
Susquehanna River at Conklin, NY	01503000	2,232.0	Temp.	1955
Chenango River at Greene, NY	01507000	593.0	Temp.	1957
Tioughnioga River at Cortland, NY	01509000	292.0	Temp. S.C.	1956-92
Susquehanna River at Johnson City, NY	01513110	3,891.0	Temp.	1956-92
Susquehanna River at Vestal, NY	01513500	3,941.0	Temp.	1961-62, 1966, 1968
Tioga River at Lindley, NY	01520500	771.0	Temp. Sed., S.C.	1975-81, 1975-77
Canisteo River at West Cameron, NY	01525500	340.0	Temp.	1957
Cohocton River at Cohocton, NY	01527000	52.2	Sed.	1980
Switzer Creek near Cohocton, NY	01527050	3.46	Sed.	1979-80
ALLEGHENY RIVER BASIN				
Allegheny River at Red House, NY	03011500	1,690.0	Temp.	1954-56
STREAMS TRIBUTARY TO LAKE ERIE				
Cattaraugus Creek at Gowanda, NY	04213500	436.0	Temp., S.C.	1978-81
Buffalo Creek at Gardenville, NY	04214500	142.0	Temp.	1962
STREAMS TRIBUTARY TO NIAGARA RIVER				
Tonawanda Creek at Batavia, NY	04217000	171.0	Temp., S.C.	1978-81
Erie (barge) Canal at Lock 35 at Lockport, NY	04218600	--	Temp.	1962
Erie (barge) Canal (west of Genesee River) at Rochester, NY	04218700	--	Temp.	1962
Niagara River at Niagara Falls, NY	04219350	--	Temp.	1959
Niagara River at Fort Niagara, NY	04219640	265,000.0	Temp., S.C.	1973-80
STREAMS TRIBUTARY TO LAKE ONTARIO				
Genesee River at Wellsville, NY	04221000	288.0	Sed.	1975-77
Genesee River at Scio, NY	04221500	308.0	Temp.	1955
Van Campen Creek at Friendship, NY	04221600	45.9	Temp.	1964-67
Genesee River at Portageville, NY	04223000	984.0	Sed.	1975-77
Canaseraga Creek at Canaseraga, NY	04224650	58.4	Temp.	1964-67
Canaseraga Creek at Groveland, NY	04225500	180.0	Temp.	1961
Canaseraga Creek at Shakers Crossing, NY	04227000	335.0	Sed.	1975-77
Genesee River at Mount Morris, NY	04227500	1,424.0	Temp., Sed.	1955-56, 1975-77
Genesee River at Avon, NY	04228500	1,673.0	Sed.	1975-77
Oatka Creek at Garbutt, NY	04230500	200.0	Temp., Sed.	1960-61, 1975-77
Black Creek at Churchville, NY	04231000	130.0	Temp.	1962
Genesee River at Rochester, NY	04232000	2,467.0	Temp., Sed.	1955-71, 1975-77
Cayuga Lake Trib. No. 6 at Interlaken, NY	04234035	--	Temp.	1965
Canoga Creek at Canoga, NY	04234055	3.20	Temp.	1965
Seneca River at Baldwinsville, NY	04237500	3,138.0	Temp.	1958-75
Spafford Creek at Bromley Road near Spafford, NY04240145		3.14	Sed.	1981-83
Spafford Creek at Sawmill Road near Spafford, NY04240150		8.06	Sed.	1981-83

DISCONTINUED SURFACE-WATER-QUALITY STATIONS--continued

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

WATER RESOURCES DATA - NEW YORK, 1998
Volume 3.--Western New York

INTRODUCTION

Water resources data for the 1998 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 69 gaging stations; stage only at 14 gaging stations; stage and contents at 6 gaging stations; water quality at 22 gaging stations, 17 wells, and 63 partial-record stations; water levels at 19 observation wells; daily precipitation totals at 3 sites, and chemical quality of precipitation at 2 sites. Also included are data for 44 crest-stage partial-record stations. Locations of these sites are shown on figure 1. Additional water data were collected at various sites not involved in the systematic data-collection program and are published as measurements made at miscellaneous sites. These data together with the data in Volumes 1 and 2 represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State, local, and Federal agencies in New York.

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

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

Streamflow and water-quality data beginning with the 1971 water year, and ground-water data beginning with the 1975 water year are published only in reports on a State-boundary basis. Beginning with the 1975 water year, these Survey reports carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report NY-98-3." 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 1998, through cooperative agreement with the Survey are:

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

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

The following organizations aided in collecting records:

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

Organizations that supplied data are acknowledged in station descriptions.

WATER RESOURCES DATA - NEW YORK, 1998

SUMMARY OF HYDROLOGIC CONDITIONS¹Surface Water

Streamflow throughout western New York during the 1998 water year was characterized by above-average annual mean discharges (table 1) at most monitored sites. The greatest departures from normal streamflow conditions occurred during January, when monthly mean discharge averaged 354 percent of the normal monthly discharges, and in July, when monthly mean discharge ranged from 182 percent to 1,160 percent of the normal monthly discharges (table 2). Departures from the median discharges at two index stations—Susquehanna River at Conklin and Allegheny River at Salamanca—are shown in figures 2 and 3.

Table 1.--Mean discharges for water year 1998 and mean annual discharges for the period of record, for selected streams.
[Locations are shown in fig. 4. Discharges are in cubic feet per second.]

Station no.	Name	Period of record	Mean annual discharge for period of record	Mean discharge for 1998 water year	Percent difference
01503000	Susquehanna River at Conklin	1913-97	3,591	3,729	+ 3.8
01531000	Chemung River at Chemung	1906-13, 1915-97	2,567	3,634	+ 41.6
03011020	Allegheny River at Salamanca	1904-97	2,794	2,770	- 0.9
04217000	Tonawanda Creek at Batavia	1944-97	213	298	+ 39.9
04221000	Genesee River at Wellsville	1955-58, 1973-97	396	425	+ 7.3
04230500	Oatka Creek at Garbutt	1946-97	217	313	+ 44.2
04234000	Fall Creek near Ithaca	1926-97	187	229	+ 22.5

The 1998 water year began with below-normal temperatures and precipitation. Streamflow in October was normal at most monitored sites despite the dry weather. In November, precipitation in western New York was above normal, and streamflow either remained normal or increased into the excessive range (upper 25 percent of the record) throughout most of the western part of the State.

Precipitation for December was average in most of western New York, although, lake-effect snowstorms produced above-average snowfall in parts of the Lake Erie and Lake Ontario snowbelts. Streamflow either remained normal or decreased into the deficient range (lower 25 percent of the record) throughout most of the western part of the State.

Unseasonably warm temperatures and heavy rainfall on January 7-9 resulted in rapid snowmelt across the State, and caused flooding throughout western New York; the worst flooding occurring on January 8 and 9. Streamflow in January increased into the excessive range at most monitored sites. Overall, New York received 201 percent of the normal precipitation for January, making this the third wettest January on record, behind only 1978 and 1979. The highest monthly mean discharges on record for January were recorded at Tonawanda Creek at Batavia, Oatka Creek at Garbutt, and Fall Creek near Ithaca, and the second highest monthly mean discharges were recorded at Susquehanna River at Conklin, Chemung River at Chemung, and Genesee River at Wellsville.

Table 2.-- Monthly mean discharge for water year 1998 as percentage of period of record monthly median discharge, at selected sites.
[Locations are shown in fig. 4.]

Station no.	Name	Period of record	Monthly mean discharge, as percentage of monthly median discharge			
			Jan	July	Aug	Sep
01503000	Susquehanna River at Conklin	1913-97	283	281	67	53
01531000	Chemung River at Chemung	1915-97	466	409	87	71
03011020	Allegheny River at Salamanca	1904-97	269	182	81	51
04217000	Tonawanda Creek at Batavia	1944-97	381	1,160	147	152
04221000	Genesee River at Wellsville	1955-58, 1973-97	323	259	76	33
04230500	Oatka Creek at Garbutt	1946-97	400	632	125	109
04234000	Fall Creek near Ithaca	1925-97	359	249	86	66

Temperatures were warmer than normal during February for most of western New York. Streamflow in western New York remained excessive in some streams and decreased into the normal range in others. Snowfall was generally below normal, especially in Buffalo, where only 1.8 inches was recorded, making this Buffalo's least snowiest February on record. March precipitation was normal or slightly above normal across most of the State and streamflow was in the normal range at most monitored sites.

¹

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

WATER RESOURCES DATA - NEW YORK, 1998

Air temperatures remained warm through April, making the first third of 1998 the warmest such period in 104 years of record. Precipitation for the month was slightly less than normal. As a result, streamflow ranged from normal to deficient at all monitored sites. Continuing above-normal temperatures and near-normal precipitation in western New York during May, caused streamflow to remain in the normal-to-deficient ranges for the month.

Mild weather and slightly above-normal precipitation prevailed throughout western New York during June. Precipitation throughout the State varied; the statewide June average was 173 percent of normal, and most of the precipitation was in the eastern part. Streamflow increased slightly in western New York and remained in the normal range at most monitored sites.

Cool weather returned during July. Precipitation varied greatly across New York; and most of the precipitation in western New York fell in the Great Lakes basins. Flood warnings were issued for parts of Niagara, Erie, and Monroe Counties for July 8-10. Flooding of Tonawanda Creek forced evacuations in Attica. Daily maximum precipitation records were broken in Rochester on July 1 and 8 and in Buffalo on July 4 and 8. Streamflow at all monitored sites increased and was in the excessive range for the month at several sites. Monthly mean discharges for Tonawanda Creek at Batavia and Oatka Creek at Garbutt reached new highs, and the monthly mean for Fall Creek near Ithaca was the second highest on record.

Warm, dry conditions prevailed throughout the State during August. Precipitation averaged 87 percent of normal throughout the State, despite record breaking daily totals in Rochester on August 18 and 25. Streamflow decreased to normal at most monitored sites across western New York. September temperatures remained above normal, and precipitation was below normal. The first 9 months of 1998 were the second warmest January-September period on record and precipitation during this period averaged only 72 percent of normal across the State. Streamflow during September ranged from normal to deficient at all monitored sites.

Water Quality

Water-quality data from Cattaraugus Creek at Gowanda (location shown in fig. 5) was collected and analyzed as part of the USGS National Water-Quality Assessment (NAWQA) project in the Lake Erie-Lake St. Clair Basin. Objectives of the NAWQA program are to broadly characterize the quality of water in the Nation's streams and aquifers in relation to human and natural factors. This project is one of 60 river-basin and aquifer-assessment projects being implemented across the Nation. The period of intensive data collection for the Lake Erie-Lake St. Clair Basin projects was water years 1996-98.

Suspended sediment samples from the Tully Valley mudboil depression area (MDA) indicate a nearly constant sediment loading to Onondaga Creek; sediment loading in 1997 was 0.7 tons per day whereas in 1998 it was 0.65 tons per day. The loading rate has been nearly constant, even though precipitation in the spring of 1998 was heavier than normal and that in summer and fall was less than normal.

Water-quality analyses along Onondaga Creek in the Tully Valley indicate that a series of depressurizing wells drilled around the MDA discharge water from a fresh water aquifer and a brackish-water aquifer. Water of similar water quality (high specific conductance and chloride concentration) farther downstream from Bare Mountain mudslide springs and, as a result, further degrades the quality of the creek water. The difference between water quality is related to the proximity of the discharging water to its source from the surrounding bedrock valley wall versus discharge through the unconsolidated materials below the valley floor. A synoptic study of water quality, macro-invertebrate and fish species and diversity was conducted this past summer to document current ecological conditions in the creek and to establish a baseline from which to gage any future changes in the creek.

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

In July 1997, the City of Rochester and the U. S. Geological Survey began a cooperative effort to appraise the occurrence and distribution of pesticides in the Hemlock Lake and Canadice Lake watersheds, which provide drinking water for the city. The monitoring effort included six surveys of pesticide concentrations in both lakes and in six streams within their watersheds. Samples were collected during baseflows and storm runoffs. Samples of bottom material from both lakes were also collected on two dates for analysis of PCB and organochloride insecticides.

WATER RESOURCES DATA - NEW YORK, 1998

Ground Water

Ground-water levels in shallow, unconfined aquifers in western New York typically show a seasonal pattern with a sharp rise during the spring, and a gradual decline from summer through early fall. Water levels also rise in response to aquifer recharge from precipitation. 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 includes physical evaporation, transpiration by vegetation, and ground-water evapotranspiration. Recharge is typically greatest during the late fall and early to mid spring, when transpiration is minimal, and the ground is not frozen and allows infiltration. Water levels rise during the spring and usually exceed those reached in the preceding fall, mainly as a result of recharge from the melting snow-pack. Water levels decline during the late spring and summer, when plant growth and 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 the average) fairly evenly distributed by 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 are typically less responsive to individual recharge events than those in unconfined aquifers and typically show a subdued and delayed response because their hydraulic connection to the overlying unconfined aquifers is indirect.

The hydrographs in figure 3 show the minimum, maximum, median long-term monthly, and the current water levels at three observation wells during the 1998 water year. The hydrograph for well Ct-121 in Cattaraugus County (western New York) illustrates the water-level fluctuations under natural (non-pumping) conditions in a representative confined sand and gravel aquifer. The hydrograph for well Og-23 in Otsego County (central New York) illustrates seasonal water-level fluctuations under natural (non-pumping) conditions in a shallow, unconfined aquifer in till. The hydrograph for well Bm-121 in Broome County (south-central New York) illustrates water-level fluctuations in an unconfined sand aquifer that are affected by pumping.

Water levels under confined conditions at well Ct-121 were above the median height at the start of the year and were at maximum levels in May and remained above median height throughout the remainder of the water year. Water levels at well Og-23 were below median height at the beginning of the water year, then rose to median height in November and remained at or near median height during most of the year until September, when they declined to well below the median. Water levels at well Bm-121 remained above the median height throughout the water year. Water-level fluctuations at this well are affected by pumping at a nearby municipal well and by floods of the Susquehanna River.

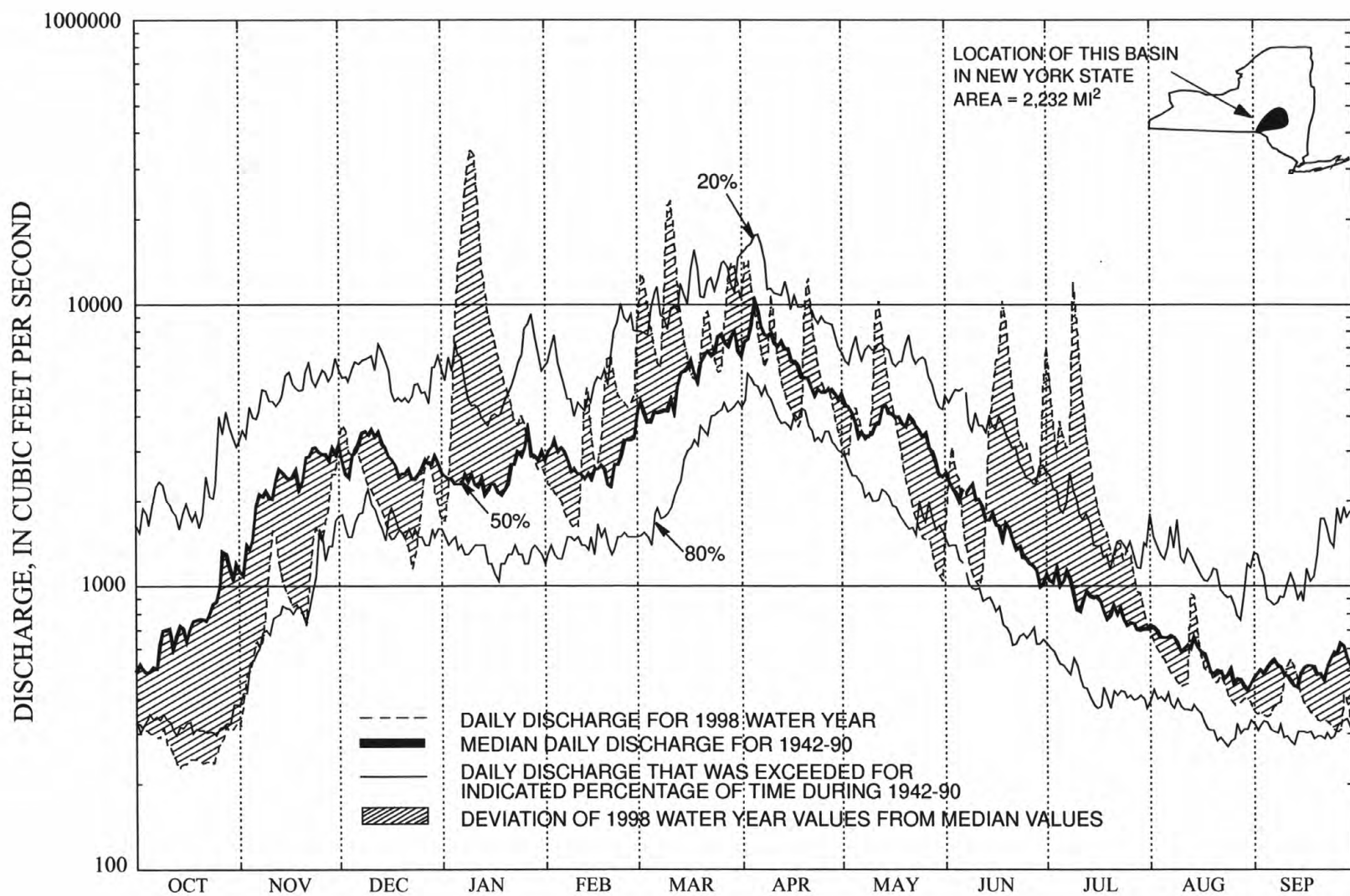


Figure 1.--Comparison of discharge at Susquehanna River at Conklin during 1998 water year with median discharge for 1942-90.

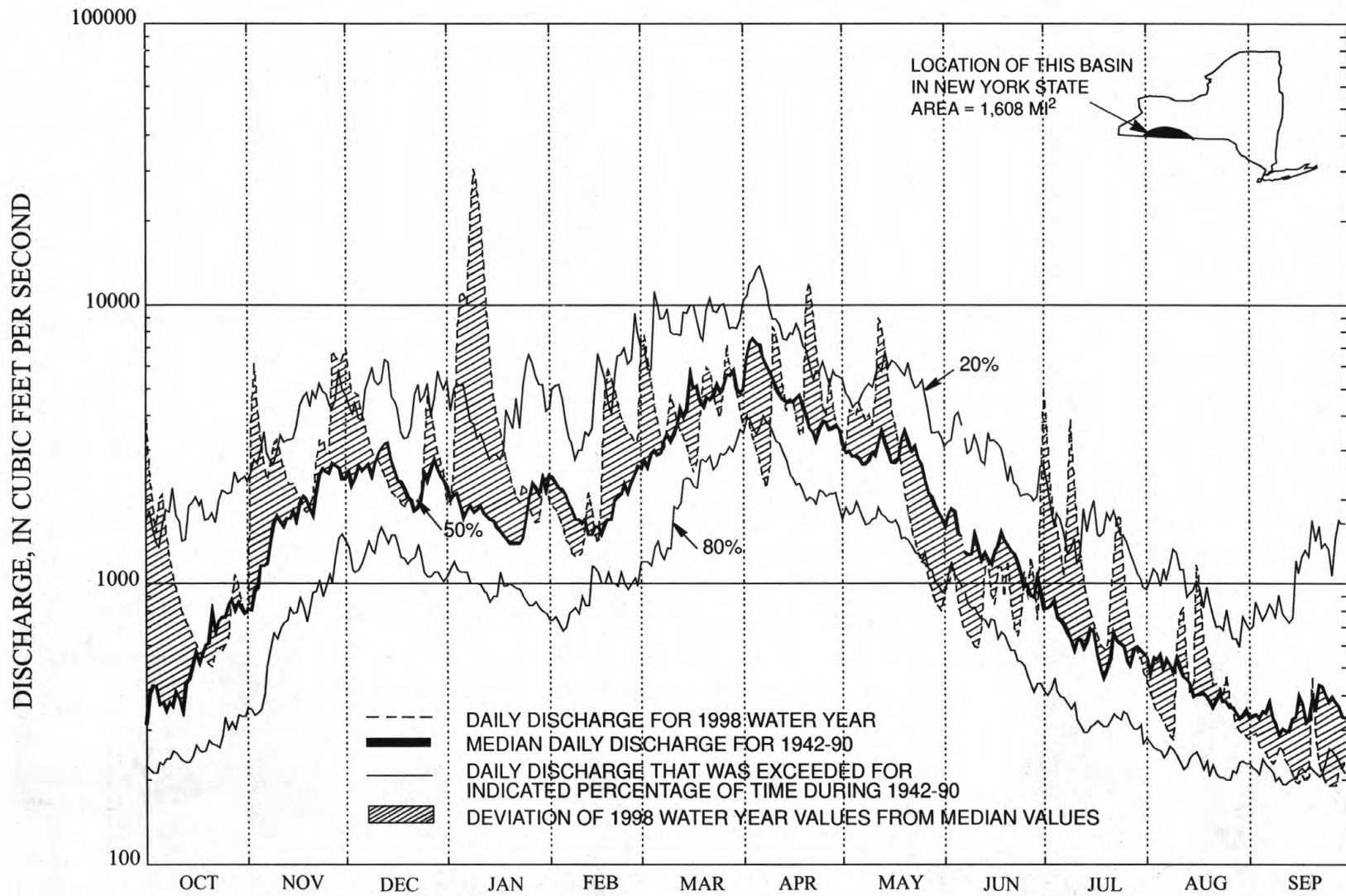


Figure 2.-- Comparison of discharge at Allegheny River at Salamanca during 1998 water year with median discharge for 1942-90.

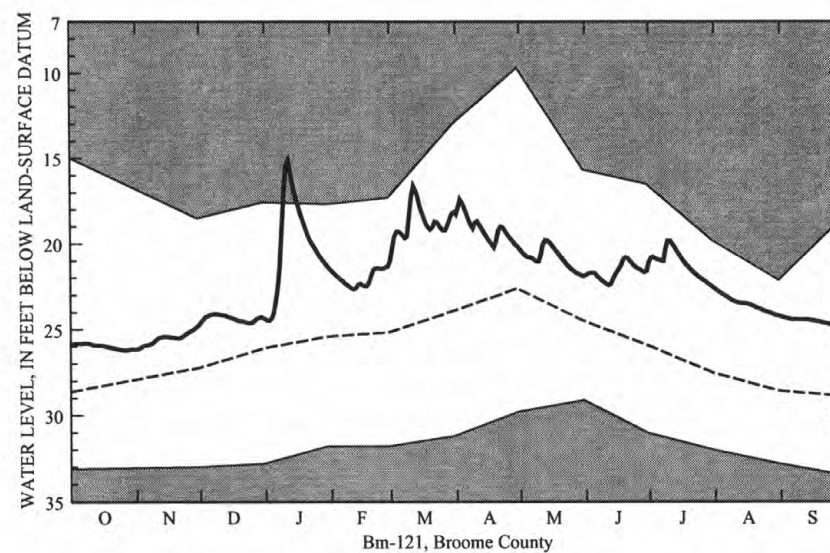
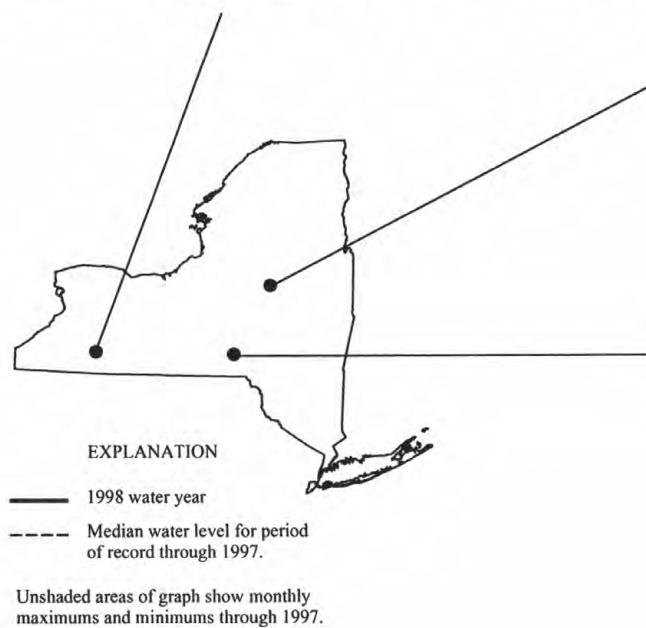
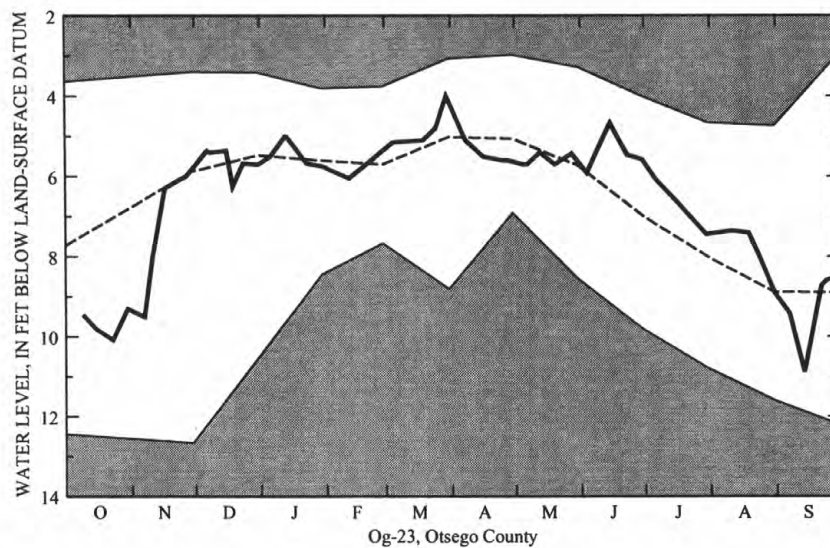
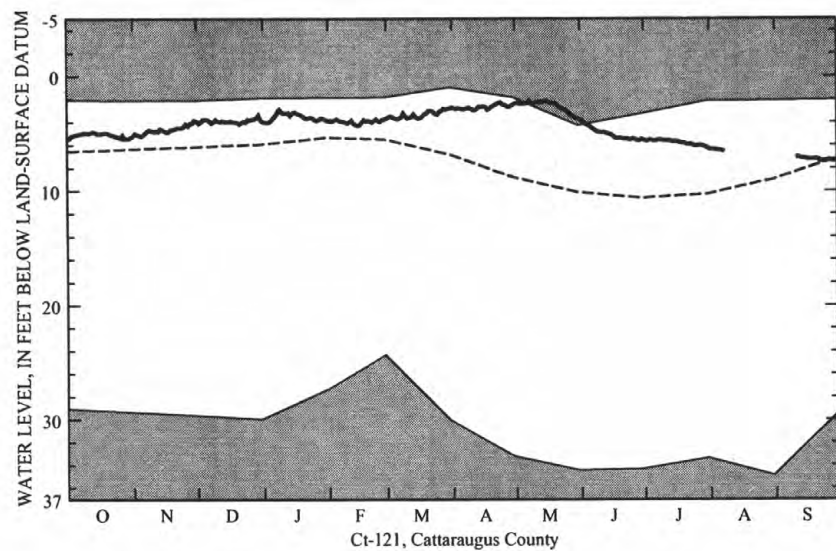


Figure 3.--Hydrographic comparisons, ground-water levels at selected observation wells.

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SPECIAL NETWORKS AND PROGRAMS

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

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

EXPLANATION OF THE RECORDS

The surface-water and ground-water data published in this report are for the water year that began October 1, 1997, and ended September 30, 1998. A calendar of the water year is provided on the inside of the front cover. The data include discharge or stage of streams and canals, surface area, stage, and contents of lakes or reservoirs, surface-water quality, and ground-water levels. The locations of the stations and wells where data were collected are shown in figure 1. The following provide an explanation of how the data were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

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

Downstream Order System

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

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

Latitude-Longitude System

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

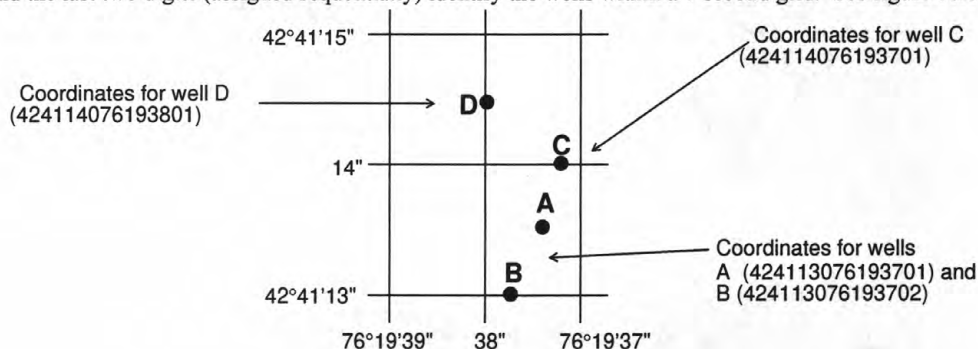


Figure 4. System for numbering wells (latitude and longitude)

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Records of Stage and Water Discharge

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

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

Data Collection and Computation

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

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

For stream-gaging stations, results of individual discharge measurements are plotted against corresponding stages to develop stage-discharge relation curves. From these curves, rating tables that indicate the approximate discharge for any stage within the range of measurements are prepared. If it is necessary to express discharge greater than measured, the rating curves are extended on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting.

Daily mean discharges are computed by applying the instantaneous stages (gage heights) to the stage-discharge curves or rating tables and averaging these discharges for each day. Monthly and yearly mean discharges are computed from the daily figures. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes of the personnel making the measurements and observers are applied to the gage heights before the discharges are determined from the curves or tables. This shifting-control method also is used if the stage-discharge relation is changed temporarily because of aquatic growth or debris on the control.

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

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

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

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

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

Data Presentation

Streamflow data in this report are presented in a new format that is considerably different from the format in data reports prior to the 1992 water year. The major changes are that statistical characteristics of discharge now appear in tabular summaries following the water-year data table. These changes represent the results of a pilot program to reformat the annual water-data report to meet current user needs and data preferences.

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

Station manuscript

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

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

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

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

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

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

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

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

EXTREMES FOR PERIOD OF RECORD.--Extremes may include maximum and minimum stages and maximum and minimum discharges or content. Unless otherwise qualified, the maximum discharge or content is the instantaneous maximum corresponding to the highest stage that occurred. The highest stage may have been obtained from a graphic or electronic data logger, a crest-stage gage, or by direct observation of a nonrecording gage. If the maximum stage did not occur on the same day as the maximum discharge or content, it is given separately. Similarly, the minimum is the instantaneous minimum discharge, unless otherwise qualified, and was determined and is reported in the same manner as the maximum.

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

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

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

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

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

Headings for AVERAGE DISCHARGE have been deleted and the information contained in this paragraph is now presented in the tabular summaries following the discharge table or in the REMARKS paragraph, as appropriate. No changes have been made to the data presentations of lake contents.

Data table of daily mean values

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

Statistics of monthly mean data

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

Summary statistics

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Hydrographs of daily mean flows at water-discharge stations follow the summary statistics tabulation. These hydrographs show the current water year daily mean discharges and their relation to the maximum, minimum, and median of record (see years used for statistical summary) through the previous water year for sites with more than 5 years of record. The hydrograph for sites with 5 years or less will only show daily mean discharges for the current water year. A log scale is used for all hydrographs and therefore, zero daily flows are plotted as 0.001 ft ³/s.

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

Identifying Estimated Daily Discharge

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

Accuracy of the Records

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

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

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

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

Other Records Available

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

Records of Surface-Water Quality

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

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

Classification of Records

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

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

Arrangement of Records

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

On-site Measurements and Sample Collection

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

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

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

Water Temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at the time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, either mean temperatures and/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 Ithaca subdistrict 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 concentrations in the cross sections. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow and in predicting long-term sediment-discharge characteristics of the stream.

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

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

In addition to the records of instantaneous suspended-sediment discharge, the percentage of suspended sediment finer than 0.062 mm are reported at continuing-record sites.

Laboratory Measurements

Sediment samples, samples for biochemical-oxygen demand (BOD), samples for indicator bacteria, and daily samples for specific conductance are analyzed locally. All other samples are analyzed in the Geological Survey laboratories in Arvada, Colo. Methods used to analyze sediment samples and to compute sediment records are described in the TWRI, Book 5, Chapter C1. Methods used by the U. S. Geological Survey laboratories are given in the TWRI Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, A4 and A5. These methods are consistent with ASTM standards and generally follow ISO standards.

Data Presentation

For continuing-record stations, information pertinent to the history of station operation, including station location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily precedes the data tables. If the location is identical to that of the discharge gaging station, neither the LOCATION nor the DRAINAGE AREA statements are repeated. Following is a list of headings and a discussion of the information provided under each heading.

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

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

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

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

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

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

EXTREMES.--Maximums and minimums are given only for parameters measured daily or more frequently. None are given for parameters measured weekly or less frequently, because the true maximum or minimum may not have been sampled. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.--Published data are occasionally revised in light of new information, and appropriate revisions are made to the Water-Quality File in the U.S. Geological Survey's computerized data system, WATSTORE, and subsequently by monthly transfer of update transactions to the U.S. Environmental Protection Agency's STORET system. Because the usual volume of updates makes it impractical to document individual changes in the State data-report series or elsewhere, potential users of U.S. Geological Survey water-quality data are encouraged to obtain all required data from the appropriate computer file to insure the most recent updates.

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

Remark Codes

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

PRINTED OUTPUT

E
>
<
K

REMARK

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

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

Water Quality-Control Data

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

Blank Samples

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

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

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

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

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

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

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

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

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Reference Samples

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

Replicate Samples

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

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

Spike Samples

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

Dissolved Trace-Element Concentrations

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

Change in National Trends Network Procedures

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

Categories of Water-Quality Data

There is a broad range of water-quality parameters available for most stations whose record exceeds more than a few years operation. Sampling schedules are often intermittent for certain types of data, with analyses available for some but not all years within a station's period of record. An accurate description of the variety of data available is shown by grouping similar parameters into a few general categories, which are listed in the "PERIOD OF RECORD" paragraph. Each category of data is followed by a notation of the water year(s) for which data is available and a letter code describing the frequency of sampling (see following section, "Frequency-of-Sampling Notation").

The "PERIOD OF RECORD" paragraph lists the following categories of data to describe information available.

CHEMICAL DATA: Usually includes most of the "major ions," and may often include some of the following physical properties: specific conductance, pH, temperature, color, turbidity, dissolved oxygen.

MINOR ELEMENT DATA: Comprises the "heavy metals" and some of the "alkaline earth" groups. Determinations usually include some but not all of the following: Al, As, Ba, Cd, Cr, Co, Cu, Hg, Li, Ni, Pb, Se, Sn, Sr, Zn.

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

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

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

NUTRIENT DATA: Constituents containing nitrogen or phosphorus. Results usually include several of the following: nitrite plus nitrate, phosphorus, ammonia nitrogen, organic nitrogen, ammonia plus organic nitrogen (Kjeldahl nitrogen).

BIOLOGICAL DATA: The identification and concentration of microscopic plant organisms (phytoplankton, periphyton), or enteric bacteria (total coliform, fecal coliform, or fecal streptococcal) living in aquatic habitats.

SEDIMENT DATA: Suspended-sediment concentration, suspended-sediment discharge, and particle-size data for discrete samples.

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

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Frequency-of-Sampling Notation

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

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

Records of Ground-Water Levels

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

Data Collection and Computation

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

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

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

Data Presentation

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

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

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

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

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

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

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

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

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

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

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

Records of Ground-Water Quality

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

Data Collection and Computation

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

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

Data Presentation

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

ACCESS TO USGS WATER DATA

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

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

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

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DEFINITION OF TERMS

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

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

Algae are mostly aquatic single-celled, colonial, or multi-celled plants, containing chlorophyll and lacking roots, stems, and leaves.

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as the organisms which produce colonies within 24 hours when incubated at 35°C \pm 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestines or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C \pm 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.

Escherichia coli (E. coli) are bacteria present in the intestines and feces of warm-blooded 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. Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in intestines of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C \pm 1.0°C on KF medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Bed material See Bottom material.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by microorganisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area or volume of habitat.

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

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

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

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

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

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

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

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

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

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

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water, and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

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

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

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

Confined aquifer is a term used to describe an aquifer containing water between two relatively impermeable boundaries. 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 (it can also be above ground level). Formerly called artesian aquifer.

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

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

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

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

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

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

Cubic foot per second (ft^3/s , ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

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

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

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

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

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

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Dissolved-solids concentration of water is determined either analytically by the "residue-on-evaporation" method, or mathematically by totalling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.492 to reflect the change.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay.....	0.00024 — 0.004	Sedimentation.
Silt.....	.004 — .062	Sedimentation.
Sand062 — 2.0	Sedimentation or Sieve.
Gravel	2.0 — 64.0	Sieve.

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. The sample is subjected to mechanical and chemical dispersion in distilled water before analysis.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, mass or volume.

Periphyton is the assemblage of microorganism attached to and living upon submerged solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms.

Pesticides are chemical compounds used to control undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Insecticides and herbicides, which control insects and plants respectively, are the two categories reported.

Picocurie (PC, pCi) is one trillionth (1×10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment, and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells/mL of sample.

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

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

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

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

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

Polychlorinated naphthalenes (PCNs) are industrial chemicals that are mixtures of chlorinated naphthalene compounds. They have properties and applications similar to polychlorinated biphenyls (PCBs) and have been identified in commercial PCB preparations.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Substrate is the physical surface upon which an organism lived.

Natural substrates refers to any naturally occurring emerged or submersed solid surface, such as a rock or tree, upon which an organism lived.

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

Surface area of a lake is that area outlined on the latest U.S.G.S. topographic map the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimeted. All areas shown are those for the stage when the planimeted map was made.

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

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Suspended (as used in table of chemical analyses) refers to the amount (concentration) of the total concentration in a water-sediment mixture. The water-sediment mixture is associated with (or sorbed on) that material retained on a 0.45-micrometer filter.

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

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

Suspended, solids is the amount (concentration) of undissolved material in a water sample. The terms suspended solids and suspended sediment differ in the method used to process the water sample. Suspended sediment is determined on a whole-water sample while suspended solids is determined on a subsample of the whole-water sample. The results of suspended sediment analyses are frequently not directly comparable with the results of suspended solids analyses.

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

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

Synoptic Studies are short-term investigations of specific water-quality conditions during selected seasonal or hydrologic 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.

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

Kingdom	Animal
Phylum	Arthropoda
Class	Insecta
Order	Ephemeroptera
Family	Ephemeridae
<u>Genus</u>	<u>Hexagenia</u>
<u>Species</u>	<u>Hexagenia limbata</u>

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

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

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

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

Total (as used in tables of chemical analyses):

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

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

Water table is the surface of a ground-water body at which the water is at atmospheric pressure. It is defined by the levels at which water stands in wells that penetrate the water body just far enough to hold standing water.

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

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

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

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

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

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Selected Recent Water-Related U.S. Geological Survey Reports
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PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

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

The reports listed below are for sale by the U.S. Geological Survey, Branch of Information Services, Box 25286, Federal Center, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be sent by check or money order payable to the U.S. Geological Survey. Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

Book 1. Collection of Water Data by Direct Measurement**Section D. Water Quality**

- 1-D1. *Water temperature—influential factors, field measurement, and data presentation*, by H. H. Stevens, Jr., J.F. Ficke, and G. F. Smoot: USGS-TWRI Book 1, Chapter D1. 1975. 65 pages.
- 1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W.W. Wood: USGS-TWRI Book 1, Chapter D2. 1976. 24 pages.

Book 2. Collection of Environmental Data**Section D. Surface Geophysical Methods**

- 2-D1. *Application of surface geophysics to ground-water investigations*, by A.A. R. Zohdy, G.P. Eaton, and D.R. Mabey: USGS-TWRI Book 2, Chapter D1. 1974. 116 pages.
- 2-D2. *Application of seismic-refraction techniques to hydrologic studies*, by F.P. Haeni: USGS-TWRI Book 2, Chapter D2. 1988. 86 pages.

Section E. Subsurface Geophysical Methods

- 2-E1. *Application of borehole geophysics to water-resources investigations*, by W.S. Keys and L.M. MacCary: USGS-TWRI Book 2, Chapter E1. 1971. 126 pages.
- 2-E2. *Borehole geophysics applied to ground-water investigations*, by W.S. Keys: USGS-TWRI Book 2, Chapter E2. 1990. 150 pages.

Section F. Drilling and Sampling Methods

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

Book 3. Applications of Hydraulics**Section A. Surface-Water Techniques**

- 3-A1. *General field and office procedures for indirect discharge measurements*, by M.A. Benson and Tate Dalrymple: USGS-TWRI Book 3, Chapter A1. 1967. 30 pages.
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- 3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H.F. Matthai: USGS-TWRI Book 3, Chapter A4. 1967. 44 pages.
- 3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS-TWRI Book 3, Chapter A5. 1967. 29 pages.
- 3-A6. *General procedure for gaging streams*, by R.W. Carter and Jacob Davidian: USGS-TWRI Book 3, Chapter A6. 1968. 13 pages.
- 3-A7. *Stage measurement at gaging stations*, by T.J. Buchanan and W.P. Somers: USGS-TWRI Book 3, Chapter A7. 1968. 28 pages.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS—Continued

- 3-A8. *Discharge measurements at gaging stations*, by T.J. Buchanan and W.P. Somers: USGS—TWRI Book 3, Chapter A8. 1969. 65 pages.
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- 3-A10. *Discharge ratings at gaging stations*, by E.J. Kennedy: USGS—TWRI Book 3, Chapter A10. 1984. 59 pages.
- 3-A11. *Measurement of discharge by the moving-boat method*, by G.F. Smoot and C.E. Novak: USGS—TWRI Book 3, Chapter A11. 1969. 22 pages.
- 3-A12. *Fluorometric procedures for dye tracing*, Revised, by J.F. Wilson, Jr., E.D. Cobb, and F.A. Kilpatrick: USGS—TWRI Book 3, Chapter A12. 1986. 34 pages.
- 3-A13. *Computation of continuous records of streamflow*, by E.J. Kennedy: USGS—TWRI Book 3, Chapter A13. 1983. 53 pages.
- 3-A14. *Use of flumes in measuring discharge*, by F.A. Kilpatrick and V.R. Schneider: USGS—TWRI Book 3, Chapter A14. 1983. 46 pages.
- 3-A15. *Computation of water-surface profiles in open channels*, by Jacob Davidian: USGS—TWRI Book 3, Chapter A15. 1984. 48 pages.
- 3-A16. *Measurement of discharge using tracers*, by F.A. Kilpatrick and E.D. Cobb: USGS—TWRI Book 3, Chapter A16. 1985. 52 pages.
- 3-A17. *Acoustic velocity meter systems*, by Antonius Laenen: USGS—TWRI Book 3, Chapter A17. 1985. 38 pages.
- 3-A18. *Determination of stream reaeration coefficients by use of tracers*, by F.A. Kilpatrick, R.E. Rathbun, Nobuhiro Yotsukura, G.W. Parker, and L.L. DeLong: USGS—TWRI Book 3, Chapter A18. 1989. 52 pages.
- 3-A19. *Levels at streamflow gaging stations*, by E.J. Kennedy: USGS—TWRI Book 3, Chapter A19. 1990. 31 pages.
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- 3-A21. *Stream-gaging cableways*, by C. Russell Wagner: USGS—TWRI Book 3, Chapter A21. 1995. 56 pages.

Section B. Ground-Water Techniques

- 3-B1. *Aquifer-test design, observation, and data analysis*, by R.W. Stallman: USGS—TWRI Book 3, Chapter B1. 1971. 26 pages.
- 3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G.D. Bennett: USGS—TWRI Book 3, Chapter B2. 1976. 172 pages.
- 3-B3. *Type curves for selected problems of flow to wells in confined aquifers*, by J.E. Reed: USGS—TWRI Book 3, Chapter B3. 1980. 106 pages.
- 3-B4. *Regression modeling of ground-water flow*, by R.L. Cooley and R.L. Naff: USGS—TWRI Book 3, Chapter B4. 1990. 232 pages.
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- 3-B5. *Definition of boundary and initial conditions in the analysis of saturated ground-water flow systems—An introduction*, by O.L. Franke, T.E. Reilly, and G.D. Bennett: USGS—TWRI Book 3, Chapter B5. 1987. 15 pages.
- 3-B6. *The principle of superposition and its application in ground-water hydraulics*, by T.E. Reilly, O.L. Franke, and G.D. Bennett: USGS—TWRI Book 3, Chapter B6. 1987. 28 pages.
- 3-B7. *Analytical solutions for one-, two-, and three-dimensional solute transport in ground-water systems with uniform flow*, by E.J. Wexler: USGS—TWRI Book 3, Chapter B7. 1992. 190 pages.

Section C. Sedimentation and Erosion Techniques

- 3-C1. *Fluvial sediment concepts*, by H.P. Guy: USGS-TWRI Book 3, Chapter C1. 1970. 55 pages.
- 3-C2. *Field methods for measurement of fluvial sediment*, by H.P. Guy and V.W. Norman: USGS-TWRI Book 3, Chapter C2. 1970. 59 pages.
- 3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS-TWRI Book 3, Chapter C3. 1972. 66 pages.

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, Chapter A1. 1968. 39 pages.
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- 4-B1. *Low-flow investigations*, by H.C. Riggs: USGS-TWRI Book 4, Chapter B1. 1972. 18 pages.
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- 4-B3. *Regional analyses of streamflow characteristics*, by H.C. Riggs: USGS-TWRI Book 4, Chapter B3. 1973. 15 pages.

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, Chapter D1. 1970. 17 pages.

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, Chapter A1. 1989. 545 pages.
- 5-A2. *Determination of minor elements in water by emission spectroscopy*, by P.R. Barnett and E.C. Mallory, Jr.: USGS-TWRI Book 5, Chapter A2. 1971. 31 pages.
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- 5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, by L.J. Britton and P.E. Greeson, editors: USGS-TWRI Book 5, Chapter A4. 1989. 363 pages.
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- 5-C1. *Laboratory theory and methods for sediment analysis*, by H.P. Guy: USGS-TWRI Book 5, Chapter C1. 1969. 58 pages.

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- 6-A1. *A modular three-dimensional finite-difference ground-water flow model*, by M.G. McDonald and A.W. Harbaugh: USGS-TWRI Book 6, Chapter A1. 1988. 586 pages.
- 6-A2. *Documentation of a computer program to simulate aquifer-system compaction using the modular finite-difference ground-water flow model*, by S.A. Leake and D.E. Prudic: USGS-TWRI Book 6, Chapter A2. 1991. 68 pages.
- 6-A3. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 1: Model Description and User's Manual*, by L.J. Torak: USGS-TWRI Book 6, Chapter A3. 1993. 136 pages.

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- 6-A4. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 2: Derivation of finite-element equations and comparisons with analytical solutions*, by R.L. Cooley: USGS-TWRI Book 6, Chapter A4. 1992. 108 pages.
- 6-A5. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 3: Design philosophy and programming details*, by L.J. Torak: USGS-TWRI Book 6, Chapter A5, 1993. 243 pages.
- 6-A6. *A coupled surface-water and ground-water flow model (MODBRANCH) for simulation of stream-aquifer interaction*, by Eric D. Swain and Eliezer J. Wexler. 1996. 125 pages.

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, Chapter C1. 1976. 116 pages.
- 7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water*, by L.F. Konikow and J.D. Bredehoeft: USGS-TWRI Book 7, Chapter C2. 1978. 90 pages.
- 7-C3. *A model for simulation of flow in singular and interconnected channels*, by R.W. Schaffranek, R.A. Baltzer, and D.E. Goldberg: USGS-TWRI Book 7, Chapter C3. 1981. 110 pages.

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, Chapter A1. 1968. 23 pages.
- 8-A2. *Installation and service manual for U.S. Geological Survey manometers*, by J.D. Craig: USGS-TWRI Book 8, Chapter A2. 1983. 57 pages.

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, Chapter B2. 1968. 15 pages.

Book 9. Handbooks for Water-Resources Investigations

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

- 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, Chapter A6. 1998. Variously paginated.
- 9-A7. *National Field Manual for the Collection of Water-Quality Data: Biological Indicators*, by D.N. Myers and F.D. Wilde: USGS-TWRI Book 9, Chapter A7. 1997. 49 pages.
- 9-A8. *National Field Manual for the Collection of Water-Quality Data: Bottom-material samples*, by D.B. Radtke: USGS-TWRI Book 9, Chapter A8. 1998. 48 pages.
- 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, Chapter A9. 1998. 60 pages.

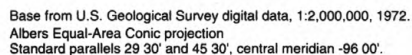
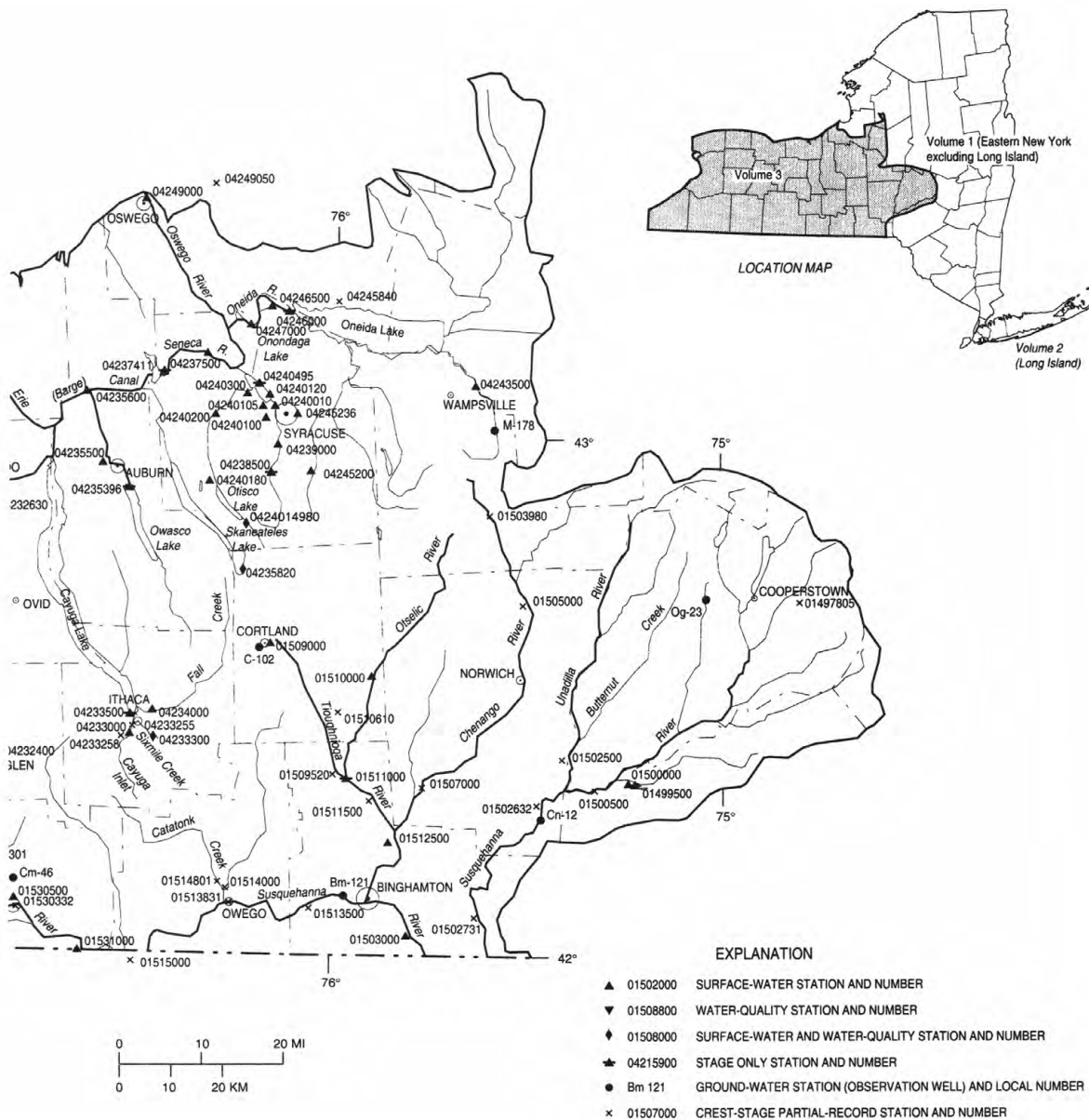


FIGURE 5. LOCATION OF GAGING STATIONS AND



OBSERVATION WELLS IN WESTERN NEW YORK

WATER RESOURCES DATA- NEW YORK, 1998

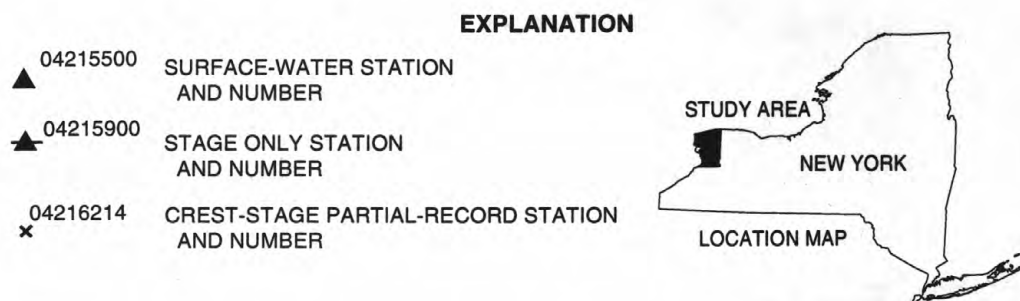
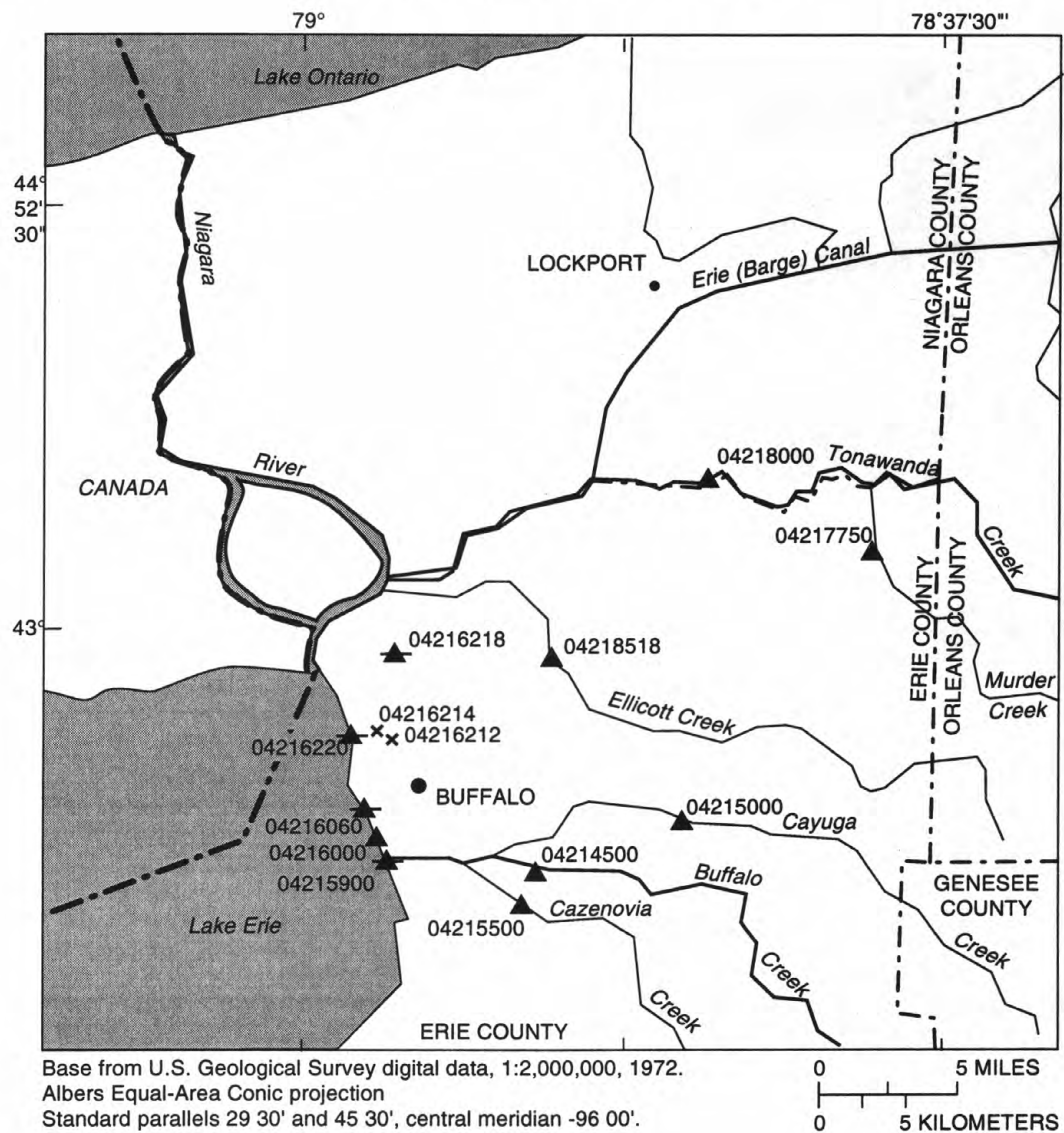
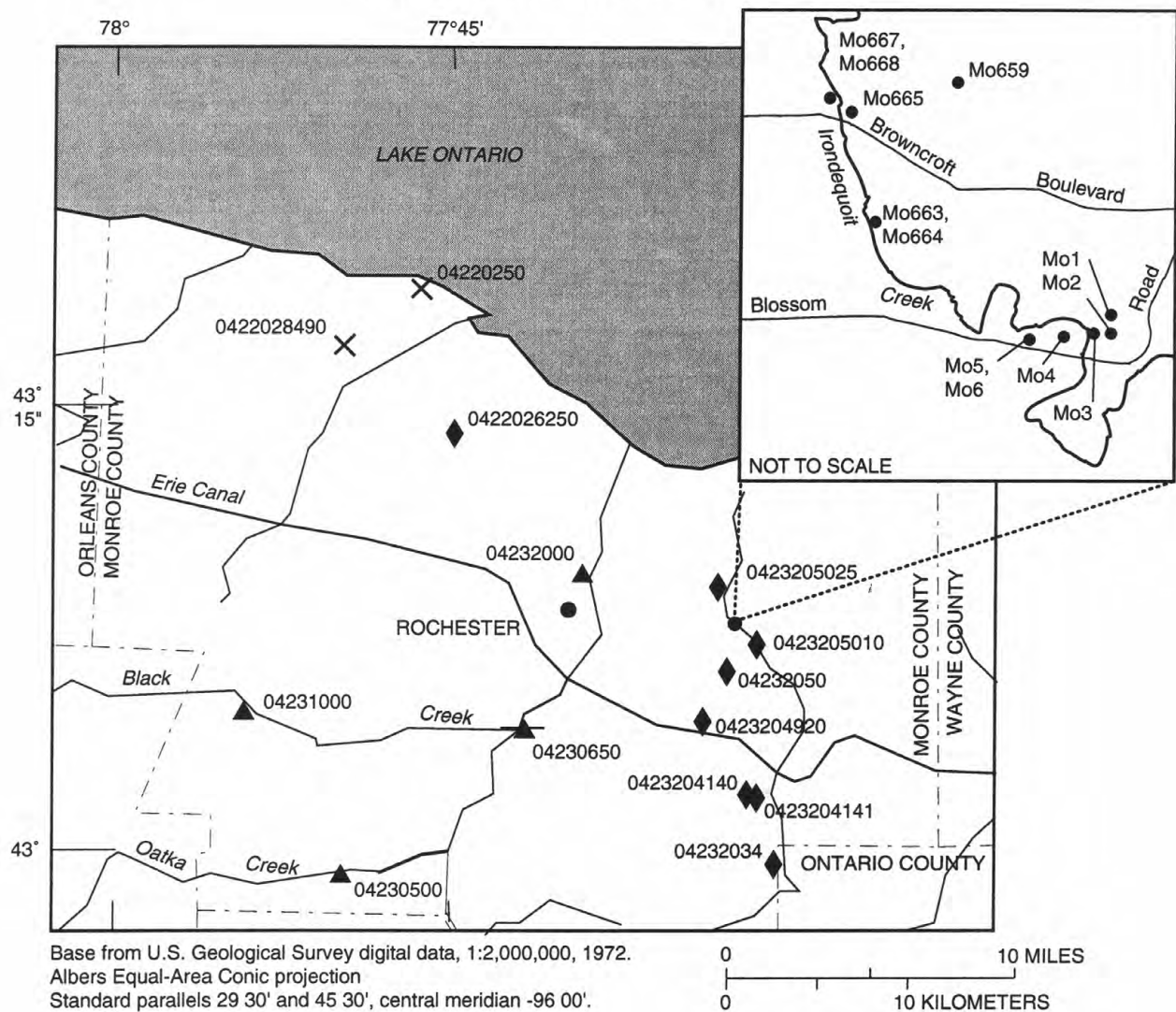


FIGURE 6. LOCATION OF GAGING STATIONS AND OBSERVATION WELLS IN ERIE AND NIAGARA COUNTIES, NY.

WATER RESOURCES DATA- NEW YORK, 1998

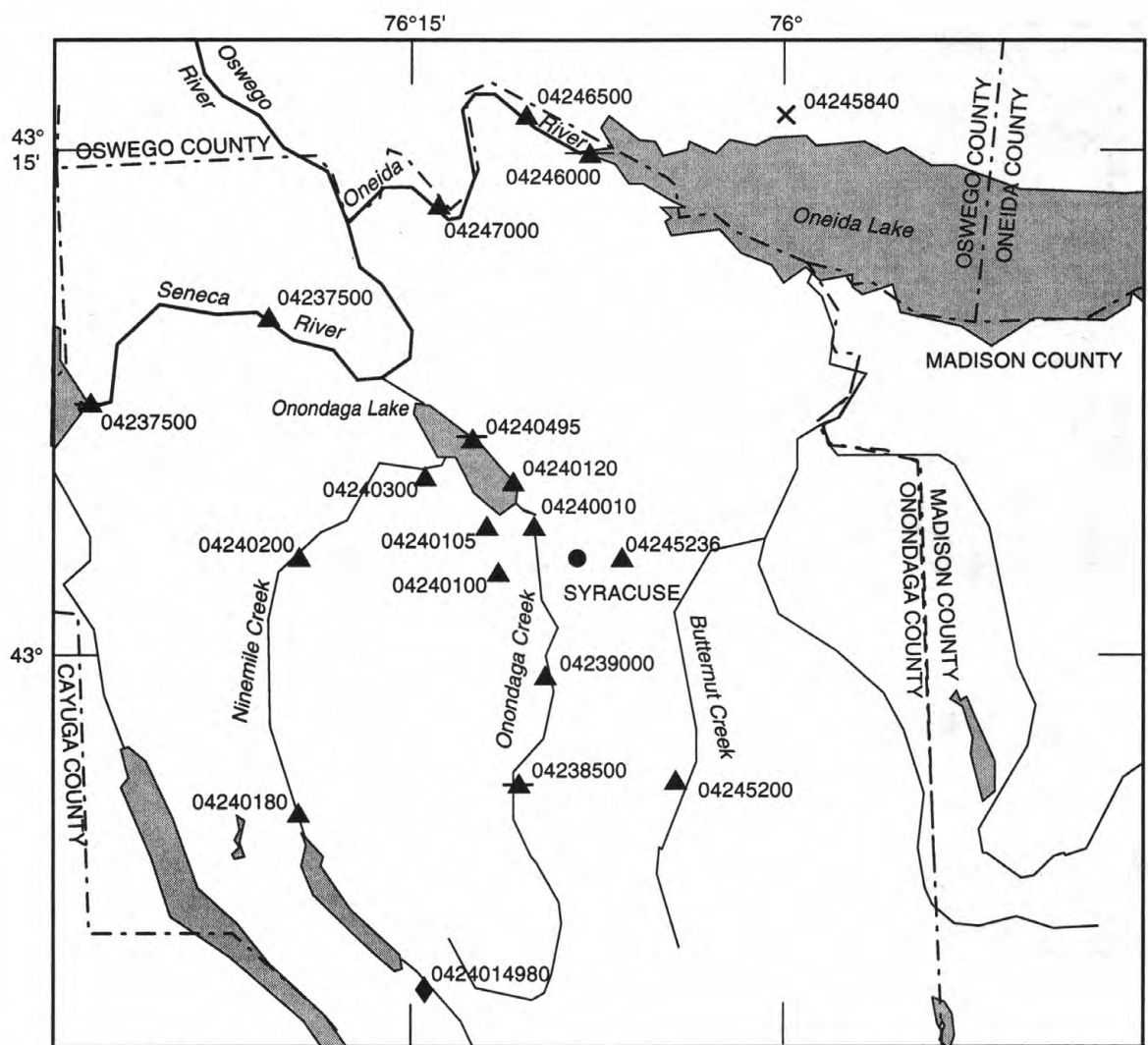


EXPLANATION

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



FIGURE 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

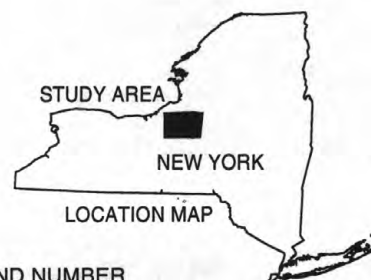


FIGURE 8. LOCATION OF GAGING STATIONS AND OBSERVATION WELLS IN ONONDAGA COUNTY, NY.

SUSQUEHANNA RIVER BASIN

01500000 OULEOUT CREEK AT EAST SIDNEY, NY

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

DRAINAGE AREA.--103 mi².

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

REVISED RECORDS.--WSP 2103: Drainage area.

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

REMARKS.--Records good except those for estimated daily discharges, which are fair. Since November 1949, flow regulated by East Sidney Lake (see station 01499500). Satellite gage-height telemeter at station. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,250 ft³/s, Dec. 30, 1942, gage height, 7.62 ft, site and datum then in use, from rating curve extended above 4,000 ft³/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 ft³/s, Apr. 7, 1960, gage height, 6.19 ft.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,010 ft³/s, July 9, gage height, 4.70 ft; minimum discharge not determined.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	6.9	301	e125	95	581	365	104	151	360	14	12
2	7.3	7.8	343	e130	79	619	548	96	117	242	14	12
3	7.3	7.6	281	132	82	558	689	99	57	206	14	12
4	6.9	7.3	257	385	83	469	659	100	34	148	14	12
5	7.2	7.3	255	821	83	359	444	102	34	249	13	12
6	7.0	e7.0	252	978	83	305	321	102	34	166	13	12
7	7.1	25	248	998	68	263	269	102	34	126	12	12
8	7.2	36	215	18	59	296	210	102	34	694	12	12
9	7.0	79	190	19	59	393	271	101	34	1960	12	18
10	e7.2	100	184	19	59	56	384	188	34	1540	12	17
11	e7.8	100	179	837	59	806	278	525	31	644	12	12
12	e7.2	83	128	1840	230	1710	246	526	53	313	12	12
13	e7.2	48	108	1880	282	1100	212	287	68	234	12	12
14	e7.2	39	90	1740	152	386	200	287	144	172	12	12
15	e7.8	54	81	1060	127	410	201	226	437	148	12	12
16	e7.2	62	81	469	127	350	200	203	567	108	12	12
17	e7.2	63	81	403	164	220	164	151	527	92	12	12
18	e7.8	64	81	310	203	215	151	121	567	94	12	12
19	e7.8	46	69	213	351	285	140	102	363	61	12	12
20	e7.8	31	64	192	328	375	305	95	248	39	12	12
21	e7.8	31	64	192	277	356	518	78	171	39	12	12
22	e7.8	31	64	157	236	305	560	70	131	49	12	12
23	e7.4	31	64	144	199	287	438	50	124	68	12	12
24	7.4	63	77	175	203	244	316	38	104	52	12	12
25	8.1	94	80	175	210	219	262	54	98	39	12	12
26	7.7	104	121	133	212	289	238	64	78	38	12	12
27	e7.5	126	170	121	213	704	224	41	70	38	12	13
28	e7.5	179	177	112	213	722	173	32	70	21	12	13
29	7.5	196	e125	100	---	707	128	32	70	14	12	13
30	6.9	195	e120	100	---	476	117	32	352	14	12	13
31	6.9	---	e120	115	---	390	---	49	---	14	12	---
TOTAL	231.7	1923.9	4670	14093	4536	14455	9231	4159	4836	7982	382	375
MEAN	7.47	64.1	151	455	162	466	308	134	161	257	12.3	12.5
MAX	10	196	343	1880	351	1710	689	526	567	1960	14	18
MIN	6.9	6.9	64	18	59	56	117	32	31	14	12	12

e Estimated

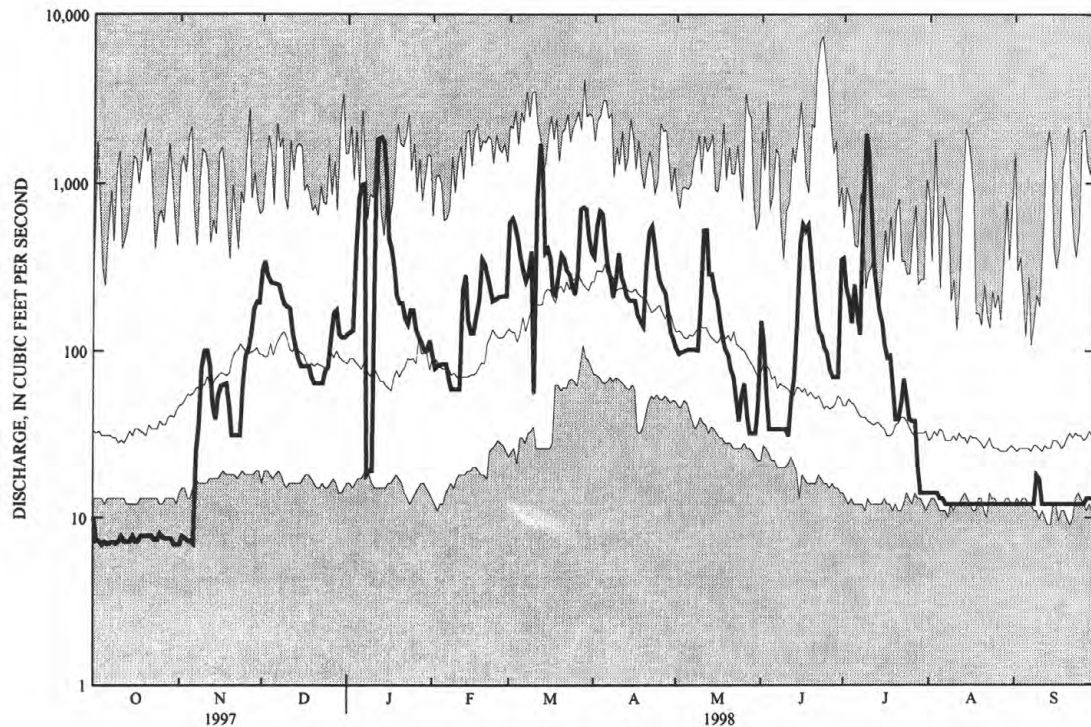
SUSQUEHANNA RIVER BASIN
01500000 OULEOUT CREEK AT EAST SIDNEY, NY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1998, BY WATER YEAR (WY)

MEAN	96.6	187	231	193	207	334	393	183	97.2	58.1	39.2	56.4
MAX	618	411	531	517	604	690	1117	483	370	305	200	408
(WY)	1978	1997	1997	1996	1981	1977	1993	1983	1968	1973	1994	1977
MIN	3.35	4.46	45.0	28.3	33.3	86.2	118	35.4	16.2	6.95	3.86	2.45
(WY)	1965	1965	1961	1961	1980	1960	1985	1987	1964	1965	1964	1964

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1950 - 1998	
ANNUAL TOTAL	47324.7		66874.6			
ANNUAL MEAN	130		183		173	
HIGHEST ANNUAL MEAN					242	
LOWEST ANNUAL MEAN					77.9	
HIGHEST DAILY MEAN	953	Feb 23	1960	Jul 9	2800	Apr 7 1960
LOWEST DAILY MEAN	6.9	Oct 4	6.9	Oct 4	1.4	Apr 1 1989
ANNUAL SEVEN-DAY MINIMUM	7.1	Oct 4	7.1	Oct 4	1.8	Nov 5 1973
10 PERCENT EXCEEDS	342		437		410	
50 PERCENT EXCEEDS	79		95		86	
90 PERCENT EXCEEDS	9.0		9.2		12	



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

SUSQUEHANNA RIVER BASIN

01503000 SUSQUEHANNA RIVER AT CONKLIN, NY

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

DRAINAGE AREA.--2,232 mi².

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

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

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 61,600 ft³/s, Mar. 18, 1936, gage height, 20.14 ft; maximum gage height, 20.83 ft, Mar. 22, 1948; minimum discharge, 85 ft³/s, Oct. 14, 1964, gage height 1.30 ft.

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

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 10	1945	*36,400	*15.42	Mar. 10	2145	23,700	12.11

Minimum discharge, 229 ft³/s, Oct. 13, 14, 15, 16, 20, gage height, 1.76 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	327	319	3280	e1720	2500	8600	10500	3160	1640	7050	680	361
2	323	388	3750	e1700	2310	12800	14000	2890	2570	5400	642	353
3	312	488	3540	2220	2200	12300	14300	2870	3120	3800	601	360
4	310	500	2980	e3850	e2150	9920	11800	4230	2600	2980	573	350
5	303	567	2920	8310	e2050	8200	9580	4290	2390	3860	550	346
6	298	634	3110	13400	e2000	7040	7920	3940	1700	3420	522	353
7	291	608	2950	16400	e1800	6220	6800	3510	1380	3110	493	376
8	291	649	2680	23500	1730	5980	5990	3430	1210	3160	485	384
9	314	892	2420	31100	1650	10500	6560	3330	1110	11900	458	389
10	276	1210	2250	35200	1600	22100	10800	4260	1050	8850	441	475
11	275	1580	2190	33400	1610	23100	8240	9170	994	6170	449	521
12	252	1490	2070	22600	2470	17800	6370	10200	1110	4510	450	551
13	236	1170	1960	14300	4530	11600	5440	7930	1800	3370	937	520
14	229	1040	1870	11300	5060	8810	4840	6100	3630	2780	931	467
15	235	962	e1700	9340	3560	7440	4450	5120	4610	2310	691	413
16	236	904	e1560	8090	e2600	6530	4230	4400	6210	1970	570	388
17	244	845	e1450	7510	2690	5690	3970	3860	6820	1730	510	370
18	245	858	e1500	6510	3230	5420	3680	3300	10200	1610	498	357
19	243	816	1570	5790	4920	5680	3950	2830	8740	1540	491	354
20	240	797	1540	5250	6520	6690	10300	2430	6380	1370	462	338
21	237	726	1470	4800	6410	9220	12300	2150	4950	1230	455	331
22	239	1030	e1350	4360	5440	9430	9220	1930	3990	1420	485	335
23	242	1430	1150	3870	4800	7440	7180	1730	3350	1410	457	332
24	237	1610	1260	3760	4600	6390	6080	1600	3120	1240	417	324
25	257	1520	1570	4020	4480	5720	5350	1480	3250	1340	398	314
26	280	1440	2050	3720	4320	5800	4830	1460	2940	1320	382	306
27	289	1710	2680	3310	4500	8500	5110	1470	2560	1090	387	309
28	319	1990	2890	2960	4730	12300	4640	1320	2350	956	387	415
29	307	2500	e2500	2740	---	13900	3990	1140	2350	950	401	390
30	315	2480	e2150	2600	---	13800	3540	1090	4940	843	401	332
31	326	---	e1950	2640	---	11800	---	1040	---	733	387	---
TOTAL	8528	33153	68310	300270	96460	306720	215960	107660	103064	93422	15991	11414
MEAN	275	1105	2204	9686	3445	9894	7199	3473	3435	3014	516	380
MAX	327	2500	3750	35200	6520	23100	14300	10200	10200	11900	937	551
MIN	229	319	1150	1700	1600	5420	3540	1040	994	733	382	306
CFSM	.12	.50	.99	4.34	1.54	4.43	3.23	1.56	1.54	1.35	.23	.17
IN.	.14	.55	1.14	5.00	1.61	5.11	3.60	1.79	1.72	1.56	.27	.19

e Estimated.

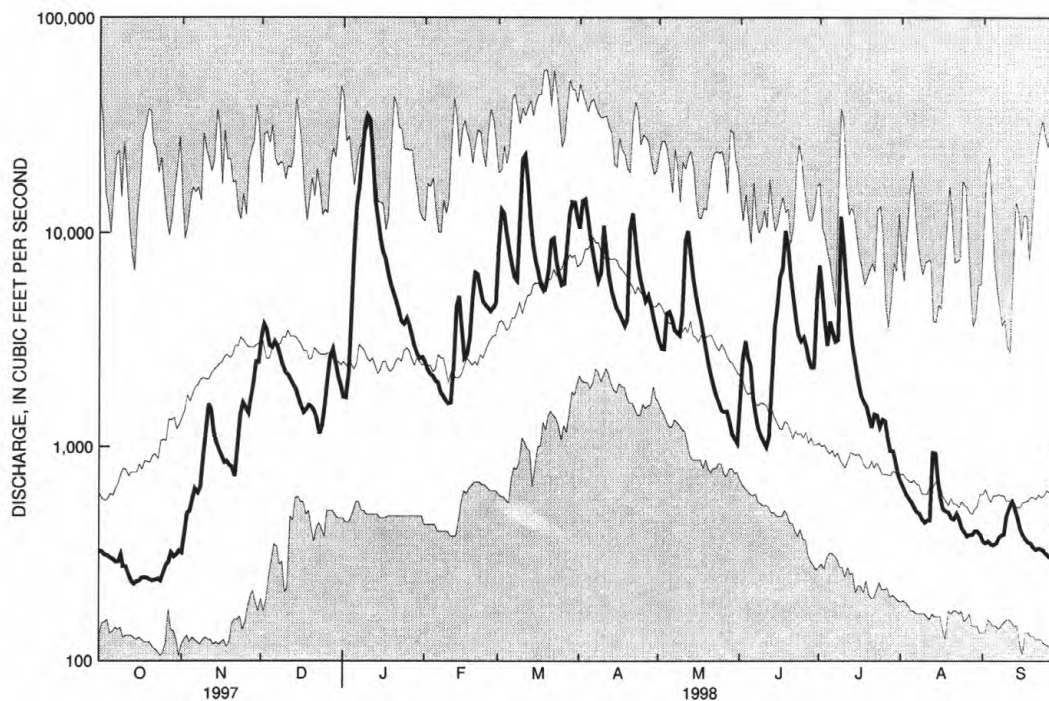
SUSQUEHANNA RIVER BASIN
01503000 SUSQUEHANNA RIVER AT CONKLIN, NY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 1998, BY WATER YEAR (WY)

MEAN	1858	3417	3989	3935	3900	7586	8440	4227	2215	1441	989	1165
MAX	12860	9281	10680	10110	11150	18540	21340	10590	8122	7929	5033	8783
(WY)	1978	1928	1997	1913	1981	1936	1940	1943	1917	1915	1915	1977
MIN	130	140	641	476	724	2808	2000	1300	510	267	171	142
(WY)	1965	1965	1931	1931	1980	1965	1946	1985	1964	1936	1964	1964

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1913 - 1998	
ANNUAL TOTAL	953807		1360952			
ANNUAL MEAN	2613		3729		3593	
HIGHEST ANNUAL MEAN					5667	
LOWEST ANNUAL MEAN					1690	
HIGHEST DAILY MEAN	15300	Feb 28	35200	Jan 10	57800	Mar 19 1936
LOWEST DAILY MEAN	215	Aug 12	229	Oct 14	105	Oct 24 1964
ANNUAL SEVEN-DAY MINIMUM	227	Aug 7	238	Oct 13	114	Oct 19 1964
ANNUAL RUNOFF (CFSM)	1.17		1.67		1.61	
ANNUAL RUNOFF (INCHES)	15.90		22.68		21.87	
10 PERCENT EXCEEDS	6410		9190		8440	
50 PERCENT EXCEEDS	1580		2150		2000	
90 PERCENT EXCEEDS	264		329		424	



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

SUSQUEHANNA RIVER BASIN

01509000 TIOUGHNIOGA RIVER AT CORTLAND, NY

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

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

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

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

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,000 ft³/s, Mar. 5, 1964, gage height, 12.49 ft; maximum gage height, 13.82 ft, Apr. 5, 1950; minimum discharge, 9.8 ft³/s, Sept. 20, 1939, Sept. 29, 1959.

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

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 8	1900	*6,990	*10.32	No other peak greater than base discharge.			

Minimum discharge, 53 ft³/s, Oct. 23, 24, 25, 26, 27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	108	61	868	e330	368	1950	1370	412	318	1400	122	83
2	99	130	643	341	366	2150	1530	391	248	1220	117	83
3	86	363	515	395	352	2020	1290	378	380	871	113	86
4	77	238	540	954	338	1620	1090	450	274	704	108	87
5	92	195	568	1880	326	1330	937	437	219	902	105	84
6	109	163	501	3280	312	1120	822	386	195	661	102	81
7	88	147	451	4350	300	979	718	351	177	544	101	89
8	78	142	416	6350	290	922	698	328	165	888	99	92
9	70	171	386	5540	287	1610	936	318	159	977	97	101
10	67	240	363	4050	281	3350	1000	393	144	758	95	141
11	65	218	355	2630	284	2730	800	875	136	598	116	128
12	63	201	344	1740	505	1700	699	838	172	481	152	109
13	62	183	335	1380	740	1380	635	634	253	403	117	99
14	61	179	323	1070	e460	1170	565	512	862	350	107	94
15	61	176	291	881	e400	1020	560	438	670	314	103	87
16	68	180	295	916	e380	875	560	393	483	288	100	85
17	66	171	294	814	417	760	527	352	639	275	97	85
18	67	166	283	724	851	757	513	319	1220	247	97	84
19	65	159	274	657	1690	974	519	300	794	226	97	82
20	61	169	275	601	1720	1390	1410	279	563	211	97	81
21	58	168	274	548	1330	1370	1250	256	429	203	93	92
22	57	204	239	497	1050	1270	932	245	353	194	90	94
23	53	271	263	483	895	1070	788	234	374	216	87	90
24	53	302	261	498	844	927	699	222	323	217	90	82
25	53	278	305	488	744	856	652	211	391	194	88	80
26	53	267	432	441	772	1070	610	201	504	179	92	78
27	54	573	438	399	727	1950	580	189	515	161	92	78
28	58	481	395	402	811	2600	515	175	418	148	90	77
29	61	546	e320	376	---	2980	470	168	919	142	88	74
30	57	583	e290	425	---	2360	437	173	1260	137	86	72
31	56	---	e290	421	---	1650	---	187	---	130	85	---
TOTAL	2126	7325	11827	43861	17840	47910	24112	11045	13557	14239	3123	2678
MEAN	68.6	244	382	1415	637	1545	804	356	452	459	101	89.3
MAX	109	583	868	6350	1720	3350	1530	875	1260	1400	152	141
MIN	53	61	239	330	281	757	437	168	136	130	85	72
CFSM	.23	.84	1.31	4.85	2.18	5.29	2.75	1.22	1.55	1.57	.35	.31
IN.	.27	.93	1.51	5.59	2.27	6.10	3.07	1.41	1.73	1.81	.40	.34

e Estimated

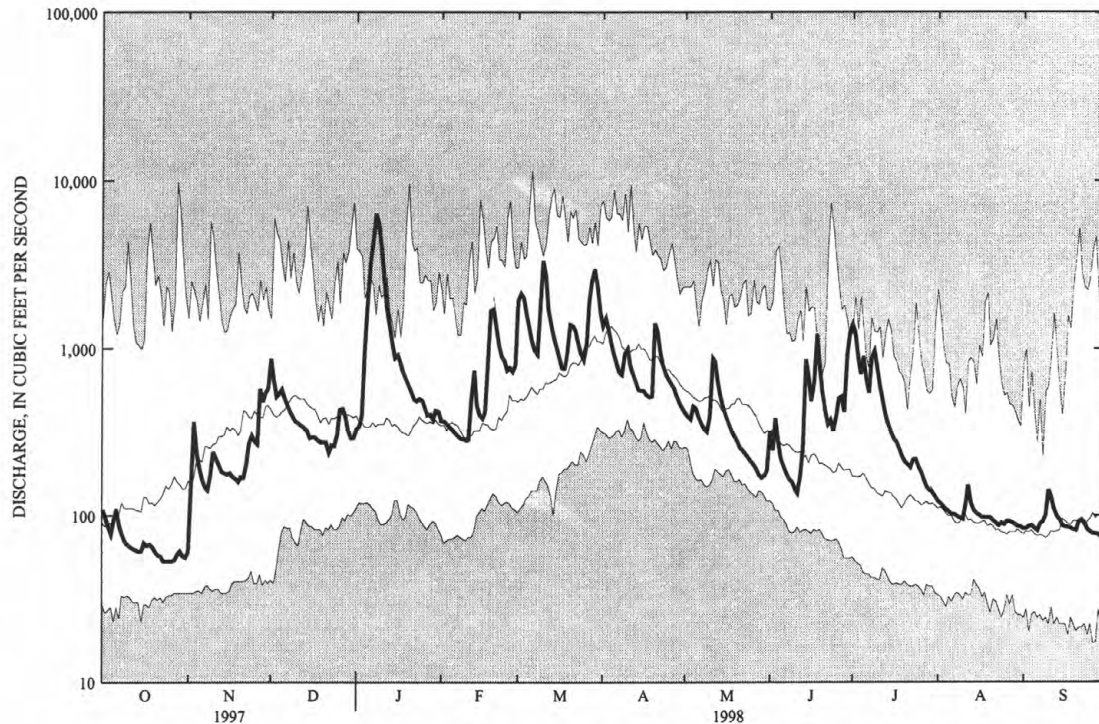
SUSQUEHANNA RIVER BASIN
01509000 TIOUGHNIAGA RIVER AT CORTLAND, NY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1998, BY WATER YEAR (WY)

MEAN	251	435	578	527	555	1056	1251	573	327	184	131	153
MAX	1553	1119	1537	1415	1469	2432	3487	1352	1674	539	480	1125
(WY)	1978	1969	1997	1998	1976	1945	1993	1943	1972	1976	1992	1977
MIN	33.2	44.3	86.7	112	127	359	305	212	88.7	43.5	34.6	23.8
(WY)	1965	1965	1961	1961	1963	1941	1946	1985	1939	1962	1939	1939

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1938 - 1998	
ANNUAL TOTAL	148909		199643			
ANNUAL MEAN	408		547		501	
HIGHEST ANNUAL MEAN					723	1943
LOWEST ANNUAL MEAN					303	1965
HIGHEST DAILY MEAN	3030	Feb 28	6350	Jan 8	11500	Mar 6 1979
LOWEST DAILY MEAN	53	Oct 23	53	Oct 23	17	Sep 26 1959
ANNUAL SEVEN-DAY MINIMUM	54	Oct 21	54	Oct 21	21	Sep 19 1939
ANNUAL RUNOFF (CFSM)	1.40		1.87		1.71	
ANNUAL RUNOFF (INCHES)	18.97		25.43		23.29	
10 PERCENT EXCEEDS	866		1250		1120	
50 PERCENT EXCEEDS	294		323		286	
90 PERCENT EXCEEDS	67		83		69	



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

SUSQUEHANNA RIVER BASIN

01510000 OTSELIC RIVER AT CINCINNATUS, NY

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

DRAINAGE AREA.--147 mi².

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

REVISED RECORDS.--WSP 2103: Drainage area.

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,390 ft³/s, Dec. 30, 1942; maximum gage height, 10.89 ft, Jan. 19, 1996, ice jam; minimum discharge, 3.8 ft³/s, Sept. 25, 1939.

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

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 8	1215	*4,670	*7.83	Mar. 10	0745	3,050	5.94

Minimum discharge, 12 ft³/s, Sep. 6, 29, 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	24	505	e130	e120	1210	831	176	284	931	36	16
2	30	68	315	149	e130	1070	923	174	127	613	34	15
3	28	155	244	172	131	943	692	190	285	427	32	15
4	26	92	273	521	120	754	556	393	142	336	30	17
5	27	71	286	1140	116	653	456	274	108	479	29	15
6	36	61	244	1970	104	566	380	228	91	313	28	13
7	31	53	211	2370	97	517	323	202	79	269	27	21
8	26	51	189	4090	95	528	331	183	75	570	26	34
9	24	77	170	3190	92	1500	516	173	72	511	24	34
10	23	116	156	1810	91	2570	570	290	63	366	23	58
11	22	91	154	1020	96	1350	376	747	59	280	64	46
12	20	79	143	686	315	831	329	591	87	227	66	34
13	20	70	137	583	439	674	292	388	184	185	41	29
14	20	69	130	450	e240	574	265	304	313	153	33	26
15	23	67	e100	357	e200	472	259	256	191	129	30	24
16	26	70	e110	410	213	381	250	221	205	117	27	25
17	24	65	112	352	218	335	228	190	321	102	25	24
18	22	63	106	308	450	340	217	161	554	86	25	22
19	21	59	100	276	935	498	248	142	297	73	25	19
20	20	64	101	246	796	728	1130	129	219	69	24	17
21	20	63	97	219	631	727	669	114	169	65	23	16
22	19	101	e75	186	516	583	487	104	140	62	22	18
23	19	151	94	188	453	472	398	97	125	80	20	18
24	18	159	92	235	425	401	346	87	113	75	23	15
25	20	130	131	209	392	373	319	79	113	60	25	14
26	20	125	218	174	417	539	295	74	150	53	31	14
27	24	292	208	149	388	1230	275	69	154	49	26	15
28	27	221	176	155	466	1750	235	62	116	45	22	15
29	26	264	e130	140	---	1960	208	59	414	42	20	13
30	25	285	e120	163	---	1360	189	66	572	40	18	12
31	23	---	e120	153	---	941	---	79	---	39	18	---
TOTAL	742	3256	5247	22201	8686	26830	12593	6302	5822	6846	897	654
MEAN	23.9	109	169	716	310	865	420	203	194	221	28.9	21.8
MAX	36	292	505	4090	935	2570	1130	747	572	931	66	58
MIN	18	24	75	130	91	335	189	59	59	39	18	12
CFSM	.16	.74	1.15	4.87	2.11	5.89	2.86	1.38	1.32	1.50	.20	.15
IN.	.19	.82	1.33	5.62	2.20	6.79	3.19	1.59	1.47	1.73	.23	.17

e Estimated

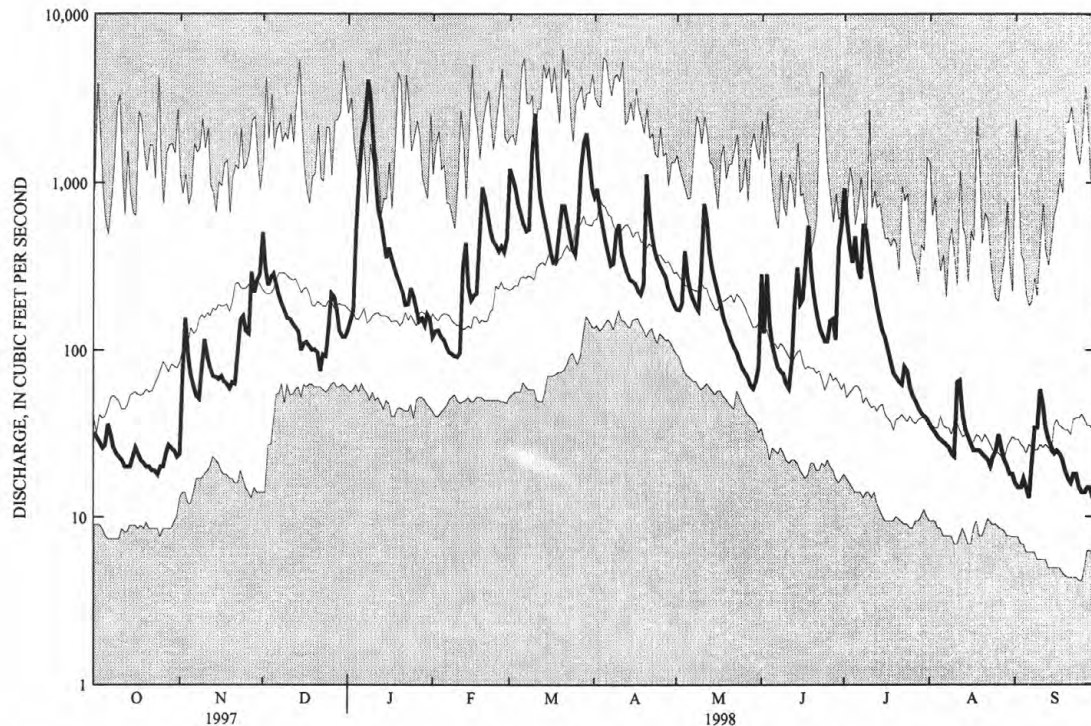
SUSQUEHANNA RIVER BASIN
01510000 OTSELIC RIVER AT CINCINNATUS, NY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1998, BY WATER YEAR (WY)

MEAN	146	249	331	274	283	592	676	289	155	86.1	56.2	86.0
MAX	713	628	841	716	764	1302	1693	687	773	299	277	706
(WY)	1978	1960	1997	1998	1976	1945	1940	1947	1972	1976	1994	1977
MIN	9.90	23.3	66.9	55.6	63.1	178	150	80.3	24.6	12.5	8.99	5.54
(WY)	1964	1954	1961	1961	1987	1941	1946	1985	1962	1962	1964	1964

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1938		1998
ANNUAL TOTAL	74325		100076				
ANNUAL MEAN	204		274		268		
HIGHEST ANNUAL MEAN					391		1943
LOWEST ANNUAL MEAN					151		1995
HIGHEST DAILY MEAN	1720	Feb 28	4090	Jan 8	6200	Mar 20	1948
LOWEST DAILY MEAN	14	Aug 20	12	Sep 30	4.1	Sep 24	1939
ANNUAL SEVEN-DAY MINIMUM	16	Aug 8	14	Sep 24	4.3	Sep 19	1939
ANNUAL RUNOFF (CFSM)	1.39		1.87		1.82		
ANNUAL RUNOFF (INCHES)	18.81		25.33		24.77		
10 PERCENT EXCEEDS	497		600		613		
50 PERCENT EXCEEDS	101		131		138		
90 PERCENT EXCEEDS	19		22		23		



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

SUSQUEHANNA RIVER BASIN
01512500 CHENANGO RIVER NEAR CHENANGO FORKS, NY

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

DRAINAGE AREA.--1,483 mi².

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

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 96,000 ft³/s, July 8, 1935, gage height, 20.3 ft, from floodmarks, from rating curve extended above 32,000 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 84 ft³/s, Sept. 19, 25, 1939.

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

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 9	0300	*22,200	*10.34	July 8	1800	18,400	9.52

Minimum discharge, 194 ft³/s, Oct. 13, 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	359	237	e3500	e1200	1760	9490	6660	1820	1900	4160	421	256
2	359	412	e3500	e1400	1650	10800	8390	1750	1770	3610	396	246
3	323	981	2600	1760	1710	9760	6880	1730	1760	2600	379	240
4	298	897	2480	4000	1650	7640	5590	2280	1790	1980	371	234
5	291	853	2870	e8070	1560	6290	4720	2660	1230	2270	359	231
6	301	634	2630	e11800	1460	5370	4060	2170	1010	2320	348	225
7	317	579	2390	14700	e1300	4610	3540	2000	887	1770	336	242
8	304	572	2210	19600	e1200	4490	3180	1770	795	7590	321	286
9	283	748	2060	21400	e1180	9320	4610	1690	749	8770	308	333
10	265	1020	1950	17400	e1160	16000	6790	2520	691	4950	301	384
11	254	1050	1830	13600	1230	15000	4680	8230	649	2980	739	454
12	235	964	1470	10700	2450	11000	3700	7000	742	2360	1010	440
13	197	854	1330	9030	4480	8330	3280	4760	1440	1790	752	391
14	200	780	1290	7820	3040	6950	2870	3360	2690	1510	503	356
15	203	818	1150	6610	e2000	5380	2690	2690	2520	1250	427	332
16	205	777	e1050	6370	e1800	4410	2760	2390	2130	1160	395	290
17	208	709	e1000	5490	2030	3730	2600	2090	2140	1130	370	271
18	212	683	1090	4270	3520	3740	2470	1800	4070	1050	353	262
19	216	674	1060	3490	7380	4430	2560	1560	3350	933	354	250
20	222	669	1050	3090	8070	6500	9000	1390	2380	866	336	241
21	230	676	1070	2700	6280	7940	7540	1280	1920	836	330	242
22	221	821	e940	2380	4900	7310	5130	1150	1550	764	311	249
23	222	1340	942	2190	4060	5510	4060	1060	1290	710	295	252
24	251	1600	1020	2430	3870	4650	3450	992	1220	926	291	244
25	264	e1500	1180	2570	3550	4220	3000	962	1240	824	319	239
26	264	e1400	2010	2290	3670	4780	2830	936	1560	706	332	222
27	295	e1900	2440	2050	3710	8080	2930	867	1990	648	357	238
28	583	e1850	2020	1940	3940	10400	2490	764	1810	595	351	277
29	565	e2100	e1600	1840	---	11800	2120	698	1830	560	327	271
30	279	e2500	e1450	1880	---	10800	1950	740	3360	480	312	256
31	309	---	e1400	2090	---	8180	---	804	---	435	294	---
TOTAL	8735	30598	54582	196160	84610	236910	126530	65913	52463	62533	12298	8454
MEAN	282	1020	1761	6328	3022	7642	4218	2126	1749	2017	397	282
MAX	583	2500	3500	21400	8070	16000	9000	8230	4070	8770	1010	454
MIN	197	237	940	1200	1160	3730	1950	698	649	435	291	222
CFSM	.19	.69	1.19	4.27	2.04	5.15	2.84	1.43	1.18	1.36	.27	.19
IN.	.22	.77	1.37	4.92	2.12	5.94	3.17	1.65	1.32	1.57	.31	.21

e Estimated

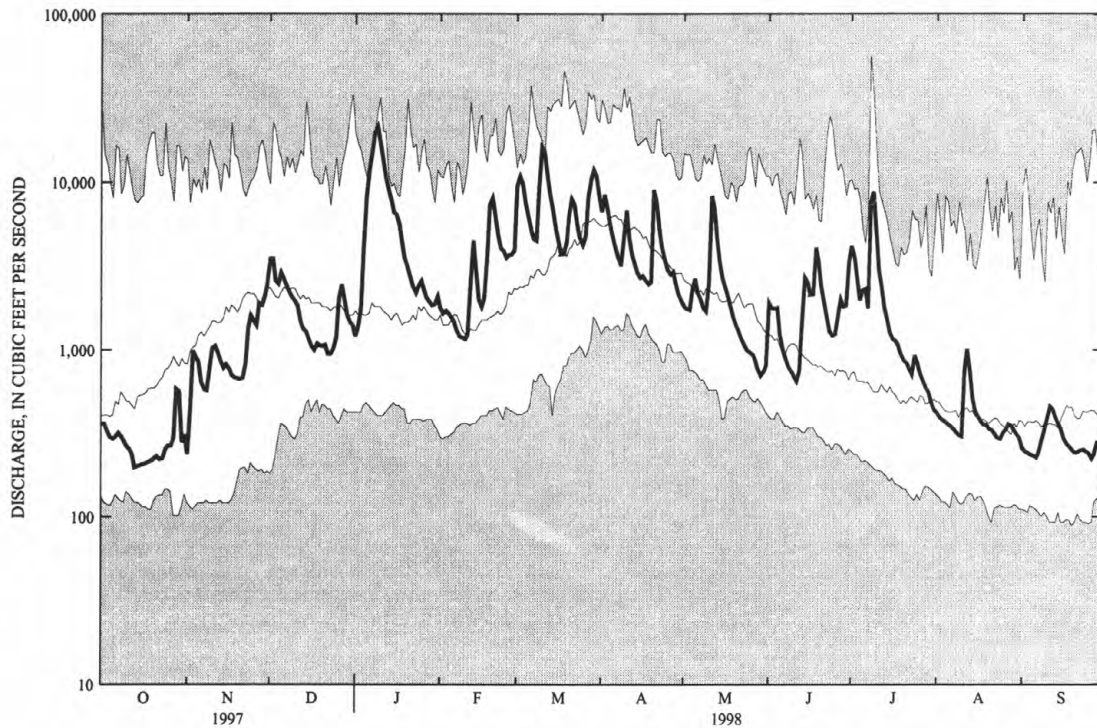
SUSQUEHANNA RIVER BASIN
01512500 CHENANGO RIVER NEAR CHENANGO FORKS, NY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 1998, BY WATER YEAR (WY)

MEAN	1295	2279	2744	2637	2627	5362	5740	2617	1466	926	643	771
MAX	7210	6167	7534	7361	7688	12560	15330	6485	7439	5713	3138	5766
(WY)	1978	1928	1997	1913	1976	1936	1993	1943	1917	1935	1915	1977
MIN	155	168	525	445	472	1977	1317	770	346	175	145	107
(WY)	1940	1965	1961	1961	1980	1937	1946	1985	1939	1939	1913	1939

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1913 - 1998	
ANNUAL TOTAL	680793		939786			
ANNUAL MEAN	1865		2575		2425	
HIGHEST ANNUAL MEAN					3618	
LOWEST ANNUAL MEAN					1307	
HIGHEST DAILY MEAN	13300	Feb 28	21400	Jan 9	55400	Jul 8 1935
LOWEST DAILY MEAN	157	Sep 28	197	Oct 13	88	Sep 19 1939
ANNUAL SEVEN-DAY MINIMUM	170	Sep 23	206	Oct 13	94	Sep 19 1939
ANNUAL RUNOFF (CFSM)	1.26		1.74		1.63	
ANNUAL RUNOFF (INCHES)	17.08		23.57		22.21	
10 PERCENT EXCEEDS	4350		6910		6000	
50 PERCENT EXCEEDS	1150		1510		1300	
90 PERCENT EXCEEDS	204		269		300	



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

SUSQUEHANNA RIVER BASIN

01521500 CANISTEO RIVER AT ARKPORT, NY

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

DRAINAGE AREA.--30.6 mi².

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

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

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

REMARKS.--Records good except those for estimated daily discharges, which are fair. Since March 1940, flows above 500 ft³/s controlled by detention in Arkport Reservoir. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,000 ft³/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 ft³/s, Feb. 11, 1966.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 761 ft³/s, Jan. 8, gage height, 3.15 ft; minimum discharge, 1.7 ft³/s, Sep. 6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94	17	127	e16	37	344	44	23	40	80	3.1	2.8
2	37	211	58	e22	27	110	51	58	14	30	2.8	2.6
3	26	94	40	99	25	76	46	200	20	17	2.8	2.3
4	18	47	53	388	22	56	39	86	11	19	e2.8	2.1
5	39	31	46	230	19	47	34	61	8.5	61	e2.9	2.0
6	23	23	36	148	e18	40	28	49	7.3	21	e2.7	1.9
7	16	19	31	147	e17	35	24	43	6.5	14	e2.5	6.8
8	12	18	28	700	e16	43	26	37	7.0	99	e2.4	5.9
9	9.6	22	25	713	15	89	171	43	6.3	71	e2.3	6.9
10	9.2	19	20	639	14	111	248	83	6.2	31	e4.2	4.1
11	8.9	16	28	130	18	45	62	479	8.8	19	e4.7	3.2
12	7.6	14	25	50	50	54	44	371	10	13	e7.6	2.8
13	6.7	13	25	45	36	32	35	85	44	9.9	e4.0	2.6
14	6.5	11	26	31	e29	25	30	53	42	8.1	e3.4	2.4
15	6.0	20	45	30	e23	23	36	38	17	6.8	e6.6	2.4
16	5.3	19	27	30	21	26	32	29	11	6.0	e4.0	3.5
17	4.9	21	27	25	28	29	32	24	19	5.5	e3.5	3.0
18	4.8	22	26	24	208	44	26	19	9.7	4.9	e6.4	2.6
19	4.5	24	25	22	170	130	100	16	7.8	4.3	8.2	2.6
20	4.5	27	34	21	93	108	574	14	6.7	4.4	5.2	3.2
21	4.4	32	32	18	64	68	226	11	5.8	5.1	4.2	2.9
22	4.5	52	48	17	48	56	65	10	5.6	4.7	3.6	2.9
23	4.6	53	35	17	46	46	48	9.2	6.7	19	3.3	3.2
24	4.7	51	33	21	45	42	38	8.2	11	10	3.1	2.7
25	4.8	36	84	19	41	44	30	8.3	6.8	6.1	3.4	2.6
26	5.0	123	94	17	48	276	36	8.3	271	4.7	8.2	2.6
27	5.3	195	59	15	66	213	45	7.3	51	4.0	4.5	3.2
28	5.6	110	e34	16	237	84	31	6.5	25	3.6	3.5	3.8
29	5.0	125	e27	18	---	106	26	5.9	15	4.0	3.4	3.4
30	4.8	181	e22	52	---	60	23	5.5	114	3.7	3.4	3.0
31	4.6	---	e18	36	---	45	---	24	---	3.4	3.2	---
TOTAL	396.8	1646	1238	3756	1481	2507	2250	1915.2	814.7	593.2	125.9	96.0
MEAN	12.8	54.9	39.9	121	52.9	80.9	75.0	61.8	27.2	19.1	4.06	3.20
MAX	94	211	127	713	237	344	574	479	271	99	8.2	6.9
MIN	4.4	11	18	15	14	23	23	5.5	5.6	3.4	2.3	1.9

e Estimated

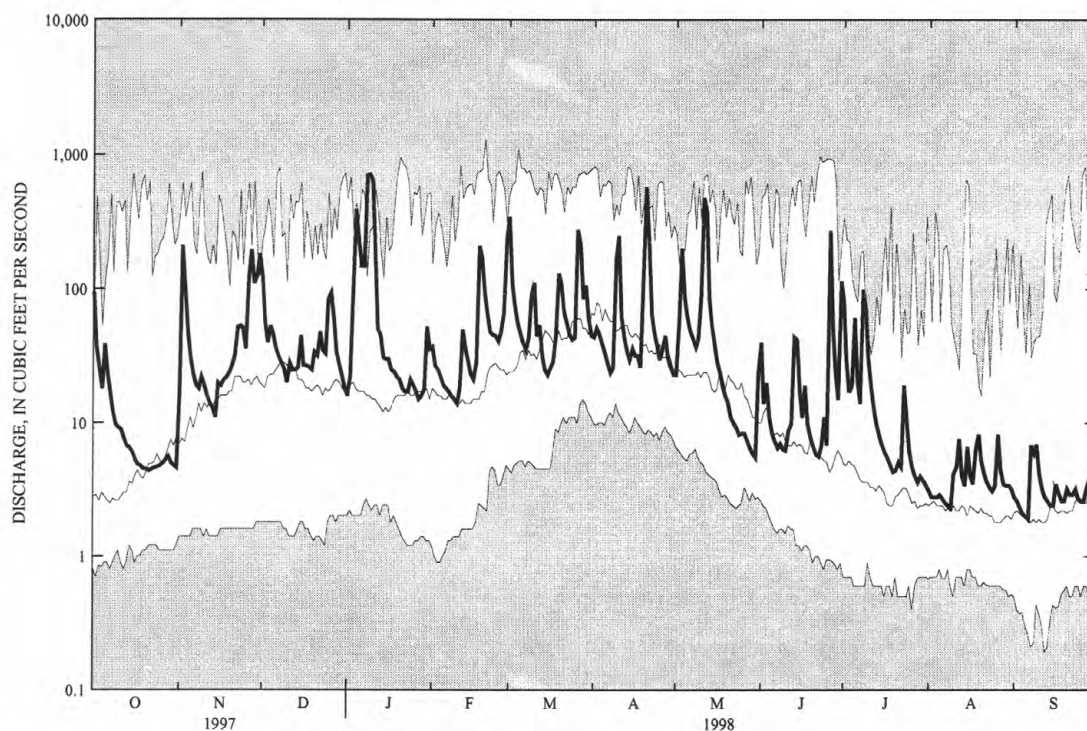
SUSQUEHANNA RIVER BASIN
01521500 CANISTEO RIVER AT ARKPORT, NY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 1998, BY WATER YEAR (WY)

MEAN	16.8	30.4	39.0	37.9	45.2	86.2	83.1	40.7	26.7	8.09	6.22	10.2
MAX	98.4	106	132	121	195	188	205	144	245	46.2	58.6	151
(WY)	1977	1951	1973	1998	1976	1942	1993	1943	1972	1992	1984	1977
MIN	1.09	1.62	1.67	1.85	8.28	24.9	10.9	5.81	1.57	.82	.88	.59
(WY)	1942	1961	1961	1961	1958	1981	1946	1955	1955	1955	1966	1995

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1937 - 1998	
ANNUAL TOTAL	13261.0		16819.8			
ANNUAL MEAN	36.3		46.1		35.8	
HIGHEST ANNUAL MEAN					55.9	
LOWEST ANNUAL MEAN					20.9	
HIGHEST DAILY MEAN	549	Feb 27	713	Jan 9	1300	Feb 20 1939
LOWEST DAILY MEAN	1.4	Aug 9	1.9	Sep 6	.19	Sep 12 1995
ANNUAL SEVEN-DAY MINIMUM	2.0	Aug 27	2.4	Aug 31	.28	Sep 7 1995
10 PERCENT EXCEEDS	75		99		78	
50 PERCENT EXCEEDS	19		22		12	
90 PERCENT EXCEEDS	3.1		3.4		1.7	



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

SUSQUEHANNA RIVER BASIN

01523500 CANACADEA CREEK NEAR HORNELL, NY

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

DRAINAGE AREA.--57.9 mi².

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

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

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

REMARKS.--No estimated daily discharges. Records fair. Since October 1948, floodflows regulated by detention in Almond Lake (see station 01523000). Occasional regulation at low flows to clear debris from gates at Almond Lake. Monthly figures for 1952-66 water years adjusted for regulation. Satellite gage-height telemeter at station. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,430 ft³/s, May 17, 1945, gage height, 5.14 ft, from rating curve extended above 3,400 ft³/s; maximum gage height, 6.65 ft, June 3, 1947; minimum discharge, 3.4 ft³/s, Oct. 2, 1941. Maximum discharge since construction of Almond Reservoir in 1949, 5,880 ft³/s, June 23, 1972, gage height 6.14 ft; minimum discharge, 0.5 ft³/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 ft³/s, on basis of slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,420 ft³/s, Jan. 11, gage height, 3.21 ft; minimum discharge, 4.6 ft³/s, July 27, 28, 29, Aug. 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	194	17	181	32	34	616	82	65	55	242	14	7.8
2	88	244	175	36	55	343	98	54	54	90	8.3	7.8
3	49	243	87	94	53	142	140	310	61	39	18	7.8
4	40	64	69	536	44	106	111	313	49	38	19	7.8
5	40	47	83	609	38	91	65	107	28	134	12	11
6	40	35	59	267	28	77	52	78	19	89	10	12
7	40	32	46	149	28	70	52	76	17	41	8.8	9.5
8	34	32	53	173	26	59	52	64	17	94	12	9.8
9	25	38	44	332	30	87	182	81	17	165	16	20
10	17	36	40	975	34	223	478	145	17	97	9.7	18
11	12	32	46	1290	31	153	243	484	19	46	13	14
12	11	28	42	720	77	73	130	699	21	27	16	11
13	11	25	42	156	92	53	111	504	26	28	14	8.3
14	18	25	44	94	43	55	69	179	30	25	15	8.5
15	17	35	33	61	33	45	47	95	35	20	16	8.8
16	12	34	38	63	33	51	77	71	38	18	15	13
17	12	37	43	70	36	50	70	50	30	20	16	12
18	12	36	40	61	320	78	60	46	30	19	16	9.3
19	12	34	40	47	439	218	152	43	30	17	15	9.3
20	12	40	43	43	236	265	472	39	24	17	16	9.3
21	12	46	43	43	146	174	657	33	19	17	12	9.3
22	17	74	39	38	99	128	344	31	15	23	9.9	9.4
23	18	69	44	35	80	66	125	30	13	69	9.9	9.9
24	12	82	55	42	79	63	102	25	28	51	9.9	9.9
25	16	60	67	40	90	98	74	29	34	24	10	9.9
26	17	80	179	35	89	201	63	36	326	10	11	9.9
27	17	380	143	35	105	437	90	28	492	4.8	9.5	10
28	14	177	72	35	267	366	89	23	172	4.6	12	15
29	12	230	56	31	---	155	65	23	22	8.4	14	13
30	12	210	49	79	---	120	65	22	141	17	14	7.8
31	12	---	48	61	---	117	---	24	---	22	12	---
TOTAL	855	2522	2043	6282	2665	4780	4417	3807	1879	1516.8	404.0	319.1
MEAN	27.6	84.1	65.9	203	95.2	154	147	123	62.6	48.9	13.0	10.6
MAX	194	380	181	1290	439	616	657	699	492	242	19	20
MIN	11	17	33	31	26	45	47	22	13	4.6	8.3	7.8

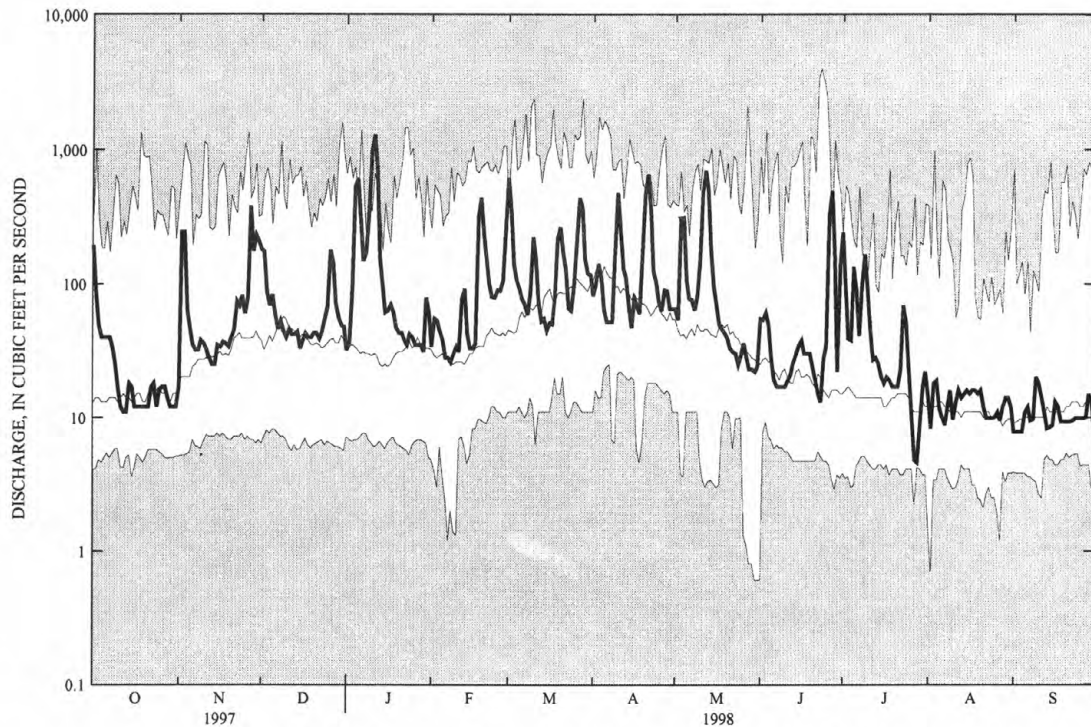
SUSQUEHANNA RIVER BASIN
01523500 CANACADEA CREEK NEAR HORNELLS, NY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1998, BY WATER YEAR (WY)

MEAN	34.7	61.2	72.0	69.5	80.8	147	146	71.3	56.6	23.4	19.1	26.3
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

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1949 - 1998	
ANNUAL TOTAL	25389.7		31489.9			
ANNUAL MEAN	69.6		86.3		67.1	
HIGHEST ANNUAL MEAN					110	
LOWEST ANNUAL MEAN					36.9	
HIGHEST DAILY MEAN	799	May 20	1290	Jan 11	3970	Jun 23 1972
LOWEST DAILY MEAN	6.3	Sep 7	4.6	Jul 28	.60	May 30 1965
ANNUAL SEVEN-DAY MINIMUM	11	Jul 14	9.1	Sep 1	.83	May 26 1965
10 PERCENT EXCEEDS	165		205		148	
50 PERCENT EXCEEDS	38		40		27	
90 PERCENT EXCEEDS	12		11		8.3	



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

SUSQUEHANNA RIVER BASIN

01524500 CANISTEO RIVER BELOW CANACADEA CREEK, AT HORNELL, NY

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

DRAINAGE AREA.--158 mi².

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

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

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

REMARKS.--Records good except those for estimated daily discharges, which are fair. Diversion from Carrington Creek, a tributary upstream from station, by City of Hornell for municipal supply (1998 average 3.2 ft³/s); effluent from wastewater treatment plant enters river downstream from gage. Since Nov. 1939, flood flows regulated by Arkport Reservoir (see station 01521000), and, since October 1948, by Almond Lake (see station 01523000); normal regulation occasionally sufficient to affect figures of monthly runoff. Telephone and satellite gage-height telemeters at station. Several measurements of water temperature were made during the year.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 9,340 ft³/s, May 26, 1943, from rating curve extended above 7,600 ft³/s on a basis of critical-depth measurement of peak flow; minimum discharge, 9.3 ft³/s, Mar. 4, 1947. Maximum discharge since construction of Almond Reservoir in 1949, 9,560 ft³/s, June 23, 1972, gage height, 13.45 ft, from floodmark, from rating curve extended above 7,600 ft³/s on a basis of critical-depth measurement of peak flow; minimum discharge, 7.4 ft³/s, Sept. 13, 14, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,700 ft³/s, Jan. 8, gage height, 5.4 ft; minimum discharge, 23 ft³/s, Sep. 4, 5.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	381	49	472	e90	e120	1340	257	158	166	438	42	26
2	192	523	336	117	e110	671	285	154	117	186	30	25
3	121	428	216	273	e105	401	307	597	129	102	38	25
4	95	187	210	1080	e100	304	269	488	105	101	43	24
5	125	132	221	976	e94	264	202	274	72	277	32	25
6	105	101	173	575	e88	246	167	214	59	171	31	27
7	88	87	142	506	e84	209	152	208	53	99	28	44
8	74	85	143	e2300	e80	198	155	181	59	439	29	39
9	59	100	128	1820	e78	311	504	207	53	479	32	54
10	48	93	118	1940	110	486	1030	291	51	249	38	43
11	42	82	130	1620	e92	e290	451	1260	68	140	45	33
12	37	72	126	920	204	e180	302	1390	69	96	66	30
13	36	64	120	368	215	e150	256	746	90	84	40	26
14	39	67	124	261	e100	e140	200	377	177	75	37	26
15	40	90	107	213	e82	140	186	257	99	65	46	26
16	34	90	117	213	89	136	207	202	93	62	38	37
17	33	91	126	206	124	136	196	161	101	62	39	36
18	32	94	117	185	748	212	166	137	80	58	43	28
19	32	94	114	156	817	443	307	128	71	54	43	27
20	32	108	135	142	514	516	1660	115	63	55	38	28
21	31	124	130	132	362	382	1160	100	55	55	33	28
22	34	194	e94	127	275	315	567	89	50	58	29	27
23	36	202	e110	125	237	231	319	85	50	151	29	27
24	34	217	146	136	234	201	265	76	67	112	29	27
25	35	162	240	132	241	251	211	83	71	63	37	26
26	36	222	397	115	270	786	202	89	631	45	35	26
27	36	719	310	111	293	946	251	74	601	34	31	30
28	33	411	206	112	717	606	214	63	260	32	30	63
29	30	489	158	111	---	430	168	60	80	39	32	38
30	30	511	e120	225	---	320	160	57	295	48	32	29
31	29	---	e100	185	---	286	---	95	---	52	30	---
TOTAL	2009	5888	5386	15472	6583	11527	10776	8416	3935	3981	1125	950
MEAN	64.8	196	174	499	235	372	359	271	131	128	36.3	31.7
MAX	381	719	472	2300	817	1340	1660	1390	631	479	66	63
MIN	29	49	94	90	78	136	152	57	50	32	28	24

e Estimated

SUSQUEHANNA RIVER BASIN

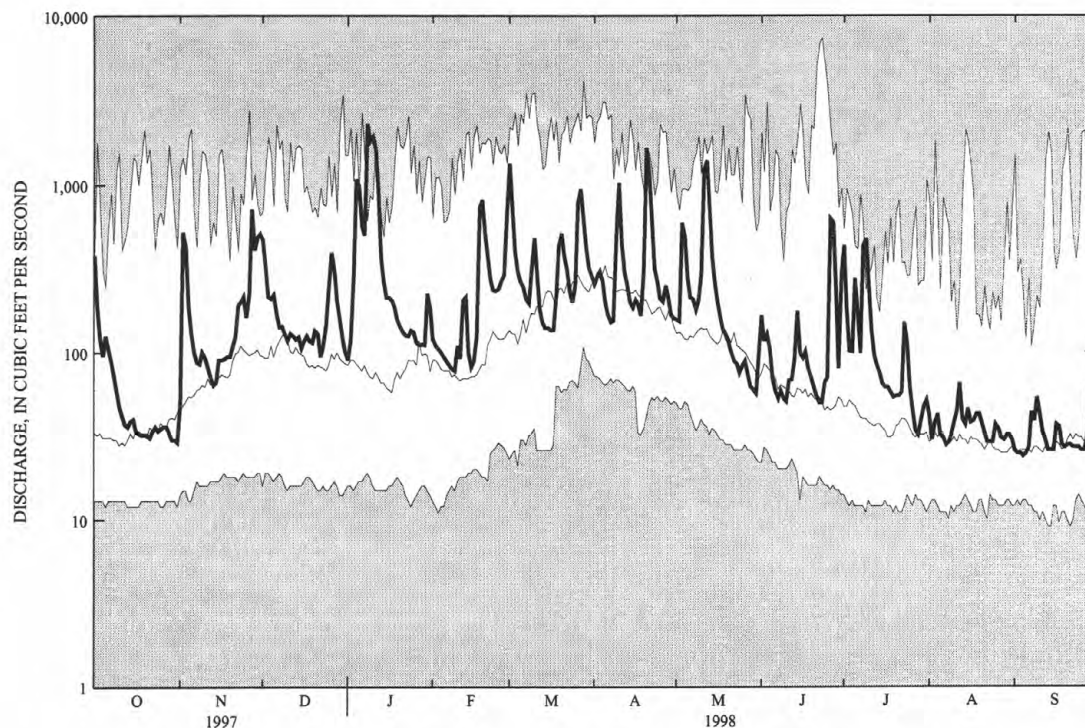
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01524500 CANISTEO RIVER BELOW CANACADEA CREEK, AT HORNE LL, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1998, BY WATER YEAR (WY)

MEAN	78.2	131	162	160	186	360	345	199	141	56.7	46.9	60.3
MAX	304	455	551	499	722	826	877	696	1226	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

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1942 - 1998	
ANNUAL TOTAL	58684		76048			
ANNUAL MEAN	161		208		160	
HIGHEST ANNUAL MEAN					255	
LOWEST ANNUAL MEAN					79.8	
HIGHEST DAILY MEAN	1350	May 20	2300	Jan 8	7440	Jun 23 1972
LOWEST DAILY MEAN	26	Aug 8	24	Sep 4	9.0	Sep 13 1955
ANNUAL SEVEN-DAY MINIMUM	30	Jul 28	26	Aug 31	10	Sep 8 1955
10 PERCENT EXCEEDS	363		482		351	
50 PERCENT EXCEEDS	99		115		70	
90 PERCENT EXCEEDS	33		32		22	



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

SUSQUEHANNA RIVER BASIN
01526500 TIOGA RIVER NEAR ERWINS, NY

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

DRAINAGE AREA.--1,377 mi².

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

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

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 190,000 ft³/s, June 23, 1972, from rating curve extended above 90,000 ft³/s, on basis of computation of peak flow at Lindley and Canisteo River at Erwins, 7.2 mi and 2.0 mi upstream, respectively, adjusted for flow from intervening area, gage height, 26.74 ft, from floodmarks; minimum discharge, 18 ft³/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 ft³/s, Jan. 19, 1996, gage height 16.98 ft; minimum discharge, 52 ft³/s, Oct. 1, 2, 6, 1980, gage height, 0.53 ft; minimum gage height, 0.44 ft, Sept. 3, 4, 1991.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 23,300 ft³/s, Jan. 8, gage height, 12.05 ft; minimum discharge, 112 ft³/s, Sep. 3, 4, gage height, 0.49 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1200	181	3700	e450	1340	11000	2380	1770	719	7740	218	124
2	849	1280	2830	e500	1180	7930	2890	1650	725	2790	210	120
3	490	3970	2110	810	1240	5270	2520	2390	827	1670	192	117
4	399	1760	1920	e7000	1200	3780	2120	2670	827	1180	185	116
5	414	1640	2030	e8100	1130	3050	1950	2260	644	2170	181	131
6	468	1320	1740	6150	1020	2590	1720	2070	500	1600	173	135
7	436	1070	1490	5610	e840	2250	1430	1900	420	978	158	150
8	392	1880	1290	16400	e790	2440	1340	1830	383	1850	146	152
9	343	4120	1190	10500	e770	3980	e2500	3710	364	4370	143	168
10	300	3340	1120	11800	e800	5020	e14000	4800	334	2050	146	154
11	242	1820	1090	12400	972	3750	e9000	15400	339	1160	162	153
12	196	1550	1100	11500	1960	2100	e4500	16800	541	863	176	138
13	183	1090	934	7770	2330	1940	e3200	11500	1460	698	177	131
14	177	1130	908	3160	1470	2030	e2200	6350	1720	552	158	125
15	172	1120	e750	2470	1030	2070	e2300	3870	1040	465	148	121
16	175	1090	e750	2340	873	1690	2150	2760	748	444	148	131
17	169	903	e800	2250	1210	1490	1980	2270	670	412	151	125
18	164	834	e820	1970	6160	1600	1580	2010	639	376	147	131
19	162	851	e870	1750	11200	2310	2180	1620	559	366	149	127
20	161	911	e900	1590	8920	3090	13200	1290	493	344	149	121
21	159	1090	e950	1330	5620	3270	9560	946	436	377	147	122
22	157	1660	e800	1210	4040	3740	5900	889	415	693	141	125
23	157	2270	736	1240	3330	2820	3760	725	668	512	134	120
24	159	2050	903	1360	3230	2410	2850	710	3880	582	130	116
25	170	1900	e1000	1410	3060	2690	2420	707	1310	438	129	124
26	213	1490	e1150	1160	3600	4590	2460	776	2680	343	127	121
27	218	3150	1340	1070	3500	7000	3560	780	4600	278	140	127
28	213	3070	1060	996	4650	4590	2490	615	1970	246	130	146
29	210	2740	739	1160	---	3680	1870	519	1210	236	125	152
30	206	2770	e560	1250	---	2990	1770	580	3310	228	125	154
31	178	---	e540	1470	---	2370	---	477	---	232	131	---
TOTAL	9132	54050	38120	128176	77465	109530	111780	96644	34431	36243	4776	3977
MEAN	295	1802	1230	4135	2767	3533	3726	3118	1148	1169	154	133
MAX	1200	4120	3700	16400	11200	11000	14000	16800	4600	7740	218	168
MIN	157	181	540	450	770	1490	1340	477	334	228	125	116

e Estimated

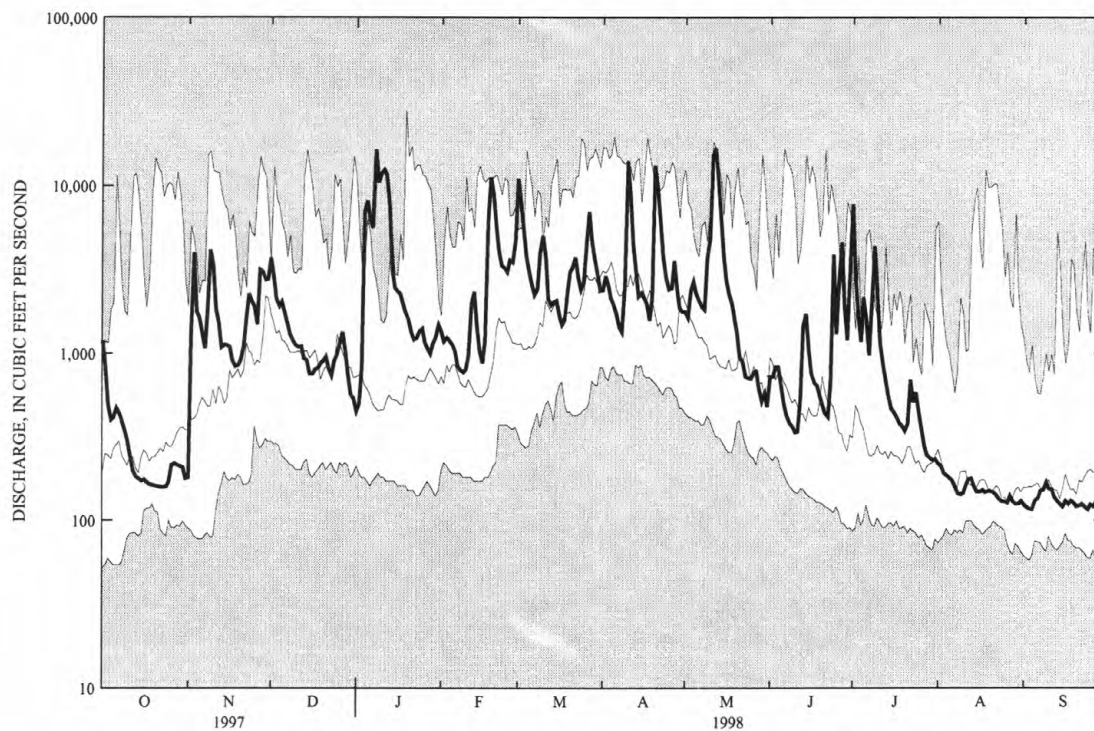
SUSQUEHANNA RIVER BASIN
01526500 TIOGA RIVER NEAR ERWINS, NY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1998, BY WATER YEAR (WY)

MEAN	769	1354	1577	1426	1812	2810	3516	1822	1175	515	472	356
MAX	4160	4401	3545	4870	4219	5737	11970	4689	4579	1169	3257	1156
(WY)	1991	1997	1997	1996	1981	1994	1993	1989	1989	1998	1994	1992
MIN	96.5	251	286	165	340	843	1320	371	150	95.9	104	72.0
(WY)	1992	1992	1990	1981	1980	1981	1981	1985	1991	1991	1991	1980

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1980 - 1998	
ANNUAL TOTAL	412589		704324			
ANNUAL MEAN	1130		1930		1463	
HIGHEST ANNUAL MEAN					2192	
LOWEST ANNUAL MEAN					916	
HIGHEST DAILY MEAN	9710	Mar 6	16800	May 12	28000	Jan 19 1996
LOWEST DAILY MEAN	117	Sep 10	116	Sep 4	52	Oct 1 1980
ANNUAL SEVEN-DAY MINIMUM	131	Aug 7	121	Sep 20	55	Sep 30 1980
10 PERCENT EXCEEDS	2770		4220		3490	
50 PERCENT EXCEEDS	748		1090		630	
90 PERCENT EXCEEDS	152		147		137	



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

SUSQUEHANNA RIVER BASIN

01529500 COHOCTON RIVER NEAR CAMPBELL, NY

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

DRAINAGE AREA.--470 mi².

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

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

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

REMARKS.--Records good except those for estimated daily discharges, which are fair. During each year since March 1931, a large part of flow from 45.5 mi² of drainage area upstream from Lake Lamoka on Mud Creek, a tributary upstream from this station, has been diverted into Keuka Lake (Oswego River basin), for power development. Telephone and satellite gage-height telemeters at station. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 41,100 ft³/s, July 8, 1935, gage height, 11.6 ft, from floodmark, from rating curve extended above 24,200 ft³/s on basis of velocity-area and slope-area measurements of peak flow; minimum discharge, 8 ft³/s, Sep. 6, 7, 1934.

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

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 8	1600	*8,900	*6.78	May 11	2000	6,010	5.54
Apr. 20	0830	5,080	5.05	July 8	2030	4,950	4.96

Minimum discharge, 60 ft³/s, Sep. 6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	352	89	1420	e400	e380	2880	1150	548	442	1740	138	71
2	369	488	1050	561	e380	2100	1260	558	357	804	130	69
3	371	818	898	728	385	1670	1090	795	394	462	125	69
4	301	435	905	2100	362	1400	992	808	348	360	117	67
5	311	344	880	2060	347	1210	890	811	268	798	115	64
6	305	282	766	1970	e300	1060	790	723	199	474	111	62
7	258	248	664	1770	e290	953	708	648	188	376	107	97
8	231	242	600	7550	e275	899	696	626	192	2020	99	135
9	208	e300	548	7920	e270	1200	1260	810	182	2540	94	139
10	191	e450	508	5150	291	1420	2630	1160	171	1470	107	129
11	181	e300	495	3060	320	e980	1420	4210	217	997	169	111
12	185	242	486	2160	639	e800	1070	4480	228	746	151	95
13	162	218	460	1750	782	e700	892	2670	406	604	131	84
14	142	223	443	1340	e520	786	787	1740	566	419	112	78
15	114	240	374	1150	e420	755	790	1380	328	342	106	73
16	106	243	454	1050	e440	e660	757	1160	283	305	101	99
17	101	232	425	925	471	e620	711	965	372	299	99	108
18	97	230	369	842	1770	736	621	806	380	263	103	86
19	99	232	347	775	2630	1040	775	598	328	233	108	77
20	95	253	378	711	2150	1210	4000	486	235	223	99	87
21	90	263	394	642	1720	1080	2690	410	179	232	90	96
22	92	345	311	589	1390	1010	2010	370	162	213	84	85
23	90	422	374	506	1230	936	1610	341	565	318	81	79
24	90	469	389	501	1170	899	1350	310	609	315	81	77
25	91	383	523	468	1100	895	1120	303	294	222	82	76
26	91	479	911	e400	1140	1880	1030	301	689	193	102	72
27	95	1370	778	e380	1080	2960	1070	264	595	174	93	74
28	93	1060	642	390	1460	2260	746	240	393	160	81	205
29	90	1240	e500	377	---	1790	622	226	315	156	77	132
30	88	1260	e500	478	---	1440	567	232	1930	155	78	107
31	84	---	e450	470	---	1200	---	246	---	148	77	---
TOTAL	5173	13400	18242	49173	23712	39429	36104	29225	11815	17761	3248	2803
MEAN	167	447	588	1586	847	1272	1203	943	394	573	105	93.4
MAX	371	1370	1420	7920	2630	2960	4000	4480	1930	2540	169	205
MIN	84	89	311	377	270	620	567	226	162	148	77	62
CFSM	.36	.95	1.25	3.37	1.80	2.71	2.56	2.01	.84	1.22	.22	.20
IN.	.41	1.06	1.44	3.89	1.88	3.12	2.86	2.31	.94	1.41	.26	.22

e Estimated

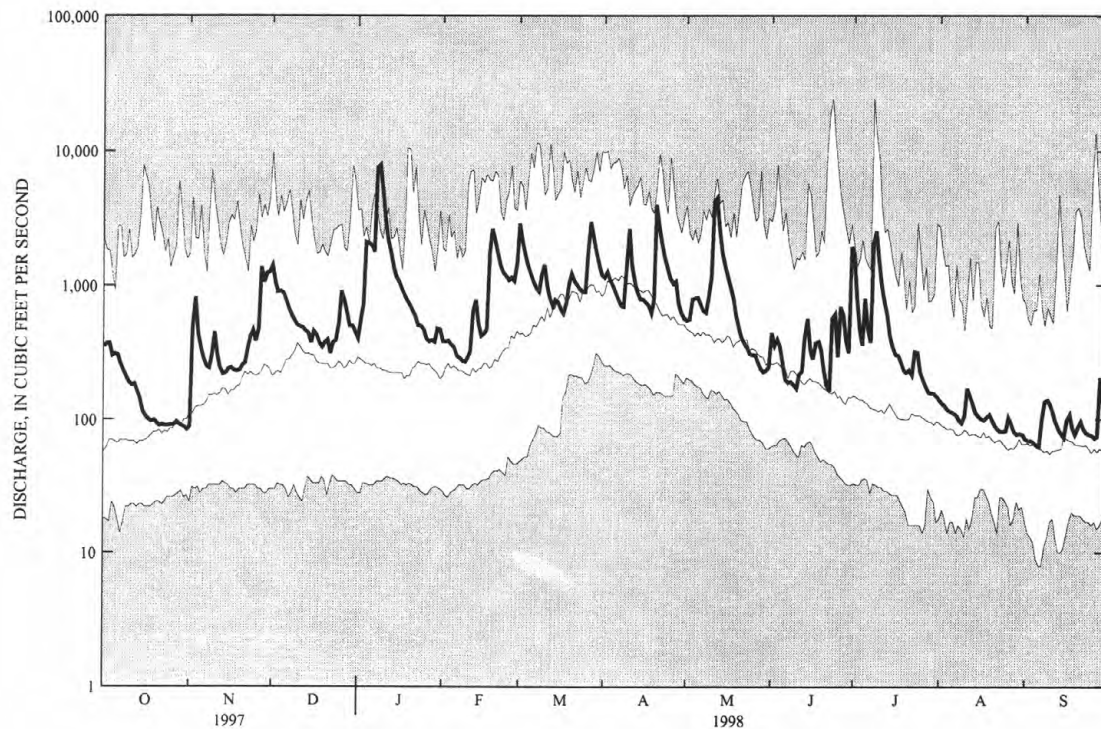
SUSQUEHANNA RIVER BASIN
01529500 COHOCTON RIVER NEAR CAMPBELL, NY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1918 - 1998, BY WATER YEAR (WY)

MEAN	190	342	433	420	491	1117	1133	613	339	186	120	136
MAX	1284	1611	1861	1586	2059	3793	3579	2074	3167	2278	649	1204
(WY)	1956	1928	1928	1998	1976	1936	1993	1919	1972	1935	1992	1977
MIN	25.7	33.0	42.5	32.5	75.1	312	201	143	59.2	31.1	25.0	15.5
(WY)	1942	1942	1961	1961	1920	1965	1946	1934	1955	1955	1934	1934

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1918 - 1998	
ANNUAL TOTAL	155323		250085			
ANNUAL MEAN	426		685		459	
HIGHEST ANNUAL MEAN					766	
LOWEST ANNUAL MEAN					210	
HIGHEST DAILY MEAN	2690	Feb 27	7920	Jan 9	24400	Jul 8 1935
LOWEST DAILY MEAN	51	Sep 9	62	Sep 6	8.0	Sep 6 1934
ANNUAL SEVEN-DAY MINIMUM	57	Aug 27	68	Aug 31	11	Sep 3 1934
ANNUAL RUNOFF (CFSM)	.91		1.46		.98	
ANNUAL RUNOFF (INCHES)	12.29		19.79		13.28	
10 PERCENT EXCEEDS	1030		1450		1100	
50 PERCENT EXCEEDS	301		394		209	
90 PERCENT EXCEEDS	72		92		50	



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

SUSQUEHANNA RIVER BASIN

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 mi².

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

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

GAGE.--Water-stage recorder. Datum of gage is 900.00 ft above sea level.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 127,000 ft³/s, Sept. 26, 1975, gage height, 32.46 ft; minimum discharge, 210 ft³/s, Aug. 1978. Maximum discharge since construction of Tioga Reservoir in 1979, 61,000 ft³/s, Jan. 19, 1996; minimum discharge, 95 ft³/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 ft³/s, from peak flows determined at upstream and downstream stations adjusted for drainage area and channel storage.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 36,600 ft³/s, Jan. 8, gage height, 24.05 ft; minimum discharge, 205 ft³/s, Sep. 3, 4, 5.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1590	328	5540	e1500	1890	15300	3860	2550	1260	12000	377	224
2	1190	1560	4200	e1700	1690	11000	4540	2430	1130	4350	360	216
3	874	5330	3230	e2000	1720	7550	4020	3440	1270	2630	345	214
4	720	2610	3020	8990	1630	5630	3520	3740	1240	1870	334	208
5	714	2330	3120	11900	1540	4630	3220	3320	964	3460	336	218
6	774	1850	2730	9100	1360	3990	2910	3040	725	2510	331	227
7	700	1470	2340	8090	1170	3510	2530	2780	622	1620	318	258
8	637	2130	2030	27600	1130	3530	2410	2690	590	4050	302	317
9	569	5050	1840	20800	1100	5540	4530	4660	560	8460	293	336
10	512	4330	1710	18500	1120	7140	16900	6590	521	4220	280	311
11	449	2480	1630	16200	1310	5290	9610	21700	566	2660	358	291
12	404	2080	1650	14100	2800	e3250	6300	23800	756	1930	372	257
13	375	1420	1420	10100	3440	3000	4610	15500	1950	1510	359	235
14	350	1420	1360	4860	2280	3090	3580	8860	2590	1130	331	224
15	317	1390	1140	3890	1580	3090	3520	5710	1590	901	308	215
16	308	1350	1250	3710	1410	2650	3300	4250	1140	821	305	236
17	297	1150	1240	3490	1780	2410	3090	3500	1110	800	317	265
18	290	1090	1210	3090	10100	2590	2600	3070	1140	708	299	244
19	289	1090	1250	2760	15800	3590	3620	2520	982	654	308	232
20	285	1160	1290	2550	12300	4600	20500	2070	815	611	303	222
21	283	1360	1410	2200	8150	4670	13600	1580	666	646	287	247
22	280	2100	1140	1970	5980	5100	8760	1470	597	946	271	237
23	283	2940	1090	1910	5000	4070	5920	1250	831	819	261	223
24	293	2760	1280	2040	4790	3580	4560	1190	5070	997	252	220
25	310	2510	1580	2060	4480	3860	3880	1170	1850	723	254	227
26	344	2070	2890	1670	5120	6680	3760	1250	3420	578	266	221
27	362	4580	3010	1550	4950	11200	4950	1190	5910	498	281	238
28	348	4380	2540	1440	6370	7630	3520	981	2630	441	254	349
29	350	4170	1940	1620	---	5970	2730	775	1710	413	241	331
30	345	4210	e1600	1820	---	4860	2570	813	7560	406	231	305
31	323	---	e1550	2140	---	3930	---	720	---	400	239	---
TOTAL	15165	72698	63230	195350	111990	162930	163420	138609	51765	63762	9373	7548
MEAN	489	2423	2040	6302	4000	5256	5447	4471	1726	2057	302	252
MAX	1590	5330	5540	27600	15800	15300	20500	23800	7560	12000	377	349
MIN	280	328	1090	1440	1100	2410	2410	720	521	400	231	208

e Estimated

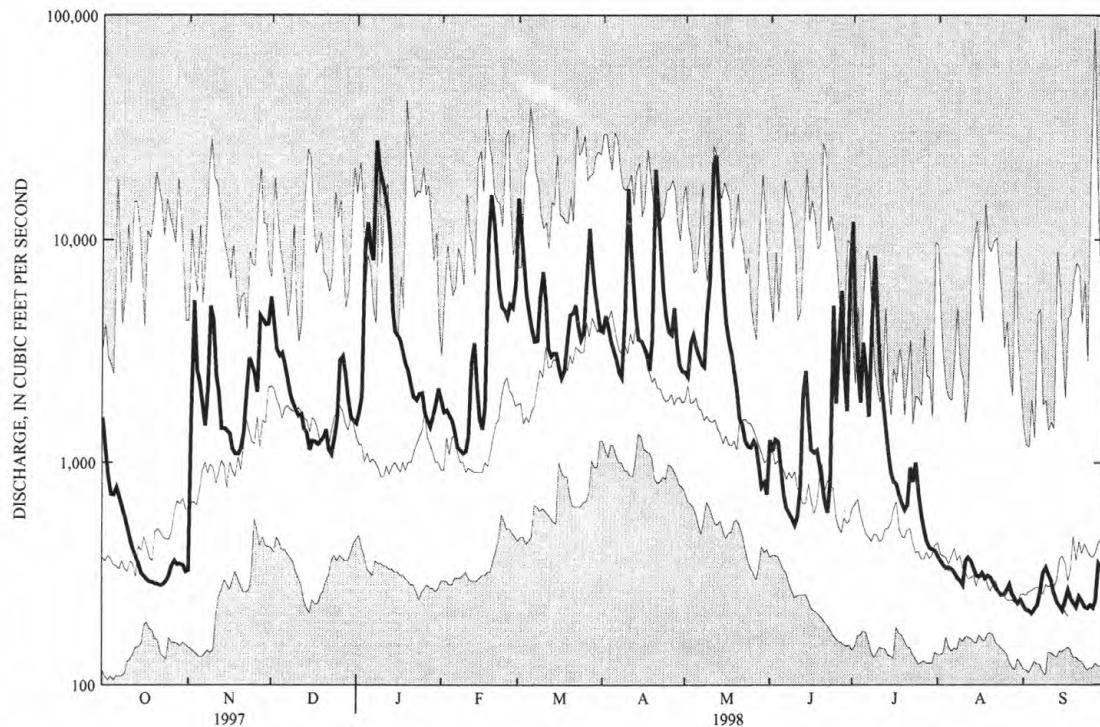
SUSQUEHANNA RIVER BASIN
01529950 CHEMUNG RIVER AT CORNING, NY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1998, BY WATER YEAR (WY)

MEAN	1270	1935	2359	2259	2710	4411	4699	2612	1614	772	649	889
MAX	5478	6124	5297	6879	7993	9533	16150	6692	5835	2057	3388	5569
(WY)	1991	1997	1997	1996	1976	1979	1993	1989	1989	1998	1994	1975
MIN	157	341	389	328	537	1284	1599	549	244	173	184	141
(WY)	1992	1992	1989	1981	1980	1981	1981	1985	1991	1991	1991	1991

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1975 - 1998	
ANNUAL TOTAL	603802		1055840			
ANNUAL MEAN	1654		2893		2176	
HIGHEST ANNUAL MEAN					3284	
LOWEST ANNUAL MEAN					1287	
HIGHEST DAILY MEAN	12500	Mar 6	27600	Jan 8	87100	Sep 26 1975
LOWEST DAILY MEAN	200	Aug 10	208	Sep 4	105	Oct 3 1980
ANNUAL SEVEN-DAY MINIMUM	222	Aug 7	221	Aug 31	108	Oct 2 1980
10 PERCENT EXCEEDS	4180		6110		5040	
50 PERCENT EXCEEDS	1150		1620		1000	
90 PERCENT EXCEEDS	256		283		240	



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

SUSQUEHANNA RIVER BASIN
01530500 NEWTOWN CREEK AT ELMIRA, NY

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

DRAINAGE AREA.--77.5 mi².

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

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

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 4,000 ft³/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 ft³/s, Jan. 19, 1996, gage height 16.98 ft. Minimum instantaneous discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,610 ft³/s, Mar. 1, gage height 11.43 ft; minimum discharge, 5.3 ft³/s, Oct. 23, gage height 4.13 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	9.4	167	e54	55	1090	132	68	139	605	16	11
2	13	78	105	64	57	414	172	68	62	197	16	11
3	12	108	76	107	54	266	135	75	57	114	15	11
4	11	48	84	521	52	202	118	69	47	73	14	11
5	11	47	87	616	51	172	101	67	39	173	14	11
6	9.3	36	77	907	e45	150	83	63	34	83	14	9.3
7	8.7	31	64	617	e42	131	72	73	31	58	14	17
8	8.5	120	57	1370	e40	125	76	63	30	251	17	14
9	8.5	214	53	934	e39	235	295	70	27	267	15	14
10	12	128	e49	435	e38	476	789	237	24	126	15	12
11	13	68	e49	255	e46	218	266	871	27	77	16	11
12	12	52	49	186	196	e135	181	611	41	58	14	14
13	12	43	48	e150	168	e110	144	284	70	48	13	12
14	12	45	e44	e120	e85	e100	122	186	163	42	15	11
15	11	42	e39	e90	e60	e90	114	143	76	37	16	11
16	10	40	e43	e115	e55	e80	109	113	55	34	15	14
17	8.3	39	e43	104	62	e70	95	89	46	43	15	11
18	8.4	38	43	91	992	96	85	69	45	42	15	11
19	8.9	38	42	82	1020	147	230	62	37	32	14	9.9
20	8.1	40	e42	73	452	157	1100	59	31	28	14	9.0
21	7.5	41	e41	66	292	287	388	52	27	40	13	11
22	6.5	111	41	62	212	290	227	47	47	32	13	11
23	5.8	148	47	60	176	195	173	44	55	27	13	10
24	5.9	134	46	60	165	170	144	40	53	25	12	9.8
25	7.6	76	90	58	162	171	120	39	38	23	12	10
26	7.0	64	165	52	190	292	118	41	57	21	13	10
27	8.3	124	130	52	194	334	152	37	64	20	12	13
28	6.7	86	94	50	443	226	108	34	41	18	12	10
29	6.4	81	e65	48	---	183	87	33	34	18	13	11
30	6.4	94	e56	57	---	148	74	36	506	17	12	12
31	6.7	---	e55	61	---	124	---	41	---	17	12	---
TOTAL	287.5	2223.4	2091	7517	5443	6884	6010	3784	2003	2646	434	343.0
MEAN	9.27	74.1	67.5	242	194	222	200	122	66.8	85.4	14.0	11.4
MAX	15	214	167	1370	1020	1090	1100	871	506	605	17	17
MIN	5.8	9.4	39	48	38	70	72	33	24	17	12	9.0

e Estimated

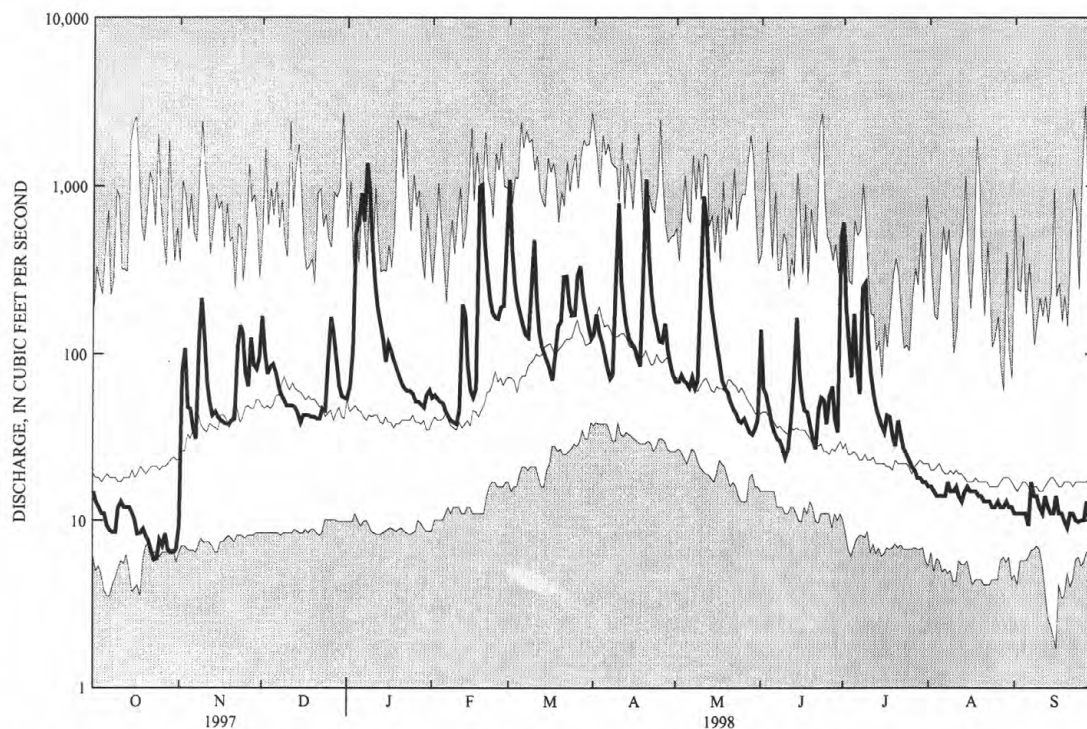
SUSQUEHANNA RIVER BASIN
01530500 NEWTOWN CREEK AT ELMIRA, NY

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1998, BY WATER YEAR (WY)

MEAN	66.6	112	110	121	98.7	175	236	93.7	59.9	42.6	42.0	28.4
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	9.27	33.0	12.7	43.8	23.3	63.5	87.5	40.9	13.8	7.30	7.25	8.28
(WY)	1998	1992	1990	1997	1993	1990	1997	1991	1991	1991	1991	1991

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1990 - 1998	
ANNUAL TOTAL	20580.0		39665.9			
ANNUAL MEAN	56.4		109		98.7	
HIGHEST ANNUAL MEAN					133	
LOWEST ANNUAL MEAN					61.4	
HIGHEST DAILY MEAN	738 Mar 6		1370 Jan 8		2470 Jan 19 1996	
LOWEST DAILY MEAN	5.8 Oct 23		5.8 Oct 23		4.9 Aug 3 1991	
ANNUAL SEVEN-DAY MINIMUM	6.8 Oct 23		6.8 Oct 23		6.0 Aug 12 1991	
10 PERCENT EXCEEDS	124		228		198	
50 PERCENT EXCEEDS	40		53		45	
90 PERCENT EXCEEDS	11		11		11	



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

SUSQUEHANNA RIVER BASIN

01531000 CHEMUNG RIVER AT CHEMUNG, NY

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

DRAINAGE AREA.--2,506 mi².

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

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

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 189,000 ft³/s, June 23, 1972, gage height, 31.62 ft, from floodmark, from rating curve extended above 65,000 ft³/s, on basis of slope-area and velocity-area studies at gage height 19.57 ft, and slope-area and contracted opening measurements at gage heights 23.97 and 31.62 ft; minimum discharge, 49 ft³/s, Aug. 14, 1911, gage height, 1.47 ft. Maximum discharge since construction of Tioga Reservoir in 1979, 77,800 ft³/s, Jan. 20, 1996, gage height 19.71 ft; minimum discharge, 104 ft³/s, Sept. 3, 1991, gage height, 2.82 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 44,000 ft³/s, Jan. 8, gage height 15.18 ft; minimum discharge, 212 ft³/s, Sept. 4, 5, 6, gage height 2.89 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1620	360	6090	e1550	2380	20200	4660	3170	e1400	19400	545	243
2	1510	653	5470	e1900	2140	16000	5560	3040	e1700	7220	510	234
3	1180	4840	3990	e2400	2130	10700	5160	3570	e1800	3990	486	225
4	896	3460	3500	8280	2090	7900	4380	4400	1820	2700	452	220
5	800	2530	3640	16500	2000	6260	4000	4090	1560	3670	430	212
6	801	2120	3360	13800	1880	5380	3600	3730	1270	3450	421	212
7	843	1760	2850	11800	1680	4620	3120	3470	1060	2360	405	e290
8	763	1920	2520	27200	1560	4240	2850	3300	969	2320	382	e340
9	701	5070	2280	32800	1520	6070	3720	4400	928	9370	360	e380
10	632	5780	2140	23700	1500	8850	20000	7450	885	5960	352	e360
11	569	3260	2040	19900	1610	7810	13900	20500	e900	3640	369	340
12	503	2490	2040	16700	2840	4910	8610	33400	e1100	2570	396	321
13	466	2000	1900	13900	4620	3940	6310	22400	e2300	2040	407	297
14	443	1750	1780	7000	3410	3790	4660	12800	e3000	1680	398	276
15	417	1780	1610	5030	2350	3850	4310	8090	e2300	1370	377	265
16	380	1730	1520	4650	2000	3500	4070	5890	e1600	1200	353	278
17	372	1620	1620	4400	2080	3070	3840	4700	1390	1110	338	288
18	365	1460	1590	3890	11100	3020	3350	4090	1420	1100	341	287
19	353	1410	1630	3530	22800	3850	3360	3460	1290	957	337	273
20	345	1460	1650	3220	17800	5130	21200	3050	1120	900	332	265
21	342	1590	1820	2860	11800	5920	20100	2550	952	858	324	259
22	334	2220	1650	2550	8390	6760	12000	2190	841	950	316	272
23	331	3580	e1450	2440	6540	5660	8090	1920	900	1080	302	265
24	331	3530	1570	2400	6080	4730	6040	1710	3730	1060	276	251
25	342	3240	1890	2500	5780	4700	5020	1630	2850	1050	257	247
26	345	2560	3110	2250	6120	6330	4440	1640	1660	834	255	247
27	386	3900	3700	2070	6390	14800	5910	1640	6440	727	255	251
28	392	5350	3260	1920	7630	10900	4940	1480	3330	656	266	276
29	379	4570	e2600	1940	---	8050	3660	1300	2230	602	254	343
30	371	4520	e2100	2060	---	6660	3300	1230	4100	570	245	337
31	365	---	e2000	2390	---	5190	---	e1200	---	549	241	---
TOTAL	17877	82513	78370	247530	148220	212790	204160	177490	56845	85943	10982	8354
MEAN	577	2750	2528	7985	5294	6864	6805	5725	1895	2772	354	278
MAX	1620	5780	6090	32800	22800	20200	21200	33400	6440	19400	545	380
MIN	331	360	1450	1550	1500	3020	2850	1200	841	549	241	212

e Estimated

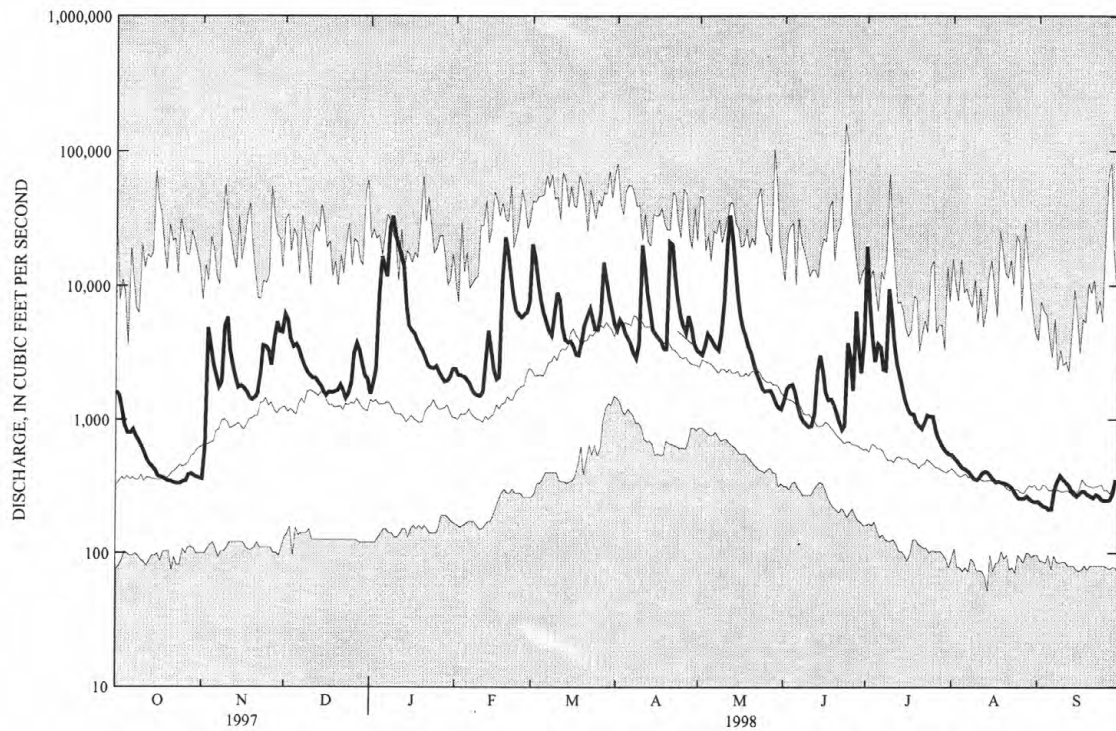
SUSQUEHANNA RIVER BASIN
01531000 CHEMUNG RIVER AT CHEMUNG, NY--Continued

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

MEAN	1407	2487	2981	2648	3245	5086	6580	3485	2067	1054	910	685
MAX	6774	8107	6688	8569	7695	9919	21600	8901	7418	2772	5001	2572
(WY)	1991	1997	1997	1996	1981	1994	1993	1996	1989	1998	1994	1992
MIN	199	505	502	459	631	1750	2214	696	359	196	198	169
(WY)	1992	1992	1989	1981	1980	1981	1981	1985	1991	1991	1991	1991

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1906 - 1913 1915 - 1997	
ANNUAL TOTAL	755361		1331074			
ANNUAL MEAN	2069		3647		2713	
HIGHEST ANNUAL MEAN					4126	
LOWEST ANNUAL MEAN					1664	
HIGHEST DAILY MEAN	15100		33400		65400	
LOWEST DAILY MEAN	253		212		113	
ANNUAL SEVEN-DAY MINIMUM	276		227		125	
10 PERCENT EXCEEDS	4680		7960		6120	
50 PERCENT EXCEEDS	1580		2060		1250	
90 PERCENT EXCEEDS	315		331		288	



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

SUSQUEHANNA RIVER BASIN

LAKES AND RESERVOIRS IN SUSQUEHANNA RIVER BASIN

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

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

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

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

EXTREMES FOR CURRENT YEAR.--Maximum contents, 12,896 acre-ft, Jan. 11, elevation, 1,176.89 ft; minimum, 1,519 acre-ft, Mar. 30, elevation, 1,139.10 ft.

01511000 WHITNEY POINT LAKE.--Lat 42°20'34", long 75°57'57", Broome County, Hydrologic Unit 02050102, on left bank at control-gate structure for Whitney Point Dam on Otselec River, 0.3 mi upstream from spillway, 0.9 mi upstream from mouth, and 1.0 mi north of Whitney Point. DRAINAGE AREA, 257 mi². PERIOD OF RECORD, October 1942 to September 1985 (mean daily elevations and monthend contents), October 1985 to current year (monthend elevations and contents). REVISED RECORDS, WSP 2103: Drainage area. GAGE, water-stage recorder. Datum of gage is sea level (levels by Corps of Engineers). Prior to October 1970, published as "Whitney Point Reservoir at Whitney Point".

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

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

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

EXTREMES FOR CURRENT YEAR.--Maximum contents, 37,920 acre-ft, Jan. 10, elevation, 989.42 ft; minimum, 5,040 acre-ft, Feb.22, elevation, 965.82 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)
01499500 East Sidney Lake				01511000 Whitney Point Lake		
Sept. 30	1,148.25	2,937	--	973.51	13,333	--
Oct. 31	1,148.22	2,931	- 0.1	972.10	11,605	- 28.1
Nov. 30	1,150.54	3,395	+ 7.8	973.27	13,028	+ 23.9
Dec. 31	1,140.53	1,699	- 27.6	966.11	5,323	- 125
CAL YR 1997	--	--	- 0.1	--	--	+ 0.1
Jan. 31	1,139.80	1,605	- 1.5	966.13	5,343	+ 0.3
Feb. 28	1,140.84	1,739	+ 2.4	966.27	5,481	+ 2.5
Mar. 31	1,139.62	1,583	- 2.5	965.98	5,196	- 4.6
Apr. 30	1,142.95	2,037	+ 7.6	970.17	9,454	+ 71.6
May 31	1,150.77	3,443	+ 22.9	973.34	13,117	+ 59.6
June 30	1,150.56	3,399	- 0.7	973.16	12,888	- 3.9
July 31	1,150.86	3,462	+ 1.0	973.06	12,761	- 2.1
Aug. 31	1,150.62	3,412	- 0.8	973.13	12,850	+ 1.4
Sept. 30	1,150.04	3,289	- 2.1	973.20	12,939	+ 1.4
WTR YR 1998	--	--	+ 0.5	--	--	- 0.5

LAKES AND RESERVOIRS IN SUSQUEHANNA RIVER BASIN--Continued

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

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

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

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

EXTREMES FOR CURRENT YEAR.--Maximum contents, 22,230 acre-ft, Jan. 9, elevation, 1,099.35 ft; minimum, 6,970 acre ft, May. 10, elevation, 1,075.12 ft.

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

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

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

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

EXTREMES FOR CURRENT YEAR.--Maximum contents, 16,370 acre-ft, Jan. 10, elevation, 1,095.73 ft; minimum, 8,750 acre-ft, Oct. 24 elevation, 1,085.87 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)
01517900 Tioga Lake				01518498 Hammond Lake		
Sept. 30	1,081.64	9,810	--	1,086.17	8,950	--
Oct. 31	1,081.10	9,550	- 4.2	1,085.96	8,820	- 2.1
Nov. 30	1,083.18	10,590	+ 17.5	1,087.03	9,480	+ 11.1
Dec. 31	1,083.51	10,750	+ 2.6	1,087.28	9,670	+ 3.1
CAL YR 1997	--	--	+ 0.3	--	--	+ 0.2
Jan. 31	1,082.18	10,080	- 11.0	1,087.25	9,640	- 0.5
Feb. 29	1,084.41	11,200	+ 20.2	1,087.34	9,710	+ 1.3
Mar. 31	1,081.43	9,710	- 24.2	1,086.65	9,250	- 7.5
Apr. 30	1,075.96	7,300	- 40.5	1,087.09	9,530	+ 4.7
May 31	1,081.46	9,720	+ 39.4	1,086.52	9,170	- 5.9
June 30	1,081.95	9,960	+ 4.0	1,086.68	9,260	+ 1.5
July 31	1,081.12	9,560	- 6.5	1,086.48	9,140	- 2.0
Aug. 31	1,080.82	9,420	- 2.3	1,086.37	9,080	- 1.0
Sept. 30	1,079.50	8,820	- 10.1	1,086.24	9,000	- 1.3
WTR YR 1998	--	--	- 1.4	--	--	+ 0.1

SUSQUEHANNA RIVER BASIN

LAKES AND RESERVOIRS IN SUSQUEHANNA RIVER BASIN--Continued

01519995 COWANESQUE LAKE.--Lat 41°59'05", long 77°09'05", Tioga County, Hydrologic Unit 02050104, at Cowanesque Dam on Cowanesque River, 1.8 mi southwest of Lawrenceville, and 2.5 mi upstream from mouth. DRAINAGE AREA, 298 mi². PERIOD OF RECORD, December 1979 to current year. GAGE, water-stage recorder. Datum of gage is sea level (levels by U.S. Army Corps of Engineers).

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

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

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

EXTREMES FOR CURRENT YEAR.--Maximum contents, 53,870 acre-ft, Jan. 10, elevation 1,096.98 ft; minimum, 31,040 acre-ft, Sep. 30, elevation, 1,078.58 ft.

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

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

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

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

EXTREMES FOR CURRENT YEAR.--Maximum contents, 7,189 acre-ft, Jan. 9, elevation, 1,281.85 ft; minimum, 1,587 acre-ft, June 28, elevation, 1,258.91 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)
01519995 Cowanesque Lake				01523000 Almond Lake		
Sept. 30	1,080.54	33,140	--	1,261.34	1,968	--
Oct. 31	1,080.16	32,760	- 6.2	1,260.07	1,761	- 3.3
Nov. 30	1,080.35	32,950	+ 3.2	1,261.28	1,958	+ 3.3
Dec. 31	1,080.19	32,790	- 2.6	1,259.99	1,748	- 3.4
CAL YR 1997.....	--	--	+ 0.2	--	--	- 0.1
Jan. 31	1,080.13	32,730	- 1.0	1,260.21	1,784	+ 0.6
Feb. 28	1,080.92	33,520	+ 14.2	1,264.15	2,480	+ 12.5
Mar. 31	1,080.08	32,680	- 13.7	1,260.07	1,761	- 11.7
Apr. 30	1,080.14	32,740	+ 1.0	1,260.15	1,774	+ 0.2
May 31	1,080.14	32,740	0	1,261.04	1,917	+ 2.3
June 30	1,081.45	34,140	+ 23.5	1,261.66	2,022	+ 1.8
July 31	1,080.25	32,850	- 21.0	1,260.23	1,787	- 3.8
Aug. 31	1,079.73	32,300	- 8.9	1,260.11	1,768	- 0.3
Sept. 30	1,078.58	31,040	- 21.2	1,260.14	1,772	+ 0.1
WTR YR 1998.....	--	--	- 2.9	--	--	- 0.3

OHIO RIVER MAIN STEM

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03011020 ALLEGHENY RIVER AT SALAMANCA, NY

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

DRAINAGE AREA.--1,608 mi².

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

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

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 73,000 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 9	1200	*31,500	*14.28	No other peak greater than base discharge.			

Minimum discharge 184 ft³/s, Sep. 27, gage height, 2.67 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4150	784	6970	1980	1990	7740	3770	3200	938	4870	448	279
2	2720	3750	5930	1920	1900	7810	4020	3060	982	3530	409	286
3	1970	6180	4850	2650	1860	6450	3730	4200	1150	2250	374	293
4	1530	4190	4830	7840	1740	5340	3320	4140	1060	1720	350	264
5	2000	3290	4740	11000	1630	4480	3020	4020	833	1570	341	258
6	2080	2720	4120	11000	e1450	3810	2700	4450	733	1300	319	248
7	1540	2360	3660	10100	e1400	3280	2430	4180	683	1060	307	235
8	1250	2650	3310	20900	e1300	3000	2210	3840	656	1730	287	229
9	1080	3180	3000	30500	e1250	3720	2580	4040	632	3880	278	238
10	967	3290	2810	26500	1270	4760	8350	3700	596	2510	582	265
11	875	2930	2770	21200	1290	4300	7860	4650	588	1660	778	253
12	789	2630	2610	14600	1620	3750	6500	8980	693	1270	819	233
13	734	2350	2440	9550	2130	3530	5060	8220	1120	1040	539	222
14	684	2270	2320	6510	1880	3370	4170	6680	1220	888	410	208
15	647	2300	2130	4680	e1500	3120	4630	5180	919	782	394	197
16	613	2140	2080	4030	e1400	2740	4430	4100	842	712	1170	195
17	577	2030	2040	3560	2110	2510	3870	3700	1140	651	982	208
18	553	1900	1950	3130	4990	2770	3410	3200	1140	603	633	196
19	536	1810	1880	2770	5840	4030	3440	2520	901	589	571	206
20	518	1860	1980	2510	5430	5530	10500	2110	1210	582	521	466
21	505	2080	2040	2240	5030	5980	12000	1820	841	902	435	286
22	586	2670	1830	2040	4470	5780	9200	1590	695	1180	441	228
23	591	3250	1930	1960	3960	4910	7110	1420	650	1750	431	208
24	571	3320	2090	2260	3680	4270	5460	1280	770	1720	395	196
25	602	2920	2910	2180	3470	3930	4350	1190	1100	1090	472	191
26	636	2920	4720	1910	3410	5000	3980	1190	908	840	387	191
27	892	6740	4240	1720	3230	7220	5410	1040	1250	710	344	191
28	1080	6590	3530	1650	3310	5890	4450	935	1000	617	315	219
29	993	6240	2970	1670	---	5740	3830	859	738	569	298	220
30	846	6380	2800	2360	---	4960	3530	827	2040	540	293	237
31	785	---	2470	2410	---	4170	---	798	---	489	285	---
TOTAL	33900	97724	97950	219330	74540	143890	149320	101119	28028	43604	14608	7146
MEAN	1094	3257	3160	7075	2662	4642	4977	3262	934	1407	471	238
MAX	4150	6740	6970	30500	5840	7810	12000	8980	2040	4870	1170	466
MIN	505	784	1830	1650	1250	2510	2210	798	588	489	278	191
CFSM	.68	2.03	1.96	4.40	1.66	2.89	3.10	2.03	.58	.87	.29	.15
IN.	.78	2.26	2.27	5.07	1.72	3.33	3.45	2.34	.65	1.01	.34	.17

e Estimated

OHIO RIVER MAIN STEM

03011020 ALLEGHENY RIVER AT SALAMANCA, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 1998, BY WATER YEAR (WY)

MEAN	1358	2574	3106	3360	3170	6002	5832	3478	2019	1103	721	840
MAX	5801	8605	9147	10200	9683	14850	15540	9574	11520	6074	3882	7477
(WY)	1991	1928	1928	1913	1976	1936	1940	1943	1972	1942	1977	1977
MIN	124	146	189	255	550	1983	970	796	299	150	119	118
(WY)	1931	1931	1961	1961	1905	1937	1946	1985	1934	1934	1930	1932

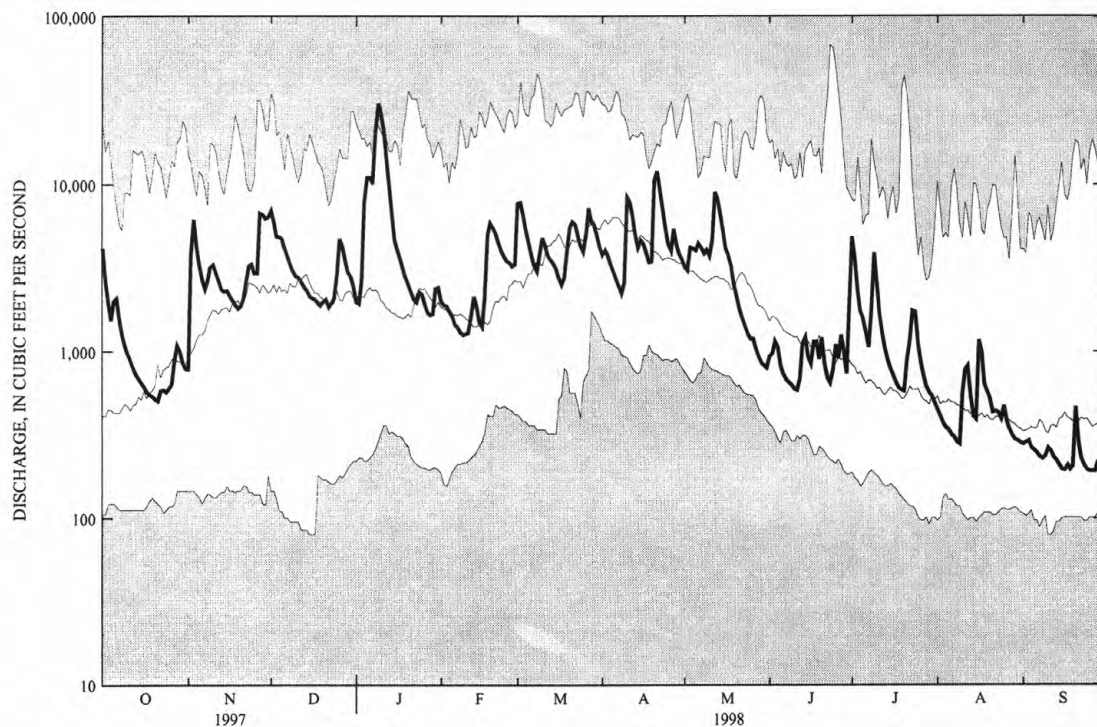
SUMMARY STATISTICS

FOR 1997 CALENDAR YEAR

FOR 1998 WATER YEAR

WATER YEARS 1904 - 1998

ANNUAL TOTAL	1021506			1011159								
ANNUAL MEAN	2799			2770						2794		
HIGHEST ANNUAL MEAN										4174		1916
LOWEST ANNUAL MEAN										1784		1931
HIGHEST DAILY MEAN	18400	Feb 28		30500	Jan 9					67900	Jun 23	1972
LOWEST DAILY MEAN	346	Sep 10		191	Sep 25					79	Sep 10	1971
ANNUAL SEVEN-DAY MINIMUM	374	Sep 22		202	Sep 23					84	Dec 11	1908
ANNUAL RUNOFF (CFSM)	1.74			1.72						1.74		
ANNUAL RUNOFF (INCHES)	23.63			23.39						23.61		
10 PERCENT EXCEEDS	6460			5760						6780		
50 PERCENT EXCEEDS	2120			1980						1530		
90 PERCENT EXCEEDS	513			317						290		



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
 SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

ALLEGHENY RIVER BASIN

69

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 mi².

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

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

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

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

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,310.47 ft, Jan. 10; minimum, 1,307.18 ft, Mar. 17.

ELEVATION (FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1308.62	1307.98	1307.81	1307.73	1308.05	1307.46	1307.89	1308.32	1308.12	1308.11	1308.08	1307.82
2	1308.54	1308.03	1307.77	1307.68	1307.98	1307.46	1307.88	1308.27	1308.10	1308.09	1308.06	1307.80
3	1308.44	1308.01	1307.72	1307.71	1307.92	1307.42	1307.86	1308.28	1308.08	1308.07	1308.04	1307.78
4	1308.34	1307.95	1307.76	1308.25	1307.86	1307.38	1307.82	1308.25	1308.06	1308.07	1308.02	1307.76
5	1308.35	1307.88	1307.81	1308.65	1307.79	1307.35	1307.75	1308.27	1308.04	1308.08	1308.01	1307.74
6	1308.30	1307.81	1307.84	1308.88	1307.72	1307.32	1307.69	1308.27	1308.02	1308.06	1307.99	1307.72
7	1308.22	1307.76	1307.90	1309.10	1307.66	1307.28	1307.65	1308.25	1308.00	1308.06	1307.97	1307.72
8	1308.13	1307.74	1307.89	1309.90	1307.59	1307.26	1307.62	1308.22	1307.99	1308.17	1307.95	1307.72
9	1308.05	1307.69	1307.88	1310.35	1307.53	1307.32	1307.75	1308.20	1307.98	1308.26	1307.94	1307.72
10	1308.05	1307.63	1307.88	1310.40	1307.48	1307.36	1308.21	1308.18	1307.98	1308.24	1307.99	1307.69
11	1308.04	1307.59	1307.90	1310.27	1307.43	1307.34	1308.29	1308.23	1307.97	1308.21	1308.02	1307.68
12	1308.03	1307.54	1307.88	1310.12	1307.44	1307.31	1308.32	1308.32	1308.01	1308.20	1308.01	1307.67
13	1308.02	1307.51	1307.85	1309.97	1307.47	1307.28	1308.34	1308.29	1308.05	1308.18	1307.99	1307.66
14	1308.02	1307.52	1307.82	1309.82	1307.43	1307.28	1308.37	1308.25	1308.06	1308.16	1307.97	1307.65
15	1308.01	1307.50	1307.77	1309.75	1307.38	1307.27	1308.47	1308.25	1308.06	1308.16	1307.96	1307.64
16	1307.99	1307.48	1307.73	---	1307.34	1307.23	1308.55	1308.26	1308.06	1308.19	1307.95	1307.66
17	1307.98	1307.44	1307.70	---	1307.39	1307.20	1308.71	1308.26	1308.06	1308.22	1307.93	1307.66
18	1307.97	1307.40	1307.66	1309.28	1307.66	1307.22	1308.72	1308.25	1308.06	1308.20	1307.98	1307.64
19	1307.95	1307.36	1307.62	1309.18	1307.72	1307.36	1308.72	1308.25	1308.06	1308.18	1307.98	1307.64
20	1307.95	1307.33	1307.60	---	1307.71	1307.54	1309.11	1308.24	1308.06	1308.22	1307.96	1307.64
21	1307.94	1307.31	1307.57	---	1307.70	1307.72	1309.17	1308.23	1308.06	1308.23	1307.95	1307.63
22	1307.95	1307.36	1307.53	---	1307.67	1307.79	1309.09	1308.20	1308.05	1308.24	1307.94	1307.62
23	1307.97	1307.39	1307.54	---	1307.64	1307.78	1308.98	1308.19	1308.05	1308.28	1307.93	1307.60
24	1307.98	1307.42	1307.55	1308.64	1307.59	1307.75	1308.87	1308.17	1308.05	1308.23	1307.91	1307.58
25	1307.99	1307.41	1307.64	1308.55	1307.53	1307.73	1308.76	1308.16	1308.05	1308.21	1307.90	1307.56
26	1308.00	1307.42	1307.81	1308.46	1307.50	1307.79	1308.69	1308.15	1308.05	1308.19	1307.89	1307.56
27	1308.15	1307.65	1307.85	1308.37	1307.46	1307.88	1308.68	1308.14	1308.05	1308.17	1307.89	1307.56
28	1308.19	1307.70	1307.84	1308.28	1307.42	1307.88	1308.59	1308.14	1308.04	1308.15	1307.87	1307.57
29	1308.16	1307.73	1307.81	1308.20	---	1307.97	1308.50	1308.12	1308.02	1308.14	1307.86	1307.55
30	1308.12	1307.78	1307.81	1308.17	---	1307.96	1308.41	1308.11	1308.08	1308.12	1307.86	1307.54
31	1308.04	---	1307.79	1308.12	---	1307.92	---	1308.11	---	1308.11	1307.84	---
MEAN	1308.11	1307.61	1307.76	---	1307.61	1307.51	1308.38	1308.22	1308.04	1308.17	1307.96	1307.66
MAX	1308.62	1308.03	1307.90	---	1308.05	1307.97	1309.17	1308.32	1308.12	1308.28	1308.08	1307.82
MIN	1307.94	1307.31	1307.53	---	1307.34	1307.20	1307.62	1308.11	1307.97	1308.06	1307.84	1307.54

CAL YR 1997 MEAN 1308.08 MAX 1309.13 MIN 1307.31

ALLEGHENY RIVER BASIN

03014500 CHADAKOIN RIVER AT FALCONER, NY

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

DRAINAGE AREA.--194 mi².

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

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

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

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Chautauqua Lake. Diurnal fluctuation caused by mills upstream from station. Monthly figures for 1951-66 water years adjusted for regulation. Telephone gage-height telemeter at station. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,250 ft³/s, Sept. 14, 1979, gage height, 4.93 ft; minimum discharge, 2.5 ft³/s, Sept. 18, 1995; minimum gage height, 0.12 ft, Oct. 24, 1997.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,690 ft³/s, Jan. 9, gage height, 3.79 ft; minimum discharge, 4.2 ft³/s, Oct. 24, gage height, 0.12 ft.

REVISIONS.--The maximum discharge for the water year 1997 has been revised to 1,280 ft³/s, May 19, 1997, gage height 3.23 ft, superceding the figure published in the report for 1997.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	961	748	669	681	807	630	772	876	61	43	59	52
2	925	764	684	672	789	624	775	870	53	39	58	55
3	873	745	652	691	773	608	750	875	48	37	58	52
4	839	731	674	844	747	606	725	794	46	40	58	52
5	857	704	679	976	730	598	722	480	45	38	55	52
6	836	676	678	1050	707	572	610	455	44	37	57	52
7	817	677	671	1150	683	561	557	485	41	38	57	53
8	797	666	436	1480	664	522	325	474	33	208	57	55
9	415	672	702	1610	634	562	157	473	33	417	63	53
10	75	654	703	1630	617	632	130	273	37	52	69	51
11	74	635	719	1590	599	613	125	88	37	50	58	50
12	74	620	718	1510	616	580	124	157	44	51	57	46
13	74	587	710	1490	618	538	124	545	49	50	54	44
14	74	582	712	1420	608	563	126	423	36	49	54	42
15	74	596	688	1360	591	564	247	70	35	50	56	38
16	73	602	677	1330	573	538	388	68	34	57	56	37
17	64	590	673	1280	587	524	626	66	34	50	58	30
18	62	559	662	1230	662	535	775	66	33	49	62	28
19	60	544	655	1190	703	579	855	63	35	50	54	29
20	34	535	649	1150	700	610	1160	64	33	56	50	28
21	6.4	525	639	1100	709	660	1160	64	33	53	47	28
22	6.7	543	617	1060	690	736	1130	63	34	51	45	27
23	6.3	552	629	1030	669	729	1100	63	34	513	49	26
24	17	570	624	1010	677	713	1090	61	33	329	51	25
25	70	531	664	978	673	695	1040	61	33	70	47	25
26	73	548	687	862	599	715	1020	58	33	56	43	24
27	378	581	708	911	612	756	1010	57	33	36	40	27
28	602	585	707	887	618	756	978	61	33	50	43	24
29	595	613	698	862	---	785	942	67	37	59	52	24
30	705	627	707	860	---	781	910	64	70	59	51	24
31	756	---	703	836	---	772	---	74	---	59	53	---
TOTAL	11273.4	18562	20794	34730	18655	19657	20453	8358	1184	2796	1671	1153
MEAN	364	619	671	1120	666	634	682	270	39.5	90.2	53.9	38.4
MAX	961	764	719	1630	807	785	1160	876	70	513	69	55
MIN	6.3	525	436	672	573	522	124	57	33	36	40	24

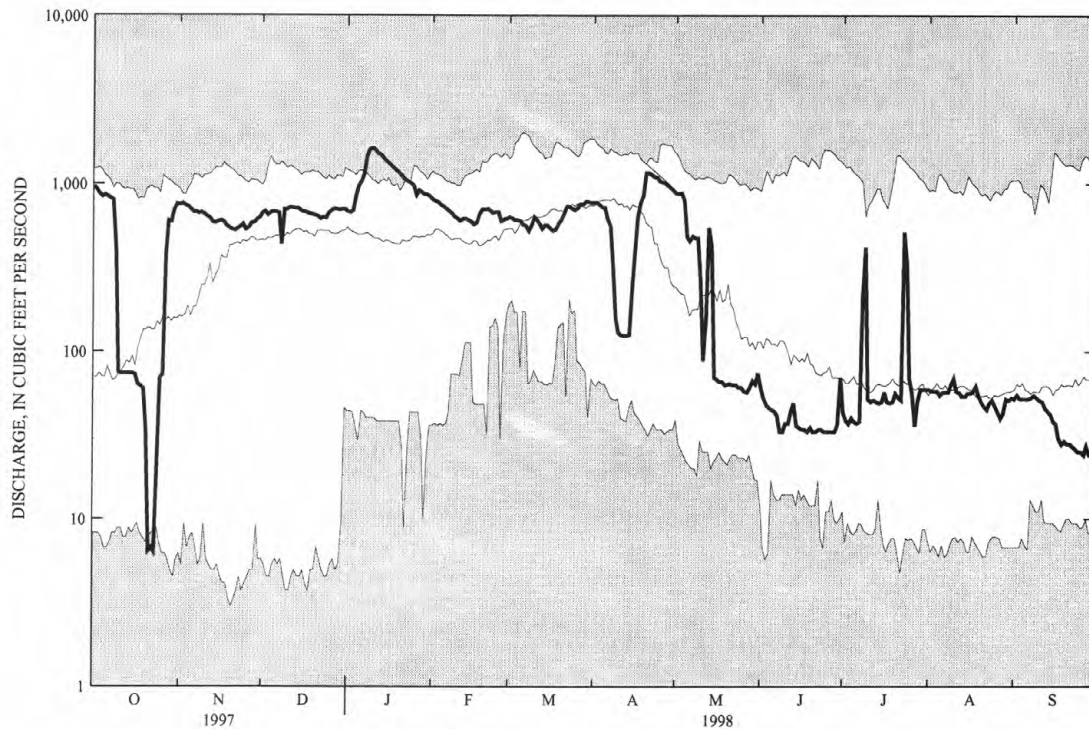
ALLEGHENY RIVER BASIN
03014500 CHADAKOIN RIVER AT FALCONER, NY--Continued

71

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 1998, BY WATER YEAR (WY)

MEAN	216	375	509	521	520	687	636	304	209	120	107	154
MAX	751	997	997	1120	989	1358	1305	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

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR			FOR 1998 WATER YEAR			WATER YEARS 1935 - 1998		
ANNUAL TOTAL	170790.4			159286.4					
ANNUAL MEAN	468			436			364		
HIGHEST ANNUAL MEAN							527		
LOWEST ANNUAL MEAN							228		
HIGHEST DAILY MEAN	1210			1630			2020		
LOWEST DAILY MEAN	6.3			6.3			3.0		
ANNUAL SEVEN-DAY MINIMUM	27			25			3.7		
10 PERCENT EXCEEDS	960			880			832		
50 PERCENT EXCEEDS	530			535			281		
90 PERCENT EXCEEDS	53			36			37		



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

ALLEGHENY RIVER BASIN
LAKES IN ALLEGHENY RIVER BASIN

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

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

73

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

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

DRAINAGE AREA.--436 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1939 to March 1998 (discontinued).

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

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

REMARKS.--Records good except those for estimated daily discharges, which are fair. Diurnal fluctuation at low and medium flow caused by powerplant 20 mi upstream from station. Telephone gage-height telemeter at station. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 34,600 ft³/s, Mar. 7, 1956, gage height, 14.03 ft, present datum; minimum discharge, about 6 ft³/s, Aug. 21, 1941, result of regulation; minimum gage height, 0.90 ft, Oct. 26, 1951.

EXTREMES FOR CURRENT PERIOD.--October 1997 to March 1998: Peak discharges greater than base discharge of 8,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 4	0730	8,590	7.05	Jan. 8	0830	*17,600	*9.68

Minimum discharge, 249 ft³/s, Oct. 20, 21, gage height 1.78 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2790	431	1550	e580	758	2990	---	---	---	---	---	---
2	1170	2280	1030	686	761	1560	---	---	---	---	---	---
3	815	1710	824	2070	781	1120	---	---	---	---	---	---
4	597	958	1010	7700	660	992	---	---	---	---	---	---
5	1800	685	996	4780	582	951	---	---	---	---	---	---
6	910	556	898	4130	496	891	---	---	---	---	---	---
7	593	531	847	3980	e480	805	---	---	---	---	---	---
8	491	619	828	14900	e460	824	---	---	---	---	---	---
9	420	545	787	8530	e450	1150	---	---	---	---	---	---
10	460	479	771	3530	477	1210	---	---	---	---	---	---
11	404	465	783	2070	540	e900	---	---	---	---	---	---
12	353	448	774	1520	1200	e760	---	---	---	---	---	---
13	325	429	745	1390	1110	e720	---	---	---	---	---	---
14	309	472	726	1160	674	e700	---	---	---	---	---	---
15	295	528	654	1080	e480	e670	---	---	---	---	---	---
16	278	559	697	1030	e500	e620	---	---	---	---	---	---
17	269	568	686	945	1500	e610	---	---	---	---	---	---
18	261	575	668	900	3370	1240	---	---	---	---	---	---
19	254	592	654	839	2260	2910	---	---	---	---	---	---
20	251	648	833	798	1560	2610	---	---	---	---	---	---
21	253	901	797	721	1220	2200	---	---	---	---	---	---
22	278	1470	632	680	1010	1510	---	---	---	---	---	---
23	284	1160	946	726	920	1250	---	---	---	---	---	---
24	306	1060	1050	963	887	e1050	---	---	---	---	---	---
25	306	822	2030	811	841	e1060	---	---	---	---	---	---
26	291	1710	2470	698	955	3840	---	---	---	---	---	---
27	1010	3560	1420	634	907	3780	---	---	---	---	---	---
28	794	1680	1080	613	958	1890	---	---	---	---	---	---
29	527	1580	851	649	---	2660	---	---	---	---	---	---
30	428	1560	821	1350	---	1500	---	---	---	---	---	---
31	375	---	e660	985	---	1160	---	---	---	---	---	---
TOTAL	17897	29581	29518	71448	26797	46133	---	---	---	---	---	---
MEAN	577	986	952	2305	957	1488	---	---	---	---	---	---
MAX	2790	3560	2470	14900	3370	3840	---	---	---	---	---	---
MIN	251	429	632	580	450	610	---	---	---	---	---	---
CFSM	1.32	2.26	2.18	5.29	2.20	3.41	---	---	---	---	---	---
IN.	1.53	2.52	2.52	6.10	2.29	3.94	---	---	---	---	---	---

e Estimated

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

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1998, BY WATER YEAR (WY)

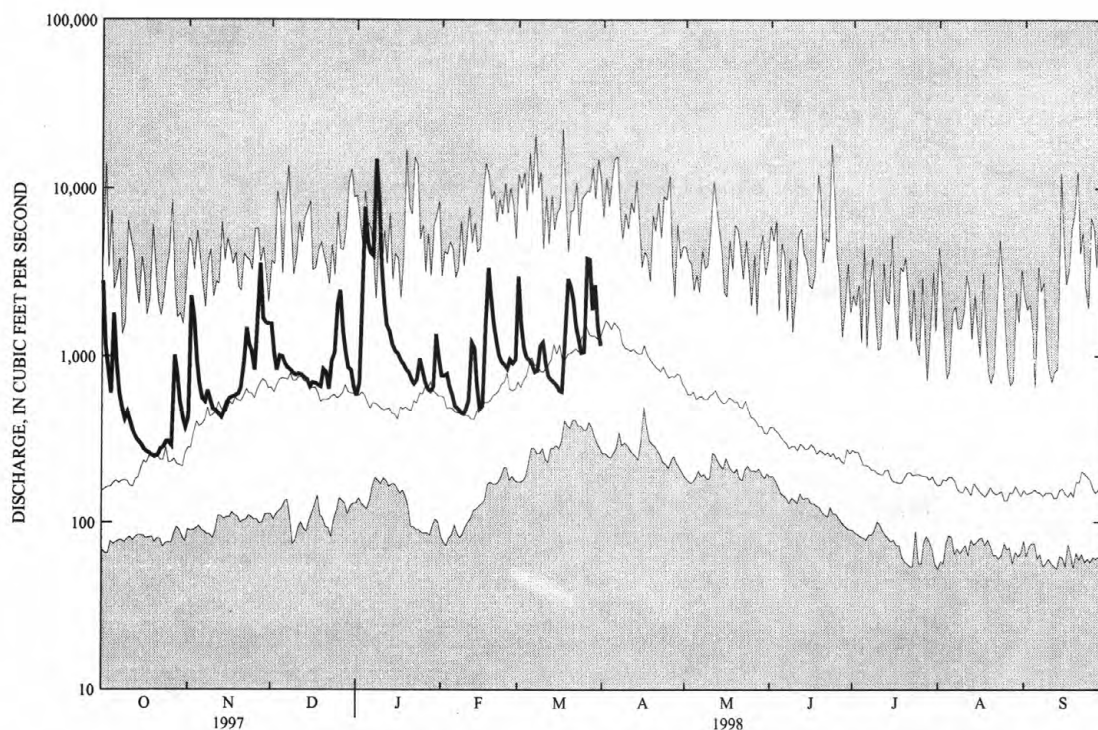
MEAN	409	725	959	853	943	1599	1455	744	494	292	241	316
MAX	1573	1772	2089	2305	2819	3824	3686	1948	1436	867	1225	2423
(WY)	1946	1986	1991	1998	1976	1945	1947	1943	1989	1986	1977	1977
MIN	81.8	118	111	136	222	799	279	283	143	78.3	79.5	85.8
(WY)	1964	1961	1961	1961	1963	1981	1946	1941	1955	1955	1941	1960

SUMMARY STATISTICS

FOR 1997 CALENDAR YEAR

WATER YEARS 1940 - 1998

ANNUAL TOTAL	318676		
ANNUAL MEAN	873		
HIGHEST ANNUAL MEAN		747	
LOWEST ANNUAL MEAN		1030	1977
HIGHEST DAILY MEAN	8180	Feb 27	
LOWEST DAILY MEAN	147	Aug 10	22900 Mar 17 1942
ANNUAL SEVEN-DAY MINIMUM	161	Aug 7	52 Sep 13 1945
ANNUAL RUNOFF (CFSM)	2.00		57 Sep 7 1945
ANNUAL RUNOFF (INCHES)	27.19		1.71
10 PERCENT EXCEEDS	1790		23.28
50 PERCENT EXCEEDS	595		1620
90 PERCENT EXCEEDS	230		421
			126



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

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

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PERIOD OF RECORD--Water years 1959, 1963-64, 1972 to 1993, 1996 to February 1998 (discontinued).

CHEMICAL DATA: 1959 (e), 1963 (b), 1972 (a), 1975 (b), 1976-78 (c), 1979-80 (d), 1981-82 (c), 1983-91 (c)
1992-93 (b), 1996 (c), 1997 (d), 1998 (c).

MINOR ELEMENTS DATA: 1972-74 (a), 1975 (b), 1976-77 (c), 1978-86 (b), 1987-89 (d), 1990-91 (c), 1992-93 (b),
1996 (c), 1997 (d), 1998 (c).

ORGANIC DATA: OC--1975 (b), 1976-77 (c), 1978-80 (d), 1981 (c), 1996 (c), 1997 (d), 1998 (c).

NUTRIENT DATA: 1975 (b), 1976-77 (c), 1978-80 (d), 1981-82 (c), 1983-93 (b), 1996 (c), 1997 (d), 1998 (c).

BIOLOGICAL DATA:

Bacterial--1978-80 (d), 1981-82 (c), 1983-93 (b), 1996 (c), 1997 (d), 1998 (c).

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

Fish tissue--1997 (a).

SEDIMENT DATA: 1964 (b), 1978-82 (c), 1983-86 (c), 1987-89 (d), 1990-91 (c), 1992-93 (b), 1996 (c), 1997 (d), 1998 (c).

BOTTOM SEDIMENT DATA: 1996 (a).

PERIOD OF DAILY RECORD--

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

pH: October 1958 to September 1959, unpublished.

TEMPERATURE: April 1996 to February 1998, unpublished.

EXTREMES FOR PERIOD OF DAILY RECORD--

SPECIFIC CONDUCTANCE: Maximum daily, 952 microsiemens Oct. 7, 1958; minimum daily, 150 microsiemens Feb. 19, 1981.

WATER TEMPERATURES: Maximum daily, 29.0°C Aug. 19, 1978; minimum daily, 0.0°C on many days during winter periods.

WATER-QUALITY DATA, OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED SATUR- ATION (00301)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	HARD- NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS- SOLVED AS CA (00915)
OCT												
31...	0840	374	348	7.9	11.0	5.9	742	12.1	100	K78	28	50
NOV												
20...	0930	640	320	8.0	1.0	2.7	743	12.8	97	120	29	46
DEC												
18...	0950	666	322	7.8	.5	.9	744	13.4	96	--	34	43
JAN												
28...	0950	612	345	7.9	3.0	.8	742	13.5	97	280	27	46
FEB												
12...	1050	943	330	7.8	5.0	3.3	730	11.8	92	200	23	43
26...	0950	986	293	7.7	5.0	3.5	745	11.2	86	310	18	36

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD (MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD (MG/L AS CO3 (00452)	ALKA- LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3 (39086)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)
OCT												
31...	8.9	9.1	1.5	163	0	134	23	15	<.1	3.5	197	<.01
NOV												
20...	8.0	9.5	1.4	145	0	119	21	16	<.1	3.9	187	<.01
DEC												
18...	7.7	11	1.3	128	0	105	21	17	<.1	4.5	193	<.01
JAN												
28...	8.0	11	1.3	148	0	121	21	19	<.1	5.0	206	<.01
FEB												
12...	7.5	10	1.3	140	0	115	21	17	<.1	4.2	187	<.01
26...	6.3	10	1.3	120	0	98	19	17	<.1	4.0	173	.01

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

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

WATER-QUALITY DATA, OCTOBER 1997 TO SEPTEMBER 1998

DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C) (00689)	SEDI- MENT, SUS- PENDE (MG/L) (80154)
OCT 31...	.63	<.02	<.20	<.20	<.01	<.01	<.01	28	8	2.2	.20	7
NOV 20...	.66	<.02	.17	.12	.02	<.01	.01	12	14	2.3	.40	24
DEC 18...	.96	<.02	.13	.11	<.01	<.01	.01	14	13	1.9	.20	22
JAN 28...	1.6	<.02	.16	<.10	.02	<.01	.01	<10	13	1.7	.50	33
FEB 12...	1.0	<.02	.19	<.10	.04	<.01	.02	<10	11	1.6	.80	85
26...	1.1	.04	.19	.11	.03	<.01	.02	<10	7	1.9	.50	70

DATE	ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRA- ZINE, WATER, DISS, REC, (UG/L) (39632)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR- PYRIFOS DIS- SOLVED REC (UG/L) (38933)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)
OCT 31...	<.002	<.002	.008	E.010	<.001	<.002	<.002	<.003	<.003	<.004	<.004	<.002
NOV 20...	<.002	<.002	.007	E.007	<.220	<.002	<.002	<.003	<.003	<.004	<.004	<.002
DEC 18...	<.002	<.002	.006	E.006	<.001	<.002	<.002	<.003	<.003	<.004	<.004	<.002
JAN 28...	<.002	<.002	.004	E.006	<.001	<.002	<.002	<.003	<.003	<.004	<.004	<.002
FEB 26...	<.002	<.002	.006	E.003	<.001	<.002	<.002	<.003	<.003	<.004	<.004	<.002

DATE	P,P' DDE DISSOLV (UG/L) (34653)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DI- ELDRIN, DIS- SOLVED (UG/L) (39381)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	LINDANE DIS- SOLVED (UG/L) (39341)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)
OCT 31...	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003	<.003	<.002	<.004	<.002
NOV 20...	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003	<.003	<.002	<.004	<.002
DEC 18...	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003	<.003	<.002	<.004	<.002
JAN 28...	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003	<.003	<.002	<.004	<.002
FEB 26...	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003	<.003	<.002	<.004	<.002

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

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WATER-QUALITY DATA, OCTOBER 1997 TO SEPTEMBER 1998

DATE	MALA- THION, DIS- SOLVED (UG/L) (39532)	METO- LACHLOR WATER (UG/L) (39415)	METRI- BUZIN SENCOR WATER (UG/L) (82630)	MOL- INATE WATER FLTRD 0.7 U (UG/L) (82671)	NAPROP- AMIDE WATER FLTRD 0.7 U (UG/L) (82684)	PARA- THION, DIS- SOLVED (UG/L) (39542)	METHYL PARA- THION WAT FLT 0.7 U (UG/L) (82667)	PEB- ULATE WATER FILTRD 0.7 U (UG/L) (82669)	PENDI- METH- ALIN WAT FLT 0.7 U (UG/L) (82683)	PER- METHRIN CIS WAT FLT 0.7 U (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U (UG/L) (82664)	PRO- METON, WATER, DISS, REC (UG/L) (04037)
OCT 31...	<.005	E.004	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.005	<.002	<.018
NOV 20...	<.005	E.004	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.005	<.002	<.018
DEC 18...	<.005	E.003	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.005	<.002	<.018
JAN 28...	<.005	E.002	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.005	<.002	<.018
FEB 26...	<.005	E.003	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.005	<.002	<.018

DATE	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROP- CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)
OCT 31...	<.003	<.007	<.004	<.013	E.003	<.010	<.007	<.013	<.002	<.001	<.002
NOV 20...	<.003	<.007	<.004	<.013	E.003	<.010	<.007	<.013	<.002	<.001	<.002
DEC 18...	<.003	<.007	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
JAN 28...	<.003	<.007	<.004	<.013	E.001	<.010	<.007	<.013	<.002	<.001	<.002
FEB 26...	<.003	<.007	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002

E Estimated.

STREAMS TRIBUTARY TO LAKE ERIE

04214500 BUFFALO CREEK AT GARDENVILLE, NY

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

DRAINAGE AREA.--142 mi².

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

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

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,300 ft³/s, Mar. 1, 1955, Mar. 7, 1956, from rating curve extended above 3,200 ft³/s on basis of slope-area measurement at gage height 7.07 ft; maximum gage height 14.34 ft, Mar. 21, 1978 (ice jam); minimum discharge, 0.2 ft³/s, Sep. 1, 1964; minimum gage height, 0.45 ft, Sept. 2, 1991.

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

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 8	0730	*7,840	*8.06	July 8	1600	4,800	6.52

Minimum discharge, 15 ft³/s, Sep. 5, 6, 7, gage height, 0.57 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	923	126	482	e90	e180	1100	230	91	89	429	26	19
2	277	977	249	e200	e170	395	254	91	56	156	24	21
3	164	548	173	e950	e200	275	243	106	47	67	23	24
4	115	270	361	2200	e180	251	207	134	41	64	21	17
5	1080	297	326	922	e110	248	173	237	36	679	21	16
6	295	169	275	801	e80	229	144	154	33	175	22	16
7	156	121	237	2400	e70	189	127	154	32	107	23	39
8	121	144	253	6530	e65	209	118	103	33	1980	21	82
9	86	145	238	2310	e65	363	229	95	34	1420	23	36
10	73	111	225	893	e75	326	639	97	31	286	30	29
11	65	93	210	472	e110	e190	243	712	31	156	96	24
12	56	92	232	e320	392	e110	172	685	38	108	47	20
13	50	86	220	e300	317	e100	139	271	41	85	30	18
14	47	e75	211	e230	118	e95	127	161	43	72	24	17
15	44	e160	174	e220	e65	e95	216	112	48	61	21	17
16	41	e165	220	e200	e75	e90	247	90	38	66	19	19
17	39	182	230	e200	e550	e120	297	88	45	61	19	21
18	38	192	215	e190	1210	435	215	74	43	51	20	21
19	37	206	244	e170	706	1560	161	62	35	46	55	18
20	36	243	458	e150	445	929	1120	57	31	68	32	20
21	50	421	308	e120	343	517	392	50	28	80	23	22
22	140	739	174	e130	274	e360	239	47	25	53	21	19
23	85	459	348	e210	238	e300	185	45	24	122	21	19
24	69	430	370	e480	233	e250	153	43	24	136	22	18
25	68	246	1030	288	240	e270	132	42	24	56	20	17
26	71	732	1010	e170	317	1660	117	45	493	40	21	16
27	919	1350	457	e140	253	936	139	51	325	33	20	29
28	302	412	296	e130	235	397	112	40	99	30	18	31
29	148	358	e180	e160	---	583	96	37	283	29	19	29
30	102	541	e140	615	---	322	91	39	140	35	20	21
31	79	---	e105	e290	---	252	---	64	---	29	21	---
TOTAL	5776	10090	9651	22481	7316	13156	6957	4077	2290	6780	823	715
MEAN	186	336	311	725	261	424	232	132	76.3	219	26.5	23.8
MAX	1080	1350	1030	6530	1210	1660	1120	712	493	1980	96	82
MIN	36	75	105	90	65	90	91	37	24	29	18	16
CFM	1.31	2.37	2.19	5.11	1.84	2.99	1.63	.93	.54	1.54	.19	.17
IN.	1.51	2.64	2.53	5.89	1.92	3.45	1.82	1.07	.60	1.78	.22	.19

e Estimated

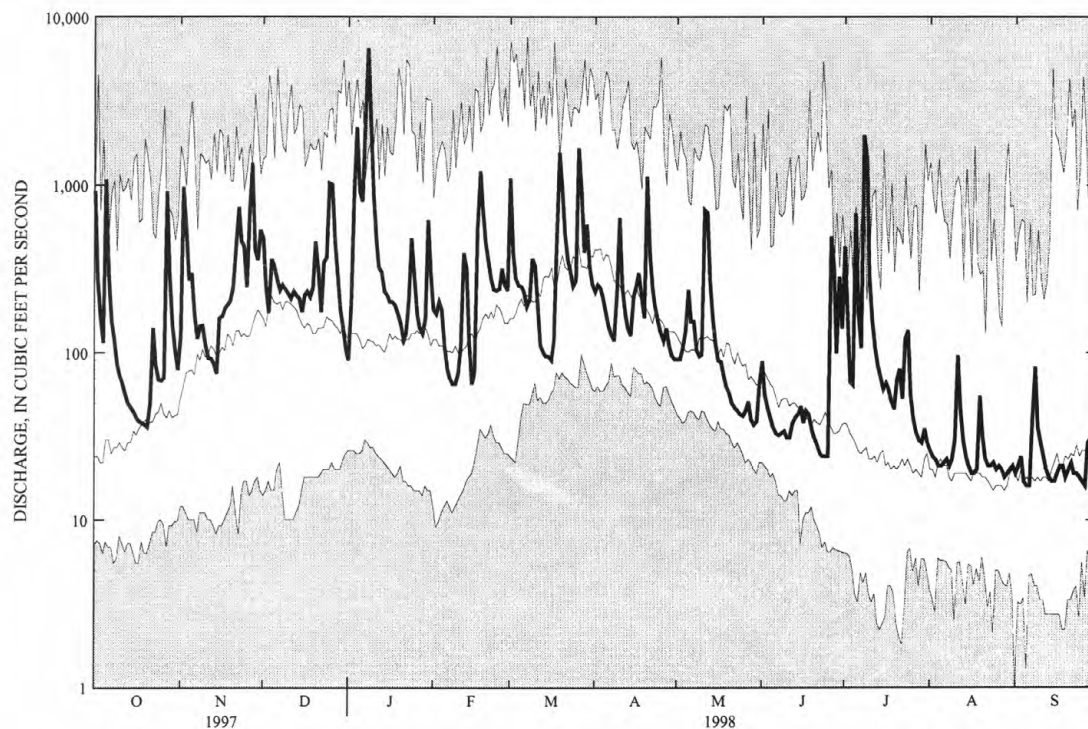
STREAMS TRIBUTARY TO LAKE ERIE
04214500 BUFFALO CREEK AT GARDENVILLE, NY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1998, BY WATER YEAR (WY)

MEAN	93.5	206	293	258	299	498	376	178	103	52.4	46.3	69.3
MAX	381	686	706	725	835	1048	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

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1939 - 1998	
ANNUAL TOTAL	87710		90112			
ANNUAL MEAN	240		247		206	
HIGHEST ANNUAL MEAN					301	
LOWEST ANNUAL MEAN					128	
HIGHEST DAILY MEAN	2590	Feb 27	6530	Jan 8	7650	Mar 7 1956
LOWEST DAILY MEAN	10	Aug 11	16	Sep 5	1.0	Sep 1 1964
ANNUAL SEVEN-DAY MINIMUM	13	Aug 6	19	Sep 13	2.6	Sep 13 1964
ANNUAL RUNOFF (CFSM)	1.69		1.74		1.45	
ANNUAL RUNOFF (INCHES)	22.98		23.61		19.66	
10 PERCENT EXCEEDS	556		527		464	
50 PERCENT EXCEEDS	132		122		87	
90 PERCENT EXCEEDS	20		22		15	



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

STREAMS TRIBUTARY TO LAKE ERIE

04215000 CAYUGA CREEK NEAR LANCASTER, NY

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

DRAINAGE AREA.--96.4 mi².

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

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

GAGE.--Water-stage recorder and artificial control. Datum of gage is 672.02 ft above sea level.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,440 ft³/s, Sept. 14, 1979, gage height, 10.48 ft; maximum gage height 12.58 ft, Mar. 30, 1960 (ice jam); practically no flow part of Aug. 8, 9, 1939, when stop logs were installed in the dam.

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

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 8	1030	6,700	9.00	July 8	1600	*8,970	*10.23
Mar. 26	1815	2,860	6.82				

Minimum discharge, 5.0 ft³/s, Sep. 15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	290	83	335	88	156	807	134	47	98	276	8.6	6.7
2	104	922	166	147	165	277	148	46	42	77	7.9	7.0
3	70	446	121	e750	211	175	136	58	58	37	7.5	15
4	51	216	251	1530	137	158	116	68	27	33	6.9	10
5	527	358	217	552	98	154	100	204	20	294	6.5	7.5
6	134	185	184	530	e65	137	84	137	16	72	6.8	6.3
7	68	125	156	1820	e60	116	74	86	15	51	7.2	11
8	50	126	161	4940	e55	142	70	59	16	2640	6.4	34
9	38	108	158	e1700	e50	281	157	55	15	806	5.8	17
10	32	86	e120	706	69	e180	378	56	14	178	13	12
11	28	71	e125	332	92	e100	139	780	16	98	52	9.5
12	25	64	e145	e210	355	e90	99	469	21	62	21	7.3
13	22	59	e140	e230	e220	e100	81	158	21	43	15	6.5
14	21	43	e130	e150	e80	e100	72	94	20	36	9.5	5.6
15	19	95	e120	e140	e50	e90	112	66	18	30	7.8	5.3
16	18	106	e140	138	e60	e80	132	52	17	26	7.2	6.8
17	17	116	162	137	538	108	192	71	16	24	6.1	8.5
18	17	126	e150	131	970	323	129	48	23	22	7.3	6.7
19	16	138	191	124	586	1150	92	38	17	19	16	7.5
20	16	163	376	116	334	606	835	33	14	52	11	13
21	20	332	208	94	245	e275	231	29	12	56	7.6	13
22	107	518	121	95	184	e220	134	26	9.6	28	6.8	13
23	55	330	278	184	153	e210	102	24	9.9	31	6.0	15
24	39	298	271	477	148	e195	87	21	10	40	5.7	16
25	36	168	814	244	162	e240	71	20	8.8	23	6.0	15
26	35	658	624	156	209	1390	61	20	393	19	15	14
27	703	882	317	120	158	592	61	18	116	15	7.7	33
28	196	277	e190	115	154	245	53	16	41	13	5.8	37
29	101	229	e130	148	---	356	48	15	178	11	6.6	19
30	74	364	e110	517	---	193	45	18	105	9.5	8.3	13
31	58	---	e90	226	---	147	---	29	---	9.6	7.8	---
TOTAL	2987	7692	6701	16847	5764	9037	4173	2861	1387.3	5131.1	312.8	391.2
MEAN	96.4	256	216	543	206	292	139	92.3	46.2	166	10.1	13.0
MAX	703	922	814	4940	970	1390	835	780	393	2640	52	37
MIN	16	43	90	88	50	10	45	15	8.8	9.5	5.7	5.3
CFSM	1.00	2.66	2.24	5.64	2.14	3.02	1.44	.96	.48	1.72	.10	.14
IN.	1.15	2.97	2.59	6.50	2.22	3.49	1.61	1.10	.54	1.98	.12	.15

e Estimated

STREAMS TRIBUTARY TO LAKE ERIE
04215000 CAYUGA CREEK NEAR LANCASTER, NY--Continued

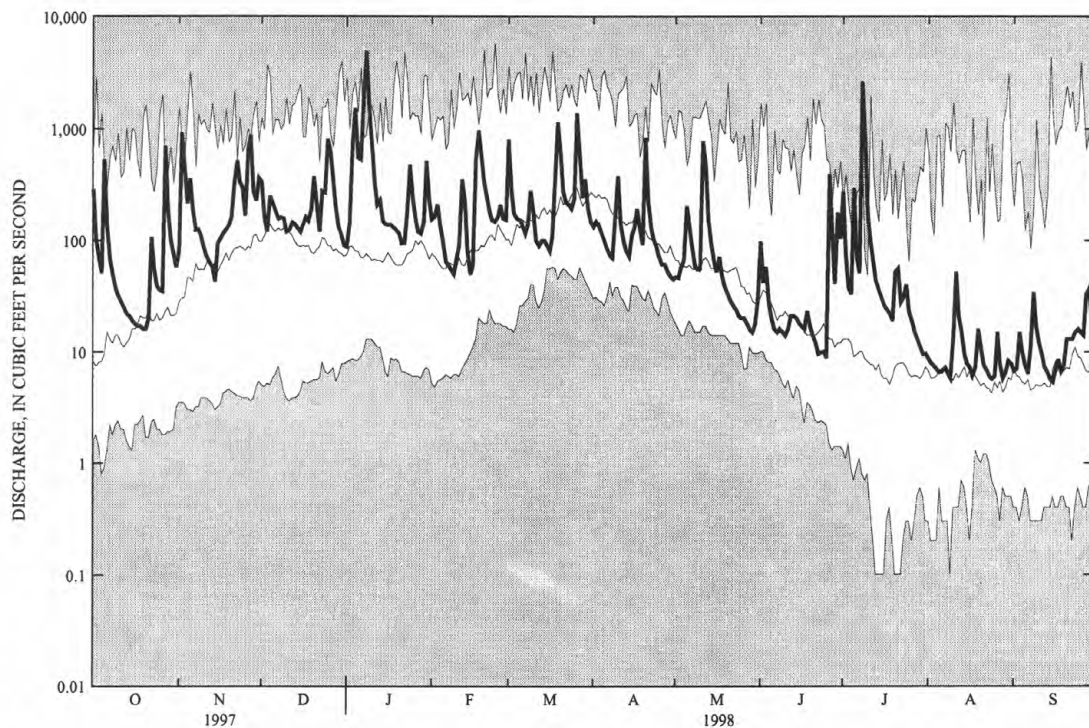
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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1968, 1974 - 1998, BY WATER YEAR (WY)

MEAN	61.1	132	190	176	210	344	248	108	54.7	25.0	29.5	46.8
MAX	252	601	505	543	457	680	623	330	338	166	323	572
(WY)	1987	1986	1978	1998	1976	1942	1940	1947	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	.80
(WY)	1967	1961	1961	1961	1963	1981	1946	1941	1955	1955	1939	1960

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1939 - 1968 1974 - 1997
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ANNUAL TOTAL	61508.5	63284.4	
ANNUAL MEAN	169	173	135
HIGHEST ANNUAL MEAN			206
LOWEST ANNUAL MEAN			* 78.5
HIGHEST DAILY MEAN	2340	4940	5830
LOWEST DAILY MEAN	3.9	5.3	.10
ANNUAL SEVEN-DAY MINIMUM	4.6	6.7	.19
ANNUAL RUNOFF (CFSM)	1.75	1.80	1.40
ANNUAL RUNOFF (INCHES)	23.74	24.42	19.04
10 PERCENT EXCEEDS	437	360	312
50 PERCENT EXCEEDS	86	83	47
90 PERCENT EXCEEDS	8.8	9.2	3.9



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

STREAMS TRIBUTARY TO LAKE ERIE

04215500 CAZENOVIA CREEK AT EBENEZER, NY

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

DRAINAGE AREA.--135 mi².

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

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

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,500 ft³/s, Mar. 1, 1955, gage height, 15.82 ft, present datum, from rating curve extended above 7,700 ft³/s; minimum discharge, 2.6 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Nov. 26	2315	4,610	8.27	June 26	1500	6,610	9.85
Jan. 8	0715	*9,740	*11.99	July 8	1515	5,460	8.97
Mar. 26	1930	4,820	8.45				

Minimum discharge, 15 ft³/s, Sep. 5, gage height, 2.02.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1230	e130	510	e180	190	1160	251	99	83	329	29	21
2	309	e1000	230	e220	201	395	292	99	49	117	25	26
3	166	e540	162	e900	224	256	272	111	39	63	23	26
4	107	e290	508	e2500	167	232	214	156	35	103	21	17
5	1480	e250	358	1750	e130	224	176	369	31	822	21	16
6	314	e180	259	e1200	e100	199	151	275	29	166	21	17
7	175	e130	234	e1500	e96	171	134	266	28	115	21	92
8	134	e150	234	7500	e94	231	125	129	29	1620	20	82
9	97	e130	208	3150	e92	412	555	121	29	838	29	38
10	90	e100	189	1130	e100	344	843	118	27	244	35	26
11	83	e90	192	551	119	e175	261	991	27	122	212	22
12	61	e85	200	351	556	e110	184	794	35	81	136	19
13	54	e80	183	e280	350	e100	153	270	37	63	63	18
14	48	62	177	e240	159	e100	141	163	38	53	34	17
15	39	e150	159	234	e120	e95	321	120	48	45	27	17
16	34	e160	176	216	e400	e90	280	99	35	71	23	19
17	31	188	183	194	1020	e130	431	88	50	58	21	24
18	29	190	174	179	1370	510	248	76	39	39	41	21
19	27	198	222	168	746	1650	206	67	29	36	74	17
20	27	226	430	159	414	1080	2000	62	25	69	37	19
21	e50	468	258	140	329	e600	494	57	22	62	26	21
22	e180	770	167	141	243	e400	274	52	21	42	23	18
23	e70	482	402	300	213	e330	207	49	21	231	32	18
24	e60	430	380	431	210	e260	169	45	21	154	25	17
25	e60	262	1190	235	204	e300	140	44	21	65	22	16
26	e60	1170	1190	e160	258	2230	126	52	1630	43	21	16
27	e1050	1830	491	e150	220	1510	148	45	420	33	21	30
28	e340	536	295	e140	217	556	118	38	127	30	20	58
29	e150	493	196	e130	---	1000	106	34	98	33	22	32
30	e100	672	183	592	---	386	99	31	159	70	20	22
31	e70	---	e130	268	---	272	---	50	---	38	26	---
TOTAL	6725	11442	9870	25289	8542	15508	9119	4970	3282	5855	1171	802
MEAN	217	381	318	816	305	500	304	160	109	189	37.8	26.7
MAX	1480	1830	1190	7500	1370	2230	2000	991	1630	1620	212	92
MIN	27	62	130	130	92	90	99	31	21	30	20	16
CFSM	1.61	2.83	2.36	6.04	2.26	3.71	2.25	1.19	.81	1.40	.28	.20
IN.	1.85	3.15	2.72	6.97	2.35	4.27	2.51	1.37	.90	1.61	.32	.22

e Estimated

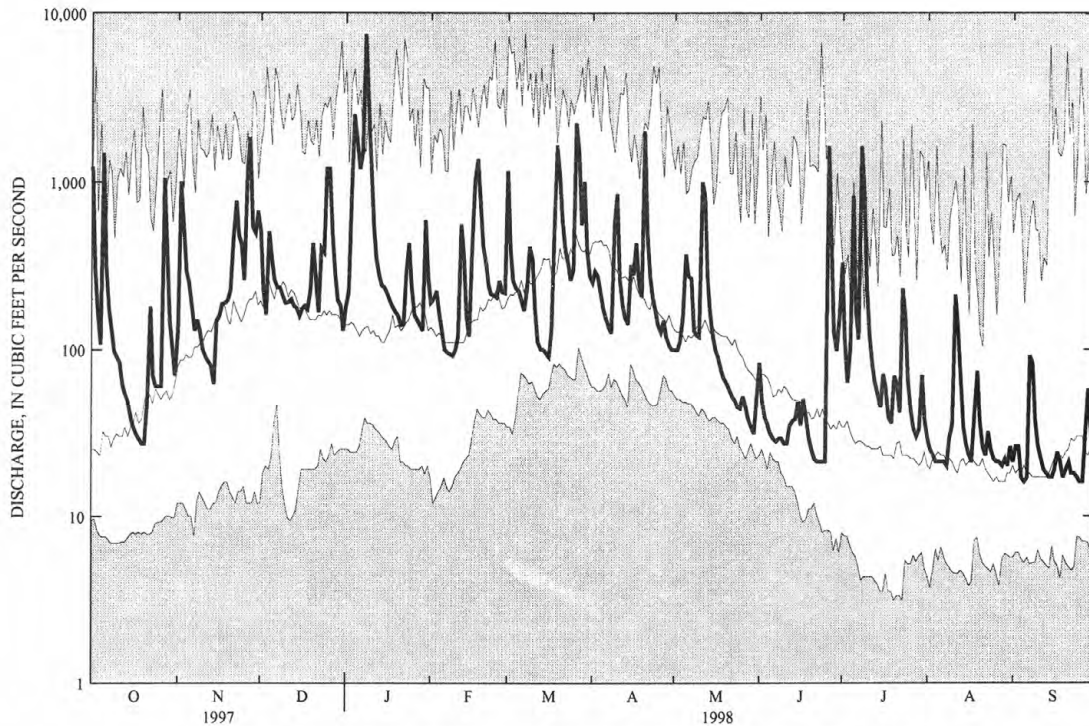
STREAMS TRIBUTARY TO LAKE ERIE
04215500 CAZENOVIA CREEK AT EBENEZER, NY--Continued

83

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1998, BY WATER YEAR (WY)

MEAN	114	252	351	304	332	555	416	204	110	53.5	48.2	79.2
MAX	410	705	868	816	859	1062	1005	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

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1940 - 1998	
ANNUAL TOTAL	100166		102575			
ANNUAL MEAN	274		281		234	
HIGHEST ANNUAL MEAN					332	
LOWEST ANNUAL MEAN					163	
HIGHEST DAILY MEAN	3570	Feb 27	7500	Jan 8	7560	Mar 7 1956
LOWEST DAILY MEAN	11	Aug 10	16	Sep 5	3.1	Jul 20 1955
ANNUAL SEVEN-DAY MINIMUM	13	Aug 6	18	Sep 20	3.5	Jul 17 1955
ANNUAL RUNOFF (CFSM)	2.03		2.08		1.74	
ANNUAL RUNOFF (INCHES)	27.60		28.27		23.60	
10 PERCENT EXCEEDS	671		595		548	
50 PERCENT EXCEEDS	132		134		98	
90 PERCENT EXCEEDS	22		22		15	



1998 WATER YEAR DAILY DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

LAKE ERIE

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 mi².

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

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

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

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

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

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 577.00 ft, Oct. 27; minimum elevation, 570.06 ft, Dec. 10.

ELEVATION (FEET IGLD), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	572.95	572.41	572.34	573.54	572.83	573.13	573.50	573.55	573.52	573.42	572.84	572.56
2	573.19	573.40	572.46	572.92	573.03	573.31	573.81	573.62	573.75	573.33	572.77	572.92
3	573.20	572.86	572.22	572.64	572.81	573.37	573.43	573.64	573.52	573.29	572.75	572.77
4	573.07	572.99	572.81	572.11	571.84	573.31	573.17	573.62	573.66	573.29	572.77	572.58
5	573.05	572.65	572.90	572.40	572.16	573.14	573.47	573.65	573.37	573.08	572.67	572.56
6	573.19	572.22	573.72	572.51	572.60	572.97	573.48	573.63	573.54	573.10	572.60	572.81
7	572.94	572.07	572.79	572.07	572.47	572.90	573.21	573.47	573.53	573.21	572.77	572.57
8	572.94	572.09	572.50	571.70	572.64	572.37	573.00	573.35	573.49	573.21	572.78	572.45
9	573.11	572.50	572.22	573.48	572.72	573.24	572.10	573.59	573.23	573.30	572.87	572.43
10	573.18	572.65	571.40	574.38	572.70	573.74	573.35	573.45	573.15	573.18	572.99	572.55
11	572.75	572.42	572.22	573.47	572.66	573.39	573.46	573.58	573.21	573.18	572.87	572.86
12	572.82	572.91	573.05	572.76	573.22	573.83	573.40	573.56	573.43	573.14	572.67	572.64
13	572.90	572.07	573.53	573.73	572.80	573.64	573.38	573.60	573.47	573.18	572.65	572.26
14	573.36	571.48	572.85	572.67	572.67	574.35	573.53	573.64	573.45	573.18	572.79	572.22
15	572.79	572.46	573.28	572.60	572.60	573.26	573.59	573.61	573.30	573.20	572.84	572.52
16	572.52	572.96	572.70	572.50	572.51	572.85	573.47	573.70	573.34	573.20	572.60	572.04
17	572.63	573.75	572.48	572.77	571.91	572.83	574.03	573.76	573.54	573.21	572.83	572.15
18	572.65	572.79	572.47	573.11	572.80	572.83	573.72	573.69	573.37	573.02	572.66	572.14
19	572.79	572.98	572.68	573.00	573.19	573.05	573.25	573.81	573.27	573.03	572.47	572.26
20	572.99	572.54	572.36	573.03	573.11	572.23	573.79	573.72	573.40	573.43	572.74	572.23
21	573.32	572.17	572.09	572.70	573.24	571.81	573.58	573.66	573.26	573.51	572.73	572.41
22	572.98	571.89	571.97	572.16	573.03	573.38	573.54	573.48	573.28	573.55	572.72	572.04
23	573.24	573.04	572.79	573.00	572.73	573.53	573.66	573.51	573.29	573.52	572.90	572.08
24	572.44	572.82	572.04	573.02	573.16	573.35	573.77	573.40	573.23	573.15	573.28	572.21
25	572.26	573.04	572.92	573.18	573.21	573.24	573.60	573.72	573.35	573.02	573.15	572.23
26	571.72	573.06	573.40	572.52	572.86	573.46	573.36	573.63	573.69	573.05	572.85	572.20
27	573.69	572.45	572.66	572.76	572.73	573.50	573.44	573.48	573.33	573.35	572.57	572.55
28	573.20	572.53	572.51	572.82	573.03	573.49	573.58	573.54	573.22	573.34	572.60	572.20
29	573.24	572.11	572.42	572.96	---	573.41	573.60	573.69	573.54	573.33	572.93	572.05
30	572.49	572.24	572.92	573.15	---	573.46	573.59	573.39	573.57	572.98	572.53	572.11
31	572.63	---	572.65	572.92	---	573.36	---	573.73	---	572.73	572.71	---
MEAN	572.91	572.59	572.62	572.86	572.76	573.22	573.46	573.60	573.41	573.22	572.77	572.39
MAX	573.69	573.75	573.72	574.38	573.24	574.35	574.03	573.81	573.75	573.55	573.28	572.92
MIN	571.72	571.48	571.40	571.70	571.84	571.81	572.10	573.35	573.15	572.73	572.47	572.04

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

85

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

DRAINAGE AREA.--263,700 mi².

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

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

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 347,000 ft³/s, Dec. 2, 1985, result of high, storm-generated Lake Erie level; minimum daily, 90,000 ft³/s, Jan. 13, 1964, Aug. 29, 1984. Maximum monthly mean discharge, 268,400 ft³/s, June 1986, minimum monthly mean, 116,200 ft³/s, February 1936. Maximum and minimum instantaneous discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 291,000 ft³/s, Jan. 10, minimum daily discharge, 205,000 ft³/s, Dec. 10. 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 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

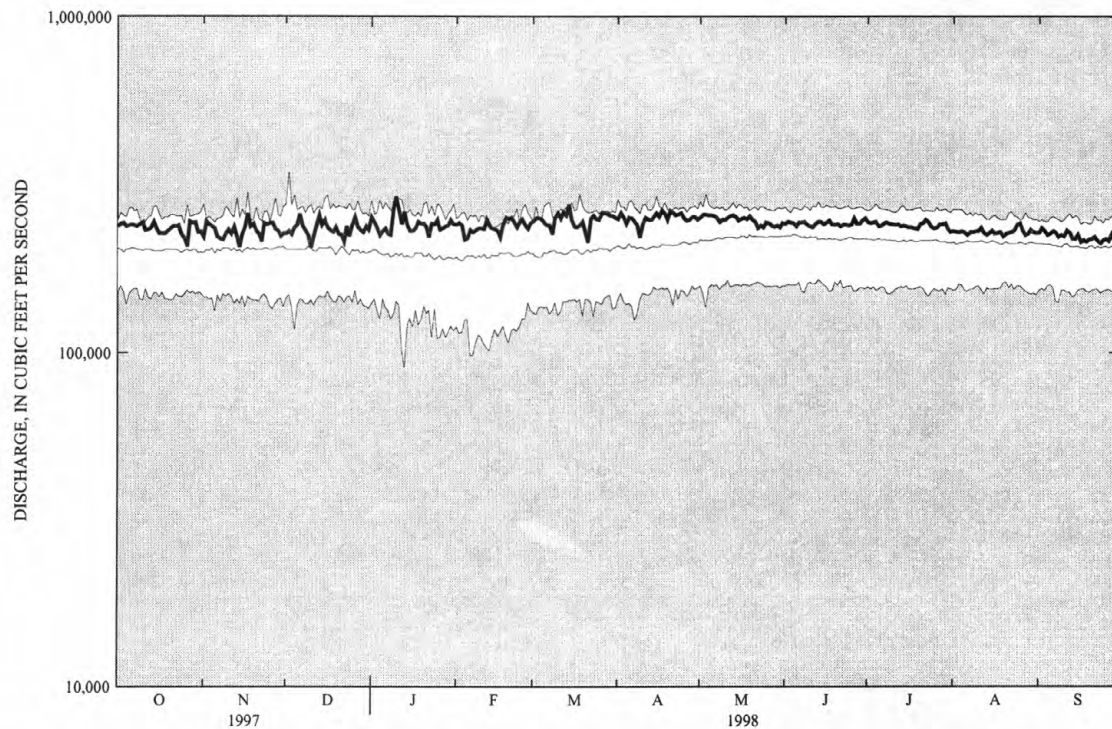
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	238000	221000	226000	252000	240000	246000	250000	252000	242000	245000	230000	227000
2	242000	246000	230000	244000	243000	251000	261000	257000	246000	243000	229000	235000
3	243000	241000	225000	235000	239000	251000	252000	257000	244000	244000	228000	230000
4	238000	238000	236000	223000	217000	250000	242000	256000	243000	245000	230000	224000
5	239000	234000	240000	230000	219000	244000	252000	256000	238000	238000	228000	226000
6	241000	221000	258000	234000	232000	239000	251000	255000	244000	239000	224000	230000
7	239000	218000	238000	226000	228000	239000	246000	252000	244000	243000	228000	228000
8	238000	217000	231000	224000	231000	225000	240000	245000	245000	244000	228000	221000
9	241000	226000	224000	267000	234000	252000	220000	249000	240000	242000	230000	224000
10	244000	232000	205000	291000	234000	260000	242000	248000	238000	241000	230000	222000
11	231000	226000	222000	266000	233000	251000	252000	252000	236000	240000	235000	231000
12	232000	237000	239000	241000	248000	262000	249000	255000	242000	241000	227000	227000
13	236000	221000	256000	262000	239000	256000	248000	256000	246000	238000	224000	218000
14	245000	206000	240000	239000	234000	276000	253000	253000	245000	239000	227000	218000
15	233000	225000	248000	230000	233000	248000	260000	247000	241000	238000	231000	224000
16	226000	237000	236000	230000	230000	237000	254000	250000	244000	236000	226000	213000
17	226000	259000	231000	235000	220000	236000	265000	252000	247000	236000	227000	216000
18	226000	238000	229000	245000	240000	239000	259000	250000	240000	234000	228000	214000
19	230000	242000	236000	242000	252000	245000	248000	255000	240000	233000	222000	217000
20	234000	230000	225000	242000	250000	229000	264000	249000	242000	242000	226000	218000
21	238000	226000	224000	236000	252000	213000	260000	245000	238000	243000	227000	221000
22	238000	214000	214000	220000	246000	251000	256000	235000	240000	248000	228000	215000
23	239000	243000	238000	242000	236000	256000	258000	239000	241000	245000	231000	212000
24	225000	241000	222000	241000	245000	250000	260000	236000	239000	237000	240000	216000
25	219000	243000	241000	248000	249000	249000	251000	244000	240000	234000	243000	218000
26	207000	243000	253000	232000	240000	259000	247000	243000	251000	236000	231000	215000
27	246000	233000	237000	234000	234000	261000	249000	239000	242000	241000	224000	225000
28	243000	230000	231000	238000	243000	259000	253000	237000	242000	241000	226000	216000
29	244000	222000	228000	239000	---	256000	253000	239000	247000	243000	232000	214000
30	228000	226000	238000	248000	---	255000	249000	236000	251000	233000	228000	217000
31	229000	---	232000	241000	---	252000	---	243000	---	229000	227000	---
TOTAL	7278000	6936000	7233000	7477000	6641000	7697000	7544000	7682000	7278000	7431000	7095000	6632000
MEAN	234800	231200	233300	241200	237200	248300	251500	247800	242600	239700	228900	221100
MAX	246000	259000	258000	291000	252000	276000	265000	257000	251000	248000	243000	235000
MIN	207000	206000	205000	220000	217000	213000	220000	235000	236000	229000	222000	212000

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

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 1998, BY WATER YEAR (WY)

MEAN	201100	201400	201900	196100	193400	199700	208700	217300	217100	213100	209300	205000
MAX	254000	248000	260900	254000	241600	255500	264200	264700	268400	265200	253500	243700
(WY)	1987	1987	1986	1987	1987	1986	1985	1974	1986	1986	1986	1986
MIN	152700	148100	149800	138500	116200	142700	152000	159100	158000	154100	155000	153900
(WY)	1935	1935	1965	1964	1936	1934	1935	1934	1934	1934	1934	1934

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1926 - 1998	
ANNUAL TOTAL	89303000		86924000			
ANNUAL MEAN	244700		238100			
HIGHEST ANNUAL MEAN					205800	
LOWEST ANNUAL MEAN					249600	1986
HIGHEST DAILY MEAN					155300	1934
LOWEST DAILY MEAN					347000	Dec 2 1985
ANNUAL SEVEN-DAY MINIMUM					90000	Jan 13 1964
10 PERCENT EXCEEDS					105000	Feb 6 1936
50 PERCENT EXCEEDS					240000	
90 PERCENT EXCEEDS					207000	
					170000	



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

ST. LAWRENCE RIVER MAIN STEM

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04216060 NIAGARA RIVER AT ANDERSON PARK, BUFFALO, NY

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

DRAINAGE AREA.--263,700 mi².

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

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

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

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 570.03 ft, Mar. 14; minimum, 565.34 ft, Dec. 10.

ELEVATION (FEET IGLD), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	567.32	566.95	566.96	567.62	567.13	567.39	567.64	567.69	567.83	567.85	567.44	567.14
2	567.40	567.63	567.05	567.24	567.30	567.50	567.91	567.73	567.74	567.68	567.39	567.38
3	567.41	567.24	566.72	566.98	567.19	567.53	567.67	567.75	567.55	567.63	567.39	567.43
4	567.43	567.27	567.16	566.78	566.48	567.50	567.47	567.51	567.79	567.68	567.22	567.28
5	567.53	567.10	567.32	566.94	566.66	567.43	567.68	567.51	567.63	567.54	567.14	567.27
6	567.70	566.82	567.83	567.04	567.01	567.30	567.64	567.51	567.79	567.61	567.23	567.42
7	567.42	566.75	567.25	566.83	566.90	567.26	567.43	567.40	567.73	567.46	567.39	567.31
8	567.22	566.66	567.01	566.50	567.04	566.84	567.30	567.32	567.64	567.46	567.38	567.09
9	567.30	567.03	566.77	567.74	567.13	567.48	566.61	567.81	567.22	567.67	567.47	567.06
10	567.44	567.17	566.18	568.38	567.12	567.91	567.59	567.63	567.15	567.65	567.62	567.22
11	567.25	566.95	566.76	567.79	567.05	567.62	567.64	567.82	567.40	567.59	567.40	567.52
12	567.34	567.41	567.24	567.21	567.52	567.99	567.64	567.60	567.60	567.56	567.15	567.39
13	567.26	566.75	567.69	567.91	567.19	567.71	567.64	567.58	567.71	567.62	567.36	567.07
14	567.44	566.07	567.24	567.20	567.07	568.29	567.67	567.56	567.67	567.37	567.40	567.03
15	567.05	566.97	567.43	566.97	566.97	567.52	567.53	567.74	567.49	567.37	567.44	567.23
16	566.87	567.39	567.06	566.92	566.92	567.20	567.44	567.86	567.35	567.55	567.25	566.90
17	566.87	568.01	566.97	567.12	566.53	567.16	567.90	567.93	567.46	567.58	567.40	566.99
18	567.04	567.22	566.87	567.40	567.18	567.15	567.87	567.94	567.58	567.42	567.20	567.02
19	567.15	567.37	567.09	567.20	567.47	567.34	567.50	567.81	567.52	567.43	567.03	567.08
20	567.34	566.98	566.84	---	567.45	566.79	567.93	567.73	567.59	567.80	567.39	567.04
21	567.42	566.90	566.71	---	567.50	566.39	567.51	567.75	567.49	567.58	567.41	567.19
22	567.32	566.35	566.50	---	567.34	567.63	567.48	567.78	567.56	568.00	567.38	566.79
23	567.52	567.38	567.15	---	567.09	567.70	567.55	567.87	567.32	567.96	567.49	566.75
24	566.94	567.34	566.58	---	567.43	567.54	567.64	567.83	567.31	567.70	567.81	567.02
25	566.77	567.29	567.21	---	567.51	567.47	567.74	568.04	567.59	567.65	567.57	567.05
26	566.37	567.34	567.55	---	567.20	567.63	567.51	567.75	567.90	567.63	567.32	566.94
27	567.93	567.01	567.07	---	567.13	567.66	567.62	567.63	567.60	567.82	567.29	567.34
28	567.55	567.06	566.97	---	567.36	567.65	567.75	567.63	567.55	567.85	567.34	567.08
29	567.54	566.75	566.97	567.25	---	567.61	567.64	567.99	567.79	567.89	567.62	566.92
30	566.89	566.85	567.33	567.48	---	567.64	567.65	567.80	567.66	567.60	567.26	566.84
31	567.03	---	567.10	567.23	---	567.58	---	568.03	---	567.42	567.45	---
MEAN	567.26	567.07	567.05	---	567.14	567.46	567.59	567.73	567.57	567.63	567.38	567.13
MAX	567.93	568.01	567.83	---	567.52	568.29	567.93	568.04	567.90	568.00	567.81	567.52
MIN	566.37	566.07	566.18	---	566.48	566.39	566.61	567.32	567.15	567.37	567.03	566.75

NIAGARA RIVER BASIN

04216418 TONAWANDA CREEK AT ATTICA, NY

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

DRAINAGE AREA.--76.9 mi².

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

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

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,400 ft³/s, July 8, 1998, gage height, 12.71 ft, from high-water mark, from rating curve extended above 4,800 ft³/s; minimum discharge, 3.1 ft³/s, Aug. 26, Sept. 7, 1995; minimum gage height, 3.29 ft, Aug. 26, Sept. 7, and Oct. 2, 1995.

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

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

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 8	Unknown	4,150	a8.78	July 8	1330	*9,400	b*12.71
Mar. 26	1815	2,250	6.94				

a From crest-stage gage.

b From high-water mark.

Minimum discharge, 11 ft³/s, June 22, 23, 25, 26, Sep. 6, 7, gage height, 3.40 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	218	88	242	93	89	e450	145	62	53	256	24	16
2	87	549	151	108	91	e300	152	60	33	77	22	16
3	67	254	112	e400	101	179	148	77	34	49	21	16
4	51	150	188	e800	80	155	125	81	26	94	20	14
5	414	109	163	e500	67	137	112	86	22	353	20	13
6	108	82	132	567	e55	119	99	66	20	98	21	12
7	66	73	126	e1000	e50	110	89	61	18	97	20	52
8	51	84	120	e3000	e50	122	86	58	21	3200	17	53
9	41	83	114	e1300	e45	190	207	75	19	1000	16	35
10	37	68	101	e600	e50	172	299	69	17	301	27	27
11	34	63	110	e300	70	113	150	399	21	163	39	20
12	32	59	116	e230	145	e95	119	284	24	111	56	17
13	31	57	108	e170	119	e90	101	135	26	85	31	15
14	29	64	107	e150	67	e90	90	88	26	69	21	14
15	27	79	e100	143	60	e90	120	70	22	59	20	14
16	26	78	108	132	57	e80	115	61	24	52	19	17
17	25	78	108	119	136	e100	117	74	21	56	17	18
18	23	81	103	110	e600	153	95	54	20	51	35	14
19	23	84	108	100	e450	629	103	45	17	42	46	13
20	23	91	175	91	e200	481	850	40	14	81	25	18
21	28	139	132	81	156	251	246	36	13	65	19	18
22	40	233	e100	74	142	205	153	34	11	45	18	17
23	35	180	150	e120	131	178	120	30	13	111	18	20
24	32	167	144	e220	125	152	104	28	14	74	17	16
25	31	120	316	e150	126	153	88	26	12	49	49	14
26	30	241	291	85	133	1010	81	29	525	40	26	14
27	228	275	213	e80	134	645	86	26	135	36	19	18
28	103	268	155	76	186	308	72	22	64	32	16	28
29	66	244	e120	83	---	334	65	27	150	35	16	19
30	54	290	e110	e200	---	199	62	32	137	37	19	16
31	48	---	e100	113	---	155	---	34	---	29	18	---
TOTAL	2108	4431	4423	11195	3715	7445	4399	2269	1552	6847	752	594
MEAN	68.0	148	143	361	133	240	147	73.2	51.7	221	24.3	19.8
MAX	414	549	316	3000	600	1010	850	399	525	3200	56	53
MIN	23	57	100	74	45	80	62	22	11	29	16	12
CFSM	.88	1.92	1.86	4.70	1.73	3.12	1.91	.95	.67	2.87	.32	.26
IN.	1.02	2.14	2.14	5.42	1.80	3.60	2.13	1.10	.75	3.31	.36	.29

e Estimated

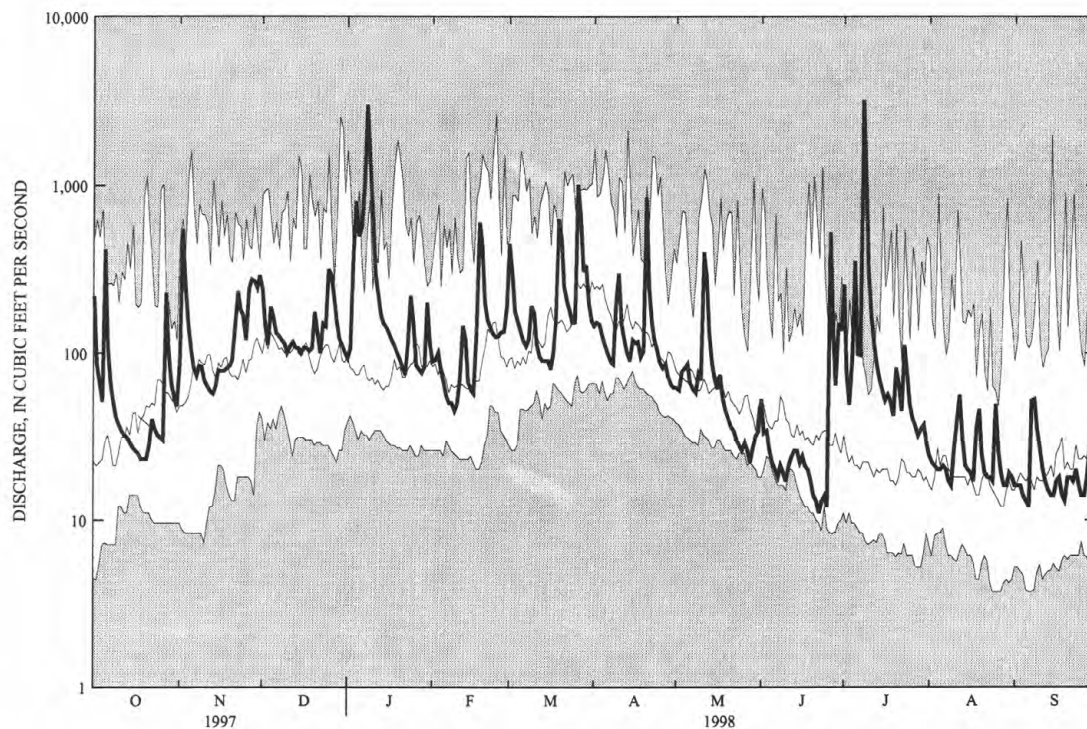
NIAGARA RIVER BASIN
04216418 TONAWANDA CREEK AT ATTICA, NY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1998, BY WATER YEAR (WY)

MEAN	71.0	130	162	143	142	231	210	103	61.9	44.9	33.9	44.7
MAX	182	353	329	361	293	459	367	264	278	221	192	172
(WY)	1987	1986	1978	1998	1981	1979	1978	1984	1989	1998	1992	1992
MIN	10.8	16.6	34.5	41.5	34.4	122	73.1	36.4	18.8	10.1	7.28	6.19
(WY)	1992	1992	1990	1994	1980	1981	1995	1995	1991	1983	1991	1995

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1978 - 1998	
ANNUAL TOTAL	45152.1		49730			
ANNUAL MEAN	124		136		115	
HIGHEST ANNUAL MEAN					157	
LOWEST ANNUAL MEAN					72.8	
HIGHEST DAILY MEAN	1520	Feb 27	3200	Jul 8	3200	Jul 8 1998
LOWEST DAILY MEAN	5.6	Aug 11	11	Jun 22	3.7	Aug 24 1995
ANNUAL SEVEN-DAY MINIMUM	6.8	Aug 6	13	Jun 19	3.9	Aug 23 1995
ANNUAL RUNOFF (CFSM)	1.61		1.77		1.49	
ANNUAL RUNOFF (INCHES)	21.84		24.06		20.26	
10 PERCENT EXCEEDS	275		255		251	
50 PERCENT EXCEEDS	79		81		62	
90 PERCENT EXCEEDS	12		18		14	



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

NIAGARA RIVER BASIN

04217000 TONAWANDA CREEK AT BATAVIA, NY

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

DRAINAGE AREA.--171 mi².

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

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

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

REMARKS.--Records good except those for estimated daily discharges, which are fair. Diversion upstream from station by city of Batavia for municipal supply; sewage, which may include water from municipal and industrial wells upstream from gage, enters creek downstream from gage. Telephone gage-height telemeter at station. Several measurements of water temperature were made during the year.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,200 ft³/s, Mar. 31, 1960, gage height, 12.70 ft; maximum gage height, 13.85 ft, Apr. 6, 1947; minimum discharge, 0.4 ft³/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 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 5	0600	1,920	6.09	Mar. 27	1400	2,610	7.63
Jan. 9	0030	*5,650	*12.44	July 9	1400	5,090	11.72

Minimum discharge, 20 ft³/s, Sep. 6, gage height, 1.50 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	600	98	748	167	254	834	301	125	175	337	48	27
2	288	521	462	219	250	1070	307	123	95	198	45	26
3	181	889	280	439	286	544	308	154	121	104	39	28
4	134	553	321	1100	243	364	272	184	82	89	36	25
5	349	318	378	1730	195	320	236	179	63	575	34	23
6	396	237	317	1210	e150	279	207	157	54	344	35	21
7	172	186	268	1200	e140	246	186	172	48	183	37	42
8	117	175	265	4010	e130	231	174	138	46	452	34	126
9	89	174	247	4970	e125	360	199	155	44	4140	32	70
10	73	157	231	2600	136	380	552	146	39	2870	34	55
11	67	135	203	1310	162	265	368	475	43	921	56	43
12	62	132	241	669	261	204	251	1120	52	356	62	34
13	57	117	229	499	404	e190	211	569	59	233	63	30
14	52	113	223	e370	200	e180	188	261	60	176	42	28
15	48	118	187	e300	133	e180	192	188	57	140	35	27
16	45	161	e200	299	142	171	226	152	49	113	33	33
17	43	158	231	275	182	183	219	159	47	98	31	35
18	42	163	229	258	873	240	200	133	43	94	35	31
19	42	175	219	235	1430	661	174	102	41	81	66	27
20	39	194	373	219	987	1530	612	89	36	190	50	27
21	41	234	340	196	545	1030	1090	81	33	275	34	29
22	75	494	211	189	374	502	440	72	30	129	30	28
23	78	447	261	197	317	431	276	68	29	105	28	30
24	61	424	336	473	293	366	224	61	32	183	27	31
25	55	291	468	385	285	345	195	54	31	103	63	28
26	51	356	914	265	346	664	170	53	338	80	63	27
27	293	1010	788	e200	320	2230	168	53	773	69	38	28
28	375	1210	415	217	332	1330	151	46	261	63	30	64
29	189	684	274	202	---	747	134	43	214	57	28	46
30	139	502	256	402	---	539	124	55	174	60	27	34
31	111	---	182	364	---	365	---	56	---	55	29	---
TOTAL	4364	10426	10297	25169	9495	16981	8355	5423	3169	12873	1244	1103
MEAN	141	348	332	812	339	548	279	175	106	415	40.1	36.8
MAX	600	1210	914	4970	1430	2230	1090	1120	773	4140	66	126
MIN	39	98	182	167	125	171	124	43	29	55	27	21
CFSM	.82	2.03	1.94	4.75	1.98	3.20	1.63	1.02	.62	2.43	.23	.22
IN.	.95	2.27	2.24	5.48	2.07	3.69	1.82	1.18	.69	2.80	.27	.24

e Estimated

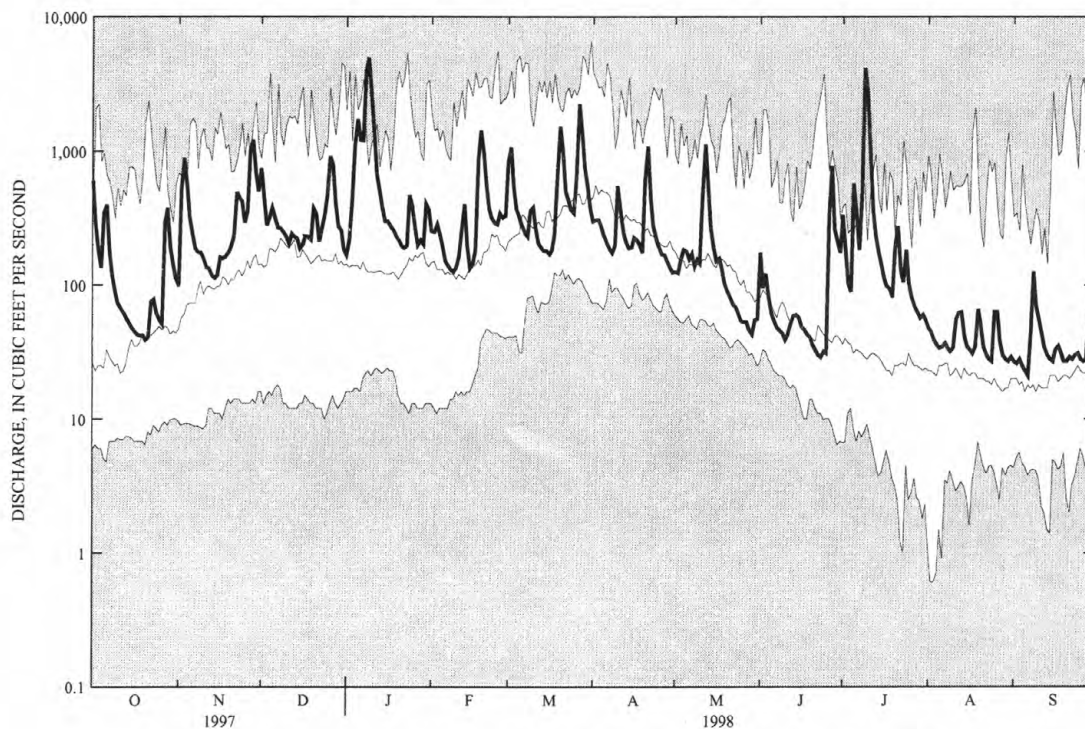
NIAGARA RIVER BASIN
04217000 TONAWANDA CREEK AT BATAVIA, NY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1998, BY WATER YEAR (WY)

MEAN	85.8	176	267	267	310	541	455	204	107	59.1	48.7	63.4
MAX	344	653	718	812	903	1206	1100	544	723	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

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1944 - 1998	
ANNUAL TOTAL	93903		108899			
ANNUAL MEAN	257		298		215	
HIGHEST ANNUAL MEAN					311	1976
LOWEST ANNUAL MEAN					124	1965
HIGHEST DAILY MEAN	2490	Feb 28	4970	Jan 9	6660	Mar 31 1960
LOWEST DAILY MEAN	15	Aug 9	21	Sep 6	.60	Aug 2 1955
ANNUAL SEVEN-DAY MINIMUM	18	Aug 6	26	Aug 31	1.1	Jul 31 1955
ANNUAL RUNOFF (CFSM)	1.50		1.74		1.26	
ANNUAL RUNOFF (INCHES)	20.43		23.69		17.08	
10 PERCENT EXCEEDS	684		585		514	
50 PERCENT EXCEEDS	157		180		98	
90 PERCENT EXCEEDS	27		34		15	



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

NIAGARA RIVER BASIN

04217750 MURDER CREEK NEAR AKRON, NY

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

DRAINAGE AREA.--58.8 mi².

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

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,000 ft³/s, Feb. 25, 1985, gage height, 7.16 ft, minimum discharge, 0.53 ft³/s, Aug. 24, 1990.

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

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Oct. 1	1100	574	4.19	Mar. 28	0030	538	4.11
Jan. 9	1830	*2,230	*6.47	July 10	1500	690	4.43
Mar. 21	0300	542	4.12				

Minimum discharge, 11 ft³/s, Aug. 8, 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	539	67	157	e60	170	140	103	34	24	43	13	12
2	360	105	159	67	130	244	89	33	63	47	12	12
3	173	209	120	121	133	210	81	35	50	35	12	13
4	99	286	91	300	136	130	74	42	54	31	12	12
5	80	217	95	421	97	101	67	68	42	42	12	12
6	80	156	106	376	e72	88	59	195	30	78	13	12
7	e110	132	96	315	e66	75	52	150	24	69	13	15
8	e80	96	87	1230	e60	76	48	84	22	69	11	14
9	49	77	83	2070	e56	124	49	62	20	179	11	15
10	41	68	78	1310	e55	153	68	54	19	587	15	18
11	36	60	67	638	64	122	89	175	18	432	17	17
12	34	53	63	322	90	e70	70	329	19	175	17	15
13	31	48	64	259	138	e60	56	397	18	72	17	13
14	29	47	61	137	e100	e54	49	200	18	44	14	14
15	27	45	54	e120	e82	e49	47	89	19	33	12	14
16	26	44	71	e100	75	e46	56	58	18	27	12	18
17	26	53	69	93	88	51	77	45	17	23	12	15
18	25	59	69	87	220	84	79	43	16	20	15	14
19	25	64	77	82	368	201	67	37	15	20	13	13
20	27	68	94	78	340	409	136	31	15	23	13	14
21	27	78	125	70	232	454	189	28	13	22	13	16
22	28	126	93	71	156	231	177	25	14	30	13	16
23	50	199	106	73	113	164	96	22	13	28	12	16
24	60	209	109	103	95	169	69	21	13	23	13	17
25	48	158	165	149	89	180	55	20	13	21	18	15
26	44	144	216	173	93	272	47	20	23	18	14	13
27	86	182	291	127	97	407	43	18	54	17	15	15
28	150	286	219	99	86	462	39	18	129	16	15	16
29	205	257	120	92	---	271	36	18	64	16	14	15
30	112	169	101	129	---	193	35	17	38	16	13	23
31	76	---	e66	171	---	142	---	18	---	15	12	---
TOTAL	2783	3762	3372	9443	3501	5432	2202	2386	895	2271	418	444
MEAN	89.8	125	109	305	125	175	73.4	77.0	29.8	73.3	13.5	14.8
MAX	539	286	291	2070	368	462	189	397	129	587	18	23
MIN	25	44	54	60	55	46	35	17	13	15	11	12
CFSM	1.53	2.13	1.85	5.18	2.13	2.98	1.25	1.31	.51	1.25	.23	.25
IN.	1.76	2.38	2.13	5.97	2.21	3.44	1.39	1.51	.57	1.44	.26	.28

e Estimated

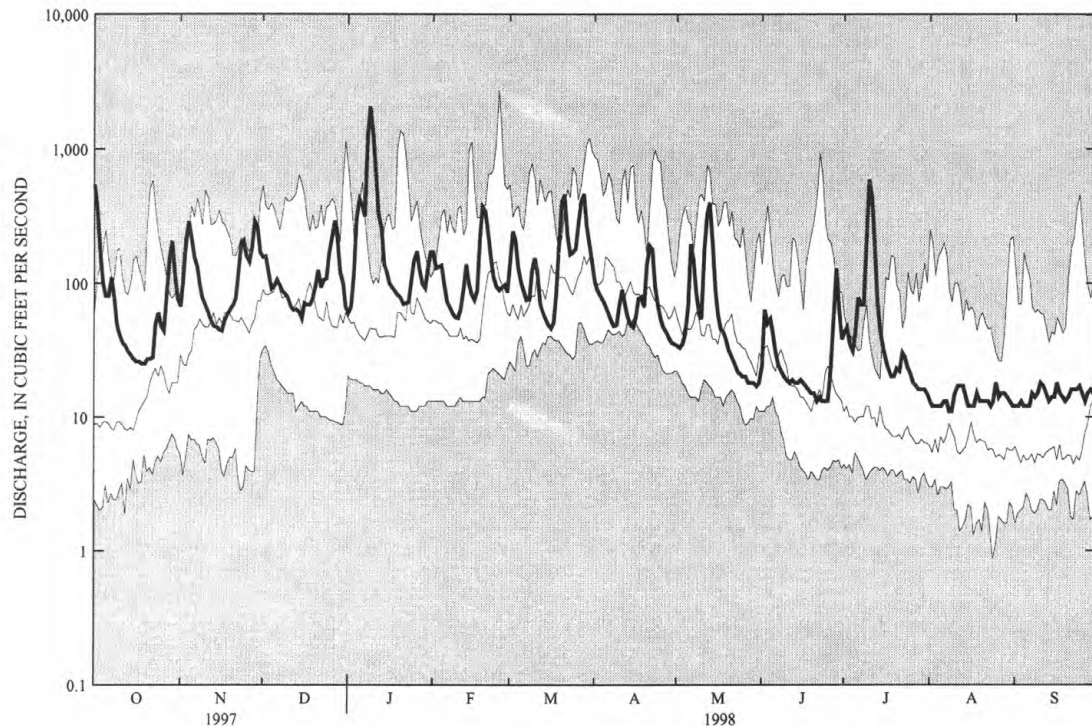
NIAGARA RIVER BASIN
04217750 MURDER CREEK NEAR AKRON, NY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1998, BY WATER YEAR (WY)

MEAN	33.4	78.0	107	110	115	147	134	73.6	40.7	18.6	14.4	16.2
MAX	96.3	183	222	305	243	240	227	157	183	73.3	96.2	109
(WY)	1997	1986	1984	1998	1985	1997	1996	1989	1989	1998	1992	1992
MIN	5.33	6.63	15.0	30.5	29.0	88.6	44.9	22.5	7.27	4.54	2.18	2.88
(WY)	1992	1992	1990	1994	1987	1983	1995	1985	1995	1983	1991	1991

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1983 - 1998	
ANNUAL TOTAL	33202.7		36909			
ANNUAL MEAN	91.0		101		74.6	
HIGHEST ANNUAL MEAN					101	
LOWEST ANNUAL MEAN					54.9	
HIGHEST DAILY MEAN	645	Feb 21	2070	Jan 9	2710	Feb 25 1985
LOWEST DAILY MEAN	4.8	Aug 9	11	Aug 8	.86	Aug 24 1991
ANNUAL SEVEN-DAY MINIMUM	5.4	Aug 5	12	Aug 3	1.4	Aug 23 1991
ANNUAL RUNOFF (CFSM)	1.55		1.72		1.27	
ANNUAL RUNOFF (INCHES)	21.01		23.35		17.23	
10 PERCENT EXCEEDS	218		209		180	
50 PERCENT EXCEEDS	53		61		38	
90 PERCENT EXCEEDS	9.7		14		4.9	



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

NIAGARA RIVER BASIN

04218000 TONAWANDA CREEK AT RAPIDS, NY

LOCATION.--Lat 43°05'35", long 78°38'11", Niagara County, Hydrologic Unit 04120104, on right bank at downstream side of bridge on Rapids Road at Rapids, 4.6 mi east of Pendleton, 4.9 mi downstream from Beeman Creek, and 5.9 mi upstream from Mud Creek.

DRAINAGE AREA.--349 mi², includes 0.76 mi² in Mud Creek from which flow is diverted into Black Creek.

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

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

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,280 ft³/s, Apr. 1, 1960, gage height, 16.96 ft; minimum discharge, 4.5 ft³/s, July 28, 1983, gage height, 0.91 ft.

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

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 10	2100	*5,870	*15.33	July 12	0230	3,390	10.51
Mar. 29	0330	2,850	9.36				

Minimum discharge, 38 ft³/s, Sep. 6, 7, 8, gage height, 1.25 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1320	255	1220	e360	860	772	760	245	121	297	79	40
2	1360	387	1210	409	668	1300	627	240	231	362	72	42
3	899	933	999	700	668	1570	592	250	250	326	64	42
4	446	1380	686	1200	669	1130	575	284	207	187	58	43
5	330	1270	664	1760	580	749	522	383	207	183	56	43
6	411	840	775	2270	437	621	453	535	153	522	52	39
7	591	583	689	2280	358	556	395	696	121	560	51	38
8	350	455	622	3180	316	522	359	528	106	335	51	39
9	232	363	597	4770	294	848	336	372	97	617	47	78
10	180	322	551	5750	277	1040	373	313	92	1590	50	109
11	149	289	495	5620	284	864	674	584	90	2900	104	84
12	129	255	423	e4400	408	616	614	1360	89	3080	87	71
13	119	231	450	2690	653	463	443	1680	95	1570	93	58
14	110	216	449	1450	722	429	365	1350	102	510	93	50
15	103	214	380	1030	452	422	335	694	104	287	81	47
16	95	213	415	956	327	380	370	449	105	212	63	46
17	91	253	499	976	369	362	621	354	99	173	53	51
18	86	278	505	861	860	486	567	311	88	147	50	55
19	81	297	485	735	1490	857	454	278	83	132	54	51
20	80	320	510	628	2040	1420	664	225	76	124	64	47
21	80	383	700	566	1850	2060	1060	192	71	191	76	43
22	82	580	663	467	1220	1980	1390	172	62	349	65	46
23	103	936	544	429	825	1200	912	153	59	212	52	47
24	156	1060	622	552	658	949	564	141	56	154	45	45
25	151	940	834	872	626	918	446	131	54	182	48	45
26	128	727	1070	880	609	1250	369	122	72	156	62	46
27	180	893	1420	e680	640	1810	319	113	353	119	87	47
28	458	1330	1450	573	615	2430	294	110	805	101	77	48
29	757	1670	1010	509	---	2630	279	105	544	94	59	52
30	505	1390	640	598	---	1680	254	99	299	89	50	78
31	325	---	e420	859	---	1090	---	97	---	81	45	---
TOTAL	10087	19263	21997	49010	19775	33404	15986	12566	4891	15842	1988	1570
MEAN	325	642	710	1581	706	1078	533	405	163	511	64.1	52.3
MAX	1360	1670	1450	5750	2040	2630	1390	1680	805	3080	104	109
MIN	80	213	380	360	277	362	254	97	54	81	45	38
CFM	.93	1.84	2.03	4.53	2.02	3.09	1.53	1.16	.47	1.46	.18	.15
IN.	1.08	2.05	2.34	5.22	2.11	3.56	1.70	1.34	.52	1.69	.21	.17

e Estimated

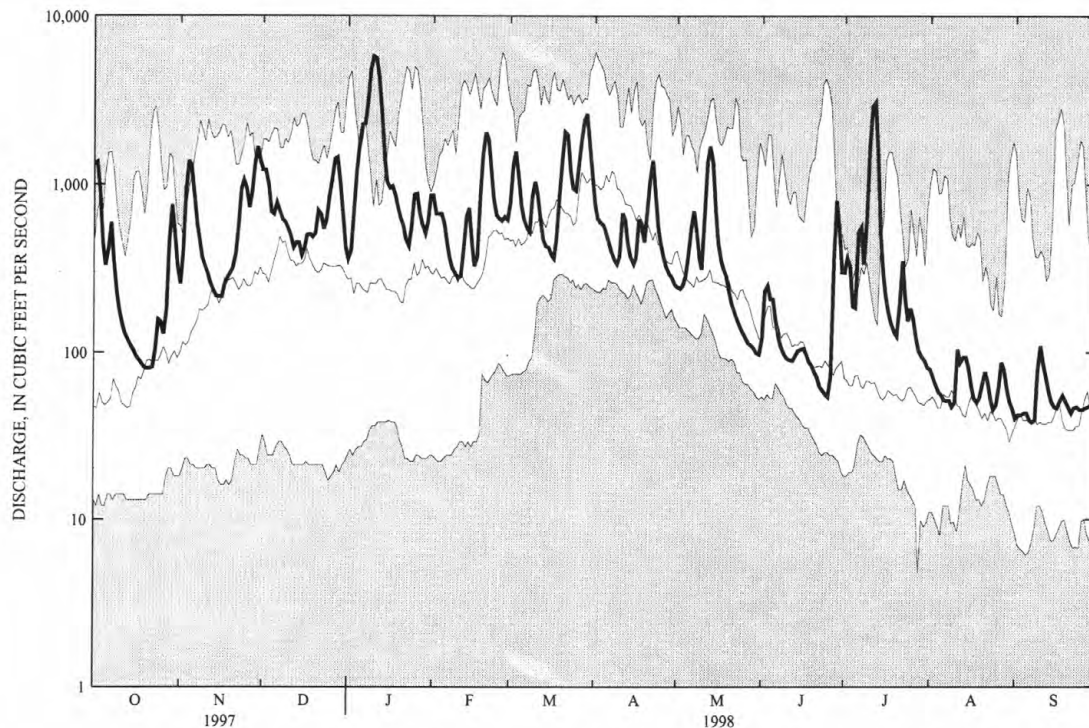
NIAGARA RIVER BASIN
04218000 TONAWANDA CREEK AT RAPIDS, NY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 1998, BY WATER YEAR (WY)

MEAN	160	336	505	546	635	969	912	408	213	107	86.4	95.2
MAX	642	1239	1116	1581	1363	1650	1534	1046	1372	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	10.1
(WY)	1965	1961	1961	1961	1963	1981	1995	1993	1965	1991	1991	1991

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1955 - 1998	
ANNUAL TOTAL	189046		206379			
ANNUAL MEAN	518		565		413	
HIGHEST ANNUAL MEAN					565	
LOWEST ANNUAL MEAN					255	
HIGHEST DAILY MEAN	2990	Feb 22	5750	Jan 10	6130	Apr 1 1960
LOWEST DAILY MEAN	19	Aug 11	38	Sep 7	4.8	Jul 28 1983
ANNUAL SEVEN-DAY MINIMUM	22	Aug 6	41	Sep 2	6.8	Sep 1 1991
ANNUAL RUNOFF (CFSM)	1.48		1.62		1.18	
ANNUAL RUNOFF (INCHES)	20.15		22.00		16.09	
10 PERCENT EXCEEDS	1320		1320		1080	
50 PERCENT EXCEEDS	320		365		200	
90 PERCENT EXCEEDS	52		54		30	



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

NIAGARA RIVER BASIN

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 mi².

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

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

GAGE.--Water-stage recorder. Datum of gage is 586.41 ft above sea level.

REMARKS.--Records fair. Regulation by seasonal manipulation of dam at Island Park 2.4 mi upstream by Village of Williamsville and by intermittent pumping from stone quarries into stream upstream from station. Records at medium and high flows may be comparable with those obtained at station 04218500 between October 1955 and September 1972. Telephone gage-height telemeter at station. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,640 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 9	0745	*3,090	*10.18	July 10	0130	1,420	6.38
May 12	0915	1,030	5.40				

Minimum discharge, 4.1 ft³/s, Nov. 10, gage height, 1.62 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	625	126	287	114	222	271	142	82	135	118	23	26
2	212	318	243	117	187	417	140	87	146	131	17	36
3	105	733	147	271	204	238	133	118	152	63	18	43
4	96	472	152	814	201	174	121	123	138	68	20	35
5	111	307	213	749	136	155	109	164	89	116	21	32
6	178	306	186	450	107	127	99	234	72	163	23	30
7	98	184	165	557	e92	123	90	216	58	88	22	48
8	72	129	157	1960	e90	153	89	138	58	175	19	40
9	60	110	173	2720	88	282	87	108	58	803	17	48
10	51	76	147	1420	87	284	167	103	58	827	24	39
11	44	76	114	519	92	201	166	334	60	183	72	34
12	41	71	112	259	148	139	109	860	77	97	58	29
13	37	64	115	212	281	e120	93	368	67	53	42	28
14	38	66	116	166	169	e115	87	159	66	52	37	27
15	36	65	101	145	114	e109	89	121	62	44	32	25
16	36	79	139	126	101	107	166	96	63	36	28	30
17	36	101	157	e120	225	115	212	68	63	41	26	30
18	35	112	172	e115	624	208	205	76	58	42	36	31
19	34	122	147	e113	546	440	144	80	54	36	36	28
20	32	136	265	113	396	744	308	77	40	38	32	27
21	44	189	296	111	285	385	443	57	36	40	30	28
22	63	387	140	114	212	216	200	54	32	49	26	29
23	114	421	160	125	164	209	141	51	37	50	25	32
24	82	337	276	226	155	226	119	49	41	41	22	28
25	65	212	335	293	160	251	105	48	41	30	43	23
26	60	199	560	224	180	454	94	47	43	26	42	22
27	274	446	429	161	162	797	89	46	244	24	40	25
28	588	452	280	143	141	356	87	44	115	27	34	44
29	245	221	140	146	---	276	84	44	48	28	30	65
30	131	192	129	266	---	244	81	43	74	28	27	35
31	101	---	94	344	---	168	---	66	---	27	26	---
TOTAL	3744	6709	6147	13213	5569	8104	4199	4161	2285	3544	948	997
MEAN	121	224	198	426	199	261	140	134	76.2	114	30.6	33.2
MAX	625	733	560	2720	624	797	443	860	244	827	72	65
MIN	32	64	94	111	87	107	81	43	32	24	17	22
CFSM	1.48	2.74	2.43	5.22	2.44	3.20	1.72	1.64	.93	1.40	.37	.41
IN.	1.71	3.06	2.80	6.02	2.54	3.69	1.91	1.90	1.04	1.62	.43	.45

e Estimated

NIAGARA RIVER BASIN

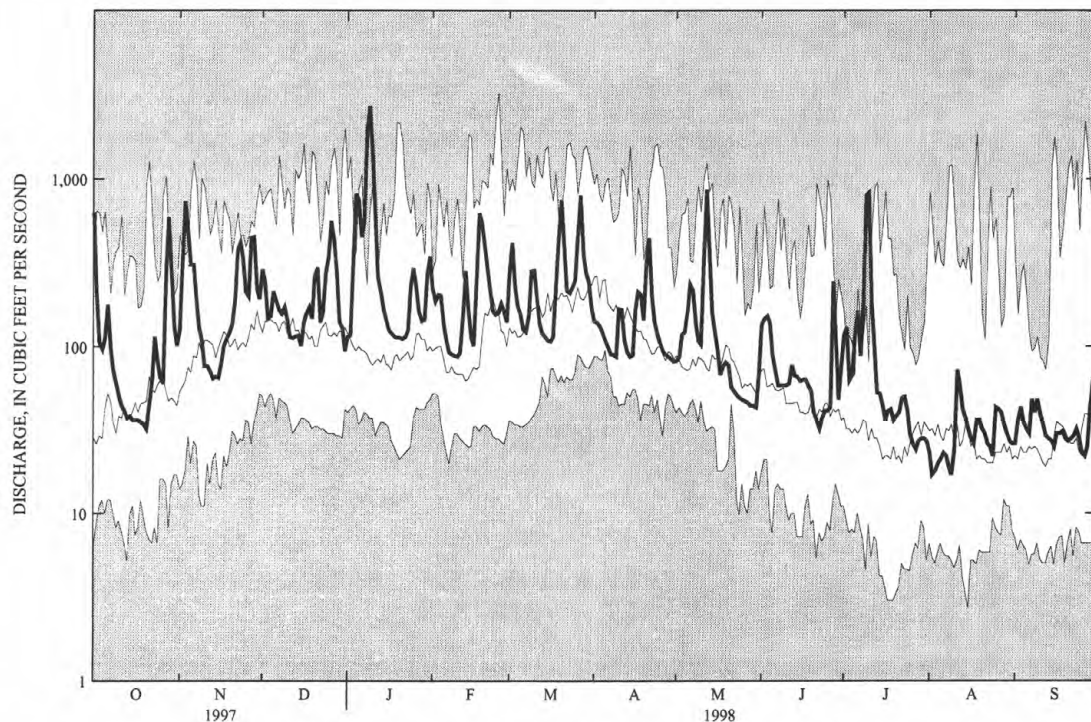
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04218518 ELLICOTT CREEK BELOW WILLIAMSVILLE, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1998, BY WATER YEAR (WY)

MEAN	75.0	148	204	170	183	277	209	116	77.5	45.0	54.5	68.8
MAX	196	342	441	426	377	519	363	258	275	144	397	425
(WY)	1997	1986	1978	1998	1990	1977	1996	1989	1989	1976	1977	1977
MIN	11.2	27.1	40.6	39.2	56.0	119	94.8	47.5	24.2	11.8	13.5	9.76
(WY)	1975	1979	1990	1977	1980	1981	1995	1977	1988	1978	1974	1973

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1973 - 1998	
ANNUAL TOTAL	58799		59620			
ANNUAL MEAN	161		163		135	
HIGHEST ANNUAL MEAN					177	
LOWEST ANNUAL MEAN					97.7	
HIGHEST DAILY MEAN	1150	Feb 28	2720	Jan 9	3280	Feb 25 1985
LOWEST DAILY MEAN	24	Sep 1	17	Aug 2	2.7	Aug 15 1978
ANNUAL SEVEN-DAY MINIMUM	26	Sep 4	20	Aug 2	3.6	Jul 15 1978
ANNUAL RUNOFF (CFSM)	1.97		2.00		1.66	
ANNUAL RUNOFF (INCHES)	26.81		27.18		22.54	
10 PERCENT EXCEEDS	393		334		306	
50 PERCENT EXCEEDS	101		109		75	
90 PERCENT EXCEEDS	36		30		18	



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

NIAGARA RIVER BASIN

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

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

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

REVISED RECORDS.--WSP 1237: 1951

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

REMARKS.--No estimated daily values. Records good. This record represents net diversion from Niagara River basin into Oswego River basin through Erie (Barge) Canal. During the non-navigation period, when the pool upstream from Lock 30 is drained, discharge consists of leakage through guard gates, runoff from small areas tributary to canal upstream from station, or diversion for use downstream in the Canal system.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 874 ft³/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 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	215	170	---	---	---	---	---	35	223	233	190	236
2	211	166	---	---	---	---	---	112	224	235	195	233
3	205	168	---	---	---	---	---	152	212	223	200	239
4	207	174	---	---	---	---	---	144	213	220	237	238
5	215	173	---	---	---	---	---	153	214	237	264	240
6	203	171	---	---	---	---	---	186	221	224	246	236
7	207	168	---	---	---	---	---	206	217	232	248	245
8	204	166	---	---	---	---	---	220	234	235	248	261
9	208	165	---	---	---	---	---	237	225	278	256	275
10	194	163	---	---	---	---	---	209	221	272	251	277
11	189	162	---	---	---	---	---	203	228	241	253	275
12	197	160	---	---	---	---	---	209	219	169	251	283
13	200	157	---	---	---	---	---	210	224	138	251	287
14	192	156	---	---	---	---	---	202	229	136	247	288
15	195	159	---	---	---	---	---	205	221	146	249	280
16	182	158	---	---	---	---	---	195	226	152	254	277
17	181	158	---	---	---	---	---	226	227	170	244	283
18	185	158	---	---	---	---	---	239	214	197	240	285
19	180	160	---	---	---	---	---	243	215	218	254	262
20	174	159	---	---	---	---	---	243	219	194	245	263
21	172	161	---	---	---	---	---	241	230	197	252	247
22	172	161	---	---	---	---	---	242	226	188	244	254
23	171	159	---	---	---	---	---	251	228	196	261	263
24	170	174	---	---	---	---	---	241	221	182	244	250
25	173	164	---	---	---	---	---	230	233	201	250	248
26	171	76	---	---	---	---	---	223	229	194	253	254
27	171	---	---	---	---	---	---	227	234	207	244	255
28	171	---	---	---	---	---	---	229	232	195	247	259
29	168	---	---	---	---	---	---	225	202	200	242	248
30	168	---	---	---	---	---	---	235	169	194	246	258
31	169	---	---	---	---	---	---	218	---	197	241	---
TOTAL	5820	---	---	---	---	---	---	6391	6630	6301	7547	7799
MEAN	188	---	---	---	---	---	---	206	221	203	243	260
MAX	215	---	---	---	---	---	---	251	234	278	264	288
MIN	168	---	---	---	---	---	---	35	169	136	190	233

STREAMS TRIBUTARY TO LAKE ONTARIO

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0422026250 NORTHRUP CREEK AT NORTH GREECE, NY

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

DRAINAGE AREA.--11.7 mi².

WATER-DISCHARGE RECORDS

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

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

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 573 ft³/s, Apr. 22, 1991, gage height, 3.89 ft; minimum discharge, 0.39 ft³/s, Aug. 19, 1993, gage height 0.46 ft.

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

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

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 8	1145	*522	*3.71	No other peak greater than base discharge.			
Minimum discharge, 4.0 ft ³ /s, June 24, gage height, 0.73 ft.							

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.6	7.2	30	e17	24	85	16	13	11	15	8.3	9.8
2	7.5	29	24	e24	23	35	17	14	9.7	11	8.1	9.9
3	6.6	20	22	51	25	24	16	15	11	9.4	7.8	10
4	6.1	13	24	50	22	20	14	16	9.7	31	7.4	10
5	10	11	23	35	19	18	13	15	9.4	39	7.8	9.4
6	7.2	7.5	23	37	18	17	11	14	9.4	15	8.3	9.2
7	6.4	6.8	24	65	e12	15	11	14	9.4	13	8.6	14
8	6.3	6.4	26	416	e11	24	11	13	9.4	43	8.4	11
9	6.4	6.2	23	147	e10	38	12	14	8.8	24	8.4	10
10	6.2	6.4	21	57	14	25	11	16	9.2	16	12	9.6
11	5.9	13	21	37	18	e17	11	55	9.2	13	9.1	9.4
12	5.6	13	21	e24	47	e19	10	37	10	12	8.7	9.0
13	5.7	12	21	e22	35	e12	9.8	20	9.3	11	8.6	8.9
14	5.8	14	e21	e20	e16	e14	9.6	15	9.1	11	8.5	9.0
15	5.7	29	e21	e16	e14	e14	11	14	8.9	11	8.6	9.2
16	5.5	29	22	e16	e12	e14	11	13	8.7	10	8.7	13
17	5.4	28	23	e19	26	e14	11	12	8.6	9.5	8.8	10
18	5.3	28	21	e19	111	23	10	11	8.5	9.9	9.9	9.5
19	5.2	28	21	22	75	56	10	11	8.4	9.9	9.0	9.2
20	5.3	29	e20	22	43	36	34	11	8.5	9.1	8.6	9.4
21	5.2	30	e20	21	33	21	20	10	8.3	8.8	8.7	9.4
22	5.1	35	e20	21	27	20	16	9.9	8.4	9.0	8.6	9.2
23	4.9	38	27	25	23	22	13	9.4	8.7	9.4	8.8	11
24	4.9	34	25	37	25	25	11	9.2	8.2	8.9	13	9.4
25	4.9	28	36	33	40	28	11	9.3	13	8.7	11	9.3
26	5.0	32	29	28	36	101	11	9.3	17	8.6	51	9.6
27	19	37	25	26	26	53	11	9.0	9.9	8.4	16	9.9
28	9.3	27	23	21	26	27	12	8.9	9.2	8.5	12	9.6
29	7.0	22	21	21	---	23	13	9.2	8.9	8.7	11	9.3
30	6.2	27	e18	36	---	18	13	8.8	16	8.5	11	9.2
31	5.9	---	e18	29	---	15	---	10	---	8.4	10	---
TOTAL	205.1	646.5	714	1414	811	873	390.4	446.0	293.8	418.7	334.7	295.4
MEAN	6.62	21.5	23.0	45.6	29.0	28.2	13.0	14.4	9.79	13.5	10.8	9.85
MAX	19	38	36	416	111	101	34	55	17	43	51	14
MIN	4.9	6.2	18	16	10	12	9.6	8.8	8.2	8.4	7.4	8.9
CFSM	.57	1.84	1.97	3.90	2.48	2.41	1.11	1.23	.84	1.15	.92	.84
IN.	.65	2.06	2.27	4.50	2.58	2.78	1.24	1.42	.93	1.33	1.06	.94

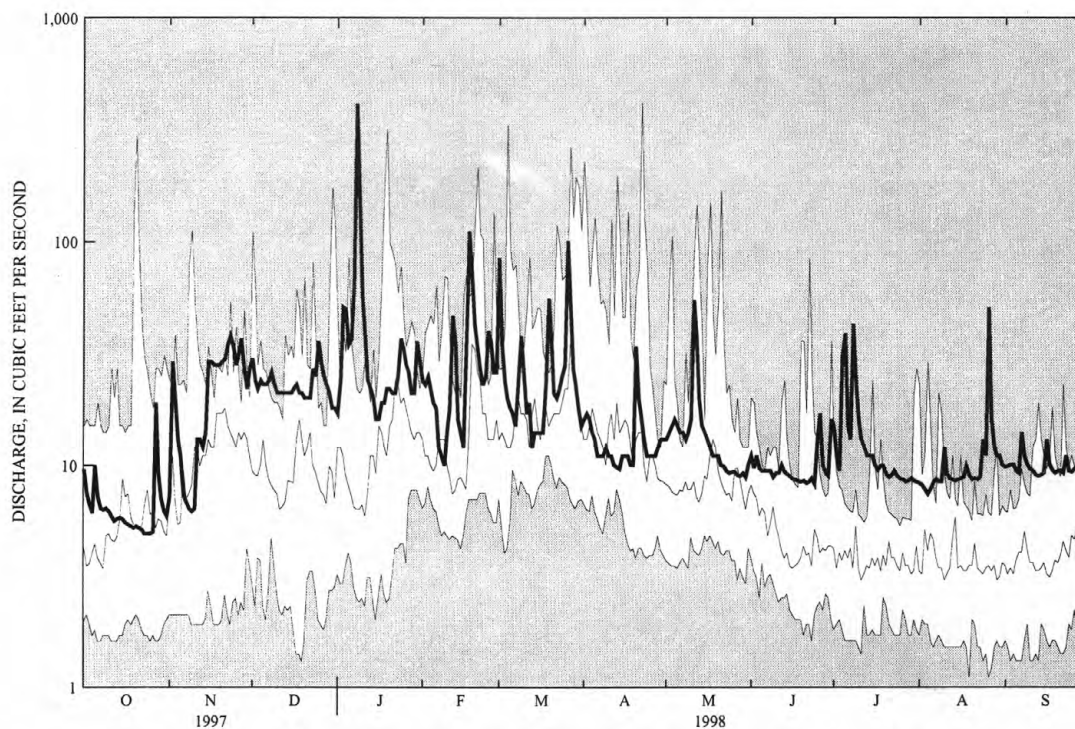
e Estimated.

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

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1998, BY WATER YEAR (WY)

MEAN	9.09	14.0	14.6	21.8	21.9	26.6	22.3	13.5	6.73	5.27	5.13	5.39
MAX	30.9	26.4	23.7	45.6	38.9	40.7	31.7	28.8	16.8	13.5	10.8	9.94
(WY)	1997	1997	1997	1998	1990	1993	1991	1996	1996	1998	1998	1996
MIN	1.83	2.49	3.65	7.52	7.82	15.7	5.27	4.77	3.06	1.96	1.60	1.92
(WY)	1995	1992	1992	1994	1993	1995	1995	1993	1991	1993	1993	1994

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1990 - 1998	
ANNUAL TOTAL	5271.1		6842.6			
ANNUAL MEAN	14.4		18.7		13.8	
HIGHEST ANNUAL MEAN					18.7	
LOWEST ANNUAL MEAN					7.33	
HIGHEST DAILY MEAN	135	Feb 27	416	Jan 8	420	Apr 22 1991
LOWEST DAILY MEAN	2.9	Jul 25	4.9	Oct 23	1.1	Aug 19 1993
ANNUAL SEVEN-DAY MINIMUM	3.8	Jul 14	5.0	Oct 20	1.4	Aug 22 1993
ANNUAL RUNOFF (CFSM)	1.23		1.60		1.18	
ANNUAL RUNOFF (INCHES)	16.76		21.76		16.05	
10 PERCENT EXCEEDS	28		33		27	
50 PERCENT EXCEEDS	11		13		8.0	
90 PERCENT EXCEEDS	5.0		8.0		2.4	



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

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

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

CHEMICAL DATA: 1989-98 (e).

NUTRIENT DATA: 1989-98 (e).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: November 1994 to current year.

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

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

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

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

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 25.5°C, July 16; minimum, 0.0°C, on many days during winter period.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	14.5	11.0	12.5	10.5	8.5	9.5	4.0	2.0	3.0	.0	.0	.0
2	11.0	9.5	10.5	10.5	9.5	10.5	2.0	1.5	1.5	1.5	.0	.0
3	13.5	11.0	12.0	9.5	8.0	8.5	2.5	.5	1.5	5.0	1.5	3.5
4	16.5	13.5	14.5	8.5	7.5	8.0	4.0	2.5	3.5	5.5	3.0	4.0
5	17.0	15.5	16.5	8.0	7.0	7.5	3.5	3.0	3.5	5.5	3.0	4.0
6	17.5	16.5	17.0	8.0	6.5	7.5	3.0	2.0	2.0	8.0	5.5	7.0
7	16.5	15.0	15.5	7.5	6.5	7.0	2.5	2.0	2.5	7.5	4.0	6.5
8	16.5	15.0	16.0	8.0	7.0	7.5	3.0	2.5	2.5	4.0	3.0	3.5
9	18.5	16.0	17.0	8.0	7.0	7.5	3.0	2.0	2.5	3.5	3.0	3.5
10	18.5	15.0	16.5	7.0	6.0	6.5	2.5	1.0	2.0	3.5	2.5	3.0
11	15.0	12.0	13.0	6.5	5.0	6.0	2.0	1.0	1.5	2.5	1.0	2.0
12	13.0	10.5	12.0	5.0	3.5	4.5	2.0	1.5	1.5	2.5	.5	1.5
13	16.0	13.0	14.0	4.0	2.5	3.5	2.0	1.0	1.5	3.0	.0	2.0
14	16.0	13.0	15.0	3.5	1.0	1.5	1.5	.0	.5	.0	.0	.0
15	13.0	11.0	12.0	4.0	1.5	3.0	1.5	.0	.5	.0	.0	.0
16	11.5	10.0	10.5	3.0	2.0	2.5	2.5	1.0	2.0	.0	.0	.0
17	10.5	9.0	10.0	2.5	2.0	2.5	2.5	2.0	2.0	.0	.0	.0
18	9.5	7.5	9.0	3.5	2.0	2.5	2.5	1.5	2.0	1.5	.0	.5
19	10.0	8.0	9.0	3.0	1.5	2.5	3.5	2.5	3.0	1.5	.5	1.0
20	10.0	9.0	9.5	3.5	2.0	2.5	3.5	2.5	3.0	2.0	1.0	1.0
21	10.0	9.0	9.5	4.0	3.0	3.5	2.5	.5	1.5	1.5	1.0	1.0
22	9.0	6.5	7.5	3.5	2.0	2.5	1.0	.0	.0	1.0	.5	1.0
23	6.5	6.0	6.5	3.5	2.5	3.0	2.0	1.0	1.5	1.0	.0	.5
24	8.0	6.5	7.0	3.0	1.5	2.0	2.5	1.5	2.0	1.5	1.0	1.5
25	8.0	7.0	8.0	2.5	1.0	1.5	3.5	2.0	3.0	1.5	.5	1.0
26	7.0	6.0	6.5	4.5	2.5	3.5	3.5	3.0	3.0	.5	.0	.5
27	8.0	6.0	7.0	4.0	2.5	3.5	3.0	2.5	2.5	1.5	.0	.5
28	6.5	5.5	6.0	5.0	3.5	4.0	2.5	1.5	2.0	2.0	.5	1.0
29	8.0	5.5	6.5	4.5	3.0	4.0	1.5	.5	1.0	2.5	.0	1.5
30	8.0	6.5	7.5	4.5	3.5	4.0	1.5	.0	.5	2.0	1.5	1.5
31	9.5	7.0	8.0	---	---	---	.0	.0	.0	2.0	1.0	1.5
MONTH	18.5	5.5	11.0	10.5	1.0	4.8	4.0	.0	1.9	8.0	.0	1.8

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

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	2.5	.0	1.5	5.0	3.5	4.0	15.0	10.5	11.5	16.0	12.5	14.5
2	2.5	1.0	2.0	6.0	4.5	5.0	11.0	9.5	10.0	15.5	13.5	14.0
3	2.5	1.5	2.0	5.5	4.0	5.0	9.5	8.0	9.0	15.0	12.5	13.5
4	2.0	1.0	1.5	5.0	4.0	4.5	9.0	7.0	8.0	15.0	13.0	14.0
5	1.5	.0	1.0	5.0	3.5	4.0	10.5	6.0	8.0	16.5	13.5	15.0
6	1.0	.0	.5	4.0	3.5	4.0	11.0	6.0	8.5	18.5	14.0	16.0
7	1.0	.0	.5	6.0	3.0	4.5	11.5	6.5	9.0	19.0	15.0	17.0
8	1.5	.0	.5	4.0	3.0	3.5	9.5	7.5	8.0	17.5	16.0	16.5
9	2.0	.0	.5	8.0	4.0	6.0	8.0	6.5	7.0	16.5	15.0	15.5
10	3.0	.5	1.5	7.0	1.0	3.5	10.0	5.0	7.5	15.0	13.5	14.0
11	3.5	1.5	2.5	1.0	.0	.0	11.0	6.0	8.5	14.5	12.5	13.5
12	3.0	1.5	2.5	.0	.0	.0	12.5	6.5	9.5	16.5	13.0	14.5
13	2.0	1.0	1.5	1.0	.0	.0	13.5	8.0	11.0	17.5	14.0	15.5
14	1.0	.0	.0	2.5	.5	1.5	14.0	10.5	12.5	19.5	14.5	17.0
15	.5	.0	.0	3.0	1.0	1.5	13.0	11.5	12.5	20.5	17.0	18.5
16	1.0	.0	.0	2.5	.0	1.0	12.0	10.5	11.0	21.0	17.0	19.5
17	2.5	1.0	1.5	4.0	.0	2.0	12.0	10.0	11.5	21.0	18.5	19.5
18	2.0	1.0	1.5	3.5	2.5	3.0	13.0	8.0	10.5	20.5	17.5	19.0
19	2.5	2.0	2.0	3.0	2.5	3.0	11.5	10.0	10.5	19.5	18.0	19.0
20	3.0	2.5	2.5	3.0	1.5	2.5	13.5	8.5	11.0	21.0	18.0	19.5
21	3.5	2.5	3.0	1.5	.0	.0	15.0	9.5	12.0	20.0	15.0	16.5
22	3.5	2.5	3.0	.5	.0	.0	15.5	10.5	13.0	16.5	13.5	15.0
23	4.0	2.0	3.0	3.5	.0	1.5	15.0	11.0	13.0	17.0	14.0	15.5
24	4.0	1.5	2.5	4.0	.0	2.0	15.0	11.5	13.0	18.5	14.5	16.5
25	5.5	1.5	3.0	5.5	1.0	3.0	14.5	11.0	12.5	18.0	16.5	17.5
26	5.0	2.0	3.5	7.5	3.0	5.0	12.5	10.0	11.0	18.5	16.0	17.5
27	5.5	2.5	4.0	13.5	7.0	10.5	12.0	7.5	9.5	19.0	16.0	17.5
28	5.5	4.0	5.0	15.0	11.0	13.0	13.5	8.5	11.0	20.5	17.0	18.5
29	---	---	---	15.0	12.0	13.5	14.0	9.5	12.0	21.5	19.5	20.0
30	---	---	---	17.0	11.5	14.0	16.0	12.0	14.0	20.5	18.0	19.0
31	---	---	---	17.5	14.5	16.0	---	---	---	20.0	18.0	19.0
MONTH	5.5	.0	1.9	17.5	.0	4.4	16.0	5.0	10.5	21.5	12.5	16.7
JUNE			JULY			AUGUST			SEPTEMBER			
1	19.0	16.0	16.5	21.5	19.0	19.5	22.0	19.0	20.0	21.0	19.0	20.0
2	17.5	15.0	16.0	22.0	19.0	20.0	22.0	19.0	20.5	20.5	19.5	20.0
3	16.0	14.0	14.5	23.0	19.5	21.0	23.0	20.0	21.0	20.0	19.0	19.5
4	14.5	12.0	13.5	22.0	19.5	21.0	23.5	21.0	22.0	20.0	18.0	19.0
5	14.5	12.5	13.5	21.5	19.0	20.0	23.5	22.0	23.0	20.5	18.0	19.0
6	15.0	13.0	14.0	21.5	19.0	20.0	23.0	22.5	23.0	22.5	19.5	21.0
7	14.5	13.0	13.5	21.0	20.5	21.0	23.0	22.5	22.5	22.5	20.0	21.0
8	16.0	13.5	14.5	21.5	20.0	21.0	24.5	22.0	23.0	20.0	17.5	18.5
9	17.5	14.5	16.0	23.0	20.5	21.5	25.0	23.0	24.0	17.5	17.0	17.5
10	17.0	15.5	16.5	22.5	20.5	21.5	24.5	23.5	24.0	18.0	16.0	17.0
11	18.0	16.5	17.0	21.5	19.5	20.5	24.0	22.5	23.0	20.0	17.0	18.5
12	20.5	17.5	19.0	22.0	19.0	20.5	23.0	21.5	22.0	21.0	19.5	20.0
13	20.5	19.5	20.0	23.5	20.0	21.5	22.0	19.5	20.5	20.5	19.0	19.5
14	19.5	18.0	18.5	23.5	21.0	22.0	22.5	19.5	21.0	21.0	18.5	19.5
15	19.5	17.5	18.5	24.5	21.5	23.0	24.0	22.0	23.0	21.5	21.0	21.5
16	20.5	18.5	19.5	25.5	23.0	24.0	23.5	22.0	23.0	21.5	18.5	20.5
17	21.0	19.5	20.0	25.0	23.0	24.0	24.0	22.0	23.0	19.0	16.5	17.5
18	22.0	19.5	20.5	23.5	21.5	22.5	24.0	20.5	22.5	19.5	17.0	18.0
19	22.0	19.5	21.0	23.0	20.0	21.5	20.5	18.5	19.5	21.0	18.5	19.5
20	23.0	20.0	21.5	25.0	22.5	23.5	20.5	17.5	19.0	22.0	20.5	21.0
21	24.0	21.0	22.5	24.5	22.5	23.5	23.0	20.0	21.5	22.0	21.0	21.5
22	23.5	22.0	22.5	25.0	23.5	24.0	22.5	21.0	21.5	21.5	17.0	19.0
23	22.5	21.5	22.0	24.5	23.0	23.5	23.0	21.0	21.5	17.0	15.0	16.0
24	24.0	21.0	22.5	23.0	20.5	21.5	23.5	21.5	23.0	16.0	14.0	15.0
25	24.0	22.0	23.0	22.0	19.5	20.5	23.0	22.5	22.5	17.5	15.5	16.5
26	24.0	21.5	22.5	22.0	19.5	20.5	23.0	20.5	21.5	20.0	17.0	18.0
27	23.0	21.5	22.0	22.5	19.5	21.0	23.0	20.5	22.0	20.0	19.5	20.0
28	23.5	20.5	22.0	24.0	21.5	22.5	23.0	20.0	21.5	19.5	16.0	17.5
29	25.0	22.5	23.5	23.5	22.0	22.5	23.0	22.0	22.5	17.0	14.5	15.5
30	24.0	21.5	22.5	22.5	21.0	21.5	22.5	21.0	22.0	18.0	16.5	17.0
31	---	---	---	21.5	19.5	20.5	21.5	20.0	21.0	---	---	---
MONTH	25.0	12.0	19.0	25.5	19.0	21.6	25.0	17.5	21.9	22.5	14.0	18.8

STREAMS TRIBUTARY TO LAKE ONTARIO

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0422026250 NORTHRUP CREEK AT NORTH GREECE, NY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	TUR- BID- ITY (NTU) (00076)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	RESIDUE VOLA- TILE, SUS- PENDE (MG/L) (00535)
OCT							
02-06	1015	0915	7.6	6.2	590	--	--
26-27	1815	0915	16	29	515	--	--
27-30	1025	0925	9.4	8.1	606	--	--
NOV							
03-06	1045	1045	12	6.2	706	--	--
13-15	1045	0145	14	4.0	640	--	--
15-17	0245	0945	29	8.8	692	--	--
17-20	1100	1000	28	6.1	663	--	--
20-24	1050	0950	34	13	714	--	--
24-26	1050	0950	29	7.4	727	--	--
26-27	1015	0515	37	22	760	--	--
NOV 27-							
DEC 01	0615	0915	28	15	864	--	--
01-04	1045	0945	24	16	784	--	--
22-25	2235	0935	28	11	908	--	--
25-26	1035	0935	33	18	835	--	--
26-29	1035	0935	24	5.6	910	--	--
DEC 31-							
JAN 01	1520	1820	17	8.3	922	--	--
01-02	1920	1020	22	6.0	922	--	--
02-04	1140	0740	43	24	865	--	--
04-05	0840	0940	43	17	822	--	--
08-12	1245	1045	112	41	499	121	12
12-16	1120	1020	20	13	757	--	--
16-20	1200	1000	20	15	843	--	--
23-24	1045	0545	31	25	1080	--	--
24-26	0645	0945	33	16	954	--	--
FEB							
11-12	1020	1720	32	13	720	--	--
12-13	1820	0920	48	24	571	--	--
13-17	1040	0940	19	4.2	838	--	--
17-18	1115	1215	71	36	653	167	17
18-19	1315	1015	101	41	473	200	18
19-23	1045	0945	38	14	641	--	--
23-26	1045	0945	32	6.8	785	--	--
26-28	1045	1745	26	5.1	725	--	--
FEB 28-							
MAR 01	1845	0945	84	32	537	83	11
01-02	1045	0945	55	--	646	--	--
02-05	1110	1010	23	5.1	728	--	--
05-08	1025	2125	18	5.5	733	--	--
08-09	2225	0925	40	2.8	778	--	--
09-12	1040	0940	24	7.6	723	--	--
12-16	1050	0950	14	2.8	1050	--	--
17-19	1125	1025	27	7.7	826	--	--
19-20	1045	0145	61	33	607	113	11
20-23	0245	0945	24	8.1	863	--	--
23-26	1225	1025	29	4.7	903	--	--
26-30	1110	1010	48	18	675	--	--
MAR 30-							
APR 02	1125	1025	16	4.8	801	--	--
02-06	1120	1020	14	4.3	829	--	--
13-16	1100	1000	10	4.2	851	--	--
19-20	1505	1005	24	34	725	114	19
20-23	1155	1055	20	17	720	--	--

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHOPHOS- PHATE TOTAL (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
OCT							
02-06	<.01	.49	1.7	.110	.110	70	52
26-27	.01	.82	1.6	.280	.120	55	53
27-30	<.01	.72	1.2	.170	.083	73	56
NOV							
03-06	.07	.68	1.4	.120	.063	82	62
13-15	.52	.94	1.3	.100	.050	67	72
15-17	.26	.88	.90	.160	.050	82	74
17-20	.19	.88	.84	.100	.046	74	75
20-24	.17	.83	.94	.140	.042	90	71
24-26	.19	.87	1.1	.100	.039	91	72
26-27	.21	.85	1.2	.180	.037	120	73
NOV 27-							
DEC 01	.28	1.0	1.3	.130	.035	130	73
01-04	.29	.87	1.4	.110	.041	110	62
22-25	.25	1.1	1.5	.130	.048	130	64
25-26	.20	1.0	1.3	.140	.034	180	87
26-29	.29	.76	1.5	.100	.033	130	67
DEC 31-							
JAN 01	.32	.98	1.9	.110	.032	140	67
01-02	.49	1.1	1.7	.085	.030	140	66
02-04	.22	.83	1.2	.240	.031	150	50
04-05	.19	.65	1.1	.180	.032	140	47
08-12	.15	.94	1.1	.280	.051	61	32
12-16	.29	.69	1.5	.110	.050	100	50
16-20	.43	1.2	1.6	.110	.075	110	58
23-24	.43	.78	1.4	.150	.100	190	56
24-26	.33	.73	1.2	.110	.057	150	51
FEB							
11-12	.24	.73	1.4	.095	.016	91	48
12-13	.19	.81	1.1	.160	.031	72	35
13-17	.30	.91	2.0	.050	.018	110	56
17-18	.16	.82	1.2	.290	.021	91	40
18-19	.11	.82	.86	.290	.029	62	29
19-23	.15	.46	1.3	.095	.025	86	39
23-26	.19	.71	1.3	.080	.035	120	43
26-28	.15	.75	1.3	.055	.018	100	41
FEB 28-							
MAR 01	.13	.89	.94	.180	.024	66	29
01-02	.12	1.0	1.2	.170	.017	91	38
02-05	.15	.24	1.3	.065	.016	98	41
05-08	.19	.73	1.3	.050	.015	95	42
08-09	.12	.46	1.5	.050	.012	110	46
09-12	.15	.51	1.2	.075	.017	97	38
12-16	.30	1.0	1.6	.045	.017	170	45
17-19	.19	.89	1.3	.075	.008	130	41
19-20	.14	.82	.90	.210	.013	89	31
20-23	.24	.69	1.3	.075	.012	140	39
23-26	.14	.68	1.2	.070	.012	150	37
26-30	.06	.54	.97	.150	.015	98	31
MAR 30-							
APR 02	.10	.74	1.3	.085	.016	120	39
02-06	.13	.67	1.4	.095	.036	120	41
13-16	.05	.56	1.6	.090	.029	120	68
19-20	.07	.76	1.5	.290	.045	95	47
20-23	.04	.77	1.1	.180	.039	93	44

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

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	TUR- BID- ITY (NTU) (00076)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDEDED (MG/L) (00530)	RESIDUE VOLA- TILE, SUS- PENDEDED (MG/L) (00535)
MAY							
10-11	0745	1045	29	41	--	154	22
11-14	1150	1050	33	40	598	134	18
JUN 29-							
JUL 02	1150	1050	14	38	474	83	13
04-04	0745	2245	35	75	414	254	34
04-06	2345	1045	35	44	479	118	17
06-07	1220	0520	12	24	537	--	--
07-08	0620	0820	13	37	497	95	14
08-09	0920	1120	36	42	503	103	16
09-13	1100	1000	15	12	570	--	--
AUG							
25-26	2000	0700	55	110	321	303	25
26-27	0800	1000	31	43	383	104	15
SEP							
06-07	2305	1000	16	49	364	129	19
07-08	1105	1005	12	20	405	--	--

DATE	NITRO- GEN, AM- MONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
MAY							
10-11	.06	1.6	2.2	.470	.115	69	63
11-14	.03	.89	1.1	.400	.067	65	63
JUN 29-							
JUL 02	.05	.89	1.1	.300	.120	50	50
04-04	<.01	.92	1.1	.520	.108	40	45
04-06	.02	.82	1.0	.280	.086	55	40
06-07	<.01	.75	1.3	.220	.086	58	49
07-08	.01	.80	1.4	.280	.092	53	46
08-09	.01	.97	1.0	.260	.076	54	46
09-13	<.01	.58	1.5	.170	.088	60	56
AUG							
25-26	.02	.86	.78	.700	.104	31	66
26-27	.01	.83	.77	.340	.097	43	97
SEP							
06-07	<.01	1.2	1.3	.350	.111	35	44
07-08	<.01	.59	1.1	.190	.103	43	44

STREAMS TRIBUTARY TO LAKE ONTARIO
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 mi².

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

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

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,700 ft³/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 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 8	0730	*6,960	*10.01	June 30	1530	3,870	8.12

Minimum discharge, 20 ft³/s, Sep. 24, 25, gage height, 4.23 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	508	87	1070	e210	251	1780	608	439	189	1470	66	32
2	276	929	746	e280	263	1140	629	440	141	632	61	31
3	225	662	628	416	249	952	544	622	250	450	57	34
4	189	437	712	1580	230	805	487	531	139	394	54	32
5	342	405	627	1480	222	710	448	538	116	497	51	30
6	237	363	527	1390	194	618	395	475	109	303	50	28
7	183	337	469	1310	e180	540	359	442	100	261	47	29
8	162	566	424	5830	e180	543	346	466	101	692	44	37
9	146	721	384	4640	e170	782	877	653	91	668	44	37
10	132	547	366	2590	e180	1100	1840	753	86	363	64	33
11	118	467	356	1570	198	e640	899	2080	95	275	75	31
12	110	409	334	1130	304	e540	753	2140	200	226	55	28
13	103	363	312	988	302	e530	648	1360	270	194	51	26
14	97	380	293	740	220	515	579	1020	155	169	47	26
15	91	355	261	627	e190	464	638	803	126	148	46	25
16	86	333	267	644	e200	414	531	655	117	136	44	26
17	81	309	255	544	267	392	487	559	112	124	41	26
18	78	287	231	483	981	499	415	448	156	120	43	25
19	76	272	231	426	1180	655	912	379	110	102	44	24
20	71	286	248	394	887	671	2800	323	96	118	41	24
21	69	303	232	343	760	673	1410	277	98	207	38	24
22	67	410	e180	320	650	594	1050	247	82	200	37	26
23	67	428	226	316	604	535	868	222	176	286	36	25
24	65	431	214	334	584	502	724	197	786	174	39	23
25	72	343	350	295	545	515	603	233	240	124	44	23
26	79	453	485	261	569	977	727	203	1340	107	39	23
27	74	1050	377	242	615	962	794	162	598	93	35	25
28	76	736	323	240	1140	737	554	145	339	83	33	29
29	70	897	278	251	---	826	487	131	260	82	33	29
30	66	946	e275	372	---	667	456	129	1960	79	33	25
31	62	---	e250	307	---	587	---	128	---	72	34	---
TOTAL	4078	14512	11931	30553	12315	21865	22868	17200	8638	8849	1426	836
MEAN	132	484	385	986	440	705	762	555	288	285	46.0	27.9
MAX	508	1050	1070	5830	1180	1780	2800	2140	1960	1470	75	37
MIN	62	87	180	210	170	392	346	128	82	72	33	23
CFSM	.46	1.68	1.34	3.42	1.53	2.45	2.65	1.93	1.00	.99	.16	.10
IN.	.53	1.87	1.54	3.95	1.59	2.82	2.95	2.22	1.12	1.14	.18	.11

e Estimated

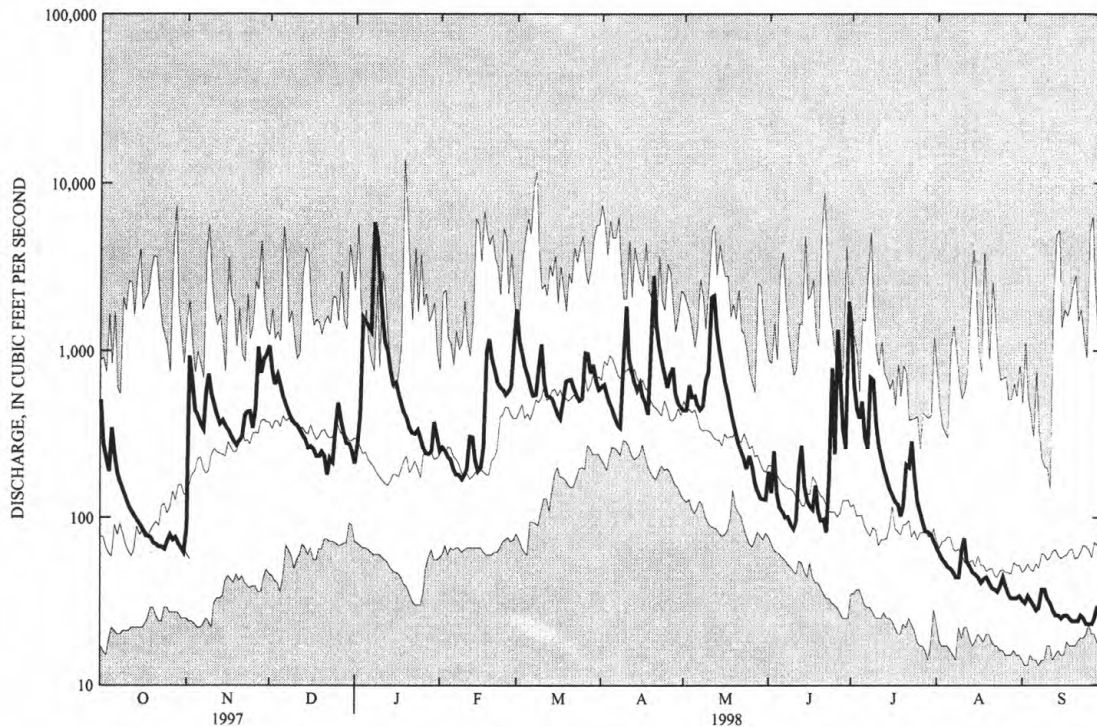
STREAMS TRIBUTARY TO LAKE ONTARIO
04221000 GENESEE RIVER AT WELLSVILLE, NY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 1998, BY WATER YEAR (WY)

MEAN	241	376	465	392	463	778	853	466	280	163	122	176
MAX	784	1001	1016	1263	1443	1689	1925	1208	1269	656	666	1246
(WY)	1991	1997	1973	1996	1976	1956	1958	1996	1989	1977	1994	1977
MIN	25.0	37.3	104	52.1	94.4	320	361	113	45.3	27.5	25.0	18.8
(WY)	1958	1958	1990	1981	1958	1981	1976	1985	1991	1993	1957	1995

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1956 - 1998	
ANNUAL TOTAL	126796		155071			
ANNUAL MEAN	347		425		397	
HIGHEST ANNUAL MEAN					564	1956
LOWEST ANNUAL MEAN					261	1981
HIGHEST DAILY MEAN	3770	Feb 27	5830	Jan 8	13800	Jan 19 1996
LOWEST DAILY MEAN	37	Sep 9	23	Sep 24	13	Sep 2 1991
ANNUAL SEVEN-DAY MINIMUM	41	Sep 4	24	Sep 20	15	Sep 3 1995
ANNUAL RUNOFF (CFSM)	1.21		1.48		1.38	
ANNUAL RUNOFF (INCHES)	16.38		20.03		18.74	
10 PERCENT EXCEEDS	740		898		891	
50 PERCENT EXCEEDS	232		280		212	
90 PERCENT EXCEEDS	57		37		42	



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

STREAMS TRIBUTARY TO LAKE ONTARIO
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 mi².

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

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

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 90,000 ft³/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 ft³/s on basis of contracted-opening measurement of 71,000 ft³/s, at highway bridge 0.4 mi upstream and contracted-opening measurement of 98,200 ft³/s, 0.7 mi downstream from gage; minimum discharge, 18 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 8	2230	*40,900	*24.19	No other peak greater than base discharge.			

Minimum discharge, 121 ft³/s, Sep. 15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4080	309	4360	e800	1220	8950	1780	1280	836	5700	288	146
2	1830	3180	2810	e1000	1200	4850	2110	1240	603	2230	265	143
3	1200	3850	2020	2020	1170	3360	2030	1950	698	1270	250	139
4	847	1910	2100	7730	1070	2560	1760	2210	684	962	236	140
5	1520	1360	2150	7180	961	2210	1560	2100	533	1800	227	135
6	1430	1100	1850	5990	835	1970	1360	1920	436	1200	247	132
7	1010	948	1600	5100	733	1730	1210	1810	394	851	205	196
8	657	994	1460	26400	702	1640	1100	1480	386	4650	200	207
9	546	1340	1350	e22000	675	2520	1670	1760	397	8360	199	185
10	503	1290	1260	10000	700	3560	6780	1710	359	2420	235	202
11	447	1080	1220	5670	848	2390	3190	6040	359	1380	415	164
12	396	975	1250	3930	1200	1740	2270	8090	422	1030	409	144
13	625	882	1190	3300	1530	e1550	1850	4230	545	826	284	135
14	1160	856	1160	2680	e950	e1500	1610	2910	696	672	246	128
15	1160	969	1010	2180	e710	1430	1740	2280	514	591	506	124
16	1120	974	1110	1970	e700	1260	1710	1830	449	539	371	157
17	1100	974	1090	1820	e1150	1150	1560	1920	428	590	290	167
18	1080	975	1040	1630	e3700	1570	1360	1450	438	497	280	144
19	1050	950	1020	1470	5090	3240	1280	1170	454	426	333	149
20	1040	1080	1120	1370	3820	4250	10900	1010	368	408	260	198
21	1020	1180	1160	1220	2910	3410	6370	855	322	436	224	198
22	1010	1770	e890	1160	2230	2770	3560	742	307	576	210	156
23	802	1860	1110	1120	1950	2280	2640	680	346	974	203	145
24	293	1890	1230	1250	1870	1970	2180	628	688	1050	191	137
25	280	1500	2140	1200	1760	1960	1790	613	739	608	182	135
26	269	1990	3620	1040	1930	4930	1570	769	4980	449	214	133
27	517	5650	2440	983	2100	6910	2540	629	3630	388	237	182
28	469	3680	1840	1080	3270	3560	1840	508	1250	349	177	364
29	357	4000	1360	1080	---	3420	1470	473	1430	356	161	273
30	313	3890	1330	1810	---	2580	1330	452	2970	339	162	230
31	284	---	e1050	1610	---	2030	---	468	---	318	154	---
TOTAL	28415	53406	50340	127793	46984	89250	74120	55207	26661	42245	7861	5088
MEAN	917	1780	1624	4122	1678	2879	2471	1781	889	1363	254	170
MAX	4080	5650	4360	26400	5090	8950	10900	8090	4980	8360	506	364
MIN	269	309	890	800	675	1150	1100	452	307	318	154	124
CFSM	.93	1.81	1.65	4.19	1.71	2.93	2.51	1.81	.90	1.38	.26	.17
IN.	1.07	2.02	1.90	4.83	1.78	3.37	2.80	2.09	1.01	1.60	.30	.19

e Estimated

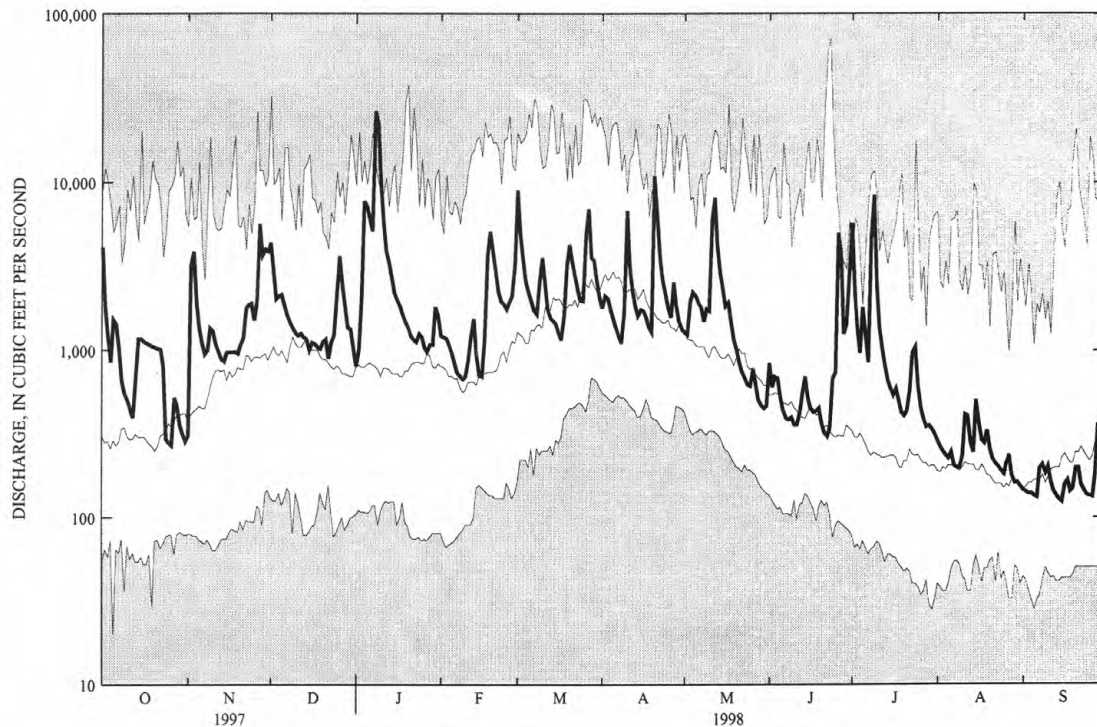
STREAMS TRIBUTARY TO LAKE ONTARIO
04223000 GENESEE RIVER AT PORTAGEVILLE, NY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1908 - 1998, BY WATER YEAR (WY)

MEAN	645	1100	1350	1423	1456	2915	2782	1519	890	452	321	413
MAX	3320	4201	4314	4795	5838	7360	7780	4826	7006	1876	1875	4949
(WY)	1918	1928	1928	1913	1976	1936	1940	1919	1972	1915	1977	1977
MIN	74.1	110	160	100	229	945	450	294	118	64.8	64.5	50.1
(WY)	1965	1965	1909	1961	1920	1937	1946	1934	1934	1934	1934	1913

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1908 - 1998	
ANNUAL TOTAL	498123		607370			
ANNUAL MEAN	1365		1664		1271	
HIGHEST ANNUAL MEAN					2038	
LOWEST ANNUAL MEAN					766	
HIGHEST DAILY MEAN	12600	Feb 27	26400	Jan 8	72000	Jun 23 1972
LOWEST DAILY MEAN	120	Sep 9	124	Sep 15	20	Oct 5 1913
ANNUAL SEVEN-DAY MINIMUM	145	Sep 5	141	Aug 31	34	Jul 25 1934
ANNUAL RUNOFF (CFSM)	1.39		1.69		1.29	
ANNUAL RUNOFF (INCHES)	18.83		22.96		17.55	
10 PERCENT EXCEEDS	2970		3580		2910	
50 PERCENT EXCEEDS	964		1110		606	
90 PERCENT EXCEEDS	202		206		134	



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

STREAMS TRIBUTARY TO LAKE ONTARIO

04224000 MOUNT MORRIS LAKE NEAR MOUNT MORRIS, NY

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

DRAINAGE AREA.--1,080 mi².

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

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

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

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

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

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

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 714.90 ft, Jan. 12, contents, 204,000 acre-ft; minimum recorded, 584.74 ft, Sep. 3-6, contents 564 acre-ft.

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

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

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

ELEVATION (FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	615.44	588.13	627.39	591.07	625.95	623.51	636.92	593.99	591.11	632.89	---	585.61
2	615.65	597.69	625.79	592.36	628.57	633.03	631.97	593.75	590.36	635.20	---	585.17
3	609.40	614.62	620.98	595.70	630.37	633.83	626.85	596.45	590.05	633.06	---	584.79
4	594.93	615.17	615.81	614.42	628.81	630.84	620.86	601.63	591.92	627.98	---	584.74
5	593.60	610.47	611.64	631.73	625.47	626.38	613.42	602.22	594.25	622.67	---	584.74
6	594.76	600.52	606.92	640.93	621.60	620.70	604.56	599.54	595.48	617.13	---	584.75
7	593.00	592.97	600.67	647.56	618.71	612.90	594.26	597.79	592.13	606.40	---	586.96
8	590.51	592.81	594.66	662.16	619.13	599.25	593.45	594.41	590.20	605.28	---	587.59
9	589.83	594.23	594.46	690.20	621.01	596.85	595.02	594.94	589.29	635.00	---	587.34
10	589.48	594.63	594.27	704.31	619.50	602.60	616.59	595.47	588.60	643.24	---	587.33
11	589.23	593.29	593.92	710.74	611.59	603.38	624.44	607.72	588.52	---	---	586.49
12	588.90	592.42	594.17	714.25	597.52	594.24	622.17	632.83	588.89	---	589.00	585.43
13	588.77	591.76	593.79	714.21	595.83	595.23	617.85	640.22	589.54	---	588.12	585.54
14	592.37	591.53	593.63	712.10	593.73	600.34	611.17	641.67	591.34	---	586.78	587.68
15	597.94	591.99	593.07	709.42	591.59	606.39	599.86	639.13	590.16	---	587.71	591.86
16	608.25	592.41	593.57	705.89	591.25	610.27	595.30	633.58	589.43	---	588.83	598.71
17	604.67	592.34	593.26	701.44	592.67	612.59	594.69	626.76	589.27	---	588.13	602.22
18	592.32	592.42	593.06	696.28	605.44	614.72	594.36	618.60	589.23	---	587.89	603.25
19	592.01	592.96	592.77	690.83	617.35	619.79	593.76	608.82	589.31	---	588.12	590.17
20	591.90	593.68	593.33	685.29	622.60	627.90	617.91	593.06	588.98	---	588.00	588.72
21	591.77	594.49	593.79	679.65	623.18	632.03	638.34	591.43	588.41	---	587.52	588.28
22	591.77	597.23	592.40	673.73	621.77	633.69	641.75	590.79	588.17	---	587.34	588.02
23	591.64	600.27	592.91	667.46	618.98	633.11	640.88	590.48	588.50	---	587.28	587.77
24	588.46	600.66	594.25	661.17	615.43	629.67	638.63	590.15	588.87	---	587.17	587.11
25	588.01	597.01	596.92	654.65	611.38	624.24	634.09	589.99	592.39	---	587.42	587.51
26	587.92	596.42	609.20	647.41	607.43	621.35	628.24	590.85	601.32	---	587.25	587.70
27	588.65	614.49	612.26	639.50	604.66	635.74	622.32	590.58	626.98	---	587.48	587.71
28	589.72	622.12	609.94	631.11	605.38	642.44	616.11	589.68	629.07	---	587.30	589.23
29	588.73	623.82	603.00	623.22	---	645.16	604.41	589.45	628.03	---	586.88	589.10
30	588.35	625.24	594.33	618.47	---	644.65	593.83	589.34	626.78	---	586.45	588.67
31	588.08	---	593.55	622.27	---	641.57	---	589.19	---	---	586.03	---
MEAN	594.07	599.93	600.64	662.24	613.10	620.92	615.47	603.37	595.55	---	---	588.67
MAX	615.65	625.24	627.39	714.25	630.37	645.16	641.75	641.67	629.07	---	---	603.25
MIN	587.92	588.13	592.40	591.07	591.25	594.24	593.45	589.19	588.17	---	---	584.74

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

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LOCATION.--Lat 42°32'08", long 77°42'16", Livingston County, Hydrologic Unit 04130002, on right bank on Poags Hole Road, 0.7 mi upstream from Stony Brook, and 1.7 mi south of Dansville.

DRAINAGE AREA.--88.9 mi².

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

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

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,340 ft³/s, Jan. 19, 1996, gage height, 8.50 ft, from rating curve extended above 1,400 ft³/s; minimum discharge, 6.7 ft³/s, Aug. 27, Sept. 7, 8, 1985.

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

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 8	0730	*5,290	*6.89	Apr. 20	0315	2,000	3.58
Feb. 28	2200	1,650	3.21	Apr. 23	1045	1,630	3.19
Mar. 26	1700	1,570	3.13	May 11	1515	2,140	3.72

Minimum discharge not determined.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94	30	241	101	112	546	156	99	57	92	e25	e16
2	93	216	202	136	118	205	156	103	43	52	e23	e15
3	86	150	186	208	109	187	158	306	45	41	e23	e14
4	79	136	191	580	95	183	147	198	40	43	e22	e14
5	91	130	187	431	88	178	135	135	37	74	e20	e13
6	85	115	174	309	74	172	126	98	36	46	e20	e13
7	80	102	160	288	74	159	115	89	35	40	e19	e25
8	78	96	150	2810	70	150	115	87	36	e900	e18	33
9	75	100	138	1550	68	163	268	94	33	e450	e18	32
10	55	89	124	587	69	159	270	133	31	e170	e23	e23
11	47	81	134	224	78	137	169	1080	38	e130	55	e19
12	40	77	138	202	126	107	127	734	38	e100	44	e17
13	36	72	133	197	121	104	104	327	115	e86	30	e16
14	32	73	127	174	77	101	95	231	110	e74	e24	e15
15	32	92	118	169	66	95	97	158	53	e66	33	e18
16	35	91	139	158	73	88	94	101	45	e62	e25	41
17	38	89	133	151	109	86	90	88	45	e52	e22	31
18	41	92	127	144	244	123	78	78	38	e46	e23	e23
19	36	97	125	136	198	180	97	70	32	e40	e28	e29
20	34	104	159	125	189	196	1170	65	31	e43	e23	45
21	30	116	148	108	185	174	215	65	31	e38	e21	e28
22	26	135	109	99	168	162	194	64	31	e50	e22	e29
23	24	137	158	101	160	136	194	60	44	e110	e22	e27
24	25	138	157	113	154	124	138	56	39	e50	e20	e25
25	25	131	193	99	150	127	110	55	31	e35	e28	e23
26	25	181	207	89	141	630	114	53	198	e30	e22	e22
27	27	298	200	82	137	388	117	51	72	e27	e19	e22
28	29	200	186	85	462	224	102	51	49	e23	e17	73
29	25	234	163	88	---	211	98	44	43	e25	e16	38
30	23	254	161	157	---	185	95	44	71	e30	e16	31
31	22	---	128	136	---	164	---	44	---	e27	e17	---
TOTAL	1468	3856	4896	9837	3715	5844	5144	4861	1547	3052	738	770
MEAN	47.4	129	158	317	133	189	171	157	51.6	98.5	23.8	25.7
MAX	94	298	241	2810	462	630	1170	1080	198	900	55	73
MIN	22	30	109	82	66	86	78	44	31	23	16	13
CFSM	.53	1.45	1.78	3.57	1.49	2.12	1.93	1.76	.58	1.11	.27	.29
IN.	.61	1.61	2.05	4.12	1.55	2.45	2.15	2.03	.65	1.28	.31	.32

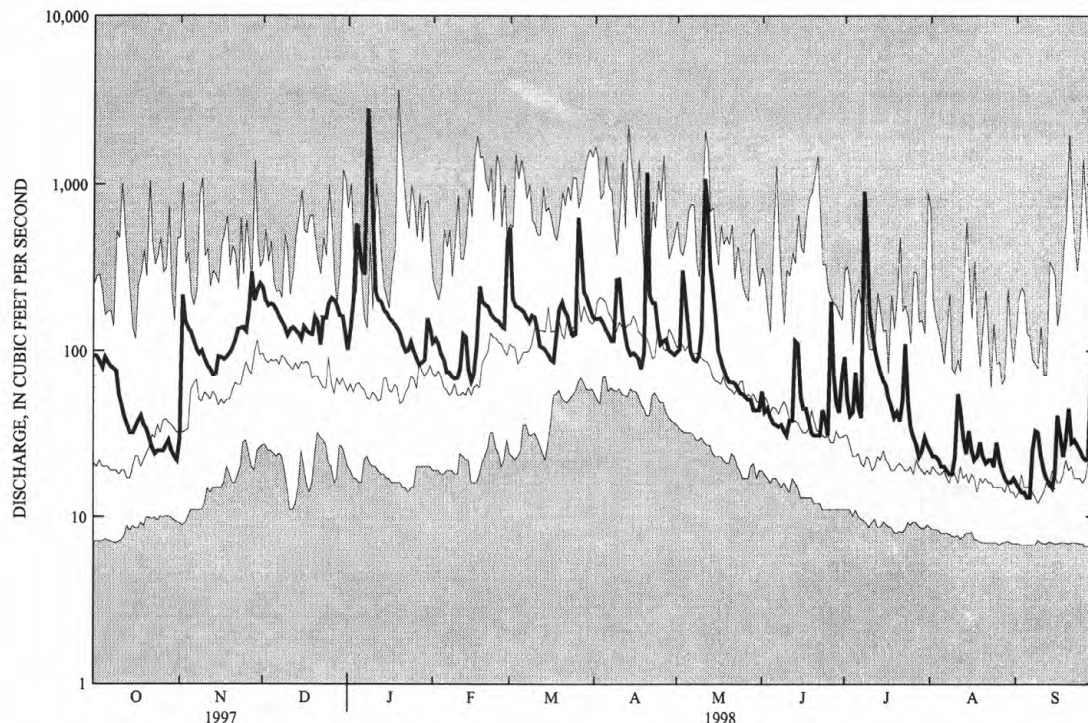
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STREAMS TRIBUTARY TO LAKE ONTARIO
04224775 CANASERAGA CREEK ABOVE DANSVILLE, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1998, BY WATER YEAR (WY)

MEAN	55.2	95.1	113	113	134	205	207	120	67.5	39.7	29.4	41.9
MAX	175	194	252	411	432	419	519	327	270	128	77.1	331
(WY)	1991	1993	1978	1996	1976	1979	1993	1996	1989	1992	1992	1977
MIN	10.7	19.5	38.9	24.4	31.4	70.6	81.8	26.2	16.8	10.8	7.52	6.83
(WY)	1984	1992	1989	1984	1980	1984	1981	1985	1991	1985	1985	1995

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1974 - 1998	
ANNUAL TOTAL	32933		45728		101	
ANNUAL MEAN	90.2		125		154	
HIGHEST ANNUAL MEAN					65.5	
LOWEST ANNUAL MEAN					1985	
HIGHEST DAILY MEAN	1000	Feb 27	2810	Jan 8	3680	Jan 19 1996
LOWEST DAILY MEAN	13	Aug 10	13	Sep 5	6.6	Sep 26 1995
ANNUAL SEVEN-DAY MINIMUM	14	Aug 27	15	Aug 31	6.7	Sep 2 1995
INSTANTANEOUS PEAK FLOW					7340	Jan 19 1996
INSTANTANEOUS PEAK STAGE					8.50	Jan 19 1996
ANNUAL RUNOFF (CFSM)	1.01		1.41		1.14	
ANNUAL RUNOFF (INCHES)	13.78		19.13		15.46	
10 PERCENT EXCEEDS	169		201		217	
50 PERCENT EXCEEDS	79		91		54	
90 PERCENT EXCEEDS	16		23		13	



CURRENT WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

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

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

DRAINAGE AREA.--335 mi².

WATER-DISCHARGE RECORDS

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

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

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,270 ft³/s, Mar. 4, 1976, gage height 13.33 ft; maximum gage height 23.62 ft, present datum, May 17, 1916 (backwater from Genesee River); minimum discharge, 4.3 ft³/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 ft³/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 ft³/s and maximum (*):

Discharge				Gage Height				Discharge				Gage Height			
Date	Time	(ft ³ /s)	(ft)	Date	Time	(ft ³ /s)	(ft)	Date	Time	(ft ³ /s)	(ft)	Date	Time	(ft ³ /s)	(ft)
Jan. 9	1400	*5,280	*12.77	Apr. 20	0800	3,500	10.80								
Mar. 1	0500	3,370	10.60	May 11	1730	3,400	10.67								
Mar. 26	2000	3,160	10.30	July 8	2030	4,020	11.36								

Minimum discharge, 54 ft³/s, Sept. 5, 6, 7, gage height, 3.62 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	754	80	951	e190	469	2700	455	308	227	327	103	60
2	381	791	599	e300	475	1630	492	352	157	163	94	58
3	263	904	454	671	439	1180	466	1010	157	106	94	59
4	205	417	498	1500	395	831	469	642	137	174	88	59
5	514	304	489	1380	349	631	431	511	125	720	83	55
6	326	235	418	1150	278	542	395	409	118	258	83	54
7	211	203	371	1120	279	491	337	388	112	244	79	120
8	172	196	339	4340	253	469	318	339	119	2240	75	132
9	146	207	313	5150	255	715	575	395	110	2770	74	133
10	137	191	289	4130	252	749	1400	462	103	1560	81	101
11	125	168	275	2690	287	440	662	2200	125	1030	232	78
12	113	156	327	1950	430	341	489	2410	134	600	178	70
13	103	145	309	1660	451	361	415	1370	254	346	117	65
14	95	136	307	1270	e260	355	364	808	500	234	91	62
15	90	180	256	1020	e200	339	400	499	218	237	114	59
16	84	195	347	837	e240	309	428	339	193	203	98	87
17	80	194	373	671	353	314	398	288	316	167	87	114
18	81	203	348	635	1560	440	346	275	179	148	91	80
19	82	218	337	540	1400	690	334	252	136	132	106	146
20	78	258	509	493	1040	791	2900	247	120	138	88	330
21	78	311	449	441	821	761	1880	216	113	164	78	136
22	79	628	285	428	650	727	1160	202	101	128	78	97
23	82	594	460	414	593	649	720	191	168	420	77	98
24	82	599	518	451	577	590	525	177	218	300	75	92
25	82	395	1040	421	629	638	370	171	127	195	95	80
26	83	583	1190	357	756	1960	334	173	1170	165	80	77
27	88	1480	754	301	680	2020	403	158	667	126	71	77
28	90	847	550	230	1140	1160	325	145	322	108	64	299
29	83	862	415	345	--	988	318	142	241	122	62	142
30	79	810	e350	915	--	740	302	167	216	124	62	106
31	77	--	e250	616	--	542	--	143	--	114	63	--
TOTAL	4943	12490	14370	36616	15511	25093	18411	15389	6883	13763	2861	3126
MEAN	159	416	464	1181	554	809	614	496	229	444	92.3	104
MAX	754	1480	1190	5150	1560	2700	2900	2410	1170	2770	232	330
MIN	77	80	250	190	200	309	302	142	101	106	62	54
CFSM	.48	1.24	1.38	3.53	1.65	2.42	1.83	1.48	.68	1.33	.28	.31
IN.	.55	1.39	1.60	4.07	1.72	2.79	2.04	1.71	.76	1.53	.32	.35

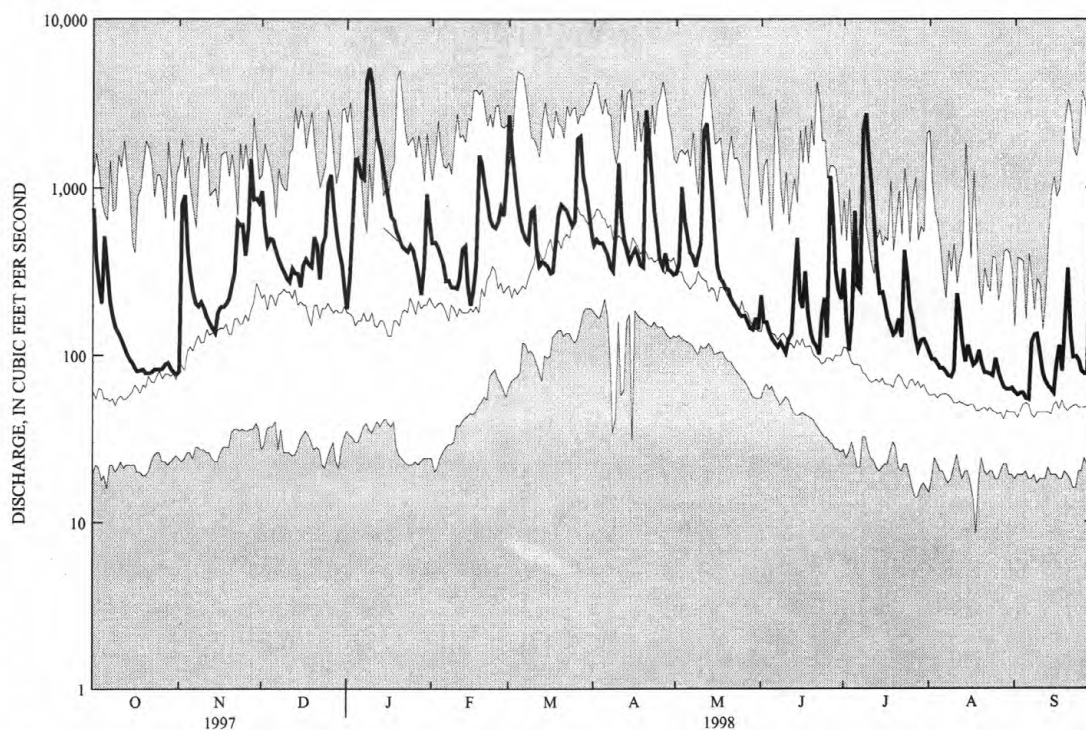
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STREAMS TRIBUTARY TO LAKE ONTARIO
04227000 CANASERAGA CREEK AT SHAKERS CROSSING, NY--continued

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

MEAN	150	234	315	325	407	667	664	354	208	114	83.5	108
MAX	601	647	906	1181	1452	1575	1537	1081	913	454	297	1162
(WY)	1978	1993	1978	1998	1976	1979	1993	1996	1989	1992	1992	1977
MIN	24.4	31.3	29.9	30.9	74.6	209	231	109	48.1	22.9	19.9	22.6
(WY)	1965	1965	1961	1961	1963	1965	1995	1995	1965	1965	1965	1965

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1959 - 1970 1975 - 1997	
ANNUAL TOTAL	116614		169456			
ANNUAL MEAN	319		464		303	
HIGHEST ANNUAL MEAN					464	
LOWEST ANNUAL MEAN					137	
HIGHEST DAILY MEAN	2380	Feb 28	5150	Jan 9	5150	Jan 9 1998
LOWEST DAILY MEAN	42	Aug 10	54	Sep 6	8.5	Aug 18 1970
ANNUAL SEVEN-DAY MINIMUM	45	Aug 27	58	Aug 31	15	Jul 26 1965
ANNUAL RUNOFF (CFSM)	.95		1.39		.90	
ANNUAL RUNOFF (INCHES)	12.95		18.82		12.28	
10 PERCENT EXCEEDS	704		1020		709	
50 PERCENT EXCEEDS	210		301		150	
90 PERCENT EXCEEDS	58		81		40	



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

STREAMS TRIBUTARY TO LAKE ONTARIO

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04227000 CANASERAGA CREEK AT SHAKERS CROSSING, NY--continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--1975-1977, 1997 to current year.

SEDIMENT DATA: 1975-1977.

PESTICIDE DATA: 1997-98 (d).

PERIOD OF DAILY RECORD.--

SEDIMENT: March 1975 to September 1977.

EXTREMES FOR PERIOD OF DAILY RECORD.--

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

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 35,900 tons, Mar. 4, 1976; minimum daily, 0.39 tons, Jan. 28, 1977.

REMARKS. --Samples were taken as part of a state-wide pesticide sampling network in cooperation with the New York State Department of Environmental Conservation. A complete list of compounds included when pesticide analyses were performed on samples appears following the introduction to the State-wide Monitoring of Pesticides in Surface Water of New York State section on page 302.

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)
OCT										
07...	1040	210	<.002	<.002	.036	E.008	<.001	<.002	<.002	<.003
DEC										
01...	1000	1030	<.002	<.002	.035	E.018	<.001	<.002	<.002	<.003
JAN										
09...	1450	5270	<.002	E.004	.053	E.020	<.001	<.002	<.002	<.003
FEB										
02...	1210	464	<.002	<.002	.030	E.016	<.001	<.002	<.002	<.003
APR										
06...	1200	398	<.002	<.002	.014	E.007	<.001	<.002	<.002	<.003
MAY										
18...	0830	254	<.002	<.002	.047	E.007	<.001	<.002	<.002	<.003
JUN										
09...	1040	109	<.002	E.004	.116	E.014	<.001	<.002	<.002	<.003
16...	1020	170	<.002	.390	1.66	E.086	<.001	<.002	<.002	<.003
23...	0940	106	<.002	.026	.526	E.042	<.001	<.002	<.002	E.006
26...	1200	2170	<.002	1.63	5.58	E.499	<.001	<.002	<.002	<.003
26...	1820	1850	<.002	.780	5.50	E.387	<.001	<.002	<.002	<.003
JUL										
08...	1740	3610	<.002	.104	.964	E.176	<.001	<.002	<.002	<.003
27...	1210	124	<.002	<.002	.208	E.045	<.001	<.002	<.002	<.003
AUG										
24...	1040	77.0	<.002	<.002	.039	E.009	<.001	<.002	<.002	<.003

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

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	P,P' DDE DISSOLV (UG/L) (34653)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)
OCT										
07...	<.003	<.004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	<.002
DEC										
01...	<.003	<.004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	<.002
JAN										
09...	<.003	<.004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	<.002
FEB										
02...	<.003	<.004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	<.002
APR										
06...	<.003	<.004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	<.002
MAY										
18...	<.003	<.004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	<.002
JUN										
09...	<.003	<.004	.021	<.002	<.006	<.002	<.001	<.003	<.017	E.003
16...	E.022	<.010	.099	<.002	<.006	<.002	<.001	<.003	<.017	.013
23...	<.003	<.004	.013	<.002	<.006	<.002	<.001	<.003	<.017	.030
26...	<.003	<.004	3.05	<.002	<.006	<.002	<.001	<.003	<.017	.222
26...	<.003	<.020	.166	<.002	<.006	E.004	<.001	<.003	<.017	.135
JUL										
08...	<.003	<.004	.099	<.002	<.006	<.002	<.001	<.003	<.017	.070
27...	<.003	<.004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	<.002
AUG										
24...	<.003	<.004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	<.002

DATE	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	LINDANE DIS- SOLVED (UG/L) (39341)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA- THON, DIS- SOLVED (UG/L) (39532)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)
OCT										
07...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.030	<.004	<.004
DEC										
01...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.036	<.004	<.004
JAN										
09...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.092	<.004	<.004
FEB										
02...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.105	<.004	<.004
APR										
06...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.012	<.004	<.004
MAY										
18...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.027	<.004	<.004
JUN										
09...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.079	<.004	<.004
16...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	1.75	<.004	<.004
23...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.451	.004	<.004
26...	.008	<.003	<.003	<.002	<.004	<.002	<.020	5.72	.066	<.004
26...	.010	<.003	<.003	<.002	<.004	<.010	<.010	4.98	.086	<.004
JUL										
08...	<.004	<.003	<.003	<.002	<.004	<.040	<.005	.937	.006	<.004
27...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.107	<.004	<.004
AUG										
24...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.025	<.004	<.004

STREAMS TRIBUTARY TO LAKE ONTARIO

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04227000 CANASERAGA CREEK AT SHAKERS CROSSING, NY--continued

WATER-QUALITY RECORDS

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PARA- THION, DIS- SOLVED (UG/L) (39542)	METHYL PARA- THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	FEB- ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROP- CHLOR, WATER, DISS, REC (UG/L) (04024)
OCT										
07...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	E.005	<.003	<.007
DEC										
01...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	E.002	<.003	<.007
JAN										
09...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
FEB										
02...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
APR										
06...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
MAY										
18...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
JUN										
09...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
16...	<.003	<.004	<.006	<.004	.062	<.005	<.002	<.018	<.003	<.007
23...	<.003	<.004	<.006	<.004	.017	<.005	<.002	E.003	<.003	<.007
26...	<.003	<.004	<.006	<.004	.054	<.005	<.002	E.003	<.003	<.007
26...	<.003	<.004	<.006	<.004	.051	<.005	<.002	E.005	<.003	<.007
JUL										
08...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	.019	<.003	<.007
27...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
AUG										
24...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007

DATE	PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)
OCT									
07...	<.004	<.013	E.005	<.010	<.007	<.013	<.002	<.001	<.002
DEC									
01...	<.004	<.013	E.003	<.010	<.007	<.013	<.002	<.001	<.002
JAN									
09...	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
FEB									
02...	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
APR									
06...	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
MAY									
18...	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
JUN									
09...	<.004	<.013	.008	<.010	<.007	<.013	<.002	<.001	<.002
16...	<.004	<.013	.009	<.010	<.007	<.013	<.002	<.001	<.002
23...	<.004	<.013	.005	<.010	<.007	<.013	<.002	<.001	<.002
26...	<.004	<.013	.023	<.010	<.007	<.013	<.002	<.001	.004
26...	<.004	<.013	.032	<.010	<.007	<.013	<.002	<.001	E.001
JUL									
08...	<.004	<.013	.008	<.010	<.007	<.013	<.002	<.001	<.002
27...	<.004	<.013	.012	<.010	<.007	<.013	<.002	<.001	<.002
AUG									
24...	<.004	<.013	E.003	<.010	<.007	<.013	<.002	<.001	<.002

E Estimated

STREAMS TRIBUTARY TO LAKE ONTARIO

04227500 GENESEE RIVER NEAR MOUNT MORRIS, NY

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

DRAINAGE AREA.--1,424 mi².

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

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

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 55,100 ft³/s, May 17, 1916, gage height, 25.44 ft; maximum gage height, 25.80 ft, present datum, Mar. 13, 1920 (ice jam); minimum discharge, 18 ft³/s, Aug. 29, 1909. Maximum discharge since construction of Mt. Morris Reservoir in November 1951, 17,800 ft³/s, June 23, 1972, gage height, 24.50 ft, minimum discharge, 12 ft³/s, July 23, 1955, gage height, 0.22 ft, partially obstructed intake.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,310 ft³/s, Jan. 18, gage height, 14.88 ft; minimum discharge, 70 ft³/s, Sep. 18, gage height, 1.77 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3510	409	4580	e1150	531	5940	5720	1640	978	2640	394	169
2	3230	2160	5140	1360	565	5540	5550	1630	834	2970	354	190
3	2870	3570	4560	2220	1270	5330	5230	2660	725	3470	327	187
4	1730	3160	3790	3980	2750	5840	4880	2860	888	4010	307	154
5	1710	2870	3580	3690	2930	5430	4060	2770	638	4470	292	146
6	1920	2280	3060	2040	2590	4980	3020	2510	582	3710	293	160
7	1400	1310	2510	2020	1650	4400	1780	2360	540	3180	289	279
8	932	1260	1890	5430	595	3210	1510	1920	478	3170	253	358
9	768	1450	1770	6000	509	3050	1900	2070	472	3320	240	319
10	694	1570	1700	4440	2180	3640	4110	2250	457	1910	230	277
11	645	1310	1560	e2700	2990	3620	4110	4200	460	1820	543	251
12	575	1170	1660	e3050	2200	e2300	4110	4920	507	2850	618	206
13	526	1070	1560	6400	2080	e1900	3850	3850	748	4170	465	188
14	1110	1040	1540	7150	e1450	1700	3490	4040	1270	5830	337	176
15	778	1110	1390	7100	e1000	1320	2860	5550	800	6520	440	137
16	569	1200	1550	7830	e1000	1140	2270	6150	646	5470	541	99
17	1920	1180	1540	8700	1260	1150	2040	5730	765	1080	392	123
18	1230	1190	1480	9250	3720	1290	1790	4730	599	795	355	219
19	1100	1270	1410	9190	4280	1580	1600	3350	555	634	389	532
20	1080	1380	1690	8940	4160	2130	5190	1700	511	602	372	613
21	1060	1520	1720	8650	3960	2930	4410	1160	429	640	288	329
22	1060	2240	1350	8520	3730	3240	4180	1010	379	698	262	274
23	1050	2560	1540	8480	3560	3970	4580	916	462	1300	250	242
24	539	2610	1870	8290	3410	4960	4750	838	574	1570	232	223
25	414	2160	2680	8270	3270	5210	5480	785	1010	973	277	206
26	401	2110	3670	8060	3240	5440	5200	885	2300	708	254	197
27	475	4050	3400	7530	3020	3680	4920	849	1960	556	258	194
28	718	3860	3100	6440	3350	2530	4440	690	1980	481	247	569
29	535	3900	2680	4720	---	3250	3470	630	2210	470	215	451
30	462	3910	1850	3110	---	4990	1760	665	2160	478	211	344
31	420	---	e1500	734	---	5460	---	583	---	433	194	---
TOTAL	35431	60879	73320	175444	67250	111150	112260	75901	26917	70928	10119	7812
MEAN	1143	2029	2365	5659	2402	3585	3742	2448	897	2288	326	260
MAX	3510	4050	5140	9250	4280	5940	5720	6150	2300	6520	618	613
MIN	401	409	1350	734	509	1140	1510	583	379	433	194	99

e Estimated

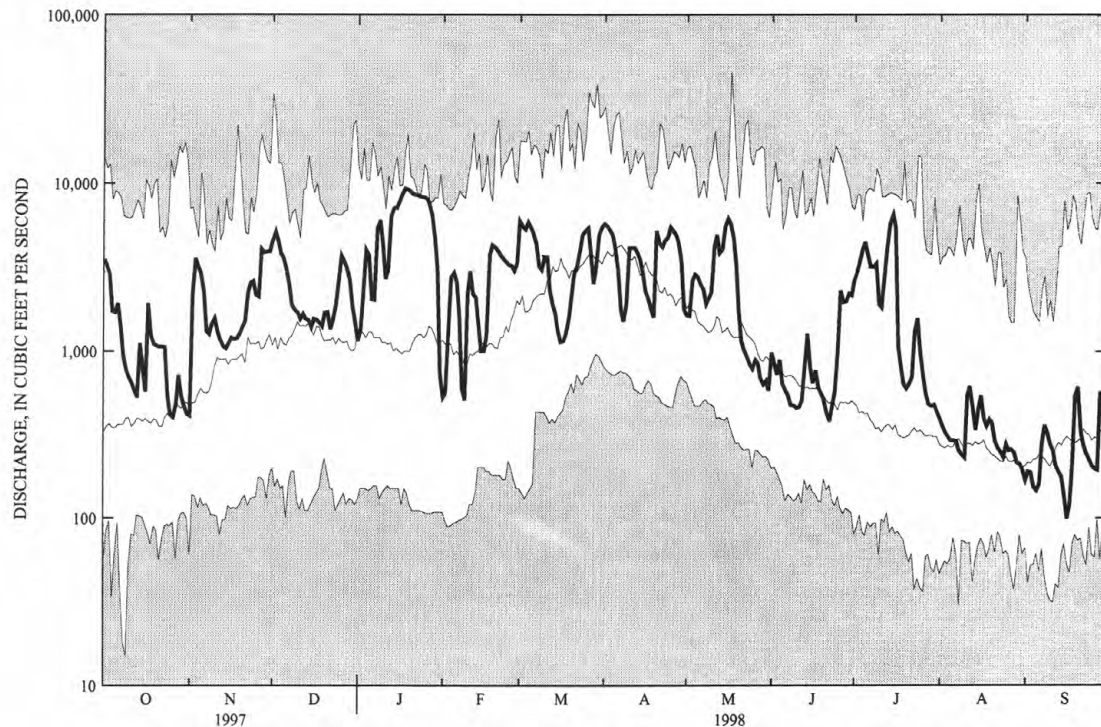
STREAMS TRIBUTARY TO LAKE ONTARIO
04227500 GENESEE RIVER NEAR MOUNT MORRIS, NY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 1998, BY WATER YEAR (WY)

MEAN	964	1498	2058	1861	2024	3792	4111	2154	1205	756	455	551
MAX	4743	3720	5369	5659	5106	7755	7270	5677	4305	6801	2205	4130
(WY)	1978	1968	1973	1998	1990	1976	1978	1996	1989	1972	1977	1977
MIN	107	152	280	135	383	1365	1464	477	191	87.6	118	99.2
(WY)	1961	1965	1961	1961	1958	1960	1995	1955	1955	1955	1965	1995

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1952 - 1998	
ANNUAL TOTAL	667687		827411			
ANNUAL MEAN	1829		2267		1783	
HIGHEST ANNUAL MEAN					2601	
LOWEST ANNUAL MEAN					1057	
HIGHEST DAILY MEAN	7530	Mar 10	9250	Jan 18	16500	Jun 24 1972
LOWEST DAILY MEAN	187	Sep 2	99	Sep 16	15	Oct 9 1980
ANNUAL SEVEN-DAY MINIMUM	219	Aug 27	164	Sep 12	57	Jul 27 1955
10 PERCENT EXCEEDS	4570		5200		4800	
50 PERCENT EXCEEDS	1310		1630		978	
90 PERCENT EXCEEDS	281		289		187	



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

DRAINAGE AREA. - - 69.8 mi².

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

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

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

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

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

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 819.37 ft, Mar. 1; minimum, 816.83 ft, Jan. 29.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	817.73	817.49	818.09	817.59	817.11	819.30	818.69	818.52	818.46	818.60	818.56	818.21
2	817.73	817.59	818.07	817.54	817.16	819.30	818.73	818.52	818.46	818.54	818.54	818.19
3	817.73	817.63	818.10	817.54	817.21	819.09	818.74	818.57	818.47	818.48	818.52	818.16
4	817.72	817.64	818.02	817.61	817.26	818.86	818.75	818.60	818.45	818.48	818.50	818.14
5	817.80	817.64	818.07	817.65	817.30	818.68	818.74	818.63	818.43	818.58	818.49	818.12
6	817.82	817.63	818.01	817.63	817.33	818.58	818.73	818.65	818.41	818.59	818.49	818.10
7	817.82	817.62	817.99	817.62	817.35	818.50	818.71	818.66	818.39	818.61	818.47	818.18
8	817.82	817.61	817.96	818.34	817.37	818.51	818.70	818.68	818.38	818.81	818.46	818.20
9	817.81	817.60	817.95	819.00	817.45	818.57	818.73	818.69	818.36	819.00	818.44	818.19
10	817.80	817.58	817.95	819.06	817.44	818.63	818.79	818.71	818.35	818.90	818.43	818.17
11	817.78	817.56	817.96	818.90	817.42	818.64	818.78	818.84	818.36	818.72	818.44	818.15
12	817.77	817.54	817.93	818.69	817.49	818.63	818.73	818.86	818.38	818.57	818.42	818.14
13	817.76	817.51	817.89	818.48	817.56	818.63	818.68	818.75	818.44	818.58	818.40	818.12
14	817.74	817.57	817.85	818.26	817.60	818.63	818.65	818.62	818.56	818.60	818.38	818.11
15	817.72	817.59	817.81	818.06	817.62	818.62	818.64	818.55	818.56	818.61	818.38	818.11
16	817.71	817.60	817.73	817.90	817.64	818.60	818.64	818.54	818.58	818.62	818.36	818.12
17	817.69	817.60	817.66	817.72	817.69	818.58	818.63	818.54	818.64	818.61	818.36	818.11
18	817.68	817.60	817.58	817.57	817.87	818.59	818.61	818.52	818.67	818.61	818.39	818.10
19	817.66	817.60	817.48	817.44	818.06	818.62	818.59	818.52	818.68	818.60	818.38	818.10
20	817.65	817.60	817.44	817.31	818.21	818.68	818.76	818.52	818.69	818.61	818.36	818.14
21	817.63	817.61	817.46	817.20	818.32	818.78	818.82	818.50	818.70	818.61	818.34	818.13
22	817.61	817.67	817.48	817.09	818.40	818.81	818.80	818.48	818.70	818.59	818.32	818.12
23	817.59	817.72	817.52	817.06	818.47	818.80	818.76	818.46	818.70	818.66	818.31	818.12
24	817.57	817.76	817.56	817.04	818.56	818.73	818.71	818.45	818.69	818.66	818.30	818.10
25	817.55	817.78	817.65	817.00	818.65	818.65	818.65	818.44	818.68	818.66	818.32	818.08
26	817.54	817.81	817.73	816.96	818.72	818.69	818.60	818.43	818.78	818.66	818.31	818.07
27	817.55	817.89	817.74	816.91	818.81	818.77	818.57	818.42	818.78	818.63	818.29	818.08
28	817.53	817.95	817.73	816.87	818.93	818.72	818.55	818.42	818.72	818.60	818.28	818.07
29	817.51	817.99	817.69	816.85	--	818.70	818.52	818.42	818.66	818.60	818.27	818.06
30	817.50	818.05	817.68	816.96	--	818.67	818.51	818.43	818.62	818.60	818.25	818.05
31	817.49	--	817.64	817.05	--	818.65	--	818.45	--	818.58	818.23	--
MEAN	817.68	817.67	817.79	817.64	817.82	818.72	818.68	818.56	818.56	818.63	818.39	818.12
MAX	817.82	818.05	818.10	819.06	818.93	819.30	818.82	818.86	818.78	819.00	818.56	818.21
MIN	817.49	817.49	817.44	816.85	817.11	818.50	818.51	818.42	818.35	818.48	818.23	818.05
CAL YR 1997	MEAN	818.18	MAX	819.17	MIN	817.44						
WTR YR 1998	MEAN	818.19	MAX	819.30	MIN	816.85						

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

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

DRAINAGE AREA.--69.8 mi².

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

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,030 ft³/s, May 12, 1996, gage height, 5.55 ft; minimum discharge, 3.9 ft³/s, June 13, 1998, gage height, 0.36 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 708 ft³/s, Jan. 9, gage height, 4.51 ft; minimum discharge, 3.9 ft³/s, June 13, gage height, 0.36 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.9	18	90	114	6.4	223	40	58	20	117	16	14
2	9.7	53	88	117	7.0	520	78	41	20	116	17	14
3	9.7	72	88	126	6.7	630	70	33	19	89	24	14
4	9.6	40	89	142	5.4	561	70	33	19	38	9.8	14
5	15	40	89	189	5.1	371	73	32	19	38	9.7	14
6	21	41	88	253	8.3	280	80	33	18	37	9.8	14
7	20	41	88	328	10	188	79	32	18	38	9.6	16
8	20	41	87	587	13	76	80	35	18	240	12	15
9	20	41	87	666	13	88	86	35	20	495	11	15
10	20	41	86	675	13	67	128	36	21	496	11	15
11	20	41	86	628	14	70	147	222	13	443	11	14
12	19	39	86	577	17	65	145	359	5.7	222	11	14
13	19	33	86	523	15	64	132	347	63	10	11	16
14	19	15	85	465	14	75	93	288	139	9.8	11	11
15	19	14	109	423	13	76	94	122	39	9.9	11	10
16	19	15	188	383	13	77	94	54	8.4	10	14	11
17	19	14	183	343	17	75	94	54	7.5	10	12	10
18	19	14	177	308	25	77	93	50	6.9	10	13	10
19	18	14	174	277	24	83	108	27	6.8	11	12	11
20	17	15	118	249	20	82	229	26	9.0	11	12	11
21	17	19	37	223	18	116	220	26	8.9	10	12	10
22	17	21	36	163	16	147	217	25	17	10	13	11
23	17	19	39	121	16	185	186	25	27	52	10	10
24	17	16	38	121	17	252	169	25	27	11	10	9.9
25	16	14	100	118	22	255	168	19	27	11	11	9.9
26	17	16	140	116	24	267	129	11	136	11	10	9.9
27	17	15	138	114	24	356	96	10	240	58	10	10
28	16	14	137	112	44	282	96	8.7	145	10	10	9.9
29	16	13	135	58	---	221	70	6.2	141	10	15	9.9
30	16	41	134	16	---	186	57	5.4	118	10	15	9.9
31	16	---	132	8.2	---	80	---	16	---	10	14	---
TOTAL	524.9	830	3238	8543.2	440.9	6095	3421	2094.3	1377.2	2653.7	377.9	363.4
MEAN	16.9	27.7	104	276	15.7	197	114	67.6	45.9	85.6	12.2	12.1
MAX	21	72	188	675	44	630	229	359	240	496	24	16
MIN	9.6	13	36	8.2	5.1	64	40	5.4	5.7	9.8	9.6	9.9

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

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 1998, BY WATER YEAR (WY)

MEAN	24.7	85.0	122	157	14.2	171	125	133	51.3	42.5	11.9	17.4
MAX	32.4	142	140	276	15.7	197	169	254	63.3	85.6	12.6	23.7
(WY)	1997	1997	1997	1998	1998	1998	1996	1996	1997	1998	1996	1996
MIN	16.9	27.7	104	39.1	12.6	146	93.1	67.6	44.9	15.7	10.8	12.1
(WY)	1998	1998	1998	1997	1997	1997	1997	1998	1996	1997	1997	1998

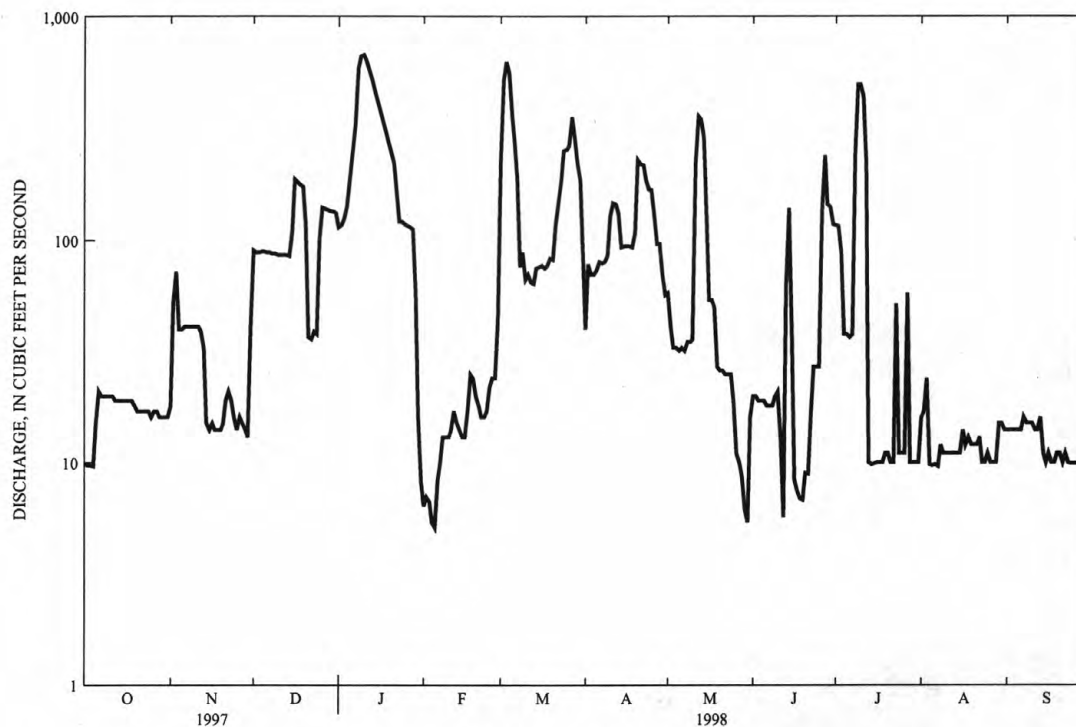
SUMMARY STATISTICS

FOR 1997 CALENDAR YEAR

FOR 1998 WATER YEAR

WATER YEARS 1996 - 1998

ANNUAL TOTAL	19140.9	29959.5	
ANNUAL MEAN	52.4	82.1	74.1
HIGHEST ANNUAL MEAN			82.1 1998
LOWEST ANNUAL MEAN			66.2 1997
HIGHEST DAILY MEAN	340 Jun 2	675 Jan 10	997 May 12 1996
LOWEST DAILY MEAN	5.5 Jun 21	5.1 Feb 5	5.1 Feb 5 1998
ANNUAL SEVEN-DAY MINIMUM	8.5 Aug 10	6.7 Jan 31	6.7 Jan 31 1998
10 PERCENT EXCEEDS	137	222	217
50 PERCENT EXCEEDS	20	25	24
90 PERCENT EXCEEDS	9.2	10	9.9



1998 WATER YEAR DAILY DISCHARGE.

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

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

DRAINAGE AREA.--1,673 mi².

WATER-DISCHARGE RECORDS

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

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

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

REMARKS.--No estimated daily discharges. Records good. Diurnal fluctuation at low flow caused by powerplant. Flow regulated to some extent by Rushford Lake, at high flows by Mount Morris Lake (see station 04224000), and by Conesus Lake (see station 04227980). Monthly figures of discharge and runoff August 1955 to September 1965 adjusted for change in contents in Rushford Lake and Mount Morris Lake. Telephone gage-height telemeter and satellite gage-height and precipitation telemeter at station. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,500 ft³/s, June 25, 1972, gage height 40.67 ft; minimum discharge, 47 ft³/s, Oct. 10-11, 1980, gage height, 13.70 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,300 ft³/s, Jan. 9, gage height 36.30 ft; minimum discharge, 140 ft³/s, Sep. 19, gage height, 14.06 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

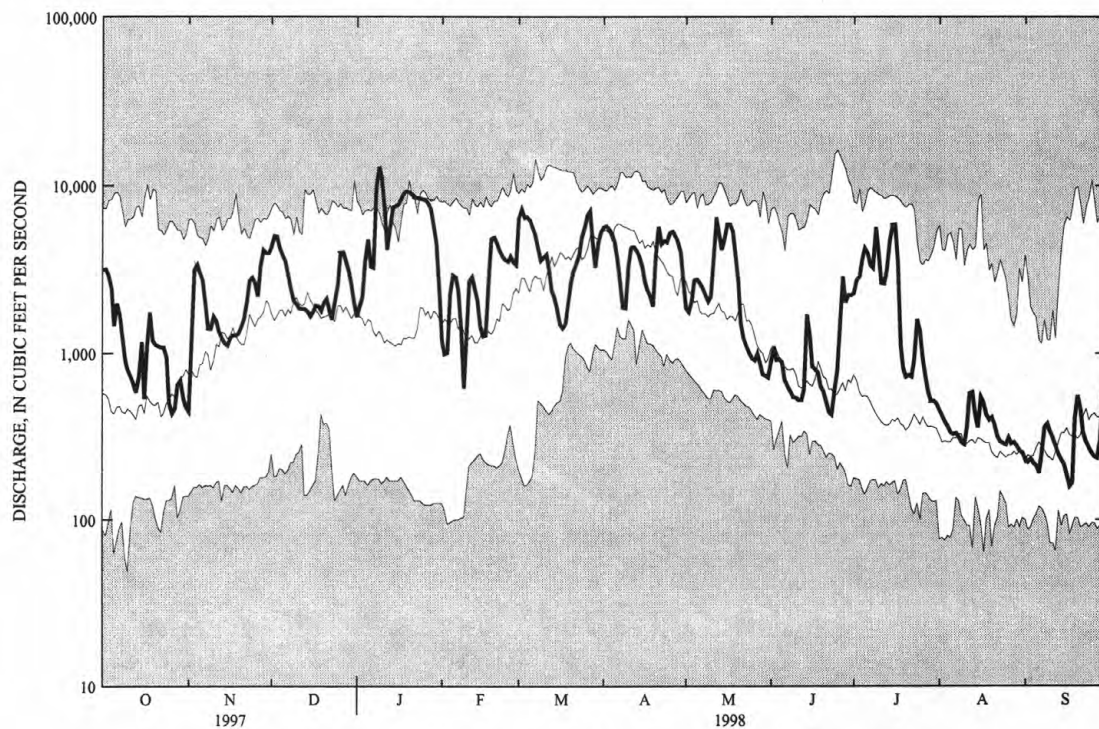
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3140	446	4340	1650	1170	6430	5690	1850	887	2270	456	230
2	3160	941	5010	1920	989	7260	5740	1760	1090	2740	420	222
3	2880	3150	4960	2160	1010	6420	5470	2050	912	2870	388	232
4	2440	3360	4190	3520	2240	6480	5130	2730	920	3610	364	219
5	1450	3010	3810	4760	2910	6240	4630	2750	885	4210	337	212
6	1970	2680	3520	3290	2830	5600	3640	2610	689	3950	326	190
7	1700	1920	2920	3230	2350	5030	2610	2430	632	3340	332	249
8	1260	1400	2430	9850	1390	4220	1870	2200	590	3220	315	360
9	917	1390	2060	13000	618	3580	1850	2030	545	5630	292	377
10	790	1650	1950	11000	1170	3730	3370	2190	540	3910	283	338
11	724	1540	1840	7180	2690	3900	4290	3680	522	2620	357	306
12	651	1330	1830	4150	2840	3180	4310	6450	523	2590	575	277
13	583	1220	1830	5650	2400	2330	4090	5200	611	3120	586	247
14	726	1140	1770	7440	2060	2140	3730	4140	1700	4640	424	228
15	1160	1110	1660	7530	1440	1820	3300	4830	1280	5820	357	216
16	531	1240	1760	7750	1260	1480	2680	5860	834	5850	544	184
17	1090	1270	1910	8450	1280	1410	2350	5870	798	3460	499	159
18	1740	1270	1890	9010	2730	1500	2140	5300	762	1110	429	167
19	1180	1320	1790	9290	4830	2010	1900	3880	632	813	400	407
20	1120	1440	1990	9130	4900	2610	3810	2730	593	724	413	558
21	1100	1600	2110	8830	4470	3090	5680	1510	515	739	369	457
22	1080	2040	1790	8560	4080	3420	4510	1220	444	724	314	331
23	1080	2700	1590	8430	3770	3890	4690	1090	428	915	294	292
24	945	2820	2030	8370	3590	4910	4600	1010	596	1590	288	267
25	501	2600	2550	8310	3510	5640	5220	936	793	1350	283	252
26	435	2170	3970	8190	3760	6690	5330	907	1370	913	310	238
27	467	3280	3990	7800	3490	7090	4980	1000	2860	727	287	234
28	649	4120	3540	7160	3360	4420	4630	879	2010	596	292	296
29	690	3950	3100	5620	---	3250	4040	747	2220	516	277	559
30	540	3950	2540	4490	---	4570	2670	734	2210	519	259	402
31	475	---	1990	2450	---	5350	---	715	---	497	254	---
TOTAL	37174	62057	82660	208170	73137	129690	118950	81288	29391	75583	11324	8706
MEAN	1199	2069	2666	6715	2612	4184	3965	2622	980	2438	365	290
MAX	3160	4120	5010	13000	4900	7260	5740	6450	2860	5850	586	559
MIN	435	446	1590	1650	618	1410	1850	715	428	497	254	159

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

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 1998, BY WATER YEAR (WY)

MEAN	1062	1656	2303	2097	2297	4153	4572	2384	1338	857	512	599
MAX	5146	3756	5942	6715	6036	8916	7846	6516	4906	7032	2408	4569
(WY)	1978	1997	1973	1998	1990	1956	1993	1996	1989	1972	1992	1977
MIN	145	182	325	155	397	1813	1672	613	334	172	142	111
(WY)	1964	1965	1961	1961	1958	1960	1995	1985	1991	1962	1965	1955

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1955 - 1998	
ANNUAL TOTAL	720527		918130			
ANNUAL MEAN	1974		2515		1984	
HIGHEST ANNUAL MEAN					2846	
LOWEST ANNUAL MEAN					1130	
HIGHEST DAILY MEAN	8580	Mar 11	13000	Jan 9	16200	Jun 25 1972
LOWEST DAILY MEAN	242	Aug 12	159	Sep 17	49	Oct 10 1980
ANNUAL SEVEN-DAY MINIMUM	270	Aug 28	211	Sep 12	88	Aug 1 1955
10 PERCENT EXCEEDS	4780		5630		5400	
50 PERCENT EXCEEDS	1450		1900		1100	
90 PERCENT EXCEEDS	319		332		221	



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

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

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WATER-QUALITY RECORDS

PERIOD OF RECORD.--1975-1977, 1997 to current year.

SEDIMENT DATA: 1975-1977.

PESTICIDE DATA: 1997-98 (d).

PERIOD OF DAILY RECORD.--

SEDIMENT: April 1975 to September 1977.

EXTREMES FOR PERIOD OF DAILY RECORD.--

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

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

REMARKS. --Samples were taken as part of a state-wide pesticide sampling network in cooperation with the New York State Department of Environmental Conservation. A complete list of compounds included when pesticide analyses were performed on samples appears following the introduction to the State-wide Monitoring of Pesticides in Surface Water of New York State section on page 302. Additional water-quality data available from New York State Department of Environmental Conservation.

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	DEETHYL METHYL AZIN- FLUR- ALIN WAT FLT WAT FLD 0.7 U 0.7 U GF, REC (UG/L) (04040)	BEN- FLUR- ALIN WAT FLD 0.7 U 0.7 U GF, REC (UG/L) (82686)	BUTYL- ATE, WATER, DISS, REC (UG/L) (82673)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (04028)	(82680)
OCT										
07...	1150	1700	<.002	E.004	.076	E.023	<.001	<.002	<.002	<.003
DEC										
01...	0900	4290	<.002	E.003	.030	E.021	<.001	<.002	<.002	<.003
JAN										
09...	1310	13100	<.002	.009	.115	E.045	<.001	<.002	<.002	<.003
FEB										
02...	1130	993	<.002	<.002	.048	E.023	<.001	<.002	<.002	<.003
APR										
06...	1040	3690	<.002	<.002	.018	E.010	<.001	<.002	<.002	<.003
MAY										
18...	1230	5360	<.002	<.002	.034	E.012	<.001	<.002	<.002	<.003
JUN										
09...	1220	542	<.002	.007	.198	E.021	<.001	<.002	<.002	<.003
16...	1100	836	<.002	.328	1.87	E.093	<.001	<.002	<.002	<.003
23...	1040	423	<.002	.020	.481	E.040	<.001	<.002	<.002	<.003
26...	1940	2000	<.002	.071	.951	E.084	<.001	<.002	<.002	<.003
JUL										
09...	1600	5680	<.002	.111	1.61	E.313	<.001	<.002	<.002	<.003
27...	1350	680	<.002	<.002	.147	E.031	<.001	<.002	<.002	<.003
AUG										
24...	1220	291	<.002	<.002	.044	E.014	<.001	<.002	<.002	<.003

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

WATER-QUALITY RECORDS

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	P,P' DDE DISSOLV (UG/L) (34653)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)
OCT										
07...	<.003	<.004	.007	<.002	E.001	<.002	<.001	<.003	<.017	<.002
DEC										
01...	<.003	<.004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	E.001
JAN										
09...	<.003	<.004	.008	<.002	<.006	<.002	<.001	<.003	<.017	.006
FEB										
02...	E.0091	<.004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	<.002
APR										
06...	<.003	<.004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	<.002
MAY										
18...	<.003	<.004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	<.002
JUN										
09...	<.003	<.004	.024	<.002	<.006	<.002	<.001	<.003	<.017	.009
16...	E.136	<.010	.216	<.002	<.006	<.002	<.001	<.003	<.017	.056
23...	<.003	<.004	.010	<.002	<.006	<.002	<.001	<.003	<.017	.033
26...	<.003	<.010	.197	<.002	<.006	<.002	<.001	<.003	<.017	.062
JUL										
09...	E.255	<.004	.195	<.002	<.006	<.002	<.001	<.003	<.017	.056
27...	<.003	<.004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	.007
AUG										
24...	<.003	<.004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	<.002
DATE	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	LINDANE DIS- SOLVED (UG/L) (39341)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA- THION, DIS- SOLVED (UG/L) (39532)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)
OCT										
07...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.072	<.004	<.004
DEC										
01...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.042	<.004	<.004
JAN										
09...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.162	<.004	<.004
FEB										
02...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.098	<.004	<.004
APR										
06...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.012	<.004	<.004
MAY										
18...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.036	<.004	<.004
JUN										
09...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.148	<.004	<.004
16...	E.004	<.003	<.003	<.002	<.004	<.002	<.005	1.82	.062	<.004
23...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.445	<.004	<.004
26...	<.004	<.003	<.003	<.002	<.004	<.002	<.010	.725	.008	<.004
JUL										
09...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	2.32	.010	<.004
27...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.081	<.004	<.004
AUG										
24...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.030	<.004	<.004

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

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WATER-QUALITY RECORDS

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PARA- THION, DIS- SOLVED (UG/L) (39542)	METHYL PARA- THION WAT FLT (UG/L) (82667)	PEB- ULATE WATER FILTRD (UG/L) (82669)	PENDI- METH- ALIN WAT FLT (UG/L) (82683)	PER- METHRIN CIS WAT FLT (UG/L) (82687)	PHORATE WATER FLTRD (UG/L) (82664)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	PRON- AMIDE WATER FLTRD (UG/L) (82676)	PROP- CHLOR, WATER, DISS, REC (UG/L) (04024)
OCT 07...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	E.008	<.003	<.007
DEC 01...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	E.002	<.003	<.007
JAN 09...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	E.003	<.003	<.007
FEB 02...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
APR 06...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
MAY 18...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	E.006	<.003	<.007
JUN 09...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	E.006	<.003	<.007
16...	<.003	<.004	<.006	<.004	.064	<.005	<.002	E.006	<.003	<.007
23...	<.003	<.004	<.006	<.004	.017	<.005	<.002	E.004	<.003	<.007
26...	<.003	<.004	<.006	<.004	.017	<.005	<.002	E.004	<.003	<.007
JUL 09...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	E.008	<.003	<.007
27...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
AUG 24...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	E.002	<.003	<.007

DATE	PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI- FLUR- ALIN WAT FLT (UG/L) (82661)
OCT 07...	<.004	<.013	.036	<.010	<.007	<.013	<.002	<.001	.005
DEC 01...	<.004	<.013	.006	<.010	<.007	<.013	<.002	<.001	<.002
JAN 09...	<.004	<.013	.007	<.010	<.007	<.013	<.002	<.001	<.002
FEB 02...	<.004	<.013	E.004	<.010	<.007	<.013	<.002	<.001	<.002
APR 06...	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
MAY 18...	<.004	<.013	.020	<.010	<.007	<.013	<.002	<.001	<.002
JUN 09...	<.004	<.013	.010	<.010	<.007	<.013	<.002	<.001	<.002
16...	<.004	<.013	.012	<.010	<.007	<.013	<.002	<.001	<.002
23...	<.004	<.013	.005	<.010	<.007	<.013	<.002	<.001	<.002
26...	<.004	<.013	.008	<.010	<.007	<.013	<.002	<.001	<.002
JUL 09...	<.004	<.013	.033	<.010	<.007	<.013	<.002	<.001	<.002
27...	<.004	<.013	.008	<.010	<.007	<.013	<.002	<.001	<.002
AUG 24...	<.004	<.013	.007	<.010	<.007	<.013	<.002	<.001	<.002

E Estimated

STREAMS TRIBUTARY TO LAKE ONTARIO
04229500 HONEOYE CREEK AT HONEOYE FALLS, NY

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

DRAINAGE AREA.--196 mi².

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 sea level. Prior to Sept. 30, 1970, water-stage recorder at same site at datum 609.76 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Outlet of Honeoye Lake not controlled. Some diversion from, and regulation of Hemlock and Canadice Lakes for water supply of city of Rochester. Diurnal fluctuation at low flow caused by mills upstream from station. Prior to 1967 water year, published monthly figures adjusted for change in contents in, and diversion from, Hemlock and Canadice Lakes. During low-water periods the village of Honeoye Falls pumps water from two deep wells with maximum pumping capacity of 600 gal/min (1.33 ft³/s). This pumped water enters creek upstream from gage. Satellite gage-height telemeter at station. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,630 ft³/s, Mar. 28, 1950, gage height, 6.42 ft, datum then in use, from rating curve extended above 2,700 ft³/s by logarithmic plotting; minimum discharge, 0.06 ft³/s, Aug. 28, 1949.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 23, 1972, reached a stage of about 6.3 ft, present datum; discharge, about 6,600 ft³/s, from rating curve extended above 2,700 ft³/s by logarithmic plotting.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 9	0130	*3,440	*5.00	No other peak greater than base discharge.			
Minimum discharge, 2.3 ft ³ /s, Sep. 21.							

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	12	221	e100	192	979	367	161	24	30	19	3.0
2	32	38	193	e140	202	924	369	161	28	56	16	e2.8
3	21	173	138	270	179	654	365	168	27	44	14	e2.8
4	17	122	145	462	164	516	332	186	31	48	12	e2.6
5	18	72	155	384	e130	460	285	180	21	134	9.1	e2.6
6	34	52	158	359	104	435	246	163	15	161	6.5	e2.4
7	28	43	142	519	105	393	216	143	12	101	5.1	e4.2
8	19	41	132	2110	103	357	194	128	11	166	4.4	5.1
9	14	41	127	2940	98	467	216	124	10	470	3.8	19
10	10	42	117	1690	102	482	442	122	9.3	452	4.5	20
11	8.7	39	98	1050	120	383	365	265	9.0	334	5.2	13
12	8.5	37	122	722	262	281	272	593	11	220	5.3	8.2
13	9.3	44	118	555	359	272	230	439	16	163	8.6	5.8
14	12	53	109	408	155	258	203	311	22	133	6.4	4.8
15	8.4	44	94	330	124	240	190	236	46	113	5.2	4.1
16	7.8	57	126	301	137	194	203	193	27	97	4.1	4.5
17	7.6	62	133	275	125	203	208	168	20	84	3.6	3.5
18	7.1	63	139	e240	597	234	182	144	28	76	9.2	3.3
19	7.1	64	131	e200	857	341	165	125	25	61	7.1	3.4
20	7.6	76	171	e180	709	433	475	115	19	54	9.3	e2.8
21	7.1	87	183	e160	561	386	718	103	17	55	7.9	e2.3
22	7.3	175	111	e140	446	383	520	91	13	46	6.0	e2.4
23	7.0	202	173	e130	363	387	401	81	13	53	4.9	4.0
24	7.2	208	257	e160	328	363	336	74	13	103	5.7	3.2
25	7.3	130	305	177	343	356	292	66	12	75	4.7	3.7
26	7.9	118	374	e130	431	683	253	62	18	49	4.0	3.6
27	11	240	282	134	459	1050	238	58	51	36	3.5	4.6
28	11	227	206	e130	470	744	215	50	45	29	3.4	4.1
29	13	166	142	120	---	553	189	31	28	27	3.8	3.4
30	13	163	e130	256	---	477	172	20	22	23	3.3	3.6
31	11	---	e140	299	---	417	---	19	---	23	3.2	---
TOTAL	441.9	2891	5072	15071	8225	14305	8859	4780	643.3	3516	208.8	152.8
MEAN	14.3	96.4	164	486	294	461	295	154	21.4	113	6.74	5.09
MAX	62	240	374	2940	857	1050	718	593	51	470	19	20
MIN	7.0	12	94	100	98	194	165	19	9.0	23	3.2	2.3

e Estimated

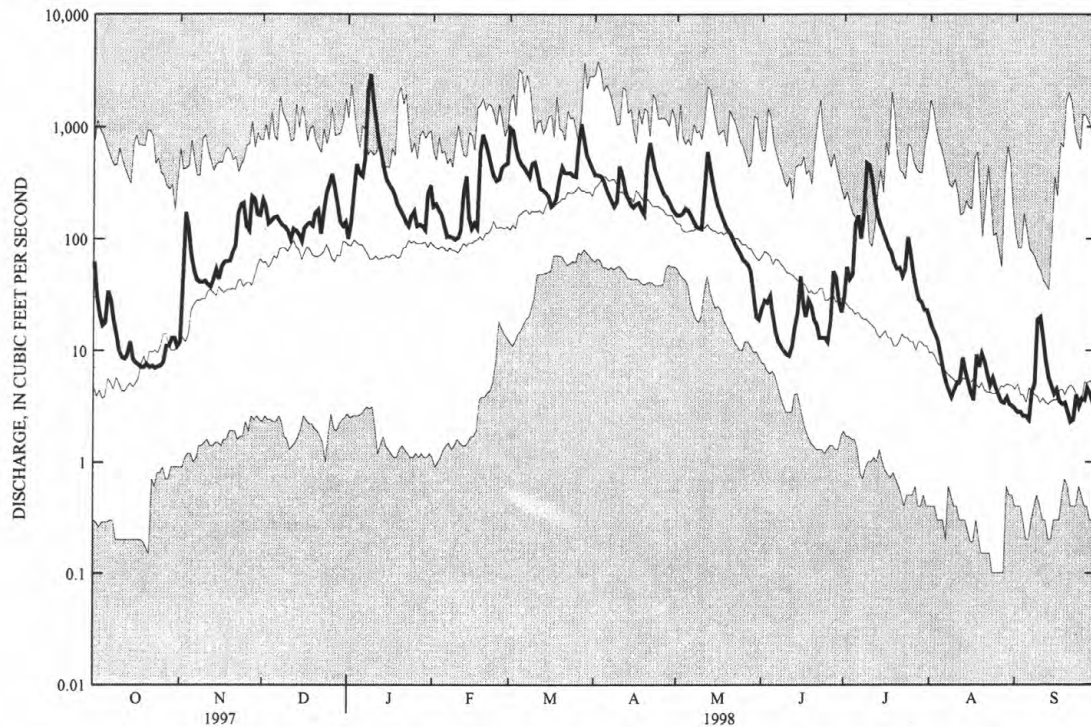
STREAMS TRIBUTARY TO LAKE ONTARIO
04229500 HONEOYE CREEK AT HONEOYE FALLS, NY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 1998, BY WATER YEAR (WY)

MEAN	42.6	78.9	133	136	164	300	330	176	77.4	33.6	23.0	21.8
MAX	443	345	493	486	664	685	1146	608	344	377	336	538
(WY)	1978	1978	1946	1998	1976	1976	1993	1996	1989	1992	1992	1977
MIN	.45	2.06	2.04	2.15	10.3	107	50.0	23.7	3.19	1.04	.75	.64
(WY)	1964	1961	1961	1961	1958	1965	1946	1995	1995	1955	1949	1964

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1946 - 1998	
ANNUAL TOTAL	44335.5		64165.8			
ANNUAL MEAN	121		176		126	
HIGHEST ANNUAL MEAN					238	
LOWEST ANNUAL MEAN					46.4	
HIGHEST DAILY MEAN	978	Feb 28	2940	Jan 9	3820	Apr 2 1993
LOWEST DAILY MEAN	3.2	Sep 2	2.3	Sep 21	.10	Aug 24 1949
ANNUAL SEVEN-DAY MINIMUM	3.4	Aug 30	2.8	Aug 31	.13	Aug 22 1949
10 PERCENT EXCEEDS	289		434		330	
50 PERCENT EXCEEDS	75		111		54	
90 PERCENT EXCEEDS	6.1		4.9		2.5	



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

STREAMS TRIBUTARY TO LAKE ONTARIO
04229500 HONEOYE CREEK AT HONEOYE FALLS, NY--continued
WATER-QUALITY RECORDS

PERIOD OF RECORD.--March 1998 to current year.

CHEMICAL DATA: 1998 (e)

NUTRIENT DATA: 1998 (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, PERIOD MARCH 1998 TO SEPTEMBER 1998

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	TUR- BID- ITY (NTU) (00076)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	RESIDUE VOLATILE, SUS- PENDE (MG/L) (00535)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
MAR							
30-31	1040	0940	449	--	--	--	--
MAR 31-							
APR 01	1040	0940	393	--	--	--	--
01-02	1040	0940	361	--	--	--	--
02-03	1045	0945	371	--	--	--	--
03-04	1045	0945	356	--	--	--	--
04-05	1045	0945	312	--	--	--	--
05-06	1045	0845	268	--	--	--	--
06-09	1045	0945	211	6.8	--	--	.02
09-10	1000	1300	323	24	--	--	<.01
10-13	1400	0900	329	18	--	--	<.01
13-16	0935	0835	202	7.3	--	--	<.01
16-19	1015	1315	192	6.4	--	--	<.01
19-20	1415	0915	198	12	--	--	<.01
20-21	1015	0315	667	55	--	--	.02
21-23	0415	0915	573	22	--	--	<.01
23-27	1010	0910	302	6.2	--	--	<.01
27-30	1000	0900	206	5.8	--	--	<.01
APR 30-							
MAY 03	1005	0505	162	4.2	--	--	<.01
03-04	0605	0905	176	7.7	--	--	<.01
04-07	1025	0925	171	6.6	--	--	<.01
07-10	1020	1320	127	7.2	--	--	<.01
10-11	1420	0920	137	12	--	--	.01
11-12	1045	1545	486	34	<6	<6	.01
12-14	1645	0945	440	19	--	--	<.01
14-18	1025	1025	206	8.8	12	<3	.01
18-22	1020	0920	116	10	--	--	.01
22-26	1025	0925	75	8.9	--	--	.01
26-28	1015	0915	58	8.1	--	--	.01
28-31	0955	0855	29	4.2	--	--	<.01
MAY 31-							
JUN 01	0955	0855	23	8.6	--	--	<.01
01-02	1010	2110	26	7.7	--	--	.01
02-04	2210	0910	29	17	--	--	<.01
04-08	1050	0950	18	5.0	--	--	<.01
08-11	1015	0915	9.7	2.8	--	--	.02
11-13	1125	0625	10	1.2	--	--	.02
13-15	0725	1025	27	4.7	--	--	.02
15-18	1050	0950	27	4.3	--	--	<.01
18-22	1015	0915	21	3.4	--	--	.01
22-25	1005	0905	13	3.5	--	--	.01
25-26	1100	0200	12	3.5	--	--	<.01
26-27	0300	2200	35	11	--	--	.01
27-29	2300	1000	42	11	--	--	.01
JUN 29-							
JUL 02	1045	0945	30	11	--	--	.01
02-04	1025	1325	44	8.2	--	--	<.01
04-06	1425	0925	133	95	153	16	.01
06-07	1050	2150	116	32	53	6	<.01
07-09	2250	0950	231	55	107	11	<.01
09-10	1035	0135	514	54	112	12	<.01
10-13	0235	0935	311	25	--	--	<.01
20-23	1010	0910	51	9.0	--	--	<.01
23-27	1055	0955	69	10	--	--	<.01
27-30	1055	0955	28	7.3	--	--	<.01

STREAMS TRIBUTARY TO LAKE ONTARIO
 04229500 HONEOYE CREEK AT HONEOYE FALLS, NY--continued
 WATER-QUALITY DATA, PERIOD MARCH 1998 TO SEPTEMBER 1998

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
MAR						
30-31	--	--	.045	.006	--	--
MAR 31-						
APR 01	--	--	.040	.006	--	--
01-02	--	--	.035	.009	--	--
02-03	--	--	.035	.022	--	--
03-04	--	--	.025	.010	--	--
04-05	--	--	.025	.008	--	--
05-06	--	--	.030	.007	--	--
06-09	.29	.09	.030	.009	25	19
09-10	.46	.19	.060	.012	24	16
10-13	.58	.14	.050	.009	23	18
13-16	.44	<.05	.040	.011	45	35
16-19	.39	.08	.035	.007	22	17
19-20	.58	.09	.050	.005	22	16
20-21	.80	.43	.150	.015	22	19
21-23	.44	.15	.068	.008	21	15
23-27	.24	<.05	.035	.007	20	16
27-30	.20	.06	.035	.008	21	24
APR 30-						
MAY 03	.39	<.05	.040	.008	19	16
03-04	.32	<.05	.050	.010	20	15
04-07	.31	<.05	.050	.011	21	15
07-10	.22	<.05	.050	.013	20	14
10-11	--	.14	.075	.011	20	13
11-12	.45	.27	.140	.023	24	21
12-14	.24	.13	.090	.014	22	17
14-18	.34	.10	.070	.023	22	12
18-22	.37	.10	.090	.029	20	14
22-26	.31	<.05	.070	.021	20	13
26-28	.30	.11	.065	.018	17	21
28-31	.33	.09	.045	.015	17	14
MAY 31-						
JUN 01	.38	.19	.065	.014	16	13
01-02	.39	.29	.050	.016	20	15
02-04	.40	.04	.055	.013	21	14
04-08	.34	.11	.030	.006	26	19
08-11	.30	<.05	.025	.006	30	20
11-13	.18	.10	.020	.009	32	29
13-15	.20	.14	.040	.011	29	26
15-18	.37	.09	.040	.012	31	20
18-22	.34	.13	.033	.013	30	19
22-25	.24	.11	.130	.016	24	22
25-26	.48	.14	.040	.020	25	25
26-27	.35	.21	.065	.024	23	18
27-29	.40	.31	.080	.030	24	17
JUN 29-						
JUL 02	.54	.37	.075	.022	27	26
02-04	.42	.19	.070	.027	24	17
04-06	.70	1.3	.310	.037	23	15
06-07	.51	.97	.120	.030	25	26
07-09	.81	1.1	.170	.034	21	15
09-10	.94	1.5	.190	.039	24	15
10-13	.29	.33	.100	.024	22	15
20-23	.39	<.05	.065	.009	18	12
23-27	.44	<.05	.075	.012	20	15
27-30	.48	<.05	.070	.008	20	14

STREAMS TRIBUTARY TO LAKE ONTARIO
04229500 HONEOYE CREEK AT HONEOYE FALLS, NY--continued
WATER-QUALITY DATA, PERIOD MARCH 1998 TO SEPTEMBER 1998

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	TUR- BID- ITY (NTU) (00076)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	RESIDUE VOLA- TILE, SUS- PENDE (MG/L) (00535)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
JUL 30-							
AUG 02	1025	1325	21	7.5	--	--	<.01
03-05	1020	1520	12	6.4	--	--	<.01
10...	1115	--	3.9	7.1	--	--	<.01
11-13	0215	1015	5.8	8.0	--	--	.02
13-16	1140	1440	6.0	--	--	--	.02
17-18	1125	0425	3.6	6.6	--	--	.01
18-18	0525	1325	10	17	--	--	<.01
18-20	1425	1025	8.5	11	--	--	<.01
20-23	1145	1845	6.8	7.2	--	--	.01
31...	0950	--	3.2	6.1	--	--	<.01
SEP							
04-08	1020	0920	3.4	6.2	--	--	<.01
08-09	1050	1850	13	13	--	--	<.01
09-10	1950	0950	24	19	--	--	<.01
10-14	1035	0935	9.8	6.5	--	--	<.01
14-17	1050	0950	4.3	4.1	--	--	<.01
17-21	1105	1005	3.3	2.7	--	--	.01
21-24	1040	0940	3.3	4.3	--	--	<.01
24-28	1040	0940	3.9	4.2	--	--	<.01
SEP 28-							
OCT 01	1035	0935	3.6	3.9	--	--	<.01

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
JUL 30-						
AUG 02	.65	<.05	.060	.010	20	13
03-05	.26	.05	.045	.011	21	18
10...	.18	.10	.060	.025	22	20
11-13	.46	.12	.060	.014	23	39
13-16	.26	.10	.040	.015	21	31
17-18	.34	.07	.055	.016	24	16
18-18	.44	.41	.100	.018	23	88
18-20	.36	.10	.060	.016	21	33
20-23	.39	.12	.030	.013	26	42
31...	.31	.10	.045	.024	26	28
SEP						
04-08	.36	.09	.050	.015	28	28
08-09	.41	.05	.065	.013	26	23
09-10	.50	.05	.070	.013	28	22
10-14	.35	<.05	.050	.012	27	27
14-17	.45	<.05	.035	.010	31	28
17-21	.24	<.05	.030	.012	30	29
21-24	.28	<.05	.040	.012	30	37
24-28	.22	.03	.035	.011	30	41
SEP 28-						
OCT 01	.26	<.05	.040	.013	31	40

STREAMS TRIBUTARY TO LAKE ONTARIO
04230380 OATKA CREEK AT WARSAW, NY

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LOCATION.--Lat 42°44'39", long 78°08'16", Wyoming County, Hydrologic Unit 04130003, on right bank 400 ft downstream from bridge on Court Street, Warsaw.

DRAINAGE AREA.--39.1 mi².

PERIOD OF RECORD.--December 1963 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 987.15 ft above sea level (levels by Corps of Engineers).

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,110 ft³/s, July 8, 1998, gage height 9.90 ft, from rating curve extended above 1,770 ft³/s on basis of slope-area measurement of peak discharge; minimum discharge, 0.90 ft³/s, Aug. 1, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 690 ft³/s and maximum(*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Nov. 26	2115	801	3.71	May 11	1445	771	3.63
Jan. 4	0600	691	3.41	June 26	0945	1,130	4.54
Jan. 8	0645	2,800	7.85	July 4	2330	850	3.84
Mar. 26	1745	1,270	4.87	July 8	1045	*4,110	*9.90
Apr. 20	0400	716	3.48				

Minimum discharge, 7.1 ft³/s, Sep. 5, 6, 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	90	84	134	e50	58	299	87	39	30	143	16	9.1
2	36	298	79	54	e54	122	97	43	22	48	15	8.6
3	29	134	61	253	e48	89	94	79	23	33	14	8.2
4	22	75	112	503	e46	88	80	60	19	155	13	7.9
5	204	47	90	254	45	88	69	48	17	269	13	7.7
6	37	39	73	256	48	94	60	41	15	58	14	7.1
7	23	36	67	609	37	82	54	51	15	71	13	38
8	18	40	63	1800	35	104	57	67	16	2050	12	28
9	15	43	61	696	35	158	139	71	14	627	11	26
10	14	35	48	306	38	125	187	78	14	223	15	17
11	13	33	62	152	42	e82	110	469	18	127	18	13
12	11	31	59	101	120	e72	82	253	23	80	20	11
13	10	29	57	e98	69	e64	71	133	24	58	13	10
14	9.5	29	54	e80	e45	e58	66	86	29	44	14	9.5
15	9.0	40	59	e70	e40	e54	79	69	19	38	21	9.0
16	8.8	39	57	e66	e40	e60	74	62	19	35	13	11
17	8.5	39	60	e62	e140	64	73	69	18	36	11	11
18	8.3	41	56	e56	275	98	60	60	16	33	23	9.1
19	8.3	44	61	e54	203	248	92	60	14	27	19	8.9
20	8.2	46	83	e52	136	219	430	59	12	35	13	16
21	8.9	73	62	e49	116	97	135	56	11	31	11	10
22	15	128	56	e48	94	85	87	55	10	25	10	10
23	12	104	83	62	88	72	69	50	13	76	10	15
24	11	90	77	90	88	70	57	41	13	32	9.3	11
25	10	65	212	66	88	74	48	39	10	25	46	9.9
26	11	299	209	e52	99	534	53	38	399	22	19	9.1
27	113	299	126	e49	107	371	52	37	84	19	13	14
28	36	160	86	47	205	175	44	36	39	17	11	18
29	24	142	66	57	---	174	40	35	50	29	10	11
30	19	193	59	108	---	113	39	23	99	20	11	9.7
31	16	---	e45	68	---	91	---	25	---	18	10	---
TOTAL	858.5	2755	2477	6268	2439	4124	2685	2332	1105	4504	461.3	383.8
MEAN	27.7	91.8	79.9	202	87.1	133	89.5	75.2	36.8	145	14.9	12.8
MAX	204	299	212	1800	275	534	430	469	399	2050	46	38
MIN	8.2	29	45	47	35	54	39	23	10	17	9.3	7.1
CFSM	.71	2.35	2.04	5.17	2.23	3.40	2.29	1.92	.94	3.72	.38	.33
IN.	.82	2.62	2.36	5.96	2.32	3.92	2.55	2.22	1.05	4.29	.44	.37

e Estimated

STREAMS TRIBUTARY TO LAKE ONTARIO
04230380 OATKA CREEK AT WARSAW, NY--continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1998, BY WATER YEAR (WY)

MEAN	25.3	51.9	69.7	69.4	75.6	126	111	52.4	31.3	20.1	13.6	18.3
MAX	76.7	131	130	234	235	228	185	129	165	145	86.8	166
(WY)	1978	1986	1978	1979	1976	1979	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

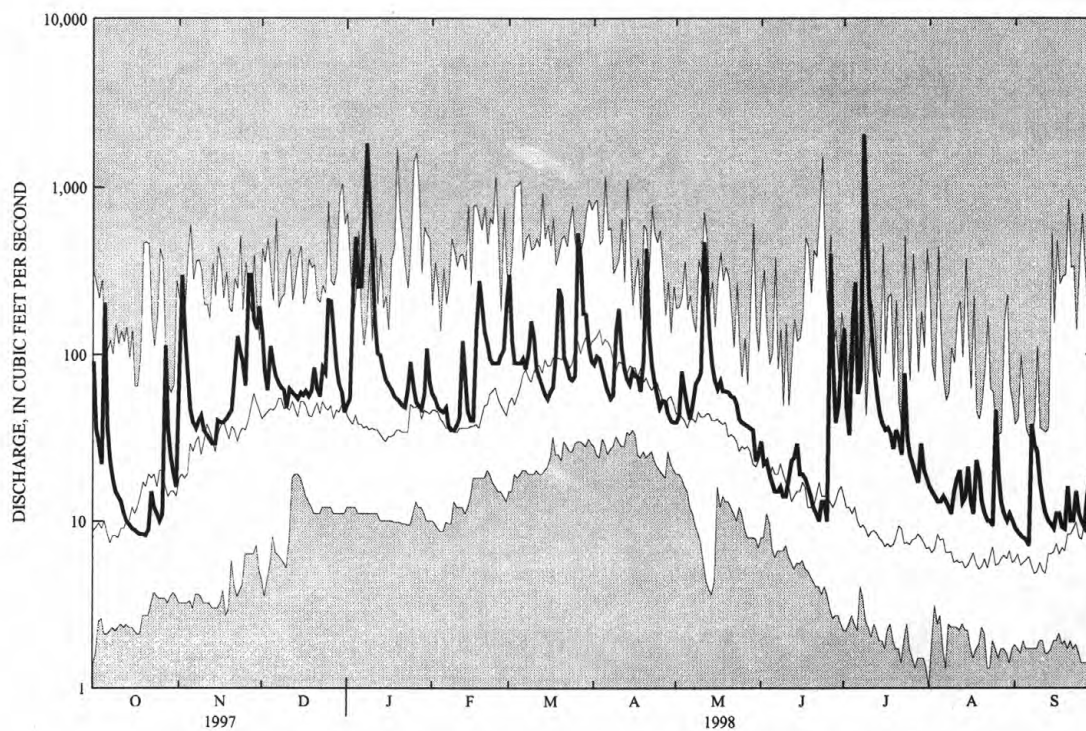
SUMMARY STATISTICS

FOR 1997 CALENDAR YEAR

FOR 1998 WATER YEAR

WATER YEARS 1964 - 1998

ANNUAL TOTAL	23073.3	30392.6	
ANNUAL MEAN	63.2	83.3	
HIGHEST ANNUAL MEAN			55.5
LOWEST ANNUAL MEAN			83.3
HIGHEST DAILY MEAN	754	Feb 27	2050
LOWEST DAILY MEAN	4.6	Aug 10	7.1
ANNUAL SEVEN-DAY MINIMUM	5.2	Aug 26	8.4
ANNUAL RUNOFF (CFSM)	1.62		2.13
ANNUAL RUNOFF (INCHES)	21.95		28.92
10 PERCENT EXCEEDS	138		156
50 PERCENT EXCEEDS	40		49
90 PERCENT EXCEEDS	6.9		11



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

STREAMS TRIBUTARY TO LAKE ONTARIO
04230500 OATKA CREEK AT GARBUTT, NY

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LOCATION.--Lat 43°00'36", long 77°47'30", Monroe County, Hydrologic Unit 04130003, on right bank 40 ft downstream from bridge on Union Street in Garbutt, 1.5 mi west of Scottsville, and 4.2 mi upstream from mouth.

DRAINAGE AREA.--200 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1945 to current year.

REVISED RECORDS.--WSP 2112; WDR NY-82-3: Drainage area. WRD NY 1971: 1960(M). WRD NY 1993: 1991. WRD NY 1997: 1996 (P).

GAGE.--Water-stage recorder. Datum of gage is 560.86 ft above sea level.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,050 ft³/s, Mar. 31, 1960, gage height, 8.64 ft; minimum discharge, 3.3 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 9	1545	*6,160	*8.57	July 10	0615	3,420	6.86
Mar. 28	0530	1,990	5.65				

Minimum discharge, 38 ft³/s, Sep. 27, 29, 30, gage height, 2.32 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	208	80	494	e170	365	933	453	197	185	118	68	42
2	159	242	439	e210	331	1020	410	197	151	176	64	42
3	102	433	370	342	345	901	396	213	153	168	61	42
4	73	385	291	612	340	620	379	272	139	114	58	41
5	73	358	322	804	300	462	348	267	116	169	57	40
6	136	232	330	991	253	402	318	248	103	254	56	39
7	152	180	295	956	228	364	290	226	96	347	55	45
8	87	154	273	3210	220	348	277	223	92	325	53	43
9	69	148	260	5820	210	436	291	236	88	1590	52	52
10	60	153	248	3910	207	487	425	285	85	3070	52	51
11	56	144	213	1910	220	407	482	533	82	1600	52	51
12	55	131	218	1120	281	317	416	1000	86	634	51	44
13	53	123	234	814	378	281	309	1140	88	290	51	41
14	51	124	229	608	324	294	273	775	88	190	51	40
15	50	121	200	449	219	280	258	406	87	152	50	39
16	49	123	236	e400	208	259	262	293	90	132	47	41
17	49	134	252	e375	222	253	262	253	79	118	48	40
18	49	138	257	e350	493	277	249	229	75	111	56	40
19	48	146	247	e325	888	519	230	196	73	103	52	39
20	48	160	319	e300	925	880	454	178	70	147	50	41
21	46	183	353	e280	732	846	727	162	68	229	53	40
22	45	296	277	e270	522	645	758	150	66	135	48	39
23	45	372	245	301	405	535	428	143	64	116	46	41
24	45	394	304	371	379	494	312	139	64	118	50	40
25	44	339	395	398	371	462	272	131	62	127	46	39
26	39	306	585	352	421	684	242	124	118	94	45	39
27	80	526	645	300	446	1620	227	119	237	82	61	39
28	138	590	609	293	443	1800	228	115	343	76	50	40
29	150	698	409	287	---	1050	211	110	303	72	46	38
30	108	533	301	356	---	727	202	109	150	70	44	38
31	87	---	226	427	---	579	---	117	---	74	43	---
TOTAL	2454	7946	10076	27311	10676	19182	10389	8786	3501	11001	1616	1246
MEAN	79.2	265	325	881	381	619	346	283	117	355	52.1	41.5
MAX	208	698	645	5820	925	1800	758	1140	343	3070	68	52
MIN	39	80	200	170	207	253	202	109	62	70	43	38
CFSM	.40	1.32	1.63	4.41	1.91	3.09	1.73	1.42	.58	1.77	.26	.21
IN.	.46	1.48	1.87	5.08	1.99	3.57	1.93	1.63	.65	2.05	.30	.23

e Estimated

STREAMS TRIBUTARY TO LAKE ONTARIO
04230500 OATKA CREEK AT GARBUTT, NY-- Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 1998, BY WATER YEAR (WY)

MEAN	78.7	144	228	241	295	556	505	249	136	78.3	58.4	60.7
MAX	400	567	798	881	868	1048	1069	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

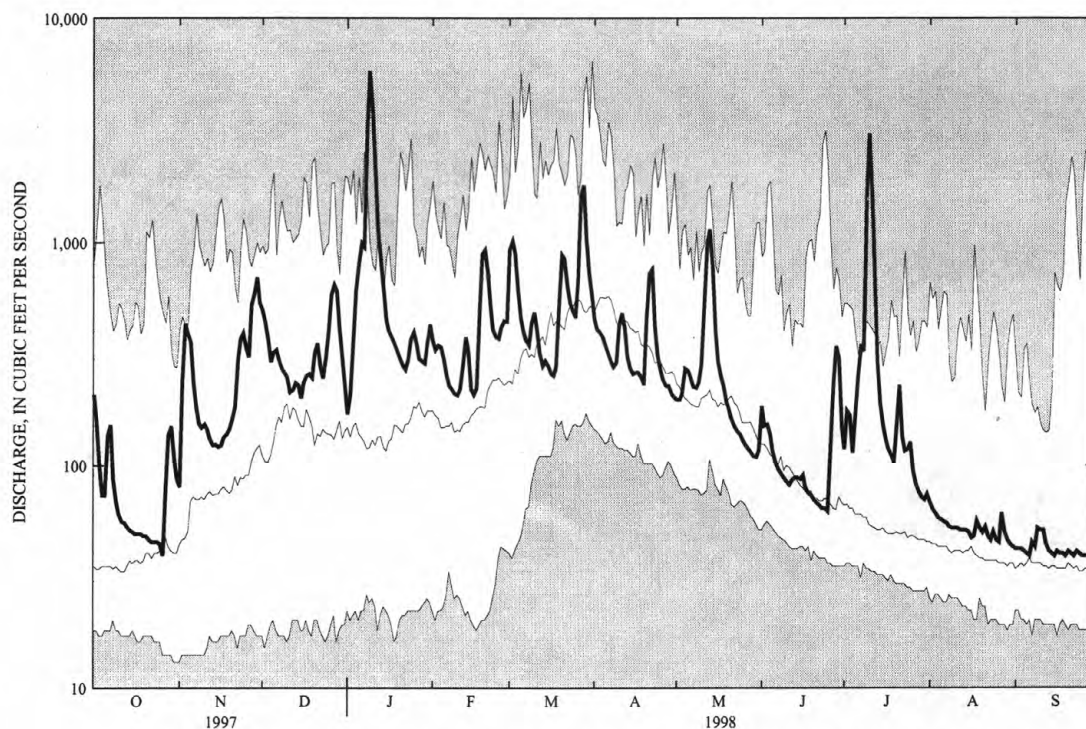
SUMMARY STATISTICS

FOR 1997 CALENDAR YEAR

FOR 1998 WATER YEAR

WATER YEARS 1946 - 1998

ANNUAL TOTAL	87434			114184								
ANNUAL MEAN	240			313						219		
HIGHEST ANNUAL MEAN										371		1978
LOWEST ANNUAL MEAN										117		1965
HIGHEST DAILY MEAN	1430	Mar 1		5820	Jan 9					6500	Mar 31	1960
LOWEST DAILY MEAN	38	Sep 6		38	Sep 29					13	Oct 30	1966
ANNUAL SEVEN-DAY MINIMUM	39	Sep 4		39	Sep 24					14	Oct 26	1966
ANNUAL RUNOFF (CFSM)	1.20			1.56						1.09		
ANNUAL RUNOFF (INCHES)	16.26			21.24						14.85		
10 PERCENT EXCEEDS	541			610						520		
50 PERCENT EXCEEDS	180			218						110		
90 PERCENT EXCEEDS	42			46						30		



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

STREAMS TRIBUTARY TO LAKE ONTARIO
04230500 OATKA CREEK AT GARBUTT, NY--continued

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WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956, 1960, 1961, 1975 to 1977, July 1997 to current year.

CHEMICAL DATA: 1956 (a), 1960-61 (e), 1997-98 (e)

NUTRIENT DATA: 1956 (a), 1960-61 (e), 1997-98 (e)

SEDIMENT DATA: 1975-77 (e)

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1959 to March 1961.

SUSPENDED SEDIMENT DISCHARGE: 1975 to September 1977.

INSTRUMENTATION.--Automatic water sampler since July 1997. Water temperature recorder since November 1994 provides 15-minute-interval readings.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT CONCENTRATION: Maximum daily mean, 282 mg/L Aug. 17, 1997, minimum daily mean, 0 mg/L Apr. 14, 1975.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 2,980 tons Mar. 5, 1976, minimum daily, 0 ton Apr. 14, 1975.

WATER-QUALITY DATA, OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	TUR- BID- ITY (NTU) (00076)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	RESIDUE VOLATILE TILE, SUS- PENDE (MG/L) (00535)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
OCT							
02-06	1100	1000	92	2.3	--	--	<.01
06-10	1125	1025	108	2.9	--	--	<.01
10-14	1040	0940	55	1.3	--	--	<.01
14-16	1055	0955	50	2.2	--	--	<.01
16-17	1035	0935	49	.90	--	--	<.01
20-23	1110	1010	46	1.1	--	--	<.01
23-26	1055	2155	43	1.3	--	--	<.01
26-27	2255	0955	61	1.8	--	--	<.01
27-29	1125	0425	129	3.5	--	--	.01
29-30	0525	1025	134	5.2	--	--	<.01
OCT 30-							
NOV 01	1105	1805	87	2.1	--	--	.01
01-03	1905	1005	277	3.0	--	--	.01
03-06	1125	1025	362	14	--	--	.02
06-10	1055	0955	166	3.1	--	--	.02
10-13	1055	0955	139	2.4	--	--	.01
13-17	1105	1005	123	1.8	--	--	.02
17-20	1010	0910	142	3.5	--	--	.01
20-22	1105	2305	221	4.5	--	--	<.01
26-29	1205	0905	539	20	--	--	.03
NOV 29-							
DEC 01	1005	1105	570	14	--	--	.03
01-04	1200	1100	400	7.1	--	--	.02
04-08	1125	1025	307	5.0	--	--	.02
08-11	1125	1025	252	3.9	--	--	.03
11-15	1045	0945	221	3.4	--	--	.02
19-22	1100	1000	315	5.6	--	--	.05
22-23	1100	0600	246	4.0	--	--	.03
23-26	0700	1000	355	6.6	--	--	.03
26-28	1150	0250	635	15	--	--	.04
28-29	0350	1050	551	10	--	--	.03
DEC 29-							
JAN 01	1125	1425	263	4.3	--	--	.04
01-02	1525	1025	217	4.3	--	--	.04
05-06	1145	0745	937	26	--	--	.05
06-07	0845	1045	916	18	--	--	.04
07-08	1145	1045	1530	130	190	20	.04
12-16	1150	1050	652	11	--	--	.04
12...	1200	--	1080	13	--	--	.03
16-20	1200	1100	392	4.1	--	--	.03
20-22	1120	1020	322	2.4	--	--	.04
22-23	1050	0550	294	4.8	--	--	.04
23-25	0650	0950	356	5.2	--	--	.05
25-26	1050	0950	380	5.8	--	--	.05
26-29	1225	1025	302	2.4	--	--	.04
29-31	1100	1400	360	3.0	--	--	.07

STREAMS TRIBUTARY TO LAKE ONTARIO
04230500 OATKA CREEK AT GARBUTT, NY--continued

WATER-QUALITY DATA, OCTOBER 1997 TO SEPTEMBER 1998

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
OCT						
02-06	.37	1.4	.025	.013	49	240
06-10	.43	1.2	.050	.019	48	230
10-14	.25	1.2	.020	.010	58	380
14-16	.33	1.2	.025	.013	58	400
16-17	.17	1.2	.010	.006	61	430
20-23	.25	1.2	.015	.005	57	430
23-26	.33	1.3	.020	.006	61	400
26-27	.29	1.2	.030	.006	54	350
27-29	.41	1.1	.050	.012	52	240
29-30	.53	1.3	.055	.017	55	180
OCT 30-						
NOV 01	.52	1.2	.030	.015	52	240
01-03	.69	1.1	.120	.024	48	170
03-06	.55	1.3	.120	.040	40	100
06-10	.43	1.3	.050	.024	47	180
10-13	.37	1.5	.035	.020	49	210
13-17	.27	1.4	.030	.018	49	220
17-20	.33	1.4	.040	.021	55	190
20-22	.53	1.4	.045	.017	59	150
26-29	.59	1.8	.130	.028	47	95
NOV 29-						
DEC 01	.61	1.7	.090	.027	39	85
01-04	.89	1.8	.065	.023	40	130
04-08	.18	1.9	.050	.018	47	130
08-11	.33	1.9	.045	.016	53	150
11-15	.36	2.0	.040	.015	55	150
19-22	.46	2.1	.055	.017	55	120
22-23	.38	2.0	.045	.018	55	140
23-26	.50	2.0	.065	.017	66	120
26-28	.46	1.9	.090	.024	44	78
28-29	.37	1.9	.070	.020	45	77
DEC 29-						
JAN 01	.74	2.3	.045	.016	45	140
01-02	.62	2.4	.050	.015	48	170
05-06	.79	1.6	.160	.023	36	57
06-07	.61	1.5	.110	.021	35	35
07-08	1.4	1.5	.400	.030	31	52
12-16	.36	2.6	.060	.022	36	100
12...	.47	2.3	.065	.024	29	72
16-20	.35	2.9	.035	.017	42	66
20-22	.30	2.8	.045	.017	43	140
22-23	.46	2.8	.035	.016	47	150
23-25	.41	2.7	.040	.016	50	140
25-26	.45	2.6	.050	.017	51	120
26-29	.31	2.5	.040	.016	51	140
29-31	.62	2.6	.040	.018	52	130

STREAMS TRIBUTARY TO LAKE ONTARIO
04230500 OATKA CREEK AT GARBUTT, NY--continued

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WATER-QUALITY DATA, OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	TUR- BID- ITY (NTU) (00076)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	RESIDUE VOLA- TILE, SUS- PENDE (MG/L) (00535)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
JAN 31-							
FEB 02	1500	1000	369	3.7	--	--	.08
02-05	1125	1025	335	2.7	--	--	.04
05-09	1110	1010	239	2.3	--	--	.03
09-11	1110	2210	212	2.1	--	--	.02
11-13	2310	1010	306	4.0	--	--	.04
13-17	1135	1035	264	4.4	--	--	.03
17-19	1105	1005	498	18	--	--	.06
19-20	1110	1010	933	38	63	8	.10
20-23	1110	1010	646	13	--	--	.05
23-26	1040	0940	384	3.5	--	--	.02
FEB 26-							
MAR 01	1150	1850	551	8.6	--	--	.03
01-02	1950	1050	1000	32	54	7	.06
02-05	1125	1025	771	14	--	--	.03
05-08	1040	1340	386	2.8	--	--	.01
08-09	1440	0940	379	4.2	--	--	<.01
09-10	1135	1035	480	6.2	--	--	.03
10-12	1135	1035	409	4.0	--	--	.01
12-16	1105	1005	285	2.0	--	--	.02
16-17	1040	1540	251	1.9	--	--	.01
17-19	1640	0940	296	3.0	--	--	.01
19-20	1135	0635	746	17	--	--	.05
20-23	0735	1035	744	12	--	--	.03
23-25	1055	1255	491	4.6	--	--	<.01
25-26	1355	0955	478	3.6	--	--	<.01
26-28	1050	0950	1470	65	--	--	.03
28-30	1050	0950	1170	24	--	--	.02
MAR 30-							
APR 02	1125	1025	532	9.0	--	--	.08
02-06	1125	0925	387	3.3	--	--	.02
06-09	1125	1025	300	3.3	--	--	.04
09-11	1050	2150	417	5.7	--	--	.01
11-13	2250	0950	394	5.4	--	--	.01
13-16	1015	0915	270	2.2	--	--	<.01
16-19	1055	1315	253	1.9	--	--	<.01
19-20	1415	0915	248	2.5	--	--	<.01
20-22	1115	1015	722	22	--	--	.01
22-23	1115	1015	597	13	22	5	<.01
23-27	1045	0945	284	3.3	9	<5	<.01
27-30	1040	0940	218	2.4	--	--	<.01
APR 30-							
MAY 03	1055	1355	337	1.6	7	5	.02
03-04	1455	0955	242	2.5	11	5	.01
04-05	1105	0105	283	3.2	10	5	.02
05-07	0205	1005	251	3.8	14	5	.03
07-09	1055	0555	224	3.0	10	<5	.02
09-11	0655	0955	277	5.2	9	<5	.02
11-13	1135	1935	995	31	50	8	.04
13-14	2035	0935	943	20	36	<6	.02
14-18	1105	1005	358	8.4	--	--	.02
18-22	1055	0955	182	4.8	13	<3	.02
22-26	1100	1000	138	3.2	--	--	.01
26-28	1105	1005	119	3.0	6	<2	.01
28-31	1045	1545	111	2.3	10	3	.01
JUN							
01-02	1050	0050	208	5.6	17	4	<.01
02-04	0150	0950	151	5.7	12	<4	<.01
04-08	1125	1025	107	3.3	8	<3	<.01
08-11	1050	0950	87	3.0	6	<2	.07
11-15	1220	1120	86	.85	<3	<3	.02
15-18	1125	1025	85	3.7	13	3	.02
18-22	1050	0950	70	2.2	11	4	.03
22-25	1055	0955	64	3.2	15	5	.02
25-26	1125	0225	61	3.3	14	3	.01
26-29	0325	1025	259	33	26	5	.04

STREAMS TRIBUTARY TO LAKE ONTARIO
04230500 OATKA CREEK AT GARBUTT, NY--continued

WATER-QUALITY DATA, OCTOBER 1997 TO SEPTEMBER 1998

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
JAN 31-						
FEB 02	.47	2.4	.050	.022	51	120
02-05	.45	2.4	.040	.015	49	130
05-09	.27	2.5	.035	.010	48	160
09-11	.18	2.6	.025	.010	46	180
11-13	.31	2.6	.040	.013	47	150
13-17	.30	2.4	.030	.011	44	150
17-19	.45	2.2	.085	.017	43	120
19-20	.80	1.7	.150	.037	34	62
20-23	.39	1.9	.063	.021	34	83
23-26	.43	2.3	.035	.011	43	120
FEB 26-						
MAR 01	.49	2.1	.045	.012	44	100
01-02	.66	2.0	.130	.027	35	68
02-05	.54	1.9	.060	.012	35	82
05-08	.14	2.2	.030	.009	39	130
08-09	.20	2.2	.030	.010	40	130
09-10	.37	2.1	.040	.007	41	110
10-12	.38	2.1	.030	.007	39	120
12-16	.22	2.2	.020	.019	41	150
16-17	.17	2.4	.020	.005	46	160
17-19	.42	2.3	.025	.004	48	150
19-20	.51	1.8	.085	.009	44	80
20-23	.39	1.9	.060	.009	37	75
23-25	.24	2.1	.030	.006	47	100
25-26	.39	2.1	.025	.006	51	110
26-28	.72	1.7	.180	.020	34	56
28-30	.52	1.6	.095	.015	29	59
MAR 30-						
APR 02	.53	1.9	.055	.015	37	100
02-06	.37	2.1	.035	.070	40	130
06-09	.30	2.1	.035	.018	40	150
09-11	.62	1.9	.045	.010	41	110
11-13	.80	1.6	.045	.007	36	110
13-16	.32	1.8	.040	.006	40	150
16-19	.29	1.9	.025	.004	41	150
19-20	.35	1.8	.025	.004	41	160
20-22	.64	1.4	.100	.008	34	73
22-23	.54	1.2	.080	.008	29	75
23-27	.35	1.5	.040	.006	39	140
27-30	.42	1.6	.030	.011	38	160
APR 30-						
MAY 03	.29	1.8	.035	.004	44	190
03-04	.43	1.8	.040	.005	43	170
04-05	.37	1.7	.045	.007	42	140
05-07	.41	1.6	.045	.006	41	160
07-09	.36	1.6	.035	.007	40	180
09-11	.43	1.6	.050	.008	39	150
11-13	.72	1.4	.160	.031	32	57
13-14	.51	1.2	.140	.028	28	57
14-18	.65	1.5	.080	.021	36	120
18-22	.42	1.7	.050	.012	44	200
22-26	.38	1.7	.035	.006	44	230
26-28	.32	1.7	.030	.003	44	250
28-31	.38	1.7	.040	.002	42	260
JUN						
01-02	.35	1.6	.055	.004	47	160
02-04	.32	1.9	.050	.007	43	180
04-08	.37	1.9	.035	.006	45	240
08-11	.23	1.8	.030	.005	46	290
11-15	.16	1.6	.020	.005	45	290
15-18	.46	1.6	.045	.008	48	280
18-22	.47	1.6	.040	.006	46	310
22-25	.18	1.7	.045	.007	43	340
25-26	.44	1.6	.045	.008	44	350
26-29	.93	1.9	.190	.026	38	160

STREAMS TRIBUTARY TO LAKE ONTARIO
04230500 OATKA CREEK AT GARBUTT, NY--continued

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WATER-QUALITY DATA, OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	TUR- BID- ITY (NTU) (00076)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	RESIDUE VOLA- TILE, SUS- PENDE (MG/L) (00535)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
JUN 29-							
JUL 02	1120	1020	156	20	45	9	.02
02-04	1120	1420	160	16	49	9	<.01
04-06	1520	1020	175	12	32	7	<.01
06-07	1125	1325	311	32	77	14	.01
07-08	1425	1325	296	27	--	--	.01
08-09	1425	1025	820	150	301	38	.02
09-10	1110	1810	2680	160	203	20	.03
10-13	1910	1010	1110	47	71	10	.02
13-16	1210	1110	171	14	--	--	<.01
16-20	1125	1025	111	4.3	13	<5	.01
20-21	1045	0645	244	10	--	--	.03
21-23	0745	0845	146	21	--	--	.03
23-27	1125	1025	110	4.9	14	<5	<.01
27-30	1125	1025	75	3.2	--	--	<.01
JUL 30-							
AUG 03	1105	1005	68	3.1	10	2	<.01
03-06	1100	1000	58	2.9	10	3	<.01
06-10	1110	1010	53	2.0	7	2	.02
10-13	1200	1100	51	4.5	11	3	.03
13-17	1220	1120	49	1.6	<4	<3	.02
17-20	1200	1100	53	3.3	13	<6	.01
20-24	1240	0740	49	2.3	--	--	.02
24-27	1110	1010	49	3.3	12	3	.01
27-31	1100	1000	48	2.6	9	<3	<.01
AUG 31-							
SEP 03	1155	1055	42	2.4	--	--	<.01
04-08	1100	1000	42	2.8	8	<5	<.01
08-10	1125	1025	50	3.3	11	<6	<.01
10-14	1115	1015	46	2.7	6	<6	<.01
14-17	1205	1105	40	3.1	8	<4	.01
17-21	1150	1050	40	2.1	4	<3	.01
21-24	1125	1025	40	3.3	8	<5	<.01
24-28	1125	0825	39	2.2	--	--	<.01
SEP 28-							
OCT 01	1110	1010	38	2.6	5	<3	<.01

STREAMS TRIBUTARY TO LAKE ONTARIO
04230500 OATKA CREEK AT GARBUTT, NY--continued

WATER-QUALITY DATA, OCTOBER 1997 TO SEPTEMBER 1998

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
JUN 29-						
JUL 02	.90	1.5	.140	.035	36	160
02-04	.78	1.5	.130	.030	36	150
04-06	.73	1.5	.095	.027	35	170
06-07	1.6	1.9	.170	.037	33	91
07-08	1.3	1.2	.170	.036	27	89
08-09	1.8	2.2	.360	.052	26	56
09-10	1.2	1.9	.330	.051	14	22
10-13	.56	1.6	.160	.039	21	50
13-16	.67	1.9	.095	.027	37	160
16-20	.56	1.6	.060	.014	39	220
20-21	.41	1.5	.070	.008	40	170
21-23	.35	1.5	.100	.016	34	160
23-27	.36	1.4	.070	.012	45	210
27-30	.47	1.2	.050	.004	45	280
JUL 30-						
AUG 03	.22	1.3	.040	.005	45	310
03-06	.59	1.3	.030	.003	43	330
06-10	.15	1.3	.025	.008	43	330
10-13	.28	1.3	.040	.005	49	340
13-17	.20	1.3	.020	.004	50	350
17-20	.21	1.3	.035	.006	42	340
20-24	.80	1.2	.050	.006	47	350
24-27	.59	1.3	.035	.013	42	360
27-31	.26	1.2	.030	.008	45	340
AUG 31-						
SEP 03	.40	1.4	.030	.005	46	390
04-08	.35	1.3	.030	.006	45	380
08-10	.26	1.2	.035	.004	42	380
10-14	.34	1.2	.030	.005	48	330
14-17	.24	1.1	.030	.004	43	340
17-21	.24	1.2	.020	.005	42	380
21-24	.22	1.2	.030	.006	47	390
24-28	.15	1.2	.020	.005	49	390
SEP 28-						
OCT 01	.28	1.0	.020	.007	45	360

STREAMS TRIBUTARY TO LAKE ONTARIO

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04230650 GENESEE RIVER AT BALLANTYNE BRIDGE, NEAR MORTIMER, NY

LOCATION.--Lat 43°05'32", long 77°40'50", Monroe County, Hydrologic Unit 04130003, on right bank 400 ft upstream from Ballantyne Bridge on State Highway 252, 1.6 mi west of Mortimer, and 2.8 mi upstream from Erie (Barge) Canal.

DRAINAGE AREA.--2,210 mi².

PERIOD OF RECORD.--October 1973 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 500.00 ft above sea level.

REMARKS.--River regulated for operation of Erie (Barge) Canal, downstream powerplants, and at high stages by Mount Morris Lake (see station 04224000). Satellite gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 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, 20.57 ft, Jan. 10; minimum, 9.71 ft, Mar. 16.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.11	10.93	12.73	11.82	11.26	13.99	13.35	11.57	11.53	11.88	11.23	11.25
2	12.14	10.97	12.99	11.76	11.59	14.91	13.36	11.62	11.70	12.13	11.26	11.37
3	11.86	12.11	13.04	11.59	11.46	14.30	13.27	11.78	11.55	12.22	11.21	11.39
4	11.52	12.23	12.59	12.15	12.00	13.83	13.10	12.18	11.59	12.43	11.25	11.19
5	11.13	12.05	12.43	13.12	12.51	13.51	12.89	12.23	11.70	12.60	11.19	11.19
6	11.52	11.86	12.37	13.03	12.23	13.04	12.47	12.20	11.43	12.60	11.29	11.26
7	11.60	11.57	12.01	12.87	11.71	12.70	11.97	12.05	11.21	12.41	11.48	11.43
8	11.22	11.27	11.81	16.46	11.27	12.28	11.51	11.77	11.49	12.45	11.61	11.26
9	11.12	11.27	11.68	19.77	10.74	12.00	11.65	11.79	11.58	13.91	11.34	11.48
10	11.22	11.29	11.65	20.36	10.87	11.87	12.32	11.85	11.57	13.88	11.36	11.32
11	11.03	11.39	11.53	18.22	12.31	11.74	12.85	12.48	11.67	12.84	11.04	11.48
12	11.05	11.22	11.82	14.56	12.40	11.08	12.77	14.09	11.48	12.24	10.81	11.41
13	11.17	11.24	11.93	13.76	12.37	10.32	12.55	13.73	11.63	12.32	11.00	11.34
14	11.24	11.32	11.86	14.45	11.88	10.29	12.29	13.10	11.84	12.74	10.94	11.35
15	11.44	11.26	11.53	14.27	11.63	10.08	12.17	13.11	11.46	13.19	10.99	11.12
16	11.13	11.21	11.38	14.16	11.46	9.83	11.95	13.44	11.32	13.27	10.98	11.23
17	11.22	11.30	11.69	14.41	11.49	9.95	11.77	13.33	11.56	12.43	11.08	11.20
18	11.65	11.28	11.58	14.73	12.33	10.14	11.58	13.09	11.58	11.47	11.30	11.18
19	11.24	11.37	11.60	14.83	13.87	10.74	11.30	12.56	11.31	11.45	11.33	11.22
20	11.19	11.49	11.93	14.72	14.11	11.84	12.06	12.04	11.34	11.59	11.33	11.39
21	11.26	11.65	11.98	14.46	13.65	12.49	13.71	11.51	11.43	11.68	11.49	11.32
22	11.15	11.80	11.77	14.28	13.01	12.66	13.02	11.54	11.57	11.47	11.33	11.22
23	11.15	12.11	11.52	14.17	12.81	12.68	12.83	11.67	11.50	11.51	11.26	11.16
24	11.27	12.16	12.13	14.23	12.67	13.18	12.71	11.52	11.70	11.78	11.13	11.29
25	10.98	12.04	12.30	14.28	12.55	13.48	12.81	11.69	11.59	11.66	11.16	11.20
26	10.95	11.98	12.97	14.24	12.84	14.14	12.99	11.56	11.62	11.30	11.22	11.27
27	10.83	12.38	12.91	14.00	12.52	15.33	12.91	11.61	12.18	11.39	11.14	11.47
28	11.07	12.83	12.59	13.71	12.19	14.15	12.89	11.61	11.66	11.32	11.09	11.60
29	11.28	12.76	12.17	13.08	---	12.80	12.70	11.52	11.98	11.31	11.38	11.69
30	11.04	12.65	11.78	12.72	---	12.91	12.13	11.47	11.98	11.28	11.27	11.54
31	10.99	---	11.67	12.65	---	13.30	---	11.43	---	11.26	11.08	---
MEAN	11.28	11.70	12.06	14.29	12.20	12.44	12.53	12.17	11.59	12.13	11.21	11.33
MAX	12.14	12.83	13.04	20.36	14.11	15.33	13.71	14.09	12.18	13.91	11.61	11.69
MIN	10.83	10.93	11.38	11.59	10.74	9.83	11.30	11.43	11.21	11.26	10.81	11.12

CAL YR 1997 MEAN 11.84 MAX 15.17 MIN 10.19

WTR YR 1998 MEAN 12.08 MAX 20.36 MIN 9.83

STREAMS TRIBUTARY TO LAKE ONTARIO

04231000 BLACK CREEK AT CHURCHVILLE, NY

LOCATION.--Lat 43°06'02", long 77°52'57", Monroe County, Hydrologic Unit 04130003, on right bank at east end of Carroll Street in Churchville, 100 ft downstream from mainline tracks of Penn Central Transportation Co., and 0.3 mi downstream from Black Creek Dam.

DRAINAGE AREA.--130 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1945 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 551.88 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Prior to May 1952, small diversion by Penn Central Transportation Co. and slight regulation by pumping operations upstream from station. Telephone gage-height telemeter and satellite gage-height and precipitation telemeter at station. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,880 ft³/s, Mar. 31, 1960, gage height, 9.44 ft; minimum discharge, 0.22 ft³/s, Aug. 19, 1970; minimum gage height, 0.93 ft, Aug. 5, 6, 7, Sep. 15, 1959.

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

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 9	1630	*2,930	*9.19	Mar. 28	0230	934	5.10

Minimum discharge, 11 ft³/s, Aug. 17, 18, gage height, 1.40 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	305	61	234	e95	309	437	224	101	65	132	21	32
2	268	118	272	133	250	643	212	111	84	112	17	29
3	108	239	207	243	234	490	200	116	70	70	15	28
4	61	358	162	397	246	332	183	141	66	95	13	27
5	53	307	176	489	213	264	168	206	57	197	14	24
6	59	165	190	485	159	228	150	307	48	161	15	21
7	62	108	182	441	137	203	134	195	43	115	16	55
8	49	89	172	1310	121	193	127	157	41	141	16	71
9	41	79	169	2760	118	260	135	123	40	174	16	58
10	34	72	155	2110	113	330	149	110	40	231	35	46
11	30	68	131	1120	126	261	162	212	40	364	42	36
12	29	65	127	637	192	149	141	425	47	188	27	29
13	27	61	130	480	291	158	120	539	52	77	21	24
14	26	63	126	328	265	165	112	289	52	57	19	22
15	24	62	97	239	133	163	110	153	48	48	16	21
16	24	70	140	216	127	154	114	112	55	41	14	21
17	25	74	155	e220	151	147	123	92	55	36	12	21
18	24	80	179	e210	355	181	120	83	46	32	35	19
19	24	86	176	e200	667	321	110	72	40	30	71	19
20	24	94	178	e190	696	582	175	67	36	30	56	19
21	25	110	217	e180	499	575	272	61	35	45	35	21
22	27	167	163	172	370	364	261	53	29	83	25	24
23	31	255	174	179	294	336	166	49	29	55	20	23
24	34	288	185	250	258	341	136	47	33	43	23	20
25	32	260	246	326	272	352	117	48	35	36	44	18
26	31	207	334	331	322	442	104	47	88	27	220	17
27	61	231	403	256	334	770	102	49	218	23	155	19
28	119	330	353	232	291	837	98	53	405	21	117	23
29	162	337	230	203	---	463	97	50	179	26	82	21
30	98	231	164	251	---	327	97	43	100	24	60	20
31	66	---	107	325	---	264	---	49	---	21	43	---
TOTAL	1983	4735	5934	15008	7543	10732	4419	4160	2176	2735	1315	828
MEAN	64.0	158	191	484	269	346	147	134	72.5	88.2	42.4	27.6
MAX	305	358	403	2760	696	837	272	539	405	364	220	71
MIN	24	61	97	95	113	147	97	43	29	21	12	17
CFSM	.49	1.21	1.47	3.72	2.07	2.66	1.13	1.03	.56	.68	.33	.21
IN.	.57	1.35	1.70	4.29	2.16	3.07	1.26	1.19	.62	.78	.38	.24

e Estimated

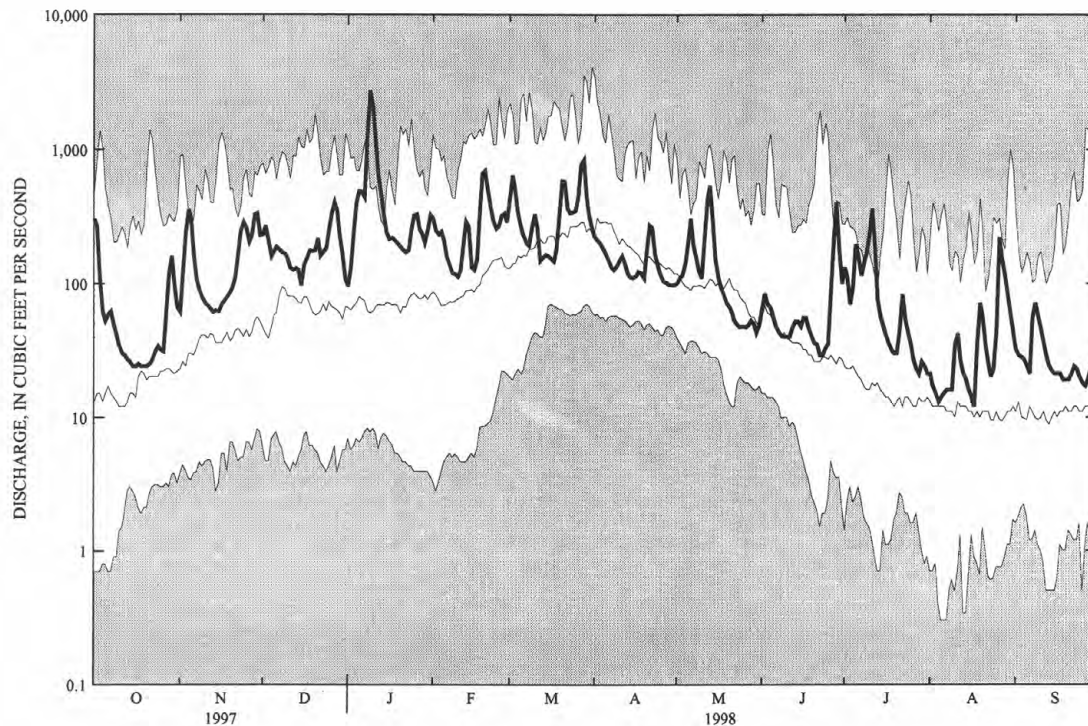
STREAMS TRIBUTARY TO LAKE ONTARIO
04231000 BLACK CREEK AT CHURCHVILLE, NY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 1998, BY WATER YEAR (WY)

MEAN	41.7	79.4	127	132	185	334	254	126	64.1	27.3	22.0	26.0
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	2.55	1.66
(WY)	1964	1965	1961	1961	1958	1989	1946	1949	1949	1965	1965	1959

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1946 - 1998	
ANNUAL TOTAL	48840.1		61568			
ANNUAL MEAN	134		169		118	
HIGHEST ANNUAL MEAN					207	
LOWEST ANNUAL MEAN					52.3	
HIGHEST DAILY MEAN	854	Feb 28	2760	Jan 9	4120	Mar 31 1960
LOWEST DAILY MEAN	5.3	Aug 9	12	Aug 17	.30	Aug 5 1959
ANNUAL SEVEN-DAY MINIMUM	6.0	Aug 6	15	Aug 3	.47	Aug 3 1959
ANNUAL RUNOFF (CFSM)	1.03		1.30		.91	
ANNUAL RUNOFF (INCHES)	13.98		17.62		12.31	
10 PERCENT EXCEEDS	318		335		291	
50 PERCENT EXCEEDS	86		115		50	
90 PERCENT EXCEEDS	15		24		6.9	



CURRENT WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

STREAMS TRIBUTARY TO LAKE ONTARIO
04231000 BLACK CREEK AT CHURCHVILLE, NY--continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961-62, 1975 to 1977, 1997 to current year.

CHEMICAL DATA: 1961-62, 1998 (e)

NUTRIENT DATA: 1961-62, 1998 (e)

SEDIMENT DATA: 1975-77 (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, PERIOD APRIL 1998 TO SEPTEMBER 1998

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	TUR- BID- ITY (NTU) (00076)	RESIDUE TOTAL AT 105 DEG. C, PENDE (MG/L) (00530)	RESIDUE VOLATILE PENDE (MG/L) (00535)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
APR							
02-06	1235	1035	184	2.5	--	--	.01
06-09	1155	1055	133	2.7	--	--	.03
09-13	1120	1020	146	2.1	--	--	.01
13-16	1050	0950	112	2.7	--	--	<.01
16-19	1125	1025	119	2.3	--	--	.01
19-20	1125	1025	127	3.4	--	--	<.01
20-22	1150	0150	251	3.7	--	--	<.01
22-23	0250	1050	231	5.1	--	--	<.01
23-27	1125	1025	122	2.6	--	--	.01
27-30	1110	1010	98	2.6	--	--	<.01
APR 30-							
MAY 03							
03-04	1125	0225	104	1.2	--	--	.04
04-05	0325	1025	124	1.7	--	--	.03
04-05	1140	1940	175	3.1	--	--	.06
07-08	1200	1500	162	3.4	--	--	.04
11-13	1215	0515	401	11	--	--	.02
13-14	0615	1115	455	4.3	--	--	.02
14-18	1145	1045	129	4.1	<9	<4	<.01
18-22	1125	1025	69	5.5	--	--	.03
22-26	1125	1025	48	1.5	--	--	.03
26-28	1125	1025	49	2.3	--	--	.02
28-31	1115	0615	47	1.0	--	--	.02
MAY 31-							
JUN 01							
01-02	0715	1015	55	5.0	--	--	.04
02-04	1120	1620	77	3.5	--	--	.03
02-04	1720	1020	72	2.7	--	--	.03
04-08	1155	1055	51	2.3	--	--	<.01
08-11	1120	1020	40	3.1	--	--	.02
11-13	1245	1945	47	4.0	--	--	.05
13-15	2045	1145	52	3.7	--	--	.06
15-18	1200	1100	52	3.7	--	--	.02
18-22	1120	1020	37	1.8	--	--	.04
22-25	1120	0120	30	2.1	--	--	.05
25-25	0220	1020	36	5.3	--	--	.05
25-28	1210	1110	178	8.2	--	--	.08
28-29	1210	1110	310	30	--	--	.04
JUN 29-							
JUL 02							
02-04	1155	1055	119	17	--	--	.03
02-04	1200	1100	73	7.1	--	--	<.01
04-05	1200	0300	147	26	--	--	.02
05-06	0400	1100	186	14	--	--	.02
06-07	1200	1700	133	12	--	--	<.01
08-09	1800	1100	163	12	--	--	.01
09-11	1140	1040	252	12	--	--	<.01
11-13	1140	1040	208	15	--	--	<.01
13-15	1240	0240	59	5.4	--	--	<.01
16-20	1200	1100	33	3.4	--	--	.04
20-21	1110	0410	30	3.6	--	--	.10
21-22	0510	1310	64	5.7	--	--	.08
22-23	1410	1010	72	5.4	--	--	.03
23-27	1200	1100	36	3.1	--	--	<.01
27-30	1205	1125	24	3.6	--	--	.02

STREAMS TRIBUTARY TO LAKE ONTARIO
04231000 BLACK CREEK AT CHURCHVILLE, NY--continued
WATER-QUALITY DATA, PERIOD APRIL 1998 TO SEPTEMBER 1998

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DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
APR						
02-06	.47	1.5	.035	.015	46	140
06-09	.53	1.6	.030	.007	47	150
09-13	.47	1.8	.025	.007	49	170
13-16	.66	1.5	.025	.005	50	180
16-19	.58	1.5	.025	.005	49	190
19-20	.52	1.5	.030	.005	49	190
20-22	.47	1.1	.040	.006	45	170
22-23	.80	.78	.050	.006	41	130
23-27	.46	.92	.035	.005	47	150
27-30	.42	1.3	.030	.006	50	200
APR 30-						
MAY 03	.50	1.3	.025	.007	50	210
03-04	.64	1.3	.030	.004	52	210
04-05	.78	1.3	.050	.010	52	230
07-08	.68	.78	.060	.017	63	240
11-13	.78	1.2	.110	.027	46	170
13-14	.62	1.2	.085	.028	47	170
14-18	.71	1.1	.075	.033	37	91
18-22	.65	1.1	.095	.030	50	170
22-26	.56	1.1	.050	.021	54	220
26-28	.49	1.3	.045	.009	52	260
28-31	.47	1.1	.030	.009	53	260
MAY 31-						
JUN 01	.69	.85	.065	.005	54	240
01-02	.46	.91	.070	.011	58	250
02-04	.51	1.2	.065	.019	50	280
04-08	.48	1.3	.045	.016	47	240
08-11	.48	1.2	.050	.010	52	250
11-13	.45	1.1	.060	.011	55	280
13-15	.43	1.1	.070	.011	57	290
15-18	.62	1.0	.075	.017	56	310
18-22	.55	.74	.055	.015	54	300
22-25	.61	.62	.065	.010	59	300
25-25	.77	.51	.090	.005	56	310
25-28	.66	1.1	.090	.032	34	250
28-29	1.1	1.9	.180	.051	37	120
JUN 29-						
JUL 02	.76	1.4	.130	.044	40	160
02-04	.77	1.7	.100	.050	39	160
04-05	.72	1.2	.150	.040	40	150
05-06	.77	1.1	.120	.038	37	140
06-07	.81	1.2	.100	.037	36	150
08-09	1.1	1.3	.110	.037	38	140
09-11	.87	1.2	.095	.046	36	120
11-13	.87	1.3	.110	.047	31	86
13-15	.75	1.0	.095	.035	42	130
16-20	1.1	.86	.085	.014	51	180
20-21	.79	.80	.090	.013	51	210
21-22	.70	.93	.120	.010	52	220
22-23	.66	.98	.090	.015	53	250
23-27	.65	.88	.085	.036	42	140
27-30	.79	.69	.110	.016	50	180

STREAMS TRIBUTARY TO LAKE ONTARIO
04231000 BLACK CREEK AT CHURCHVILLE, NY--continued
WATER-QUALITY DATA, PERIOD APRIL 1998 TO SEPTEMBER 1998

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	TUR- BID- ITY (NTU) (00076)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	RESIDUE VOLA- TILE, SUS- PENDE (MG/L) (00535)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
JUL 30-							
AUG 03	1135	1035	20	4.2	--	--	.03
03-04	1125	1925	14	3.3	--	--	.02
10-13	1225	0825	35	3.8	--	--	.05
10...	1230	--	35	2.4	--	--	.03
13-17	1255	1155	16	--	--	--	.05
17-18	1225	0525	12	2.2	--	--	.03
18-19	0625	1725	57	6.1	--	--	.04
19-20	1825	1125	66	4.8	--	--	.02
20-24	1310	1210	29	2.2	--	--	.02
24-25	1135	1635	26	2.2	--	--	.02
25-26	1735	0735	184	36	67	11	.04
26-27	0835	1035	184	29	--	--	.02
27-31	1135	1035	90	8.8	--	--	.01
AUG 31-							
SEP 03	1155	1055	32	2.7	--	--	.01
04-06	1125	2225	23	2.7	--	--	.02
06-08	2325	1025	59	5.7	--	--	<.01
08-10	1155	1055	59	6.1	--	--	.01
10-14	1140	1040	30	2.7	--	--	<.01
14-17	1225	1125	21	2.7	--	--	<.01
17-21	1225	1125	19	2.3	--	--	.04
21-24	1155	1055	23	5.0	--	--	.02
24-28	1200	1100	19	2.7	--	--	.04
SEP 28-							
OCT 01	1145	1045	21	2.8	--	--	.01

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
JUL 30-						
AUG 03	1.0	.66	.105	.010	56	230
03-04	.53	.56	.095	.012	57	270
10-13	.61	.61	.080	.010	60	340
10...	.43	.59	.045	.008	58	300
13-17	.46	.54	.035	.012	51	300
17-18	.53	.49	.050	.018	50	320
18-19	.68	.38	.100	.016	53	350
19-20	.44	.55	.075	<.005	57	320
20-24	.60	.51	.050	.020	46	290
24-25	.42	.46	.050	.016	42	280
25-26	.76	.73	.160	.020	36	240
26-27	.61	.73	.140	.024	28	150
27-31	.55	.52	.090	.027	23	93
AUG 31-						
SEP 03	.55	.74	.060	.022	32	160
04-06	.78	.80	.065	.020	36	150
06-08	.74	.85	.070	.012	40	170
08-10	1.2	.88	.070	.016	44	220
10-14	.58	.75	.050	.016	41	200
14-17	.83	.59	.055	.004	40	180
17-21	.60	.56	.050	.004	47	200
21-24	.66	.56	.075	.003	48	220
24-28	.53	.73	.050	.007	54	260
SEP 28-						
OCT 01	.54	.76	.055	.007	54	240

STREAMS TRIBUTARY TO LAKE ONTARIO
04232000 GENESEE RIVER AT ROCHESTER, NY

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LOCATION.--Lat 43°10'50", long 77°37'40", Monroe County, Hydrologic Unit 04130003, on right bank 40 ft downstream from Rochester Gas and Electric Corporation plant, 5,100 ft upstream from bridge on Driving Park Avenue in Rochester, and 6.4 mi upstream from mouth.

DRAINAGE AREA.--2,467 mi².

PERIOD OF RECORD.--April 1904 to September 1918, December 1919 to current year. Published as "at Driving Park Avenue," 1919-68.

REVISED RECORDS.--WSP 1912; WDR NY-82-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 244.24 ft (revised) above sea level (245.00 ft, Barge Canal datum). April 1904 to December 1910, nonrecording gage and December 1910 to September 1918, water-stage recorder at site 5 mi upstream at datum 506.85 ft, Barge Canal datum. December 1919 to Apr. 4, 1927, water-stage recorder in plant 5, and Apr. 4, 1927 to June 19, 1956, at present site at datum 3.00 ft higher. June 20, 1956 to Sept. 30, 1985, at present site at datum 2.00 ft higher.

REMARKS.--Records fair. Extensive diurnal fluctuation caused by powerplants upstream from station. New York State Erie (Barge) Canal crosses river 5.4 mi upstream from station. Water diverted by the canal from Lake Erie is discharged into river from the west, the canal again diverting a smaller amount of water from river to the east. Additional regulation is provided by Rushford Lake, Mount Morris Lake (see station 04224000), and Conesus Lake (see station 04227980).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48,300 ft³/s, Mar. 30, 1916, gage height 15.3 ft, site and datum then in use; maximum at present site, 34,400 ft³/s, Mar. 19, 1942; maximum gage height, 17.08 ft, Apr. 2, 1940, datum then in use; minimum discharge, less than 10 ft³/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 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 22,100 ft³/s, Jan. 10, gage height, 15.87 ft, result of regulation; minimum daily 358 ft³/s, Sep. 1; minimum instantaneous discharge not determined.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4220	1250	5260	1860	2660	7990	6910	e2070	e1250	3040	e878	e358
2	4250	1600	5730	1940	2210	10100	6920	e2210	e1560	3330	e873	e511
3	3980	3960	5740	3180	2190	8980	6490	e2420	e1630	3510	e884	e613
4	3240	4740	5000	4850	2820	8020	6080	3590	e1290	4410	e687	e729
5	2230	4430	4550	6510	3920	7530	5680	3800	e1310	5310	e724	e520
6	2090	3930	4480	5740	3800	6720	4780	3800	e1340	5130	e425	e494
7	2530	3080	3950	5210	3270	6110	3900	3630	e972	4400	e444	e836
8	1940	2240	3390	13200	2390	5440	e2870	3270	e534	5060	e516	921
9	1460	1820	2830	19100	1560	5280	e2760	2960	e1040	8810	e789	1000
10	1260	1780	2710	20900	e1340	5330	4120	3000	e789	8560	e595	899
11	1210	1860	2490	16400	3010	5240	5360	4120	e950	6050	e1030	793
12	1070	1750	2370	9950	3830	4540	5290	11400	e922	4430	e905	763
13	994	1180	2490	8150	3940	3380	4910	8010	e1090	4300	e1020	722
14	1090	1380	2420	9150	3410	3230	4590	6310	2190	5120	e944	748
15	1500	1410	2350	8830	2390	2930	4400	5910	2210	6300	e672	721
16	1380	1450	2250	8630	1960	2480	3720	6500	e1420	6540	e836	e590
17	1010	1470	2550	8990	1960	2290	3380	6700	e1020	5170	e852	570
18	2080	1460	2620	9470	3700	2410	e3090	6190	e1300	e1820	e1030	587
19	1820	1520	2430	9650	7510	3420	e2740	5050	e1120	e1430	988	581
20	1490	1750	2660	9420	7870	4660	4170	3950	e889	e1190	e784	1120
21	1500	1980	3060	9030	7100	4980	7690	e2410	e632	e1460	e800	1130
22	1640	2680	2720	8680	5740	5240	6630	e1800	e657	e1460	e810	846
23	1430	3650	2160	8570	4860	5280	5780	e1630	e613	e1420	e762	770
24	1380	3920	2830	8650	4720	6160	5520	e1660	e718	2040	1060	608
25	1230	3660	3490	8670	4530	6860	5620	e1390	e1440	2240	e967	738
26	886	3040	5190	8540	5020	8100	5890	e1490	2120	e1580	1710	538
27	1310	3930	5540	8180	4900	10600	4840	e1310	3710	e1160	1300	610
28	1160	5270	5010	7650	4570	8750	4120	e1330	3150	e1170	e1010	589
29	1430	5140	4390	6960	---	6340	3990	e1280	3010	e1010	e795	789
30	1350	5040	3570	6160	---	6260	3450	e1160	3400	e1000	e852	821
31	1150	---	2820	4380	---	6890	---	e1280	---	e1020	e916	---
TOTAL	55310	82370	109050	266600	107180	181540	145690	111630	44276	109470	26858	21515
MEAN	1784	2746	3518	8600	3828	5856	4856	3601	1476	3531	866	717
MAX	4250	5270	5740	20900	7870	10600	7690	11400	3710	8810	1710	1130
MIN	886	1180	2160	1860	1340	2290	2740	1160	534	1000	425	358

e Estimated.

STREAMS TRIBUTARY TO LAKE ONTARIO
04232000 GENESEE RIVER AT ROCHESTER, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 1998, BY WATER YEAR (WY)

MEAN	1471	2173	2798	2907	3211	6234	5991	3549	2071	1328	972	1006
MAX	7095	7383	9973	8830	9157	14300	14160	10230	7311	8524	3927	6722
(WY)	1978	1928	1928	1913	1925	1945	1940	1943	1972	1972	1992	1977
MIN	338	436	502	152	560	2213	1561	1140	479	350	229	199
(WY)	1914	1910	1910	1961	1920	1937	1946	1915	1915	1913	1913	1913

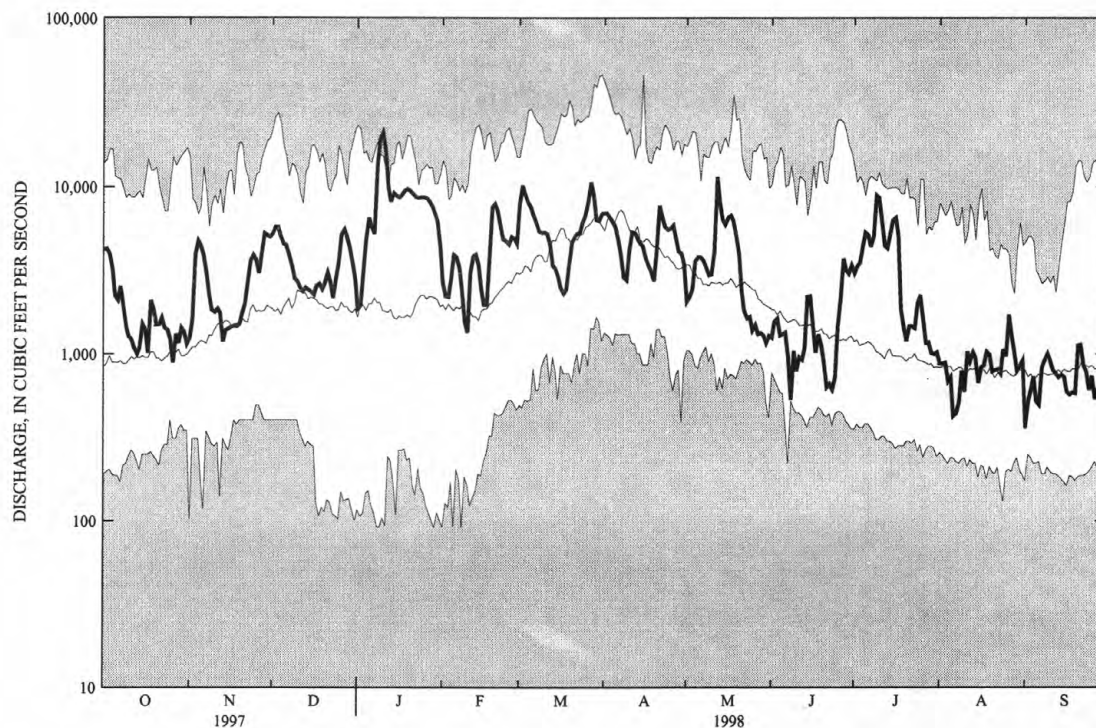
SUMMARY STATISTICS

FOR 1997 CALENDAR YEAR

FOR 1998 WATER YEAR

WATER YEARS 1904 - 1918
1920 - 1997

ANNUAL TOTAL	997971	1261489	
ANNUAL MEAN	2734	3456	2827
HIGHEST ANNUAL MEAN			4426
LOWEST ANNUAL MEAN			1666
HIGHEST DAILY MEAN	10300	Mar 15	20900
LOWEST DAILY MEAN	131	Aug 24	358
ANNUAL SEVEN-DAY MINIMUM	293	Jul 30	580
10 PERCENT EXCEEDS	6300		7260
50 PERCENT EXCEEDS	2060		2660
90 PERCENT EXCEEDS	551		789



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

STREAMS TRIBUTARY TO LAKE ONTARIO

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04232034 IRONDEQUOIT CREEK AT RAILROAD MILLS NEAR FISHERS, NY

LOCATION.--Lat 43°01'40", long 77°28'42", Ontario County, Hydrologic Unit 04140101, on right bank 90 ft upstream from bridge on Railroad Mills Road, 1.5 mi northwest of Fishers, and 4.0 mi southwest of Fairport.

DRAINAGE AREA.--39.2 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Elevation of gage is 450 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Unpublished water-quality records for prior years are available in files of Monroe County Department of Health. Several measurements of water temperature were made during the year.

COOPERATION.--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 ft³/s, Jan. 8, 1998, gage height 10.40 ft; minimum discharge, 6.8 ft³/s, Aug. 21, 1995, gage height, 3.96 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 8	1330	*a1,000	*10.40	July 8	1900	418	8.12

a About.

Minimum discharge, 13 ft³/s, June 21, 22, and Sep. 6, 7, 1998, but may have been lower during period of estimated record Sep. 7-8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	30	58	39	68	191	50	28	36	36	36	14
2	24	84	40	36	61	95	59	28	22	28	21	14
3	22	99	32	96	62	66	59	29	28	23	18	14
4	19	47	38	92	56	56	72	31	22	63	17	14
5	32	33	39	77	49	53	59	30	19	117	18	14
6	24	28	48	71	41	54	50	28	18	40	18	14
7	21	26	49	191	37	51	42	26	17	38	17	e40
8	19	27	43	e790	34	62	42	24	17	216	16	e36
9	17	30	42	e578	33	144	60	24	16	272	16	31
10	16	27	36	197	34	95	76	31	17	73	17	25
11	15	24	33	101	40	60	51	91	18	43	23	20
12	15	23	33	77	83	49	44	80	19	35	27	18
13	15	22	34	76	81	46	37	43	21	28	24	17
14	15	23	36	57	e40	51	38	30	32	26	18	16
15	16	27	30	55	e30	53	38	26	21	24	18	16
16	16	29	35	57	e26	47	39	24	18	22	17	20
17	16	30	43	56	45	49	40	22	18	22	16	19
18	16	31	41	55	208	70	38	25	17	21	35	17
19	17	34	37	54	192	126	41	23	16	20	31	16
20	18	42	47	52	108	116	118	24	15	20	20	25
21	19	51	50	48	83	76	76	20	14	20	17	24
22	19	92	32	45	66	78	45	19	14	21	16	18
23	18	79	58	49	58	76	37	18	15	48	16	26
24	18	66	67	67	62	80	34	18	15	31	24	20
25	19	41	102	61	83	92	31	17	61	25	21	18
26	20	40	78	53	111	186	30	17	118	23	25	18
27	44	63	56	47	84	148	29	17	49	22	17	18
28	30	47	45	46	76	73	32	16	30	20	15	20
29	24	38	e36	48	---	66	29	16	24	20	16	18
30	23	41	e36	115	---	58	27	16	34	19	15	17
31	23	---	e32	94	---	50	---	24	---	40	15	---
TOTAL	643	1274	1386	3480	1951	2517	1423	865	781	1456	620	597
MEAN	20.7	42.5	44.7	112	69.7	81.2	47.4	27.9	26.0	47.0	20.0	19.9
MAX	44	99	102	790	208	191	118	91	118	272	36	40
MIN	15	22	30	36	26	46	27	16	14	19	15	14
CFSM	.53	1.08	1.14	2.86	1.78	2.07	1.21	.71	.66	1.20	.51	.51
IN.	.61	1.21	1.32	3.30	1.85	2.39	1.35	.82	.74	1.38	.59	.57

e Estimated

STREAMS TRIBUTARY TO LAKE ONTARIO

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

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1998, BY WATER YEAR (WY)

MEAN	27.3	41.3	42.8	53.8	41.7	71.4	68.9	39.0	29.0	25.8	21.1	20.0
MAX	53.7	67.5	73.0	112	69.7	98.0	143	63.5	56.5	52.5	58.0	35.8
(WY)	1997	1993	1997	1998	1998	1993	1993	1996	1996	1992	1992	1992
MIN	14.1	17.6	21.6	25.4	27.8	47.3	27.4	20.2	12.3	13.4	9.03	9.92
(WY)	1992	1992	1996	1994	1995	1995	1995	1995	1995	1991	1995	1995

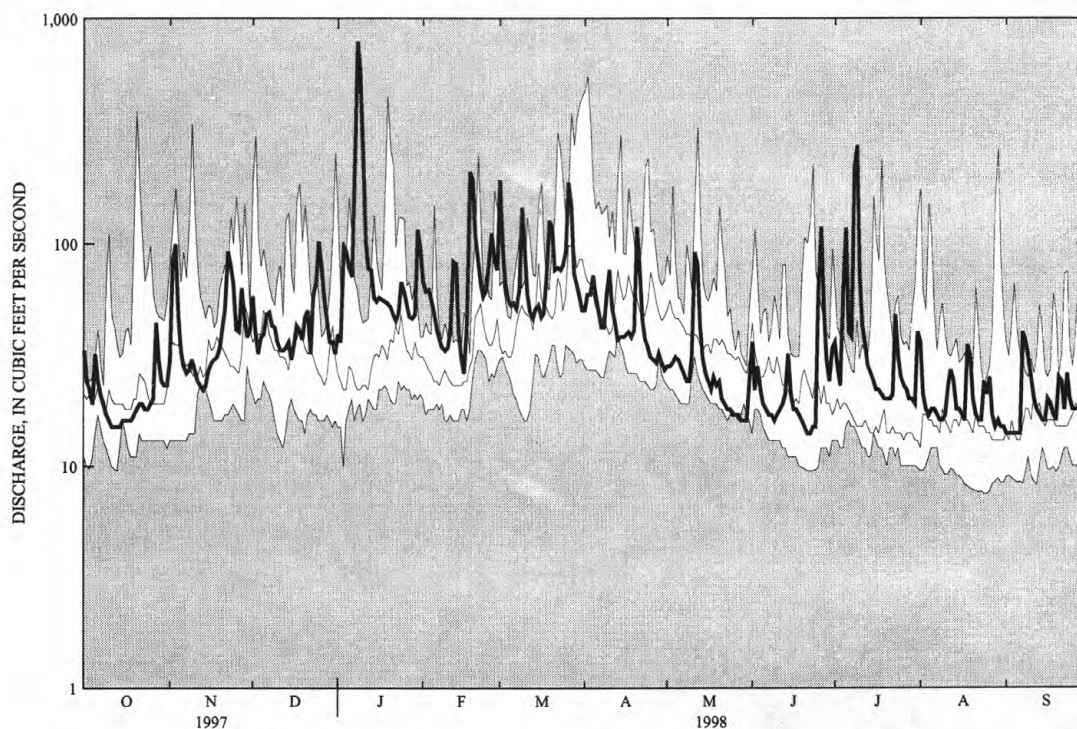
SUMMARY STATISTICS

FOR 1997 CALENDAR YEAR

FOR 1998 WATER YEAR

WATER YEARS 1991 - 1998

ANNUAL TOTAL	13166											
ANNUAL MEAN	36.1											
HIGHEST ANNUAL MEAN										40.5		
LOWEST ANNUAL MEAN										53.5		1993
HIGHEST DAILY MEAN	171	Feb 27								24.7		1995
LOWEST DAILY MEAN	11	Aug 9								7.5		Aug 24 1995
ANNUAL SEVEN-DAY MINIMUM	12	Aug 5								7.6		Aug 20 1995
ANNUAL RUNOFF (CFSM)	.92									1.03		
ANNUAL RUNOFF (INCHES)	12.49									14.05		
10 PERCENT EXCEEDS	68									73		
50 PERCENT EXCEEDS	30									27		
90 PERCENT EXCEEDS	14									13		



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
 SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

STREAMS TRIBUTARY TO LAKE ONTARIO

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

WATER-QUALITY RECORDS

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

CHEMICAL DATA: 1991-98 (e).

NUTRIENT DATA: 1991-98 (e).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: February 1995 to current year.

INSTRUMENTATION.--Automatic water sampler since July 1991. Water temperature recorder since February 1995 provides 15-minute-interval readings.

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

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

EXTREMES FOR PERIOD OF RECORD.--

WATER TEMPERATURES: Maximum, 22.5°C, July 15, 1995; minimum 0.0°C, many days during winter period.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 22°C, June 26; minimum 0.5°C, several days during winter period.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	13.5	11.0	12.0	10.5	8.0	9.0	5.0	3.5	4.0	1.0	.5	.5
2	11.0	9.0	10.0	10.5	9.5	10.0	3.5	3.0	3.0	3.5	1.0	2.5
3	12.0	10.0	11.0	9.5	8.5	9.0	4.0	2.0	2.5	3.5	2.5	3.0
4	13.5	11.5	12.5	8.5	8.0	8.5	5.0	4.0	4.5	4.5	3.5	4.0
5	15.0	13.5	14.5	8.5	7.5	8.0	4.5	4.0	4.5	5.5	3.5	4.5
6	15.5	14.0	15.0	8.5	7.0	8.0	4.0	2.5	3.5	8.0	5.5	7.0
7	15.0	13.0	14.0	8.0	6.5	7.0	3.5	2.5	3.0	8.0	5.5	7.5
8	15.0	13.5	14.0	8.0	6.5	7.5	4.0	3.5	3.5	5.5	3.5	4.5
9	15.5	14.0	15.0	8.5	7.5	8.0	4.0	3.0	3.5	3.5	3.5	3.5
10	16.0	14.5	15.5	7.5	7.0	7.0	3.5	2.0	2.5	4.0	3.5	3.5
11	14.5	12.0	12.5	7.0	6.0	7.0	3.0	2.0	2.5	3.5	2.5	3.0
12	12.0	10.0	11.5	6.0	5.0	5.5	3.0	3.0	3.0	3.0	1.5	2.0
13	13.0	11.0	12.0	5.0	3.5	4.0	3.0	3.0	3.0	3.5	1.5	3.0
14	13.5	12.5	13.0	4.5	2.0	2.5	3.0	1.5	2.5	1.5	.5	1.0
15	12.5	10.0	11.0	3.5	2.0	3.0	2.5	.5	1.5	1.5	1.0	1.0
16	11.0	10.0	10.5	3.5	3.0	3.0	3.5	2.0	3.0	2.0	1.5	1.5
17	10.5	9.5	10.0	3.5	3.0	3.0	3.5	3.0	3.0	2.0	1.5	2.0
18	9.5	7.5	8.5	4.0	3.0	3.5	3.5	2.5	3.0	3.0	2.0	2.5
19	9.5	7.0	8.5	4.0	2.0	3.0	4.5	3.0	3.5	2.5	1.5	2.0
20	9.0	8.0	8.5	4.0	3.5	3.5	4.5	3.5	4.0	3.0	2.0	2.5
21	9.0	8.5	9.0	5.0	4.0	4.5	3.5	1.5	2.5	2.5	2.0	2.0
22	9.0	7.5	8.0	4.5	3.5	4.0	2.0	1.0	1.5	2.0	1.5	2.0
23	7.5	6.5	7.0	4.5	3.5	4.0	2.5	2.0	2.5	2.5	.5	1.5
24	8.5	7.5	8.0	4.0	2.5	3.5	3.0	2.0	2.5	2.5	2.0	2.0
25	9.0	8.0	8.5	3.0	2.0	2.5	3.5	3.0	3.0	2.5	2.0	2.0
26	8.0	6.5	7.0	5.5	3.0	4.5	3.5	3.5	3.5	2.0	1.5	1.5
27	8.5	7.0	8.0	5.0	4.0	4.5	3.5	3.0	3.5	2.5	1.0	1.5
28	7.5	6.5	7.0	5.5	4.0	4.5	3.0	2.0	2.5	3.5	1.5	2.5
29	8.0	6.5	7.5	5.5	4.5	5.0	2.5	1.0	1.5	4.0	1.5	2.5
30	8.0	6.5	7.5	5.5	4.5	5.0	2.0	1.0	1.5	3.5	1.5	2.0
31	9.0	6.5	8.0	---	---	---	1.5	.5	.5	2.5	1.5	2.0
MONTH	16.0	6.5	10.5	10.5	2.0	5.4	5.0	.5	2.9	8.0	.5	2.7

STREAMS TRIBUTARY TO LAKE ONTARIO

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

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	2.5	1.0	1.5	5.5	4.0	4.5	14.5	11.0	12.0	17.0	13.5	15.5
2	3.0	1.5	2.0	6.0	5.0	5.5	11.0	10.0	10.5	16.5	14.5	15.0
3	3.0	2.5	3.0	6.0	5.5	5.5	10.0	9.0	9.5	15.0	14.0	14.5
4	3.0	2.5	2.5	6.0	5.0	5.5	9.0	7.5	8.0	15.5	13.5	14.5
5	3.0	2.0	2.5	5.5	5.0	5.0	10.5	6.5	8.5	16.0	13.5	15.0
6	2.5	.5	1.5	5.0	4.5	5.0	11.0	7.0	9.0	17.5	13.5	15.5
7	2.5	.5	1.5	6.0	4.5	5.0	11.5	7.0	9.5	18.5	14.0	16.5
8	3.0	1.0	2.0	5.5	4.5	4.5	10.0	8.5	8.5	17.5	15.0	16.0
9	3.0	1.0	2.0	7.0	4.5	5.5	8.5	7.5	8.0	16.0	14.5	15.0
10	4.0	1.5	2.5	7.0	3.0	5.0	10.0	6.0	8.0	15.0	14.0	14.5
11	4.0	2.5	3.0	3.0	1.5	2.0	11.5	7.0	9.0	15.5	13.5	14.5
12	4.0	2.5	3.0	2.0	1.0	1.5	12.5	7.5	10.0	17.5	14.5	15.5
13	2.5	1.5	2.0	4.0	1.5	2.5	14.0	8.5	11.5	18.0	14.0	16.0
14	2.0	1.0	1.5	4.0	2.5	3.0	13.5	10.5	12.5	19.0	14.5	16.5
15	2.0	.5	1.0	3.5	2.5	3.0	13.0	12.0	12.5	20.0	15.5	18.0
16	3.0	.5	1.5	4.0	1.5	2.5	12.0	10.5	11.5	19.5	15.5	18.0
17	3.5	2.5	3.0	5.0	1.5	3.0	12.5	11.0	12.0	20.0	16.5	18.5
18	2.5	1.0	1.5	4.5	4.0	4.0	13.5	9.5	11.5	19.5	15.5	17.5
19	2.5	1.5	2.0	4.5	4.0	4.0	12.5	10.5	11.5	18.5	16.5	17.5
20	3.5	2.5	3.0	4.0	3.5	4.0	12.5	9.5	11.0	19.5	16.0	18.0
21	3.5	3.0	3.5	3.5	1.0	2.0	15.0	10.5	12.5	19.0	14.5	16.0
22	4.0	3.5	3.5	3.0	1.5	2.0	15.5	11.0	13.0	14.5	13.0	14.0
23	4.5	3.0	4.0	4.5	1.5	3.0	15.0	11.5	13.0	15.5	12.0	13.5
24	4.0	3.0	3.5	5.5	2.0	3.5	15.5	11.0	13.5	16.0	13.0	14.5
25	5.0	2.5	3.5	6.0	2.0	4.0	15.0	11.5	13.0	16.0	14.5	15.5
26	4.5	2.5	3.5	9.5	4.0	6.5	13.5	10.5	11.5	17.0	14.0	15.5
27	5.5	3.0	4.5	13.0	9.5	11.0	12.5	8.0	10.5	17.0	14.0	15.5
28	6.0	5.0	5.5	14.5	11.0	13.0	14.0	9.0	11.5	17.5	14.5	16.0
29	---	---	---	14.0	12.0	13.0	15.0	9.5	12.5	18.0	16.0	17.0
30	---	---	---	15.5	11.0	13.5	16.0	12.5	14.5	18.0	15.5	17.0
31	---	---	---	16.5	13.0	14.5	---	---	---	17.0	15.5	16.5
MONTH	6.0	.5	2.6	16.5	1.0	5.4	16.0	6.0	11.0	20.0	12.0	15.9

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	17.0	15.0	16.0	17.0	15.5	16.0	18.5	16.5	17.5	16.0	15.0	15.5
2	15.5	13.0	14.5	18.0	15.0	16.5	18.0	15.5	17.0	15.5	15.0	15.0
3	15.0	13.5	14.0	18.0	15.0	17.0	17.5	15.5	16.5	15.0	14.5	15.0
4	13.5	11.5	12.5	18.5	15.5	16.5	17.5	16.0	17.0	15.0	14.0	14.5
5	13.5	11.5	12.5	19.0	17.0	18.0	17.5	16.5	17.0	15.0	13.5	14.5
6	13.5	12.0	13.0	18.0	15.0	16.5	17.5	17.0	17.0	16.5	14.5	15.5
7	13.0	12.0	12.5	17.5	16.0	16.5	17.0	16.5	17.0	16.5	16.0	16.5
8	14.5	12.0	13.0	20.0	17.0	18.5	18.5	16.5	17.5	16.0	14.5	15.0
9	15.5	12.5	14.0	20.5	19.5	20.0	18.5	17.0	18.0	14.5	13.5	14.0
10	15.0	13.5	14.5	20.0	18.0	19.0	18.5	18.0	18.0	14.0	13.0	13.5
11	15.5	14.0	15.0	18.5	16.0	17.5	19.0	17.0	18.0	15.0	13.0	14.0
12	17.0	15.0	15.5	18.5	15.5	17.0	19.0	17.5	18.5	16.0	14.5	15.0
13	17.0	16.0	16.5	18.5	15.5	17.5	18.5	16.5	17.5	16.0	15.0	15.5
14	16.5	15.5	16.0	18.0	16.0	17.0	17.5	16.0	16.5	16.0	15.0	15.5
15	16.5	15.0	16.0	18.5	16.0	17.5	18.0	16.5	17.0	16.0	15.5	15.5
16	17.5	15.5	16.5	19.0	17.0	18.0	18.5	17.0	17.5	16.5	15.0	16.0
17	17.5	16.0	17.0	19.0	17.5	18.0	18.0	17.0	17.5	15.5	13.5	14.0
18	18.0	16.0	17.0	18.5	16.5	17.5	17.5	16.5	17.0	14.5	13.0	13.5
19	18.5	16.0	17.0	17.5	16.0	17.0	16.5	15.5	16.0	15.0	13.5	14.5
20	18.0	16.5	17.5	18.5	16.5	17.5	15.5	14.0	15.0	17.0	14.5	15.5
21	18.5	16.5	17.5	18.5	17.0	18.0	17.0	15.0	15.5	17.0	16.0	16.5
22	18.5	17.0	17.5	19.0	18.0	18.5	17.0	15.5	16.5	17.0	14.0	15.5
23	17.0	16.5	16.5	20.0	17.5	18.5	17.0	16.0	16.5	14.0	12.5	13.0
24	18.5	16.0	17.0	19.5	17.5	18.0	18.5	16.5	17.5	12.5	11.0	12.0
25	21.5	17.0	19.5	17.5	15.5	16.5	18.0	17.0	17.5	13.0	12.0	12.5
26	22.0	18.5	20.5	17.0	15.5	16.0	18.0	17.0	17.5	14.0	12.5	13.0
27	21.5	18.5	19.5	17.0	15.5	16.5	18.0	16.0	17.0	15.0	14.0	14.5
28	19.5	17.0	18.5	18.5	16.5	17.5	17.0	15.5	16.5	15.0	14.0	14.5
29	20.5	18.0	19.0	19.0	17.0	18.0	17.0	16.5	17.0	14.0	12.0	13.0
30	19.5	16.5	18.0	18.5	16.5	17.0	17.5	16.0	17.0	14.0	13.0	13.5
31	---	---	---	18.5	15.5	17.0	17.0	15.5	16.5	---	---	---
MONTH	22.0	11.5	16.1	20.5	15.0	17.4	19.0	14.0	17.0	17.0	11.0	14.5

STREAMS TRIBUTARY TO LAKE ONTARIO

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	TUR- BID- ITY (NTU) (00076)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	RESIDUE VOLA- TILE, SUS- PENDE (MG/L) (00535)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
OCT							
02-02	0745	0945	24	26	--	--	<.01
02-06	1030	0930	24	5.4	--	--	--
NOV							
01-03	0615	0915	73	47	167	26	--
03-06	1020	0920	46	32	89	11	--
21-22	0215	2115	72	11	--	--	--
22-24	2215	0915	79	--	--	--	--
24-25	1020	0620	56	1.5	--	--	--
DEC							
06-07	1345	0045	60	15	--	--	--
07-08	0145	0845	46	7.3	--	--	--
08-11	0945	0845	39	5.2	--	--	--
22-25	1010	1710	65	17	--	--	--
25-26	1810	0910	100	50	103	13	--
26-28	1025	0925	58	16	--	--	--
JAN							
02-03	1015	1715	67	19	--	--	--
05-06	1015	0315	69	32	77	9	.01
06-08	0415	0915	190	170	429	40	.01
08-09	1150	0250	454	95	317	27	.03
09-10	0350	0250	402	100	202	19	.02
15-16	0940	0940	56	15	--	--	.01
16-20	1020	0920	55	5.0	--	--	.01
29-30	1015	1715	84	8.4	--	--	--
JAN 30-							
FEB 02	1815	0915	83	8.2	--	--	--
02-05	1015	0915	58	4.7	--	--	--
11-13	1010	0910	75	30	96	53	<.01
13-17	1015	0915	41	7.8	--	--	--
FEB 28-							
MAR 01	1435	1335	150	95	186	17	--
01-02	1435	0935	146	80	122	12	--
02-05	1035	0935	64	14	--	--	--
05-08	0950	1250	51	4.4	--	--	--
17-19	0945	0845	70	14	--	--	--
19-20	1010	0110	145	120	272	24	--
20-23	0210	0910	87	27	--	--	--
APR							
13-16	0900	0800	38	5.7	--	--	<.01
19-20	1335	0835	65	28	--	--	--
20-20	0935	2035	140	65	--	--	--
20-23	2135	0835	60	23	--	--	--
MAY							
10-11	0555	0855	44	23	--	--	--
11-12	0950	0250	108	32	195	32	--
12-14	0350	0850	53	24	--	--	--
MAY 31-							
JUN 01	0925	0825	34	90	226	34	--
01-04	0940	0840	26	37	95	16	--
12-14	0700	0200	21	13	--	--	--
14-15	0300	0600	58	39	101	17	--
25...	1005	--	152	570	1360	157	--
25-26	1010	1310	84	410	956	88	.06
26-29	1410	0910	53	100	247	26	.10
JUN 29-							
JUL 02	1010	0910	32	110	210	21	<.01
04-05	0955	0055	98	440	1110	88	--
05-06	0155	0855	93	160	344	39	--
06-07	1005	0905	34	34	69	9	--
07-09	1005	0905	195	270	--	--	--
09-13	1000	0900	71	35	67	8	--
AUG							
25-26	1855	0555	29	36	--	--	<.01
26-27	0655	0855	20	16	90	16	<.01
27-31	0955	0855	16	7.5	--	--	--
SEP							
08...	1005	--	36	39	110	14	--

STREAMS TRIBUTARY TO LAKE ONTARIO
04232034 IRONDEQUOIT CREEK AT RAILROAD MILLS NEAR FISHERS, NY,--continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
OCT						
02-02	1.2	1.1	.120	.014	66	160
02-06	--	--	.020	.009	77	240
NOV						
01-03	--	--	.400	.009	63	160
03-06	--	--	.130	.012	62	160
21-22	--	--	.075	.015	220	83
22-24	--	--	.075	.014	180	71
24-25	--	--	.050	.008	71	140
DEC						
06-07	--	--	.065	.008	85	120
07-08	--	--	.040	.005	96	170
08-11	--	--	.030	.006	85	170
22-25	--	--	.065	.008	89	140
25-26	--	--	.180	.010	66	95
26-28	--	--	.055	.007	79	130
JAN						
02-03	--	--	.095	.007	110	150
05-06	.83	.83	.130	.022	76	120
06-08	1.5	.68	.450	.014	68	89
08-09	.27	.43	.410	.028	25	24
09-10	.74	.52	.460	.024	29	31
15-16	.30	1.4	.045	.009	75	130
16-20	.64	1.4	.030	.007	72	140
29-30	--	--	.045	.007	100	140
JAN 30-						
FEB 02	--	--	.040	.013	77	110
02-05	--	--	.025	.008	72	130
11-13	--	1.2	.065	.005	67	130
13-17	--	--	.030	.006	73	170
FEB 28-						
MAR 01	--	--	.220	.009	64	85
01-02	--	--	.150	.008	50	67
02-05	--	--	.050	.006	70	120
05-08	--	--	.020	.004	72	150
17-19	--	--	.040	.004	82	130
19-20	--	--	.250	.023	71	75
20-23	--	--	.070	.009	80	100
APR						
13-16	.31	1.2	.035	.004	77	170
19-20	--	--	.120	.005	80	150
20-20	--	--	.240	.006	66	78
20-23	--	--	.085	.004	67	130
MAY						
10-11	--	--	.090	.006	81	190
11-12	--	--	.250	.006	74	97
12-14	--	--	.110	.005	66	140
MAY 31-						
JUN 01	--	--	.290	.007	80	210
01-04	--	--	.160	.011	74	190
12-14	--	--	.060	.008	82	250
14-15	--	--	.200	.010	73	180
25...	--	--	1.50	.037	50	110
25-26	1.2	1.4	.210	.022	65	150
26-29	.91	1.3	.320	.021	70	180
JUN 29-						
JUL 02	.44	1.4	.280	.018	80	210
04-05	--	--	1.10	.022	65	170
05-06	--	--	.450	.022	53	110
06-07	--	--	.090	.018	70	170
07-09	--	--	--	.025	53	98
09-13	--	--	.120	.022	62	120
AUG						
25-26	--	1.1	.150	.016	75	200
26-27	--	1.2	.085	.014	80	220
27-31	--	--	.030	.010	84	270
SEP						
08...	--	--	.150	.018	68	190

STREAMS TRIBUTARY TO LAKE ONTARIO

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0423204920 EAST BRANCH ALLEN CREEK AT PITTSFORD, NY

LOCATION.--Lat 43°06'11", long 77°32'01", Monroe County, Hydrologic Unit 04140101, on left bank 25 ft upstream from culvert of abandoned Conrail railroad, 0.2 mi downstream from State Highway 31, 0.7 mi northwest of Pittsford and 1.8 mi upstream from mouth.

DRAINAGE AREA.--6.96 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1990 to current year.

REVISED RECORDS.--WDR NY-92-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 400.00 ft above sea level.

REMARKS.--Records poor. Unpublished water-quality records for prior years are available in files of Monroe County Department of Health. Discharge includes undetermined diversion from Erie (Barge) Canal upstream from station. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 459 ft³/s, July 8, 1998, gage height 9.03 ft; minimum daily discharge, 0.85 ft³/s, May 30, 1993; minimum instantaneous discharge not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 8	0830	358	7.73	July 8	1945	*459	*9.03

Minimum daily discharge, 0.97 ft³/s, May 8; minimum instantaneous discharge not determined.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0	12	10	3.8	16	48	9.8	1.6	3.4	9.6	1.7	2.4
2	5.5	26	7.3	5.3	18	28	9.8	1.7	3.3	6.5	3.8	3.4
3	4.1	e19	5.7	14	16	19	9.3	e2.0	3.2	5.1	3.2	e2.9
4	3.5	e15	6.5	17	14	14	8.3	2.4	3.0	41	e1.8	e2.5
5	9.7	e8.0	6.0	13	13	12	7.8	1.7	3.1	65	2.1	e2.2
6	5.2	e7.2	5.7	15	8.0	14	7.2	1.3	3.1	20	1.9	e2.0
7	4.9	e6.0	6.6	83	1.5	8.4	6.7	1.2	3.0	20	3.0	12
8	6.0	e4.8	6.8	295	1.3	13	7.6	.97	2.9	165	2.2	13
9	6.1	4.4	6.3	164	1.6	30	7.2	1.2	2.8	122	13	13
10	5.3	4.2	5.8	154	3.0	24	6.5	3.8	2.7	27	e8.0	8.9
11	4.3	4.1	5.7	e26	5.3	16	5.8	10	2.8	15	e4.5	6.6
12	3.1	4.2	5.5	e20	17	12	5.4	4.2	4.5	9.2	e2.5	5.5
13	2.1	3.7	5.3	14	20	9.8	5.1	2.8	3.1	e6.0	e1.7	4.8
14	1.9	4.3	5.1	11	13	10	4.8	2.7	e3.5	e4.6	e1.3	6.5
15	1.5	5.1	4.5	8.8	8.6	11	5.1	2.3	e2.7	e3.2	e1.6	8.3
16	1.4	5.9	4.9	8.0	10	9.7	5.4	2.2	3.1	e2.7	e1.5	9.5
17	1.4	5.2	5.6	7.3	16	10	2.9	2.7	3.8	e2.0	e2.2	7.6
18	1.3	4.6	5.8	7.0	48	15	2.2	3.5	3.2	e1.7	30	6.7
19	1.3	5.3	5.4	6.7	59	48	5.7	5.0	2.9	e1.5	2.7	6.0
20	1.5	6.7	6.7	6.2	30	41	8.1	3.7	2.7	6.4	e2.3	7.4
21	4.6	9.5	6.8	5.8	22	25	3.6	2.7	2.5	2.7	e2.0	6.0
22	5.9	15	5.5	9.8	15	20	3.3	2.7	2.8	3.2	e1.9	5.8
23	e3.0	15	9.6	9.5	14	18	2.9	2.6	2.9	e10	e3.2	5.3
24	e2.7	12	9.2	9.7	14	20	2.6	2.5	2.7	e3.0	14	3.7
25	e2.7	8.2	17	11	19	22	2.4	2.7	23	e1.8	29	5.0
26	e3.2	9.1	15	9.7	23	45	2.2	2.7	36	e1.4	31	7.6
27	25	11	11	8.4	17	33	2.0	2.5	14	e2.0	11	8.7
28	15	8.1	7.8	8.0	20	21	1.8	2.4	8.5	e2.0	8.1	6.6
29	e7.0	6.4	5.9	9.3	---	15	1.6	2.9	6.0	8.0	8.6	5.3
30	e5.2	8.8	5.4	21	---	11	1.5	2.5	16	2.4	5.9	4.4
31	e3.9	---	4.6	19	---	9.0	---	4.3	---	2.2	1.9	---
TOTAL	157.3	258.8	219.0	1000.3	463.3	631.9	154.6	87.47	177.2	572.2	207.6	189.6
MEAN	5.07	8.63	7.06	32.3	16.5	20.4	5.15	2.82	5.91	18.5	6.70	6.32
MAX	25	26	17	295	59	48	9.8	10	36	165	31	13
MIN	1.3	3.7	4.5	3.8	1.3	8.4	1.5	.97	2.5	1.4	1.3	2.0
CFSM	.73	1.24	1.02	4.64	2.38	2.93	.74	.41	.85	2.65	.96	.91
IN.	.84	1.38	1.17	5.35	2.48	3.38	.83	.47	.95	3.06	1.11	1.01

e Estimated

STREAMS TRIBUTARY TO LAKE ONTARIO
0423204920 EAST BRANCH ALLEN CREEK AT PITTSFORD, NY--continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1998, BY WATER YEAR (WY)

MEAN	6.86	9.66	9.62	11.6	8.81	18.6	13.9	8.51	5.94	6.78	6.37	4.60
MAX	16.9	16.3	18.1	32.3	16.5	26.7	23.4	20.4	14.6	18.5	21.7	6.76
(WY)	1997	1997	1991	1998	1998	1991	1993	1996	1996	1998	1992	1992
MIN	3.38	2.23	2.97	3.57	3.60	8.96	3.32	2.39	2.92	2.95	2.97	2.22
(WY)	1993	1992	1992	1992	1993	1995	1995	1993	1995	1997	1991	1995

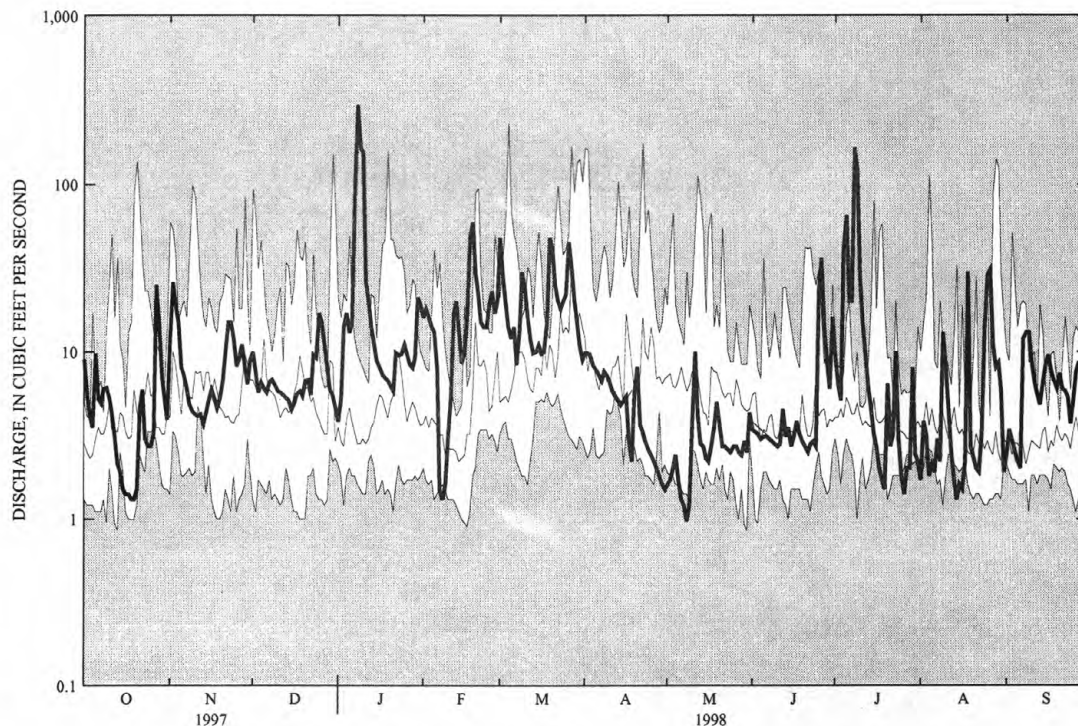
SUMMARY STATISTICS

FOR 1997 CALENDAR YEAR

FOR 1998 WATER YEAR

WATER YEARS 1990 - 1998

ANNUAL TOTAL	2493.1	4119.27	
ANNUAL MEAN	6.83	11.3	9.26
HIGHEST ANNUAL MEAN			11.3 1998
LOWEST ANNUAL MEAN			5.28 1995
HIGHEST DAILY MEAN	50 Feb 27	295 Jan 8	295 Jan 8 1998
LOWEST DAILY MEAN	1.1 Jan 21	.97 May 8	.85 May 30 1993
ANNUAL SEVEN-DAY MINIMUM	1.5 Oct 14	1.5 Oct 14	1.1 Feb 13 1996
ANNUAL RUNOFF (CFSM)	.98	1.62	1.33
ANNUAL RUNOFF (INCHES)	13.33	22.02	18.09
10 PERCENT EXCEEDS	15	20	19
50 PERCENT EXCEEDS	4.3	5.9	4.5
90 PERCENT EXCEEDS	2.0	2.0	1.9



1998 WATER YEAR DAILY DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

STREAMS TRIBUTARY TO LAKE ONTARIO

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

WATER-QUALITY RECORDS

PERIOD OF RECORD.--1990 to current year.

CHEMICAL DATA: 1990-98 (e).

NUTRIENT DATA: 1990-98 (e).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: November 1994 to current year.

INSTRUMENTATION.--Automatic water sampler since 1990. Water-temperature recorder since November 1994 provides 15-minute-interval readings.

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

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 27.5°C, July 15, 1997; minimum, 0.0°C, on many days during winter period.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 25.5°C, August 9; minimum, 0.5°C, on many several during winter period.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	14.5	12.0	13.5	12.0	7.5	9.5	4.5	3.0	3.5	1.5	.5	1.0
2	13.0	11.0	12.0	11.0	10.0	10.5	3.5	2.5	3.0	4.0	1.5	3.0
3	15.0	12.0	13.5	10.0	9.5	9.5	4.5	2.0	3.0	4.0	3.0	3.5
4	17.5	12.5	14.5	9.5	9.0	9.5	4.5	3.5	4.5	4.5	3.0	3.5
5	18.5	15.0	16.0	9.0	8.5	9.0	4.5	3.0	4.0	5.0	3.0	4.0
6	17.5	15.0	16.0	9.0	8.0	8.5	3.5	2.5	3.0	6.5	4.5	5.5
7	16.0	13.5	14.5	10.0	8.0	8.5	4.0	2.5	3.5	7.0	5.5	6.0
8	17.0	14.0	15.5	10.0	8.0	9.0	4.0	3.0	3.5	5.5	3.5	4.0
9	18.0	15.0	16.5	9.5	8.5	9.0	4.0	2.5	3.0	3.5	3.5	3.5
10	17.0	14.5	16.0	8.5	7.5	8.0	3.0	1.0	2.5	4.0	3.0	3.5
11	14.5	12.0	13.5	7.5	6.5	7.0	3.5	2.0	3.0	3.0	2.5	3.0
12	14.5	10.5	12.5	7.0	5.5	6.0	3.5	2.5	3.0	3.0	2.0	2.5
13	16.0	12.5	14.0	5.5	4.5	5.0	3.5	2.5	3.0	3.0	1.0	2.5
14	15.5	12.5	14.5	5.0	3.0	3.5	2.5	1.0	2.0	2.0	.5	1.0
15	12.5	10.5	11.5	4.5	3.5	4.0	3.5	1.0	2.0	1.0	.5	1.0
16	12.0	10.5	11.0	4.5	3.5	4.0	4.5	2.0	3.0	1.5	.5	1.0
17	11.5	9.0	10.5	4.0	2.5	3.5	4.0	2.5	3.0	2.0	1.0	1.5
18	10.5	7.5	9.0	4.5	2.0	3.0	4.0	2.5	3.0	2.5	1.5	2.0
19	10.5	7.5	9.0	5.0	2.0	3.5	4.5	3.0	3.5	2.5	.5	1.5
20	10.5	8.0	9.0	5.0	3.0	4.0	4.0	2.5	3.5	2.5	1.5	1.5
21	10.5	8.5	9.0	5.5	4.0	4.5	3.0	1.5	2.5	2.5	1.0	1.5
22	9.0	7.0	8.0	4.5	3.5	4.0	3.0	1.0	2.0	2.0	1.0	1.5
23	8.0	7.0	7.5	4.5	4.0	4.0	3.0	2.5	3.0	2.0	.5	1.0
24	8.5	7.0	8.0	4.0	2.5	3.5	3.5	2.5	3.0	2.5	2.0	2.0
25	8.5	7.0	8.0	3.5	2.5	3.0	3.5	3.0	3.0	2.5	1.0	2.0
26	8.5	6.0	7.0	5.5	3.5	4.5	3.5	3.0	3.0	2.0	1.0	1.5
27	8.5	7.0	8.0	4.5	3.0	4.0	3.5	2.5	3.0	3.0	.5	1.5
28	7.5	7.0	7.0	5.0	3.5	4.5	3.0	2.0	2.5	3.5	1.0	2.0
29	8.5	7.0	7.5	5.0	3.5	4.0	3.5	1.5	2.5	3.5	1.0	2.0
30	9.0	7.0	7.5	5.5	3.5	4.5	2.5	1.0	1.5	2.5	2.0	2.0
31	9.5	6.0	8.0	---	---	---	1.5	.5	1.0	3.0	1.5	2.0
MONTH	18.5	6.0	11.2	12.0	2.0	5.8	4.5	.5	2.9	7.0	.5	2.4

STREAMS TRIBUTARY TO LAKE ONTARIO
0423204920 EAST BRANCH ALLEN CREEK AT PITTSFORD, NY--continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	3.0	1.0	2.0	5.0	4.0	4.5	12.5	11.0	11.5	17.0	12.0	14.5
2	3.0	1.5	2.0	5.5	4.5	5.0	12.5	10.0	11.5	15.0	13.5	14.0
3	2.5	2.0	2.5	5.5	4.5	5.0	10.5	9.0	10.0	15.0	13.0	14.0
4	3.0	2.0	2.0	5.5	4.5	5.0	9.0	8.0	8.5	16.5	13.5	14.5
5	3.0	1.5	2.0	5.0	4.0	4.5	11.5	7.0	8.5	17.5	13.5	15.0
6	3.5	1.0	2.0	5.0	4.0	4.5	12.0	6.5	8.5	19.5	13.5	16.0
7	3.0	1.0	1.5	6.5	4.0	5.0	13.0	7.0	9.0	20.0	13.5	16.5
8	3.5	.5	1.5	4.5	2.5	3.5	9.0	7.5	8.0	17.0	14.5	16.0
9	3.5	.5	1.5	6.5	4.5	5.0	8.5	7.0	8.0	16.5	14.5	15.5
10	4.0	.5	2.0	5.5	3.0	4.0	11.0	6.0	8.0	15.5	13.0	14.0
11	4.0	1.5	2.5	3.0	1.5	2.5	12.0	5.5	8.0	14.5	13.0	13.5
12	3.5	2.5	3.0	2.0	.5	1.5	13.5	6.0	9.0	17.0	13.0	14.5
13	3.5	2.0	2.5	3.5	.5	2.0	14.5	7.0	10.0	17.5	12.5	15.0
14	3.0	.5	2.0	3.5	1.5	2.0	14.0	8.5	11.0	18.5	13.5	16.0
15	3.0	.5	1.5	3.0	1.0	2.0	12.5	11.0	11.5	19.5	14.5	16.5
16	3.0	.5	1.5	4.0	.5	2.0	12.5	10.5	11.5	20.0	14.5	17.0
17	3.0	1.5	2.0	6.0	.5	2.5	12.0	9.0	11.0	20.0	16.0	17.5
18	2.5	1.5	2.0	4.0	2.5	3.0	14.5	7.5	10.5	20.0	16.0	17.5
19	2.5	2.0	2.5	4.0	2.5	3.0	11.5	9.5	10.5	21.5	16.5	18.0
20	3.0	2.5	3.0	3.5	2.5	3.0	13.5	9.0	10.5	21.0	17.0	18.5
21	3.5	2.5	3.0	2.5	1.0	2.0	15.5	8.5	11.5	18.5	14.5	16.0
22	3.5	2.5	3.0	2.0	1.0	1.5	15.5	9.0	12.0	16.5	13.5	15.0
23	4.0	2.5	3.0	4.0	1.0	2.5	15.0	9.5	12.0	18.0	13.0	15.5
24	3.5	2.5	3.0	5.0	2.0	3.0	16.0	10.0	12.5	19.5	13.5	16.5
25	6.0	2.5	3.5	6.0	2.0	3.5	15.5	10.0	12.5	19.0	16.0	17.0
26	4.5	3.0	3.5	7.0	3.5	5.5	12.5	10.0	11.0	19.5	15.5	17.5
27	5.5	3.0	4.0	10.0	6.5	8.0	14.5	8.5	11.0	20.5	15.5	18.0
28	5.5	3.5	4.5	12.0	8.0	9.5	16.0	9.0	12.0	21.0	16.5	19.0
29	---	---	---	12.5	10.0	11.0	16.5	9.0	12.5	22.5	18.5	20.0
30	---	---	---	16.0	10.0	12.5	17.5	12.0	14.0	21.0	17.5	19.5
31	---	---	---	16.0	12.0	13.5	---	---	---	21.0	18.0	19.0
MONTH	6.0	.5	2.5	16.0	.5	4.6	17.5	5.5	10.5	22.5	12.0	16.4
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	18.5	16.0	17.0	21.0	19.0	20.5	22.0	18.0	20.0	21.0	18.5	19.5
2	19.0	15.0	17.0	22.5	19.5	21.0	23.5	19.5	21.5	21.5	20.0	20.5
3	17.5	14.5	15.5	23.5	19.5	21.5	24.0	20.0	22.0	20.5	19.5	20.0
4	16.5	13.5	15.0	22.0	20.0	20.5	24.5	21.0	22.5	20.5	18.5	19.5
5	16.5	13.5	15.0	21.0	19.5	20.5	24.0	22.0	23.0	21.0	18.5	19.5
6	16.5	13.5	15.0	21.0	19.5	20.0	23.0	22.0	22.5	22.5	20.0	21.0
7	15.5	14.0	14.5	21.5	20.0	20.0	23.0	22.0	22.5	22.0	19.5	20.5
8	17.5	14.0	15.5	22.0	19.5	20.0	24.5	21.0	23.0	19.5	16.5	18.0
9	19.5	14.5	17.0	21.5	20.0	20.5	25.5	22.5	24.0	18.5	17.0	17.5
10	18.5	15.0	17.0	21.0	20.0	20.5	24.5	23.0	23.5	19.0	16.5	17.5
11	19.0	16.5	18.0	21.0	19.5	20.5	23.0	21.5	22.0	20.5	17.0	18.5
12	21.0	17.5	19.0	21.5	19.5	20.5	22.0	20.0	21.0	21.0	18.5	19.5
13	20.5	18.5	19.5	22.5	19.5	21.0	23.0	19.5	21.0	21.0	18.5	19.5
14	19.0	18.0	18.5	22.0	19.0	20.5	24.0	20.0	22.0	21.0	18.5	19.5
15	20.0	17.0	18.5	23.0	19.5	21.5	25.0	22.0	23.5	21.0	20.0	20.5
16	21.5	18.5	20.0	23.5	21.0	22.0	25.0	22.0	23.5	22.0	19.0	20.0
17	23.5	19.0	20.5	22.5	21.0	22.0	25.0	22.5	23.5	21.0	18.0	19.0
18	22.0	19.0	20.5	22.0	20.0	21.0	24.0	19.0	21.5	21.5	18.0	19.5
19	23.0	19.0	21.0	21.5	18.5	20.0	19.5	17.0	18.5	22.0	19.0	20.5
20	23.5	19.5	21.5	24.0	20.5	22.0	21.0	16.5	18.5	25.0	20.0	21.0
21	25.0	20.5	22.5	23.0	21.0	22.0	22.5	19.5	21.0	22.5	20.5	21.5
22	23.5	22.0	22.5	24.5	21.5	22.5	22.5	19.5	21.0	21.5	16.5	19.5
23	23.0	21.5	22.5	23.0	21.0	21.5	22.5	20.0	21.0	17.5	15.5	16.5
24	25.0	21.5	23.0	21.5	19.0	20.0	23.5	20.0	22.0	17.5	14.5	16.0
25	23.5	18.5	22.0	21.0	18.0	19.0	23.0	20.5	22.0	18.5	15.5	17.0
26	23.0	20.5	22.0	21.0	18.0	19.5	22.0	20.0	21.0	19.0	17.0	18.0
27	23.0	22.0	22.5	21.5	18.0	20.0	22.0	20.0	21.0	20.0	18.5	19.0
28	24.0	21.0	22.5	22.5	20.0	21.0	22.0	19.5	21.0	19.0	16.5	18.0
29	24.5	22.5	23.0	23.5	20.5	22.0	22.0	21.0	21.5	18.5	15.5	16.5
30	23.0	21.0	22.0	22.0	20.5	21.0	21.5	20.0	21.0	19.0	17.0	17.5
31	---	---	---	22.0	19.5	21.0	21.0	19.5	20.0	---	---	---
MONTH	25.0	13.5	19.3	24.5	18.0	20.8	25.5	16.5	21.7	25.0	14.5	19.0

STREAMS TRIBUTARY TO LAKE ONTARIO

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	TUR- BID- ITY (NTU) (00076)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDEED (MG/L) (00530)	RESIDUE VOLA- TILE, SUS- PENDEED (MG/L) (00535)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
OCT							
02-06	1110	1010	5.6	--	--	--	--
21-22	1415	0415	9.0	7.9	--	--	--
22-23	0515	1015	4.9	--	--	--	--
NOV							
01-02	1505	0205	26	53	136	21	--
02-03	0305	1005	24	32	64	10	--
03-06	1135	0835	12	21	--	--	--
06-10	0855	0755	5.6	15	--	--	<.01
20-22	1305	1605	11	22	--	--	--
22-24	1705	0805	15	25	--	--	--
24-26	0900	0800	8.9	7.9	--	--	--
DEC							
22-25	2055	0355	9.7	7.8	--	--	--
25-26	0455	0755	16	8.3	--	--	--
26-29	1335	0635	9.6	10	--	--	--
DEC 29-							
JAN 02	0850	0750	4.7	6.6	--	--	.03
02-04	0905	0505	12	12	--	--	--
04-05	0605	0805	16	7.6	--	--	--
05-07	0905	0505	14	11	--	--	.01
07-08	0605	0805	163	80	264	32	.02
08-12	0945	0845	132	60	177	19	.03
12-16	0850	0750	12	16	--	--	.03
16-20	0855	0755	7.1	8.4	--	--	.04
29-30	0850	2350	17	8.5	--	--	--
JAN 31-							
FEB 02	0050	0750	17	6.2	--	--	--
02-05	0845	0745	16	6.4	--	--	--
10-13	2055	0755	12	6.6	--	--	<.01
13-17	0840	0740	13	5.8	--	--	--
MAR							
17-19	0850	0750	16	13	--	--	--
19-20	0840	0340	60	45	103	14	--
20-23	0440	0740	25	22	--	--	--
23-26	0855	0755	21	18	--	--	--
26-26	0850	2350	16	25	--	--	--
27-29	0050	2350	22	7.7	--	--	--
MAR 30-							
APR 02	0845	0745	9.7	11	--	--	--
02-06	0915	0715	8.6	4.8	--	--	--
13-16	0835	0735	4.9	3.7	--	--	.02
19-20	1635	0735	11	24	--	--	--
20-23	0900	0800	4.0	6.3	--	--	--
MAY							
11-14	0900	0800	4.6	10	--	--	--
JUN							
25...	0855	--	51	130	303	46	--
25-26	0900	0800	33	200	321	38	.10
26-28	0900	1200	17	88	128	15	.08
JUN 29-							
JUL 02	0900	0800	11	45	76	11	.02
04-04	0850	2350	61	140	216	26	--
05-05	0050	1950	71	320	432	52	--
06-07	0900	1700	15	150	172	20	--
07-08	1800	2000	95	90	151	20	--
08-09	2100	1100	253	330	525	53	--
09-12	0855	1155	17	58	--	--	--
SEP							
07-07	0045	1545	16	75	131	17	--
07-08	1645	0345	5.3	55	108	15	--
08-10	0850	0750	13	110	175	22	--

STREAMS TRIBUTARY TO LAKE ONTARIO
0423204920 EAST BRANCH ALLEN CREEK AT PITTSFORD, NY--continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- ORTHOPHOS- PHORUS SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
OCT						
02-06	--	--	.110	.042	84	100
21-22	--	--	.200	.040	79	160
22-23	--	--	.085	.020	95	190
NOV						
01-02	--	--	.055	.024	60	91
02-03	--	--	.190	.034	75	65
03-06	--	--	.140	.032	97	75
06-10	--	--	.090	.041	110	110
20-22	--	--	.095	.012	92	140
22-24	--	--	.090	.009	81	130
24-26	--	--	.065	.011	180	77
DEC						
22-25	--	--	.065	.010	250	72
25-26	--	--	.060	.009	190	60
26-29	--	--	.065	.014	190	60
DEC 29-						
JAN 02	.53	2.4	.045	.013	230	73
02-04	--	--	.075	.013	300	66
04-05	--	--	.075	.014	200	56
05-07	.60	1.9	.070	.014	170	54
07-08	1.4	1.3	.510	.034	90	33
08-12	.72	1.3	.290	.069	53	32
12-16	.32	2.0	.095	.036	110	65
16-20	.52	2.2	.060	.024	200	81
29-30	--	--	.055	.015	220	62
JAN 31-						
FEB 02	--	--	.050	.017	180	54
02-05	--	--	.045	.014	150	53
10-13	--	1.6	.045	.005	150	75
13-17	--	--	.040	.005	130	56
MAR						
17-19	--	--	.055	.009	180	55
19-20	--	--	.190	.009	120	40
20-23	--	--	.100	.015	180	40
23-26	--	--	.070	.011	180	44
26-26	--	--	.120	.009	120	--
27-29	--	--	.045	.010	120	--
MAR 30-						
APR 02	--	--	.050	.013	130	55
02-06	--	--	.035	.247	130	54
13-16	.43	.98	.040	.003	140	65
19-20	--	--	.120	.013	94	59
20-23	--	--	.050	.006	130	57
MAY						
11-14	--	--	.085	.014	120	78
JUN						
25...	--	--	.550	.063	38	51
25-26	.63	.79	.220	.026	73	54
26-28	.69	2.0	.350	.044	76	56
JUN 29-						
JUL 02	.52	1.5	.210	.038	72	81
04-04	--	--	.420	.026	51	55
05-05	--	--	1.10	.058	54	28
06-07	--	--	.510	.064	56	38
07-08	--	--	.400	.056	43	35
08-09	--	--	.940	.082	24	16
09-12	--	--	.260	.090	95	72
SEP						
07-07	--	--	.250	.024	54	86
07-08	--	--	.240	.023	63	79
08-10	--	--	.400	.032	58	66

STREAMS TRIBUTARY TO LAKE ONTARIO
04232050 ALLEN CREEK NEAR ROCHESTER, NY

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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 mi², flow from 3.5 mi² noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1959 to current year.

REVISED RECORDS.--WRD NY 1974: 1972(M), 1973(M, P). WDR NY-76-1: 1960-75 (M, P), 1960-63, 1972-74.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 323.54 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Unpublished water-quality records for prior years are available in files of Monroe County Department of Health. Discharge prior to January 1980 included undetermined diversion (maximum 20 ft³/s) from Erie (Barge) Canal upstream from station. January 1980 to present, diversion reduced to a maximum of 3 ft³/s for use by several golf courses adjacent to stream. Several measurements of water temperature were made during the year.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,280 ft³/s, May 17, 1974, gage height, 7.42 ft, from rating curve extended above 1,000 ft³/s on basis of contracted-opening measurement of peak discharge and step-backwater analysis; minimum daily discharge, 1.7 ft³/s, Jan. 24, 1963; minimum instantaneous discharge not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 8	0845	*1,540	*5.47	July 8	2400	1,480	5.39
June 26	0600	496	3.99	Aug. 18	1100	462	3.93
July 4	2215	814	4.47	Aug. 26	0015	910	4.61

Minimum daily discharge, 4.3 ft³/s, Aug. 16; minimum instantaneous discharge not determined.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	31	35	13	40	222	33	8.7	16	66	15	7.9
2	15	91	22	25	38	86	31	8.7	8.6	31	17	13
3	11	45	17	59	38	48	28	12	8.7	23	16	11
4	9.1	26	e24	66	31	36	22	13	7.1	225	15	9.7
5	35	17	e22	46	26	29	19	12	6.4	254	16	8.8
6	13	14	e21	63	21	29	17	10	6.2	60	17	8.1
7	11	12	e30	248	13	23	15	9.2	5.8	84	16	83
8	9.8	11	e26	1260	11	79	21	8.6	5.9	552	13	85
9	8.1	12	e24	674	11	119	23	8.4	5.7	620	19	71
10	7.8	9.9	e21	182	13	66	20	21	5.8	116	45	25
11	6.3	7.9	e19	85	18	36	16	103	6.4	55	20	16
12	5.9	8.8	e19	50	66	26	14	38	21	34	12	13
13	5.3	7.8	e18	43	53	22	13	19	9.9	23	5.6	11
14	4.9	9.2	e18	32	e29	26	13	14	11	18	4.4	11
15	5.0	14	e17	e25	e19	30	15	11	6.0	16	4.6	13
16	4.7	17	e16	e23	20	26	18	9.8	8.5	14	4.3	30
17	5.0	17	e22	e21	58	28	15	10	11	13	7.1	14
18	4.5	16	20	e20	213	49	8.6	9.5	10	12	164	12
19	4.5	18	17	e20	159	214	15	12	7.0	12	44	13
20	4.5	23	22	e18	82	129	84	14	6.6	18	21	60
21	7.0	31	22	e16	52	68	26	7.6	5.9	13	15	30
22	16	52	16	e14	36	55	18	6.7	6.5	15	12	16
23	7.2	49	44	32	29	58	15	6.2	7.5	32	11	35
24	6.1	35	32	48	43	66	13	5.9	8.3	15	78	13
25	5.6	23	62	37	82	85	11	6.1	120	12	124	12
26	7.6	29	41	28	69	175	9.6	8.4	208	11	350	14
27	72	44	32	22	43	103	8.9	6.0	52	14	39	27
28	19	26	24	20	72	57	8.7	5.6	28	15	17	18
29	13	20	19	26	---	42	8.5	6.5	21	56	12	12
30	10	32	18	90	---	30	8.5	6.8	113	22	10	12
31	9.0	---	15	55	---	24	---	17	---	19	8.9	---
TOTAL	365.9	748.6	755	3361	1385	2086	567.8	434.7	743.8	2470	1152.9	704.5
MEAN	11.8	25.0	24.4	108	49.5	67.3	18.9	14.0	24.8	79.7	37.2	23.5
MAX	72	91	62	1260	213	222	84	103	208	620	350	85
MIN	4.5	7.8	15	13	11	22	8.5	5.6	5.7	11	4.3	7.9

e Estimated

STREAMS TRIBUTARY TO LAKE ONTARIO
04232050 ALLEN CREEK NEAR ROCHESTER, NY--continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1998, BY WATER YEAR (WY)

MEAN	25.6	31.8	31.0	25.1	34.6	57.0	45.9	32.5	27.6	23.1	24.6	23.0
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	8.99	7.18	8.84	6.07
(WY)	1962	1961	1961	1963	1989	1981	1995	1995	1995	1960	1961	1961

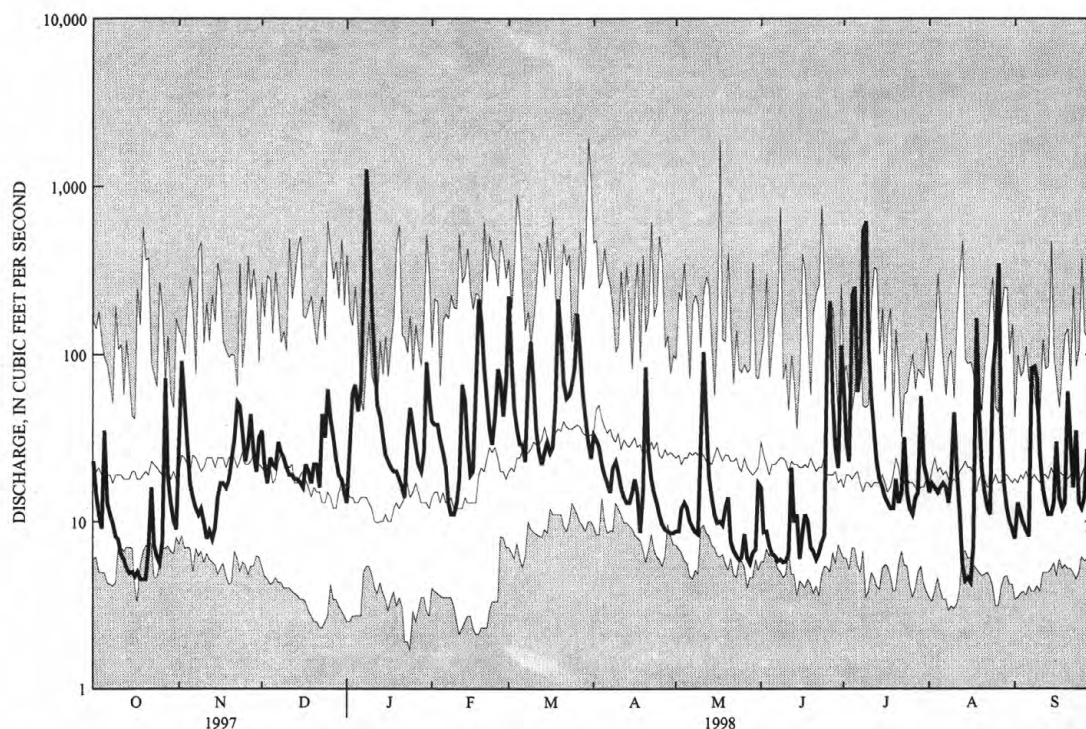
SUMMARY STATISTICS

FOR 1997 CALENDAR YEAR

FOR 1998 WATER YEAR

WATER YEARS 1960 - 1998

ANNUAL TOTAL	7564.5	14775.2	
ANNUAL MEAN	20.7	40.5	31.6
HIGHEST ANNUAL MEAN			50.6
LOWEST ANNUAL MEAN			16.1
HIGHEST DAILY MEAN	188	Sep 29	1260
LOWEST DAILY MEAN	2.9	Aug 8	4.3
ANNUAL SEVEN-DAY MINIMUM	3.3	Aug 6	4.7
10 PERCENT EXCEEDS	44		78
50 PERCENT EXCEEDS	13		18
90 PERCENT EXCEEDS	5.3		7.0



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

STREAMS TRIBUTARY TO LAKE ONTARIO
04232050 ALLEN CREEK NEAR ROCHESTER, NY--continued
WATER-QUALITY RECORDS

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PERIOD OF RECORD.--October 1983 to current year.

CHEMICAL DATA: 1983-98 (e).

NUTRIENT DATA: 1983-98 (e).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: November 1994 to current year.

INSTRUMENTATION.--Automatic water sampler since October 1983. Water temperature recorder since November 1994 provides 15-minute-interval readings.

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

REMARKS.--Prior to 1994 water year, data published in "Water Resources of Monroe County New York, Water Years 1984-88", U. S. Geological Survey open-file report 93-370, and in "Water Resources of Monroe County New York, Water Years 1989-93", U. S. Geological Survey Open-File Report 97-587.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 25.5°C, July 15, Aug. 15, 1995; minimum, 0.0°C, many days during winter period.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 21.0°C, July 23; minimum recorded, 2.0°C, several days during winter period.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	14.5	11.5	13.0	---	---	---	---	---	---	2.5	2.0	2.0
2	12.0	10.5	11.0	---	---	---	---	---	---	3.5	2.5	3.0
3	14.0	11.5	12.5	---	---	---	---	---	---	5.0	3.0	3.5
4	15.5	12.5	14.0	---	---	---	---	---	---	5.0	3.5	4.0
5	16.5	15.0	16.0	---	---	---	---	---	---	5.5	3.5	4.5
6	17.0	15.0	15.5	---	---	---	---	---	---	7.5	5.5	7.0
7	15.5	14.0	14.5	---	---	---	---	---	---	7.5	4.5	6.5
8	16.5	14.0	15.0	---	---	---	---	---	---	4.5	3.0	3.5
9	---	---	---	---	---	---	---	---	---	3.5	3.0	3.5
10	---	---	---	---	---	---	---	---	---	4.0	3.5	3.5
11	---	---	---	---	---	---	---	---	---	3.5	3.0	3.0
12	---	---	---	---	---	---	---	---	---	3.5	2.5	3.0
13	---	---	---	---	---	---	---	---	---	3.5	2.5	3.0
14	---	---	---	---	---	---	---	---	---	2.5	2.5	2.5
15	---	---	---	---	---	---	---	---	---	2.5	2.0	2.5
16	---	---	---	---	---	---	---	---	---	3.0	2.5	2.5
17	---	---	---	---	---	---	4.0	3.5	3.5	3.0	2.5	3.0
18	---	---	---	---	---	---	4.0	3.0	3.5	3.0	3.0	3.0
19	---	---	---	---	---	---	4.5	3.5	4.0	3.5	2.5	3.0
20	---	---	---	---	---	---	4.5	3.5	4.0	3.0	3.0	3.0
21	---	---	---	---	---	---	3.5	3.0	3.0	3.0	3.0	3.0
22	---	---	---	---	---	---	3.0	2.5	2.5	3.0	2.5	2.5
23	---	---	---	---	---	---	3.5	3.0	3.0	3.0	2.0	2.5
24	---	---	---	---	---	---	3.5	3.0	3.0	3.0	2.5	2.5
25	---	---	---	---	---	---	3.5	3.0	3.5	3.0	2.5	2.5
26	---	---	---	---	---	---	3.5	3.5	3.5	2.5	2.5	2.5
27	---	---	---	---	---	---	3.5	3.0	3.5	3.0	2.0	2.5
28	---	---	---	---	---	---	3.5	3.0	3.0	3.0	2.5	3.0
29	---	---	---	---	---	---	3.0	2.5	3.0	3.5	2.5	3.0
30	---	---	---	---	---	---	3.0	2.5	2.5	3.0	3.0	3.0
31	---	---	---	---	---	---	2.5	2.0	2.0	3.0	2.5	3.0
MONTH	---	---	---	---	---	---	---	---	---	7.5	2.0	3.2

STREAMS TRIBUTARY TO LAKE ONTARIO
04232050 ALLEN CREEK NEAR ROCHESTER, NY--continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	3.0	2.5	2.5	4.5	3.5	4.0	12.5	10.0	11.0	14.0	12.0	13.0
2	3.0	2.5	3.0	6.5	4.5	5.0	11.0	9.5	10.0	13.5	13.0	13.0
3	3.0	3.0	3.0	5.5	4.5	5.0	9.5	8.5	9.0	13.5	12.0	13.0
4	3.0	2.5	3.0	5.5	4.5	5.0	9.0	7.5	8.0	---	---	---
5	3.0	2.5	2.5	5.0	4.0	4.5	10.5	6.5	8.5	---	---	---
6	3.0	2.0	2.5	5.0	3.5	4.0	11.0	6.5	8.5	---	---	---
7	3.5	2.0	2.5	6.5	3.5	4.5	11.0	6.5	9.0	---	---	---
8	3.5	2.5	2.5	4.5	3.5	4.0	9.5	7.5	8.0	---	---	---
9	3.5	2.5	3.0	7.0	4.0	5.5	8.5	7.0	7.5	---	---	---
10	4.5	2.5	3.0	6.5	3.0	4.0	10.0	5.5	8.0	---	---	---
11	3.5	3.0	3.0	3.0	2.5	2.5	10.5	6.0	8.5	---	---	---
12	3.5	3.0	3.0	3.0	2.0	2.5	12.0	6.5	9.0	---	---	---
13	3.0	2.5	3.0	3.5	2.0	3.0	13.0	7.5	10.5	---	---	---
14	3.0	2.0	2.5	3.5	2.5	3.0	13.0	9.5	11.0	---	---	---
15	3.0	2.0	2.0	3.0	2.5	3.0	11.0	10.0	11.0	---	---	---
16	3.0	2.0	2.5	3.5	2.0	2.5	11.0	9.5	10.0	---	---	---
17	3.0	2.5	3.0	4.5	2.0	3.0	11.0	9.5	10.5	---	---	---
18	3.0	2.5	3.0	4.0	3.0	3.5	13.5	8.0	10.5	---	---	---
19	3.0	3.0	3.0	3.5	3.0	3.5	11.0	9.5	10.0	---	---	---
20	3.5	3.0	3.0	3.5	3.0	3.0	11.5	8.5	10.0	---	---	---
21	3.5	3.0	3.5	3.0	2.5	2.5	13.0	9.0	11.0	---	---	---
22	4.0	3.0	3.5	3.0	2.5	2.5	13.5	9.5	11.5	---	---	---
23	4.5	3.0	3.5	4.5	2.5	3.0	13.5	10.0	11.5	---	---	---
24	4.0	3.0	3.0	5.0	2.5	3.5	13.5	10.0	12.0	---	---	---
25	5.0	3.0	4.0	6.0	2.5	4.0	13.5	10.0	11.5	---	---	---
26	5.0	3.0	4.0	8.5	3.5	6.0	11.5	9.0	10.5	---	---	---
27	5.5	3.0	4.0	11.5	7.5	9.5	12.5	7.5	9.5	---	---	---
28	5.5	4.0	4.5	13.0	9.0	10.5	13.5	8.5	11.0	---	---	---
29	---	---	---	12.0	10.5	11.0	13.5	9.0	11.5	---	---	---
30	---	---	---	13.5	9.5	12.0	14.0	11.5	12.5	---	---	---
31	---	---	---	13.5	11.5	13.0	---	---	---	---	---	---
MONTH	5.5	2.0	3.1	13.5	2.0	4.9	14.0	5.5	10.0	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	---	---	---	18.0	17.5	18.0	20.0	19.5	19.5	18.0	17.5	17.5
2	---	---	---	18.0	17.5	18.0	20.0	19.5	19.5	18.0	17.5	17.5
3	---	---	---	18.5	18.0	18.0	20.0	19.5	19.5	17.5	17.5	17.5
4	---	---	---	18.5	18.0	18.0	20.0	19.5	19.5	17.5	17.0	17.5
5	---	---	---	18.5	18.0	18.5	20.0	19.5	19.5	17.5	17.0	17.5
6	---	---	---	18.5	18.0	18.5	19.5	19.5	19.5	17.5	17.0	17.5
7	---	---	---	18.5	18.5	18.5	19.5	19.5	19.5	17.5	17.5	17.5
8	---	---	---	19.0	18.5	18.5	20.0	19.5	19.5	17.5	17.0	17.0
9	---	---	---	19.0	18.5	19.0	20.0	19.5	19.5	17.0	16.5	16.5
10	---	---	---	19.0	19.0	19.0	20.0	19.5	20.0	17.0	16.5	16.5
11	---	---	---	19.0	18.5	19.0	19.5	19.5	19.5	17.0	16.5	16.5
12	15.5	15.0	15.5	19.0	18.5	19.0	19.5	19.0	19.5	17.0	16.5	17.0
13	15.5	15.5	15.5	19.5	19.0	19.0	19.5	18.5	19.0	17.0	16.5	16.5
14	15.5	15.5	15.5	19.5	19.0	19.5	19.5	18.5	19.0	17.0	16.5	16.5
15	16.0	15.5	15.5	20.0	19.0	19.5	19.5	19.0	19.0	17.0	16.5	16.5
16	16.0	15.5	16.0	20.0	19.5	19.5	19.5	19.0	19.0	17.0	16.5	16.5
17	16.5	16.0	16.0	20.0	19.5	20.0	19.5	19.0	19.0	16.5	16.0	16.0
18	16.5	16.0	16.5	20.0	19.5	20.0	19.0	19.0	19.0	16.5	16.0	16.0
19	17.0	16.0	16.5	20.0	19.5	20.0	19.0	18.5	18.5	17.0	16.0	16.5
20	17.0	16.5	16.5	20.5	20.0	20.0	19.0	18.0	18.5	17.0	16.5	16.5
21	17.5	16.5	17.0	20.5	20.0	20.5	19.0	18.5	19.0	17.0	16.5	17.0
22	17.0	17.0	17.0	20.5	20.0	20.5	19.0	18.5	18.5	16.5	16.0	16.5
23	17.0	17.0	17.0	21.0	20.5	20.5	19.0	18.5	18.5	16.0	15.5	16.0
24	17.5	17.0	17.0	20.5	20.5	20.5	19.0	18.5	19.0	16.0	15.5	15.5
25	18.0	17.0	17.5	20.5	20.0	20.0	19.0	18.5	18.5	16.0	15.5	16.0
26	18.0	17.5	17.5	20.5	20.0	20.0	19.0	18.5	18.5	16.5	16.0	16.0
27	18.0	17.5	17.5	20.5	19.5	20.0	18.5	18.5	18.5	16.5	16.5	16.5
28	18.0	17.5	17.5	20.5	20.0	20.0	18.5	18.0	18.5	16.5	16.0	16.0
29	18.0	18.0	18.0	20.0	20.0	20.0	18.5	18.0	18.5	16.0	15.5	16.0
30	18.0	18.0	18.0	20.0	16.0	20.0	18.5	18.0	18.0	16.0	16.0	16.0
31	---	---	---	20.0	19.5	19.5	18.0	18.0	18.0	---	---	---
MONTH	---	---	---	21.0	16.0	19.4	20.0	18.0	19.0	18.0	15.5	16.6

STREAMS TRIBUTARY TO LAKE ONTARIO
04232050 ALLEN CREEK NEAR ROCHESTER, NY--continued

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	TUR- BID- ITY (NTU) (00076)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	RESIDUE VOLA- TILE, SUS- PENDE (MG/L) (00535)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
OCT							
02-06	0955	0855	17	4.6	--	--	--
21-22	1545	0545	19	5.2	--	--	--
22-23	0645	0845	10	5.6	--	--	--
26-27	1820	0920	78	18	--	--	--
27-30	0935	0835	21	6.5	--	--	--
NOV							
01-02	1335	0435	78	19	--	--	--
02-03	0535	0835	76	15	--	--	--
03-06	0945	0845	24	7.7	--	--	--
20-23	1735	0035	39	5.8	--	--	--
23-24	0135	0835	46	--	--	--	--
24-26	0935	0835	25	3.7	--	--	--
DEC							
22-25	1325	0425	36	6.5	--	--	--
25-26	0525	0825	55	21	--	--	--
26-29	0950	0850	29	4.7	--	--	--
DEC 29-							
JAN 01	0920	0020	17	13	--	--	.02
02-04	0935	0835	53	7.0	--	--	--
04-05	0935	0835	58	7.0	--	--	--
05-07	0940	0540	55	6.2	--	--	.01
07-08	0640	0840	591	65	207	29	.02
08-12	1025	0925	433	55	142	19	.03
12-13	0935	1635	45	12	--	--	.02
29-30	0925	0425	48	6.6	--	--	--
JAN 30-							
FEB 02	0525	0825	55	4.9	--	--	--
02-05	0925	0825	35	3.2	--	--	--
11-13	1325	0825	55	5.7	--	--	<.01
13-14	0925	2025	37	4.4	--	--	--
FEB 28-							
MAR 01	1325	0425	179	18	--	--	--
01-02	0525	0825	165	25	--	--	--
02-05	0915	0815	47	6.8	--	--	<.01
05-08	0915	1215	25	3.0	--	--	--
17-19	0925	0825	59	6.2	--	--	--
19-20	0915	0015	262	50	139	20	--
20-23	0115	0815	79	14	--	--	--
APR							
13-16	0840	0740	14	2.3	--	--	<.01
19-20	0905	0705	48	10	--	--	--
20-23	0905	0805	31	4.8	--	--	--
MAY 31-							
JUN 01	0900	0800	24	4.1	--	--	--
01-04	0900	0800	8.9	11	--	--	--
25...	0920	--	269	120	440	68	--
25-26	0925	1225	216	64	247	31	.04
26-28	1325	1625	60	50	92	14	.03
JUL							
04-05	0920	0020	360	36	129	21	--
05-06	0120	0820	189	120	175	23	--
06-06	0925	2025	53	150	270	36	--
09...	0930	--	616	81	120	14	--
13...	1005	--	24	20	--	--	--
AUG							
20...	0925	--	22	11	--	--	<.01
27...	0820	--	45	43	--	--	<.01
SEP							
06-07	2120	1620	88	15	--	--	<.01
07-08	1720	0820	34	8.4	--	--	--
08-10	0920	0820	78	13	--	--	--
10-11	0925	1225	20	14	--	--	--
20-20	1415	2215	121	43	142	24	--
20-21	2315	0715	51	45	91	18	--
21-24	0915	0815	24	15	--	--	--

STREAMS TRIBUTARY TO LAKE ONTARIO
04232050 ALLEN CREEK NEAR ROCHESTER, NY--continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
OCT						
02-06	--	--	.045	.027	140	66
21-22	--	--	.075	.028	150	98
22-23	--	--	.045	.018	120	67
26-27	--	--	.170	.034	100	67
27-30	--	--	.070	.021	130	63
NOV						
01-02	--	--	.190	.040	100	60
02-03	--	--	.310	.046	74	41
03-06	--	--	.070	.025	140	62
20-23	--	--	.055	.018	310	68
23-24	--	--	.055	.015	280	64
24-26	--	--	.040	.015	230	71
DEC						
22-25	--	--	.050	.010	390	83
25-26	--	--	.150	.012	220	53
26-29	--	--	.070	.012	250	62
DEC 29-						
JAN 01	.70	1.6	.090	.011	350	89
02-04	--	--	.090	.012	480	60
04-05	--	--	.060	.015	300	55
05-07	.71	1.1	.080	.019	250	53
07-08	1.7	.83	.500	.031	120	31
08-12	.10	1.2	.310	.038	98	36
12-13	.49	1.7	.080	.028	150	55
29-30	--	--	.045	.009	350	62
JAN 30-						
FEB 02	--	--	.045	.010	270	54
02-05	--	--	.030	.008	220	61
11-13	--	1.1	.045	.005	180	59
13-14	--	--	.030	.005	180	53
FEB 28-						
MAR 01	--	--	.100	.006	160	43
01-02	--	--	.120	.016	110	33
02-05	--	--	.050	.007	170	48
05-08	--	--	.030	.005	190	56
17-19	--	--	.040	.005	290	52
19-20	--	--	.210	.008	150	33
20-23	--	--	.065	.008	350	37
APR						
13-16	.49	1.1	.035	.004	220	62
19-20	--	--	.075	.006	190	57
20-23	--	--	.050	.005	190	49
MAY 31-						
JUN 01	--	--	.065	.029	180	98
01-04	--	--	.085	.025	110	62
25...	--	--	.820	.067	23	23
25-26	.50	.89	.170	.028	66	38
26-28	.86	1.1	.250	.027	120	52
JUL						
04-05	--	--	.240	.027	63	38
05-06	--	--	.430	.030	73	31
06-06	--	--	.850	.035	76	34
09...	--	--	.270	.050	43	22
13...	--	--	.120	.053	95	49
AUG						
20...	.73	.58	.095	.023	91	52
27...	--	.67	.180	.025	73	46
SEP						
06-07	--	.54	.100	.010	67	60
07-08	--	--	.060	.011	55	45
08-10	--	--	.065	.006	60	38
10-11	--	--	.085	.011	90	59
20-20	--	--	.280	.025	68	50
20-21	--	--	.220	.021	49	36
21-24	--	--	.110	.020	86	56

STREAMS TRIBUTARY TO LAKE ONTARIO

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0423205010 IRONDEQUOIT CREEK ABOVE BLOSSOM ROAD, ROCHESTER, NY

LOCATION.--Lat 43°08'42", long 77°30'44", Monroe County, Hydrologic Unit 04140101, on right bank 4,000 ft upstream from bridge on Blossom Road, 1.8 mi east of Rochester, 1.7 mi downstream from Allen Creek, and 4.4 mi upstream from mouth.

DRAINAGE AREA.--142 mi²., flow from 8.45 mi². noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional discharge measurements water years 1977-80. December 1980 to current year.

GAGE.--Water-stage recorder. Datum of gage is 247.87 ft above sea level (levels by Corps of Engineers). Prior to Oct. 1, 1991, at site 0.8 mi downstream at datum 1.56 ft lower.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Discharge includes undetermined diversion from Erie (Barge) Canal. Unpublished water-quality records for prior years are available in files of Monroe County Department of Health. Several measurements of water temperature were made during the year.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,300 ft³/s, Jan. 8, 1998, gage height, 9.95 ft; minimum discharge, 27 ft³/s, Aug. 31, 1995, gage height, 2.14 ft.

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

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 8	2145	*3,300	*9.95	July 9	0400	1,830	9.45

Minimum discharge, 41 ft³/s, June 21, 22, gage height, 2.41 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	140	90	206	e76	235	621	198	85	111	198	72	52
2	91	302	181	115	216	443	199	86	64	115	63	58
3	74	257	129	259	207	286	192	89	64	84	56	58
4	64	161	145	319	193	232	184	94	59	269	54	53
5	129	113	133	274	173	206	178	94	53	593	54	51
6	75	93	128	284	143	193	159	86	49	248	56	49
7	61	82	152	611	121	178	136	82	48	199	57	186
8	57	79	146	2620	113	243	128	77	48	638	56	187
9	53	82	135	2530	110	439	168	76	46	1250	56	163
10	51	79	124	1380	112	358	178	96	45	464	79	100
11	47	73	116	634	123	e230	145	293	48	242	62	72
12	46	70	116	430	218	e170	125	241	74	168	59	62
13	46	67	111	348	270	e150	114	149	56	128	54	57
14	45	61	110	276	184	e170	99	109	66	101	50	56
15	45	60	99	237	132	188	80	91	56	92	48	56
16	44	67	107	222	122	171	87	82	51	83	46	87
17	44	72	118	209	177	173	93	78	53	78	48	63
18	44	76	118	197	553	227	91	75	52	74	250	57
19	44	83	108	188	649	523	108	80	46	68	125	61
20	44	107	121	209	463	551	301	88	43	73	65	99
21	62	134	134	210	324	361	260	68	42	66	57	117
22	80	220	106	181	253	297	203	63	41	68	53	65
23	49	230	167	199	211	284	148	61	45	128	52	101
24	45	188	171	259	224	288	124	58	49	88	142	64
25	45	139	242	231	298	314	108	56	277	69	164	58
26	49	133	225	199	354	521	98	57	436	63	472	59
27	216	189	173	172	287	553	93	54	244	62	126	75
28	91	149	140	168	274	342	90	52	118	59	75	69
29	66	122	115	171	---	266	89	54	85	117	65	57
30	62	136	e100	329	---	222	87	54	201	65	61	55
31	59	---	e86	304	---	193	---	70	---	67	56	---
TOTAL	2068	3714	4262	13841	6739	9393	4263	2798	2670	6017	2733	2347
MEAN	66.7	124	137	446	241	303	142	90.3	89.0	194	88.2	78.2
MAX	216	302	242	2620	649	621	301	293	436	1250	472	187
MIN	44	60	86	76	110	150	80	52	41	59	46	49
CFSM	.50	.92	1.03	3.33	1.80	2.26	1.06	.67	.66	1.45	.66	.58
IN.	.57	1.03	1.18	3.84	1.87	2.61	1.18	.78	.74	1.67	.76	.65

e Estimated.

STREAMS TRIBUTARY TO LAKE ONTARIO

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

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1998, BY WATER YEAR (WY)

MEAN	91.7	126	146	149	170	220	225	143	94.6	76.4	80.5	72.5
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	54.5	49.5	60.8	67.1	122	82.8	62.1	46.9	42.2	40.8	39.8
(WY)	1983	1992	1990	1989	1989	1988	1995	1995	1988	1983	1985	1995

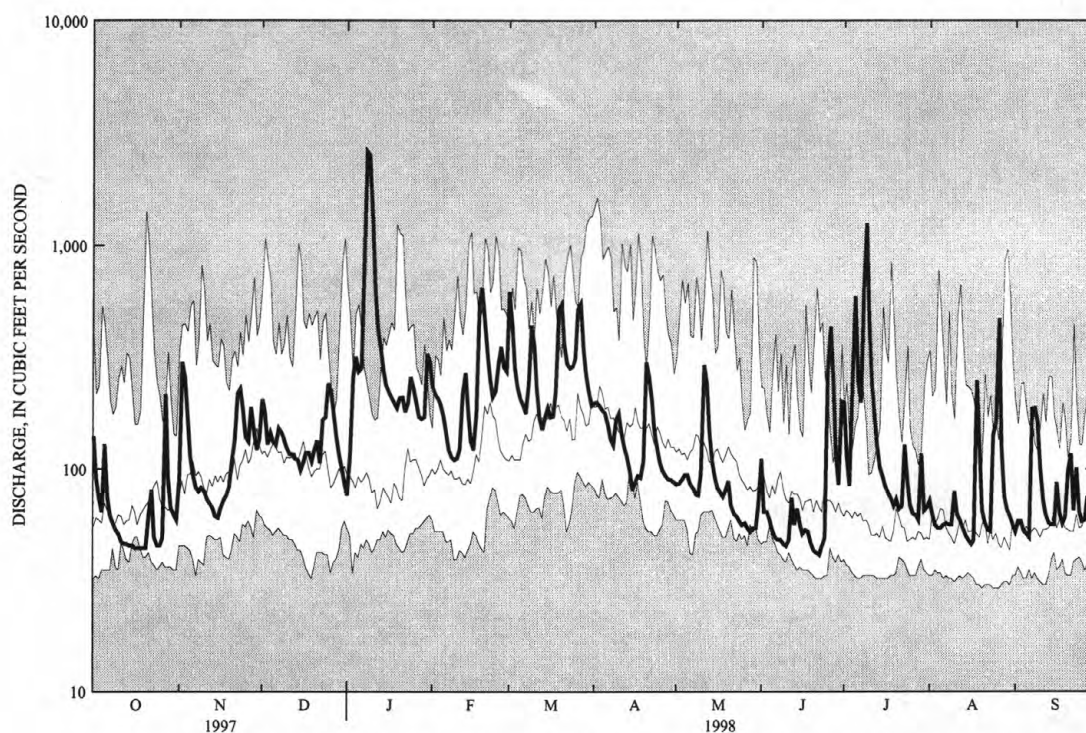
SUMMARY STATISTICS

FOR 1997 CALENDAR YEAR

FOR 1998 WATER YEAR

WATER YEARS 1981 - 1998

ANNUAL TOTAL	42024	60845	
ANNUAL MEAN	115	167	134
HIGHEST ANNUAL MEAN			182
LOWEST ANNUAL MEAN			80.1
HIGHEST DAILY MEAN	582	Sep 29	2620
LOWEST DAILY MEAN	31	Aug 10	41
ANNUAL SEVEN-DAY MINIMUM	32	Aug 6	44
10 PERCENT EXCEEDS	229		295
50 PERCENT EXCEEDS	88		109
90 PERCENT EXCEEDS	43		52



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

STREAMS TRIBUTARY TO LAKE ONTARIO

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

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1983 to current year.

CHEMICAL DATA: 1983-98 (e).

NUTRIENT DATA: 1983-98 (e).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: November 1994 to current year.

INSTRUMENTATION.--Automatic water sampler since October 1983. Water temperature recorder since November 1994 provides 15-minute-interval readings.

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

REMARKS.--Prior to 1994 water year, data published in "Water Resources of Monroe County New York, Water Years 1984-88", U. S. Geological Survey Open-File Report 93-370 and in "Water Resources of Monroe County New York, Water Years 1989-93", U. S. Geological Survey Open-File Report 97-587.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 26.0°C, July 14, 15, 1995; minimum 0.0°C, many days during winter period.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 24.0°C, June 29; minimum 0.0°C, Feb. 15.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	14.5	12.0	13.5	11.0	8.0	9.0	5.0	3.5	4.5	.5	.5	.5
2	12.0	10.5	11.0	11.0	10.0	10.5	3.5	3.0	3.5	3.0	.5	2.0
3	13.0	11.0	12.0	10.0	8.5	9.0	3.5	2.0	3.0	4.5	3.0	3.5
4	14.5	12.0	13.0	9.0	8.0	8.5	4.5	3.5	4.0	5.0	4.0	4.5
5	16.5	14.5	15.5	8.5	7.5	8.0	5.0	4.0	4.5	5.5	4.0	4.5
6	17.0	15.0	16.0	8.5	7.0	8.0	4.0	3.0	3.0	7.5	5.5	7.0
7	15.5	14.5	15.0	8.0	7.0	7.5	3.5	3.0	3.0	8.0	5.5	7.5
8	16.5	14.5	15.0	8.0	7.0	7.5	4.0	3.5	3.5	5.5	4.5	4.5
9	17.5	15.0	16.0	8.5	7.5	8.0	4.0	3.0	3.5	4.5	4.0	4.0
10	16.5	15.0	16.0	7.5	7.0	7.0	3.0	1.5	2.5	4.0	4.0	4.0
11	15.0	12.5	13.5	7.0	5.5	6.5	2.5	2.0	2.5	4.0	3.5	3.5
12	13.5	11.0	12.0	5.5	4.5	5.0	3.0	2.5	3.0	3.5	3.0	3.5
13	14.0	11.5	12.5	4.5	3.0	4.0	3.0	2.5	3.0	3.5	2.5	3.5
14	13.5	12.5	13.0	3.5	1.5	2.0	2.5	1.5	2.0	2.5	1.5	2.0
15	12.5	10.5	11.5	3.5	2.0	3.0	2.5	1.0	1.5	2.0	1.5	1.5
16	11.5	10.0	10.5	3.5	2.5	3.0	3.5	2.0	2.5	2.5	2.0	2.0
17	10.5	9.0	10.0	4.0	3.0	3.5	4.0	3.0	3.0	2.5	2.0	2.0
18	10.0	7.5	8.5	4.5	3.0	3.5	3.5	2.5	3.0	3.0	2.5	2.5
19	9.5	7.5	8.5	4.5	3.0	3.5	4.0	3.0	3.5	3.0	2.0	2.5
20	9.0	7.5	8.5	5.0	4.0	4.5	4.0	3.5	4.0	3.0	2.5	2.5
21	9.5	8.0	8.5	5.5	4.5	5.0	3.5	2.0	3.0	2.5	2.5	2.5
22	8.5	7.5	8.5	5.5	4.5	5.0	2.0	1.0	1.5	2.5	2.0	2.0
23	8.0	7.0	7.5	5.0	4.5	4.5	3.0	2.0	2.5	2.5	1.0	1.5
24	8.0	7.0	7.5	4.5	3.5	4.0	3.5	3.0	3.0	3.0	2.0	2.5
25	8.5	7.5	8.0	3.5	3.0	3.5	4.0	3.0	3.5	3.0	2.0	2.5
26	7.5	6.5	7.0	5.5	3.5	4.5	4.0	3.5	4.0	2.5	1.5	2.0
27	8.0	7.0	7.5	5.0	4.5	4.5	4.0	3.5	3.5	2.5	1.0	1.5
28	7.5	6.5	7.0	5.0	4.5	4.5	3.5	2.0	3.0	3.5	2.0	2.5
29	8.0	6.5	7.0	5.5	4.5	5.0	2.5	1.5	2.0	3.5	2.0	3.0
30	8.5	6.5	7.5	5.0	4.5	5.0	2.0	.5	1.5	3.5	2.5	3.0
31	9.0	7.0	8.0	---	---	---	1.5	.5	.5	2.5	2.0	2.0
MONTH	17.5	6.5	10.8	11.0	1.5	5.6	5.0	.5	2.9	8.0	.5	3.0

STREAMS TRIBUTARY TO LAKE ONTARIO
0423205010 IRONDEQUOIT CREEK ABOVE BLOSSOM ROAD, ROCHESTER, NY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	3.0	1.5	2.0	5.5	5.0	5.0	14.5	11.5	12.5	16.0	13.5	14.5
2	3.0	1.5	2.5	6.5	5.0	6.0	11.5	10.0	11.0	15.5	14.5	15.0
3	3.0	3.0	3.0	6.5	5.5	6.0	10.0	9.0	9.5	15.0	13.5	14.0
4	3.0	2.5	2.5	6.0	5.5	5.5	9.0	7.5	8.0	15.0	13.5	14.0
5	3.0	2.0	2.5	5.5	5.0	5.5	10.0	6.5	8.0	16.0	13.5	14.5
6	2.5	1.0	1.5	5.5	4.5	5.0	11.0	7.0	9.0	17.5	14.0	15.5
7	2.5	.5	1.5	6.5	4.5	5.5	11.0	7.5	9.0	18.5	15.0	16.5
8	2.5	1.0	1.5	5.0	4.5	5.0	9.5	8.0	8.5	17.0	16.0	16.5
9	3.0	1.0	2.0	7.0	5.0	6.0	8.5	7.0	8.0	16.0	15.0	15.5
10	4.0	1.5	2.5	7.0	3.5	5.5	9.5	6.0	7.5	15.5	13.5	14.5
11	4.0	2.5	3.0	3.5	1.5	2.5	10.0	6.5	8.0	14.5	13.5	14.0
12	4.0	3.5	4.0	2.0	.5	1.5	11.5	7.0	9.0	16.5	13.5	15.0
13	3.5	2.0	2.5	3.5	1.0	2.0	13.0	8.0	10.5	17.5	14.0	16.0
14	2.0	.5	1.5	4.0	2.0	3.0	13.0	10.0	11.5	19.0	14.5	16.5
15	1.5	.0	.5	3.5	2.5	3.0	12.5	11.5	11.5	20.0	16.5	18.0
16	2.5	.5	1.5	3.5	1.5	2.5	11.5	10.5	11.0	20.5	17.0	19.0
17	3.5	2.5	3.0	4.5	1.0	3.0	11.0	10.0	11.0	21.0	18.0	19.5
18	3.0	2.5	2.5	4.5	3.5	4.0	12.5	9.0	10.5	20.5	17.5	19.0
19	3.0	2.5	3.0	4.5	4.0	4.0	11.5	10.5	11.0	19.0	17.5	18.5
20	3.5	3.0	3.5	4.0	3.0	3.5	11.5	9.5	10.5	21.0	17.5	19.0
21	4.0	3.5	3.5	3.0	1.5	2.0	13.0	10.0	11.5	19.0	15.5	17.0
22	4.0	3.5	4.0	2.5	1.5	2.0	14.0	10.5	12.0	17.0	14.0	15.5
23	4.5	3.0	4.0	4.5	1.5	3.0	14.0	11.0	12.5	17.0	13.0	15.0
24	4.5	3.0	3.5	5.0	2.5	3.5	14.5	11.0	12.5	17.5	13.5	15.5
25	5.5	3.0	4.0	5.5	2.5	4.5	14.5	11.0	12.5	17.5	15.5	16.5
26	5.5	4.0	4.5	8.0	5.0	6.5	12.5	10.0	11.5	18.5	15.0	17.0
27	5.5	3.5	4.5	11.5	8.0	10.0	12.0	8.5	10.0	19.0	15.5	17.0
28	6.0	5.0	5.5	13.5	10.5	12.0	13.0	9.0	11.0	19.5	16.0	18.0
29	---	---	---	13.5	12.0	12.5	14.0	9.5	11.5	20.5	17.5	19.0
30	---	---	---	15.5	11.0	13.0	16.0	12.0	13.5	20.5	17.5	19.0
31	---	---	---	16.5	13.5	15.0	---	---	---	19.0	17.0	18.0
MONTH	6.0	.0	2.9	16.5	.5	5.4	16.0	6.0	10.5	21.0	13.0	16.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	18.0	16.0	17.0	21.5	19.0	19.5	20.5	17.0	18.5	20.0	17.5	18.5
2	16.5	14.0	15.5	20.5	17.5	19.0	21.0	17.5	19.0	19.0	17.5	18.5
3	16.0	14.0	14.5	21.5	18.0	19.5	21.0	18.0	19.5	18.0	17.5	18.0
4	14.5	12.5	13.5	20.5	19.5	20.0	22.0	19.0	20.5	18.5	16.5	17.5
5	15.5	12.5	13.5	21.0	19.0	20.0	21.5	20.0	20.5	18.5	15.5	17.0
6	15.0	12.5	14.0	21.0	18.5	20.0	20.5	20.0	20.5	20.0	17.0	18.5
7	14.0	13.0	13.5	20.0	19.5	20.0	20.5	19.5	20.0	20.0	19.0	20.0
8	16.0	13.0	14.5	21.5	20.0	20.5	23.0	19.5	21.0	19.0	17.0	18.0
9	18.0	13.5	15.5	22.0	21.0	21.5	23.5	20.0	21.5	17.0	15.5	16.0
10	17.5	15.0	16.0	22.0	20.5	21.0	23.5	21.5	22.5	17.0	14.5	16.0
11	17.5	15.5	16.5	21.5	19.5	20.5	22.5	21.0	21.5	18.0	15.0	16.5
12	19.5	16.5	17.5	21.0	18.5	20.0	22.0	20.0	21.0	19.0	17.0	18.0
13	19.5	17.5	18.5	22.0	18.5	20.0	20.5	18.0	19.5	19.5	17.5	18.5
14	18.5	17.0	17.5	21.5	19.5	20.5	21.0	18.0	19.5	19.5	17.0	18.0
15	18.5	16.5	17.5	22.5	19.5	21.0	21.5	19.0	20.0	19.5	18.5	19.0
16	19.5	17.5	18.5	23.5	20.5	22.0	22.0	19.5	21.0	19.5	17.5	19.0
17	20.5	18.0	19.0	22.5	21.0	21.5	22.0	20.0	21.0	18.0	15.5	17.0
18	21.0	18.5	19.5	21.5	20.0	21.0	21.5	20.0	20.5	18.0	15.0	16.5
19	22.0	18.0	20.0	21.5	18.5	20.0	20.0	18.0	19.0	19.0	16.0	17.5
20	22.5	19.0	20.5	23.0	20.0	21.0	19.0	16.5	18.0	21.0	18.0	19.0
21	22.5	19.5	21.0	22.5	20.5	21.5	21.0	18.0	19.0	21.0	19.0	20.0
22	21.5	20.0	20.5	23.0	21.0	22.0	20.5	18.5	19.5	19.5	16.5	18.0
23	20.5	19.5	20.0	23.0	21.0	22.0	20.5	18.5	19.5	16.5	14.5	15.5
24	22.5	19.0	20.5	21.5	19.5	20.0	22.0	19.0	20.5	14.5	13.0	14.0
25	22.5	20.0	21.5	21.0	18.5	19.5	22.0	20.0	21.0	15.5	13.5	14.5
26	23.0	21.5	22.0	20.5	17.5	19.0	22.5	20.0	21.0	17.0	14.5	15.5
27	23.0	21.5	22.0	21.0	17.5	19.5	22.5	20.0	21.0	18.0	16.5	17.0
28	23.5	20.5	22.0	22.0	19.0	20.5	22.0	19.5	20.5	18.0	15.5	17.0
29	24.0	21.5	22.5	23.0	20.0	21.5	21.0	20.0	20.5	16.0	14.0	15.0
30	22.5	21.0	21.5	21.5	19.5	20.0	21.5	19.5	20.5	17.0	15.0	16.0
31	---	---	---	21.0	18.5	19.5	20.5	18.5	19.5	---	---	---
MONTH	24.0	12.5	18.2	23.5	17.5	20.4	23.5	16.5	20.2	21.0	13.0	17.3

STREAMS TRIBUTARY TO LAKE ONTARIO
0423205010 IRONDEQUOIT CREEK ABOVE BLOSSOM ROAD, ROCHESTER, NY--Continued

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	TUR- BID- ITY (NTU) (00076)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	ANC WATER UNFLTRD FET FIELD MG/L AS CACO3 (00410)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDEDED (MG/L) (00530)	RESIDUE VOLA- TILE, SUS- PENDEDED (MG/L) (00535)
OCT								
02-02	0910	2010	87	13	--	--	--	--
06-10	0935	0835	59	8.8	--	--	--	--
10-14	0850	0750	47	3.5	--	--	--	--
14-16	0900	0800	45	4.0	--	--	--	--
16-20	0915	0815	44	3.1	--	--	--	--
20-22	0905	2005	65	3.4	--	--	--	--
23-26	0910	1610	46	1.6	--	--	--	--
26-27	1710	0810	169	9.7	--	--	--	--
27-30	0905	0805	100	5.8	--	--	--	--
OCT 30-								
NOV 01	0905	1205	60	3.8	--	--	--	--
01-02	1305	1205	207	38	--	--	134	16
03-05	0900	1700	168	19	--	--	--	--
06-09	0920	0420	83	4.3	--	--	--	--
10-13	0850	0750	73	6.4	--	--	--	--
13-17	0905	0805	64	5.2	--	--	--	--
17-19	0900	1400	76	8.1	--	--	--	--
19-20	1500	0800	93	7.7	--	--	--	--
20-23	0900	2400	180	15	--	--	--	--
23-24	0100	0800	222	17	--	--	--	--
24-26	0845	0745	149	13	--	--	--	--
26-27	0840	0840	165	14	--	--	--	--
NOV 27-								
DEC 01	0940	0740	146	13	--	--	--	--
01-04	0900	0800	166	6.4	--	--	--	--
04-08	0855	0755	140	6.4	--	--	--	--
08-11	0900	0800	131	4.4	--	--	--	--
11-15	0850	0700	112	5.2	--	--	--	--
15-19	0855	0755	111	4.0	--	--	--	--
19-22	0855	0755	122	3.7	--	--	--	--
22-22	0840	2340	101	4.1	--	--	--	--
23-25	0040	1640	188	20	--	--	--	--
26-29	0850	0750	165	12	--	--	--	--
DEC 29-								
JAN 02	0920	0820	94	5.6	--	--	--	--
02-04	0920	0820	231	18	--	--	--	--
04-05	0920	0820	302	24	--	--	--	--
05-07	1140	0740	274	17	--	--	53	7
07-07	0840	1040	324	--	--	--	--	--
07-08	0840	0940	1290	190	695	173	--	--
07-07	1140	1340	640	--	--	--	--	--
07-07	1440	1640	770	--	--	--	--	--
07-07	1740	1940	878	--	--	--	--	--
07-07	2040	2240	1200	--	--	--	--	--
07-08	2340	0140	1550	--	--	--	--	--
08-08	0240	0440	1830	--	--	--	--	--
08-08	0540	0740	2300	--	--	--	--	--
08-08	0840	0940	2720	--	--	--	--	--
08-08	1015	1315	2880	--	--	--	--	--
08-09	1015	0515	3020	2000	555	536	5800	200
08-08	1415	1715	2950	--	--	--	--	--
08-08	1815	2115	3160	--	--	--	--	--
08-09	2215	0115	3130	--	--	--	--	--
09-09	0215	0515	2920	--	--	--	--	--
09-09	0615	0915	2690	--	--	--	--	--
09-10	0615	1515	2010	800	535	231	1250	128
09-09	1015	1315	2570	--	--	--	--	--
09-09	1415	1715	2400	--	--	--	--	--
09-09	1815	2115	2160	--	--	--	--	--
09-10	2215	0115	1940	--	--	--	--	--
10-10	0215	0515	1760	--	--	--	--	--
10-10	0615	0915	1590	--	--	--	--	--
10-10	1015	1315	1360	--	--	--	--	--

STREAMS TRIBUTARY TO LAKE ONTARIO

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
OCT								
02-02	<.01	.23	.99	.130	.021	100	140	30
06-10	<.01	.41	.86	.050	.020	120	180	20
10-14	<.01	.33	.78	.035	.013	130	210	10
14-16	<.01	.59	.78	.050	.012	130	210	10
16-20	<.01	.38	.84	.030	.010	130	220	10
20-22	<.01	.53	.79	.035	.007	110	190	10
23-26	<.01	.29	.85	.020	.009	120	200	<10
26-27	<.01	.48	.85	.170	.016	100	170	40
27-30	<.01	.57	.72	.070	.013	110	140	10
OCT 30-								
NOV 01	<.01	.41	.83	.035	.011	120	190	10
01-02	<.01	.48	.49	.210	.022	69	90	30
03-05	<.01	.44	.80	.120	.022	93	110	20
06-09	<.01	.91	.91	.045	.013	120	160	10
10-13	.01	.42	.88	.090	.010	130	180	20
13-17	.01	.32	.91	.065	.010	210	170	20
17-19	<.01	.47	.86	.055	.009	240	150	20
19-20	<.01	.43	.85	.070	.007	190	140	20
20-23	<.01	.71	.87	.095	.008	180	120	20
23-24	<.01	.57	1.0	.095	.007	170	100	20
24-26	.01	.51	1.0	.075	.009	140	110	20
26-27	.01	.33	1.0	.085	.010	150	120	20
NOV 27-								
DEC 01	.01	.60	.97	.080	.009	140	120	20
01-04	.01	.47	1.1	.055	.009	140	120	10
04-08	.01	.18	1.1	.060	.010	180	130	20
08-11	.02	.43	1.2	.045	.009	180	120	20
11-15	<.01	.51	1.2	.050	.008	230	130	30
15-19	.01	.44	1.2	.035	.008	180	130	10
19-22	.02	.53	1.2	.035	.008	160	130	30
22-22	.01	.44	1.2	.035	.010	150	120	10
23-25	.01	.34	1.1	.100	.009	210	100	30
26-29	.01	.55	1.1	.100	.020	140	93	30
DEC 29-								
JAN 02	.02	.52	1.4	.045	.010	190	130	10
02-04	.01	.41	1.2	.110	.010	270	100	20
04-05	.01	.54	1.0	.140	.017	170	71	30
05-07	.01	.64	1.0	.095	.024	140	74	20
07-07	.01	--	--	--	.028	--	--	--
07-08	.01	2.0	.81	1.10	.016	97	51	240
07-07	.01	--	--	--	.012	--	--	--
07-07	.01	--	--	--	.012	--	--	--
07-07	.01	--	--	--	.013	--	--	--
07-07	.01	--	--	--	.014	--	--	--
07-08	.01	--	--	--	.016	--	--	--
08-08	.01	--	--	--	.016	--	--	--
08-08	.01	--	--	--	.015	--	--	--
08-08	.02	--	--	--	.013	--	--	--
08-08	.38	--	--	--	.013	--	--	--
08-09	.25	3.9	.56	6.75	.028	64	45	870
08-08	.42	--	--	--	.017	--	--	--
08-08	.45	--	--	--	.016	--	--	--
08-09	.12	--	--	--	.014	--	--	--
09-09	.22	--	--	--	.017	--	--	--
09-09	.21	--	--	--	.018	--	--	--
09-10	.07	4.3	.33	1.85	.024	54	50	260
09-09	.15	--	--	--	.013	--	--	--
09-09	.07	--	--	--	.014	--	--	--
09-09	.06	--	--	--	.012	--	--	--
09-10	.06	--	--	--	.012	--	--	--
10-10	.05	--	--	--	.012	--	--	--
10-10	.05	--	--	--	.010	--	--	--
10-10	.05	--	--	--	.013	--	--	--

STREAMS TRIBUTARY TO LAKE ONTARIO

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	TUR- BID- ITY (NTU) (00076)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	ANC WATER UNFLTRD FET FIELD MG/L AS CACO3 (00410)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	RESIDUE VOLA- TILE, SUS- PENDED (MG/L) (00535)
JAN								
12-12	0925	1225	422	--	--	--	--	--
12-14	0925	1225	352	300	705	199	756	71
12-12	1325	1625	402	--	--	--	--	--
12-12	1725	2025	424	--	--	--	--	--
12-13	2125	0025	384	--	--	--	--	--
13-13	0125	0425	364	--	--	--	--	--
13-13	0525	0825	354	--	--	--	--	--
13-13	0925	1225	353	--	--	--	--	--
13-13	1325	1625	346	--	--	--	--	--
16-20	0915	0815	200	14	1020	232	30	<14
20-22	0855	0755	211	15	--	--	--	--
22-23	0850	1150	175	15	--	--	--	--
23-24	1250	0350	241	27	--	--	--	--
24-25	0450	2350	242	34	--	--	173	21
26-29	0855	0755	174	5.4	--	--	--	--
26...	0925	--	204	5.7	--	--	--	--
29-30	0910	2010	261	15	--	--	--	--
JAN 30-								
FEB 02	2110	0810	267	16	--	--	--	--
02-05	0855	0755	200	4.9	--	--	--	--
05-09	0840	0740	131	3.3	--	--	--	--
09-11	0845	1145	113	2.9	--	--	--	--
11-13	1245	0745	208	6.5	--	--	--	--
13-17	0850	0750	162	8.6	--	--	--	--
17-19	0845	0745	457	80	865	196	260	23
19-23	0845	0745	385	29	775	200	67	6
23-26	0855	0755	261	8.5	1160	228	32	<6
26-28	0855	1555	290	17	898	217	34	3
FEB 28-								
MAR 01	1655	1155	535	45	792	192	161	14
01-02	1255	0755	570	85	702	189	229	17
02-05	0900	0800	282	17	903	227	48	4
05-08	0850	1550	184	5.4	1010	249	16	<3
08-09	1650	0750	422	45	--	--	164	16
09-12	0905	0805	310	33	--	--	70	8
12-16	0855	0755	170	3.1	--	--	--	--
16-17	0850	1150	167	3.7	--	--	--	--
17-19	1250	0750	240	--	--	--	--	--
19-19	0840	2340	608	110	--	--	598	51
20-20	0040	2340	548	130	--	--	468	35
23...	0930	--	275	5.5	--	--	--	--
25-26	1245	0745	364	18	--	--	--	--
26-26	0845	2345	586	55	--	--	227	14
27-30	0045	0745	370	34	--	--	120	9
MAR 30-								
APR 01	0900	0200	201	25	--	--	--	--
01-01	0300	1400	187	32	--	--	95	10
01-02	1500	0800	205	28	1020	249	78	10
02-06	0920	0820	186	7.2	--	253	26	<4
06-08	0900	1400	138	3.5	--	--	--	--
08-08	1500	2300	131	5.0	1080	257	--	--
09-09	0005	0800	173	8.3	1070	248	--	--
09-13	0925	0825	149	6.4	--	249	16	<4
13-16	0910	0810	93	3.8	--	--	--	--
16-19	0935	1235	93	4.1	--	251	--	--
19-20	1335	0835	186	18	--	--	54	7
20-23	0935	0835	240	24	916	--	--	--
23-27	0940	0840	113	6.4	--	--	--	--
APR 30-								
MAY 04	0940	0840	86	2.2	--	--	--	--
04-07	0915	0815	91	3.2	--	--	--	--
07-10	0915	0415	77	4.0	--	--	--	--
10-11	0515	0815	143	4.8	--	--	--	--
11-14	0945	0845	212	20	--	--	--	--
14-18	0925	0825	86	5.5	--	--	--	--
18-22	0855	0755	77	6.1	--	--	--	--
22-26	0845	0745	59	17	--	--	--	--
26-28	0935	0835	55	26	--	--	--	--
28-31	0925	0825	53	23	--	--	--	--

STREAMS TRIBUTARY TO LAKE ONTARIO

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
JAN								
12-12	.17	--	--	--	.010	--	--	--
12-14	.04	1.4	1.0	1.10	.012	78	69	160
12-12	.09	--	--	--	.010	--	--	--
12-12	.04	--	--	--	.009	--	--	--
12-13	.03	--	--	--	.010	--	--	--
13-13	.02	--	--	--	.010	--	--	--
13-13	.02	--	--	--	.012	--	--	--
13-13	.02	--	--	--	.012	--	--	--
13-13	.01	--	--	--	.014	--	--	--
16-20	.03	.61	1.5	.065	.018	130	94	10
20-22	.03	.27	1.5	.073	.014	140	110	10
22-23	.03	.38	1.5	.090	.015	140	120	30
23-24	.03	.47	1.5	.180	.016	340	110	90
24-25	.02	.49	1.3	.260	.011	280	95	50
26-29	.02	.34	1.4	.045	.010	160	110	20
26...	.04	.27	1.3	.035	.011	190	99	20
29-30	.02	.30	1.4	.075	.008	190	100	70
JAN 30-								
FEB 02								
02-05	.01	.66	1.2	.072	.012	150	83	20
02-05	.01	.32	1.4	.030	.008	140	100	10
05-09	.01	.24	1.4	.025	.004	140	120	10
09-11	<.01	.22	1.4	.020	.005	140	140	20
11-13	<.01	.24	1.5	.040	.004	130	120	20
13-17	.01	.48	1.3	.040	.009	120	100	10
17-19	.01	.71	1.0	.320	.010	58	37	60
19-23	.02	.67	1.1	.110	.012	89	68	20
23-26	.01	.31	1.2	.050	.008	170	86	20
26-28	.03	.36	.98	.065	.008	110	76	20
FEB 28-								
MAR 01								
01-02	.02	.45	.97	.240	.007	100	63	50
01-02	.01	.78	.94	.290	.010	86	52	40
02-05	.01	.48	1.2	.070	.008	110	80	20
05-08	<.01	.19	1.2	.035	.006	120	100	20
08-09	<.01	.54	.92	.200	.005	96	71	30
09-12	.02	.31	.98	.125	.006	99	74	30
12-16	.02	.25	1.3	.020	.006	220	110	10
16-17	.01	.24	1.3	.025	.005	230	110	10
17-19	<.01	.26	1.2	.050	.004	170	95	20
19-19	.03	1.2	.91	.650	.015	120	53	100
20-20	.02	1.1	1.0	.540	.008	110	54	60
23...	<.01	.29	1.2	.030	.006	250	86	10
25-26	.01	.42	.98	.080	.006	170	74	20
26-26	<.01	.43	.83	.240	.005	130	55	40
27-30	<.01	.37	.87	.140	.006	110	69	20
MAR 30-								
APR 01								
01-01	.04	.51	.86	.120	.008	120	84	30
01-01	.06	.67	.94	.150	.009	130	92	30
01-02	.06	.63	1.0	.140	.009	130	92	30
02-06	.01	.35	1.1	.065	.034	120	97	10
06-08	.01	.41	1.1	.030	.006	120	110	10
08-08	<.01	.61	1.2	.040	.005	130	120	20
09-09	.02	.55	1.2	.055	.005	130	110	20
09-13	<.01	.34	1.1	.065	.006	120	110	10
13-16	<.01	.44	1.1	.035	.004	130	130	10
16-19	.03	.40	1.1	.040	.004	130	120	30
19-20	<.01	.57	.95	.100	.005	140	95	20
20-23	<.01	.46	.81	.120	.005	110	88	20
23-27	<.01	.47	.89	.050	.004	130	120	10
APR 30-								
MAY 04								
04-07	.04	.69	1.0	.050	.008	65	72	10
04-07	.01	.36	1.1	.030	.008	130	140	10
07-10	.00	.39	1.1	.030	.011	130	160	20
10-11	<.01	.37	1.1	.045	.008	130	150	30
11-14	<.01	.59	.76	.110	.008	110	97	20
14-18	<.01	.58	1.0	.050	.011	130	140	100
18-22	.01	1.3	1.2	.050	.010	130	150	--
22-26	.02	.42	1.2	.110	.014	130	190	--
26-28	.02	.59	.86	.180	.012	130	190	--
28-31	<.01	.65	1.3	.140	.011	130	200	--

STREAMS TRIBUTARY TO LAKE ONTARIO

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

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	TUR- BID- ITY (NTU) (00076)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	ANC WATER UNFLTRD FET FIELD MG/L AS CACO3 (00410)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	RESIDUE VOLA- TILE, SUS- PENDED (MG/L) (00535)
MAY 31-								
JUN 01	0925	0825	106	35	--	--	111	18
01-04	0925	0825	69	50	--	--	137	19
04-08	0925	0825	51	12	--	--	--	--
08-11	0850	0750	46	16	--	--	--	--
11-11	0850	2350	49	18	--	--	--	--
12-12	0050	1550	71	28	--	--	--	--
12-15	1650	0750	63	22	--	--	--	--
15-18	0900	0800	53	24	--	--	--	--
18-22	0915	0815	44	14	--	--	--	--
22-25	0855	0755	46	16	--	--	--	--
25-26	0910	0810	387	530	592	158	1230	126
26-29	0910	0810	230	260	734	173	526	55
JUN 29-								
JUL 02	0940	0840	167	50	807	183	240	30
02-04	0940	0840	88	50	959	214	116	16
04-05	0940	0040	423	280	782	206	829	68
05-06	0140	0840	499	350	545	156	747	76
06-07	0910	0810	200	85	738	176	180	19
07-09	0910	0810	688	280	572	152	320	27
09-13	1315	0915	347	110	714	193	225	27
13-16	1005	0905	100	15	995	232	44	5
16-18	0855	1955	78	18	--	--	--	--
20-22	0905	1705	68	13	--	--	--	--
22-23	1805	0805	106	18	--	--	--	--
23-27	0855	0755	82	13	--	--	--	--
27-30	0950	0850	80	5.6	--	--	--	--
JUL 30-								
AUG 03	0915	0815	66	7.1	--	--	--	--
03...	0840	--	57	2.7	--	--	--	--
10...	0925	--	67	10	--	--	--	--
13...	0920	--	54	3.7	--	--	--	--
17...	0920	--	45	2.6	--	--	--	--
20...	0917	--	134	10	--	--	--	--
24...	0754	--	152	32	--	--	--	--
25-26	1020	0620	423	76	585	139	246	29
26-27	0720	0720	271	110	524	131	271	30
27-30	0825	1225	77	30	951	202	81	<9
SEP								
02-04	0835	0735	58	18	--	--	--	--
04-06	0830	1930	51	6.7	--	--	--	--
06-07	2030	1130	157	39	--	--	130	18
07-08	1230	0730	157	65	--	--	149	19
08-10	0800	0700	175	48	--	--	82	16
10-14	0830	0730	67	16	--	--	--	--
14-17	0925	0825	68	14	--	--	--	--
17-20	0935	1235	62	7.2	--	--	--	--
20-21	1335	0735	142	34	--	--	84	15
21-24	0840	0740	84	29	--	--	--	--
24-28	0800	0700	64	7.7	--	--	--	--
SEP 28-								
OCT 01	0805	0705	58	8.0	--	--	--	--

STREAMS TRIBUTARY TO LAKE ONTARIO
0423205010 IRONDEQUOIT CREEK ABOVE BLOSSOM ROAD, ROCHESTER, NY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
MAY 31-								
JUN 01	<.01	1.2	1.2	.200	.012	110	150	--
01-04	<.01	.32	1.2	.370	.019	110	150	--
04-08	<.01	.32	1.3	.070	.016	130	190	--
08-11	.02	.30	1.3	.080	.013	130	210	--
11-11	.01	.32	1.3	.085	.013	120	200	--
12-12	.01	.32	1.2	.140	.015	130	190	--
12-15	.01	.45	1.1	.130	.017	120	170	--
15-18	<.01	.64	1.2	.130	.019	120	170	--
18-22	.01	.46	1.2	.080	.018	130	190	--
22-25	.01	.41	1.2	.100	.018	66	100	--
25-26	.01	.67	1.4	.340	.023	64	83	280
26-29	.01	.68	1.1	.290	.029	86	92	90
JUN 29-								
JUL 02	<.01	1.2	1.1	.380	.030	90	110	70
02-04	<.01	.99	1.0	.430	.032	110	120	40
04-05	<.01	.62	.81	1.10	.032	76	98	180
05-06	<.01	.70	.79	1.30	.032	57	50	120
06-07	<.01	.53	1.0	.340	.033	76	70	50
07-09	<.01	.48	.91	.800	.032	60	58	130
09-13	<.01	.83	1.1	.460	.039	75	73	60
13-16	<.01	.86	1.1	.100	.028	110	130	10
16-18	<.01	.46	1.0	.095	.025	120	150	--
20-22	.02	.38	1.1	.080	.014	120	160	--
22-23	<.01	.45	1.1	.100	.012	99	140	--
23-27	<.01	.52	.95	.100	.015	100	140	--
27-30	<.01	.35	.82	.055	.010	96	140	--
JUL 30-								
AUG 03	<.01	.70	--	.065	.013	110	150	--
03...	<.01	.33	1.1	.030	.013	120	190	--
10...	<.01	.30	.94	.090	.031	88	140	--
13...	.03	.20	.99	.065	.018	110	180	--
17...	.02	.13	.96	.035	.015	130	210	--
20...	.02	.30	.79	.025	.025	98	120	--
24...	.08	.71	.95	.180	.033	100	160	--
25-26	.05	1.0	.51	.400	.015	58	81	110
26-27	.01	.81	.40	.170	.019	56	56	70
27-30	<.01	.27	.80	.130	.021	110	140	30
SEP								
02-04	<.01	.29	.95	.065	.012	110	190	--
04-06	<.01	.37	.95	.050	.016	120	200	--
06-07	.02	1.0	.76	.230	.016	79	120	--
07-08	<.01	2.1	.83	.270	.019	66	99	--
08-10	<.01	.83	.57	.210	.018	72	100	--
10-14	<.01	.17	.88	.095	.020	110	160	--
14-17	<.01	.33	.92	.080	.020	110	170	--
17-20	<.01	.15	.90	.055	.020	120	180	--
20-21	<.01	.64	.83	.170	.018	86	130	--
21-24	.02	.66	.81	.140	.020	99	150	--
24-28	<.01	.22	.94	.065	.018	110	160	--
SEP 28-								
OCT 01	<.01	.37	.86	.070	.019	110	160	--

STREAMS TRIBUTARY TO LAKE ONTARIO

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0423205025 IRONDEQUOIT CREEK AT EMPIRE BOULEVARD, ROCHESTER, NY

LOCATION.--Lat 43°10'34", long 77°31'37", Monroe County, Hydrologic Unit 04140101, on right bank 25 ft upstream from bridge on Empire Boulevard (Route 404), 200 ft upstream from mouth at south end of Irondequoit Bay, and 1.5 mi east of Rochester.

DRAINAGE AREA.--151 mi², flow from 8.45 mi² noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1990 to current year.

GAGE.--Ultrasonic velocity meter, water-stage recorder, and crest-stage gage. Datum of gage is 242.66 ft above sea level (levels by Corps of Engineers).

REMARKS.--Records good except those for estimated daily discharges, which are fair. Records affected by backwater from Irondequoit Bay. Discharge includes undetermined diversion from Erie (Barge) Canal. Undetermined discharge (usually less than 5 percent of the total flow) bypasses gage through culvert 900 ft west of main channel. Unpublished gage-height record for March 1989 to May 1990 is available in files of U.S. Geological Survey. Unpublished water-quality records are available in files of Monroe County Department of Health.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,400 ft³/s, Jan. 9, 1993, maximum gage height, 6.64 ft, Apr. 23, 1993 (backwater from Irondequoit Bay); minimum daily discharge, 24 ft³/s, Aug. 27, 1995, Aug. 2, 1997; minimum instantaneous discharge not determined.

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

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 9	Unknown	*a3,400	*b6.57	July 9	Unknown	a1,800	c5.59
	a	About.					
	b	From maximum indicator.					
	c	Backwater from Irondequoit Bay.					

Minimum daily discharge, 45 ft³/s, Oct. 20, June 22; minimum instantaneous discharge not determined.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	171	76	e223	e110	e240	545	206	e90	e114	229	e71	52
2	111	309	221	161	e220	521	211	e90	e100	133	60	52
3	82	295	159	e292	175	326	189	e94	e66	91	e55	57
4	68	185	165	378	167	241	192	e100	e62	136	e53	50
5	150	125	e149	334	160	208	164	e100	e56	586	e58	50
6	96	103	e142	330	140	204	158	e90	e54	320	e60	e50
7	74	e92	e164	e450	106	193	137	e86	e52	178	e60	e200
8	68	86	167	e2100	103	225	139	e82	e52	398	e60	e190
9	65	91	155	e2900	99	414	173	e80	e54	e1360	e60	169
10	53	84	136	e1600	102	366	196	78	48	e700	e80	115
11	57	e82	138	e700	110	279	169	271	50	e290	e66	75
12	54	73	131	e450	163	175	138	269	e80	e180	e62	63
13	56	74	e131	334	250	186	119	159	e62	e150	e58	63
14	48	65	122	e280	182	172	113	105	e70	e120	e54	57
15	50	67	117	e198	124	198	e90	87	e60	e100	e52	61
16	51	75	123	192	114	193	e94	69	e54	e88	e50	96
17	53	e78	133	173	141	182	e100	67	e48	e80	e50	70
18	52	e86	140	162	435	220	e100	71	e56	e76	e210	61
19	50	92	125	154	594	410	118	67	e56	e70	e170	62
20	45	126	134	160	504	602	264	78	e55	e76	68	90
21	75	150	158	180	329	409	266	e74	e50	e70	54	132
22	106	236	e130	149	249	352	216	70	e45	e70	52	74
23	68	276	e210	160	208	288	165	60	e46	e130	49	108
24	56	e227	e200	219	211	289	130	59	e54	e90	e150	76
25	55	e171	e262	192	271	306	e120	54	e300	e70	e150	63
26	58	e137	e263	e180	357	442	e110	57	e390	e66	432	63
27	242	214	e214	e170	308	578	e100	55	e290	e64	e166	74
28	119	e174	170	e170	261	e510	e96	e54	e140	e62	83	80
29	87	e145	142	e170	---	e268	e94	52	e90	e120	67	66
30	76	141	e137	e330	---	223	e92	53	e150	e64	62	61
31	69	---	e110	e310	---	181	---	66	---	e69	53	---
TOTAL	2465	4135	4971	13688	6323	9706	4459	2787	2804	6236	2775	2480
MEAN	79.5	138	160	442	226	313	149	89.9	93.5	201	89.5	82.7
MAX	242	309	263	2900	594	602	266	271	390	1360	432	200
MIN	45	65	110	110	99	172	90	52	45	62	49	50

e Estimated

STREAMS TRIBUTARY TO LAKE ONTARIO

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

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1998, BY WATER YEAR (WY)

MEAN	100	135	157	195	158	273	243	125	92.5	88.7	86.4	74.6
MAX	187	208	247	442	226	351	481	232	162	201	262	132
(WY)	1997	1993	1997	1998	1998	1993	1993	1996	1996	1998	1992	1992
MIN	52.2	63.3	87.4	85.6	85.6	160	82.0	63.8	49.9	50.1	48.7	38.1
(WY)	1995	1992	1996	1994	1995	1995	1995	1995	1995	1997	1995	1995

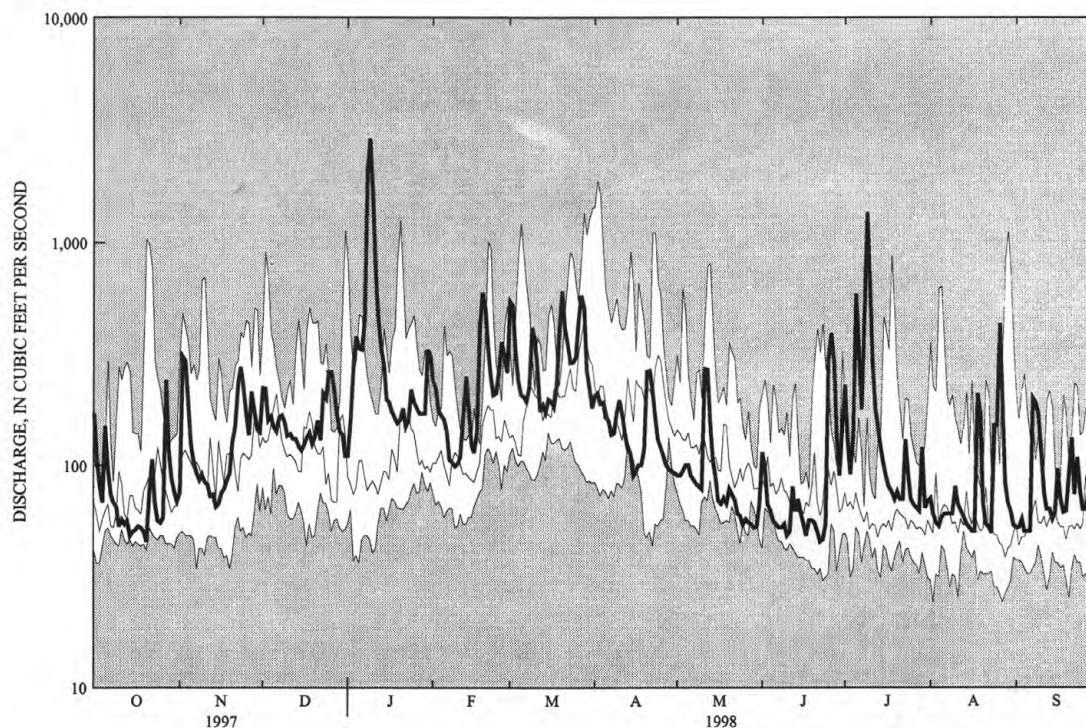
SUMMARY STATISTICS

FOR 1997 CALENDAR YEAR

FOR 1998 WATER YEAR

WATER YEARS 1990 - 1998

ANNUAL TOTAL	45181	62829	
ANNUAL MEAN	124	172	145
HIGHEST ANNUAL MEAN			183
LOWEST ANNUAL MEAN			80.3
HIGHEST DAILY MEAN	518	Feb 28	2900
LOWEST DAILY MEAN	24	Aug 2	45
ANNUAL SEVEN-DAY MINIMUM	33	Aug 6	50
10 PERCENT EXCEEDS	239		309
50 PERCENT EXCEEDS	95		119
90 PERCENT EXCEEDS	45		54



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
 SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

STREAMS TRIBUTARY TO LAKE ONTARIO

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

WATER-QUALITY RECORDS

PERIOD OF RECORD.--1989 to current year.

CHEMICAL DATA: 1989-98 (e).

NUTRIENT DATA: 1989-98 (e).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: November 1994 to current year.

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

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

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 29.0°C, July 15, 1995; minimum, 0.0°C, many days during winter period.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 26.0°C, July 17, Aug. 9; minimum, 0.0°C, several days during winter period.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	14.5	12.0	13.5	10.0	8.5	9.0	5.0	3.5	4.5	.0	.0	.0
2	12.0	11.0	11.5	11.0	10.0	10.5	4.0	3.0	3.5	2.5	.0	.5
3	13.5	11.0	12.0	10.5	9.0	9.5	3.5	2.5	3.0	4.0	2.5	3.5
4	16.0	12.5	14.0	9.0	8.5	9.0	5.0	3.5	4.5	4.5	3.5	4.0
5	18.5	14.5	16.5	8.5	8.0	8.5	5.0	4.5	4.5	5.0	3.5	4.0
6	19.0	16.0	17.0	9.5	7.5	8.5	4.5	3.0	3.5	7.0	5.0	6.0
7	17.0	15.5	16.0	8.5	7.5	8.0	4.0	3.0	3.5	7.5	6.0	7.0
8	18.0	14.5	16.0	8.0	7.5	7.5	4.0	3.5	4.0	6.0	4.0	4.5
9	19.5	15.5	17.5	9.0	8.0	8.5	4.0	3.0	3.5	4.0	3.5	4.0
10	19.0	16.5	17.5	8.0	7.0	7.5	3.0	1.5	2.5	4.0	3.0	3.5
11	17.0	14.0	15.5	8.0	6.0	7.0	2.5	1.5	2.0	3.5	2.5	3.0
12	15.0	12.0	13.5	6.0	4.5	5.5	3.0	2.0	2.5	3.0	2.0	2.5
13	15.5	12.0	14.0	5.0	3.5	4.5	3.0	2.0	2.5	3.0	1.5	2.5
14	15.0	13.0	14.0	4.0	1.5	2.5	2.5	1.0	2.0	1.5	.5	1.0
15	13.0	11.5	12.5	3.0	1.5	2.5	2.5	.5	1.5	1.0	.5	.5
16	12.5	10.5	11.5	3.5	2.0	3.0	3.5	1.5	2.0	1.0	.5	1.0
17	12.5	10.0	11.0	4.0	2.5	3.0	4.0	2.5	3.0	2.0	1.0	1.5
18	11.0	8.5	10.0	5.0	3.0	3.5	3.5	2.0	3.0	2.5	1.5	2.0
19	11.0	8.0	9.5	4.0	3.0	3.5	3.5	2.5	3.0	2.5	1.5	2.0
20	10.0	8.0	9.0	5.5	4.0	4.5	4.0	3.5	3.5	2.5	1.5	2.0
21	9.5	8.5	9.0	6.0	4.5	5.5	3.5	1.5	2.5	2.5	1.5	2.0
22	8.5	7.5	8.0	6.0	5.0	5.0	1.5	.5	1.0	2.0	1.5	1.5
23	8.5	6.5	7.5	5.5	5.0	5.0	2.5	1.0	2.0	2.0	.5	1.0
24	8.0	7.0	7.5	5.0	3.5	4.0	3.0	2.5	3.0	2.5	1.5	2.0
25	9.0	7.5	8.0	4.0	3.0	3.5	4.0	2.5	3.5	2.5	1.5	2.0
26	8.5	7.0	7.5	5.5	3.5	5.0	3.5	3.5	3.5	2.0	1.0	1.5
27	8.5	7.0	8.0	5.5	4.5	5.0	4.0	3.0	3.5	1.5	.5	1.0
28	7.5	6.5	7.0	5.5	4.5	5.0	3.0	2.0	2.5	2.5	1.5	2.0
29	8.0	6.5	7.0	6.0	4.5	5.5	2.0	1.0	1.5	3.0	2.0	2.5
30	9.5	7.0	8.0	5.5	4.5	5.0	2.0	.5	.5	3.0	2.0	3.0
31	9.0	7.0	8.0	---	---	---	.5	.0	.0	2.5	2.0	2.0
MONTH	19.5	6.5	11.5	11.0	1.5	5.8	5.0	.0	2.8	7.5	.0	2.4

STREAMS TRIBUTARY TO LAKE ONTARIO

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

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	2.5	1.0	2.0	5.5	4.5	5.0	15.0	12.0	13.5	16.5	14.5	15.0
2	2.5	1.5	2.0	6.0	4.5	5.0	12.0	10.5	11.5	16.0	15.0	15.5
3	3.0	2.5	2.5	5.5	5.0	5.0	11.0	9.5	10.0	15.5	14.5	15.0
4	3.0	2.0	2.5	5.5	5.0	5.0	9.5	8.0	8.5	16.0	14.5	15.0
5	2.5	1.5	2.0	5.5	4.5	5.0	9.5	7.0	8.5	16.5	14.0	15.5
6	2.5	1.0	1.5	5.0	4.0	4.5	10.5	8.0	9.0	18.0	15.0	16.5
7	2.0	1.0	1.5	6.0	4.0	5.0	11.0	8.5	9.5	19.5	16.5	17.5
8	2.5	1.0	1.5	5.0	4.0	4.5	10.0	8.5	9.0	18.5	17.5	18.0
9	2.5	1.0	1.5	6.5	4.5	5.5	9.0	7.5	8.0	17.5	16.5	17.0
10	3.0	1.5	2.5	6.5	3.0	4.5	9.0	6.5	7.5	16.5	15.0	16.0
11	3.5	2.5	3.0	3.0	1.0	1.5	9.5	7.5	8.5	15.0	14.0	14.5
12	4.0	3.0	3.5	1.0	.0	.5	10.5	8.0	9.5	16.5	13.5	15.0
13	3.5	2.0	2.5	2.0	.5	1.5	12.0	9.5	10.5	18.0	15.0	16.5
14	2.0	1.0	1.5	3.0	1.5	2.0	13.0	11.0	12.0	19.5	16.5	17.5
15	1.5	.0	.5	3.0	2.0	2.5	12.5	12.0	12.0	21.0	18.0	19.5
16	1.5	.0	1.0	3.5	1.5	2.5	12.0	11.0	11.5	22.0	19.0	20.5
17	2.5	1.5	2.0	4.0	1.5	2.5	11.5	10.5	11.5	23.0	20.0	21.0
18	3.0	2.0	2.5	4.5	3.5	4.0	12.5	10.0	11.0	22.5	20.0	21.0
19	2.5	2.0	2.5	4.5	3.5	4.0	12.0	11.0	11.5	21.5	19.5	20.5
20	3.0	2.5	2.5	3.5	3.0	3.5	12.0	10.0	11.0	22.5	19.0	20.5
21	3.5	2.5	3.0	3.0	1.0	1.5	13.0	10.0	11.5	21.0	18.0	19.5
22	3.5	3.0	3.5	2.0	.5	1.5	13.5	11.0	12.5	18.5	16.0	17.5
23	4.0	3.0	3.5	3.5	1.0	2.5	14.0	12.0	13.0	19.0	16.0	17.5
24	4.0	2.5	3.5	5.0	2.0	3.5	14.5	12.5	13.5	20.0	16.0	17.5
25	5.0	2.5	3.5	5.5	2.5	4.0	15.0	12.0	13.5	19.5	17.0	18.0
26	5.0	3.5	4.5	8.0	5.0	6.5	13.5	12.0	12.5	20.0	17.0	18.0
27	5.0	3.0	4.0	11.5	7.5	9.5	12.5	10.0	11.0	21.0	17.5	19.0
28	5.5	4.5	5.0	13.5	10.5	12.0	13.0	10.0	11.5	22.0	18.0	19.5
29	---	---	---	14.0	12.5	13.0	14.0	11.0	12.5	22.0	19.0	20.5
30	---	---	---	15.5	11.5	13.5	15.5	12.5	14.0	22.5	19.5	21.0
31	---	---	---	16.5	14.0	15.0	---	---	---	21.0	19.5	20.0
MONTH	5.5	.0	2.6	16.5	.0	5.0	15.5	6.5	11.0	23.0	13.5	17.9
JUNE			JULY			AUGUST			SEPTEMBER			
1	19.5	17.0	18.0	21.5	19.0	20.0	22.5	19.0	20.5	21.0	18.5	20.0
2	18.0	16.0	17.0	21.0	18.0	19.5	22.5	19.0	20.5	20.5	18.5	19.5
3	17.5	15.0	16.0	22.0	19.5	20.5	23.0	19.5	21.0	19.0	17.5	18.0
4	16.0	13.5	15.0	21.5	19.0	20.5	24.0	20.5	22.0	18.5	14.0	17.0
5	16.5	13.5	15.0	21.0	19.0	20.0	23.5	21.5	22.5	20.0	16.0	18.0
6	17.0	14.0	15.5	21.0	19.0	20.0	22.5	21.5	22.0	22.0	17.0	19.5
7	16.0	14.0	15.0	20.5	19.5	20.0	22.0	20.5	21.0	20.5	18.0	19.0
8	17.0	13.5	15.0	20.5	19.5	20.0	24.0	20.0	22.0	18.5	16.0	17.0
9	19.5	15.0	17.0	22.5	20.0	21.0	26.0	22.0	24.0	16.0	15.0	15.5
10	19.5	16.5	18.0	22.0	20.5	21.5	25.0	23.0	24.0	17.5	14.5	16.0
11	19.5	17.0	18.0	22.5	19.5	21.0	25.0	22.0	23.5	19.0	15.0	17.0
12	21.0	17.5	19.0	22.5	19.5	21.0	25.0	21.5	23.0	19.5	16.5	18.0
13	21.0	19.0	20.0	23.5	20.0	21.5	23.5	20.0	22.0	20.5	17.5	19.0
14	20.0	18.5	19.0	23.0	21.0	22.0	24.0	19.5	21.5	21.0	17.5	19.0
15	20.5	17.5	18.5	23.5	20.5	22.0	24.0	20.5	22.0	20.5	18.5	19.5
16	22.0	18.5	19.5	25.0	22.0	23.0	25.5	21.0	23.0	20.5	18.0	19.0
17	22.0	19.0	20.5	26.0	22.5	23.5	24.5	22.0	23.0	20.0	15.5	17.5
18	23.0	19.5	21.0	24.0	22.0	23.0	23.0	20.0	21.5	20.5	15.5	17.5
19	25.0	20.5	22.0	23.5	20.5	22.0	21.0	18.0	19.5	20.5	16.0	18.0
20	25.0	21.5	23.0	24.5	21.0	22.5	21.0	17.0	19.0	22.0	17.5	19.5
21	25.5	22.0	23.5	25.0	22.0	23.5	23.0	18.5	20.5	21.5	18.5	20.0
22	25.0	22.5	23.5	25.5	22.5	23.5	23.5	20.0	21.5	20.0	16.5	18.5
23	23.0	22.0	22.5	24.5	22.0	23.5	22.5	20.0	21.0	17.5	14.5	16.0
24	25.0	20.5	22.5	23.5	20.5	22.0	23.0	20.0	21.5	15.0	12.5	14.0
25	23.5	22.5	23.0	22.5	19.5	21.0	22.5	20.5	21.5	16.0	13.0	14.5
26	23.0	21.0	22.0	22.0	19.5	21.0	21.5	19.5	20.5	17.5	14.0	15.5
27	23.0	21.0	22.0	22.5	19.5	21.0	23.0	20.0	21.5	18.0	16.5	17.0
28	24.5	21.0	22.5	24.0	20.0	22.0	23.0	19.5	21.0	18.5	15.0	17.0
29	25.0	22.5	23.5	23.5	21.5	22.5	22.5	20.5	21.5	18.0	14.0	16.0
30	24.0	21.0	22.5	23.0	21.0	21.5	22.5	19.5	21.0	18.5	15.0	16.5
31	---	---	---	22.5	19.5	21.0	22.0	19.5	21.0	---	---	---
MONTH	25.5	13.5	19.6	26.0	18.0	21.5	26.0	17.0	21.6	22.0	12.5	17.6

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	TUR- BID- ITY (NTU) (00076)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	ANC WATER UNFLTRD FET FIELD MG/L AS CACO3 (00410)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	RESIDUE VOLA- TILE, SUS- PENDE (MG/L) (00535)
OCT								
02-06	0920	0820	102	7.0	--	--	--	--
06-08	0925	1225	77	2.6	--	--	--	--
08-10	1325	0825	64	2.8	--	--	--	--
10-14	0905	0805	54	2.5	--	--	--	--
14-16	0920	0820	49	5.1	--	--	--	--
16-20	0915	0815	52	1.7	--	--	--	--
20-23	0925	0825	80	3.4	--	--	--	--
23-26	0920	2020	56	1.6	--	--	--	--
26-27	2120	0820	175	5.8	--	--	--	--
27-30	0925	0825	131	6.1	--	--	--	--
OCT 30-								
NOV 01	0925	1625	68	20	--	--	--	--
01-03	1725	0825	282	26	--	--	--	--
03-06	0945	0845	172	15	--	--	--	--
06-10	1020	0920	90	4.4	--	--	--	--
10-13	0935	0835	78	3.5	--	--	--	--
13-17	0955	0855	70	3.2	--	--	--	--
17-20	0955	0855	91	4.2	--	--	--	--
20-23	0955	0055	181	5.1	--	--	--	--
23-24	0155	0855	264	8.7	--	--	--	--
24-26	0945	0845	167	5.5	--	--	--	--
26-27	0925	1425	191	6.6	--	--	--	--
NOV 27-								
DEC 01	1525	0825	164	5.4	--	--	--	--
01-04	0945	0845	194	5.0	--	--	--	--
04-08	0950	0850	160	4.0	--	--	--	--
08-11	0950	0850	149	4.1	--	--	--	--
11-15	0935	0835	127	4.4	--	--	--	--
15-19	0935	0835	129	3.7	--	--	--	--
19-22	0945	0845	141	4.4	--	--	--	--
22-23	0935	0435	119	3.6	--	--	--	--
23-25	0535	1235	224	5.0	--	--	--	--
25-26	1335	0835	280	15	--	--	--	--
26-29	0935	0835	198	7.5	--	--	--	--
DEC 29-								
JAN 02	1015	0915	128	3.7	--	--	--	--
02-04	1040	1240	288	5.9	--	--	--	--
04-05	1340	0940	368	16	--	--	--	--
05-07	1110	0710	325	8.6	--	--	--	--
07-07	0810	1010	314	--	--	--	--	--
07-08	0810	1010	716	50	749	163	369	42
07-07	1110	1310	365	--	--	--	--	--
07-07	1410	1610	478	--	--	--	--	--
07-07	1710	1910	540	--	--	--	--	--
07-07	2010	2210	597	--	--	--	--	--
07-08	2310	0110	658	--	--	--	--	--
08-08	0210	0410	719	--	--	--	--	--
08-08	0510	0710	1160	--	--	--	--	--
08-08	0810	1010	1420	--	--	--	--	--
08-08	1150	1450	2650	--	--	--	--	--
08-09	1150	1050	3100	120	530	131	586	159
08-08	1550	1850	2950	--	--	--	--	--
08-08	1950	2250	3100	--	--	--	--	--
08-09	2350	0250	3300	--	--	--	--	--
09-09	0350	0650	3400	--	--	--	--	--
09-09	0750	1050	3150	--	--	--	--	--
09-09	1150	1450	2850	--	--	--	--	--
09-12	1150	0950	1300	75	502	133	165	16
09-09	1550	1850	2600	--	--	--	--	--
09-09	1950	2250	2300	--	--	--	--	--
09-10	2350	0250	2100	--	--	--	--	--
10-10	0350	0650	1950	--	--	--	--	--
10-10	0750	1050	1700	--	--	--	--	--
10-10	1150	1450	1480	--	--	--	--	--
10-10	1550	1850	1300	--	--	--	--	--

STREAMS TRIBUTARY TO LAKE ONTARIO

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHOPHOS- PHORUS SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
OCT								
02-06	.04	.39	.94	.075	.023	110	140	10
06-08	.03	.38	.84	.040	.024	110	150	10
08-10	.03	.47	.80	.045	.023	130	180	10
10-14	.04	.38	.76	.035	.025	130	190	60
14-16	.01	.46	.77	.055	.019	140	210	10
16-20	.01	.30	.77	.030	.018	140	210	10
20-23	<.01	.34	.79	.035	.010	120	190	10
23-26	<.01	.35	.75	.030	.012	120	170	<10
26-27	<.01	.53	.84	.065	.016	120	190	20
27-30	.02	.58	.70	.070	.015	100	130	10
OCT 30-								
NOV 01	.03	.46	.79	.040	.015	130	180	<10
01-03	.02	.67	.59	.160	.022	84	110	30
03-06	.02	.60	.78	.085	.021	95	110	30
06-10	.07	.46	.86	.055	.017	120	150	10
10-13	.05	.47	.85	.040	.014	120	170	10
13-17	.06	.40	.90	.035	.015	200	170	10
17-20	.04	.43	.86	.040	.010	250	150	10
20-23	.03	.50	.82	.050	.009	180	130	20
23-24	.01	.56	.97	.075	.011	180	99	20
24-26	.03	.48	.98	.045	.011	150	110	10
26-27	.05	.40	.99	.045	.011	150	110	10
NOV 27-								
DEC 01	.04	.43	.97	.040	.011	150	120	80
01-04	.04	.49	1.0	.045	.013	140	120	20
04-08	.04	.84	1.1	.040	.011	180	130	10
08-11	.04	.54	1.0	.040	.011	190	120	10
11-15	.04	.50	1.2	.035	.011	230	130	10
15-19	.04	.60	1.2	.030	.010	190	130	10
19-22	.04	.50	1.1	.030	.009	170	120	10
22-23	.05	.43	1.2	.030	.011	160	120	20
23-25	.04	.47	1.1	.040	.010	240	110	20
25-26	.03	.58	1.1	.085	.011	170	90	20
26-29	.03	.35	1.2	.055	.012	140	93	20
DEC 29-								
JAN 02	.04	.56	1.3	.060	.010	210	130	10
02-04	.04	.47	1.2	.070	.013	270	110	20
04-05	.04	.63	1.0	.030	.016	180	71	30
05-07	.02	.60	1.1	.075	.012	160	79	30
07-07	.04	--	--	--	.012	--	--	--
07-08	.05	1.1	.85	.400	.018	110	54	100
07-07	.04	--	--	--	.012	--	--	--
07-07	.04	--	--	--	.014	--	--	--
07-07	.04	--	--	--	.015	--	--	--
07-07	.04	--	--	--	.018	--	--	--
07-08	.05	--	--	--	.023	--	--	--
08-08	.06	--	--	--	.021	--	--	--
08-08	.06	--	--	--	.018	--	--	--
08-08	.08	--	--	--	.018	--	--	--
08-08	.06	--	--	--	.015	--	--	--
08-09	.04	1.1	.78	.240	.018	71	40	80
08-08	.05	--	--	--	.017	--	--	--
08-08	.05	--	--	--	.019	--	--	--
08-09	.05	--	--	--	.025	--	--	--
09-09	.04	--	--	--	.024	--	--	--
09-09	.04	--	--	--	.025	--	--	--
09-09	.04	--	--	--	.025	--	--	--
09-12	.03	.72	.94	.270	.027	57	39	40
09-09	.04	--	--	--	.024	--	--	--
09-09	.08	--	--	--	.019	--	--	--
09-10	.04	--	--	--	.025	--	--	--
10-10	.04	--	--	--	.026	--	--	--
10-10	.07	--	--	--	.020	--	--	--
10-10	.04	--	--	--	.025	--	--	--
10-10	.03	--	--	--	.026	--	--	--

STREAMS TRIBUTARY TO LAKE ONTARIO

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	TUR- BID- ITY (NTU) (00076)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	ANC WATER UNFLTRD FET FIELD MG/L AS CACO3 (00410)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDEDED (MG/L) (00530)	RESIDUE VOLA- TILE, SUS- PENDEDED (MG/L) (00535)
JAN								
10-10	1950	2250	1120	--	--	--	--	--
10-11	2350	0250	970	--	--	--	--	--
11-11	0350	0650	850	--	--	--	--	--
11-11	0750	1050	760	--	--	--	--	--
11-11	1150	1450	680	--	--	--	--	--
11-11	1550	1850	630	--	--	--	--	--
11-11	1950	2250	570	--	--	--	--	--
11-12	2350	0250	510	--	--	--	--	--
12-12	0350	0650	480	--	--	--	--	--
12-12	0750	0950	450	--	--	--	--	--
12-12	1020	1320	440	--	--	--	--	--
12-16	1020	0920	283	20	800	198	34	15
12-12	1420	1720	428	--	--	--	--	--
12-12	1820	2120	407	--	--	--	--	--
12-13	2220	0120	398	--	--	--	--	--
13-13	0220	0520	378	--	--	--	--	--
13-13	0620	0920	328	--	--	--	--	--
13-13	1020	1320	326	--	--	--	--	--
13-13	1420	1720	325	--	--	--	--	--
13-13	1820	2120	323	--	--	--	--	--
13-14	2220	0120	278	--	--	--	--	--
14-14	0220	0520	280	--	--	--	--	--
14-14	0620	0920	280	--	--	--	--	--
14-14	1020	1320	280	--	--	--	--	--
14-14	1420	1720	280	--	--	--	--	--
14-14	1820	2120	270	--	--	--	--	--
14-15	2220	0120	240	--	--	--	--	--
15-15	0220	0520	220	--	--	--	--	--
15-15	0620	0920	191	--	--	--	--	--
15-15	1020	1320	204	--	--	--	--	--
15-15	1420	1720	212	--	--	--	--	--
15-15	1820	2120	173	--	--	--	--	--
15-16	2220	0120	173	--	--	--	--	--
16-16	0220	0520	199	--	--	--	--	--
16-16	0620	0920	197	--	--	--	--	--
16-20	1100	0900	164	12	1050	233	16	<13
20-22	0940	0840	173	7.3	--	--	--	--
22-23	0925	1625	146	5.9	--	--	--	--
23-24	1725	0825	213	9.0	--	--	--	--
24-26	0925	0825	193	7.5	--	--	--	--
26-29	1025	0925	172	4.5	--	--	--	--
29-31	0950	0050	272	6.6	--	--	--	--
JAN 31-								
FEB 02	0150	0850	265	8.4	--	--	--	--
02-05	0940	0840	170	5.1	--	--	--	--
05-09	0935	0835	123	3.1	--	--	--	--
09-11	0935	1635	103	3.8	--	--	--	--
11-13	1735	0835	175	5.5	--	--	--	--
13-13	0945	2145	253	13	--	--	--	--
17-17	1010	2310	152	60	932	207	194	17
19-23	0940	0840	386	27	771	197	49	6
23-26	0950	0850	247	7.0	1160	228	16	<3
26-28	0950	2050	302	14	928	221	25	3
FEB 28-								
MAR 01	2150	1650	487	26	810	191	52	7
01-02	1750	0850	599	50	725	187	109	11
02-05	1005	0905	311	18	859	220	41	5
05-08	0935	1635	200	6.3	1010	249	24	<4
08-09	1735	0835	352	18	--	--	--	--
09-12	0950	0850	322	24	--	--	--	--
12-16	0955	0855	187	3.5	--	--	--	--
16-17	1020	1520	185	2.7	--	--	--	--
17-19	1620	0920	235	5.1	--	--	--	--

STREAMS TRIBUTARY TO LAKE ONTARIO

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
JAN								
10-10	.03	--	--	--	.027	--	--	--
10-11	.03	--	--	--	.026	--	--	--
11-11	.04	--	--	--	.195	--	--	--
11-11	.03	--	--	--	.051	--	--	--
11-11	.03	--	--	--	.039	--	--	--
11-11	.02	--	--	--	.041	--	--	--
11-11	.05	--	--	--	.047	--	--	--
11-12	.03	--	--	--	.034	--	--	--
12-12	.03	--	--	--	.032	--	--	--
12-12	.03	--	--	--	.033	--	--	--
12-12	.02	--	--	--	.026	--	--	--
12-16	.03	.41	1.4	.080	.021	92	70	20
12-12	.03	--	--	--	.026	--	--	--
12-12	.03	--	--	--	.024	--	--	--
12-13	.03	--	--	--	.025	--	--	--
13-13	.04	--	--	--	.024	--	--	--
13-13	.03	--	--	--	.022	--	--	--
13-13	.03	--	--	--	.023	--	--	--
13-13	.03	--	--	--	.023	--	--	--
13-13	.03	--	--	--	.022	--	--	--
13-14	.03	--	--	--	.022	--	--	--
14-14	.03	--	--	--	.024	--	--	--
14-14	.03	--	--	--	.021	--	--	--
14-14	.03	--	--	--	.021	--	--	--
14-14	.03	--	--	--	.021	--	--	--
14-14	.03	--	--	--	.021	--	--	--
14-15	.04	--	--	--	.020	--	--	--
15-15	.04	--	--	--	.020	--	--	--
15-15	.04	--	--	--	.018	--	--	--
15-15	.04	--	--	--	.019	--	--	--
15-15	.04	--	--	--	.018	--	--	--
15-15	.04	--	--	--	.019	--	--	--
15-16	.04	--	--	--	.018	--	--	--
16-16	.05	--	--	--	.018	--	--	--
16-16	.05	--	--	--	.019	--	--	--
16-20	.06	.42	1.5	.060	.021	140	92	10
20-22	.05	.52	1.6	.055	.015	140	110	20
22-23	.05	.55	1.4	.045	.015	130	100	20
23-24	.06	.60	1.5	.060	.017	300	100	20
24-26	.05	.42	1.3	.050	.014	380	96	30
26-29	.04	.25	1.3	.060	.012	170	100	20
29-31	.04	.44	1.4	.060	.010	190	100	50
JAN 31-								
FEB 02	.03	.47	1.2	.050	.011	160	83	20
02-05	.03	.43	1.3	.035	.009	140	98	20
05-09	.03	.29	1.4	.028	.006	140	110	<10
09-11	.02	.18	1.4	.025	.006	150	140	20
11-13	.02	.20	1.3	.035	.018	140	120	10
13-13	.02	.04	1.3	.065	.007	120	100	20
17-17	.03	.47	1.1	.220	.011	120	82	60
19-23	.03	.44	1.1	.100	.012	92	65	30
23-26	.03	.40	1.2	.042	.008	170	86	10
26-28	.03	.35	1.0	.065	.010	120	75	20
FEB 28-								
MAR 01	.05	.43	.94	.100	.012	100	62	20
01-02	.03	.52	.91	.160	.012	91	53	30
02-05	.02	.37	1.1	.080	.008	100	74	40
05-08	.01	.22	1.2	.045	.008	120	98	20
08-09	.02	.28	.97	.070	.008	110	82	20
09-12	.03	.36	.94	.075	.007	100	71	20
12-16	.05	.38	1.2	.025	.008	190	100	20
16-17	.04	.26	1.2	.020	.006	270	100	10
17-19	.03	.51	1.2	.035	.005	190	99	10

STREAMS TRIBUTARY TO LAKE ONTARIO

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	TUR- BID- ITY (NTU) (00076)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	ANC WATER UNFLTRD FET FIELD MG/L AS CACO3 (00410)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	RESIDUE VOLATILE, TILE, SUS- PENDE (MG/L) (00535)
MAR								
19-20	0950	0450	517	28	--	--	--	--
20-23	0550	0850	422	20	--	--	--	--
23-26	1100	0900	307	6.6	--	--	--	--
26-27	1005	0105	492	15	--	--	--	--
27-30	0205	0905	420	21	--	--	--	--
MAR 30-								
APR 01	1015	0615	191	6.4	--	--	--	--
01-01	0715	1815	196	6.2	--	--	--	--
01-02	1915	0915	230	12	1010	248	34	5
02-06	1015	0915	182	11	--	258	36	5
06-08	1010	1510	138	18	--	--	--	--
08-09	1610	0010	154	13	1080	263	--	--
09-09	0110	0910	188	15	1100	262	--	--
09-13	1015	0915	163	12	--	253	32	5
13-16	1000	0900	104	20	--	--	--	--
16-19	1010	1310	102	13	--	--	--	--
19-20	1410	0910	169	14	1080	254	18	<1
20-23	1045	0945	241	17	919	225	--	--
23-27	1010	0910	125	11	--	--	--	--
27-30	0945	0845	96	15	--	--	--	--
APR 30-								
MAY 04	1025	0925	92	13	--	--	--	--
04-07	1010	0910	95	12	--	--	--	--
07-10	1015	0915	82	16	--	--	--	--
10-11	1015	0915	145	17	--	--	--	--
18-21	0955	1255	68	24	--	--	--	--
22-24	0940	2040	63	19	--	--	--	--
28-31	1025	1325	53	16	--	--	--	--
MAY 31-								
JUN 01	1425	0925	96	22	--	--	--	--
01-04	1025	0925	86	19	--	--	--	--
04-08	1035	0935	55	13	--	--	--	--
08-11	0940	0840	51	13	--	--	--	--
11-12	0955	0455	54	15	--	--	--	--
12-12	0555	2055	80	13	--	--	--	--
12-15	2155	0855	66	14	--	--	--	--
15-18	0955	0855	53	17	--	--	--	--
22-25	0955	0855	81	14	--	--	--	--
25-26	1000	1300	330	89	688	147	171	21
26-29	1400	0900	230	95	661	154	200	21
JUN 29-								
JUL 02	1035	0935	163	60	784	174	131	20
06-07	1110	2210	207	55	683	171	109	13
07-09	2310	1010	599	83	542	148	229	23
09-13	0950	0850	540	50	632	168	112	13
13-16	1035	0935	115	20	964	234	40	6
16-20	1015	0915	77	24	--	--	--	--
20-22	1010	2110	71	9.0	--	--	--	--
22-23	2210	0910	119	16	--	--	--	--
23-27	1000	0900	82	10	--	--	--	--
27-27	1040	2140	64	40	--	--	114	19
30-30	1020	2120	57	40	--	--	--	--
AUG								
03-06	0945	0845	56	17	--	--	--	--
06-10	0940	0840	62	16	--	--	--	--
10-10	1030	1830	80	40	--	--	--	--
13-17	1045	0945	53	15	--	--	--	--
17-17	1030	1830	50	77	--	--	360	43
20-20	0430	0930	70	77	--	--	360	43
20-20	1100	1800	58	20	--	--	--	--
23-24	0700	1000	57	20	--	--	--	--
24-25	1515	1715	150	24	--	--	--	--
25-26	1815	1415	403	83	494	116	230	27
26-27	1515	0915	298	65	477	118	163	21
27-31	0930	0830	76	29	903	198	--	--

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
MAR 30-								
19-20	.02	.45	.96	.110	.007	140	62	20
20-23	.01	.64	1.1	.080	.006	170	66	--
23-26	<.01	.43	1.1	.035	.005	220	82	10
26-27	<.01	.26	.84	.060	.008	140	61	30
27-30	.01	.35	.82	.090	.007	120	63	20
MAR 30-								
APR 01	.03	.70	1.0	.045	.011	120	94	10
01-01	.01	.51	1.1	.050	.009	130	100	10
01-02	.02	.38	1.2	.060	.013	130	95	20
02-06	.04	.56	1.0	.075	.011	130	95	20
06-08	.06	.72	.97	.100	.026	130	100	20
08-09	.03	.36	.99	.085	.033	130	110	30
09-09	.04	.44	1.1	.075	.014	130	110	30
09-13	.03	.61	1.0	.095	.011	120	110	20
13-16	.03	.48	.96	.100	.009	130	110	20
16-19	.03	.43	.97	.085	.008	130	120	20
19-20	.02	.32	.89	.120	.008	130	120	20
20-23	.01	.54	.69	.095	.005	110	83	20
23-27	.02	.44	.65	.075	.008	130	110	20
27-30	.02	.41	.77	.080	.007	130	130	40
APR 30-								
MAY 04	.05	.85	.81	.110	.010	130	140	20
04-07	.05	.66	.86	.090	.014	130	130	20
07-10	.04	.58	.84	.100	.017	130	140	20
10-11	.04	.70	.81	.110	.014	120	140	20
18-21	.06	.73	.84	.160	.017	130	140	--
22-24	.06	.54	.78	.140	.019	130	150	--
28-31	.03	.64	.82	.110	.017	140	180	--
MAY 31-								
JUN 01	.05	.60	.82	.140	.017	130	170	--
01-04	.06	.41	.91	.140	.022	120	150	--
04-08	.02	.40	.96	.095	.018	130	170	--
08-11	.06	.40	.98	.090	.018	130	190	--
11-12	.03	.40	.96	.095	.015	140	200	--
12-12	.04	.37	.91	.090	.015	140	190	--
12-15	.05	.44	.89	.100	.017	120	160	--
15-18	.04	.59	.98	.140	.031	120	160	--
22-25	.06	.47	.91	.130	.028	140	190	--
25-26	.11	.77	1.1	.350	.030	77	98	50
26-29	.07	.66	.87	.147	.039	77	76	50
JUN 29-								
JUL 02	.06	1.0	.88	.310	.041	86	95	40
06-07	.04	.58	.89	.260	.041	78	67	50
07-09	.03	.69	.82	.340	.037	58	54	80
09-13	.03	.68	.85	.240	.040	65	59	40
13-16	.03	.74	1.0	.130	.035	110	120	20
16-20	.02	.63	.94	.135	.025	120	140	--
20-22	.03	.46	.82	.100	.017	110	150	--
22-23	.03	.54	.84	.110	.014	120	160	--
23-27	.02	.40	.89	.100	.025	97	130	--
27-27	.03	1.6	.87	.240	.019	98	120	--
30-30	.01	1.1	--	.290	.019	100	140	--
AUG								
03-06	.02	.54	.70	.110	.016	110	150	--
06-10	.04	.29	.82	.110	.022	120	170	--
AUG								
10-10	.05	1.4	.84	.330	.025	100	160	--
13-17	.03	.33	.85	.110	.024	120	180	--
17-17	.05	.39	.70	.700	.029	90	120	--
20-20	.05	.39	.70	.700	.029	90	120	--
20-20	.05	.45	.76	.140	.028	100	140	--
23-24	.05	.45	.76	.140	.028	100	140	--
24-25	.02	.68	.79	.150	.026	69	100	--
25-26	.03	.87	.67	.410	.034	52	71	100
26-27	.02	.89	.50	.320	.031	52	54	50
27-31	.03	.59	.53	.170	.031	70	81	40

STREAMS TRIBUTARY TO LAKE ONTARIO

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	TUR- BID- ITY (NTU) (00076)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	ANC WATER UNFLTRD FET FIELD MG/L AS CACO3 (00410)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	RESIDUE VOLA- TILE, SUS- PENDE (MG/L) (00535)
AUG 31-								
SEP 03	1045	0945	55	21	--	--	--	--
04-07	0930	0030	50	21	--	--	--	--
07-07	0130	1630	200	32	--	--	100	13
07-08	1730	0830	195	37	--	--	91	12
08-10	0945	0845	168	40	--	--	87	12
10-14	0955	0855	72	25	--	--	--	--
14-17	1020	0920	74	27	--	--	--	--
17-20	1035	1735	67	23	--	--	--	--
20-21	1835	0935	145	30	--	--	77	14
21-24	1030	0930	94	29	--	--	--	--
24-28	0925	0825	69	25	--	--	--	--
SEP 28-								
OCT 01	0920	0820	65	29	--	--	--	--
DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- ORTHOS- PHOS- SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
AUG 31-								
SEP 03	.04	.35	.94	.120	.031	120	170	--
04-07	.02	.37	.88	.140	.024	120	180	--
07-07	.04	1.7	.91	.200	.024	100	150	--
07-08	.03	.92	.88	.200	.025	67	99	--
08-10	.03	.36	.62	.210	.027	72	98	--
10-14	.03	.47	.79	.160	.028	110	140	--
14-17	.03	.35	.86	.150	.026	120	160	--
17-20	.03	.28	.84	.140	.025	110	160	--
20-21	.04	.59	.79	.170	.023	85	120	--
21-24	.05	.52	.79	.140	.026	94	140	--
24-28	.02	.27	.89	.150	.026	120	160	--
SEP 28-								
OCT 01	.03	.55	.90	.140	.025	110	160	--

STREAMS TRIBUTARY TO LAKE ONTARIO
04232400 SENECA LAKE AT WATKINS GLEN, NY

LOCATION.--Lat 42°23'00", long 76°52'05", Schuyler County, Hydrologic Unit 04140201, on east bank about 300 ft from lake on shorter of two boat slips at Watkins Glen.

DRAINAGE AREA.--704 mi².

PERIOD OF RECORD.--October 1956 to current year.

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is sea level (1.59 ft Barge Canal datum). To convert elevations to sea level adjustment of 1988, subtract 0.62 ft. Prior to Oct. 1, 1975, at datum 438.41 ft higher.

REMARKS.--Area of water surface, 67.6 mi². Diversion from Susquehanna River basin enters lake through Keuka Lake Outlet at Dresden. For table of diversion, see station 01528700. Lake elevation regulated by taintor gates on Seneca River at Lock 4, Waterloo, for operation of Erie (Barge) Canal and power generation by New York State Electric and Gas Corp.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 448.95 ft, April 26, 27, 1993; minimum elevation, 442.64 ft, Mar. 14, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 445.81 ft, Jan. 16; minimum elevation, 443.81 ft, Dec. 22, 24, and 25.

ELEVATION (FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	444.53	444.25	444.73	444.05	445.04	444.79	444.64	445.12	445.18	445.17	444.98	444.70
2	444.49	444.35	444.69	444.05	444.97	444.82	444.69	445.10	445.13	445.15	444.92	444.66
3	444.41	444.38	444.61	444.08	444.95	444.81	444.72	445.09	445.14	445.10	444.94	444.64
4	444.43	444.38	444.59	444.26	444.92	444.79	444.75	445.07	445.12	445.17	444.89	444.66
5	444.50	444.41	444.56	444.34	444.86	444.76	444.72	445.06	445.08	445.31	444.91	444.64
6	444.48	444.41	444.50	444.46	444.77	444.72	444.70	445.05	445.05	445.29	444.89	444.56
7	444.52	444.43	444.47	444.57	444.69	444.68	444.69	445.04	445.02	445.26	444.85	444.67
8	444.51	444.46	444.43	445.14	444.62	444.63	444.70	445.02	445.01	445.38	444.84	444.66
9	444.49	444.52	444.38	445.58	444.55	444.65	444.78	445.02	445.00	445.44	444.80	444.71
10	444.55	444.53	444.37	445.70	444.46	444.70	444.96	445.09	444.98	445.54	444.83	444.67
11	444.55	444.53	444.36	445.76	444.39	444.66	444.99	445.40	444.98	445.53	444.92	444.62
12	444.49	444.52	444.31	445.74	444.39	444.59	445.01	445.65	444.99	445.50	444.96	444.61
13	444.46	444.52	444.24	445.73	444.41	444.52	445.03	445.69	445.04	445.51	444.88	444.64
14	444.48	444.60	444.22	445.74	444.36	444.47	445.04	445.69	445.21	445.49	444.83	444.59
15	444.52	444.62	444.12	445.69	444.27	444.47	445.07	445.69	445.20	445.44	444.80	444.58
16	444.50	444.63	444.08	445.74	444.18	444.41	445.08	445.68	445.18	445.41	444.86	444.64
17	444.48	444.61	444.06	445.71	444.16	444.34	445.12	445.69	445.23	445.41	444.79	444.60
18	444.44	444.59	444.01	445.70	444.32	444.29	445.12	445.66	445.22	445.39	444.87	444.56
19	444.42	444.58	443.98	445.69	444.57	444.30	445.16	445.62	445.16	445.30	444.89	444.51
20	444.41	444.61	443.96	445.67	444.66	444.35	445.42	445.57	445.15	445.27	444.78	444.51
21	444.40	444.62	443.93	445.63	444.68	444.40	445.52	445.55	445.13	445.22	444.80	444.53
22	444.38	444.67	443.86	445.58	444.66	444.42	445.51	445.51	445.08	445.17	444.79	444.57
23	444.36	444.67	443.89	445.52	444.63	444.42	445.48	445.42	445.07	445.23	444.77	444.55
24	444.32	444.70	443.92	445.51	444.66	444.39	445.44	445.35	445.08	445.18	444.75	444.42
25	444.35	444.65	443.93	445.45	444.64	444.34	445.41	445.32	445.07	445.18	444.75	444.43
26	444.33	444.65	444.00	445.40	444.62	444.36	445.34	445.32	445.11	445.13	444.76	444.40
27	444.29	444.70	444.04	445.31	444.60	444.54	445.31	445.28	445.19	445.09	444.78	444.44
28	444.31	444.68	444.06	445.26	444.61	444.59	445.24	445.20	445.16	445.04	444.75	444.48
29	444.28	444.69	444.05	445.18	---	444.61	445.19	445.16	445.10	445.06	444.74	444.43
30	444.24	444.68	444.15	445.16	---	444.58	445.16	445.18	445.14	445.03	444.74	444.41
31	444.20	---	444.13	445.12	---	444.57	---	445.14	---	445.05	444.73	---
MEAN	444.42	444.55	444.21	445.24	444.59	444.55	445.07	445.34	445.11	445.27	444.83	444.57
MAX	444.55	444.70	444.73	445.76	445.04	444.82	445.52	445.69	445.23	445.54	444.98	444.71
MIN	444.20	444.25	443.86	444.05	444.16	444.29	444.64	445.02	444.98	445.03	444.73	444.40

CAL YR 1997 MEAN 444.54 MAX 445.26 MIN 443.49

WTR YR 1998 MEAN 444.81 MAX 445.76 MIN 443.86

STREAMS TRIBUTARY TO LAKE ONTARIO

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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 mi².

PERIOD OF RECORD.--April 1965 to current year.

REVISED RECORD.--WDR NY-86-3: 1984 (P).

GAGE.--Water-stage recorder. Datum of gage is 445.35 ft above sea level. Prior to Sept. 6, 1991 at datum 0.68 ft lower and prior to Oct. 1, 1982, at datum 1.32 ft higher.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by village of Penn Yan. During each year a large part of flow from 45.5 mi² of Mud Creek drainage area (Susquehanna River basin) is diverted into Keuka Lake (Oswego River basin) for power development. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,000 ft³/s, Jun. 22, 1972, gage height 10.37 ft, datum then in use, from rating curve extended above 730 ft³/s on basis of contracted-opening measurement at Mays Mill, adjusted for intervening area; minimum discharge, 3.2 ft³/s, part or all of each day, Sept. 6-10, 1982, gage height, 1.47 ft; minimum gage height, 1.44 ft, Mar. 22, 23, 1989, datum then in use.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,040 ft³/s, Jan. 8, gage height, 6.22 ft; minimum discharge, 19 ft³/s, Oct. 14, 29, June 10, 11, 12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

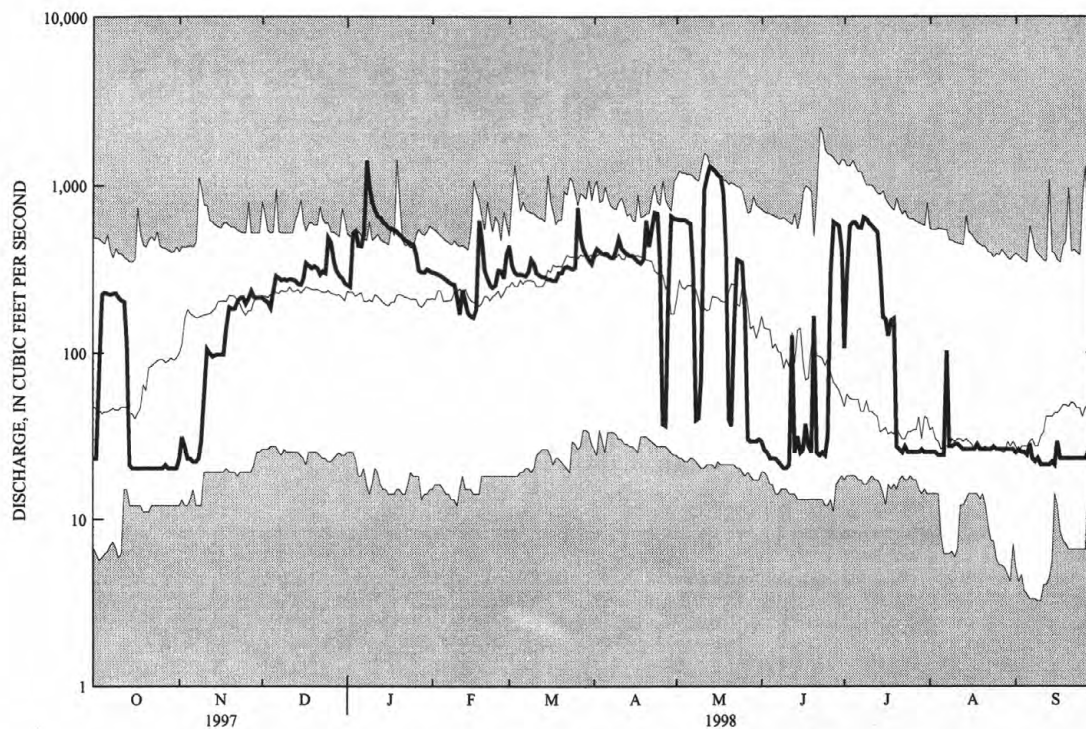
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	23	214	254	301	438	388	628	29	106	25	25
2	23	31	206	247	300	330	421	622	26	294	25	26
3	75	27	200	519	294	301	404	620	25	572	25	25
4	222	23	185	532	289	293	390	621	23	600	24	25
5	229	23	231	437	280	294	386	604	23	599	24	24
6	225	22	288	434	271	291	383	591	23	560	24	28
7	223	22	278	518	263	288	370	310	22	555	102	23
8	226	23	271	1400	257	306	367	39	21	640	27	22
9	225	29	275	985	255	362	417	40	20	628	27	23
10	214	54	270	786	213	340	477	70	20	596	28	21
11	205	105	275	705	170	300	421	939	21	572	28	21
12	202	100	273	655	237	290	400	1130	126	543	27	21
13	112	95	270	641	200	283	388	1290	25	526	26	21
14	21	97	258	598	173	283	379	1260	31	321	26	22
15	20	97	255	587	165	274	377	1210	25	163	26	21
16	20	97	279	559	163	274	364	1150	26	158	26	29
17	20	97	345	546	183	269	351	1120	37	126	26	23
18	20	142	331	544	615	269	341	904	27	155	28	23
19	20	187	319	526	479	300	363	407	25	160	26	23
20	20	183	328	506	310	299	616	39	165	27	26	23
21	20	184	320	489	275	323	432	36	25	26	26	23
22	20	206	293	469	254	329	559	146	24	25	26	23
23	20	213	306	462	246	323	689	361	25	27	26	23
24	20	214	300	447	253	315	680	353	24	25	27	23
25	20	196	486	444	310	324	357	345	31	25	26	23
26	20	212	453	386	307	738	37	171	299	25	26	23
27	21	235	353	310	278	490	36	30	604	25	26	25
28	20	214	310	302	393	415	216	29	588	25	26	23
29	20	213	290	301	---	385	655	29	572	26	26	23
30	20	213	279	315	---	359	634	29	405	25	26	23
31	20	---	260	307	---	340	---	30	---	25	26	---
TOTAL	2566	3577	9001	16211	7734	10425	12298	15153	3337	8180	883	701
MEAN	82.8	119	290	523	276	336	410	489	111	264	28.5	23.4
MAX	229	235	486	1400	615	738	689	1290	604	640	102	29
MIN	20	22	185	247	163	269	36	29	20	25	24	21

TRIBUTARY TO LAKE ONTARIO
04232482 KEUKA LAKE OUTLET AT DRESDEN, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1998, BY WATER YEAR (WY)

MEAN	117	194	244	214	212	306	325	271	187	113	80.1	84.4
MAX	404	534	532	523	421	601	737	1003	676	892	450	256
(WY)	1978	1978	1978	1998	1978	1976	1993	1996	1972	1972	1972	1987
MIN	14.6	28.8	25.4	18.3	19.2	31.8	34.9	22.2	17.2	21.1	13.7	7.14
(WY)	1989	1979	1981	1966	1967	1989	1995	1988	1980	1985	1983	1982

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1965 - 1998	
ANNUAL TOTAL	48591		90066			
ANNUAL MEAN	133		247		197	
HIGHEST ANNUAL MEAN					362	
LOWEST ANNUAL MEAN					81.1	
HIGHEST DAILY MEAN	513	Jun 10	1400	Jan 8	2200	Jun 22 1972
LOWEST DAILY MEAN	14	Jul 29	20	Oct 15	3.2	Sep 9 1982
ANNUAL SEVEN-DAY MINIMUM	14	Sep 15	20	Oct 15	3.4	Sep 4 1982
10 PERCENT EXCEEDS	330		578		450	
50 PERCENT EXCEEDS	47		214		140	
90 PERCENT EXCEEDS	16		23		21	



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

STREAMS TRIBUTARY TO LAKE ONTARIO
04233000 CAYUGA INLET NEAR ITHACA, NY

193

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 mi².

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

REVISED RECORDS.--WSP 2112: Drainage area. WRD NY 1974: 1973.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 437.16 ft above sea level (levels by Corps of Engineers).

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,800 ft³/s, Jun. 23, 1972, gage height, 8.10 ft, from rating curve extended above 1,600 ft³/s on basis of slope-area measurements at gage heights 5.5 ft and 7.58 ft; minimum discharge, 1.7 ft³/s, July 22, 1955; minimum gage height, 0.42 ft, Aug 30, 31, Sept. 1, 2, 1939, July 22, 1955.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 8	0515	921	3.40	Apr. 20	0345	708	2.98
Feb. 18	0645	812	3.19	May 11	0830	1,100	3.73
Feb. 28	2030	973	3.50	July 8	1415	*1,680	*4.68

Minimum discharge, 5.7 ft³/s, Sep. 6, 7, gage height, 0.52 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	14	73	e40	41	408	94	44	108	72	11	7.4
2	11	87	48	53	41	235	90	44	43	42	11	7.2
3	9.5	55	41	99	40	171	75	58	45	29	10	6.9
4	9.0	28	46	255	39	130	66	54	31	35	9.7	6.6
5	12	24	44	263	38	108	59	48	26	96	9.9	6.3
6	9.8	21	39	367	34	93	54	73	23	39	9.5	6.0
7	8.5	19	35	307	32	82	49	78	22	32	9.3	15
8	7.8	27	32	695	31	88	64	56	31	412	9.1	13
9	7.3	67	30	402	31	135	194	59	23	223	8.8	14
10	7.2	44	29	220	33	233	221	338	19	109	9.6	11
11	7.7	30	32	147	37	115	117	713	28	78	14	8.6
12	6.9	24	30	113	123	88	92	327	48	60	10	7.8
13	7.4	21	29	103	87	83	78	168	97	50	9.1	7.3
14	7.6	24	27	79	59	78	69	112	133	41	9.4	6.8
15	6.7	24	24	74	48	72	69	87	70	36	12	6.6
16	6.4	24	28	83	50	64	63	73	51	32	13	7.4
17	6.4	22	28	70	58	60	63	61	41	29	15	7.3
18	7.3	21	26	65	374	66	56	52	34	28	15	6.6
19	6.9	21	27	62	279	88	144	46	27	23	11	6.4
20	7.0	22	32	57	167	83	420	47	23	21	8.9	6.3
21	7.1	24	30	51	130	105	163	37	20	21	8.3	7.0
22	7.2	52	23	49	102	100	112	34	20	20	8.0	7.3
23	7.0	55	30	48	89	87	90	30	28	35	7.5	6.9
24	6.9	50	29	51	83	80	79	27	25	25	8.2	6.4
25	9.2	35	55	47	93	81	68	34	29	19	8.5	6.3
26	9.3	42	68	42	98	155	78	29	80	17	10	6.3
27	11	70	56	40	94	139	75	23	48	15	7.9	19
28	10	50	46	40	286	106	58	20	30	14	7.1	28
29	10	56	40	39	---	94	51	22	22	15	7.2	12
30	9.7	59	e32	51	---	78	46	23	69	14	7.3	8.6
31	8.1	---	e34	46	---	69	---	77	---	13	8.5	---
TOTAL	261.9	1112	1143	4058	2617	3574	2957	2894	1294	1695	303.8	272.3
MEAN	8.45	37.1	36.9	131	93.5	115	98.6	93.4	43.1	54.7	9.80	9.08
MAX	14	87	73	695	374	408	420	713	133	412	15	28
MIN	6.4	14	23	39	31	60	46	20	19	13	7.1	6.0
CFSM	.24	1.05	1.05	3.72	2.66	3.28	2.80	2.65	1.23	1.55	.28	.26
IN.	.28	1.18	1.21	4.29	2.77	3.78	3.13	3.06	1.37	1.79	.32	.29

e Estimated

STREAMS TRIBUTARY TO LAKE ONTARIO
04233000 CAYUGA INLET NEAR ITHACA, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 1998, BY WATER YEAR (WY)

MEAN	20.3	31.9	40.4	37.6	47.4	89.3	87.8	51.9	27.5	14.8	11.8	11.5
MAX	106	112	118	131	113	182	310	132	163	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	16.7	5.47	3.77	3.24	2.98
(WY)	1965	1965	1961	1961	1980	1965	1946	1955	1955	1955	1966	1964

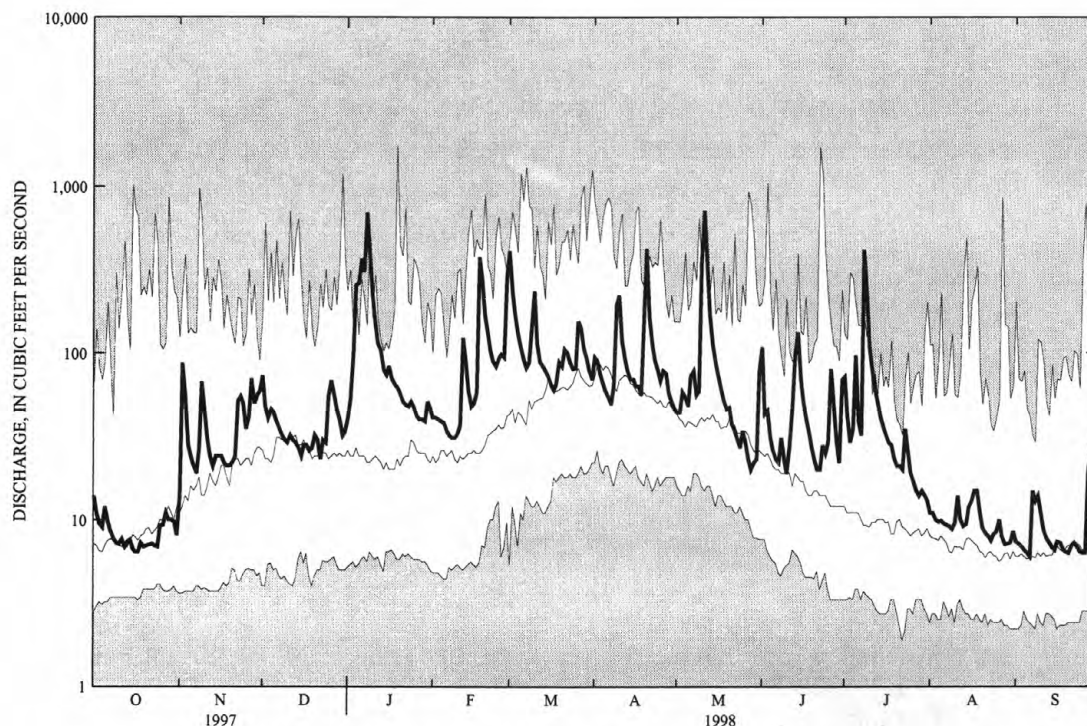
SUMMARY STATISTICS

FOR 1997 CALENDAR YEAR

FOR 1998 WATER YEAR

WATER YEARS 1937 - 1998

ANNUAL TOTAL	12105.7	22182.0	
ANNUAL MEAN	33.2	60.8	39.2
HIGHEST ANNUAL MEAN			61.7 1978
LOWEST ANNUAL MEAN			15.3 1965
HIGHEST DAILY MEAN	210 Feb 27	713 May 11	1750 Jan 19 1996
LOWEST DAILY MEAN	5.0 Aug 10	6.0 Sep 6	1.9 Jul 22 1955
ANNUAL SEVEN-DAY MINIMUM	6.0 Aug 6	6.6 Sep 20	2.2 Aug 28 1939
ANNUAL RUNOFF (CFSM)	.94	1.73	1.11
ANNUAL RUNOFF (INCHES)	12.79	23.44	15.12
10 PERCENT EXCEEDS	67	114	86
50 PERCENT EXCEEDS	27	37	20
90 PERCENT EXCEEDS	7.3	7.4	5.4



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

STREAMS TRIBUTARY TO LAKE ONTARIO
04233300 SIXMILE CREEK AT BETHEL GROVE, NY

195

LOCATION.--Lat 42°24'11", long 76°26'07", Tompkins County, Hydrologic Unit 04140201, on left bank at bridge on German Cross road, 3.4 mi southeast of Ithaca.

DRAINAGE AREA.--39.0 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1995 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 700 ft above sea level, from topographic map.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,200 ft³/s, Jan. 19, 1996, gage height, 9.78 ft; minimum discharge, 1.5 ft³/s, Aug. 2, 1995.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,180 ft³/s, Jan. 8, gage height, 4.94 ft; minimum discharge, 6.6 ft³/s, Oct. 16, 21, 31.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	10	121	e50	48	521	112	51	97	81	10	8.5
2	12	73	73	e70	44	327	106	48	38	60	10	8.3
3	11	59	60	93	42	237	96	48	32	47	10	8.5
4	10	31	66	204	40	180	80	49	25	53	10	8.0
5	16	29	64	334	39	e140	71	48	22	98	10	7.7
6	12	24	55	e550	39	e110	64	41	20	48	9.9	7.5
7	11	23	50	472	e38	88	58	38	19	47	9.4	15
8	10	31	46	870	e36	100	89	40	23	120	9.3	14
9	9.5	72	43	489	e35	278	199	42	19	87	9.1	15
10	9.2	56	41	246	e36	472	213	164	18	62	9.2	11
11	8.8	42	42	153	39	222	124	370	26	50	22	9.7
12	8.0	34	40	e120	167	143	96	225	52	41	11	9.3
13	8.2	30	39	e100	116	e110	80	134	103	35	10	8.8
14	8.3	33	38	e80	e70	e90	71	93	138	32	9.5	8.7
15	8.2	30	e35	67	e60	e80	74	71	72	29	9.7	8.4
16	7.4	29	e37	76	e65	73	68	59	58	28	9.4	8.6
17	7.7	28	e34	59	70	72	68	51	49	27	9.3	8.7
18	7.7	27	32	54	e380	83	61	44	44	26	12	7.8
19	7.5	27	32	51	427	145	160	39	34	23	12	7.8
20	7.7	27	37	48	303	e130	390	35	28	21	9.6	8.0
21	7.4	29	36	47	184	e240	183	31	24	20	9.2	8.2
22	7.3	70	e30	46	119	e200	131	28	23	19	8.9	8.1
23	7.1	75	e35	49	101	e130	108	26	23	26	8.6	7.8
24	7.3	64	33	51	87	e110	93	24	22	18	8.7	7.7
25	8.9	48	62	49	e95	e100	79	27	50	15	9.2	7.9
26	8.8	51	78	46	89	188	87	25	112	13	10	8.2
27	10	80	67	e45	87	e240	80	22	56	12	8.8	13
28	9.1	63	56	43	277	e200	65	23	42	11	8.2	14
29	8.0	82	e45	42	---	e160	59	22	52	12	8.5	8.7
30	7.6	90	e40	54	---	e120	54	22	86	11	8.6	8.0
31	7.1	---	e42	49	---	e90	---	78	---	11	9.5	---
TOTAL	284.8	1367	1509	4707	3133	5379	3219	2018	1407	1183	309.6	280.9
MEAN	9.19	45.6	48.7	152	112	174	107	65.1	46.9	38.2	9.99	9.36
MAX	16	90	121	870	427	521	390	370	138	120	22	15
MIN	7.1	10	30	42	35	72	54	22	18	11	8.2	7.5
CFSM	.23	1.16	1.24	3.86	2.85	4.42	2.73	1.66	1.19	.97	.25	.24
IN.	.27	1.29	1.43	4.46	2.97	5.09	3.05	1.91	1.33	1.12	.29	.27

e Estimated

STREAMS TRIBUTARY TO LAKE ONTARIO
04233300 SIXMILE CREEK AT BETHEL GROVE, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 1998, BY WATER YEAR (WY)

MEAN	31.0	73.1	89.8	125	94.3	115	96.0	78.6	38.0	25.6	18.1	12.8
MAX	52.9	125	184	186	112	174	166	165	48.3	40.2	47.4	27.3
(WY)	1997	1997	1997	1996	1998	1998	1996	1996	1996	1996	1996	1996
MIN	9.19	45.6	36.3	37.7	75.8	84.8	51.5	23.6	19.3	6.46	4.79	4.38
(WY)	1998	1998	1996	1997	1997	1996	1995	1995	1995	1995	1995	1995

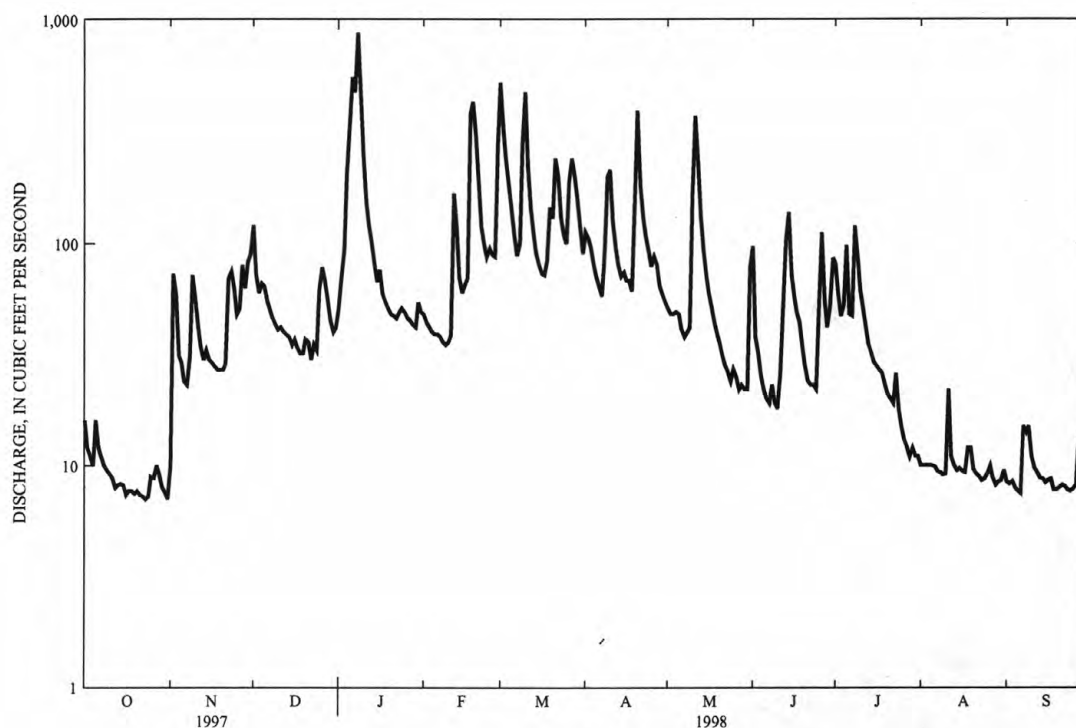
SUMMARY STATISTICS

FOR 1997 CALENDAR YEAR

FOR 1998 WATER YEAR

WATER YEARS 1995 - 1998

ANNUAL TOTAL	15073.8	24797.3	
ANNUAL MEAN	41.3	67.9	70.8
HIGHEST ANNUAL MEAN			81.3 1996
LOWEST ANNUAL MEAN			63.1 1997
HIGHEST DAILY MEAN	353 Feb 27	870 Jan 8	2700 Jan 19 1996
LOWEST DAILY MEAN	7.1 Aug 8	7.1 Oct 23	2.0 Aug 30 1995
ANNUAL SEVEN-DAY MINIMUM	7.4 Oct 18	7.4 Oct 18	2.2 Aug 24 1995
ANNUAL RUNOFF (CFSM)	1.05	1.73	1.80
ANNUAL RUNOFF (INCHES)	14.27	23.47	24.47
10 PERCENT EXCEEDS	81	144	126
50 PERCENT EXCEEDS	31	42	35
90 PERCENT EXCEEDS	8.3	8.6	8.0



1998 WATER YEAR DAILY DISCHARGE.

STREAMS TRIBUTARY TO LAKE ONTARIO
04233300 SIXMILE CREEK AT BETHEL GROVE, NY--Continued
WATER-QUALITY RECORDS

197

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

PERIOD OF DAILY RECORD.--

SUSPENDED-SOLIDS CONCENTRATION: October 1996 to current year.

SUSPENDED-SOLIDS DISCHARGE: October 1996 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 solids (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 on Nov. 8, 1996; minimum daily mean 1 mg/L on many days during the 1998 water year.

SUSPENDED-SOLIDS DISCHARGE: Maximum daily mean 7,050 tons on Nov. 8, 1996; minimum daily mean 0.02 tons on several days in October 1997 and September 1998.

EXTREMES FOR CURRENT YEAR.--

SUSPENDED-SOLIDS CONCENTRATION: Maximum daily mean 869 mg/L on Jan. 8; minimum daily mean 1 mg/L on many days during the year.

SUSPENDED-SOLIDS DISCHARGE: Maximum daily mean 2,150 tons on Jan. 8; minimum daily mean 0.02 tons on several days in October and September.

SOLIDS, SUSPENDED TOTAL, (MG/L), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4	8	61	15	7	128	19	2	154	12	4	3
2	3	143	13	8	5	59	14	2	20	8	4	3
3	2	26	5	44	6	38	10	1	4	6	3	2
4	2	6	5	189	7	23	8	1	3	35	3	2
5	4	2	5	226	5	20	6	1	3	66	1	2
6	3	3	4	554	3	19	5	2	3	4	1	2
7	2	3	4	417	2	17	4	1	2	3	2	4
8	2	4	4	869	1	18	9	1	2	107	2	3
9	2	17	3	179	1	93	187	2	1	54	2	3
10	2	9	3	71	2	183	60	19	1	20	3	2
11	2	6	3	40	12	38	18	108	1	7	6	1
12	2	4	3	24	153	35	11	39	5	3	2	1
13	2	6	3	20	58	30	7	11	76	1	1	1
14	2	6	3	13	11	20	6	7	101	1	1	1
15	2	4	7	10	6	12	6	5	28	2	1	1
16	1	3	7	18	8	8	5	4	11	2	2	2
17	1	2	5	15	51	8	4	3	5	3	2	2
18	1	2	2	13	264	10	4	2	4	3	3	2
19	1	2	1	11	94	22	85	1	4	3	2	2
20	2	1	2	7	44	32	160	1	2	4	1	2
21	2	1	2	6	31	89	37	1	2	4	1	2
22	2	11	3	13	24	24	15	1	1	5	2	1
23	1	12	3	22	24	17	10	1	2	6	2	1
24	1	8	3	16	24	13	8	1	3	3	3	1
25	2	5	8	11	23	15	7	2	6	2	2	1
26	3	6	17	8	15	76	6	2	126	3	2	2
27	3	14	16	7	10	43	5	2	41	3	2	5
28	2	6	13	7	210	76	4	2	12	5	2	7
29	3	14	12	11	---	51	3	2	110	6	2	3
30	4	53	15	14	---	37	2	2	62	5	3	2
31	5	---	21	10	---	27	---	147	---	5	4	---
MEAN	2	13	8	93	39	41	24	12	27	13	2	2
MAX	5	143	61	869	264	183	187	147	154	107	6	7
MIN	1	1	1	6	1	8	2	1	1	1	1	1

STREAMS TRIBUTARY TO LAKE ONTARIO
04233300 SIXMILE CREEK AT BETHEL GROVE, NY--Continued

SOLIDS, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.08	.30	24	4.1	.90	193	5.6	.26	58	2.7	.12	.08
2	.06	37	2.6	1.7	.64	53	3.9	.20	2.1	1.4	.10	.06
3	.04	5.1	.88	13	.73	25	2.6	.16	.39	.81	.09	.05
4	.04	.51	.84	106	.78	11	1.7	.14	.23	10	.07	.04
5	.09	.18	.78	213	.49	8.5	1.2	.19	.18	23	.03	.04
6	.11	.16	.65	902	.30	6.3	.86	.20	.14	.54	.04	.04
7	.07	.18	.56	699	.22	4.1	.69	.14	.12	.38	.05	.20
8	.06	.38	.49	2150	.16	5.2	3.2	.12	.12	61	.05	.13
9	.05	3.5	.40	253	.13	86	155	.19	.07	13	.05	.11
10	.05	1.5	.34	48	.17	284	45	13	.05	3.3	.07	.05
11	.05	.66	.34	17	1.4	23	6.1	117	.10	.96	.41	.03
12	.04	.40	.33	6.3	86	13	2.9	25	.83	.29	.07	.03
13	.04	.44	.32	4.1	22	9.9	1.6	4.0	30	.11	.04	.02
14	.05	.56	.31	1.8	2.2	5.4	1.2	1.7	45	.12	.03	.03
15	.04	.36	1.4	1.8	1.3	2.9	1.2	.93	5.5	.15	.03	.03
16	.03	.23	.91	3.7	1.6	1.6	.88	.57	1.8	.17	.04	.05
17	.02	.16	.56	2.4	12	1.5	.74	.36	.71	.19	.05	.05
18	.02	.15	.19	1.9	319	2.2	.66	.23	.52	.21	.11	.04
19	.03	.14	.10	1.5	110	9.0	90	.15	.34	.21	.07	.04
20	.03	.10	.15	.95	36	12	210	.10	.18	.22	.04	.04
21	.04	.11	.21	.77	16	67	19	.08	.10	.24	.03	.04
22	.04	2.4	.49	1.6	7.7	14	5.3	.08	.07	.23	.04	.03
23	.03	2.5	.31	2.9	6.5	7.1	3.0	.08	.12	.41	.05	.02
24	.02	1.5	.30	2.3	5.6	4.6	2.0	.09	.16	.13	.07	.02
25	.04	.60	1.5	1.5	6.0	5.5	1.4	.11	1.0	.09	.06	.02
26	.06	1.0	3.6	1.0	3.6	42	1.3	.12	52	.09	.06	.05
27	.10	3.1	2.8	.86	2.2	30	1.0	.12	6.4	.10	.05	.19
28	.05	1.1	2.0	.78	381	58	.66	.12	1.4	.14	.04	.27
29	.06	3.1	1.6	1.2	---	24	.46	.12	20	.18	.05	.08
30	.08	16	2.0	2.1	---	13	.35	.12	12	.16	.07	.05
31	.09	---	5.0	1.4	---	6.9	---	111	---	.14	.10	---
TOTAL	1.60	83.42	55.96	4447.66	1024.62	1028.7	569.50	276.68	239.63	120.67	2.18	1.93
MEAN	.05	2.8	1.8	143	37	33	19	8.9	8.0	3.9	.07	.06
MAX	.10	37	24	2150	381	284	210	117	58	61	.41	.27
MIN	.02	.10	.10	.77	.13	1.5	.35	.08	.05	.09	.03	.02

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EXTREMES FOR CURRENT YEAR.--Maximum elevation, 383.44 ft, May 13, 14; minimum elevation, 379.55 ft, Dec. 25.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	382.28	381.55	380.52	379.69	382.21	382.08	381.79	382.75	382.58	382.84	382.46	382.34
2	382.19	381.57	380.54	379.68	382.10	382.23	381.81	382.76	382.51	382.82	382.40	382.30
3	382.08	381.59	380.39	379.67	382.06	382.31	381.84	382.78	382.62	382.72	382.42	382.30
4	382.06	381.60	380.32	379.75	381.99	382.31	381.89	382.78	382.60	382.71	382.39	382.31
5	382.08	381.61	380.32	379.92	381.90	382.29	381.88	382.76	382.57	382.85	382.40	382.31
6	382.07	381.61	380.28	380.13	381.73	382.25	381.83	382.75	382.54	382.77	382.39	382.23
7	382.05	381.62	380.25	380.40	381.61	382.18	381.79	382.72	382.51	382.72	382.35	382.34
8	381.99	381.63	380.24	381.62	381.49	382.09	381.76	382.71	382.50	382.78	382.33	382.35
9	381.96	381.63	380.18	382.40	381.36	382.07	381.83	382.71	382.48	382.83	382.31	382.43
10	381.95	381.64	380.14	382.67	381.21	382.26	381.95	382.80	382.43	382.93	382.35	382.38
11	381.93	381.64	380.13	382.89	381.02	382.27	381.98	383.15	382.41	382.87	382.45	382.31
12	381.84	381.59	380.10	382.97	381.02	382.18	381.96	383.36	382.40	382.76	382.49	382.32
13	381.78	381.48	380.03	383.07	381.11	382.03	381.90	383.37	382.47	382.69	382.42	382.35
14	381.78	381.42	380.02	383.16	381.05	381.92	381.83	383.36	382.62	382.65	382.36	382.32
15	381.81	381.35	379.93	383.14	380.90	381.89	381.79	383.33	382.61	382.59	382.35	382.31
16	381.79	381.27	379.86	383.26	380.75	381.78	381.72	383.28	382.64	382.55	382.41	382.38
17	381.76	381.14	379.83	383.27	380.66	381.63	381.75	383.26	382.80	382.56	382.35	382.34
18	381.74	381.01	379.79	383.29	380.84	381.53	381.79	383.19	382.86	382.57	382.45	382.32
19	381.71	380.90	379.74	383.27	381.19	381.51	381.83	383.10	382.84	382.49	382.47	382.26
20	381.71	380.81	379.73	383.22	381.40	381.57	382.19	383.02	382.85	382.51	382.37	382.29
21	381.73	380.69	379.72	383.19	381.54	381.62	382.36	382.99	382.80	382.48	382.38	382.30
22	381.72	380.67	379.65	383.11	381.59	381.72	382.45	382.90	382.70	382.49	382.39	382.38
23	381.69	380.65	379.59	383.00	381.60	381.68	382.54	382.77	382.68	382.56	382.37	382.34
24	381.65	380.66	379.61	382.98	381.73	381.65	382.59	382.63	382.65	382.58	382.36	382.22
25	381.66	380.58	379.57	382.90	381.75	381.58	382.65	382.52	382.61	382.54	382.36	382.21
26	381.66	380.49	379.59	382.80	381.69	381.54	382.68	382.49	382.66	382.45	382.38	382.20
27	381.61	380.58	379.63	382.65	381.68	381.65	382.71	382.46	382.78	382.39	382.40	382.23
28	381.65	380.48	379.65	382.58	381.72	381.73	382.72	382.42	382.73	382.38	382.36	382.30
29	381.63	380.49	379.68	382.45	--	381.82	382.72	382.42	382.69	382.43	382.36	382.21
30	381.61	380.43	379.69	382.41	--	381.82	382.74	382.48	382.76	382.45	382.38	382.20
31	381.55	--	379.69	382.35	--	381.82	--	382.45	--	382.52	382.36	--
MEAN	381.83	381.15	379.95	382.19	381.46	381.90	382.11	382.85	382.63	382.63	382.39	382.30
MAX	382.28	381.64	380.54	383.29	382.21	382.31	382.74	383.37	382.86	382.93	382.49	382.43
MIN	381.55	380.43	379.57	379.67	380.66	381.51	381.72	382.42	382.40	382.38	382.31	382.20
CAL YR 1997	MEAN 381.27	MAX 382.92	MIN 378.80									
WTR YR 1998	MEAN 381.95	MAX 383.37	MIN 379.57									

STREAMS TRIBUTARY TO LAKE ONTARIO
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 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1908 to June 1909 (gage heights only), February 1925 to current year.

REVISED RECORDS.--WSP 874: 1935-38. WSP 1912: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 795.13 ft above sea level. July 1908 to June 1909, nonrecording gage at bridge 1.2 mi downstream at different datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Diversion from point about 1 mi upstream from station by Cornell University for water supply and at several sites for irrigation purposes. Records of diversion from Fall Creek are in files of Cornell University. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,500 ft³/s, July 8, 1935, gage height, 9.52 ft, from average of computed flow over each of four dams; maximum gage height, 11.16 ft, Feb. 21, 1971 (ice jam); minimum discharge, about 3 ft³/s, Aug. 25, 1927, gage height, 0.18 ft, result of regulation.

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

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 8	1130	*3,250	*4.61	No other peak greater than base discharge.			

Minimum discharge, 18 ft³/s, Sep. 24, 26, 27, gage height, 0.40 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	154	33	442	e180	160	1480	382	151	155	335	37	21
2	88	168	268	e280	e155	995	537	144	100	258	35	21
3	57	331	205	e320	151	789	489	142	109	176	33	22
4	47	152	232	816	142	552	397	151	106	141	31	21
5	73	119	253	1300	140	463	316	169	74	272	30	21
6	81	97	219	2020	e125	392	268	143	64	183	30	20
7	55	83	190	1670	e110	343	235	125	56	136	29	28
8	43	89	178	2830	e105	326	254	122	58	257	27	48
9	38	231	165	1930	e100	660	620	116	55	317	25	54
10	36	231	150	1160	e105	1270	902	251	49	178	25	50
11	35	145	158	680	125	677	411	871	57	133	46	38
12	33	117	154	472	591	e420	313	489	87	109	52	31
13	30	100	151	409	647	e370	264	261	145	96	35	26
14	29	104	145	305	e260	345	237	185	374	85	30	24
15	28	115	119	e250	e175	315	233	152	187	78	28	22
16	28	111	e140	305	170	284	251	132	124	72	28	22
17	25	109	e135	268	181	257	226	116	165	88	26	23
18	25	113	e130	244	1020	308	217	100	236	81	39	22
19	25	108	124	227	1280	627	282	93	202	66	56	20
20	25	113	141	214	805	776	1170	89	125	57	36	20
21	24	118	147	197	576	862	541	82	97	55	29	19
22	24	225	102	183	419	763	343	78	82	53	27	22
23	25	298	e140	179	348	514	285	75	88	75	26	22
24	24	273	143	186	332	415	252	70	134	99	27	19
25	33	187	209	180	311	381	216	78	179	64	30	19
26	32	183	346	163	372	527	213	77	406	53	46	19
27	30	413	279	e150	365	877	237	67	373	47	32	21
28	33	266	211	149	539	714	191	60	206	43	25	24
29	32	307	e160	142	---	639	173	54	237	41	23	25
30	32	303	e85	200	---	497	163	65	293	41	24	21
31	30	---	e120	207	---	390	---	68	---	39	23	---
TOTAL	1274	5242	5641	17816	9809	18228	10618	4776	4623	3728	990	765
MEAN	41.1	175	182	575	350	588	354	154	154	120	31.9	25.5
MAX	154	413	442	2830	1280	1480	1170	871	406	335	56	54
MIN	24	33	85	142	100	257	163	54	49	39	23	19
CFSM	.33	1.39	1.44	4.56	2.78	4.67	2.81	1.22	1.22	.95	.25	.20
IN.	.38	1.55	1.67	5.26	2.90	5.38	3.13	1.41	1.36	1.10	.29	.23

e Estimated

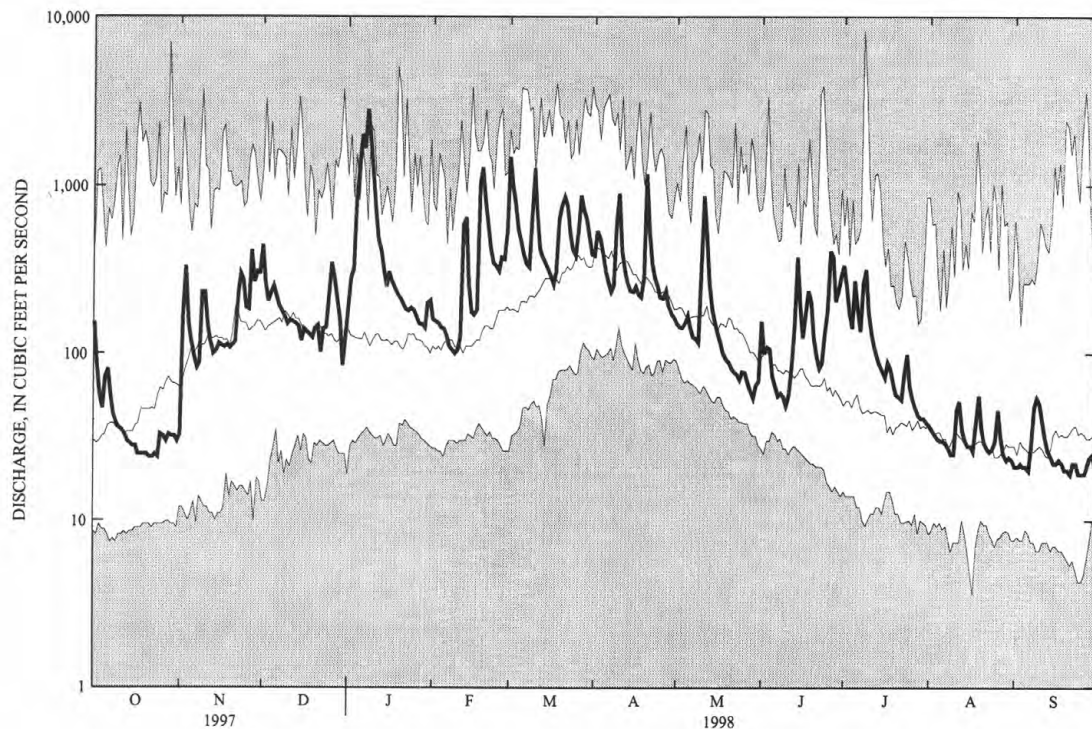
STREAMS TRIBUTARY TO LAKE ONTARIO
04234000 FALL CREEK NEAR ITHACA, NY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1998, BY WATER YEAR (WY)

MEAN	104	180	210	194	217	414	412	212	118	72.2	51.8	64.7
MAX	594	497	555	575	595	1037	1313	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	30.8	15.3	8.93	7.09
(WY)	1965	1965	1961	1961	1934	1965	1946	1934	1991	1962	1965	1964

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1925 - 1998	
ANNUAL TOTAL	53619		83510			
ANNUAL MEAN	147		229		187	
HIGHEST ANNUAL MEAN					271	
LOWEST ANNUAL MEAN					83.6	
HIGHEST DAILY MEAN	1010	Feb 27	2830	Jan 8	8280	Jul 8 1935
LOWEST DAILY MEAN	18	Aug 10	19	Sep 21	3.6	Aug 17 1965
ANNUAL SEVEN-DAY MINIMUM	21	Aug 5	20	Sep 20	5.0	Sep 20 1964
ANNUAL RUNOFF (CFSM)	1.17		1.82		1.49	
ANNUAL RUNOFF (INCHES)	15.83		24.66		20.22	
10 PERCENT EXCEEDS	312		519		418	
50 PERCENT EXCEEDS	114		142		100	
90 PERCENT EXCEEDS	26		25		23	



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

STREAMS TRIBUTARY TO LAKE ONTARIO
04234000 FALL CREEK NEAR ITHACA, NY--Continued
WATER-QUALITY RECORDS

PERIOD OF RECORD.--1997 to current year.

PESTICIDE DATA: 1997 (d), 1998 (e).

REMARKS.--Samples were taken as part of a state-wide pesticide sampling network in cooperation with the New York State Department of Environmental Conservation. A complete list of compounds included when pesticide analyses were performed on samples appears following the introduction to the State-wide Monitoring of Pesticides in Surface Water of New York State section on page 302.

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	METHYL AZIN- PHOS WAT FLT GF, REC (UG/L) (82686)	BEN- FLUR- ALIN WAT FLD GF, REC (UG/L) (82673)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	CAR- BARYL WATER FLTRD GF, REC (UG/L) (82680)
OCT										
07...	0820	57.0	<.002	<.002	.012	E.007	<.001	<.002	<.002	<.003
NOV										
03...	0910	375	<.002	<.002	.011	E.013	<.001	<.002	<.002	<.003
DEC										
02...	1330	254	<.002	<.002	.009	E.017	<.001	<.002	<.002	<.003
JAN										
08...	0900	3070	<.002	<.002	.010	E.016	<.001	<.002	<.002	<.003
FEB										
03...	1010	152	<.002	<.002	.007	E.014	<.001	<.002	<.002	<.003
APR										
06...	1200	270	<.002	<.002	.008	E.013	<.001	<.002	<.002	<.003
MAY										
19...	1700	94.0	<.002	<.002	.022	E.015	<.001	<.002	<.002	<.003
JUN										
01...	1000	175	<.002	.005	.058	E.025	<.001	<.002	<.002	E.019
09...	1730	53.0	<.002	<.002	.045	E.021	<.001	<.002	<.002	E.032
11...	1600	60.0	<.002	<.002	.037	E.020	<.001	<.002	<.002	<.003
16...	1100	122	<.002	<.002	.201	E.044	<.001	<.002	<.002	<.003
18...	1650	245	<.002	.010	.302	E.072	<.001	<.002	<.002	<.003
24...	1130	136	<.002	<.002	.316	E.072	<.001	<.002	<.002	<.003
25...	1900	292	<.002	<.002	.118	E.037	<.001	<.002	<.002	<.003
26...	1210	320	<.002	E.004	.296	E.059	<.001	<.002	<.002	<.003
26...	1530	484	<.002	<.002	.204	E.047	<.001	<.002	<.002	<.003
26...	1900	625	<.002	<.002	.181	E.055	<.001	<.002	<.002	<.003
27...	0610	435	<.002	E.003	.404	E.121	<.001	<.002	<.002	<.003
28...	0630	222	<.002	<.002	.251	E.067	<.001	<.002	<.002	<.003
JUL										
05...	0800	301	<.002	<.002	.078	E.026	<.001	<.002	<.002	<.003
27...	0800	49.0	<.002	<.002	.030	E.024	<.001	<.002	<.002	<.003
AUG										
25...	1500	30.0	<.002	<.002	.017	E.013	<.001	<.002	<.002	<.003

STREAMS TRIBUTARY TO LAKE ONTARIO
04234000 FALL CREEK NEAR ITHACA, NY--Continued
WATER-QUALITY RECORDS

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PESTICIDE ANALYSES, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	P,P' DDE DISSOLV (UG/L) (34653)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)
OCT										
07...	<.003	<.004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	<.002
NOV										
03...	<.010	<.004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	<.002
DEC										
02...	<.003	<.004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	<.002
JAN										
08...	<.003	<.004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	<.002
FEB										
03...	<.003	<.004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	<.002
APR										
06...	<.003	<.004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	<.002
MAY										
19...	<.003	<.004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	<.002
JUN										
01...	<.003	<.004	E.019	<.002	<.006	E.003	<.001	<.003	<.017	<.002
09...	<.003	<.004	E.013	<.002	<.006	<.002	<.001	<.003	<.017	<.002
11...	<.003	<.004	.006	<.002	<.006	<.002	<.001	<.003	<.017	<.002
16...	<.003	<.004	.032	<.002	<.006	<.002	<.001	<.003	<.017	<.002
18...	<.003	<.004	.049	<.002	<.006	<.002	<.001	<.003	<.017	<.002
24...	<.003	<.004	.008	<.002	<.006	<.002	<.001	<.003	<.017	<.002
25...	<.003	<.004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	<.002
26...	<.003	<.004	.046	<.002	<.006	<.002	<.001	<.003	<.017	<.002
26...	<.003	<.004	.026	<.002	<.006	<.002	<.001	<.003	<.017	<.002
26...	<.003	<.004	.012	<.002	<.006	<.002	<.001	<.003	<.017	<.002
27...	<.003	<.004	.031	<.002	<.006	<.002	<.001	<.003	<.017	<.002
28...	<.003	<.004	.010	<.002	<.006	<.002	<.001	<.003	<.017	<.002
JUL										
05...	<.003	<.004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	<.002
27...	<.003	<.004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	<.002
AUG										
25...	<.003	<.004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	<.002
DATE	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	LINDANE DIS- SOLVED (UG/L) (39341)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA- THION, DIS- SOLVED (UG/L) (39532)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)
OCT										
07...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.004	<.004	<.004
NOV										
03...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.008	<.004	<.004
DEC										
02...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.004	<.004	<.004
JAN										
08...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.011	<.004	<.004
FEB										
03...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	E.004	<.004	<.004
APR										
06...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	E.004	<.004	<.004
MAY										
19...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.011	<.004	<.004

STREAMS TRIBUTARY TO LAKE ONTARIO
04234000 FALL CREEK NEAR ITHACA, NY--Continued
WATER-QUALITY RECORDS

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	LINDANE DIS- SOLVED (UG/L) (39341)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA- THION, DIS- SOLVED (UG/L) (39532)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)
JUN										
01...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.034	<.004	<.004
09...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.034	<.004	<.004
11...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.024	<.004	<.004
16...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.177	<.004	<.004
18...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.186	<.004	<.004
24...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.175	<.004	<.004
25...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.069	<.004	<.004
26...	<.004	<.003	<.003	<.002	<.004	<.002	<.020	.225	<.004	<.004
26...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.173	<.004	<.004
26...	<.004	<.003	<.003	<.002	<.004	<.002	<.030	.186	<.004	<.004
27...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.224	<.004	<.004
28...	<.004	<.003	<.003	<.002	<.004	<.002	<.010	.146	<.004	<.004
JUL										
05...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.035	<.004	<.004
27...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.009	<.004	<.004
AUG										
25...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.004	<.004	<.004
DATE	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PARA- THION, DIS- SOLVED (UG/L) (39542)	METHYL THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	PEB- ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROP- CHLOR, WATER, DISS, REC (UG/L) (04024)
OCT										
07...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	E.005	<.003	<.007
NOV										
03...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	E.006	<.003	<.007
DEC										
02...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	E.002	<.003	<.007
JAN										
08...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
FEB										
03...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	E.002	<.003	<.007
APR										
06...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
MAY										
19...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
JUN										
01...	<.003	<.004	<.006	<.004	.008	<.005	<.002	E.008	<.003	<.007
09...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
11...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
16...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
18...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
24...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
25...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
26...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
26...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
26...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
26...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	E.004	<.003	<.007
27...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
28...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
JUL										
05...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	E.007	<.003	<.007
27...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
AUG										
25...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007

STREAMS TRIBUTARY TO LAKE ONTARIO
04234000 FALL CREEK NEAR ITHACA, NY--Continued
WATER-QUALITY RECORDS

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PESTICIDE ANALYSES, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)
OCT									
07...	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
NOV									
03...	<.010	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
DEC									
02...	<.004	<.013	E.003	<.010	<.007	<.013	<.002	<.001	<.002
JAN									
08...	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
FEB									
03...	<.004	<.013	E.002	<.010	<.007	<.013	<.002	<.001	<.002
APR									
06...	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
MAY									
19...	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
JUN									
01...	<.004	<.013	.006	<.010	<.007	<.013	<.002	<.001	<.002
09...	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
11...	<.004	<.013	E.002	<.010	<.007	<.013	<.002	<.001	<.002
16...	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
18...	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
24...	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
25...	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
26...	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
26...	<.004	<.013	E.002	<.010	<.007	<.013	<.002	<.001	<.002
26...	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
27...	<.004	<.013	E.003	<.010	<.007	<.013	<.002	<.001	<.002
28...	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
JUL									
05...	<.004	<.013	E.005	<.010	<.007	<.013	<.002	<.001	<.002
27...	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
AUG									
25...	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002

E Estimated

STREAMS TRIBUTARY TO LAKE ONTARIO
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 mi².

PERIOD OF RECORD.--November 1993 to current year.

REVISED RECORDS.--WDR NY-96-3: 1994-95 (M).

GAGE.--Water-stage recorder and artificial control. Elevation of gage is 560 ft above sea level, from topographic map.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 610 ft³/s, Jan. 19, 1996, gage height, 6.21 ft; minimum daily discharge 0.90 ft³/s, Aug. 23, 1995; minimum instantaneous discharge not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 8	0715	*837	*7.09	Mar. 26	1400	299	4.72

Minimum daily discharge, 2.3 ft³/s, July 27; minimum instantaneous discharge not determined.

REVISIONS.--Revised peak discharges for the 1994, 1995, 1996, and 1997 water years. Revised daily discharges, in cubic feet per second, for high water periods during the 1996 and 1997 water years, revised monthly, and revised yearly discharges are given below. These figures supersede those published in corresponding annual reports.

Peak discharges:

Mar. 21, 1994	352	Jan. 20, 1995	225	Jan. 19, 1996	610	Oct. 20, 1996	581
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Daily discharges:

Jan. 18, 1996	e94	Apr. 23, 1996	98	June 22, 1996	208	Nov. 8, 1996	304
Jan. 19, 1996	e370	Apr. 24, 1996	111	Oct. 19, 1996	250	Nov. 9, 1996	202
Apr. 13, 1996	198	May 11, 1996	111	Oct. 20, 1996	294	Dec. 1, 1996	231
Apr. 14, 1996	108	May 12, 1996	244				

MONTH	TOTAL	MEAN	MAX	MIN
January 1996	812.1	26.2	370	2.4
April 1996	907.2	30.2	198	8.0
May 1996	781.7	25.2	244	4.3
June 1996	475.7	15.9	208	3.2
October 1996	838.9	27.1	294	2.7
November 1996	850.4	28.3	304	6.5
December 1996	867.1	28.0	231	7.8
Wtr Year 1996	5090.7	13.9	370	1.1
Cal Year 1996	6923.6	18.9	370	1.3
Wtr Year 1997	5683.6	15.6	304	1.7

STREAMS TRIBUTARY TO LAKE ONTARIO
04234232 GREAT BROOK BELOW VICTOR, NY--Continued

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DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.9	8.0	20	8.6	17	81	16	8.4	15	6.9	e13	e2.9
2	6.2	44	12	11	15	27	17	8.2	9.1	5.0	e4.2	e2.9
3	5.0	29	9.4	40	16	19	17	8.6	17	3.6	e3.8	e2.8
4	4.3	12	13	31	15	17	15	9.0	7.5	55	e3.6	e2.8
5	14	8.5	13	23	13	16	13	8.6	5.3	38	e3.8	e2.8
6	7.1	6.7	12	23	11	16	12	7.6	4.3	12	e3.8	e2.7
7	4.5	6.2	12	154	9.7	14	11	6.8	3.9	12	e3.6	11
8	3.9	7.0	13	702	9.2	19	16	6.8	3.6	73	e3.4	8.2
9	4.1	7.8	12	180	8.9	29	28	6.5	3.1	43	e3.4	4.5
10	3.6	6.7	10	44	9.6	19	37	11	2.8	17	e3.6	e4.5
11	3.2	5.7	11	25	13	13	21	48	3.4	13	e8.0	e3.5
12	3.1	5.6	9.5	e16	54	12	18	21	4.4	7.6	e10	e2.8
13	2.9	5.7	9.4	e16	27	12	14	12	4.4	5.1	e8.0	e2.5
14	3.1	7.1	9.1	e12	e12	14	9.6	8.6	4.7	3.8	e4.0	e2.4
15	2.8	8.7	9.1	13	e9.4	14	11	6.8	4.1	2.9	e3.8	e3.0
16	2.6	8.2	11	14	9.7	13	11	5.9	3.7	4.6	e3.6	6.6
17	2.5	8.3	14	13	19	13	11	5.5	8.4	8.6	e3.4	e4.0
18	2.5	8.9	13	13	113	20	9.4	4.8	4.5	4.0	18	e3.2
19	2.5	10	12	13	83	38	11	5.8	3.4	2.4	e5.8	e3.7
20	3.2	13	19	12	33	28	47	6.3	2.9	3.9	e3.8	e9.2
21	3.5	19	15	11	27	23	18	4.5	2.6	2.8	e3.6	e5.8
22	4.0	35	10	11	20	21	13	4.3	3.0	5.3	e3.4	e4.2
23	3.6	28	26	13	17	20	11	4.1	3.3	18	e3.3	e6.8
24	3.4	22	23	18	19	20	9.8	3.6	3.2	6.2	e5.2	e3.2
25	3.6	13	53	16	28	26	8.5	3.4	24	3.3	e4.5	e2.8
26	4.4	18	27	14	32	142	8.3	3.4	63	2.6	e5.6	e3.4
27	9.4	26	17	12	26	48	7.9	3.5	13	2.3	e3.9	e5.2
28	6.2	15	14	12	38	22	7.4	3.4	6.7	2.6	e3.2	e3.8
29	4.9	12	e10	13	---	19	7.3	3.7	4.7	5.1	e3.4	e3.0
30	4.1	17	e10	34	---	16	7.1	2.8	6.6	e8.0	e3.2	e3.0
31	3.5	---	e9.0	23	---	14	---	9.8	---	e14	e3.0	---
TOTAL	141.6	422.1	457.5	1540.6	704.5	805	443.3	252.7	245.6	391.6	156.9	127.2
MEAN	4.57	14.1	14.8	49.7	25.2	26.0	14.8	8.15	8.19	12.6	5.06	4.24
MAX	14	44	53	702	113	142	47	48	63	73	18	11
MIN	2.5	5.6	9.0	8.6	8.9	12	7.1	2.8	2.6	2.3	3.0	2.4
CFSM	.27	.84	.88	2.96	1.50	1.55	.88	.49	.49	.75	.30	.25
IN.	.31	.93	1.01	3.41	1.56	1.78	.98	.56	.54	.87	.35	.28

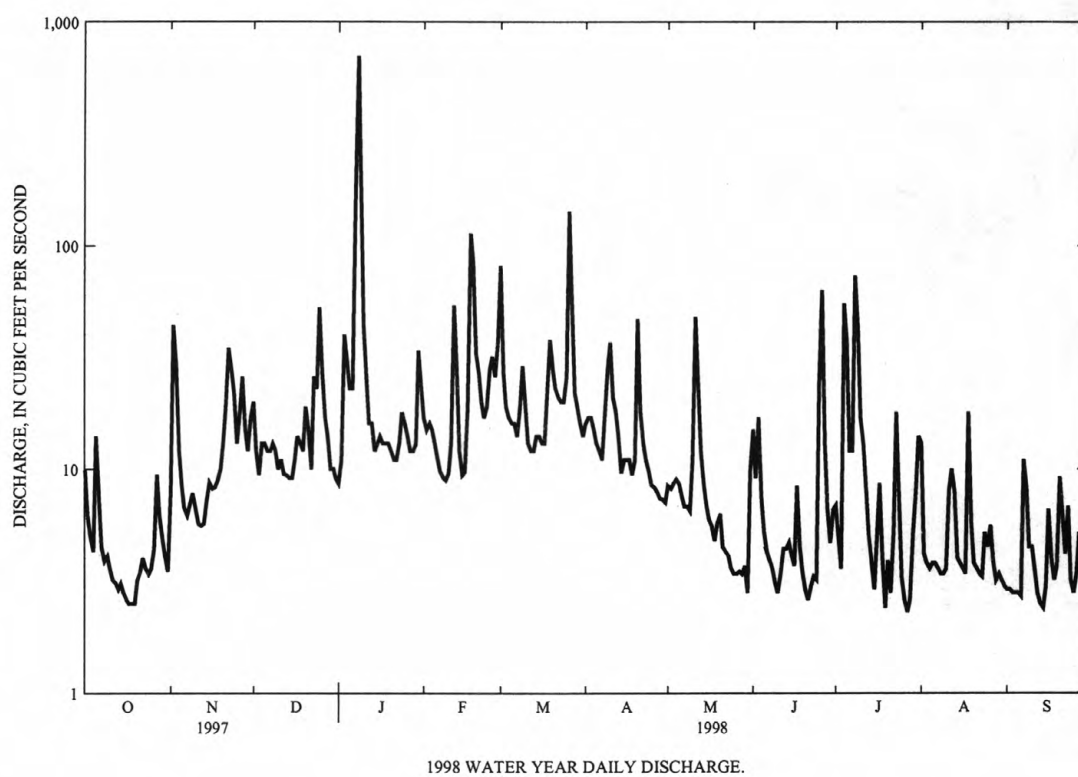
e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1998, BY WATER YEAR (WY)

MEAN	10.3	14.6	13.4	21.3	16.7	25.4	18.5	11.5	7.99	5.58	3.56	4.54
MAX	27.1	28.3	28.0	49.7	25.2	42.4	30.2	25.2	15.9	12.6	5.65	7.66
(WY)	1997	1997	1997	1998	1998	1994	1996	1996	1996	1998	1994	1997
MIN	2.85	5.87	6.79	8.03	8.70	15.9	7.19	2.80	1.53	1.68	1.20	1.22
(WY)	1995	1995	1996	1994	1995	1995	1995	1995	1995	1995	1995	1995

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1994 - 1998	
ANNUAL TOTAL	4148.4		5688.6			
ANNUAL MEAN	11.4		15.6		12.8	
HIGHEST ANNUAL MEAN					15.6	
LOWEST ANNUAL MEAN					6.01	
HIGHEST DAILY MEAN	149	Feb 27	702	Jan 8	702	Jan 8 1998
LOWEST DAILY MEAN	1.7	Aug 9	2.3	Jul 27	.90	Aug 23 1995
ANNUAL SEVEN-DAY MINIMUM	1.8	Aug 6	2.7	Oct 13	.92	Aug 20 1995
ANNUAL RUNOFF (CFSM)	.68		.93		.76	
ANNUAL RUNOFF (INCHES)	9.19		12.60		10.33	
10 PERCENT EXCEEDS	24		27		23	
50 PERCENT EXCEEDS	7.2		9.2		6.2	
90 PERCENT EXCEEDS	2.4		3.2		1.9	

STREAMS TRIBUTARY TO LAKE ONTARIO
04234232 GREAT BROOK BELOW VICTOR, NY--Continued



STREAMS TRIBUTARY TO LAKE ONTARIO

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04234500 CANANDAIGUA LAKE AT CANANDAIGUA, NY

LOCATION.--Lat 42°53'30", long 77°17'22", Ontario County, Hydrologic Unit 04140201, at comfort station in middle of city pier at northern end of Canandaigua Lake, 1 mi southeast of Canandaigua.

DRAINAGE AREA.--184 mi².

PERIOD OF RECORD.--November 1939 to current year. December 1927 to November 1939, records for site on west side of E. T. Waldorf's boathouse collected by, and in files of, city of Canandaigua.

REVISED RECORDS.--WSP 2112: Drainage area. WRD NY 1971: 1970. WDR NY-86-3: 1985.

GAGE.--Water-stage recorder. Datum of gage is sea level. To convert elevations to adjustment of 1988, subtract 0.50 ft. June 26, 1946 to Sept. 30, 1975, at datum 681.17 ft higher, and prior to June 26, 1946, nonrecording gage at E. T. Waldorf's boathouse at same datum.

REMARKS.--Lake elevation regulated by one gate on West outlet, which is a 1.5 mi long canal, and by two gates on East outlet, which is the natural outlet. Sill elevations of West and East outflow structures are 684.37 ft and 684.94 ft, respectively. Water diverted for municipal supply for villages of Newark, Palmyra, and Gorham. Records of diversion in files of city of Canandaigua. Area of water surface, 16.6 mi².

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 692.11 ft, June 24, 1972; minimum daily, 685.62 ft, Jan. 30, 1942.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 689.21 ft, Jan. 13; minimum, 687.23 ft, Nov. 1.

ELEVATION (FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	687.59	687.28	687.69	687.45	687.98	688.19	688.32	688.59	688.51	688.57	688.32	687.90
2	687.59	687.38	687.70	687.41	687.96	688.26	688.34	688.59	688.54	688.57	688.30	687.90
3	687.58	687.45	687.72	687.44	687.89	688.27	688.31	688.62	688.50	688.57	688.28	687.87
4	687.58	687.42	687.74	687.49	687.84	688.26	688.27	688.64	688.49	688.58	688.26	687.83
5	687.62	687.43	687.74	687.56	687.79	688.23	688.24	688.66	688.46	688.63	688.24	687.81
6	687.63	687.43	687.76	687.60	687.75	688.20	688.20	688.61	688.45	688.65	688.23	687.79
7	687.62	687.42	687.75	687.64	687.71	688.16	688.16	688.57	688.43	688.62	688.22	687.83
8	687.61	687.42	687.74	688.20	687.66	688.17	688.13	688.52	688.43	688.67	688.21	687.82
9	687.62	687.41	687.74	688.83	687.62	688.18	688.18	688.51	688.42	688.71	688.20	687.83
10	687.60	687.42	687.75	689.10	687.58	688.13	688.28	688.54	688.42	688.66	688.18	687.82
11	687.58	687.41	687.79	689.12	687.57	688.11	688.34	688.71	688.44	688.59	688.19	687.81
12	687.58	687.41	687.80	689.10	687.54	688.07	688.38	688.85	688.48	688.54	688.18	687.79
13	687.59	687.39	687.80	689.05	687.54	688.04	688.40	688.86	688.47	688.54	688.18	687.76
14	687.57	687.44	687.78	688.97	687.52	688.01	688.41	688.81	688.53	688.53	688.17	687.76
15	687.53	687.47	687.78	688.90	687.49	687.95	688.43	688.75	688.55	688.52	688.15	687.76
16	687.50	687.48	687.73	688.84	687.47	687.91	688.45	688.69	688.54	688.52	688.12	687.74
17	687.49	687.47	687.68	688.78	687.46	687.88	688.42	688.62	688.58	688.50	688.13	687.74
18	687.48	687.47	687.64	688.72	687.58	687.86	688.43	688.54	688.57	688.49	688.12	687.72
19	687.46	687.47	687.59	688.66	687.81	687.85	688.45	688.54	688.57	688.49	688.11	687.74
20	687.45	687.47	687.56	688.59	687.94	687.86	688.61	688.54	688.56	688.47	688.11	687.70
21	687.42	687.46	687.54	688.51	687.98	687.92	688.68	688.53	688.56	688.48	688.07	687.70
22	687.40	687.47	687.52	688.44	687.99	687.96	688.66	688.51	688.57	688.44	688.06	687.65
23	687.39	687.51	687.53	688.44	687.98	687.97	688.61	688.52	688.56	688.49	688.06	687.65
24	687.37	687.51	687.50	688.35	687.98	687.99	688.56	688.51	688.55	688.48	688.07	687.64
25	687.34	687.54	687.54	688.30	687.99	687.99	688.55	688.51	688.58	688.45	688.06	687.61
26	687.34	687.55	687.53	688.23	687.99	688.07	688.58	688.49	688.69	688.43	688.02	687.60
27	687.35	687.58	687.52	688.18	688.00	688.26	688.57	688.49	688.69	688.43	688.00	687.61
28	687.30	687.62	687.51	688.11	688.02	688.36	688.58	688.50	688.65	688.39	687.99	687.59
29	687.31	687.64	687.50	688.06	---	688.38	688.59	688.50	688.60	688.39	687.97	687.57
30	687.28	687.67	687.48	688.05	---	688.38	688.59	688.47	688.55	688.37	687.95	687.55
31	687.32	---	687.46	688.01	---	688.35	---	688.53	---	688.33	687.93	---
MEAN	687.49	687.47	687.65	688.33	687.77	688.10	688.42	688.59	688.53	688.52	688.13	687.74
MAX	687.63	687.67	687.80	689.12	688.02	688.38	688.68	688.86	688.69	688.71	688.32	687.90
MIN	687.28	687.28	687.46	687.41	687.46	687.85	688.13	688.47	688.42	688.33	687.93	687.55

WTR YR 1998 MEAN 688.06 MAX 689.12 MIN 687.28

STREAMS TRIBUTARY TO LAKE ONTARIO
04235000 CANANDAIGUA OUTLET AT CHAPIN, NY

LOCATION.--Lat 42°55'05", long 77°13'59", Ontario County, Hydrologic Unit 04140201, on right bank at Chapin, 25 ft upstream from bridge on State Highway 488, and 4.1 mi downstream from Canandaigua Lake.

DRAINAGE AREA.--195 mi².

PERIOD OF RECORD.--November 1939 to current year. Prior to October 1964, published as "Canandaigua Lake Outlet."

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 671.44 ft above sea level. Prior to June 25, 1974, at site 0.1 mi upstream at datum 676.90 ft above sea level.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Canandaigua Lake (see station 04234500), from which water is diverted for municipal supply by villages of Newark, Palmyra, and Gorham. Monthly runoff adjusted for change in contents in Canandaigua Lake from October 1945 to September 1966. Telephone gage-height telemeter at station. Several measurements of water temperature were made during the year. Pesticide sample collected as part of state-wide sampling network in cooperation with the New York State Department of Environmental Conservation. Analyses published on page 309.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,710 ft³/s, June 24, 1972, gage height, 11.08 ft, present datum, at site then in use; minimum discharge, 4.4 ft³/s, Sept. 24, 1991.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 981 ft³/s, Jan. 8, gage height, 5.98 ft; minimum discharge, 31 ft³/s, Oct. 18, Nov. 11, 12, 13, 14, 15, 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	36	94	252	420	533	496	137	62	74	46	43
2	38	60	110	148	414	488	498	139	59	57	46	43
3	36	52	107	264	399	481	491	143	59	54	46	43
4	36	36	112	323	381	475	479	146	57	67	45	43
5	43	34	113	333	367	467	468	210	56	92	45	42
6	37	33	112	345	351	457	457	464	56	105	45	42
7	36	32	111	387	340	447	444	469	56	334	46	47
8	35	33	111	845	327	447	307	404	55	458	46	45
9	35	33	110	789	318	480	122	143	56	494	47	45
10	36	32	109	751	311	453	132	141	55	468	47	43
11	36	32	112	737	312	435	120	299	56	448	47	42
12	35	32	111	720	364	423	118	586	58	296	47	42
13	35	31	112	712	327	415	118	676	58	54	47	41
14	35	33	109	678	300	412	119	659	62	53	47	41
15	35	32	163	653	288	399	120	637	59	52	47	43
16	34	33	351	636	280	388	175	615	59	53	47	45
17	33	33	347	617	293	382	340	593	63	63	47	45
18	32	33	333	600	450	384	125	481	60	50	55	44
19	34	33	323	584	463	397	126	115	55	48	49	45
20	39	34	317	564	426	391	366	68	54	48	47	44
21	38	40	311	543	425	395	610	67	54	47	46	45
22	38	56	300	522	417	411	605	68	54	48	45	46
23	36	52	348	515	410	354	587	68	54	62	45	47
24	33	47	322	505	411	176	513	69	53	52	48	46
25	33	37	347	490	432	420	145	68	64	49	45	45
26	34	51	323	471	441	561	132	65	85	48	43	45
27	34	81	314	456	423	517	132	62	157	47	43	45
28	33	73	305	442	440	507	133	61	349	47	43	46
29	32	71	300	430	---	509	135	60	351	49	43	47
30	32	78	295	443	---	506	135	58	306	47	43	47
31	32	---	292	434	---	494	---	59	---	46	43	---
TOTAL	1094	1293	6824	16189	10530	13604	8748	7830	2682	3910	1426	1327
MEAN	35.3	43.1	220	522	376	439	292	253	89.4	126	46.0	44.2
MAX	43	81	351	845	463	561	610	676	351	494	55	47
MIN	32	31	94	148	280	176	118	58	53	46	43	41

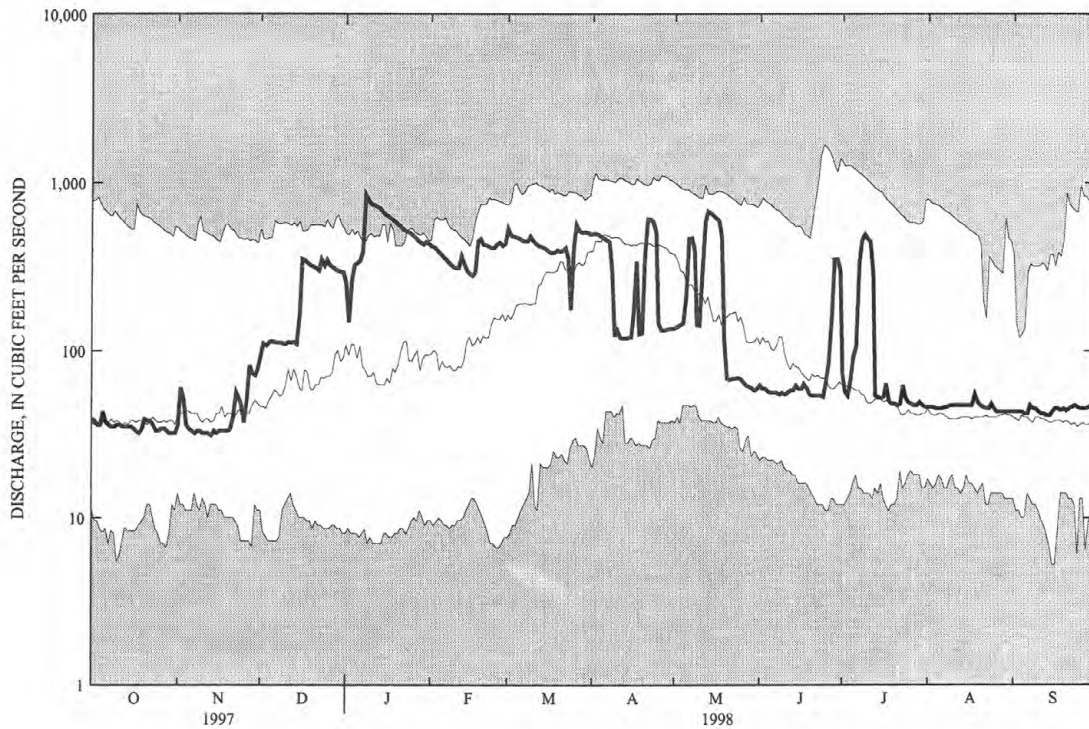
STREAMS TRIBUTARY TO LAKE ONTARIO
04235000 CANANDAIGUA OUTLET AT CHAPIN, NY--continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1998, BY WATER YEAR (WY)

MEAN	75.0	97.2	134	151	161	290	401	267	147	90.3	61.2	51.9
MAX	613	419	521	522	518	748	1036	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

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR			FOR 1998 WATER YEAR			WATER YEARS 1940 - 1998		
ANNUAL TOTAL	46060			75457					
ANNUAL MEAN	126			207			159		
HIGHEST ANNUAL MEAN							302		
LOWEST ANNUAL MEAN							57.7		
HIGHEST DAILY MEAN	541			845			1680		
LOWEST DAILY MEAN	31			31			5.2		
ANNUAL SEVEN-DAY MINIMUM	32			32			7.1		
10 PERCENT EXCEEDS	347			494			454		
50 PERCENT EXCEEDS	67			85			65		
90 PERCENT EXCEEDS	35			36			25		



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 714.27 ft, Jan. 10; minimum, 710.10 ft, Feb. 11.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	711.65	711.22	711.76	710.68	710.63	711.82	712.67	712.81	712.93	712.97	712.62	712.11
2	711.66	711.32	711.77	710.68	710.50	712.02	712.93	712.75	712.93	712.91	712.60	712.09
3	711.64	711.43	711.72	710.68	710.55	712.06	713.10	712.70	713.01	712.84	712.57	712.06
4	711.62	711.52	711.70	710.91	710.49	711.99	713.12	712.67	713.03	712.76	712.55	712.03
5	711.68	711.54	711.71	711.31	710.44	711.89	713.10	712.71	713.01	712.78	712.54	712.00
6	711.69	711.55	711.69	711.95	710.38	711.76	713.05	712.75	713.00	712.77	712.52	711.96
7	711.68	711.54	711.66	712.53	710.31	711.61	713.00	712.77	713.00	712.80	712.50	712.02
8	711.68	711.55	711.61	713.38	710.24	711.42	712.95	712.80	713.00	712.79	712.47	712.02
9	711.67	711.62	711.56	714.12	710.19	711.34	713.02	712.83	713.00	712.78	712.44	712.01
10	711.66	711.71	711.52	714.22	710.22	711.53	713.11	712.89	712.98	712.75	712.46	712.00
11	711.64	711.68	711.48	714.00	710.21	711.55	713.14	713.10	712.86	712.69	712.55	711.99
12	711.62	711.60	711.43	713.67	710.40	711.43	713.12	713.21	712.71	712.71	712.52	711.96
13	711.57	711.53	711.37	713.30	710.76	711.30	713.08	713.19	712.72	712.72	712.51	711.94
14	711.55	711.50	711.31	713.05	710.92	711.23	713.02	713.13	712.88	712.74	712.48	711.92
15	711.56	711.45	711.21	712.71	711.00	711.33	713.00	713.06	712.95	712.75	712.46	711.91
16	711.54	711.37	711.15	712.47	711.04	711.30	712.95	712.97	712.89	712.76	712.44	711.90
17	711.52	711.28	711.10	712.20	711.14	711.26	712.93	712.89	713.05	712.76	712.42	711.88
18	711.50	711.18	711.03	711.94	711.35	711.22	712.91	712.83	713.28	712.75	712.41	711.85
19	711.48	711.06	710.97	711.69	711.85	711.32	712.86	712.84	713.19	712.75	712.39	711.81
20	711.46	711.03	710.92	711.46	712.14	711.57	713.06	712.85	713.05	712.73	712.36	711.81
21	711.44	710.94	710.87	711.39	712.17	711.79	713.20	712.84	712.90	712.72	712.33	711.80
22	711.42	710.93	710.75	711.29	712.11	712.06	713.21	712.83	712.84	712.72	712.31	711.79
23	711.40	710.94	710.72	711.09	712.01	712.16	713.19	712.85	712.82	712.75	712.29	711.75
24	711.37	711.03	710.72	711.12	711.93	712.18	713.15	712.85	712.75	712.76	712.29	711.70
25	711.35	711.05	710.64	710.99	711.86	712.16	713.11	712.86	712.76	712.74	712.27	711.67
26	711.33	711.15	710.77	710.85	711.72	712.12	713.07	712.86	712.84	712.73	712.25	711.65
27	711.27	711.29	710.81	710.80	711.57	712.45	713.03	712.87	712.88	712.71	712.23	711.65
28	711.30	711.39	710.80	710.76	711.48	712.59	712.98	712.86	712.85	712.69	712.20	711.62
29	711.27	711.53	710.71	710.69	---	712.67	712.92	712.87	712.94	712.68	712.19	711.59
30	711.27	711.60	710.83	710.69	---	712.67	712.87	712.88	712.98	712.67	712.16	711.57
31	711.14	---	710.80	710.68	---	712.65	---	712.89	---	712.63	712.13	---
MEAN	711.50	711.35	711.20	711.85	711.06	711.82	713.03	712.88	712.93	712.75	712.40	711.87
MAX	711.69	711.71	711.77	714.22	712.17	712.67	713.21	713.21	713.28	712.97	712.62	712.11
MIN	711.14	710.93	710.64	710.68	710.19	711.22	712.67	712.67	712.71	712.63	712.13	711.57
CAL YR 1997	MEAN 711.87		MAX 712.93		MIN 709.91							
WTR YR 1998	MEAN 712.06		MAX 714.22		MIN 710.19							

STREAMS TRIBUTARY TO LAKE ONTARIO

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04235500 OWASCO OUTLET NEAR AUBURN, NY

LOCATION.--Lat 42°56'48", long 76°35'56", Cayuga County, Hydrologic Unit 04140201, on left bank 2.5 mi downstream from center of Auburn, and 4 mi downstream from State Dam at outlet of Owasco Lake.

DRAINAGE AREA.--206 mi².

PERIOD OF RECORD.--November 1912 to current year. Prior to October 1966, published as "Owasco Lake Outlet".

REVISED RECORDS.--WSP 824: 1913-14, 1916, 1920(M), 1922(M), 1928(M), 1929, 1932(M). WSP 2112: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 533.92 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Diurnal fluctuation caused by mills in Auburn; regulation at State Dam at outlet of lake. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,250 ft³/s, June 23, 1972, gage height, 6.28 ft; minimum discharge, about 2 ft³/s, Dec. 5, 1936; minimum gage height, 0.95 ft, Sept. 29, 1995, Oct. 8, 1996.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,150 ft³/s, Jan. 9, gage height 4.65 ft; minimum discharge, 31 ft³/s, Feb. 17, gage height 1.10 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	60	204	428	427	1150	532	437	69	964	71	75
2	61	73	442	424	412	1200	109	433	69	813	71	78
3	61	61	440	440	420	1200	262	429	70	631	71	72
4	59	67	445	467	417	1170	615	233	59	649	71	72
5	66	64	442	633	414	1130	608	79	69	647	71	72
6	59	81	440	1020	416	1100	610	77	66	342	64	72
7	62	77	437	1390	419	1080	609	77	64	301	67	94
8	59	63	435	1880	413	1070	572	77	64	455	64	84
9	58	73	433	2110	274	1060	524	77	71	447	79	77
10	61	189	428	2110	76	1060	518	80	281	451	136	74
11	60	421	428	2030	73	1060	517	312	457	351	85	72
12	58	314	429	1910	78	1060	512	523	458	93	72	72
13	58	406	435	1810	83	e745	507	509	366	90	72	69
14	57	414	430	1690	74	e430	504	494	86	89	78	70
15	59	418	426	1590	73	e430	507	490	275	88	72	72
16	57	416	419	1500	73	e430	514	482	426	89	72	71
17	58	415	420	1430	209	e430	516	466	550	87	67	70
18	56	411	421	1360	500	e430	511	228	835	84	82	71
19	56	407	414	1280	715	e430	516	67	927	82	75	70
20	57	334	412	952	975	e500	534	67	834	82	74	68
21	59	420	410	467	1050	e530	538	67	615	83	73	69
22	57	429	422	685	1030	e530	547	67	450	82	73	66
23	57	262	428	685	1010	e600	538	67	455	97	74	66
24	56	72	423	677	991	e700	535	67	451	81	81	65
25	55	68	449	668	1070	e700	524	67	487	79	89	66
26	54	77	436	663	1140	e700	491	67	570	77	125	71
27	57	69	433	575	1110	e700	463	67	622	77	100	72
28	59	68	428	448	1120	694	435	66	522	76	72	71
29	56	68	425	436	---	694	438	74	864	79	76	71
30	56	72	428	435	---	695	442	73	1000	75	73	69
31	56	---	428	435	---	694	---	80	---	72	72	---
TOTAL	1806	6369	13090	32628	15062	24402	15048	6399	12132	7713	2422	2161
MEAN	58.3	212	422	1053	538	787	502	206	404	249	78.1	72.0
MAX	66	429	449	2110	1140	1200	615	523	1000	964	136	94
MIN	54	60	204	424	73	430	109	66	59	72	64	65

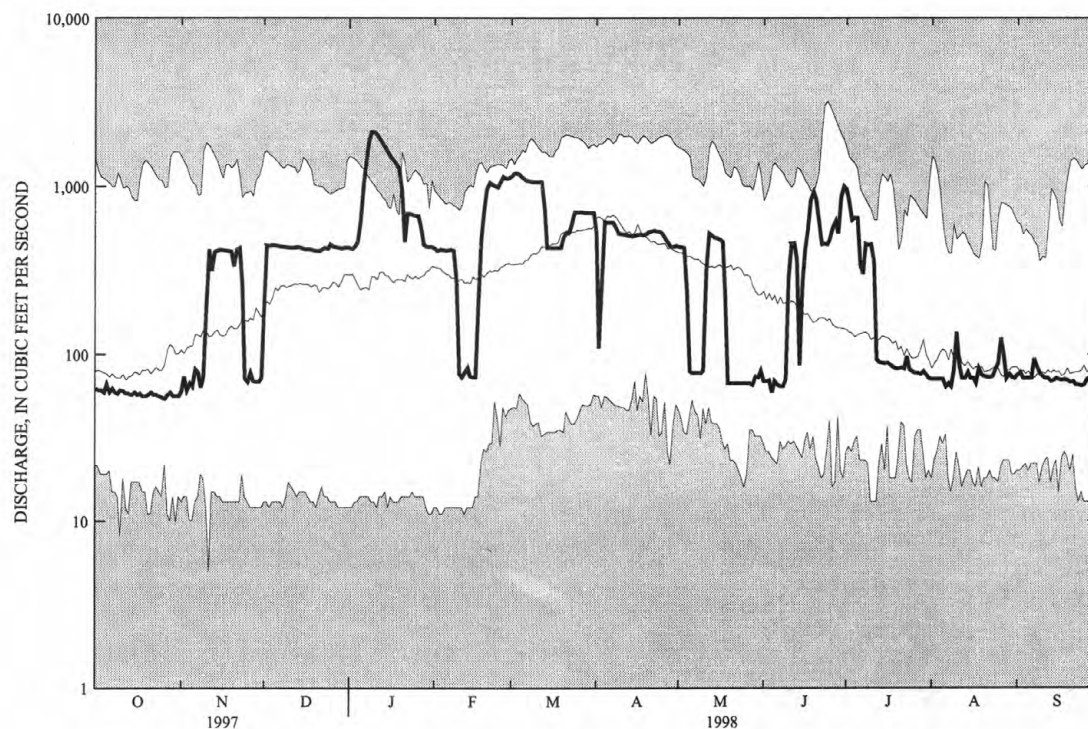
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STREAMS TRIBUTARY TO LAKE ONTARIO
04235500 OWASCO OUTLET NEAR AUBURN, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 1998, BY WATER YEAR (WY)

MEAN	145	222	312	325	335	539	631	359	237	162	119	119
MAX	1013	784	1054	1053	810	1255	1793	892	1066	620	366	597
(WY)	1978	1997	1928	1998	1990	1945	1993	1943	1972	1972	1992	1977
MIN	17.7	14.6	13.5	14.3	49.2	75.4	194	42.5	54.2	41.9	29.6	27.0
(WY)	1954	1954	1954	1961	1989	1989	1915	1985	1991	1987	1975	1983

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1913 - 1998	
ANNUAL TOTAL	98719		139232			
ANNUAL MEAN	270		381		292	
HIGHEST ANNUAL MEAN					436	1978
LOWEST ANNUAL MEAN					122	1965
HIGHEST DAILY MEAN	1800	Apr 2	2110	Jan 9	3200	Jun 24 1972
LOWEST DAILY MEAN	54	Oct 26	54	Oct 26	5.0	Nov 11 1934
ANNUAL SEVEN-DAY MINIMUM	56	Oct 24	56	Oct 24	11	Jan 29 1961
10 PERCENT EXCEEDS	552		968		654	
50 PERCENT EXCEEDS	110		406		199	
90 PERCENT EXCEEDS	61		64		48	



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

STREAMS TRIBUTARY TO LAKE ONTARIO

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04235820 GROUT BROOK TRIBUTARY SOUTHEAST OF FAIR HAVEN, NY

LOCATION.--Lat 42°45'28", long 76°14'14", Cortland County, Hydrologic Unit 04140201, on right bank at culvert on State Highway 41, 0.5 mi upstream from Grout Brook, 1.4 mi north of Scott, and 8.8 mi north of Homer.

DRAINAGE AREA.--0.27 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder, artificial control, and crest-stage gage. Elevation of gage is 1600 ft above sea level, from topographic map.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27 ft³/s, Nov. 8, 1996, gage height, 2.11 ft; minimum discharge, 0.04 ft³/s, Sep. 19, 1997, gage height, 0.53 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 17 ft³/s, June 29, gage height 1.90 ft; minimum daily discharge 0.04 ft³/s Oct. 15-20, 24-26, 28-31, and Sep. 29, 30; minimum instantaneous discharge not determined.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.09	.07	1.3	.70	.65	2.7	2.9	.90	.40	3.3	.30	e.05
2	.07	.18	1.2	.68	.61	2.9	2.6	.86	.50	2.9	.24	e.05
3	.06	.13	1.2	.99	.55	2.8	2.5	.81	.41	2.6	.24	e.06
4	.06	.12	1.3	1.9	.52	2.6	2.3	.76	.35	2.7	.23	e.05
5	.09	.11	1.2	3.1	.48	2.3	2.2	.72	.33	2.4	.22	e.05
6	.07	.10	1.1	6.6	.46	2.2	2.0	.66	.31	2.2	.21	e.05
7	.07	.09	1.1	6.6	.46	2.1	1.9	.62	.30	2.1	.19	e.08
8	.06	.10	1.0	7.6	.44	2.2	2.0	.61	.28	2.1	.17	e.15
9	.05	.14	.99	5.5	.43	3.8	2.0	.57	.27	1.9	.17	e.12
10	.05	.13	.97	4.2	.43	4.3	1.7	.85	.27	1.7	.24	e.10
11	.05	.15	.92	3.5	.53	3.6	1.5	.87	.30	1.4	.20	.08
12	.05	.15	.88	3.1	1.1	3.1	1.4	.68	.38	1.3	.16	.08
13	.05	.16	.86	2.8	1.0	2.7	1.4	.61	.70	1.2	.15	.08
14	.05	.19	.80	2.4	.90	2.5	1.3	.59	.76	1.1	.15	.07
15	.04	.18	.75	2.4	.90	2.3	1.3	.60	.52	.96	.14	.08
16	.04	.19	.73	2.3	.85	2.1	1.2	.60	.52	.89	.13	.08
17	.04	.19	.69	2.1	.98	2.1	1.2	.62	1.4	.83	.13	.07
18	.04	.20	.65	2.0	2.1	2.0	1.0	.63	1.5	.65	.16	.07
19	.04	.20	.63	1.9	2.7	2.6	1.4	.65	1.6	.61	e.14	.07
20	.04	.20	.62	1.7	2.5	2.5	1.8	.66	1.4	.57	e.11	.09
21	.05	.22	.57	1.6	2.3	2.6	1.5	.65	1.3	.53	e.10	.08
22	.06	.27	.57	1.4	2.1	2.4	1.5	.62	1.7	.49	e.09	.06
23	.05	.28	.58	1.3	2.0	2.2	1.5	.51	1.4	.54	e.09	.05
24	.04	.31	.55	1.3	1.9	2.1	1.4	.48	1.2	.44	e.12	.05
25	.04	.34	.77	1.1	1.8	2.0	1.3	.49	1.5	.41	e.10	.05
26	.04	.55	.70	.95	1.8	2.7	1.3	.45	1.7	.38	e.09	.05
27	.05	.81	.66	.89	1.7	3.6	1.1	.44	1.9	.36	e.07	.06
28	.04	.89	.64	.83	2.0	3.5	1.1	.42	1.7	.38	e.05	.05
29	.04	1.1	.68	.79	---	3.3	.99	.44	3.9	.40	e.06	.04
30	.04	1.3	e.70	.78	---	2.9	.93	.40	3.8	.37	e.05	.04
31	.04	---	e.70	.69	---	2.6	---	.63	---	.34	e.05	---
TOTAL	1.60	9.05	26.01	73.70	34.19	83.3	48.22	19.40	32.60	38.05	4.55	2.06
MEAN	.052	.30	.84	2.38	1.22	2.69	1.61	.63	1.09	1.23	.15	.069
MAX	.09	1.3	1.3	7.6	2.7	4.3	2.9	.90	3.9	3.3	.30	.15
MIN	.04	.07	.55	.68	.43	2.0	.93	.40	.27	.34	.05	.04
CFSM	.19	1.12	3.11	8.81	4.52	9.95	5.95	2.32	4.02	4.55	.54	.25
IN.	.22	1.25	3.58	10.15	4.71	11.48	6.64	2.67	4.49	5.24	.63	.28

e Estimated

STREAMS TRIBUTARY TO LAKE ONTARIO

04235820 GROUT BROOK TRIBUTARY SOUTHEAST OF FAIR HAVEN, NY,--continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 1998, BY WATER YEAR (WY)

MEAN	.17	.93	1.53	1.69	1.12	2.19	1.56	.66	.76	.62	.18	.11
MAX	.29	1.57	2.23	2.38	1.22	2.69	1.61	.69	1.09	1.23	.24	.17
(WY)	1997	1997	1997	1998	1998	1998	1998	1997	1998	1998	1996	1996
MIN	.052	.30	.84	.99	1.02	1.69	1.51	.63	.43	.26	.15	.069
(WY)	1998	1998	1998	1997	1997	1997	1997	1998	1997	1997	1998	1998

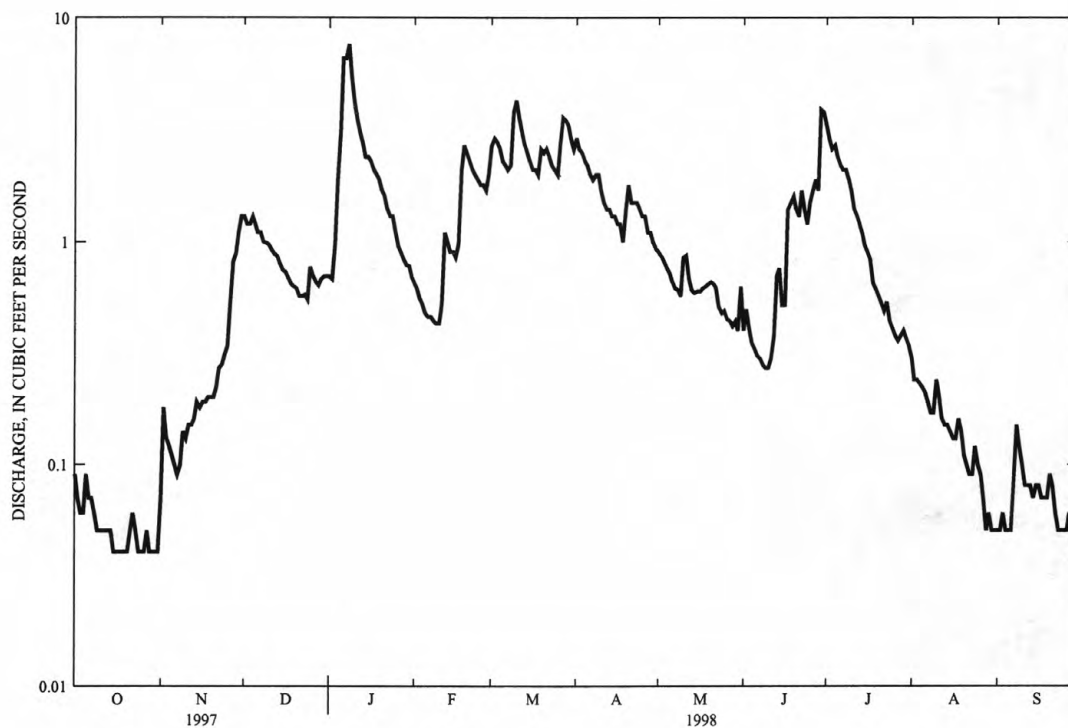
SUMMARY STATISTICS

FOR 1997 CALENDAR YEAR

FOR 1998 WATER YEAR

WATER YEARS 1996 - 1998

ANNUAL TOTAL	243.03	372.73	
ANNUAL MEAN	.67	1.02	.96
HIGHEST ANNUAL MEAN			1.02 1998
LOWEST ANNUAL MEAN			.91 1997
HIGHEST DAILY MEAN	3.4 Feb 27	7.6 Jan 8	7.6 Jan 8 1998
LOWEST DAILY MEAN	.04 Oct 15	.04 Oct 15	.04 Oct 15 1997
ANNUAL SEVEN-DAY MINIMUM	.04 Oct 14	.04 Oct 14	.04 Oct 14 1997
ANNUAL RUNOFF (CFSM)	2.47	3.78	3.57
ANNUAL RUNOFF (INCHES)	33.48	51.35	48.53
10 PERCENT EXCEEDS	1.7	2.5	2.2
50 PERCENT EXCEEDS	.47	.65	.50
90 PERCENT EXCEEDS	.07	.05	.09



1998 WATER YEAR DAILY MEAN DISCHARGE

STREAMS TRIBUTARY TO LAKE ONTARIO

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04235820 GROUT BROOK TRIBUTARY SOUTHEAST OF FAIR HAVEN, NY,--continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: July 1996 to current year.

INSTRUMENTATION.--Water temperature recorder since July 1996.

EXTREMES FOR PERIOD OF RECORD.--

WATER TEMPERATURES: Maximum, 23.5°C, June 30, 1997; minimum 0.0°C, many days during winter period.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 21.5°C, May 29; minimum 0.5°C, several days during winter period.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	11.5	9.0	10.5	9.0	8.0	8.5	4.5	2.0	3.0	1.0	1.0	1.0
2	10.5	7.5	9.0	9.0	8.5	9.0	4.0	1.5	2.5	3.0	1.0	2.0
3	11.0	8.5	10.0	8.5	7.5	8.0	6.5	3.0	4.5	4.5	3.0	4.0
4	14.0	9.0	11.5	8.0	7.5	7.5	6.0	4.5	5.5	5.0	4.5	4.5
5	15.5	11.5	13.0	8.0	7.0	7.5	5.5	3.0	4.5	6.0	4.5	5.0
6	15.5	11.0	13.0	9.5	5.5	7.0	4.5	3.0	3.5	5.0	4.0	4.5
7	13.0	10.5	11.5	8.0	5.5	6.5	4.5	3.0	4.0	7.0	4.5	6.0
8	14.0	11.0	12.5	7.0	6.0	6.5	4.5	3.5	4.0	7.0	5.5	6.0
9	13.5	11.5	12.5	7.0	6.0	6.5	6.0	3.5	4.5	7.5	5.5	6.0
10	13.0	12.5	13.0	6.5	6.0	6.0	4.5	2.0	3.5	7.0	4.0	5.0
11	12.5	11.0	12.0	7.0	4.0	5.5	5.0	3.5	4.0	6.0	3.5	4.0
12	11.5	10.5	11.0	5.0	3.5	4.0	5.0	3.5	4.5	6.0	3.0	4.0
13	12.0	10.5	11.5	5.5	3.0	4.0	4.0	3.0	3.5	4.5	1.5	3.5
14	12.0	11.5	12.0	4.0	1.0	2.0	3.5	1.0	2.5	4.5	1.5	3.0
15	11.5	11.0	11.5	4.0	2.5	3.5	5.0	1.0	3.0	4.0	2.0	3.0
16	11.5	10.0	10.5	4.0	2.5	3.0	7.0	3.0	4.5	5.0	3.5	4.0
17	10.5	8.5	9.5	4.0	3.0	3.5	5.5	3.5	4.0	6.5	4.0	5.0
18	10.0	8.0	9.0	5.5	2.5	4.0	6.5	3.5	4.5	6.0	4.0	5.0
19	10.0	7.5	8.5	5.0	2.5	3.5	7.0	4.0	5.0	6.5	4.0	5.0
20	9.0	8.0	8.5	6.0	3.5	4.0	5.0	3.5	4.5	5.0	3.5	4.0
21	9.0	8.5	8.5	5.5	3.5	4.5	4.0	1.5	3.0	5.0	2.5	4.0
22	9.0	8.0	8.5	5.0	4.0	5.0	3.0	1.5	2.0	6.0	3.0	4.0
23	8.0	7.5	7.5	6.0	4.0	5.0	3.5	1.5	2.5	3.5	.5	1.5
24	8.5	7.5	8.0	4.0	3.0	3.5	5.5	3.5	4.0	5.0	3.5	4.0
25	8.5	8.0	8.0	3.5	2.5	3.0	5.0	3.0	4.0	5.5	2.5	3.5
26	8.0	7.0	7.5	5.5	3.5	4.5	5.0	4.5	4.5	5.5	3.5	4.0
27	8.0	7.5	7.5	5.0	3.0	4.0	5.0	4.0	4.5	4.5	3.0	3.5
28	7.5	6.5	7.0	5.0	4.0	4.5	4.5	2.5	3.5	5.5	4.0	4.5
29	7.5	6.5	7.0	7.0	4.5	5.5	3.0	1.5	2.5	6.0	4.0	5.0
30	8.5	7.0	7.5	5.5	4.0	5.0	2.5	.5	1.0	5.5	4.0	5.0
31	9.0	7.0	8.0	---	---	---	1.0	.5	.5	4.5	3.5	4.0
MONTH	15.5	6.5	9.9	9.5	1.0	5.2	7.0	.5	3.6	7.5	.5	4.1

STREAMS TRIBUTARY TO LAKE ONTARIO
04235820 GROUT BROOK TRIBUTARY SOUTHEAST OF FAIR HAVEN, NY,--continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	4.5	3.5	4.0	6.0	4.5	5.0	12.5	9.0	11.0	17.0	9.0	11.5
2	5.0	4.0	4.5	7.0	4.5	5.5	10.0	8.0	9.0	13.0	9.5	11.0
3	5.0	4.5	5.0	5.5	4.5	5.0	10.0	7.0	8.0	14.0	9.0	11.0
4	5.0	4.5	5.0	6.0	4.5	5.0	7.5	6.0	7.0	15.0	9.0	11.5
5	5.0	4.5	5.0	5.5	4.5	5.0	12.0	6.0	8.0	16.0	10.5	12.0
6	5.0	4.0	4.5	6.0	4.5	5.0	13.0	6.0	9.0	17.5	9.5	13.0
7	4.5	4.0	4.5	8.0	4.5	6.0	14.0	6.0	9.5	20.5	9.0	13.5
8	4.5	3.5	4.0	5.5	4.5	5.0	9.5	7.5	8.5	13.5	10.5	11.5
9	5.0	4.0	4.5	8.0	4.5	5.5	9.5	8.0	8.5	16.0	10.0	12.5
10	5.5	4.5	5.0	5.5	1.5	3.0	13.0	6.5	9.0	13.0	10.5	11.5
11	5.5	5.0	5.0	5.0	1.0	2.5	14.0	6.5	9.5	14.5	9.5	11.5
12	5.5	5.0	5.5	3.0	1.0	2.0	15.5	6.5	10.5	17.5	8.0	12.0
13	5.0	4.5	4.5	5.5	1.5	3.5	16.5	8.0	11.5	19.0	8.0	12.5
14	4.5	4.0	4.0	5.0	1.0	3.0	14.5	9.0	11.5	20.5	9.0	14.0
15	4.0	3.5	4.0	5.0	2.5	3.5	11.5	10.5	11.0	21.0	10.0	15.0
16	4.0	4.0	4.0	8.5	2.5	4.5	13.0	10.0	11.5	21.0	10.5	15.0
17	4.5	4.0	4.0	8.5	2.5	5.0	12.5	10.5	12.0	20.0	12.0	15.0
18	4.5	4.0	4.5	6.0	4.0	5.0	13.5	9.0	11.0	18.5	10.0	14.0
19	4.5	4.5	4.5	7.0	4.0	5.5	12.0	10.0	11.0	20.0	11.0	14.5
20	5.0	4.5	4.5	6.0	4.5	5.0	11.5	9.5	10.0	20.0	11.0	15.0
21	5.0	4.5	4.5	4.5	.5	3.5	14.5	9.0	11.5	13.0	10.0	11.5
22	5.0	4.5	4.5	4.5	2.0	3.5	15.0	10.0	12.5	12.0	8.5	10.5
23	5.5	4.5	5.0	6.5	3.5	4.5	13.5	11.0	12.0	17.0	8.0	12.0
24	5.0	.5	2.5	9.0	3.0	5.5	15.5	8.0	11.5	18.0	9.0	13.0
25	3.5	.5	2.0	9.5	3.0	6.0	13.5	7.0	9.5	17.0	11.0	13.5
26	6.5	3.0	4.5	10.5	5.0	7.0	8.5	5.5	7.0	19.5	11.0	14.5
27	8.0	3.0	5.0	11.0	6.0	8.0	12.0	3.5	7.0	20.5	10.0	14.5
28	6.5	5.0	5.5	14.5	7.5	10.5	15.0	5.5	9.5	21.0	10.5	14.5
29	---	---	---	14.0	8.5	11.0	17.0	5.5	10.5	21.5	12.0	15.0
30	---	---	---	15.5	8.0	11.5	17.0	8.5	11.5	21.0	11.0	15.0
31	---	---	---	15.5	9.5	12.0	---	---	---	18.5	12.0	14.5
MONTH	8.0	.5	4.4	15.5	.5	5.6	17.0	3.5	10.0	21.5	8.0	13.1
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	16.5	9.5	12.5	13.5	12.0	12.5	16.0	11.0	13.5	13.5	10.5	12.0
2	15.5	9.0	12.0	16.0	11.5	13.5	16.0	11.0	13.5	13.5	11.5	12.0
3	15.0	9.5	11.5	16.0	10.5	13.0	16.0	11.5	13.5	13.5	10.5	12.0
4	15.0	8.0	11.0	13.0	11.0	12.0	16.0	12.5	14.0	13.5	10.0	11.5
5	17.5	8.0	12.0	16.5	11.5	13.5	14.5	13.0	13.5	13.5	9.5	11.5
6	15.0	9.0	12.0	16.0	10.5	13.0	15.0	12.5	13.5	15.0	11.0	13.0
7	12.5	9.0	10.5	13.5	11.5	12.5	15.0	13.0	14.0	13.5	12.0	13.0
8	13.0	9.5	11.0	13.0	12.0	12.5	17.0	13.0	14.5	12.5	11.0	11.5
9	18.5	9.0	13.0	16.5	11.5	13.5	17.5	13.0	15.0	12.5	11.0	11.5
10	18.0	10.0	13.5	15.8	11.5	13.1	17.5	14.5	15.5	13.0	10.5	11.5
11	13.5	12.0	12.5	16.5	11.0	13.0	16.5	14.5	15.5	14.0	10.0	12.0
12	14.5	12.0	13.5	16.5	10.5	13.0	16.0	12.5	14.5	14.5	11.0	12.5
13	17.0	13.0	14.5	16.5	10.5	13.0	16.0	11.5	13.5	14.5	12.0	13.0
14	15.0	12.5	13.5	16.0	11.0	13.5	15.5	12.0	14.0	15.0	12.0	13.0
15	15.5	11.0	13.5	16.0	11.0	13.5	16.0	13.5	14.5	14.5	13.0	13.5
16	17.5	12.5	14.5	16.5	11.5	13.5	16.5	13.5	14.5	13.5	11.5	13.5
17	17.0	13.5	14.5	16.0	11.5	13.5	16.0	14.0	15.0	13.5	9.5	11.5
18	15.5	12.5	14.0	17.0	12.0	14.0	15.0	12.0	14.0	14.0	10.0	12.0
19	16.0	11.5	13.5	16.0	11.0	13.5	14.0	11.0	12.0	14.5	11.0	13.0
20	18.0	11.5	14.5	15.5	12.5	14.0	14.5	9.5	12.0	16.0	12.5	14.0
21	16.5	11.5	13.5	15.5	11.5	13.5	15.5	11.5	13.0	15.5	13.0	14.0
22	16.5	11.5	14.0	17.0	13.5	15.0	15.0	11.5	13.0	13.5	11.5	12.5
23	16.5	12.0	13.5	16.0	12.5	14.0	15.5	12.5	13.5	12.0	8.5	10.5
24	18.0	11.5	14.0	14.5	12.0	13.0	15.5	13.5	14.0	11.5	7.5	9.5
25	17.5	11.5	14.0	16.0	10.5	13.0	14.5	13.0	14.0	12.5	9.5	11.0
26	17.0	12.5	14.5	16.5	10.5	13.5	15.5	12.5	14.0	14.5	10.5	12.5
27	16.0	12.5	13.5	16.0	11.0	13.5	15.0	11.5	13.0	14.5	13.0	13.5
28	17.0	11.0	14.0	17.0	13.0	14.5	15.0	11.5	13.5	13.5	10.0	12.5
29	17.5	12.5	15.0	17.0	13.5	15.0	14.5	13.0	13.5	13.0	8.0	10.5
30	16.5	13.0	14.0	14.5	12.5	13.5	15.0	12.5	13.5	13.0	10.5	12.0
31	---	---	---	16.0	12.5	14.0	14.0	12.0	13.0	---	---	---
MONTH	18.5	8.0	13.3	17.0	10.5	13.4	17.5	9.5	13.8	16.0	7.5	12.2

STREAMS TRIBUTARY TO LAKE ONTARIO

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04235820 GROUT BROOK TRIBUTARY SOUTHEAST OF FAIR HAVEN, NY,--continued

QUANTITY OF PRECIPITATION

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

PERIOD OF DAILY RECORD.--July 1996 to current year.

INSTRUMENTATION.--Tipping bucket rain gage since July 1996. Receiving funnel is heated to facilitate melting of snow.

Tips of the rain gage bucket are recorded and accumulated at 15 minute intervals on an electronic data logger.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily precipitation 4.07 inches, Nov. 8, 1996.

EXTREMES FOR CURRENT YEAR.-- Maximum daily precipitation 1.64 inches, June. 17.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.12	.70	.00	.01	.00	.01	.63	.02	.00	.16	.00	.00
2	.00	.87	.00	.01	.00	.01	.16	.03	.62	.00	.00	.01
3	.04	.00	.08	.13	.00	.01	.09	.03	.00	.00	.00	.00
4	.01	.14	.11	.28	.00	.03	.00	.07	.00	.58	.00	.01
5	.43	.00	.03	.00	.00	.03	.00	.08	.00	.00	.00	.00
6	.00	.00	.17	.42	.00	.00	.00	.02	.00	.00	.00	.00
7	.00	.01	.02	.62	.00	.00	.00	.00	.03	.20	.00	.59
8	.00	.18	.00	.65	.00	.27	.42	.05	.06	.20	.00	.41
9	.00	.40	.00	.14	.00	.41	.29	.31	.00	.22	.00	.40
10	.09	.00	.12	.00	.00	.24	.00	.95	.08	.01	.00	.00
11	.00	.06	.03	.00	.23	.00	.00	.50	.11	.00	.00	.00
12	.01	.00	.03	.00	.38	.00	.00	.01	.50	.00	.00	.00
13	.00	.00	.04	.06	.00	.00	.00	.00	1.44	.00	.00	.00
14	.01	.00	.00	.00	.00	.10	.00	.00	.17	.00	.00	.00
15	.00	.00	.00	.22	.00	.02	.20	.00	.01	.00	.00	.05
16	.00	.00	.00	.17	.00	.00	.00	.00	.12	.00	.00	.08
17	.00	.00	.00	.07	.31	.00	.12	.00	1.64	.00	.00	.00
18	.01	.06	.00	.15	.42	.13	.00	.00	.04	.00	.00	.00
19	.00	.04	.00	.04	.34	.30	.98	.00	.00	.00	.00	.00
20	.04	.16	.07	.02	.03	.02	.27	.01	.00	.00	.00	.49
21	.06	.42	.00	.00	.00	.72	.00	.00	.00	.00	.00	.01
22	.01	.29	.06	.00	.00	.32	.00	.01	1.05	.00	.01	.00
23	.00	.04	.25	.11	.03	.01	.00	.00	.03	.01	.00	.00
24	.01	.00	.10	.00	.27	.00	.00	.00	.00	.00	.00	.00
25	.04	.02	.20	.00	.08	.00	.16	.03	.64	.00	.01	.00
26	.13	.21	.04	.00	.00	.03	.14	.00	.64	.00	.00	.00
27	.17	.01	.01	.00	.00	.00	.00	.00	.40	.00	.00	.18
28	.03	.09	.00	.00	.58	.12	.00	.00	.01	.00	.00	.00
29	.02	.00	.03	.12	---	.03	.00	.30	1.62	.00	.00	.00
30	.00	.22	.00	.07	---	.00	.00	.00	.76	.00	.00	.02
31	.00	---	.00	.01	---	.00	---	1.21	---	.00	.00	---
TOTAL	1.23	3.92	1.39	3.30	2.67	2.81	3.46	3.63	9.97	1.38	0.02	2.25
MAX	.43	.87	.25	.65	.58	.72	.98	1.21	1.64	.58	.01	.59

STREAMS TRIBUTARY TO LAKE ONTARIO

04237411 SENECA RIVER, MOUTH AT STATE DITCH, NEAR JORDAN, NY

LOCATION.--Lat 43°06'54", long 76°26'21", Onondaga County, Hydrologic Unit 04140201, on right bank 700 ft. downstream from Bridge on Plainville Road, 1.2 mi north of Jack's Reef.

DRAINAGE AREA.-- 3,093 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 380 ft. above sea level, from topographic map.

REMARKS.--A large amount of natural storage and some artificial regulation is afforded by many large lakes and the Erie (Barge) Canal system in the river basin. Seneca River basin receives water from Erie (Barge) Canal through Lock 32 near Pittsford. During part of year, entire flow from 45.5 mi² of Mud Creek drainage area may be diverted from Chemung River basin into Keuka Lake in Oswego River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 6.31 ft, Jan. 12, 1998; minimum gage height, 0.34 ft, Feb. 17, 1997.

EXTREMES FOR CURRENT YEAR.-- Maximum gage height, 6.31 ft, Jan.12; minimum gage height, 0.84 ft, Aug. 30.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.20	1.09	1.90	1.55	3.35	4.75	3.82	1.51	1.33	2.37	1.00	.87
2	1.11	1.24	1.86	1.72	3.35	4.97	3.68	1.58	1.19	2.23	1.01	.89
3	1.21	1.24	1.84	1.84	3.34	5.01	3.48	1.62	1.22	1.93	1.00	.93
4	1.29	1.24	2.03	2.35	3.36	4.94	3.30	1.69	1.18	1.64	.99	.94
5	1.41	1.42	2.04	2.85	3.42	4.82	3.10	1.60	1.18	1.78	.98	.94
6	1.40	1.23	2.02	3.28	3.44	4.67	2.87	1.53	1.25	2.00	1.00	.94
7	1.09	1.25	2.00	3.57	3.34	4.54	2.61	1.63	1.28	1.90	1.03	1.05
8	1.18	1.26	1.99	4.34	3.26	4.44	2.33	1.70	1.27	1.93	1.06	1.16
9	1.30	1.27	1.99	5.25	3.21	4.50	2.13	1.74	1.23	1.89	1.06	1.25
10	1.22	1.33	1.96	5.77	3.17	4.61	2.08	1.75	1.18	2.10	1.11	1.21
11	1.08	1.59	1.94	6.13	3.16	4.62	2.20	1.73	1.25	2.04	1.20	1.13
12	1.10	1.74	1.94	6.28	3.28	4.54	2.27	2.23	1.37	1.66	1.02	1.15
13	1.09	1.65	1.91	6.21	3.51	4.39	2.27	2.69	1.48	1.51	.96	1.13
14	1.15	1.68	1.87	5.88	3.64	4.27	2.13	2.91	1.60	1.60	.95	1.09
15	1.19	1.76	1.80	5.39	3.61	4.13	1.99	2.84	1.35	1.66	.96	1.07
16	1.19	1.78	1.82	4.90	3.50	4.01	1.81	2.70	1.22	1.64	.96	1.07
17	1.04	1.74	1.81	4.39	3.42	3.93	1.51	2.58	1.50	1.49	.97	1.05
18	.91	1.70	1.82	3.99	3.61	3.91	1.26	2.48	1.79	1.20	1.04	1.02
19	.87	1.69	1.85	3.71	4.20	3.93	1.15	2.36	1.84	1.19	1.11	.99
20	.89	1.65	1.88	3.57	4.72	4.01	1.34	2.28	1.78	1.32	1.17	.96
21	.88	1.60	1.91	3.41	5.00	4.11	1.59	2.03	1.57	1.39	1.13	.94
22	.93	1.75	1.90	3.26	5.06	4.18	1.86	1.98	1.45	1.50	1.05	.92
23	.96	1.93	1.79	3.27	4.95	4.18	1.99	1.78	1.35	1.34	1.04	.93
24	.99	1.95	1.67	3.33	4.78	4.17	1.93	1.66	1.41	1.10	1.07	.95
25	1.02	2.03	1.83	3.36	4.64	4.15	1.85	1.85	1.47	1.23	1.27	.97
26	1.04	2.03	2.24	3.35	4.59	4.22	1.78	1.87	1.72	1.32	1.27	1.01
27	1.11	2.00	2.38	3.34	4.59	4.51	1.71	1.48	1.83	1.30	1.19	1.07
28	1.00	1.92	2.25	3.35	4.58	4.56	1.61	1.27	1.83	1.09	1.13	1.10
29	.91	1.91	2.04	3.35	---	4.48	1.56	1.18	1.97	.99	1.00	1.11
30	.97	1.88	1.89	3.36	---	4.30	1.54	1.20	2.49	.95	.89	1.14
31	1.03	---	1.70	3.36	---	4.04	---	1.29	---	.99	.87	---
MEAN	1.09	1.62	1.93	3.86	3.86	4.38	2.16	1.89	1.49	1.56	1.05	1.03
MAX	1.41	2.03	2.38	6.28	5.06	5.01	3.82	2.91	2.49	2.37	1.27	1.25
MIN	.87	1.09	1.67	1.55	3.16	3.91	1.15	1.18	1.18	.95	.87	.87

CAL YR 1997 MEAN 1.57 MAX 3.83 MIN .37
WTR YR 1998 MEAN 2.15 MAX 6.28 MIN .87

STREAMS TRIBUTARY TO LAKE ONTARIO
04237500 SENECA RIVER AT BALDWINVILLE, NY

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LOCATION.--Lat 43°09'25", long 76°19'55", Onondaga County, Hydrologic Unit 04140201, on left bank 200 ft downstream from bridge on State Highways 31 and 48 in Baldwinsville, and 400 ft downstream from navigation dam at Lock 24 of New York State Erie (Barge) Canal.

DRAINAGE AREA.--3,138 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1949 to current year in reports of Geological Survey. November 1898 to December 1908, prior to construction of Erie (Barge) Canal, not equivalent to later records at same site because of extensive development of Erie (Barge) Canal system. January 1909 to September 1925 (gage heights only) in reports of State Engineer and Surveyor.

REVISED RECORDS.--WDR NY-78-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 361.38 ft above sea level (362.60 ft Erie (Barge) Canal Datum). Prior to Dec. 31, 1908, nonrecording gage at same site at different datum. Auxiliary water-stage recorder 1,500 ft downstream from base gage at same datum. Telephone gage-height telemeter at base and auxiliary gages.

REMARKS.--Records fair. Discharge from 1898 to 1908 determined on basis of head on dam, flow through 10 mills nearby, lockages at Oswego Canal lock, estimated leakage of dam, wheel gates, flumes, and penstocks; not adjusted for inflow from Lake Erie through Erie (Barge) Canal. Discharge, since November 1949, computed by using fall as determined by auxiliary water-stage recorder. Published discharge represents the total flow at Baldwinsville and includes flow in Erie (Barge) Canal.

A large amount of natural storage and some artificial regulation is afforded by many large lakes and the Erie (Barge) Canal system in the river basin. Large diurnal fluctuations at low and medium flows caused by powerplants upstream from station. Seneca River basin receives water from Erie (Barge) Canal through Lock 32 near Pittsford. During part of year, entire flow from 45.5 mi² of Mud Creek drainage area may be diverted from Chemung River basin into Keuka Lake in Oswego River basin. Several measurements of water temperature were made during the year.

COOPERATION.--Records of lockages at Lock 24 furnished by New York State Department Thruway Authority, Office of Canals.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 18,100 ft³/s, Apr. 27, 1993, maximum gage height, 9.63 ft, Apr. 26, 27, 1993; minimum daily discharge, 34 ft³/s, Sept. 17, 1985, result of extreme regulation. Maximum and minimum instantaneous discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 13,500 ft³/s, Jan. 12; maximum gage height 7.25 ft, Jan. 12, 13; minimum daily discharge, 468 ft³/s, Oct. 22. Maximum and minimum instantaneous discharge not determined.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

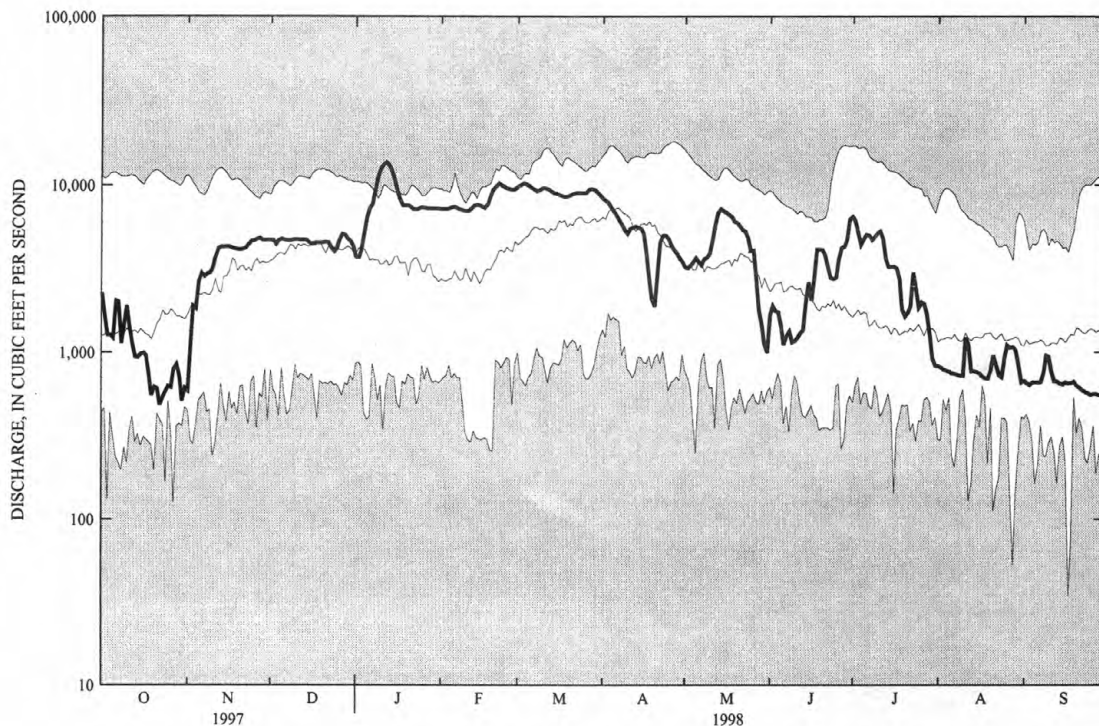
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2260	586	4650	3700	7170	9700	8310	3210	1670	6450	829	674
2	1660	1080	4650	3670	7170	9980	8070	3180	1880	6060	813	653
3	1260	1880	4410	4080	7180	10200	7820	3310	1760	5120	787	636
4	1260	1820	4670	5140	7270	10100	7390	3450	1740	4390	780	662
5	1210	2700	4760	6420	7330	9890	6990	3650	1440	4750	764	660
6	2040	2980	4700	7280	7390	9600	6570	3450	1110	5040	747	658
7	2010	2850	4640	7700	7260	9370	6160	3330	1250	4990	743	661
8	1130	2960	4640	9390	7130	9190	5780	3620	1330	4700	733	748
9	1490	2970	4690	11200	7040	9290	5350	3700	1150	4900	723	953
10	1900	3200	4700	12400	6970	9560	5120	3880	1170	5110	720	942
11	1430	3700	4690	13200	6970	9560	5460	4680	1220	5250	1220	759
12	1120	4170	4680	13600	7270	9440	5590	5750	1300	4730	1110	667
13	937	4260	4680	13200	7510	9150	5660	6810	1350	3580	764	669
14	930	4240	4660	12200	7590	8950	5580	7180	1960	3230	773	647
15	977	4250	4520	10700	7540	8860	5470	7000	2620	3230	758	640
16	986	4250	4430	9250	7410	8740	5030	6830	2040	3240	746	661
17	955	4210	4490	8140	7300	8580	3870	6630	2710	3180	714	650
18	735	4150	4480	7520	7650	8480	2700	6440	4090	2770	697	653
19	552	4110	4490	7510	8580	8520	2070	6050	4090	1790	696	669
20	620	4090	4510	7530	9370	8660	1870	5920	4070	1630	783	627
21	604	4140	4530	7380	9780	8810	3030	5650	3740	1720	954	614
22	482	4200	4510	7130	10200	8940	4580	5380	3240	1880	838	594
23	535	4420	4190	7150	10000	8950	4990	5260	2780	3000	726	577
24	587	4620	4010	7280	9760	8940	4970	4730	2740	2350	708	570
25	627	4640	4160	7330	9550	8910	4760	4040	2800	1860	927	555
26	615	4720	4660	7290	9480	9000	4310	4050	3610	1990	1100	563
27	798	4820	5100	7210	9340	9380	4080	2800	4190	1950	1060	563
28	847	4670	5040	7220	9440	9460	3900	1770	4300	1660	1070	554
29	720	4650	4750	7210	---	9340	3640	1450	4720	1260	1030	547
30	507	4660	4620	7230	---	9030	3480	1110	6240	912	839	540
31	610	---	4250	7210	---	8690	---	993	---	824	659	---
TOTAL	32394	109996	141960	253470	226650	285270	152600	135303	78310	103546	25811	19566
MEAN	1045	3667	4579	8176	8095	9202	5087	4365	2610	3340	833	652
MAX	2260	4820	5100	13600	10200	10200	8310	7180	6240	6450	1220	953
MIN	482	586	4010	3670	6970	8480	1870	993	1110	824	659	540

STREAMS TRIBUTARY TO LAKE ONTARIO
04237500 SENECA RIVER AT BALDWINVILLE, NY--continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1998, BY WATER YEAR (WY)

MEAN	2197	3438	4488	4055	3927	5891	6010	4029	2624	1965	1539	1447
MAX	11020	9491	10330	8807	8313	11650	15610	9778	6456	12100	6214	4760
(WY)	1978	1978	1978	1978	1976	1956	1993	1996	1972	1972	1992	1977
MIN	572	675	778	805	965	1606	1317	719	592	621	588	421
(WY)	1986	1958	1961	1954	1980	1965	1981	1995	1995	1985	1985	1995

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1950 - 1998	
ANNUAL TOTAL	1033753		1564876			
ANNUAL MEAN	2832		4287		3462	
HIGHEST ANNUAL MEAN					5998	
LOWEST ANNUAL MEAN					1357	
HIGHEST DAILY MEAN	8030	Jan 6	13600	Jan 12	18100	Apr 27 1993
LOWEST DAILY MEAN	351	Sep 22	482	Oct 22	34	Sep 17 1985
ANNUAL SEVEN-DAY MINIMUM	545	Sep 17	556	Sep 24	283	Sep 23 1988
10 PERCENT EXCEEDS	6320		8970		7690	
50 PERCENT EXCEEDS	2080		4160		2370	
90 PERCENT EXCEEDS	610		669		875	



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

STREAMS TRIBUTARY TO LAKE ONTARIO
04237500 SENECA RIVER AT BALDWINVILLE, NY--continued
WATER-QUALITY RECORDS

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PERIOD OF RECORD.--1958-1975, 1997 to current year.

CHEMICAL DATA: 1958 (e), 1997-98 (d).

PESTICIDE DATA: 1997-98 (d).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1957 to September 1975.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 28.0°C, July 24, 1964; minimum, 0.0°C, on many days during winter period.

REMARKS.--Samples were taken as part of a state-wide pesticide sampling network in cooperation with the New York State Department of Environmental Conservation. A complete list of compounds included when pesticide analyses were performed on samples appears following the introduction to the State-wide Monitoring of Pesticides in Surface Water of New York State section on page 302.

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)
OCT										
07...	1450	1400	<.002	E.004	.102	E.019	<.001	<.002	<.002	<.003
DEC										
02...	1030	4650	<.002	E.004	.100	E.067	<.001	<.002	<.002	<.003
JAN										
09...	0900	10900	<.002	.005	.071	E.043	<.001	<.002	<.002	<.003
FEB										
03...	0940	7000	<.002	E.004	.097	E.073	<.001	<.002	<.002	<.003
APR										
06...	0910	6610	<.002	<.002	.073	E.040	<.001	<.002	<.002	<.003
MAY										
20...	1220	5300	<.002	.014	.153	E.053	<.001	<.002	<.002	<.003
JUN										
09...	1540	1130	<.002	.019	.145	E.056	<.001	<.002	<.002	<.003
16...	1300	1280	<.002	.020	.242	E.057	<.001	<.002	<.002	<.003
24...	0900	2340	<.002	.112	.784	E.110	<.001	<.002	<.002	<.003
27...	0910	4080	<.002	.104	.926	E.130	<.001	<.002	<.002	<.003
JUL										
01...	0830	6490	<.002	.078	.885	E.150	<.001	<.002	<.002	E.008
29...	1420	1040	<.002	.017	.325	E.100	<.001	<.002	<.002	<.003
AUG										
25...	1050	805	<.002	.011	.251	E.062	<.001	<.002	<.002	<.003

STREAMS TRIBUTARY TO LAKE ONTARIO
04237500 SENECA RIVER AT BALDWINVILLE, NY--continued
WATER-QUALITY RECORDS

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	P, P' DDE DISSOLV (UG/L) (34653)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)
OCT										
07...	<.003	<.004	.012	<.002	<.006	<.002	<.001	<.003	<.017	<.002
DEC										
02...	<.003	<.004	.018	<.002	<.006	E.003	<.001	<.003	<.017	<.002
JAN										
09...	<.003	<.004	.015	<.002	<.006	<.002	<.001	<.003	<.017	<.002
FEB										
03...	<.003	<.004	.015	<.002	<.006	<.002	<.001	<.003	<.017	<.002
APR										
06...	<.003	<.004	.013	<.002	<.006	<.002	<.001	<.003	<.017	<.002
MAY										
20...	<.003	<.004	.016	<.002	<.006	<.002	<.001	<.003	<.017	<.002
JUN										
09...	<.003	<.004	.028	<.002	<.006	<.002	<.001	<.003	<.017	.006
16...	<.003	<.004	.042	<.002	<.006	<.002	<.001	<.003	<.017	<.010
24...	<.003	<.010	.183	<.002	<.006	<.002	<.001	<.003	<.017	.004
27...	<.003	<.004	.100	<.002	<.006	<.002	<.001	<.003	<.017	.004
JUL										
01...	<.003	<.004	.143	<.002	<.006	<.002	<.001	<.003	<.017	.008
29...	<.003	<.004	.067	<.002	<.006	<.002	<.001	<.003	<.017	.006
AUG										
25...	<.003	<.004	.046	<.002	<.006	.093	<.001	<.003	<.017	E.004
DATE	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	LINDANE DIS- SOLVED (UG/L) (39341)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA- THION, DIS- SOLVED (UG/L) (39532)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)
OCT										
07...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.029	<.004	<.004
DEC										
02...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.065	<.004	<.004
JAN										
09...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.129	<.004	<.004
FEB										
03...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.054	<.004	<.004
APR										
06...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.043	<.004	<.004
MAY										
20...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.090	<.004	<.004
JUN										
09...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.102	<.004	<.004
16...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.160	<.004	<.004
24...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.765	.016	<.004
27...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.650	.010	<.004
JUL										
01...	<.004	<.003	<.003	<.002	<.004	<.002	<.010	.840	.019	<.004
29...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.173	<.004	<.004
AUG										
25...	<.004	<.003	<.003	<.002	<.004	<.002	<.005	.119	<.004	<.004

STREAMS TRIBUTARY TO LAKE ONTARIO
04237500 SENECA RIVER AT BALDWINVILLE, NY--continued
WATER-QUALITY RECORDS

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PESTICIDE ANALYSES, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PARA- THION, DIS- SOLVED (UG/L) (39542)	METHYL PARA- THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	PEB- ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROP- CHLOR, WATER, DISS, REC (UG/L) (04024)
OCT										
07...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	E.009	<.003	<.007
DEC										
02...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	E.006	<.003	<.007
JAN										
09...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	E.003	<.003	<.007
FEB										
03...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	E.004	<.003	<.007
APR										
06...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
MAY										
20...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
JUN										
09...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	E.008	<.003	<.007
16...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	E.005	<.003	<.007
24...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	E.007	<.003	<.007
27...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	E.005	<.003	<.007
JUL										
01...	<.003	<.004	<.006	<.004	.028	<.005	<.002	E.008	<.003	<.007
29...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	E.007	<.003	<.007
AUG										
25...	<.003	<.004	<.006	<.004	<.004	<.005	<.002	E.011	<.003	<.007

DATE	PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)
OCT									
07...	<.004	<.013	.014	<.010	<.007	<.013	<.002	<.001	<.002
DEC									
02...	<.004	<.013	.015	<.010	<.007	<.013	<.002	<.001	<.002
JAN									
09...	<.004	<.013	.010	<.010	<.007	<.013	<.002	<.001	<.002
FEB									
03...	<.004	<.013	.016	<.010	<.007	<.013	<.002	<.001	<.002
APR									
06...	<.004	<.013	.011	<.010	<.007	<.013	<.002	<.001	<.002
MAY									
20...	<.004	<.013	.023	<.010	<.007	<.013	<.002	<.001	<.002
JUN									
09...	<.004	<.013	.025	<.010	<.007	<.013	<.002	<.001	<.002
16...	<.004	<.013	.020	<.010	<.007	<.013	<.002	<.001	<.002
24...	<.004	<.013	.023	<.010	<.007	<.013	<.002	<.001	<.002
27...	<.004	<.013	.019	<.010	<.007	<.013	<.002	<.001	<.002
JUL									
01...	<.004	<.013	.028	<.010	<.007	<.013	<.002	<.001	<.002
29...	<.004	<.013	.024	<.010	<.007	<.013	<.002	<.001	<.002
AUG									
25...	<.004	<.013	.018	<.010	<.007	<.013	<.002	<.001	<.002

E Estimated

STREAMS TRIBUTARY TO LAKE ONTARIO

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

LOCATION.--Lat 42°51'18", long 76°08'24", Onondaga County, Hydrologic Unit 04140201, on right side of 9-in flume, 250 ft downstream from main depression area, about 2,100 ft east of Tully Farms Road, 1,500 ft south of Otisco Road, 400 ft upstream from mouth and 4.2 mi northwest of Tully.

DRAINAGE AREA.--0.32 mi² (0.70 mi² diverted to Trib. No. 5 on June 12, 1992).

WATER-DISCHARGE RECORDS

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

REVISED RECORD.--WDR NY-93-3: 1992 (M).

GAGE.--Water stage recorder and flume. Elevation of gage is 560 ft above sea level, from topographic map.

REMARKS.--Records fair. Flow may include inflow from depressurizing wells, some originating outside the basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 45 ft³/s, Mar. 27, 1992, gage height, 2.08 ft; maximum gage height, 2.90 ft, Jan. 19, 1996; minimum discharge, 0.0 ft³/s, July 29, 1993, June 20, 1994, result of dam construction.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5.6 ft³/s, Jan. 8, gage height, 1.33 ft; minimum discharge, 0.28 ft³/s, Aug. 30, 31, Sep. 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.49	.48	.70	1.0	1.1	4.3	1.4	.84	.84	1.1	.47	.32
2	.48	.71	.67	1.0	1.1	3.6	1.4	.86	.87	.94	.47	.37
3	.50	.56	.66	1.5	1.1	2.9	1.4	.84	.88	.81	.47	.38
4	.45	.44	.74	2.5	1.1	2.5	1.3	.90	.80	.94	.44	.37
5	.58	.43	.75	3.6	1.1	2.2	1.3	.86	.76	1.0	.45	.39
6	.43	.41	.77	3.7	1.0	2.0	1.2	.80	.74	.84	.46	.35
7	.45	.42	.79	3.0	1.0	1.8	1.2	.77	.78	.87	.44	.52
8	.46	.45	.86	4.9	1.0	1.8	1.3	.79	.77	.88	.42	.46
9	.49	.62	.84	3.8	1.0	2.2	1.4	.79	.62	.83	.40	.61
10	.51	.55	.84	2.8	1.0	2.6	1.4	1.0	.58	.86	.45	.48
11	.40	.52	.85	2.2	1.2	2.3	1.3	1.1	.62	.80	.50	.40
12	.42	.49	.82	1.9	2.2	2.0	1.2	.91	.72	.77	.39	.38
13	.41	.47	.82	1.7	2.0	1.9	1.1	.83	.66	.74	.39	.37
14	.38	.56	.81	1.5	1.6	1.8	1.1	.77	.69	.69	.40	.36
15	.36	.54	.82	1.4	1.4	1.6	1.1	.74	.63	.67	.37	.35
16	.38	.51	.83	1.4	1.3	1.5	1.1	.70	.59	.63	.35	.38
17	.40	.52	.87	1.3	1.4	1.5	1.1	.67	.77	.63	.34	.37
18	.41	.52	.87	1.2	2.3	1.6	1.1	.69	.76	.62	.43	.36
19	.41	.53	.87	1.2	2.8	2.2	1.3	.69	.63	.60	.44	.35
20	.42	.53	.93	1.2	2.4	1.9	1.8	.66	.57	.59	.43	.33
21	.42	.56	.91	1.1	2.3	2.3	1.3	.69	.57	.58	.41	.35
22	.42	.76	.87	1.1	1.9	2.3	1.2	.74	.68	.51	.40	.34
23	.42	.76	.93	1.2	1.8	2.0	1.1	.73	.66	.80	.38	.36
24	.42	.72	.91	1.2	1.9	2.0	1.1	.70	.57	.58	.40	.38
25	.42	.64	1.2	1.1	2.1	2.0	1.1	.74	.77	.57	.45	.37
26	.44	.66	1.2	1.1	2.1	2.0	1.0	.71	.89	.57	.39	.36
27	.49	.72	1.1	1.1	2.0	1.8	1.0	.67	.73	.53	.35	.34
28	.44	.67	1.0	1.1	2.4	1.7	.93	.62	.64	.50	.34	.33
29	.43	.62	.99	1.1	---	1.6	.91	.66	.91	.50	.35	.34
30	.41	.66	1.1	1.2	---	1.4	.86	.61	.86	.51	.34	.35
31	.40	---	1.1	1.1	---	1.3	---	.84	---	.50	.31	---
TOTAL	13.54	17.03	27.42	55.2	45.6	64.6	36.00	23.92	21.56	21.96	12.63	11.42
MEAN	.44	.57	.88	1.78	1.63	2.08	1.20	.77	.72	.71	.41	.38
MAX	.58	.76	1.2	4.9	2.8	4.3	1.8	1.1	.91	1.1	.50	.61
MIN	.36	.41	.66	1.0	1.0	1.3	.86	.61	.57	.50	.31	.32
CFSM	1.36	1.77	2.76	5.56	5.09	6.51	3.75	2.41	2.25	2.21	1.27	1.19
IN.	1.57	1.98	3.19	6.42	5.30	7.51	4.18	2.78	2.51	2.55	1.47	1.33

STREAMS TRIBUTARY TO LAKE ONTARIO

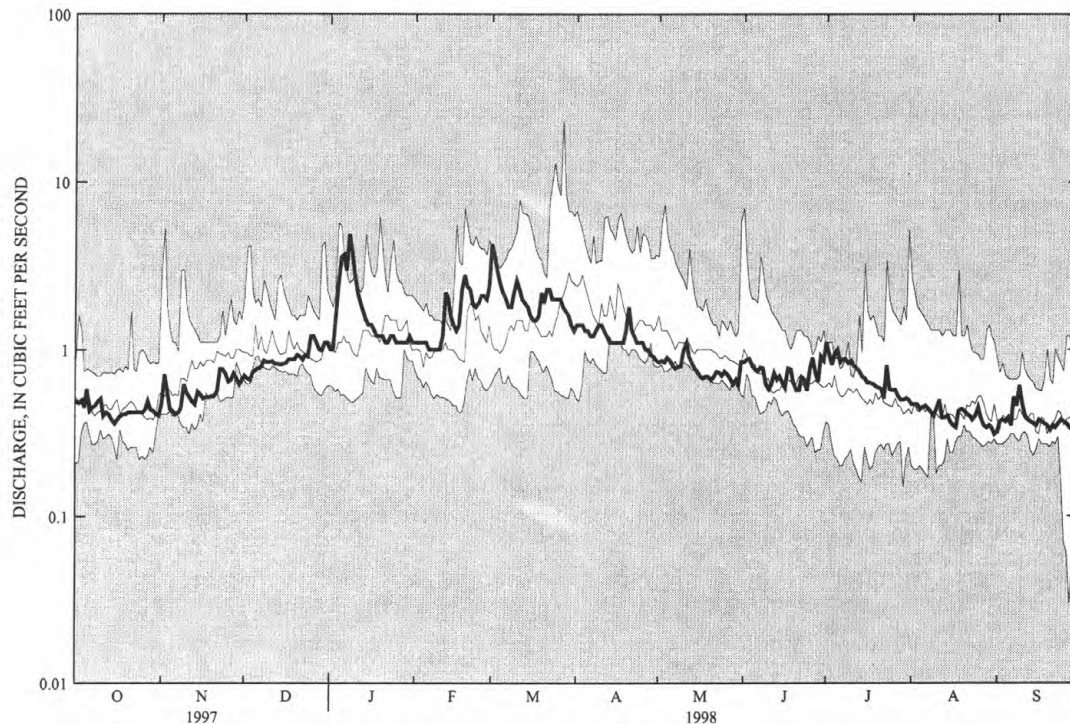
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04237946 ONONDAGA CREEK TRIBUTARY NO. 6 BELOW MAIN MUDBOIL DEPRESSION AREA AT TULLY, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1998, BY WATER YEAR (WY)

MEAN	.49	.84	1.18	1.51	1.40	2.24	2.08	1.20	.81	.65	.56	.42
MAX	.78	1.24	1.90	2.82	3.05	5.20	4.49	2.56	1.76	1.47	1.32	.77
(WY)	1993	1997	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992
MIN	.29	.51	.76	.67	.66	.93	1.04	.71	.41	.28	.35	.29
(WY)	1994	1994	1994	1994	1995	1995	1995	1995	1995	1995	1993	1996

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1992 - 1998	
ANNUAL TOTAL	310.29		350.88			
ANNUAL MEAN	.85		.96		1.11	
HIGHEST ANNUAL MEAN					2.20	1992
LOWEST ANNUAL MEAN					.71	1995
HIGHEST DAILY MEAN	2.3	Feb 27	4.9	Jan 8	23	Mar 27 1992
LOWEST DAILY MEAN	.27	Sep 1	.31	Aug 31	.03	Sep 27 1996
ANNUAL SEVEN-DAY MINIMUM	.30	Aug 27	.34	Aug 27	.07	Sep 24 1996
INSTANTANEOUS PEAK FLOW					45	Mar 27 1992
INSTANTANEOUS PEAK STAGE					2.90	Jan 19 1996
INSTANTANEOUS LOW FLOW					.00	Jul 29 1993
ANNUAL RUNOFF (CFSM)	2.66		3.00		3.48	
ANNUAL RUNOFF (INCHES)	36.07		40.79		47.26	
10 PERCENT EXCEEDS	1.5		1.9		2.0	
50 PERCENT EXCEEDS	.80		.77		.82	
90 PERCENT EXCEEDS	.38		.39		.35	



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

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

WATER-QUALITY RECORDS

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

CHEMICAL DATA: 1992-98 (b).

SEDIMENT DATA: 1992-98 (e).

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT CONCENTRATION: October 1991 to current year.

SUSPENDED-SEDIMENT DISCHARGE: October 1991 to current year.

EXTREMES FOR PERIOD OF RECORD.--

SUSPENDED-SEDIMENT CONCENTRATION: Maximum daily mean 27,200 mg/L, Oct. 1, 1991; minimum daily mean 22 mg/L, Aug.19, 1993.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily mean 148 tons, Mar.11, 1992; minimum daily mean 0.02 tons, on many days during August and September 1993.

EXTREMES FOR CURRENT YEAR.--

SUSPENDED-SEDIMENT CONCENTRATION: Maximum daily mean 662 mg/L, Sept. 26; minimum daily mean 138 mg/L, Jan. 6.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily mean 2.1 tons, Jan. 8; minimum daily mean 0.19 tons, Nov. 4, 5.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

WATER-QUALITY DATA

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN, DIS- SOLVED CENT SOLVED (MG/L) (00300)	HARD- NESS TOTAL AS (MG/L CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)
NOV												
17...	1045	.51	7780	7.4	3.0	10.6	84	780	180	83	1180	3.8
FEB												
10...	1000	1.0	6010	7.6	2.5	--	--	650	150	67	962	3.0
MAY												
28...	0915	.67	6380	7.4	15.2	6.6	--	670	150	72	1060	3.6
JUL												
20...	1215	.67	7080	7.5	21.1	6.0	--	720	160	79	1230	3.3

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	ALKA- LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	BICAR- BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
NOV											
17...	2200	230	194	237	8.4	4300	63	259	.31	248	.34
FEB											
10...	1700	200	190	232	6.5	3310	<50	101	2.6	252	.58
MAY											
28...	1900	220	168	205	7.4	3740	<50	344	2.9	286	.49
JUL											
20...	2100	250	180	220	7.7	4260	<50	128	3.5	325	.64

STREAMS TRIBUTARY TO LAKE ONTARIO

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

SEDIMENT, SUSPENDED CONCENTRATION (MG/L), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	200	353	341	280	353	177	167	254	290	258	354	355
2	200	349	349	243	359	177	168	259	291	252	359	348
3	200	268	355	211	366	176	169	258	293	247	364	341
4	201	156	340	183	373	175	171	255	294	242	369	335
5	201	167	319	157	378	175	172	251	295	237	374	328
6	201	178	300	138	356	174	173	247	296	245	379	322
7	202	189	282	145	326	173	174	244	294	260	384	317
8	223	202	265	156	298	175	175	240	290	275	390	322
9	253	215	266	169	273	176	177	237	287	292	395	330
10	288	228	272	182	253	178	178	236	284	309	400	338
11	327	233	278	196	247	180	180	235	281	327	406	346
12	369	236	285	205	242	181	187	234	278	346	411	355
13	357	238	291	212	238	183	196	233	275	346	407	364
14	323	241	298	219	233	185	205	232	272	337	399	379
15	292	243	305	227	229	186	214	231	269	329	391	396
16	273	246	312	235	224	185	223	230	267	321	389	415
17	325	249	319	243	220	182	233	229	269	313	388	434
18	399	254	326	252	216	179	243	230	273	305	388	454
19	411	260	334	260	212	177	243	231	276	301	387	474
20	406	266	341	270	208	174	241	232	280	321	386	496
21	401	272	349	279	204	171	239	234	284	327	386	519
22	397	278	357	289	200	169	237	235	288	329	385	539
23	392	284	365	299	196	166	235	237	292	332	385	559
24	388	291	374	305	193	164	233	245	296	334	384	581
25	383	298	382	311	189	163	231	255	293	336	384	603
26	379	304	391	316	186	164	230	265	287	338	383	626
27	374	311	400	322	182	164	233	276	281	340	383	624
28	370	319	409	328	179	164	238	285	275	343	382	431
29	366	326	414	334	---	165	243	287	269	345	376	365
30	362	333	371	340	---	165	249	288	263	347	369	354
31	357	---	322	346	---	166	---	289	---	350	362	---
MEAN	317	260	333	247	255	174	209	248	283	309	384	422
MAX	411	353	414	346	378	186	249	289	296	350	411	626
MIN	200	156	265	138	179	163	167	229	263	237	354	317

STREAMS TRIBUTARY TO LAKE ONTARIO

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

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.21	.46	.65	.77	1.0	2.0	.64	.58	.66	.77	.45	.31
2	.26	.67	.63	.67	1.0	1.7	.64	.60	.69	.64	.46	.35
3	.27	.43	.64	.83	1.1	1.4	.63	.58	.69	.54	.46	.35
4	.25	.19	.68	1.3	1.1	1.2	.62	.62	.63	.61	.44	.34
5	.31	.19	.65	1.5	1.1	1.1	.60	.58	.60	.65	.45	.35
6	.23	.20	.62	1.4	1.0	.93	.57	.54	.59	.56	.47	.31
7	.25	.21	.60	1.2	.89	.85	.56	.51	.62	.61	.45	.44
8	.28	.25	.61	2.1	.81	.86	.64	.51	.60	.65	.44	.40
9	.34	.36	.60	1.7	.74	1.0	.67	.51	.48	.65	.43	.55
10	.40	.34	.61	1.3	.71	1.3	.65	.66	.44	.72	.49	.43
11	.35	.32	.64	1.2	.79	1.1	.61	.69	.47	.70	.55	.37
12	.42	.31	.63	1.0	1.4	.99	.60	.57	.54	.72	.43	.36
13	.40	.30	.64	1.0	1.3	.92	.60	.52	.49	.69	.43	.37
14	.33	.36	.65	.89	1.0	.89	.61	.48	.51	.63	.43	.37
15	.28	.36	.68	.86	.88	.82	.66	.46	.46	.59	.39	.37
16	.28	.34	.69	.88	.81	.77	.68	.44	.43	.54	.37	.42
17	.35	.35	.75	.86	.85	.74	.69	.41	.56	.53	.36	.43
18	.44	.36	.76	.85	1.3	.79	.69	.43	.56	.51	.45	.44
19	.46	.37	.78	.83	1.6	1.1	.88	.43	.47	.49	.46	.44
20	.46	.38	.86	.84	1.3	.87	1.2	.41	.43	.51	.45	.44
21	.46	.41	.86	.85	1.2	1.1	.87	.44	.43	.51	.42	.49
22	.45	.57	.84	.86	1.1	1.0	.78	.47	.53	.45	.41	.50
23	.45	.58	.92	.93	.93	.92	.71	.46	.52	.71	.40	.54
24	.44	.56	.92	.98	.97	.87	.67	.46	.45	.52	.42	.60
25	.44	.51	1.3	.96	1.1	.88	.67	.51	.61	.51	.46	.61
26	.45	.54	1.3	.94	1.0	.90	.65	.51	.69	.52	.41	.61
27	.50	.61	1.2	.94	.98	.80	.63	.50	.56	.49	.36	.57
28	.44	.58	1.1	.94	1.2	.74	.60	.48	.48	.46	.35	.38
29	.42	.55	1.1	.96	---	.70	.60	.51	.66	.46	.35	.33
30	.41	.60	1.1	1.1	---	.63	.57	.47	.61	.48	.33	.34
31	.39	---	.92	1.1	---	.59	---	.66	---	.47	.31	---
TOTAL	11.42	12.26	24.93	32.54	29.16	30.46	20.19	16.00	16.46	17.89	13.08	12.81
MEAN	.37	.41	.80	1.0	1.0	.98	.67	.52	.55	.58	.42	.43
MAX	.50	.67	1.3	2.1	1.6	2.0	1.2	.69	.69	.77	.55	.61
MIN	.21	.19	.60	.67	.71	.59	.56	.41	.43	.45	.31	.31

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

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PARTICLE-DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
WATER QUALITY DATA

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SEDI- MENT, MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV					
03...	1600	.67	148	.27	99
JAN					
06...	1140	3.4	134	1.2	91
11...	1700	1.9	199	1.0	97
JUN					
06...	1730	.67	296	.54	99
16...	1600	.54	266	.39	99
24...	2000	.54	297	.43	99
JUL					
05...	1845	.85	235	.54	99
12...	1830	.70	352	.67	98
19...	1515	.59	297	.47	100
SEP					
07...	1515	.54	315	.46	99

STREAMS TRIBUTARY TO LAKE ONTARIO
04238500 ONONDAGA RESERVOIR NEAR NEDROW, NY

LOCATION.--Lat 42°55'51", long 76°10'24", Onondaga County, Hydrologic Unit 04140201, at Onondaga Dam on Onondaga Creek, 3.5 mi southwest of Nedrow, 4.0 mi south of Syracuse, and 10.5 mi upstream from Onondaga Lake.

DRAINAGE AREA.--67.7 mi².

PERIOD OF RECORD.--June 1949 to September 1952 (monthly elevations and contents), October 1952 to February 1998 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is sea level (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by a rolled earthfill dam, completed by Corps of Engineers in August 1949 for flood control; first used for flood regulation about a year prior to completion. Usable capacity, 18,200 acre-ft between elevations 457.0 ft, conduit invert at intake, and 504.5 ft crest of spillway. No dead storage. The flood-control works consist of a pressure conduit and a side-channel spillway and are not provided with gates. Water is stored during high flows and released gradually. Storage includes minor diversion from Gate House Pond in headwaters of West Branch Tioughnioga River basin.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 485.9 ft, Apr. 1, 1960, contents, 5,960 acre-ft; no contents many days.

EXTREMES FOR CURRENT PERIOD.--October 1997 to February 1998: Maximum elevation, 476.10 ft, Jan. 9, contents, 2,300 acre-ft; minimum elevation, 459.44 ft, Oct. 15-17, no contents many days.

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

460.00	0	470.00	700
461.00	5	473.00	1,420
462.00	15	478.00	2,880
464.00	50	482.00	4,230
467.00	225	486.00	6,010

ELEVATION (FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	459.56	459.58	460.65	460.39	460.90	---	---	---	---	---	---	---
2	459.58	459.71	460.59	460.50	460.88	---	---	---	---	---	---	---
3	459.59	460.67	460.32	461.07	460.84	---	---	---	---	---	---	---
4	459.58	460.38	460.33	464.53	460.81	---	---	---	---	---	---	---
5	459.58	460.07	460.51	468.03	460.76	---	---	---	---	---	---	---
6	459.61	459.91	460.43	470.84	460.59	---	---	---	---	---	---	---
7	459.60	459.83	460.33	472.80	460.48	---	---	---	---	---	---	---
8	459.57	459.78	460.32	473.33	460.42	---	---	---	---	---	---	---
9	459.54	459.81	460.29	475.84	460.39	---	---	---	---	---	---	---
10	459.51	460.09	460.21	475.00	460.37	---	---	---	---	---	---	---
11	459.49	460.11	460.18	472.23	460.47	---	---	---	---	---	---	---
12	459.47	460.01	460.15	468.29	462.08	---	---	---	---	---	---	---
13	459.46	459.90	460.13	463.77	464.51	---	---	---	---	---	---	---
14	459.45	459.83	460.11	462.69	462.68	---	---	---	---	---	---	---
15	459.45	459.81	460.04	462.18	461.70	---	---	---	---	---	---	---
16	459.44	459.81	460.03	462.19	461.38	---	---	---	---	---	---	---
17	459.45	459.80	460.08	462.07	461.31	---	---	---	---	---	---	---
18	459.45	459.80	460.10	461.91	463.59	---	---	---	---	---	---	---
19	459.45	459.80	460.07	461.73	466.55	---	---	---	---	---	---	---
20	459.45	459.82	460.12	461.56	467.63	---	---	---	---	---	---	---
21	459.46	459.85	460.23	461.39	466.03	---	---	---	---	---	---	---
22	459.47	460.05	460.13	461.20	464.21	---	---	---	---	---	---	---
23	459.49	460.35	460.12	461.10	463.39	---	---	---	---	---	---	---
24	459.49	460.45	460.20	461.34	463.21	---	---	---	---	---	---	---
25	459.50	460.31	460.48	461.31	463.07	---	---	---	---	---	---	---
26	459.50	460.14	461.58	461.09	463.86	---	---	---	---	---	---	---
27	459.52	460.58	461.76	460.85	463.71	---	---	---	---	---	---	---
28	459.56	460.64	461.23	460.86	463.68	---	---	---	---	---	---	---
29	459.57	460.49	460.76	460.75	---	---	---	---	---	---	---	---
30	459.57	460.40	460.39	461.00	---	---	---	---	---	---	---	---
31	459.58	---	460.17	461.14	---	---	---	---	---	---	---	---
MEAN	459.52	460.06	460.39	464.29	462.48	---	---	---	---	---	---	---
MAX	459.61	460.67	461.76	475.84	467.63	---	---	---	---	---	---	---
MIN	459.44	459.58	460.03	460.39	460.37	---	---	---	---	---	---	---
†	0	2.25	1.30	5.60	65.3	---	---	---	---	---	---	---
††	0	+0.04	-0.02	+0.07	+1.07	---	---	---	---	---	---	---

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

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

STREAMS TRIBUTARY TO LAKE ONTARIO
04239000 ONONDAGA CREEK AT DORWIN AVENUE, SYRACUSE, NY

233

LOCATION.--Lat 42°59'00", long 76°09'04", Onondaga County, Hydrologic Unit 04140201, on left bank 550 ft upstream from bridge on Dorwin Avenue, at Syracuse, and 4.0 mi downstream from Onondaga Reservoir.

DRAINAGE AREA.--88.5 mi².

PERIOD OF RECORD.--May 1951 to current year.

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Water-stage recorder and artificial control. Datum of gage is 414.19 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are fair. High flows regulated by Onondaga Reservoir (see station 04238500). Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,260 ft³/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, 1,310 ft³/s, Jan. 8, gage height, 4.68 ft; minimum discharge, 16 ft³/s, Aug. 24, Sep. 2, 6, gage height, 1.36 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	26	120	e90	113	665	250	109	85	241	30	18
2	36	68	99	e110	115	765	311	108	62	217	27	17
3	30	99	83	e200	115	730	268	108	75	128	26	19
4	28	60	93	514	113	583	231	107	59	104	25	18
5	45	47	99	770	109	424	207	114	52	177	25	17
6	35	40	91	941	95	329	188	101	48	126	26	17
7	28	35	86	892	90	280	172	93	46	97	26	27
8	25	34	87	1140	e85	272	170	89	47	106	24	34
9	22	63	83	996	84	517	224	87	46	98	22	56
10	21	80	76	906	86	685	216	111	43	100	22	58
11	21	66	76	808	96	564	178	205	41	76	38	34
12	21	54	74	622	239	370	158	177	56	63	29	26
13	20	44	73	302	341	287	148	129	68	57	24	22
14	20	43	71	222	e180	268	143	105	68	51	22	22
15	22	45	e65	190	e150	247	147	94	58	49	21	20
16	22	45	e70	196	e130	222	152	86	53	45	22	23
17	22	45	71	184	135	208	147	79	69	47	20	23
18	21	45	71	174	339	221	147	73	86	41	25	21
19	21	45	68	163	566	330	140	71	64	39	27	19
20	22	49	77	154	575	402	346	68	51	37	23	19
21	23	53	79	144	437	352	250	63	44	36	20	21
22	25	81	e70	134	289	332	190	62	46	35	19	21
23	24	94	74	131	236	275	167	61	76	54	19	20
24	24	95	80	147	228	250	154	58	52	50	18	19
25	24	76	111	140	232	240	162	54	69	40	36	19
26	24	70	171	126	288	318	148	57	116	36	29	18
27	31	124	163	e110	264	469	140	54	109	33	24	19
28	31	102	130	116	301	413	128	50	76	32	21	20
29	28	96	102	110	---	328	119	52	124	33	18	19
30	25	93	e90	133	---	268	113	62	192	34	19	19
31	23	---	e80	129	---	232	---	54	---	33	19	---
TOTAL	808	1917	2783	10994	6031	11846	5514	2741	2081	2315	746	705
MEAN	26.1	63.9	89.8	355	215	382	184	88.4	69.4	74.7	24.1	23.5
MAX	45	124	171	1140	575	765	346	205	192	241	38	58
MIN	20	26	65	90	84	208	113	50	41	32	18	17

e Estimated

STREAMS TRIBUTARY TO LAKE ONTARIO
04239000 ONONDAGA CREEK AT DORWIN AVENUE, SYRACUSE, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1998, BY WATER YEAR (WY)

MEAN	64.1	107	143	140	166	263	265	140	92.2	58.5	40.8	43.7
MAX	328	312	365	355	390	535	758	301	563	166	125	216
(WY)	1978	1969	1973	1998	1990	1979	1993	1990	1972	1992	1992	1975
MIN	15.3	19.3	31.7	33.7	40.8	93.3	112	58.1	32.2	19.5	10.7	13.2
(WY)	1965	1965	1961	1961	1963	1983	1981	1995	1995	1962	1965	1964

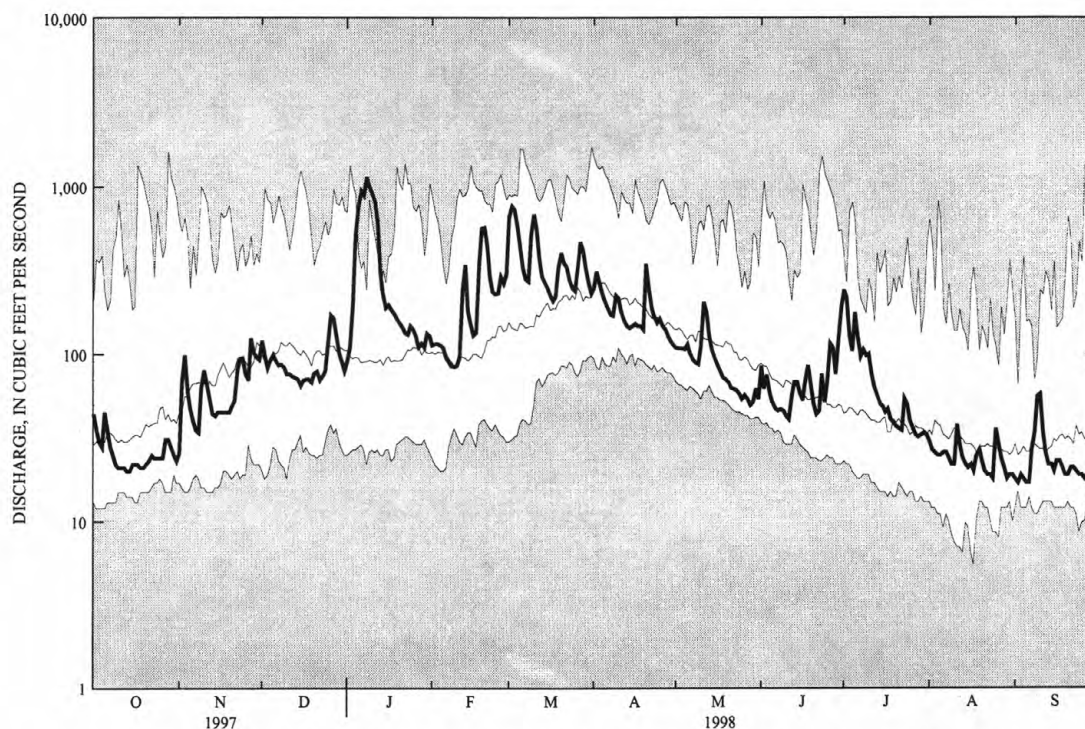
SUMMARY STATISTICS

FOR 1997 CALENDAR YEAR

FOR 1998 WATER YEAR

WATER YEARS 1951 - 1998

ANNUAL TOTAL	38381		48481									
ANNUAL MEAN	105		133							127		
HIGHEST ANNUAL MEAN										198		1978
LOWEST ANNUAL MEAN										58.8		1965
HIGHEST DAILY MEAN	601	Feb 22	1140	Jan 8						1710	Mar 31	1960
LOWEST DAILY MEAN	18	Aug 9	17	Sep 2						5.5	Aug 17	1965
ANNUAL SEVEN-DAY MINIMUM	19	Aug 6	18	Aug 31						7.4	Aug 11	1965
10 PERCENT EXCEEDS	233		294							259		
50 PERCENT EXCEEDS	81		76							80		
90 PERCENT EXCEEDS	22		21							24		



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

STREAMS TRIBUTARY TO LAKE ONTARIO

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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 mi².

PERIOD OF RECORD.--Occasional discharge measurements, water years 1958-70. September 1970 to current year.

REVISED RECORDS.--WRD NY 1972: 1971(M). WRD NY 1975: 1972(M), 1974(M). WDR NY-81-3: Drainage area. WRD NY-89-3: 1971-72(M), 1974-80(M), 1982-84(M), 1986(M), 1988(M).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 362.29 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are fair. High flows regulated by Onondaga Reservoir (see station 04238500). Flow may be affected by backwater from Onondaga Lake at times when the lake elevation exceeds 365.00 ft. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,050 ft³/s, July 3, 1974, gage height, 8.73 ft, from rating curve extended above 1,600 ft³/s on basis of runoff comparisons with nearby stations; minimum, 20 ft³/s, Sep. 26, 1985, gage height, 2.16 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,720 ft³/s, Jan. 8, gage height, 6.83 ft; minimum discharge, 34 ft³/s, Sep. 6, gage height, 2.31 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	57	155	117	161	723	346	144	109	268	54	37
2	60	124	133	135	163	816	380	142	99	244	52	43
3	56	120	112	204	162	782	330	141	97	154	50	37
4	53	79	124	551	158	651	289	139	83	148	50	37
5	87	65	130	792	154	506	261	145	75	200	49	37
6	54	58	122	1020	138	411	239	129	71	151	49	36
7	47	54	115	938	129	359	220	122	69	132	50	133
8	43	53	115	1420	125	359	221	117	70	173	47	56
9	41	89	111	e1100	123	590	278	115	69	125	46	90
10	40	103	105	e1000	124	732	268	154	66	130	65	85
11	40	86	104	e900	135	619	225	254	66	104	61	58
12	40	73	102	e680	279	451	202	220	81	91	52	49
13	39	63	101	e500	394	363	194	164	89	84	47	45
14	39	62	100	e350	238	346	188	134	88	78	45	43
15	39	64	87	e250	169	322	191	120	79	75	44	43
16	40	65	95	e280	166	294	197	113	77	73	46	45
17	40	64	102	e260	184	277	195	105	117	74	44	44
18	39	64	101	241	381	290	189	97	104	68	55	42
19	40	65	99	226	603	389	189	97	85	66	49	41
20	42	68	108	214	609	467	405	103	73	63	45	40
21	43	72	111	202	492	431	314	98	66	62	43	41
22	46	105	86	190	356	414	244	96	66	84	41	42
23	46	121	106	187	300	357	217	96	103	96	40	40
24	45	124	113	204	296	328	202	92	73	77	156	38
25	45	104	154	194	286	315	211	88	85	65	92	38
26	50	97	219	178	351	400	192	90	174	61	51	39
27	55	158	212	159	331	542	181	87	134	59	45	45
28	55	134	175	166	405	492	167	82	99	56	42	39
29	51	126	e140	158	---	410	157	94	177	58	39	39
30	49	130	e120	183	---	348	149	88	223	58	40	38
31	48	---	104	179	---	308	---	102	---	56	39	---
TOTAL	1480	2647	3761	13178	7412	14092	7041	3768	2867	3233	1628	1440
MEAN	47.7	88.2	121	425	265	455	235	122	95.6	104	52.5	48.0
MAX	87	158	219	1420	609	816	405	254	223	268	156	133
MIN	39	53	86	117	123	277	149	82	66	56	39	36

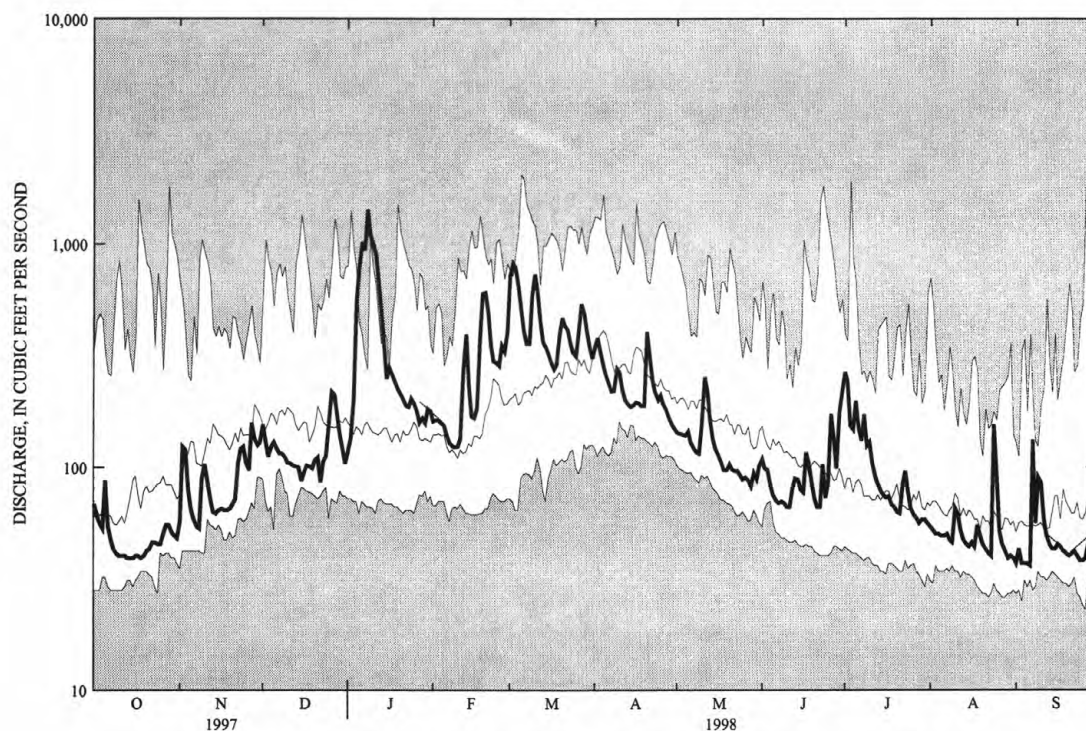
e Estimated

STREAMS TRIBUTARY TO LAKE ONTARIO
04240010 ONONDAGA CREEK AT SPENCER STREET, SYRACUSE, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1998, BY WATER YEAR (WY)

MEAN	113	162	205	193	215	329	354	202	143	103	77.4	86.0
MAX	424	324	452	425	457	653	935	379	617	237	171	275
(WY)	1978	1978	1973	1998	1976	1979	1993	1976	1972	1974	1992	1975
MIN	39.2	60.3	102	73.6	70.4	123	153	78.8	49.3	39.6	37.0	36.2
(WY)	1984	1972	1989	1981	1980	1983	1995	1995	1995	1995	1987	1995

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1970 - 1998	
ANNUAL TOTAL	50209		62547			
ANNUAL MEAN	138		171		182	
HIGHEST ANNUAL MEAN					273	
LOWEST ANNUAL MEAN					100	
HIGHEST DAILY MEAN	624		Feb 22		1420	
LOWEST DAILY MEAN	39		Aug 8		36	
ANNUAL SEVEN-DAY MINIMUM	39		Oct 12		38	
10 PERCENT EXCEEDS	282				370	
50 PERCENT EXCEEDS	117				105	
90 PERCENT EXCEEDS	42				43	



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

STREAMS TRIBUTARY TO LAKE ONTARIO
04240100 HARBOR BROOK AT SYRACUSE, NY

237

LOCATION.--Lat 43°02'09", long 76°10'55", Onondaga County, Hydrologic Unit 04140201, on left bank 160 ft upstream from bridge on Holden Street at Syracuse, 220 ft downstream from gated outlet of Velasko Road Detention Basin, and 2.6 mi upstream from mouth.

DRAINAGE AREA.--10.0 mi².

PERIOD OF RECORD.--June 1959 to current year.

REVISED RECORDS.--WSP 2112: Drainage area. WDR NY-82-3: 1981 (M), WDR-NY-88-3: 1986-87 (M).

GAGE.--Water-stage recorder. Datum of gage is 391.16 ft above sea level. Prior to Sept. 30, 1978, at site 1,660 ft upstream and Oct. 1, 1978 to May 31, 1980, at site 1,800 ft upstream at datum 3.63 ft higher.

REMARKS.--Records poor. Flow includes some sewage and storm sewer inflow, some originating outside the basin. Flows can be regulated at detention basin by Onondaga County. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 726 ft³/s, July 3, 1974, gage height, 8.34 ft, datum then in use, from rating curve extended above 180 ft³/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, Sep. 11, 14, 1998, result of regulation for maintenance work in the channel.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 208 ft³/s, Jan. 8, gage height, 4.51 ft; no flow for part of each day Aug. 20, 26, Sep. 11, 14, result of regulation for maintenance work in the channel.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	7.9	5.4	4.5	7.4	56	19	e7.0	5.9	13	e3.2	3.3
2	3.0	17	4.3	4.7	7.3	55	16	e7.0	7.9	e6.0	e3.0	4.9
3	3.5	4.5	3.9	13	7.1	37	14	e7.0	6.0	e5.5	e3.0	4.2
4	3.0	4.1	5.0	57	6.9	29	13	e7.0	5.6	e9.0	e3.0	4.3
5	10	3.3	3.9	71	6.8	26	12	e6.5	5.6	e10	e3.2	4.0
6	2.6	3.0	3.8	94	6.5	22	11	e7.0	5.7	e5.5	e4.0	4.2
7	2.6	2.9	3.8	57	6.3	20	11	6.5	5.7	e6.5	e4.0	29
8	2.5	3.2	3.7	157	6.2	24	12	6.3	5.8	e16	e4.0	8.8
9	2.8	6.9	3.6	63	6.0	44	11	6.3	6.1	4.1	e4.0	16
10	3.2	3.7	3.7	40	5.8	41	11	11	5.9	3.8	11	7.1
11	3.2	3.7	3.6	34	6.0	25	10	11	5.6	e3.8	5.2	4.5
12	3.2	3.3	3.7	29	26	21	9.7	8.0	7.5	e3.5	4.0	5.8
13	3.3	3.4	3.6	27	14	20	9.5	6.4	5.8	e3.5	4.0	5.6
14	3.0	3.7	3.4	20	7.7	20	9.3	6.1	5.3	e3.5	3.7	4.5
15	2.9	3.7	3.2	18	6.7	18	9.1	5.8	5.1	e3.0	4.0	4.5
16	2.8	3.9	3.3	16	6.3	17	8.9	5.6	5.6	e3.5	4.5	4.7
17	2.9	3.8	3.4	15	8.7	16	9.5	5.7	9.3	e4.0	4.2	4.3
18	2.9	4.0	3.5	14	26	17	8.5	5.6	5.4	e3.0	6.9	4.6
19	2.9	3.8	3.8	13	33	25	10	5.8	4.8	e3.0	3.5	4.4
20	2.9	3.8	4.3	12	20	22	17	5.8	5.0	e3.5	3.0	4.6
21	3.0	4.4	4.3	12	16	19	9.4	6.1	5.0	e3.5	3.7	4.7
22	2.9	5.4	4.2	11	13	18	8.8	5.9	5.6	e5.0	3.3	4.5
23	2.9	4.5	4.7	11	12	17	8.7	5.4	5.9	e7.5	2.7	4.3
24	2.8	4.2	4.7	10	13	16	8.8	5.5	6.2	2.9	8.9	4.5
25	2.9	3.8	10	9.7	12	16	9.7	5.5	7.1	2.8	13	4.3
26	4.2	4.6	9.6	9.2	14	30	8.3	5.4	13	2.8	2.0	5.0
27	5.1	6.5	6.0	8.8	16	23	e8.0	5.4	5.7	2.7	3.1	6.7
28	3.6	3.8	4.7	8.5	26	17	e8.0	5.4	4.4	4.0	2.3	4.2
29	3.3	3.6	4.4	8.4	---	16	e8.0	7.1	11	4.2	2.4	4.6
30	3.3	5.7	5.1	8.7	---	14	e7.5	5.4	16	e3.5	2.5	4.6
31	3.4	---	4.7	7.8	---	13	---	8.9	---	e3.5	2.8	---
TOTAL	104.4	140.1	139.3	864.3	342.7	754	316.7	203.4	199.5	156.1	132.1	180.7
MEAN	3.37	4.67	4.49	27.9	12.2	24.3	10.6	6.56	6.65	5.04	4.26	6.02
MAX	10	17	10	157	33	56	19	11	16	16	13	29
MIN	2.5	2.9	3.2	4.5	5.8	13	7.5	5.4	4.4	2.7	2.0	3.3

e Estimated

STREAMS TRIBUTARY TO LAKE ONTARIO
04240100 HARBOR BROOK AT SYRACUSE, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1998, BY WATER YEAR (WY)

MEAN	5.67	6.77	8.35	8.77	10.4	17.2	17.5	9.72	7.10	5.84	4.73	4.99
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

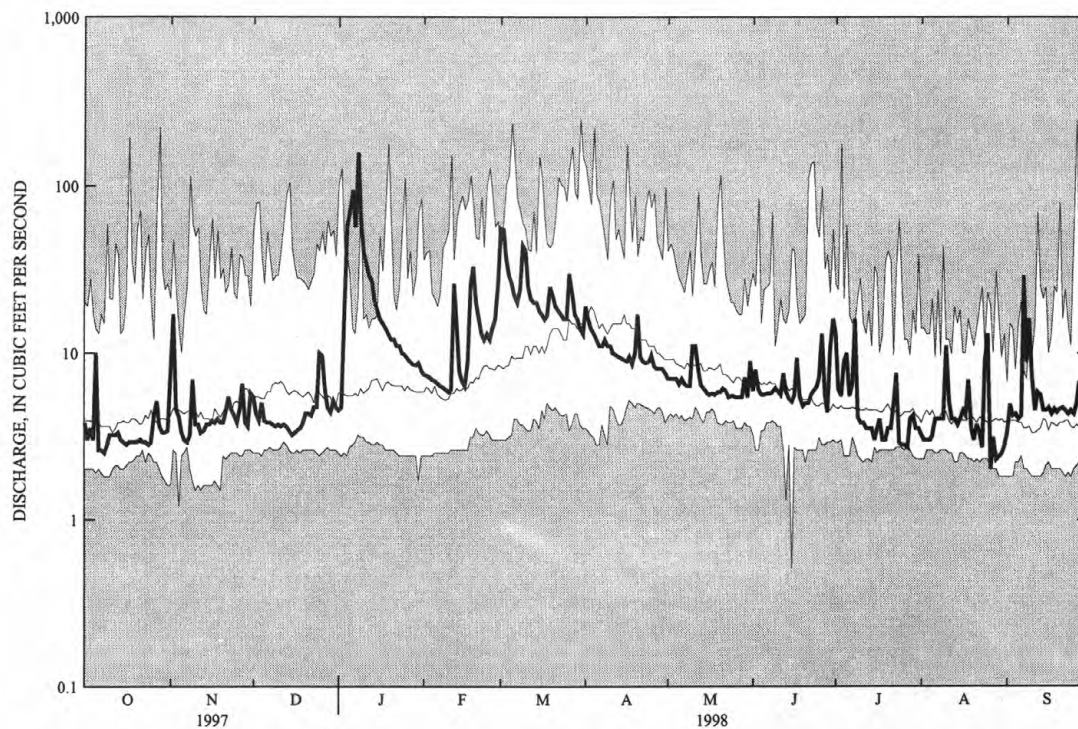
SUMMARY STATISTICS

FOR 1997 CALENDAR YEAR

FOR 1998 WATER YEAR

WATER YEARS 1959 - 1998

ANNUAL TOTAL	2525.1	3533.3	
ANNUAL MEAN	6.92	9.68	8.92
HIGHEST ANNUAL MEAN			15.7
LOWEST ANNUAL MEAN			4.53
HIGHEST DAILY MEAN	44 Feb 27	157 Jan 8	248 Mar 30
LOWEST DAILY MEAN	2.5 Oct 8	2.0 Aug 26	.51 Jun 15
ANNUAL SEVEN-DAY MINIMUM	2.9 Oct 6	2.6 Aug 26	1.6 Nov 10
10 PERCENT EXCEEDS	12	19	16
50 PERCENT EXCEEDS	5.7	5.7	5.6
90 PERCENT EXCEEDS	3.1	3.0	3.1



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

STREAMS TRIBUTARY TO LAKE ONTARIO

239

04240105 HARBOR BROOK AT HIAWATHA BOULEVARD, SYRACUSE, NY

LOCATION.--Lat 43°03'22", long 76°11'07", Onondaga County, Hydrologic Unit 04140201, on left bank 250 ft downstream from culvert on Hiawatha Boulevard, in Syracuse, and 0.5 mi upstream from mouth.

DRAINAGE AREA.--11.3 mi².

PERIOD OF RECORD.--Occasional discharge measurements, water years 1958-70. October 1970 to current year.

REVISED RECORDS.--WDR NY-76-1: 1971-75 (P).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 365.86 ft above sea level.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Flow includes some sewage and storm sewer inflow, some originating outside the basin. Flow can be regulated at Velasco Road Detention Basin 2.1 mi upstream. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 824 ft³/s, July 3, 1974, gage height, 7.91 ft, from rating curve extended above 76 ft³/s on basis of step-backwater computations; maximum gage height, 8.15 ft, Sep. 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, 620 ft³/s, July 8, gage height, 6.94 ft; minimum discharge not determined.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	6.0	5.6	4.8	8.0	63	22	7.1	6.0	16	e3.0	e3.5
2	2.9	16	4.2	5.1	8.1	61	17	7.0	e9.5	7.0	e3.0	e4.5
3	3.7	4.3	4.0	11	7.9	41	15	6.9	e5.5	6.1	e2.8	e3.5
4	3.0	4.3	5.2	53	7.8	30	14	6.9	e5.0	12	e3.0	3.2
5	9.2	3.5	4.1	65	7.6	27	13	6.7	4.6	12	e3.5	3.2
6	2.9	3.2	4.1	96	7.4	23	12	7.2	4.4	6.7	e4.0	3.2
7	2.8	3.2	4.2	54	7.2	20	11	6.7	4.3	8.3	e4.0	51
8	2.8	3.9	4.1	199	7.2	25	13	6.5	4.2	48	e3.5	7.4
9	2.7	7.3	3.9	70	7.0	50	12	6.4	4.1	8.5	e3.5	12
10	2.7	4.1	3.8	42	7.0	48	11	12	4.2	e6.0	e14	6.4
11	2.6	3.9	3.9	33	7.4	26	10	13	4.3	e5.0	e6.0	5.0
12	2.6	3.4	3.9	28	26	21	9.6	e9.0	6.9	e4.5	e5.0	5.2
13	2.6	3.3	3.9	26	14	20	9.3	e7.5	5.6	e4.5	e4.0	5.1
14	2.9	3.5	3.9	19	8.1	20	9.5	e7.0	5.8	e4.0	e4.0	5.2
15	3.2	3.5	4.0	17	7.3	18	9.4	e6.5	5.1	e3.5	e3.5	5.6
16	3.3	3.6	4.1	16	7.1	17	8.9	e6.5	6.0	e3.5	e3.5	5.8
17	3.2	3.4	4.0	14	11	16	9.7	e6.0	9.8	e4.0	3.8	5.4
18	3.2	3.4	3.9	13	26	17	8.4	e6.0	5.6	e3.0	5.4	5.4
19	3.2	3.5	4.0	12	33	24	10	e6.0	4.5	e3.0	e4.0	5.4
20	3.2	3.6	4.4	12	19	22	17	e6.5	4.4	e3.5	e3.5	5.4
21	3.2	4.3	4.2	11	16	19	e10	e6.5	4.3	3.6	e3.5	5.4
22	3.4	5.5	4.2	10	13	18	e8.5	e6.0	4.3	8.2	e4.0	5.4
23	3.5	4.5	5.1	10	12	17	e8.0	e6.0	7.0	10	e4.0	5.3
24	3.4	4.1	5.2	10	14	16	e7.5	e6.0	4.7	3.8	e30	5.4
25	3.5	3.8	9.8	9.6	13	16	9.4	e5.5	6.0	3.5	e16	5.4
26	4.2	4.6	9.4	9.0	15	30	7.7	e5.5	16	3.3	e3.0	5.9
27	5.1	6.6	6.6	8.6	16	24	7.5	e5.5	7.6	3.1	e4.0	6.6
28	4.0	4.2	5.3	8.4	33	18	7.3	e5.0	5.5	3.2	e3.0	4.9
29	3.4	3.9	4.9	8.3	---	17	7.3	e9.0	24	4.3	e3.0	4.9
30	3.3	6.3	5.5	9.0	---	15	7.2	5.7	16	4.0	e3.0	4.9
31	3.3	---	5.1	8.3	---	14	---	11	---	e3.5	e3.0	---
TOTAL	106.6	138.7	148.5	892.1	366.1	793	322.2	219.1	205.2	219.6	163.5	205.5
MEAN	3.44	4.62	4.79	28.8	13.1	25.6	10.7	7.07	6.84	7.08	5.27	6.85
MAX	9.2	16	9.8	199	33	63	22	13	24	48	30	51
MIN	2.6	3.2	3.8	4.8	7.0	14	7.2	5.0	4.1	3.0	2.8	3.2

e Estimated

STREAMS TRIBUTARY TO LAKE ONTARIO
04240105 HARBOR BROOK AT HIAWATHA BOULEVARD, SYRACUSE, NY--continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1998, BY WATER YEAR (WY)

MEAN	8.62	9.46	11.9	12.2	13.2	22.6	23.1	13.0	10.5	9.23	6.94	7.96
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	3.78	4.79	4.43	4.99	6.04	6.09	4.80	3.79	3.44	3.50	3.70
(WY)	1998	1979	1998	1983	1995	1983	1981	1981	1995	1995	1982	1997

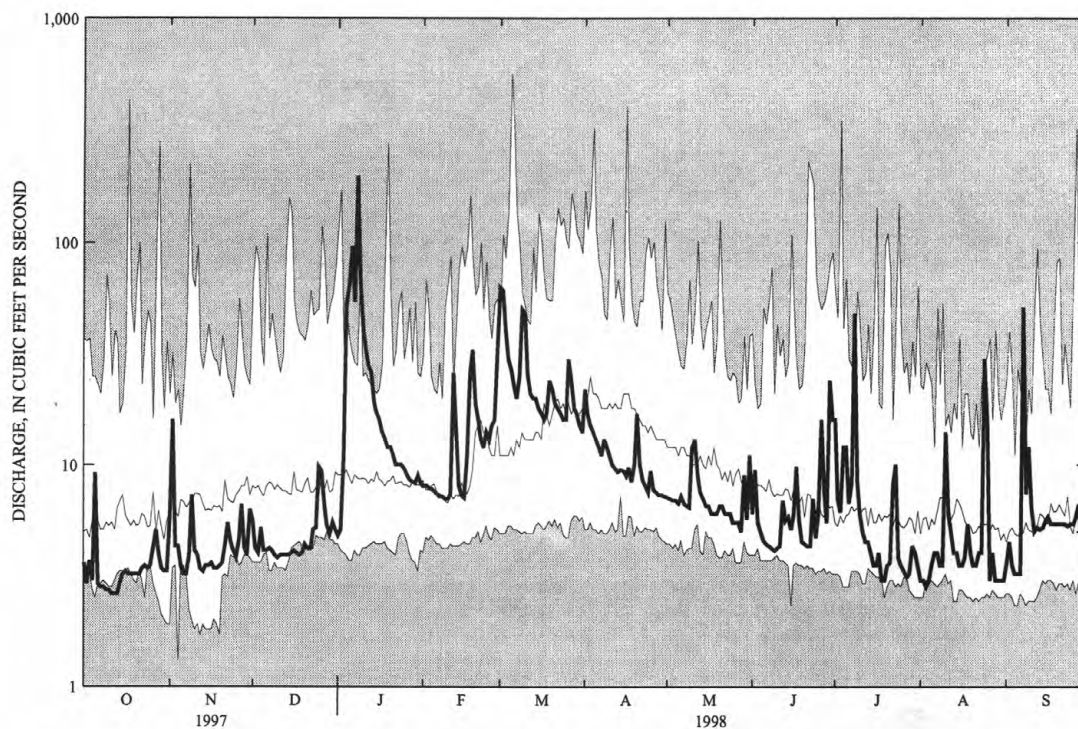
SUMMARY STATISTICS

FOR 1997 CALENDAR YEAR

FOR 1998 WATER YEAR

WATER YEARS 1971 - 1998

ANNUAL TOTAL	2668.7	3780.1	
ANNUAL MEAN	7.31	10.4	
HIGHEST ANNUAL MEAN			12.4
LOWEST ANNUAL MEAN			21.3
HIGHEST DAILY MEAN	51	Feb 27	199
LOWEST DAILY MEAN	2.6	Oct 11	2.6
ANNUAL SEVEN-DAY MINIMUM	2.7	Oct 7	2.7
INSTANTANEOUS LOW FLOW			1.3
10 PERCENT EXCEEDS	13	20	23
50 PERCENT EXCEEDS	6.0	6.0	7.8
90 PERCENT EXCEEDS	3.2	3.3	4.0



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

STREAMS TRIBUTARY TO LAKE ONTARIO

241

04240120 LEY CREEK AT PARK STREET, SYRACUSE, NY

LOCATION.--Lat 43°04'38", long 76°10'14", Onondaga County, Hydrologic Unit 04140201, on left bank 0.2 mi upstream from bridge on Park Street, and 0.4 mi upstream from mouth.

DRAINAGE AREA.--29.9 mi².

PERIOD OF RECORD.--Occasional discharge measurements water years 1959-72. December 1972 to current year.

REVISED RECORDS.--WDR NY 76-1: 1975 (M).

GAGE.--Water-stage recorder, crest-stage gage, and, since July 9, 1984, steel "I" beam control. Datum of gage is 362.76 ft above sea level. Prior to Oct. 1, 1978, at same site at datum 0.08 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow may be affected by backwater from Onondaga Lake at times when the lake elevation exceeds 364.5 ft. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,310 ft³/s, Sept. 26, 1975, gage height, 6.17 ft, from rating curve extended above 530 ft³/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 ft³/s and maximum(*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 8	1900	*699	4.14	Aug. 25	0230	603	3.81
Jan. 12	1030	Unknown	a*4.46				

a Backwater from Onondaga Lake.

Minimum discharge, 5.8 ft³/s, Aug. 3, gage height, 1.02 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	23	63	26	e30	e200	104	18	31	38	7.0	12
2	12	111	38	30	e30	e190	97	18	18	24	7.3	26
3	20	47	28	110	e30	e100	60	18	24	15	6.2	17
4	12	26	50	253	e30	e65	42	20	12	41	7.3	11
5	52	21	38	199	e28	e60	34	21	11	81	8.1	10
6	15	16	37	310	e25	e55	29	20	10	25	10	9.6
7	11	14	35	273	e25	e50	26	25	9.7	26	9.6	132
8	9.3	20	37	628	e25	e55	31	23	9.8	98	8.7	36
9	8.9	80	30	e340	e25	e150	35	21	9.3	41	8.2	69
10	8.7	45	26	e200	e25	e190	30	59	8.9	67	38	55
11	8.4	34	25	e130	e28	e120	26	122	10	25	60	26
12	8.0	34	27	e90	e90	e80	24	95	36	15	14	19
13	8.2	18	25	e60	e60	e50	23	46	19	11	9.1	16
14	8.7	17	25	e45	e40	e50	23	35	13	9.1	8.8	13
15	9.5	20	22	e35	e35	e50	23	30	17	8.1	8.1	13
16	10	26	22	e40	e30	46	23	25	25	7.9	8.1	28
17	10	24	22	e40	e35	42	33	23	150	10	8.9	14
18	9.6	23	23	e40	e110	48	26	20	40	7.3	22	13
19	9.0	23	23	e40	e170	82	33	17	20	6.9	11	12
20	9.5	27	37	41	e100	70	92	16	14	20	8.2	11
21	10	37	33	35	e80	70	47	15	11	9.4	8.2	23
22	13	63	23	31	e65	81	33	14	9.9	12	8.8	16
23	14	51	23	30	e55	77	28	14	24	92	8.9	11
24	12	42	28	43	e50	78	25	14	18	18	56	11
25	11	29	96	e40	e50	76	37	13	19	9.5	276	11
26	14	31	102	e35	e55	82	24	13	63	7.7	96	10
27	43	67	74	e30	e50	81	21	13	66	7.2	30	14
28	15	38	50	e30	e80	79	20	12	21	6.9	18	10
29	12	31	34	e30	---	73	19	21	68	20	18	9.9
30	11	63	23	e35	---	56	18	15	41	8.8	15	9.9
31	10	---	27	e35	---	42	---	30	---	7.7	13	---
TOTAL	421.8	1101	1146	3304	1456	2548	1086	846	828.6	775.5	816.5	668.4
MEAN	13.6	36.7	37.0	107	52.0	82.2	36.2	27.3	27.6	25.0	26.3	22.3
MAX	52	111	102	628	170	200	104	122	150	98	276	132
MIN	8.0	14	22	26	25	42	18	12	8.9	6.9	6.2	9.6
CFSM	.46	1.23	1.24	3.56	1.74	2.75	1.21	.91	.92	.84	.88	.75
IN.	.52	1.37	1.43	4.11	1.81	3.17	1.35	1.05	1.03	.96	1.02	.83

e Estimated

STREAMS TRIBUTARY TO LAKE ONTARIO
04240120 LEY CREEK AT PARK STREET, SYRACUSE, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1998, BY WATER YEAR (WY)

MEAN	35.9	49.4	55.0	42.9	50.4	74.1	73.8	40.5	30.4	27.7	23.4	30.0
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

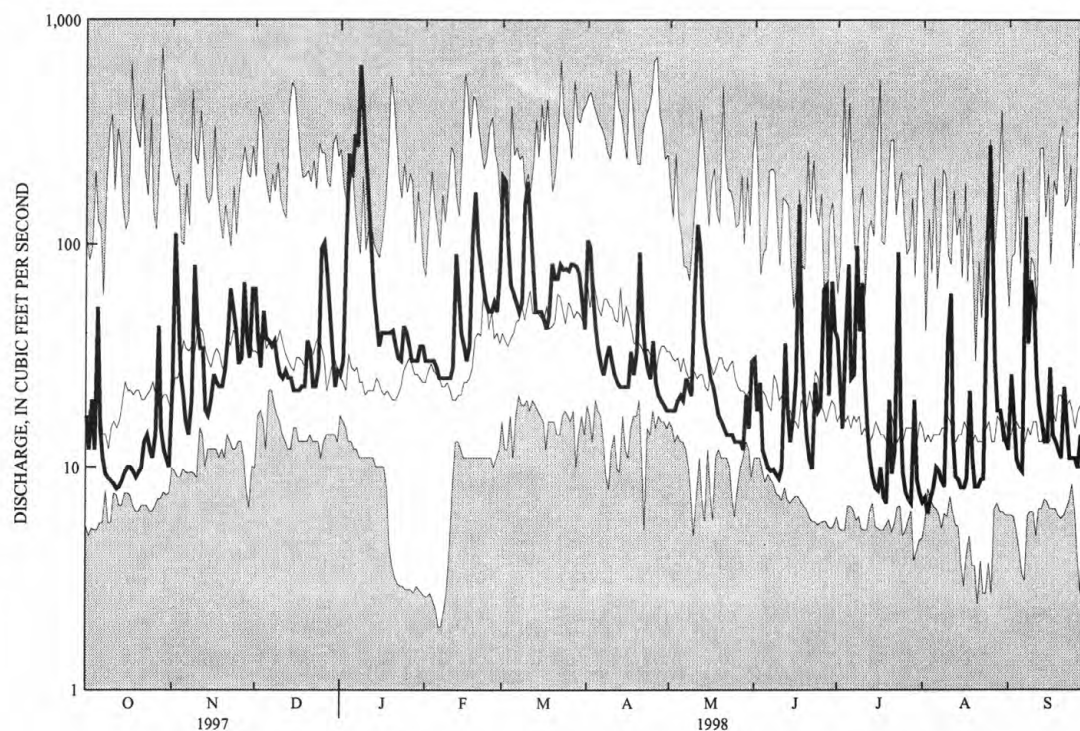
SUMMARY STATISTICS

FOR 1997 CALENDAR YEAR

FOR 1998 WATER YEAR

WATER YEARS 1973 - 1998

ANNUAL TOTAL	11673.0	14997.8	
ANNUAL MEAN	32.0	41.1	43.8
HIGHEST ANNUAL MEAN			69.8
LOWEST ANNUAL MEAN			24.8
HIGHEST DAILY MEAN	225	Feb 27	628
LOWEST DAILY MEAN	6.8	Aug 12	6.2
ANNUAL SEVEN-DAY MINIMUM	7.6	Aug 6	7.5
ANNUAL RUNOFF (CFSM)	1.07		1.37
ANNUAL RUNOFF (INCHES)	14.52		18.66
10 PERCENT EXCEEDS	67		81
50 PERCENT EXCEEDS	24		25
90 PERCENT EXCEEDS	8.5		9.4



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

STREAMS TRIBUTARY TO LAKE ONTARIO

243

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, 800 ft upstream from Spafford Creek, and 0.5 mi south of Sawmill Road.

DRAINAGE AREA.--Not determined.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1997 to current year.

GAGE.--Water-stage recorder, V-notch sharp-crested compound weir, and crest-stage gage. Elevation of gage is 820 ft above sea level, from topographic map.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2.5 ft³/s, occurred sometime during period Jan. 8, 1998 to Jan. 12, 1998, gage height, 2.65 ft, from crest-stage gage; minimum daily discharge, 0.008 ft³/s, Sep. 3, 4, 11, 12; minimum instantaneous discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2.5 ft³/s, occurred sometime during period Jan. 8, 1998 to Jan. 12, 1998, gage height, 2.65 ft, from crest-stage gage; minimum daily discharge, 0.008 ft³/s, Sep. 3, 4, 11, 12; minimum instantaneous discharge not determined.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.012	e.020	e.060	.073	e.14	.18	.13	.10	.041	.081	.039	.010
2	.011	e.040	e.040	.068	e.13	.16	.14	.11	.046	.075	.033	.012
3	.011	e.025	.041	.11	.12	.13	.16	.10	.038	.085	.033	.008
4	.011	e.020	.061	.10	.11	.12	.16	.099	.043	.10	.030	.008
5	.019	e.018	.039	.11	.10	.12	.15	.10	.042	.095	.029	.011
6	.011	e.016	.032	.11	.098	.12	.15	.099	.039	.072	.027	.014
7	.010	e.014	.037	.14	.093	.13	.16	.10	.033	.070	.024	.022
8	.010	e.016	.033	.16	.084	.13	.15	.098	.033	.086	.015	.019
9	.009	e.030	.028	.12	.078	.13	.17	.087	.028	.077	.015	.031
10	.009	e.025	.027	.13	.071	.13	.17	.11	.019	.072	.025	.020
11	.010	e.017	.027	e.25	.089	.12	.14	.13	e.019	.082	.018	.008
12	.010	e.016	.030	e.50	.13	.12	.14	.12	e.018	.083	.018	.008
13	.009	e.015	.029	e.35	.11	.11	.12	.11	e.018	.076	.019	e.010
14	.011	e.015	.030	e.25	.11	.11	.11	.097	e.017	.076	.020	e.010
15	.011	e.015	.034	e.20	.11	.11	.097	.078	e.017	.071	.020	e.011
16	.011	e.015	.042	e.19	.11	.11	.092	.072	.016	.067	.021	.014
17	.011	e.015	.043	e.18	.13	.11	.089	.062	.046	.063	.018	.013
18	.010	e.015	.054	e.18	.13	.12	.084	.065	.021	.060	.016	.019
19	.011	e.015	.048	e.18	.12	.12	.11	.055	.018	.058	.016	.022
20	.011	e.015	.052	e.18	.11	.11	.11	.051	.015	.057	.015	.017
21	.011	e.020	.047	e.18	.11	.13	.10	.046	.015	.051	.016	.012
22	.011	e.025	.039	e.18	.10	.13	.11	e.045	.017	.049	.014	.012
23	e.011	e.030	.038	e.22	.11	.13	.11	e.040	.021	.060	.012	.009
24	e.010	e.028	.040	e.20	.12	.13	.10	e.040	.024	.046	.020	.009
25	e.010	e.025	.049	e.19	.16	.13	.11	e.040	.031	.054	.012	.010
26	e.010	e.030	.046	e.19	.16	.15	.13	e.040	.046	.041	.011	.010
27	e.011	e.040	.054	e.18	.16	.13	.12	.037	.036	.039	.011	.009
28	e.010	e.045	.060	e.17	.19	.13	.12	.037	.039	.038	.011	.010
29	e.009	e.050	.056	e.16	---	.13	.11	.043	.12	.053	.009	.011
30	e.009	e.060	.064	e.16	---	.14	.11	.043	.083	.051	.011	.014
31	e.009	---	.065	e.15	---	.13	---	.045	---	.044	.010	---
TOTAL	0.329	0.730	1.345	5.561	3.283	3.95	3.752	2.299	0.999	2.032	0.588	0.393
MEAN	.011	.024	.043	.18	.12	.13	.13	.074	.033	.066	.019	.013
MAX	.019	.060	.065	.50	.19	.18	.17	.13	.12	.10	.039	.031
MIN	.009	.014	.027	.068	.071	.11	.084	.037	.015	.038	.009	.008
CF5M	.10	.22	.39	1.63	1.07	1.16	1.14	.67	.30	.60	.17	.12
IN.	.11	.25	.45	1.88	1.11	1.34	1.27	.78	.34	.69	.20	.13

e Estimated

STREAMS TRIBUTARY TO LAKE ONTARIO

0424014980 SPAFFORD CREEK TRIBUTARY NEAR SAWMILL ROAD, NEAR SPAFFORD, NY--Continued

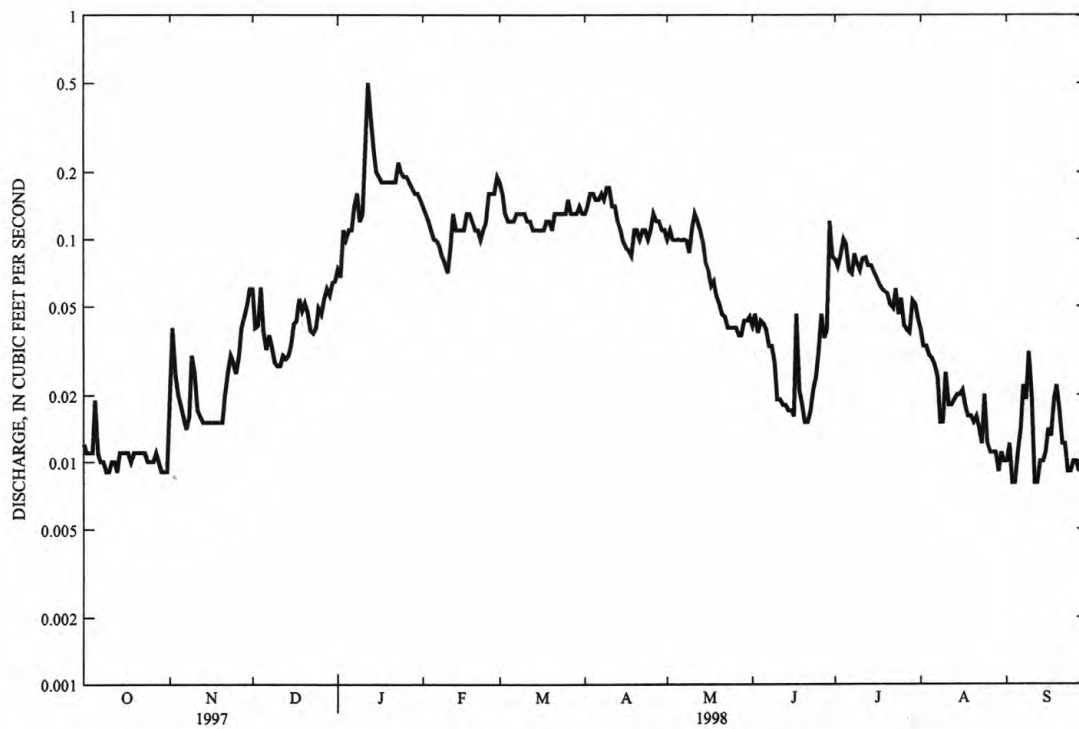
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 1998, BY WATER YEAR (WY)

MEAN	.010	.024	.043	.18	.12	.13	.13	.075	.034	.066	.019	.013
MAX	.010	.024	.043	.18	.12	.13	.13	.075	.034	.066	.019	.013
(WY)	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998
MIN	.010	.024	.043	.18	.12	.13	.13	.075	.034	.066	.019	.013
(WY)	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998

SUMMARY STATISTICS

FOR 1998 WATER YEAR

ANNUAL TOTAL	25.261
ANNUAL MEAN	.069
HIGHEST DAILY MEAN	.50 Jan 12
LOWEST DAILY MEAN	.008 Sep 3
ANNUAL SEVEN-DAY MINIMUM	.01 Oct 7
ANNUAL RUNOFF (CFSM)	.63
ANNUAL RUNOFF (INCHES)	8.54
10 PERCENT EXCEEDS	.15
50 PERCENT EXCEEDS	.05
90 PERCENT EXCEEDS	.01



1998 WATER YEAR DAILY DISCHARGE.

STREAMS TRIBUTARY TO LAKE ONTARIO

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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 1998 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 1.60 inches, June 29, 1998.

EXTREMES FOR CURRENT YEAR.-- Maximum daily precipitation 1.60 inches, June 29.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	.00	.45	.00	.00	.20	.00	.00
2	---	---	---	---	---	.00	.09	.08	.60	.00	.00	.30
3	---	---	---	---	.00	.01	.07	.03	.00	.00	.00	.00
4	---	---	---	---	.00	.04	.00	.03	.00	.50	.00	.00
5	---	---	---	---	.00	.06	.00	.01	.00	.00	.00	.00
6	---	---	---	---	.00	.00	.00	.00	.00	.00	.00	---
7	---	---	---	---	.00	.00	.00	.00	.00	.20	.00	---
8	---	---	---	---	.00	.21	.43	.02	.00	.10	.00	---
9	---	---	---	---	.00	.34	.23	.05	.00	.10	.00	---
10	---	---	---	---	.00	.23	.00	1.01	.10	.00	.80	---
11	---	---	---	---	.11	.00	.00	.55	.00	.00	.00	---
12	---	---	---	---	.50	.00	.00	.00	.40	.00	.10	---
13	---	---	---	---	.00	.00	.00	.00	.40	.00	.00	---
14	---	---	---	---	.00	.00	.00	.00	.10	.00	.00	---
15	---	---	---	---	.00	.00	.23	.00	.00	.00	.00	---
16	---	---	---	---	.00	.02	.00	.00	.00	.00	.00	---
17	---	---	---	---	.47	.01	.16	.00	1.10	.00	.00	---
18	---	---	---	---	.36	.11	.00	.00	.10	.00	.30	---
19	---	---	---	---	.32	.16	.93	.00	.00	.00	.00	---
20	---	---	---	---	.06	.02	.22	.00	.00	.00	.00	---
21	---	---	---	---	.02	.34	.00	.00	.00	.00	.00	---
22	---	---	---	---	.00	.00	.00	.00	.30	.00	.00	---
23	---	---	---	---	.00	.08	.00	.00	.00	.80	.00	---
24	---	---	---	---	.02	.03	.00	.00	.00	.00	.50	---
25	---	---	---	---	.61	.44	.13	.03	.60	.00	.00	---
26	---	---	---	---	.00	.00	.06	.00	.70	.00	.00	---
27	---	---	---	---	.00	.00	.00	.00	.20	.00	.10	---
28	---	---	---	---	.54	.08	.00	.00	.00	.00	.00	---
29	---	---	---	---	---	.00	.00	.20	1.60	.20	.10	---
30	---	---	---	---	---	.00	.00	.00	.60	.00	.00	---
31	---	---	---	---	---	.00	---	1.00	---	.00	.00	---
TOTAL	---	---	---	---	---	2.18	3.00	3.01	6.80	2.10	1.90	---
MAX	---	---	---	---	---	.44	.93	1.01	1.60	.80	.80	---

STREAMS TRIBUTARY TO LAKE ONTARIO
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 mi².

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1955, 1963. June 1964 to current year.

REVISED RECORDS.--WRD NY 1971: 1966(M), 1968, 1969. WDR NY-82-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 748.25 ft above sea level.

REMARKS.--Records fair. Flow regulated by Otisco Lake from which water is diverted by the Onondaga County Water Authority for water supply. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,030 ft³/s, June 23, 1972, gage height, 8.65 ft; minimum daily discharge, 0.80 ft³/s, Sep. 13, 1966; minimum instantaneous discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 288 ft³/s, Feb. 28, gage height, 4.79 ft; minimum daily discharge, 4.7 ft³/s, Jan. 2; minimum instantaneous discharge not determined.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e5.5	7.3	11	4.8	122	266	48	31	13	90	11	7.0
2	e5.0	10	8.3	4.7	121	263	54	30	13	90	11	e7.5
3	e5.0	e7.0	8.2	11	94	260	60	29	12	83	11	e7.0
4	e5.5	e6.5	9.7	32	42	252	62	29	12	81	11	e7.0
5	e7.0	e6.0	8.4	52	42	244	62	29	12	88	11	e6.8
6	e6.0	5.9	7.9	77	41	237	62	27	12	82	11	e6.5
7	e5.5	5.7	7.9	41	41	233	62	27	12	108	11	e10
8	e5.5	6.4	7.9	165	40	234	64	25	12	135	11	10
9	5.4	13	7.7	237	40	240	72	23	12	116	11	9.4
10	e5.0	9.7	7.3	245	41	244	74	28	12	95	11	8.4
11	e5.0	e8.0	7.0	231	42	235	73	45	12	59	11	8.1
12	e5.2	e7.5	7.1	215	63	233	71	50	13	52	10	8.1
13	e5.2	e7.0	7.1	202	49	232	68	46	12	38	8.8	8.0
14	e5.2	e7.0	6.9	183	44	231	66	42	12	18	9.0	e7.5
15	e5.2	e7.0	7.0	170	42	230	66	38	12	16	8.9	e7.5
16	e5.2	e7.0	7.1	166	42	229	68	33	12	14	8.7	e7.8
17	e5.2	6.8	7.3	156	47	228	66	31	32	13	8.6	e7.5
18	e5.2	6.7	7.1	148	71	169	63	27	15	13	9.1	e7.5
19	e5.2	6.7	7.1	140	80	54	65	24	13	12	8.9	e7.0
20	e5.0	7.0	8.7	133	92	51	88	22	12	12	8.7	e7.0
21	e5.0	8.2	7.5	128	132	50	90	19	12	12	8.5	e7.5
22	e5.0	11	6.9	126	129	48	87	16	12	12	8.1	e7.0
23	e5.0	11	8.3	127	127	108	84	15	12	13	7.9	e7.0
24	e5.0	9.8	8.1	126	131	227	80	14	12	12	7.5	e7.0
25	5.2	7.8	13	125	138	225	78	13	20	12	7.9	e7.0
26	5.3	9.4	15	124	165	236	75	13	21	12	7.0	e7.0
27	6.2	12	11	124	209	140	69	13	15	12	6.5	e7.0
28	5.3	8.8	9.1	123	245	45	65	13	13	12	6.6	e7.0
29	5.8	9.2	7.7	123	---	43	60	13	87	12	6.7	e7.0
30	e5.5	9.9	12	125	---	41	48	13	77	12	6.5	e7.0
31	e5.5	---	6.8	123	---	40	---	13	---	12	6.4	---
TOTAL	165.8	245.3	262.1	3987.5	2472	5568	2050	791	548	1348	281.3	226.1
MEAN	5.35	8.18	8.45	129	88.3	180	68.3	25.5	18.3	43.5	9.07	7.54
MAX	7.0	13	15	245	245	266	90	50	87	135	11	10
MIN	5.0	5.7	6.8	4.7	40	40	48	13	12	12	6.4	6.5

e Estimated

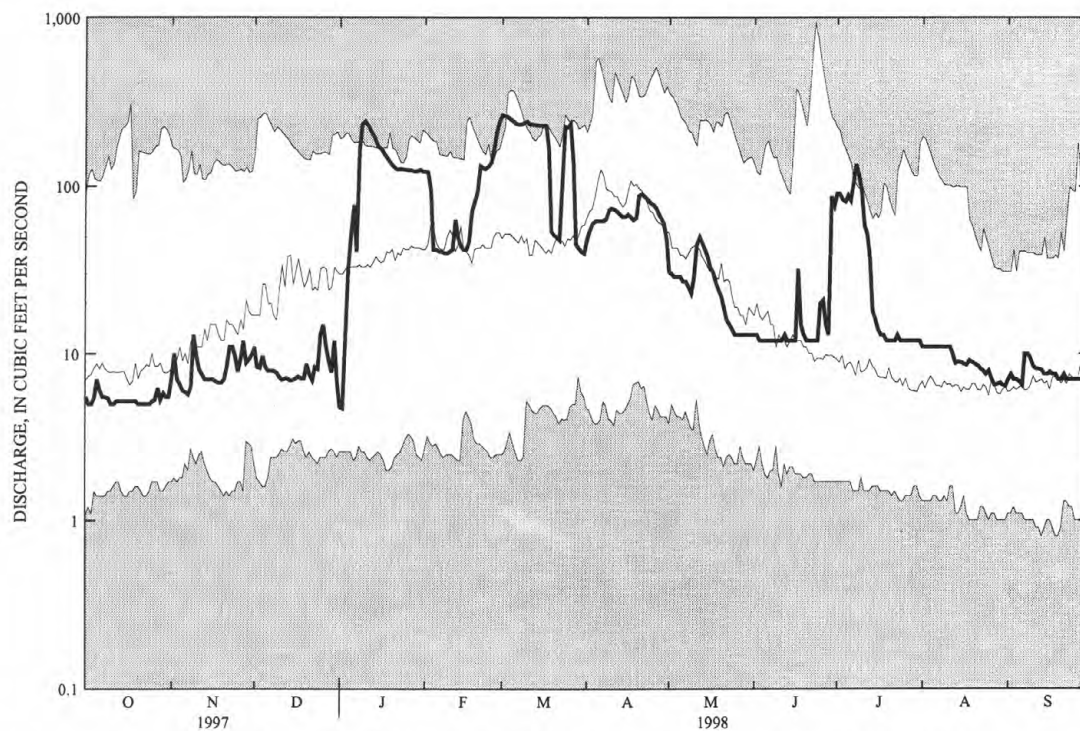
STREAMS TRIBUTARY TO LAKE ONTARIO
04240180 NINEMILE CREEK NEAR MARIETTA, NY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1998, BY WATER YEAR (WY)

MEAN	22.3	31.3	45.3	53.8	54.6	64.4	98.5	48.9	28.5	17.7	11.3	11.6
MAX	147	125	160	157	143	180	352	138	278	74.0	76.2	36.2
(WY)	1978	1978	1997	1973	1990	1998	1993	1996	1972	1972	1992	1989
MIN	1.52	2.47	3.42	2.75	3.10	5.23	5.80	3.24	2.17	1.65	1.28	1.16
(WY)	1967	1967	1966	1981	1967	1965	1965	1965	1965	1981	1966	1966

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1964 - 1998	
ANNUAL TOTAL	11836.4		17945.1			
ANNUAL MEAN	32.4		49.2		40.6	
HIGHEST ANNUAL MEAN					76.3	1976
LOWEST ANNUAL MEAN					3.95	1965
HIGHEST DAILY MEAN	170	Apr 4	266	Mar 1	931	Jun 23 1972
LOWEST DAILY MEAN	5.0	Oct 2	4.7	Jan 2	.80	Sep 13 1966
ANNUAL SEVEN-DAY MINIMUM	5.1	Oct 18	5.1	Oct 18	.89	Sep 13 1966
10 PERCENT EXCEEDS	110		140		107	
50 PERCENT EXCEEDS	10		12		15	
90 PERCENT EXCEEDS	5.7		6.4		3.4	



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

STREAMS TRIBUTARY TO LAKE ONTARIO
04240200 NINEMILE CREEK AT CAMILLUS, NY

LOCATION.--Lat 43°02'20", long 76°18'30", Onondaga County, Hydrologic Unit 04140201, on right bank 150 ft downstream from highway bridge on State Highway 5 (Main Street) in Camillus, 7.2 mi upstream from Onondaga Lake.

DRAINAGE AREA.--84.3 mi².

PERIOD OF RECORD.--July 1958 to September 1982, June 1988 to current year.

GAGE.--Water-stage recorder. Datum of gage is 398.56 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by Otisco Lake from which water is diverted by the Onondaga County Water Authority for water supply. Telephone gage-height telemeter at station. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,760 ft³/s, Mar. 30, 1960, gage height, 8.25 ft; maximum gage height, 10.83 ft, Sep. 26, 1975 (backwater from construction activities); minimum discharge, 16 ft³/s, Sep. 30, Oct. 1, 2, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 930 ft³/s, Jan. 8, gage height, 6.33 ft; minimum discharge, 26 ft³/s, Oct. 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	34	66	52	184	697	183	108	73	410	54	40
2	31	71	53	54	184	595	200	e105	66	271	54	42
3	31	72	48	87	182	516	194	e100	66	189	e54	41
4	32	48	56	313	129	448	184	e100	60	185	e53	40
5	38	44	54	403	126	421	177	e100	58	288	53	39
6	33	42	51	604	121	391	172	e96	57	190	53	38
7	31	38	49	337	118	367	161	e94	56	182	52	57
8	31	37	50	739	117	370	162	e86	55	239	50	57
9	30	50	49	691	116	474	185	e80	54	212	48	59
10	28	58	47	518	116	500	186	e96	52	194	51	50
11	28	48	47	396	118	418	175	e140	52	124	55	44
12	29	43	46	329	204	380	166	e200	58	100	50	43
13	29	40	47	312	211	368	161	e160	61	88	48	42
14	29	41	46	268	e125	367	152	e145	63	53	46	42
15	29	41	45	245	e120	358	156	e130	59	50	45	42
16	29	40	46	240	120	347	156	117	64	48	45	43
17	29	40	48	229	129	344	160	111	187	46	44	42
18	29	40	48	220	271	352	153	104	124	47	47	41
19	29	40	47	210	355	220	150	101	71	49	46	41
20	30	42	52	202	255	228	235	97	57	50	44	40
21	30	44	54	195	261	200	196	93	51	50	43	42
22	31	58	46	190	231	195	181	87	49	51	43	41
23	30	62	51	191	215	188	175	82	48	64	43	40
24	31	63	55	195	221	368	165	77	48	54	43	40
25	32	50	94	192	240	377	168	75	79	54	50	39
26	32	49	142	187	267	482	155	73	113	54	42	39
27	37	72	100	184	328	535	147	70	108	54	39	40
28	35	56	73	183	406	203	139	68	70	54	38	39
29	33	52	e55	182	---	183	133	70	308	55	39	38
30	33	53	e45	192	---	170	128	68	301	55	38	38
31	32	---	51	189	---	155	---	67	---	54	41	---
TOTAL	964	1468	1761	8529	5470	11217	5055	3100	2568	3614	1451	1279
MEAN	31.1	48.9	56.8	275	195	362	169	100	85.6	117	46.8	42.6
MAX	38	72	142	739	406	697	235	200	308	410	55	59
MIN	28	34	45	52	116	155	128	67	48	46	38	38

e Estimated

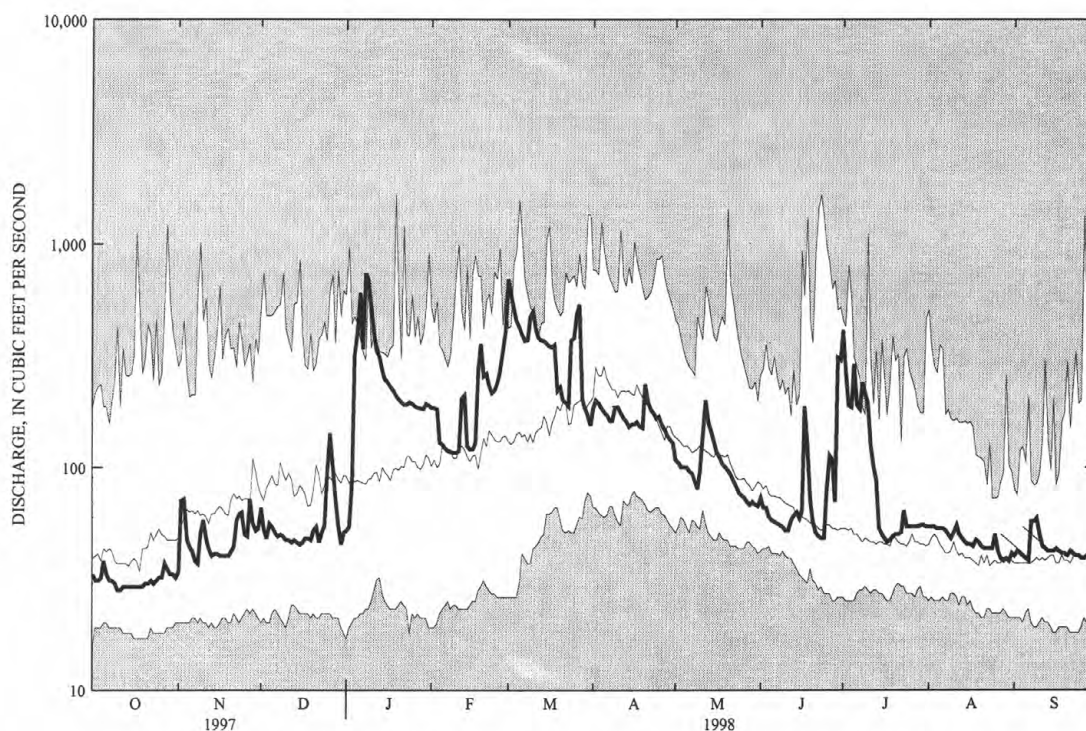
STREAMS TRIBUTARY TO LAKE ONTARIO
04240200 NINEMILE CREEK AT CAMILLUS, NY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1998, BY WATER YEAR (WY)

MEAN	64.4	97.8	120	133	144	206	239	131	91.0	66.9	48.2	48.0
MAX	263	259	320	331	361	398	655	273	503	190	162	136
(WY)	1978	1978	1973	1973	1990	1979	1993	1976	1972	1972	1992	1975
MIN	20.0	22.2	25.0	23.8	28.3	63.3	82.4	51.0	36.6	30.5	24.3	21.0
(WY)	1967	1965	1963	1963	1963	1965	1965	1965	1962	1981	1966	1962

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1958 - 1998	
ANNUAL TOTAL	33623		46476			
ANNUAL MEAN	92.1		127		116	
HIGHEST ANNUAL MEAN					182	
LOWEST ANNUAL MEAN					41.9	
HIGHEST DAILY MEAN	421	Apr 4	739	Jan 8	1690	Jan 19 1996
LOWEST DAILY MEAN	28	Sep 5	28	Oct 10	16	Oct 1 1961
ANNUAL SEVEN-DAY MINIMUM	28	Sep 5	29	Oct 10	17	Oct 15 1988
10 PERCENT EXCEEDS	199		310		241	
50 PERCENT EXCEEDS	58		64		72	
90 PERCENT EXCEEDS	30		38		31	



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

STREAMS TRIBUTARY TO LAKE ONTARIO
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 mi².

PERIOD OF RECORD.--Occasional measurements, water years 1959-70. November 1970 to September 1973, July 1975 to current year.

REVISED RECORDS.--WDR NY-83-3: 1972 (M), 1976 (M), 1979 (M), 1982 (M). WRD NY 1997: 1976, 1977, 1978, 1979, 1980, 1981.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 360.67 ft above sea level.

REMARKS.--Records poor. Flow regulated by Otisco Lake from which water is diverted by Onondaga County Water Authority for water supply. Flow affected by backwater from Onondaga Lake whenever lake level exceeds about 362 ft msl. High lake levels affected the entire 1998 water year. Estimated water-discharge data is based on records for Ninemile Creek at Camillus (04240200) and Onondaga Lake at Liverpool (04240495). Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,110 ft³/s, June 23, 1972; maximum gage height, 9.63 ft, Apr. 27, 1993, (backwater from Onondaga Lake); minimum daily discharge, about 13 ft³/s, Aug. 18, 1985; maximum and minimum instantaneous discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, about 960 ft³/s, Jan. 8; maximum gage height, 6.94 ft, Jan. 8, (backwater from Onondaga Lake); minimum daily discharge, about 37 ft³/s, Oct. 11. Maximum and minimum instantaneous discharge not determined.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e42	e44	e85	e68	e240	e860	e240	e140	e95	e520	e64	e48
2	e42	e68	e70	e70	e240	e750	e270	e130	e85	e350	e64	e48
3	e40	e90	e64	e105	e240	e650	e260	e130	e85	e250	e64	e48
4	e40	e65	e75	e400	e170	e580	e240	e130	e80	e250	e62	e48
5	e50	e60	e72	e500	e160	e540	e230	e130	e80	e350	e62	e46
6	e44	e55	e68	e800	e160	e500	e220	e120	e78	e250	e62	e46
7	e42	e50	e65	e450	e150	e480	e210	e120	e76	e250	e62	e68
8	e40	e50	e65	e960	e150	e480	e210	e110	e76	e310	e60	e68
9	e40	e60	e65	e920	e150	e600	e230	e110	e74	e280	e58	e70
10	e38	e75	e62	e650	e150	e640	e240	e120	e72	e270	e60	e60
11	e37	e65	e62	e550	e150	e520	e230	e170	e72	e180	e66	e54
12	e38	e58	e60	e450	e230	e480	e220	e230	e80	e120	e62	e50
13	e38	e54	e62	e420	e260	e460	e210	e200	e85	e100	e58	e50
14	e38	e55	e60	e360	e170	e460	e200	e180	e85	e65	e56	e50
15	e38	e55	e60	e330	e160	e450	e200	e170	e80	e60	e54	e50
16	e38	e54	e60	e320	e150	e440	e200	e150	e85	e56	e54	e52
17	e38	e54	e64	e310	e170	e440	e210	e140	e250	e54	e52	e50
18	e38	e55	e64	e300	e340	e450	e200	e130	e170	e56	e56	e50
19	e38	e60	e62	e280	e450	e280	e190	e125	e100	e56	e54	e50
20	e38	e58	e66	e270	e350	e290	e310	e120	e80	e60	e52	e48
21	e38	e60	e70	e260	e340	e260	e260	e115	e70	e60	e52	e50
22	e40	e75	e64	e250	e300	e250	e240	e110	e68	e62	e52	e50
23	e40	e80	e68	e250	e280	e240	e220	e105	e65	e75	e52	e48
24	e42	e80	e72	e260	e290	e480	e210	e100	e65	e65	e52	e48
25	e43	e68	e95	e250	e310	e500	e210	e100	e100	e65	e60	e46
26	e43	e65	e160	e240	e350	e570	e200	e95	e150	e65	e50	e46
27	e48	e90	e120	e240	e430	e700	e190	e90	e140	e65	e46	e48
28	e47	e80	e90	e240	e520	e270	e180	e90	e100	e65	e45	e46
29	e44	e68	e70	e240	---	e240	e170	e90	e400	e66	e46	e45
30	e44	e70	e60	e250	---	e220	e160	e85	e390	e66	e45	e45
31	e42	---	e66	e250	---	e200	---	e85	---	e64	e48	---
TOTAL	1268	1921	2246	11243	7060	14280	6560	3920	3436	4605	1730	1526
MEAN	40.9	64.0	72.5	363	252	461	219	126	115	149	55.8	50.9
MAX	50	90	160	960	520	860	310	230	400	520	66	70
MIN	37	44	60	68	150	200	160	85	65	54	45	45

e Estimated

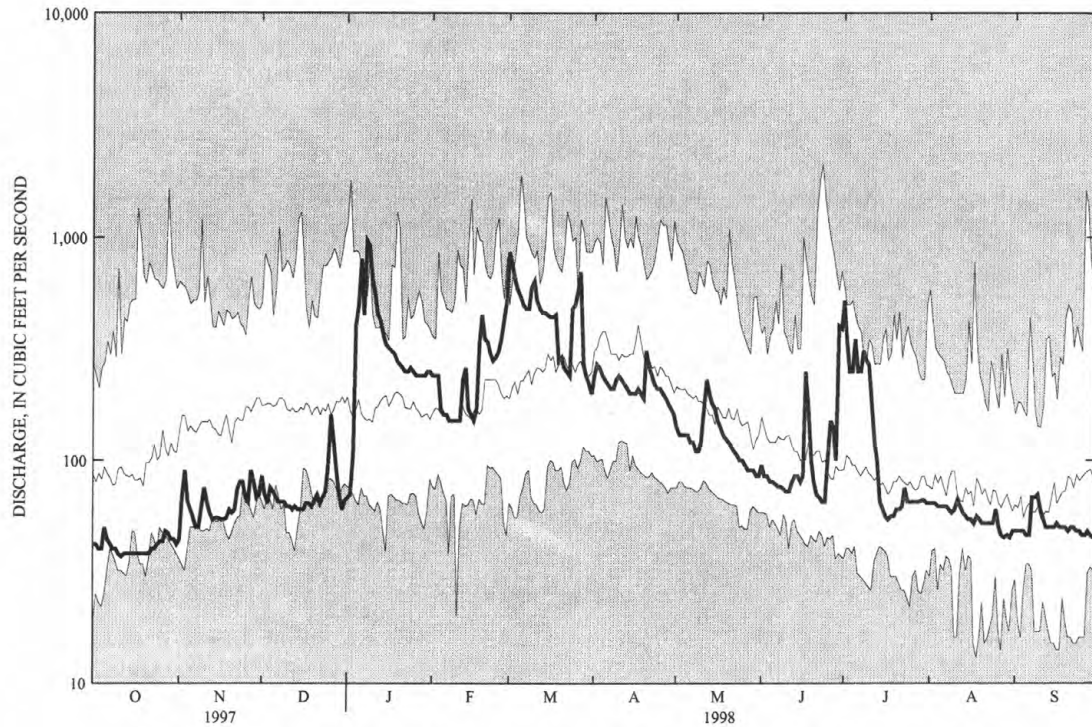
STREAMS TRIBUTARY TO LAKE ONTARIO
04240300 NINEMILE CREEK AT LAKELAND, NY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1998, BY WATER YEAR (WY)

MEAN	127	174	218	213	228	316	341	208	148	106	89.7	94.1
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	56.0	72.5	81.8	86.0	112	100	69.1	52.6	44.2	28.6	33.0
(WY)	1998	1992	1998	1984	1989	1983	1995	1995	1981	1981	1985	1985

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR			FOR 1998 WATER YEAR			WATER YEARS 1971 - 1998		
ANNUAL TOTAL	40159			59795					
ANNUAL MEAN	110			164			184		
HIGHEST ANNUAL MEAN							310		
LOWEST ANNUAL MEAN							91.2		
HIGHEST DAILY MEAN	470	Apr	4	960	Jan	8	2110	Jun	23
LOWEST DAILY MEAN	34	Sep	5	37	Oct	11	13	Aug	18
ANNUAL SEVEN-DAY MINIMUM	34	Sep	5	38	Oct	10	16	Sep	20
10 PERCENT EXCEEDS	230			400			379		
50 PERCENT EXCEEDS	72			85			136		
90 PERCENT EXCEEDS	38			46			54		



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

STREAMS TRIBUTARY TO LAKE ONTARIO
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 mi².

PERIOD OF RECORD.--October 1970 to current year. Elevation records, at Barge Canal datum, since February 1927 collected by, and in files of, New York State Department of Transportation at Syracuse.

GAGE.--Water-stage recorder. Datum of gage is sea level. To convert elevations to adjustment of 1988, subtract 0.59 ft.

REMARKS.--Lake elevation regulated by operation of Erie (Barge) Canal. Area of water surface, 4.60 mi².

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 369.78 ft, Apr. 26, 27, 1993; minimum, 361.54 ft, Mar. 13, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 367.27 ft, Jan. 13; minimum, 362.81 ft, Aug. 8, but may have been lower during period of missing record, Oct. 10 to Nov. 18.

ELEVATION (FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	363.21	---	363.88	363.62	363.38	364.99	363.97	363.44	363.18	364.11	363.01	363.11
2	363.08	---	363.87	363.56	363.33	365.21	363.95	363.41	363.21	364.04	363.00	363.08
3	363.18	---	363.83	363.69	363.40	365.33	363.77	363.45	363.21	363.83	362.99	363.07
4	363.15	---	363.83	364.06	363.64	365.33	363.54	363.45	363.19	363.63	362.95	363.07
5	363.16	---	363.90	364.45	363.93	365.21	363.30	363.49	363.15	363.72	362.93	363.07
6	363.07	---	363.85	364.76	364.14	365.02	363.07	363.44	363.08	363.78	362.91	363.07
7	363.20	---	363.85	364.63	364.19	364.78	363.11	363.44	363.10	363.78	362.87	363.16
8	363.04	---	363.85	365.41	364.13	364.58	363.36	363.49	363.11	363.87	362.84	363.11
9	363.17	---	363.86	366.44	364.10	364.69	363.43	363.50	363.05	363.87	362.84	363.23
10	---	---	363.83	366.90	364.05	364.98	363.43	363.54	363.06	363.90	362.86	363.13
11	---	---	363.84	367.12	364.01	365.04	363.72	363.72	363.06	363.92	363.02	363.04
12	---	---	363.81	367.23	364.16	364.93	363.75	363.82	363.11	363.76	363.10	363.06
13	---	---	363.82	367.19	364.39	364.70	363.72	363.99	363.10	363.49	363.02	363.03
14	---	---	363.80	366.97	364.34	364.50	363.69	364.14	363.18	363.36	362.99	363.02
15	---	---	363.80	366.58	364.22	364.36	363.73	364.13	363.24	363.33	362.98	363.02
16	---	---	363.72	366.13	364.13	364.17	363.75	364.07	363.24	363.32	362.97	363.06
17	---	---	363.74	365.56	364.08	363.99	363.59	364.01	363.41	363.30	362.95	363.02
18	---	---	363.73	364.99	364.28	363.88	363.37	363.94	363.63	363.27	362.95	363.04
19	---	363.58	363.72	364.47	364.69	363.89	363.31	363.83	363.72	363.13	362.96	363.04
20	---	363.57	363.73	364.08	364.74	363.97	363.38	363.74	363.63	363.14	362.95	363.01
21	---	363.55	363.75	363.78	364.84	364.04	363.39	363.74	363.55	363.14	363.02	363.02
22	---	363.62	363.72	363.54	364.87	364.12	363.63	363.65	363.41	363.13	363.07	363.04
23	---	363.64	363.71	363.63	364.78	364.13	363.70	363.65	363.35	363.31	363.03	363.00
24	---	363.70	363.63	363.69	364.67	364.12	363.71	363.57	363.32	363.24	363.07	362.99
25	---	363.70	363.71	363.69	364.59	364.12	363.73	363.45	363.32	363.12	363.23	362.96
26	---	363.75	363.83	363.65	364.56	364.16	363.64	363.46	363.45	363.19	363.20	362.96
27	---	363.87	363.93	363.55	364.54	364.47	363.58	363.33	363.60	363.12	363.20	363.00
28	---	363.82	363.92	363.48	364.54	364.58	363.55	363.19	363.63	363.12	363.21	363.00
29	---	363.81	363.85	363.46	---	364.52	363.50	363.18	363.71	363.07	363.18	363.00
30	---	363.83	363.87	363.45	---	364.38	363.47	363.10	364.00	363.05	363.15	363.01
31	---	---	363.75	363.44	---	364.16	---	363.09	---	363.03	363.09	---
MEAN	---	---	363.80	364.75	364.24	364.53	363.56	363.60	363.33	363.45	363.02	363.05
MAX	---	---	363.93	367.23	364.87	365.33	363.97	364.14	364.00	364.11	363.23	363.23
MIN	---	---	363.63	363.44	363.33	363.88	363.07	363.09	363.05	363.03	362.84	362.96

STREAMS TRIBUTARY TO LAKE ONTARIO
04243500 ONEIDA CREEK AT ONEIDA, NY

253

LOCATION.--Lat 43°05'51", long 75°38'22", Oneida County, Hydrologic Unit 04140202, on right bank 70 ft upstream from bridge on Sconondoa Street at Oneida, and 500 ft downstream from Sconondoa Creek.

DRAINAGE AREA.--113 mi².

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

REVISED RECORDS.--WSP 2112: Drainage area. WDR NY-78-1: 1951, 1956, 1958, 1961, 1963, 1964, 1972, 1976 (P). WDR NY-83-3: 1950 (M), 1977 (M), 1979 (M).

GAGE.--Water-stage recorder. Datum of gage is 409.33 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Occasional regulation by small mills upstream from station. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,110 ft³/s, Oct. 9, 1976, gage height, 15.01 ft; minimum discharge, 12 ft³/s, Aug. 5, 6, 1962, Oct. 28, 1964; minimum gage height, 1.30 ft, Aug. 3, 6, 1955, Aug. 17, 1964.

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

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 8	1130	*2,860	*10.10	Mar. 10	1100	2,100	8.56

Minimum discharge, 21 ft³/s, Aug. 10, gage height, 1.69 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	33	318	e100	106	1040	342	88	94	125	29	25
2	30	64	168	e120	104	1060	414	98	63	102	27	26
3	29	90	119	202	109	861	310	129	98	70	26	34
4	31	60	133	e1100	105	558	256	309	54	85	25	28
5	92	58	134	1320	107	479	219	171	48	378	25	25
6	46	48	122	1580	98	386	190	135	44	121	31	24
7	33	42	108	1110	88	340	167	113	41	96	32	113
8	29	42	103	2180	94	345	162	89	44	120	26	61
9	29	94	96	1400	92	978	245	82	47	120	23	83
10	29	120	87	798	84	1650	195	189	39	93	25	86
11	29	77	85	484	98	719	158	466	38	77	70	52
12	28	60	83	355	438	455	140	359	59	64	56	42
13	28	51	81	339	440	388	129	189	187	56	33	37
14	28	51	79	265	e190	325	121	136	112	58	28	34
15	28	55	e68	274	e150	282	116	113	146	56	27	31
16	29	53	e72	268	e150	244	112	107	102	52	28	35
17	27	52	77	200	125	225	116	94	368	50	28	33
18	27	53	75	181	285	231	123	85	178	48	29	29
19	27	54	74	167	781	460	119	81	108	44	33	27
20	27	55	106	157	600	496	483	74	74	57	26	26
21	29	66	e94	144	435	397	258	67	58	52	24	27
22	27	124	e62	e120	307	354	176	64	51	51	24	29
23	29	129	e76	e140	248	298	145	59	59	134	25	26
24	29	130	78	153	227	284	131	53	101	81	31	23
25	29	94	108	139	213	281	133	50	57	55	84	24
26	29	95	279	e120	288	390	122	50	126	46	47	23
27	43	232	232	e125	273	666	114	54	303	42	34	26
28	43	149	162	e120	318	633	105	51	89	39	30	27
29	36	170	e105	e110	---	521	98	46	73	41	28	24
30	34	219	e85	119	---	372	92	48	80	35	27	24
31	32	---	e90	117	---	288	---	51	---	33	26	---
TOTAL	1020	2620	3559	14007	6553	16006	5491	3700	2941	2481	1007	1104
MEAN	32.9	87.3	115	452	234	516	183	119	98.0	80.0	32.5	36.8
MAX	92	232	318	2180	781	1650	483	466	368	378	84	113
MIN	27	33	62	100	84	225	92	46	38	33	23	23
CFSM	.29	.77	1.02	4.00	2.07	4.57	1.62	1.06	.87	.71	.29	.33
IN.	.34	.86	1.17	4.61	2.16	5.27	1.81	1.22	.97	.82	.33	.36

e Estimated

STREAMS TRIBUTARY TO LAKE ONTARIO
04243500 ONEIDA CREEK AT ONEIDA, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1998, BY WATER YEAR (WY)

MEAN	87.0	153	194	196	218	370	341	164	100	66.2	52.6	60.7
MAX	472	382	481	452	589	781	915	413	539	225	253	297
(WY)	1978	1973	1974	1998	1976	1977	1993	1996	1972	1951	1976	1977
MIN	21.5	30.5	39.6	38.9	50.5	131	109	61.0	32.6	23.2	18.8	18.0
(WY)	1964	1965	1961	1981	1980	1981	1981	1995	1995	1962	1995	1964

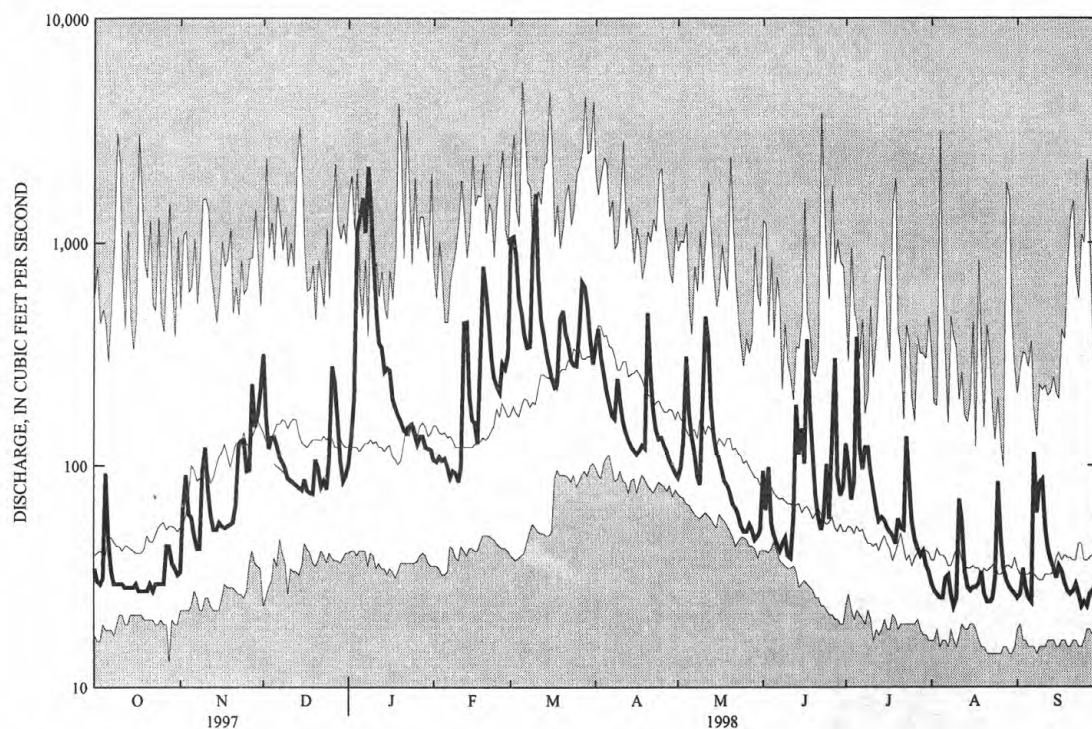
SUMMARY STATISTICS

FOR 1997 CALENDAR YEAR

FOR 1998 WATER YEAR

WATER YEARS 1950 - 1998

ANNUAL TOTAL	49500	60489	
ANNUAL MEAN	136	166	166
HIGHEST ANNUAL MEAN			284
LOWEST ANNUAL MEAN			89.7
HIGHEST DAILY MEAN	1330	Feb 22	5210
LOWEST DAILY MEAN	23	Aug 9	13
ANNUAL SEVEN-DAY MINIMUM	24	Aug 5	14
ANNUAL RUNOFF (CFSM)	1.20		1.47
ANNUAL RUNOFF (INCHES)	16.30		20.02
10 PERCENT EXCEEDS	302		359
50 PERCENT EXCEEDS	88		95
90 PERCENT EXCEEDS	27		30



1998 WATER YEAR DAILY DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

STREAMS TRIBUTARY TO LAKE ONTARIO
04245200 BUTTERNUT CREEK NEAR JAMESVILLE, NY

255

LOCATION.--Lat 42°56'02", long 76°03'44", Onondaga County, Hydrologic Unit 04140202, on left bank 15 ft downstream from bridge on Walberger Road, 125 ft downstream from tributary from Stebbins Gulf, 2.2 mi upstream from Jamesville Reservoir, and 4.0 mi south of Jamesville.

DRAINAGE AREA.--32.2 mi².

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1955-58. July 1958 to current year.

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 717.93 ft above sea level.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,820 ft³/s, July 3, 1974, gage height, 7.84 ft; maximum gage height, 9.20 ft, Jan 19, 1996 (ice jam); minimum discharge, 2.0 ft³/s, Sept. 27, 1959.

EXTREMES FOR CURRENT YEAR.-- Peak discharges greater than base discharge of 550 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 8	1600	*596	*8.18	No other peak greater than base discharge.			
Minimum discharge, 4.1 ft ³ /s, Oct. 18, 19, 20.							

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	6.4	47	27	39	244	120	40	56	129	8.4	5.3
2	11	30	35	30	39	233	117	40	26	96	8.0	5.4
3	9.7	31	28	e55	39	197	101	41	38	52	7.6	6.7
4	9.0	16	33	183	38	147	88	41	23	50	7.3	6.0
5	18	13	32	291	38	127	80	40	19	83	7.3	5.5
6	11	10	29	466	32	106	73	36	16	45	7.9	5.2
7	7.6	9.2	27	341	e30	97	67	34	15	39	7.6	11
8	5.9	9.7	26	534	e30	105	72	31	17	43	7.0	14
9	5.5	26	24	391	e30	288	87	31	16	38	6.3	34
10	5.2	27	22	248	e30	357	79	52	13	44	6.8	31
11	5.0	21	22	164	35	199	64	77	13	30	19	13
12	4.9	16	22	121	102	147	59	58	22	25	10	9.4
13	4.8	12	21	107	76	140	56	43	23	22	7.8	8.2
14	4.7	12	20	78	43	122	53	35	22	20	7.1	7.5
15	4.9	13	16	78	e42	108	55	32	20	19	7.0	7.1
16	5.6	14	20	79	44	96	54	30	22	17	6.5	8.5
17	4.5	14	21	70	47	87	54	28	69	16	6.3	8.0
18	4.3	14	20	65	125	89	52	26	70	15	8.2	6.8
19	4.3	14	20	62	189	155	59	23	35	13	8.3	6.5
20	4.4	16	24	58	129	148	130	21	23	13	6.5	6.5
21	5.1	18	19	54	99	123	77	19	17	12	6.3	8.8
22	5.3	29	14	49	76	112	63	19	29	11	6.1	11
23	4.9	32	19	49	68	97	58	18	38	31	5.8	8.1
24	4.6	32	21	59	63	86	54	16	22	18	6.6	6.7
25	4.8	24	34	52	60	84	60	15	38	13	13	6.5
26	4.8	29	44	46	68	161	52	17	65	12	8.4	6.4
27	7.8	47	38	49	65	209	48	14	53	10	6.8	7.0
28	6.7	36	31	42	94	180	45	14	31	9.6	6.0	7.1
29	6.2	38	24	41	---	158	42	19	72	11	6.1	6.4
30	5.7	41	e12	49	---	124	41	22	140	10	6.4	6.6
31	5.4	---	23	45	---	106	---	24	---	9.7	5.6	---
TOTAL	205.6	650.3	788	3983	1770	4632	2060	956	1063	956.3	238.0	280.2
MEAN	6.63	21.7	25.4	128	63.2	149	68.7	30.8	35.4	30.8	7.68	9.34
MAX	18	47	47	534	189	357	130	77	140	129	19	34
MIN	4.3	6.4	12	27	30	84	41	14	13	9.6	5.6	5.2
CFSM	.21	.67	.79	3.99	1.96	4.64	2.13	.96	1.10	.96	.24	.29
IN.	.24	.75	.91	4.60	2.04	5.35	2.38	1.10	1.23	1.10	.27	.32

e Estimated

STREAMS TRIBUTARY TO LAKE ONTARIO
04245200 BUTTERNUT CREEK NEAR JAMESVILLE, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1998, BY WATER YEAR (WY)

MEAN	27.8	45.9	56.9	57.3	66.4	102	110	53.4	31.8	20.5	13.5	16.6
MAX	138	124	145	161	191	198	377	141	200	71.6	45.7	66.6
(WY)	1978	1973	1973	1996	1976	1977	1993	1996	1972	1974	1992	1975
MIN	5.30	7.49	11.1	13.5	18.5	37.2	48.3	22.8	10.5	5.89	4.84	3.85
(WY)	1965	1965	1961	1961	1963	1983	1981	1995	1995	1964	1965	1964

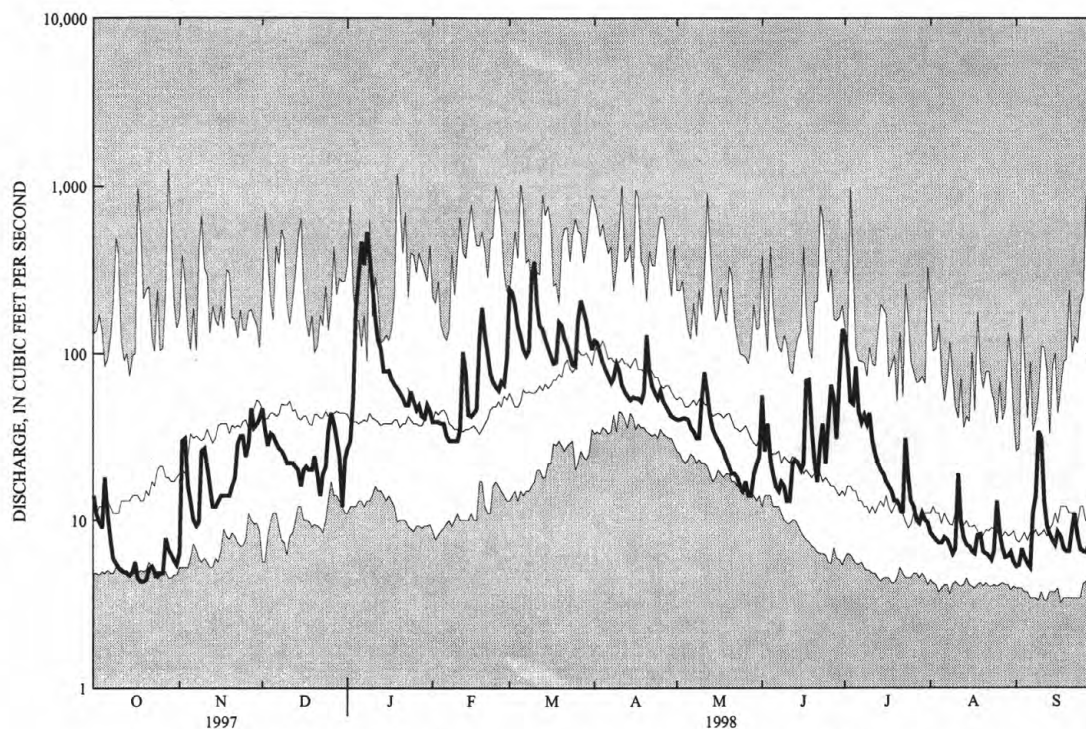
SUMMARY STATISTICS

FOR 1997 CALENDAR YEAR

FOR 1998 WATER YEAR

WATER YEARS 1958 - 1998

ANNUAL TOTAL	13864.3	17582.4	
ANNUAL MEAN	38.0	48.2	50.0
HIGHEST ANNUAL MEAN			82.6
LOWEST ANNUAL MEAN			24.2
HIGHEST DAILY MEAN	340	Feb 22	534
LOWEST DAILY MEAN	4.3	Oct 18	4.3
ANNUAL SEVEN-DAY MINIMUM	4.7	Oct 14	4.7
ANNUAL RUNOFF (CFSM)	1.18		1.50
ANNUAL RUNOFF (INCHES)	16.02		20.31
10 PERCENT EXCEEDS	83		114
50 PERCENT EXCEEDS	28		28
90 PERCENT EXCEEDS	6.2		6.4



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

STREAMS TRIBUTARY TO LAKE ONTARIO

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04245236 MEADOW BROOK AT HURLBURT ROAD, SYRACUSE, NY

LOCATION.--Lat 43°02'30", long 76°06'02", Onondaga County, Hydrologic Unit 04140202, on right bank 170 ft downstream from culvert at intersection of Hurlburt Road and Meadowbrook Drive, and 2.3 mi upstream from mouth.

DRAINAGE AREA.--2.90 mi².

PERIOD OF RECORD.--December 1970 to March 1973, April 1973 to September 1978 (annual maximum only), October 1978 to current year.

REVISED RECORDS.--WDR NY-75-1: 1974 (M). WDR NY-78-1: 1977 (M). WDR-NY-90-3: 1971-89 (P).

GAGE.--Water-stage recorder, crest-stage gage, and artificial control. Datum of gage is 511.50 ft above sea level.

REMARKS.--Records fair. Flow includes storm sewer inflow, some originating outside the basin. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 402 ft³/s, Aug. 28, 1990, gage height 6.36 ft, from rating curve extended above 47 ft³/s on basis of computation of peak flow through culvert at gage heights 5.31 ft and 6.51 ft; minimum discharge, 0.02 ft³/s, Sep. 11, 1972, Aug. 24, 1990.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 8	0415	111	3.12	Sep. 7	0145	164	b3.81
Aug. 24	2300	*184	a*4.06				

a From crest-stage gage; inside gage height was 3.64 ft, recorded.

b From crest-stage gage; inside gage height was 3.60 ft, recorded.

Minimum discharge, 0.47 ft³/s, Dec. 30, (result of freeze-up).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	2.4	2.2	1.7	2.1	13	7.6	1.9	2.8	1.9	.74	1.1
2	.85	8.1	1.5	2.0	2.3	9.2	3.2	1.9	3.2	1.0	.72	1.9
3	1.4	1.6	1.4	9.2	2.3	5.0	2.8	1.9	2.1	.86	.74	1.5
4	.86	1.4	2.6	e13	2.2	4.0	2.5	2.1	1.3	4.4	.74	1.2
5	5.0	1.3	1.7	9.7	2.2	4.0	2.4	2.0	1.3	2.2	.77	1.2
6	1.0	1.1	1.6	15	2.0	3.2	2.3	2.2	1.2	.96	.78	1.2
7	.96	1.1	1.6	9.3	1.9	3.0	2.3	1.9	1.2	2.0	.78	14
8	.99	1.7	1.5	49	1.9	5.2	3.6	1.8	1.2	10	.76	1.9
9	1.0	6.8	1.3	8.8	1.9	7.8	2.9	1.8	1.3	1.3	.78	4.3
10	.97	1.9	1.4	4.2	1.9	6.5	2.4	7.7	1.3	1.7	1.1	2.3
11	1.0	1.5	1.7	3.2	2.4	3.6	2.2	6.6	1.3	.80	1.8	.92
12	1.0	1.3	1.7	2.9	6.0	3.2	2.1	3.3	2.9	.76	.89	.84
13	.96	1.3	1.5	3.2	2.9	3.0	2.1	2.2	2.2	1.5	.74	.81
14	.95	1.5	1.4	2.5	2.1	3.2	2.1	2.1	1.5	.94	.80	.84
15	.93	1.8	1.4	2.5	1.9	2.9	2.2	e2.0	1.5	.91	.84	.86
16	.93	2.0	1.5	2.5	1.9	2.7	2.1	e1.9	1.9	.94	.96	1.1
17	.93	1.7	1.5	2.4	3.7	2.7	3.4	e1.9	9.8	.90	.93	.87
18	.93	1.6	1.4	2.4	5.6	3.1	2.1	e1.9	1.8	.92	3.0	.85
19	.94	1.6	1.4	2.4	7.5	4.2	4.4	e1.8	1.2	1.1	.97	.86
20	.96	1.7	1.8	2.2	3.5	3.1	5.7	e1.8	1.0	.79	.91	.87
21	.98	2.3	1.4	2.0	3.3	3.8	2.3	e1.8	.93	.86	.91	.89
22	1.1	3.5	1.4	1.9	2.5	4.0	2.2	e1.8	.90	4.7	.92	.87
23	1.3	2.1	2.1	2.4	2.4	3.4	2.1	e1.8	.92	8.6	.96	.81
24	1.1	1.7	2.0	2.7	3.5	3.3	2.1	e1.7	.91	1.9	10	.87
25	1.1	1.5	5.5	2.3	4.6	3.9	3.4	e1.7	2.2	1.4	12	.87
26	1.9	2.1	2.6	2.0	4.8	6.2	2.0	e1.7	7.7	1.3	1.2	1.4
27	2.2	3.3	1.9	1.9	4.1	3.9	1.9	e1.6	3.3	1.3	.79	2.9
28	1.1	1.6	1.6	1.9	12	3.2	1.9	e1.6	1.1	1.0	.91	.84
29	.93	1.5	1.6	2.1	---	3.1	1.9	2.9	7.8	.94	1.1	.78
30	.91	4.0	e1.6	2.9	---	2.8	1.9	1.8	3.0	.76	1.0	.79
31	.91	---	e1.5	2.3	---	2.6	---	5.1	---	.82	1.0	---
TOTAL	37.69	67.0	55.3	172.5	95.4	132.8	82.1	74.2	70.76	59.46	50.54	50.44
MEAN	1.22	2.23	1.78	5.56	3.41	4.28	2.74	2.39	2.36	1.92	1.63	1.68
MAX	5.0	8.1	5.5	49	12	13	7.6	7.7	9.8	10	12	14
MIN	.85	1.1	1.3	1.7	1.9	2.6	1.9	1.6	.90	.76	.72	.78

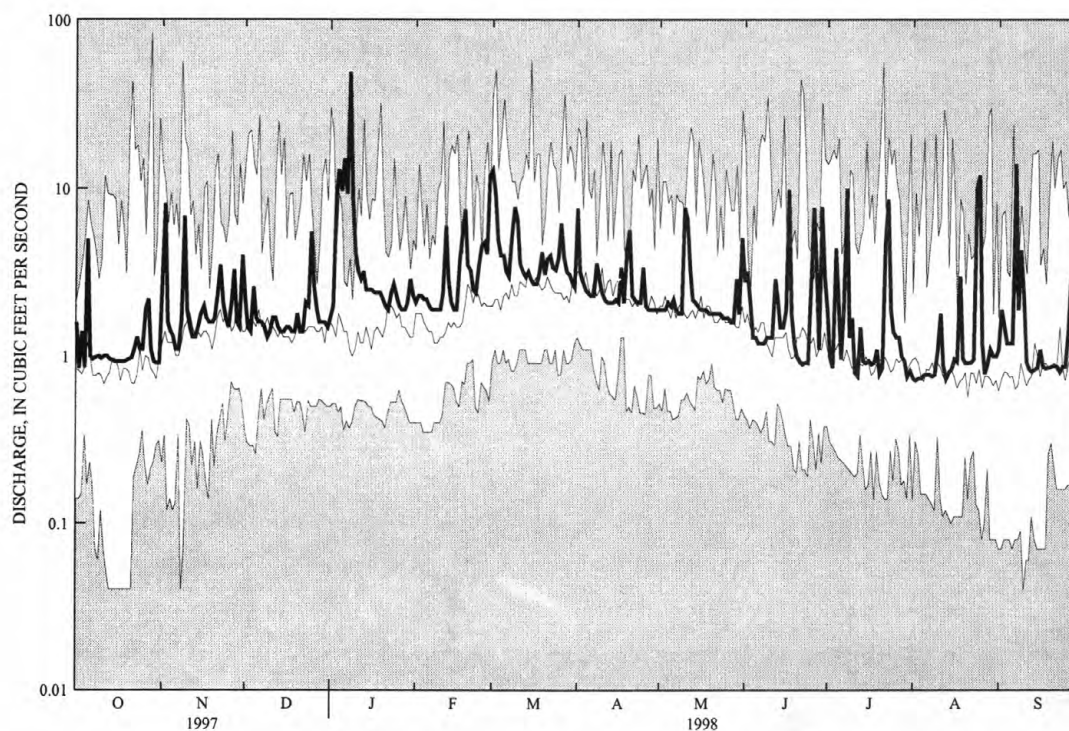
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STREAMS TRIBUTARY TO LAKE ONTARIO
04245236 MEADOW BROOK AT HURLBURT ROAD, SYRACUSE, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1998, BY WATER YEAR (WY)

MEAN	1.63	2.09	2.21	2.16	2.48	3.79	3.17	2.53	2.22	1.81	1.40	1.58
MAX	4.73	4.46	4.66	5.56	4.38	6.93	7.51	5.21	6.12	5.04	5.16	3.03
(WY)	1982	1997	1991	1998	1990	1972	1993	1990	1972	1988	1990	1989
MIN	.19	.71	1.04	.67	1.12	1.38	1.34	1.08	.86	.48	.32	.31
(WY)	1972	1979	1971	1981	1993	1981	1981	1971	1981	1980	1971	1971

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1971 - 1998	
ANNUAL TOTAL	740.23		948.19			
ANNUAL MEAN	2.03		2.60		2.28	
HIGHEST ANNUAL MEAN					3.27	1990
LOWEST ANNUAL MEAN					1.27	1981
HIGHEST DAILY MEAN	13	Feb 27	49	Jan 8	84	Oct 28 1981
LOWEST DAILY MEAN	.62	Aug 15	.72	Aug 2	.04	Oct 13 1971
ANNUAL SEVEN-DAY MINIMUM	.75	Aug 22	.75	Aug 1	.04	Oct 13 1971
10 PERCENT EXCEEDS	3.4		4.7		4.1	
50 PERCENT EXCEEDS	1.7		1.9		1.4	
90 PERCENT EXCEEDS	.86		.87		.50	



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

STREAMS TRIBUTARY TO LAKE ONTARIO
04246000 ONEIDA LAKE AT BREWERTON, NY

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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 mi², at dam at Caughdenoy.

PERIOD OF RECORD.--November 1951 to current year. April 1904 to September 1925 in reports of State Engineer and Surveyor, published as "Oneida River at Brewerton."

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is sea level (1.01 ft Barge Canal datum). November 1951 to September 1975, at datum 360.99 ft higher.

REMARKS.--Lake elevation regulated by taintor-gate dam on Oneida River at Caughdenoy and gates on Oneida Canal and Erie (Barge) Canal. Lake volume at elevation 369 ft sea level, 1.135 million acre-ft. Area of water surface, 79.8 mi²; axes, 20.9 mi by 5.5 mi; shoreline length, 54.7 mi. Records for Oct. 1-6 and Oct. 13 to Dec. 6 estimated from daily gage-height records for station on Oneida River at Caughdenoy.

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, 371.44 ft, Jan. 12; minimum, 367.64 ft, Dec. 26.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	369.55	369.51	369.08	367.87	368.97	368.96	369.84	369.88	369.76	369.64	369.72	369.66
2	369.60	369.45	369.06	367.82	368.89	369.14	369.95	369.86	369.84	369.72	369.70	369.66
3	369.69	369.54	369.18	367.79	368.78	369.30	370.00	369.84	369.58	369.77	369.68	369.66
4	369.68	369.50	369.12	367.83	368.70	369.40	370.05	369.90	369.65	369.80	369.69	369.64
5	369.63	369.47	369.03	368.00	368.61	369.44	369.96	369.93	369.70	369.82	369.69	369.63
6	369.63	369.43	368.98	368.25	368.54	369.46	369.88	369.92	369.68	369.89	369.72	369.64
7	369.64	369.33	368.97	368.62	368.46	369.42	369.83	369.93	369.72	369.90	369.75	369.69
8	369.67	369.19	368.90	369.36	368.39	369.43	369.80	369.91	369.71	369.89	369.71	369.68
9	369.63	369.09	368.87	370.38	368.31	369.45	369.68	369.85	369.78	369.81	369.69	369.63
10	369.50	369.06	368.85	371.04	368.23	369.40	369.49	369.88	369.81	369.71	369.67	369.61
11	369.53	369.03	368.81	371.29	368.18	369.68	369.43	370.03	369.88	369.65	369.67	369.62
12	369.55	369.01	368.58	371.38	368.13	369.68	369.34	370.13	369.95	369.69	369.69	369.60
13	369.56	369.14	368.49	371.20	368.20	369.84	369.25	370.03	369.97	369.73	369.74	369.61
14	369.44	369.16	368.36	371.15	368.24	369.79	369.20	369.94	369.95	369.74	369.75	369.61
15	369.39	369.12	368.41	371.08	368.23	369.72	369.11	369.86	370.09	369.76	369.73	369.62
16	369.37	369.05	368.32	370.90	368.20	369.65	369.22	369.85	370.09	369.75	369.72	369.60
17	369.34	368.95	368.23	370.76	368.19	369.57	369.17	369.74	370.11	369.73	369.74	369.62
18	369.33	369.02	368.17	370.63	368.19	369.50	369.20	369.73	370.04	369.75	369.69	369.65
19	369.32	369.02	368.09	370.48	368.26	369.46	369.36	369.76	369.96	369.79	369.68	369.66
20	369.25	368.97	368.02	370.33	368.43	369.44	369.39	369.74	369.87	369.74	369.70	369.66
21	369.26	368.98	367.98	370.19	368.54	369.49	369.54	369.69	369.83	369.78	369.68	369.64
22	369.12	369.01	368.02	370.05	368.62	369.48	369.65	369.72	369.83	369.75	369.69	369.62
23	369.15	369.03	367.95	369.97	368.65	369.46	369.70	369.72	369.86	369.82	369.70	369.59
24	369.21	368.93	367.87	369.82	368.66	369.42	369.75	369.74	369.81	369.76	369.70	369.62
25	369.23	369.09	367.86	369.70	368.74	369.40	369.75	369.75	369.81	369.79	369.91	369.61
26	369.35	368.96	367.79	369.59	368.76	369.36	369.85	369.72	369.74	369.80	369.93	369.61
27	369.31	368.96	367.84	369.49	368.79	369.32	369.83	369.76	369.77	369.78	369.90	369.58
28	369.20	369.16	367.85	369.35	368.82	369.36	369.83	369.77	369.83	369.76	369.86	369.52
29	369.37	369.13	367.86	369.24	--	369.44	369.87	369.77	369.77	369.71	369.78	369.60
30	369.40	369.20	367.83	369.14	--	369.62	369.87	369.78	369.73	369.75	369.67	369.62
31	369.46	--	367.89	369.05	--	369.73	--	369.83	--	369.72	369.65	--
MEAN	369.43	369.15	368.40	369.73	368.49	369.48	369.63	369.84	369.84	369.76	369.73	369.63
MAX	369.69	369.54	369.18	371.38	368.97	369.84	370.05	370.13	369.90	369.93	369.93	369.69
MIN	369.12	368.93	367.79	367.79	368.13	368.96	369.11	369.69	369.58	369.64	369.65	369.52

STREAMS TRIBUTARY TO LAKE ONTARIO
04246500 ONEIDA RIVER AT CAUGHDENY, NY

LOCATION.--Lat 43°14'49", long 76°10'12", Oswego County, Hydrologic Unit 04140202, on left bank at point of diversion to New York State Erie (Barge) Canal, 1.6 mi downstream from Oneida Lake, and 2.6 mi upstream from navigation dam at Caughdeny.

DRAINAGE AREA.--1,382 mi²; 1902-9, 1,439 mi².

PERIOD OF RECORD.--September 1902 to December 1909 (published as "near Euclid"), January 1910 to December 1912, and October 1947 to current year in reports of Geological Survey. September 1902 to December 1909 and January 1910 to September 1925 in reports of State Engineer and Surveyor.

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Base gage: Water-stage recorder. Datum of gage is 360.98 ft above sea level (362.00 ft Barge Canal datum). Prior to June 5, 1907, headwater readings, and June 5, 1907 to Dec. 31, 1909, nonrecording gage readings at former Oak Orchard State Dam 5.5 mi downstream at different datum. Jan. 1, 1910 to Dec. 31, 1912, nonrecording gage at site 2.5 mi downstream from present site at different datum. From Oct. 9, 1947 to Nov. 7, 1951, water-stage recorder at site 2.5 mi downstream at present datum.

Auxiliary gage: Water-stage recorder at site 2.5 mi downstream, 350 ft upstream from navigation dam at present datum (base gage site 1947-51).

Supplementary gage: Water-stage recorder at site 2.6 mi downstream, 180 ft downstream from navigation dam at present datum.

REMARKS.--No estimated daily discharges. Records good. Jan. 1, 1910 to Dec. 31, 1912: Flow over dam computed on basis of coefficient determined for model of dam of same general type; flow through gate and diversion through lock culverts estimated by theoretical calculations. 1947 to current year: Record represents total discharge at Caughdeny, including flow in Oneida and Erie (Barge) Canals. Considerable seasonal regulation by operation of gates in Oneida and Erie (Barge) Canals with a large amount of natural storage in Oneida Lake. Occasional large diurnal fluctuations caused by seiche in Oneida Lake. Water may be diverted into or received from Mohawk River basin through summit level of Erie (Barge) Canal between New London and Utica. Nearly all of flow from 14 mi² of Tioughnioga River basin may be diverted into De Ruyter Reservoir, in Oswego River basin. Pesticide sample collected as part of state-wide sampling network in cooperation with the New York State Department of Environmental Conservation. Analyses published on page 309. Several measurements of water temperature were made during the year.

COOPERATION.--Records of gate openings, lockages, and elevations of water surface in Erie (Barge) Canal above and below Lock 23, furnished by New York State Department of Transportation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 13,800 ft³/s, Mar. 25-27, 1903; minimum daily discharge, 52 ft³/s, Oct. 24, 1910. 1947 to current year: Maximum daily discharge, 11,300 ft³/s, Apr. 24, 1993; minimum daily discharge, 62 ft³/s, July 29, 1950. Maximum and minimum instantaneous discharges not determined.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 8,520 ft³/s, Jan. 12; minimum daily discharge, 207 ft³/s, Sep. 28. Maximum and minimum instantaneous discharges not determined.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	949	1060	3120	2800	4360	4240	5850	1430	531	1540	689	569
2	1110	1050	3610	2750	4220	4460	6070	1520	663	996	681	364
3	1270	2330	3840	2730	4060	4720	6150	1500	650	638	417	243
4	1280	3920	3870	2730	3920	4930	6250	1500	656	610	269	254
5	1270	4300	3760	2900	3790	5060	6060	1500	503	637	258	261
6	1330	4220	3660	3200	3680	5120	5910	1500	334	1210	245	265
7	1250	4060	3650	3690	3590	5140	5820	1680	338	2200	249	286
8	1250	3850	3900	4790	3480	5160	5750	1780	332	2670	248	711
9	1260	3710	4170	6650	3390	5160	5540	1780	334	2670	251	1180
10	1200	2560	4140	7850	3300	5010	5190	1770	330	2680	234	1150
11	1200	2000	4090	8340	3220	5490	5080	1950	334	2110	263	933
12	1190	1100	3740	8520	3170	5520	4940	2310	360	1030	279	775
13	1190	1300	3610	8310	3180	5760	4450	2630	374	458	275	774
14	1170	1290	3430	8100	3270	5730	3860	2730	370	324	271	438
15	1160	1290	3480	8090	3290	5610	2630	2330	920	286	276	227
16	980	1290	3360	7830	3300	5480	704	2140	1540	287	263	234
17	724	1930	3240	7610	3280	5360	451	2130	2850	293	247	226
18	883	2310	3180	7400	3240	5240	442	1150	4520	302	237	243
19	877	1640	3070	7160	3260	5170	442	677	5020	281	241	256
20	659	1280	2980	6870	3460	5120	452	689	4020	285	245	239
21	482	1280	2920	6570	3640	5200	449	689	3360	289	264	235
22	461	1280	2970	6290	3760	5210	474	683	1870	295	277	312
23	468	1290	2900	6140	3840	5160	463	698	1580	680	273	359
24	482	1280	2750	5820	3880	5100	467	690	1910	863	287	281
25	489	1820	2790	5580	3940	5070	476	678	1930	860	520	213
26	499	2280	2650	5370	4000	5010	751	471	1910	867	2030	218
27	492	2290	2710	5210	4060	4910	1170	344	2300	741	2820	218
28	472	2320	2740	4970	4100	4970	1270	333	2500	680	2810	207
29	749	2320	2780	4780	---	5120	1280	328	2490	677	2760	210
30	1060	2330	2730	4620	---	5440	1270	338	2190	679	2440	214
31	1160	---	2780	4480	---	5620	---	357	---	675	565	---
TOTAL	29016	64980	102620	178150	101680	160290	90111	40305	47019	28813	21184	12095
MEAN	936	2166	3310	5747	3631	5171	3004	1300	1567	929	683	403
MAX	1330	4300	4170	8520	4360	5760	6250	2730	5020	2680	2820	1180
MIN	461	1050	2650	2730	3170	4240	442	328	330	281	234	207

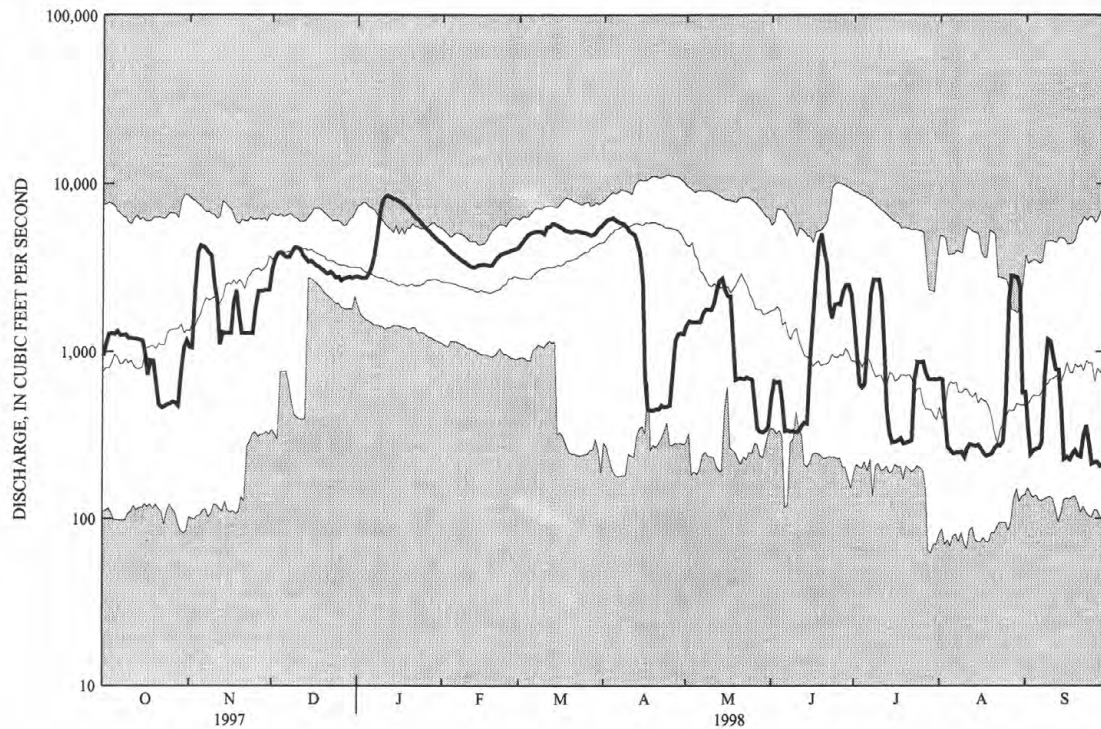
STREAMS TRIBUTARY TO LAKE ONTARIO
04246500 ONEIDA RIVER AT CAUGHDENY, NY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 1998, BY WATER YEAR (WY)

MEAN	1561	2658	3757	3005	2694	3653	5149	2988	1549	1099	776	1074
MAX	5591	5635	5686	5747	4443	6325	9264	7427	5710	5151	2066	3524
(WY)	1978	1982	1978	1998	1951	1979	1993	1972	1972	1972	1986	1977
MIN	113	260	2093	1397	1048	1122	905	815	366	281	133	129
(WY)	1965	1965	1961	1963	1963	1983	1995	1987	1988	1979	1965	1964

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1948 - 1998	
ANNUAL TOTAL	852417		876263			
ANNUAL MEAN	2335		2401		2494	
HIGHEST ANNUAL MEAN					3777	
LOWEST ANNUAL MEAN					1562	
HIGHEST DAILY MEAN	6140	Apr 10	8520	Jan 12	11300	Apr 24 1993
LOWEST DAILY MEAN	205	Sep 10	207	Sep 28	62	Jul 29 1950
ANNUAL SEVEN-DAY MINIMUM	263	Aug 14	223	Sep 24	72	Jul 28 1950
10 PERCENT EXCEEDS	4950		5290		5280	
50 PERCENT EXCEEDS	1910		1820		2090	
90 PERCENT EXCEEDS	304		278		305	



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

STREAMS TRIBUTARY TO LAKE ONTARIO
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 mi².

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

GAGE.--Acoustic velocity meter, water-stage recorder, and crest stage gage. Elevation of gage is 370 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair above 1,000 ft³/s and poor below. 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 mi² of Tioughnioga River basin may be diverted into De Ruyter Reservoir, in Oswego River basin. Several measurements of water temperature were made during the year.

COOPERATION.--Records of gate openings, lockages, and elevations of water surface in Erie (Barge) Canal above and below Lock 23, furnished by New York State Department of Transportation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 9,000 ft³/s, Jan. 12, 13, 1998; minimum daily discharge, 275 ft³/s, Dec. 7, 1996. Maximum and minimum instantaneous discharges not determined.

EXTREMES FOR CURRENT PERIOD.--November 1996 to September 1997: Maximum daily discharge, 6,590 ft³/s, Dec. 7; minimum daily discharge, 275 ft³/s, Aug. 7. Maximum and minimum instantaneous discharges not determined.

October 1997 to September 1998: Maximum daily discharge, 9,000 ft³/s, Jan. 12, 13; minimum daily discharge, 286 ft³/s, May 28. Maximum and minimum instantaneous discharges not determined.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	4930	e5100	3150	4860	5530	5360	1650	889	324	666
2	---	---	5420	e5000	3120	5100	5660	5040	2090	954	331	496
3	---	---	e6050	e4900	3050	5290	5690	5460	2460	1220	e310	e510
4	---	---	6240	4950	3050	5420	5620	5090	3050	1340	e310	712
5	---	---	6310	5080	3120	5360	5780	5280	2440	1370	e300	587
6	---	---	6370	4920	3090	5610	5940	4980	1800	1390	288	547
7	---	---	6590	4870	e3130	5710	5810	4830	1320	e1200	275	470
8	---	---	6280	e4800	e3070	5710	5960	4360	1310	e1050	286	364
9	---	---	6120	e4900	e3050	5690	6130	2810	1400	e1020	e330	317
10	---	---	6040	e4800	e3050	5620	6150	2270	1420	e1070	e370	380
11	---	---	5830	e4700	e2980	5560	6060	2320	1380	1070	348	318
12	---	---	5940	e4600	e2920	5420	6080	2300	1060	1030	342	e353
13	---	---	6030	e4500	2860	5330	5820	2320	851	1060	e300	508
14	---	---	6180	4350	2800	5340	5700	2250	e780	1080	e290	467
15	---	---	6260	4280	2730	5140	5730	2310	728	1260	e300	865
16	---	---	6350	4120	2640	5020	5570	2320	e700	1570	e320	1180
17	---	---	6260	e4070	2710	4970	5370	2350	720	1030	e290	1070
18	---	e6040	5990	4080	2610	4790	5180	2330	780	1010	e280	1120
19	---	5870	5790	4050	2620	4650	5180	2320	745	934	e300	1130
20	---	5780	5480	3960	2810	4480	5180	2430	755	958	326	1100
21	---	e5600	5650	3790	3210	4350	4980	2370	741	658	387	1060
22	---	e5480	5480	3810	3970	4270	3980	2740	731	371	388	1030
23	---	5350	5430	3560	e3790	4260	3020	3070	939	361	328	986
24	---	5200	5430	3860	3780	4200	2600	3060	1050	385	339	759
25	---	5080	5320	3720	3910	4240	1740	3040	e993	346	e408	640
26	---	4980	5650	3540	3860	4530	1330	2970	e1230	388	e600	595
27	---	4990	5600	3460	4430	4530	1330	2690	1360	368	816	694
28	---	4940	5640	3360	4730	4630	2560	e2380	1420	e320	914	709
29	---	4820	5480	3440	---	4670	4800	e1810	1450	e340	1160	910
30	---	4840	5310	3380	---	4910	5520	1720	1140	e360	947	1080
31	---	---	e5440	3270	---	5270	---	1700	---	e340	706	---
TOTAL	---	---	180890	131220	90240	154930	146000	96280	38493	26742	13213	21623
MEAN	---	---	5835	4233	3223	4998	4867	3106	1283	863	426	721
MAX	---	---	6590	5100	4730	5710	6150	5460	3050	1570	1160	1180
MIN	---	---	4930	3270	2610	4200	1330	1700	700	320	275	317

e Estimated

STREAMS TRIBUTARY TO LAKE ONTARIO
04247000 ONEIDA RIVER NEAR EUCLID, NY--Continued

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DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1060	1260	3620	3120	4640	5210	6040	1650	537	1660	746	699
2	1270	1430	3930	2990	4510	5270	6380	1710	671	1150	722	472
3	1410	2720	4220	2850	e4300	5410	6420	1800	668	733	472	353
4	1440	4150	4290	3100	e4200	5470	6460	1740	659	708	338	e320
5	1510	4420	4190	3480	e4000	5500	6320	1820	473	702	316	e340
6	1550	4330	4050	4380	e3900	5460	6160	1910	303	1250	e300	349
7	1480	4150	4000	4970	e3800	5380	5860	2090	354	2260	e310	401
8	1440	3980	4130	6590	e3700	5360	5740	2080	344	2970	e310	780
9	1410	3840	4280	e7800	e3600	5600	5540	2060	385	2940	e310	1340
10	1380	2900	4200	e8400	e3500	5490	5180	2100	488	2850	e290	1370
11	1360	2450	4150	e8800	e3500	5820	5100	2360	487	2350	e320	1130
12	1370	1360	3860	e9000	e3400	6000	4960	2830	403	1250	e350	950
13	1370	1560	3740	e9000	e3500	e6100	4570	3100	517	587	e340	927
14	1360	1560	3590	e8800	e3600	6050	4220	3270	415	501	e330	593
15	1320	1560	e3620	e8600	e3600	5870	3050	2960	1020	369	e330	330
16	1100	1610	3440	e8200	e3600	5730	794	2660	1960	353	347	310
17	821	2420	3330	e7900	e3600	5580	499	2690	3300	e320	305	286
18	1020	2810	3240	e7600	e3500	5520	578	1430	4910	e305	308	313
19	981	2000	3140	e7400	e3500	5550	450	712	5390	361	e300	343
20	764	1620	3030	e7100	e3700	5500	478	688	4240	311	e300	374
21	636	1590	2990	e6800	e3900	5530	517	676	3310	e320	e320	348
22	570	1630	3060	e6500	e4000	5500	520	659	2060	e340	e340	390
23	600	1660	2950	e6200	e4200	5520	507	663	1710	e800	e330	502
24	582	1720	2800	5920	4250	5460	484	684	2110	e950	e350	395
25	556	2290	2830	5760	4350	5410	480	698	2170	e950	703	292
26	555	2940	2870	5630	4510	5500	900	e580	2200	e950	e2080	313
27	665	3020	2940	e5370	4600	5370	1260	309	2530	e800	e2880	328
28	617	2980	2900	5210	4680	5360	1570	320	2870	e750	e2900	315
29	867	2950	e2890	5050	---	5390	1520	384	2810	e750	e2940	319
30	1210	2980	3050	4900	---	5720	1490	342	2510	707	e2700	309
31	1340	---	3170	4760	---	5790	---	373	---	701	e700	---
TOTAL	33614	75890	108500	192180	110140	172420	94047	47348	51804	31948	23587	15491
MEAN	1084	2530	3500	6199	3934	5562	3135	1527	1727	1031	761	516
MAX	1550	4420	4290	9000	4680	6100	6460	3270	5390	2970	2940	1370
MIN	555	1260	2800	2850	3400	5210	450	309	303	305	290	286

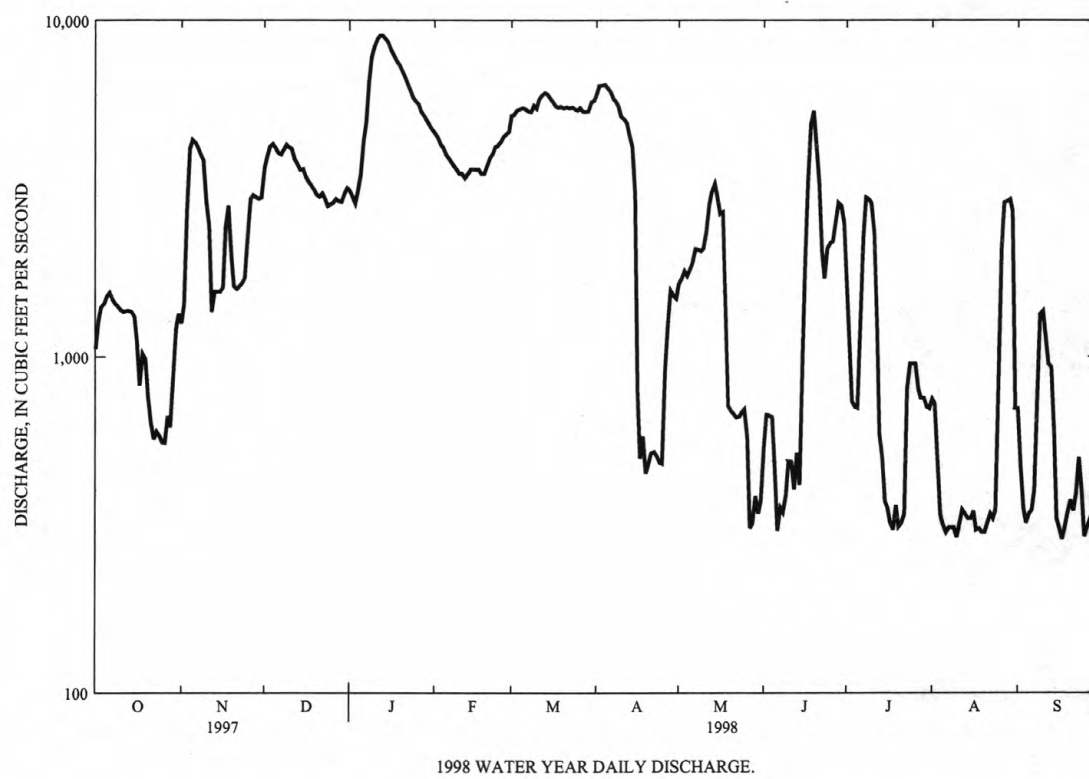
e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 1998, BY WATER YEAR (WY)

MEAN	1084	2530	4668	5216	3578	5280	4001	2317	1505	947	594	619
MAX	1084	2530	5835	6199	3934	5562	4867	3106	1727	1031	761	721
(WY)	1998	1998	1997	1998	1998	1998	1997	1998	1998	1998	1998	1997
MIN	1084	2530	3500	4233	3223	4998	3135	1527	1283	863	426	516
(WY)	1998	1998	1998	1997	1997	1997	1998	1998	1997	1997	1997	1998

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR	FOR 1998 WATER YEAR	WATER YEARS 1997 - 1998
ANNUAL TOTAL	936745	956969	
ANNUAL MEAN	2566	2622	2622
HIGHEST ANNUAL MEAN			2622
LOWEST ANNUAL MEAN			2622
HIGHEST DAILY MEAN	6150	9000	9000
LOWEST DAILY MEAN	275	286	275
ANNUAL SEVEN-DAY MINIMUM	297	308	297
10 PERCENT EXCEEDS	5180	5590	5690
50 PERCENT EXCEEDS	2420	2090	2680
90 PERCENT EXCEEDS	386	340	347

STREAMS TRIBUTARY TO LAKE ONTARIO
04247000 ONEIDA RIVER NEAR EUCLID, NY--Continued



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 mi².

PERIOD OF RECORD.--October 1900 to April 1906, October 1933 to current year. Monthly discharge only for some periods, published in WSP 1307. Prior to January 1904, published as "above Minetto" or "near Minetto." January 1904 to April 1906, published as "at Battle Island." Records for April 1897 to September 1900, published in WSP 65 and for October 1927 to September 1928, published in WSP 644, have been found to be unreliable and should not be used.

REVISED RECORDS.--WDR NY 78-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 245.12 ft above sea level. Prior to 1933, nonrecording gage at site about 6 mi upstream at different datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Prior to 1933 and subsequent to 1972, flow in Oswego (Barge) Canal not included. A large amount of natural storage and some artificial regulation is afforded by the many large lakes and the Erie (Barge) and Oswego (Barge) Canal systems in the river basin. Large diurnal fluctuations at low and medium flow caused by powerplants upstream from station. Oswego River basin receives water from Erie (Barge) Canal through Lock 32 near Pittsford. Water may be diverted into or received from Mohawk River basin through Erie (Barge) Canal between New London and Utica. During part of year, entire flow from 45.5 mi² of Mud Creek drainage area may be diverted from Chemung River basin into Keuka Lake in Oswego River basin. Nearly all of the flow from 14 mi² of the Tioughnioga River basin may be diverted into De Ruyter Reservoir, in Oswego River basin. Telephone gage-height telemeter at station. Pesticide sample collected as part of state-wide sampling network in cooperation with the New York State Department of Environmental Conservation. Analyses published on page 309.

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 ft³/s, Mar. 28, 1936, includes daily mean discharge of canals; maximum gage height, 13.46 ft, Apr. 10, 1940; minimum discharge (river only), 30 ft³/s, Nov. 6, 1944.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 27,000 ft³/s, Jan. 12, gage height, 11.04 ft; minimum discharge not determined.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3130	2250	9450	7950	12400	17800	16000	e5830	e2540	8250	e1550	1450
2	3300	2680	9880	7440	12100	18200	16200	e5880	e3530	7610	e1500	1280
3	2510	4900	9750	7870	11700	18400	16000	e5830	e2910	6930	e950	1300
4	3240	6550	10100	9760	11200	18400	15400	e6050	e2500	5880	e1600	987
5	3290	7270	10100	13000	11100	18200	14800	e6190	e2620	6150	e1180	920
6	3400	7680	9980	16400	11200	17800	13800	e6360	e1710	6720	e1120	1230
7	3480	7710	9870	18700	11300	17200	12400	e6100	e1730	7500	e1050	2100
8	3070	7210	9640	22200	11200	16700	11900	e6120	e2160	8160	e1100	1390
9	2470	7290	9990	25100	11000	17300	12000	e6530	e1680	8360	e1120	2990
10	3330	7090	9430	25900	10800	17700	10300	e6960	e1680	8210	e1050	2730
11	3080	6520	10300	25800	10600	18000	10900	e8040	e1810	8040	e1100	2220
12	2500	5800	9390	25600	11000	17700	11100	e9010	e2030	7090	e1500	1310
13	2500	6140	9200	25200	12300	17200	10900	9830	e1860	e5340	e1150	1920
14	2350	6110	8820	24300	12400	17000	10500	10500	e2280	e3700	e1100	1390
15	1980	6290	8970	23300	12200	16600	e9460	10400	e3900	e3650	e1050	1000
16	2200	6220	8760	21900	11800	16000	e6530	9630	e4260	e3550	e1000	1190
17	2040	6410	8550	20400	11700	15700	e6120	9390	5850	e3480	e1030	1090
18	2010	7270	8410	18900	12400	15500	e4380	e8490	8190	e3500	e1130	1130
19	1610	7010	8390	17800	15700	15800	e3680	e7130	9450	e2400	1060	1060
20	984	6340	8280	16500	17100	15900	e4200	e6840	8520	e1850	1070	1150
21	1670	6360	8230	16000	17000	15900	e4280	e6750	7350	e2300	1000	988
22	1580	6610	8200	14700	17000	16000	e5370	e6390	6030	e2000	1320	1010
23	809	6860	8230	14200	16700	15900	e6160	e6060	e4590	e3850	1030	1280
24	990	7370	7690	14200	16400	15900	e5910	e6000	e4940	e3350	1130	1080
25	1040	7390	7820	14000	16300	15900	e6180	e4780	5140	e2400	4330	939
26	1310	8340	8810	13800	16700	16200	e6050	e4960	6000	e2750	3500	1060
27	1800	9110	9270	13500	16500	17200	e5850	e4100	6710	e2500	4440	1010
28	1870	8870	9220	13200	16300	17300	e6260	e2660	7140	e2120	4040	1040
29	1590	8750	9220	12800	---	16900	e5950	e2650	7260	e2150	4000	996
30	2070	8950	8760	12800	---	16800	e5770	e2520	8380	e1450	3630	957
31	1630	---	8410	12800	---	16400	---	e2210	---	e1400	1000	---
TOTAL	68833	203350	281120	526020	374100	523500	274350	200190	134750	142640	52830	40197
MEAN	2220	6778	9068	16970	13360	16890	9145	6458	4492	4601	1704	1340
MAX	3480	9110	10300	25900	17100	18400	16200	10500	9450	8360	4440	2990
MIN	809	2250	7690	7440	10600	15500	3680	2210	1680	1400	950	920

e Estimated

STREAMS TRIBUTARY TO LAKE ONTARIO
04249000 OSWEGO RIVER AT LOCK 7, OSWEGO, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 1998, BY WATER YEAR (WY)

MEAN	3858	6199	8511	8026	7856	11660	13140	8252	5019	3446	2503	2673
MAX	17950	16070	17920	16970	15130	21720	30250	20350	17000	19660	8951	8702
(WY)	1978	1978	1978	1998	1976	1979	1993	1943	1947	1972	1992	1977
MIN	1173	1167	2917	2610	2547	3914	2757	1993	1383	1113	836	760
(WY)	1940	1965	1940	1963	1963	1983	1995	1995	1995	1995	1934	1995

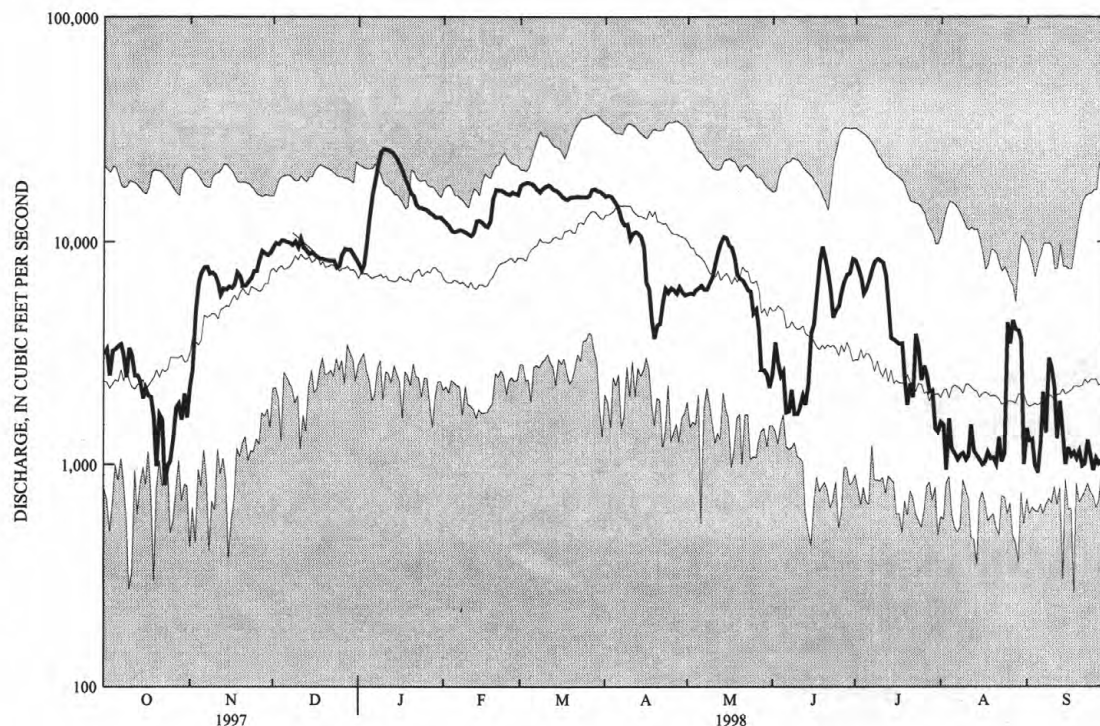
SUMMARY STATISTICS

FOR 1997 CALENDAR YEAR

FOR 1998 WATER YEAR

WATER YEARS 1934 - 1998

ANNUAL TOTAL	2228999			2821880								
ANNUAL MEAN	6107			7731						6798		
HIGHEST ANNUAL MEAN										11030		1976
LOWEST ANNUAL MEAN										3433		1965
HIGHEST DAILY MEAN	15200	Mar 8		25900	Jan 10					37000	Mar 28	1936
LOWEST DAILY MEAN	680	Aug 15		809	Oct 23					261	Sep 18	1985
ANNUAL SEVEN-DAY MINIMUM	959	Aug 3		1010	Sep 24					697	Sep 4	1995
10 PERCENT EXCEEDS	13000			16600						14400		
50 PERCENT EXCEEDS	5920			6610						5130		
90 PERCENT EXCEEDS	1110			1130						1600		



1998 WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

STREAMS TRIBUTARY TO LAKE ONTARIO
LAKES AND RESERVOIRS IN STREAMS TRIBUTARY TO LAKE ONTARIO

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04224000	MOUNT MORRIS LAKE NEAR MOUNT MORRIS, NY (see station for daily mean elevation, skeleton capacity table, monthly contents, and change in contents).
04227980	CONESUS LAKE NEAR LAKEVILLE, NY (see station for daily mean elevation).
04232400	SENECA LAKE AT WATKINS GLEN, NY (see station for daily mean elevation).
04233500	CAYUGA INLET (CAYUGA LAKE) AT ITHACA, NY (see station for daily mean elevation).
04234500	CANANDAIGUA LAKE AT CANANDAIGUA, NY (see station for daily mean elevation).
04235396	OWASCO LAKE NEAR AUBURN, NY (see station for daily elevation).
04238500	ONONDAGA RESERVOIR NEAR NEDROW, NY (see station for daily mean elevation, skeleton capacity table, monthly contents, and change in contents).
04240495	ONONDAGA LAKE AT LIVERPOOL, NY (see station for daily mean elevation).
04246000	ONEIDA LAKE AT BREWERTON, NY (see station for daily mean elevation).

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at crest-stage partial-record stations are presented in the following table. Discharge measurements made at low-flow partial-record sites and at miscellaneous sites and for special studies are given in separate tables.

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device that will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain, but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained, but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1998 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
SUSQUEHANNA RIVER BASIN								
Little Elk Creek near Westford, NY (01497805)	Lat 42°38'01", long 74°47'45", Otsego County, Hydrologic Unit 02050101, at culvert on Green- bush Road, 1.2 mi south of Westford, and 2.2 mi upstream from mouth. Elevation of gage is 1,520 feet above sea level, from topographic map. Drainage area is 3.73 mi ² .	1978-98	1- 9-98	17.63	155	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 pf gage is 997.25 ft above sea level(Corps of Engineers bench mark). Drainage area is 982 mi ² .	1938-95‡ 1996-98	1-10-98	13.60	20,300	3-18-36 3-14-77	16.6 14.64	j31,300 23,500
Unadilla River at Rockdale, NY (01502500)	Lat 42°22'40", long 75°24'23", Chenango County, Hydrologic Unit 02050101, on right bank 400 ft downstream from Chenango- Otsego County highway bridge at Rockdale, and 0.7 mi downstream from Kent Brook. Datum of gage is 992.25 ft above sea level. Drainage area is 520 mi ² .	1930-33‡, 1937-95‡ 1996-98	1- 9-98	11.16	12,000	12-31-42	12.98	17,400
Susquehanna River at Bainbridge, NY (01502632)	Lat 42°17'29", long 75°28'36", Chenango County, Hydrologic Unit 02050101, on right bank at the downstream side of bridge on State Highway 206 over the Susquehanna River, at Bainbridge. Datum of gage is 956.548 ft above sea level. Drainage area is 1,610 mi ² .	1988-98	1-10-98	19.91	35,800	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 sea level. Drainage area is 1,820 mi ² .	1988-98	1-10-98	18.60	34,600	1-20-96	a21.22	e40,000

† Operated as a continuous-record gaging station.

a Ice jam.

e Estimated.

j From U. S. Army Corps of Engineers.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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

Station name and number	Location and drainage area	Period of record	Water year 1998 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
SUSQUEHANNA RIVER BASIN--Continued								
Chenango River at Eaton, NY (01503980)	Lat 42°51'02", long 75°36'21", Madison County, Hydrologic Unit 02050102, at bridge on Landon Road at Eaton, 0.1 mi upstream from Eaton Brook, and 0.1 mi downstream from State Highway 26. Elevation of gage is 1,180 ft above mean sea level, from topographic map. Drainage area is 24.3 mi ² .	1964-65, 1967-98	1- 8-98	7.17	718	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 sea level. Drainage area is 263 mi ² .	1938-95† 1996-98	3-10-98	8.61	3,860	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 sea level. Drainage area is 593 mi ² .	1937-70†, 1971-98	1- 9-98	12.85	9,320	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 sea level. Drainage area is 453 mi ² .	1988-98	1- 8-98	8.18	10,600	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 feet above sea level, from topographic map. Drainage area is 5.32 mi ² .	1976-81, 1983-98	7- 1-98	1.94	388	1-19-96	a6.64	e1,150
Tioughnioga River at Itaska, NY (01511500)	Lat 42°17'53", long 75°54'33", Broome County, Hydrologic Unit 02050102, on right bank at Itaska, 3.8 mi downstream from Otselic River and village of Whitney Point, and 6.0 mi up- stream from mouth. Datum of gage is 917.97 ft above sea level. Drainage area is 730 mi ² .	1930-67†, 1968-98	1- 8-98	8.02	10,600	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.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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

Station name and number	Location and drainage area	Period of record	Water year 1998 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
SUSQUEHANNA RIVER BASIN--Continued								
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 sea level (levels of U. S. Army Corps of Engineers). Drainage area is 3,941 mi ² .	1936, 1937-67†, 1968-72, 1974-98	1- 9-98	21.56	54,300	e3-18-36	e30.50	107,000
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 sea level. Drainage area is 185 mi ² .	1930-78†, 1979-98	1- 8-98	8.44	6,880	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 sea level, from topographic map. Drainage area is 151 mi ² .	1988-98	1- 8-98	10.33	4,040	1-20-96	14.83	9,740
Susquehanna River near Waverly, NY (01515000)	Lat 41°59'05", long 76°30'05", Bradford County, Pa., Hydrologic Unit 02050103, on left bank 0.2 mi upstream from Cayuta Creek, 0.4 mi upstream from bridge on East Lockhart Street at Sayre, Pa., 1.0 mi downstream from New York- Pennsylvania State line, and 2.0 mi southeast of Waverly. Datum of gage is 743.96 ft above sea level. Drainage area is 4,773 mi ² .	1937-95† 1996-98	1- 9-98	15.35	67,500	6-23-72	21.24	121,000
Tioga River near Lindley, NY (01520500)	Lat 42°01'43", long 77°07'57", Steuben County, Hydrologic Unit 02050104, on left bank just downstream from bridge on County Highway 120 at Lindley, and 6 mi upstream from Canisteo River. Datum of gage is 964.50 ft above sea level. Drainage area is 771 mi ² .	1930-95† 1996-98	5-12-98	12.34	10,800	6-23-72 10-23-90 8-18-94	i26.27 m 13.37 13.38	128,000 13,900 13,900
Big Creek near Howard, NY (01521596)	Lat 42°22'01", long 77°34'33", Steuben County, Hydrologic Unit 02050104, at culvert on town road, 0.1 mi south of State Highway 70, 1.3 mi north of Butch Corner, 3.4 mi west of Howard, and 6.2 mi upstream from mouth. Elevation of gage is 1500 ft above sea level, from topographic map. Drainage area is 6.32 mi ² .	1977-98	1- 8-98	13.13	c	9-13-87 1-19-96	16.04 i16.23	580 c

† Operated as a continuous-record gaging station.

a Ice jam.

c Discharge not determined.

e Estimated.

i From floodmark.

m Prior to current degree of regulation.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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

Station name and number	Location and drainage area	Period of record	Water year 1998 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
SUSQUEHANNA RIVER BASIN--Continued								
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 sea level, (levels from Corps of Engineers, datum 1912). Drainage area is 340 mi ² .	1930-31†, 1937-70†, 1971-72, 1974-98	1- 8-98	12.78	7,940	6-23-72	23.48	43,000
Tuscarora Creek above South Addison, NY (01525981)	Lat 42°04'20", long 77°17'57", Steuben County, Hydrologic Unit 02050104, on right bank 500 ft downstream from bridge on State Highway 417, 200 ft upstream from Elk Creek, and 1.7 mi southwest of South Addison. Datum of gage is 1,079.00 ft above sea level. Drainage area is 102 mi ² .	1989-98	1- 8-98	9.37	7,990	10-23-91 1-19-96	10.96 a13.49	11,800 e8,700
Cohocton River at Cohocton, NY (01527000)	Lat 42°30'00", long 77°30'02", Steuben County, Hydrologic Unit 02050105, on left bank 450 ft downstream from bridge on State Highway 415 at Cohocton, 800 ft downstream from small tributary, and 1.4 mi upstream from Reynolds Creek. Datum of gage is 1,275.49 ft above sea level. Drainage area is 52.2 mi ² .	1951-81†, 1982-98	1- 8-98	6.46	800	6-23-72	9.82	2,260
Cuthrie Run near Big Flats, NY (01530301)	Lat 42°10'43", long 75°55'32", Chemung County, Hydrologic Unit 02050105, at culvert on Breed Hollow Road, 0.9 mi north of intersection of Eachers Hollow Road and Breed Hollow Road, 2.3 mi north of State Highway 17, and 3.0 mi north of Big Flats. Elevation of gage is 925 feet above sea level, from topographic map. Drainage area is 5.39 mi ² .	1976, 1979-81, 1983-98	6-30-98	15.38	371	6-19-76	18.52	800
Chemung River at Elmira, NY (01530332)	Lat 42°05'11", long 76°48'05", Chemung County, Hydrologic Unit 02050105, on right bank 350 ft upstream from bridge on Pennsylvania Avenue at the north end of George Place, 1.0 mi downstream from Hoffman Brook, at Elmira. Datum of gage is 833.65 ft above sea level. Drainage area is 2,162 mi ² .	1988-98	1- 8-98	13.18	36,700	1-20-96	i18.51	e71,000

† Operated as a continuous-record gaging station.

a Ice jam.

e Estimated.

i From floodmark.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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

Station name and number	Location and drainage area	Period of record	Water year 1998 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
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 sea level, from topographic map. Drainage area is 5.12 mi ² .	1978-81, 1983-98	1- 8-98	9.35	167	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 sea level, from topographic map. Drainage area is 9.06 mi ² .	1955-64§, 1965, 1967-68b, 1974†, 1975-98	1- 8-98	14.46	721	9-14-79	21.88	2,000
STREAMS TRIBUTARY TO LAKE ERIE								
Canadaway Creek at Fredonia, NY (04213376)	Lat 42°27'02", long 79°21'03", Chautauqua County, Hydrologic Unit 04120102, at bridge on Van Buren Road (Matteson Street), 0.8 mi northwest of Fredonia corporate boundary, and 1.2 mi upstream from Beaver Creek. Elevation of gage is 650 feet above sea level, from topographic map. Drainage area is 32.9 mi ² .	1962-63b, 1987-98	1- 8-98	4.53	1,910	5-19-97 8- 7-79	9.50 --	6,690 12,000
South Branch Cattaraugus Creek near Otto, NY (04213490)	Lat 42°21'54", long 78°48'04", Cattaraugus County, Hydrologic Unit 04120102, at highway bridge, 0.2 mi upstream from Mansfield Creek, 1.7 mi northeast of Otto, and 5.5 mi upstream from mouth. Elevation of gage is 1,260 feet above sea level, from topographic map. Drainage area is 25.1 mi ² .	1963-98	3-21-80 10-25-80 3-13-82 11- 3-82 6-18-84 2-24-85 8- 1-86 10- 4-86 6-23-89 4-11-90 10-10-90 4-25-92 3-30-93 3-24-94 3- 8-95 1-19-96 5-19-97	6.37 6.92 6.01 5.66 6.87 6.95 8.32 6.68 6.07 5.95 6.64 5.62 5.50 6.74 6.10 9.23 7.55	R1,160 R1,410 R1,000 R870 R1,390 R1,430 R2,190 R1,300 R1,030 R980 R1,280 R855 R811 R1,330 R1,040 R2,790 1,490	9-14-79	11.18	4,350
STREAMS TRIBUTARY TO NIAGARA RIVER								
Delaware Park Lake at Buffalo, NY (04216212)	Lat 42°56'03", long 78°52'28", Erie County, Hydrologic Unit 04120104, on north shore of Delaware Park Lake at down- stream side of bridge on Scajaquada Expressway (SH 198), and 1.7 mi upstream from mouth of Scajaquada Creek. Datum of gage is 570.00 ft IGLD (levels by Corp of Engineers). Drainage area is 1.14 mi ² .	1985-98	1- 8-98	7.25	d	6-22-87	12.48	d

† Operated as a continuous-record gaging station.

§ Operated as a low-flow partial-record station.

b Miscellaneous measurements made.

d No stage-discharge relationship defined at this site.

R Revised.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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

Station name and number	Location and drainage area	Period of record	Water year 1998 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
STREAMS TRIBUTARY TO NIAGARA RIVER--Continued								
Scajaquada Creek below Delaware Park Lake at Buffalo, NY (04216214)	Lat 42°56'15", long 78°53'07", Erie County, Hydrologic Unit 04120104, on left bank, 400 ft east of Grant Street (North) exit from Scajaquada Expressway (SH 198), at Buffalo. Datum of gage is 570.00 ft IGLD (levels by Corp of Engineers). Drainage area is 25.7 mi ² .	1985-98	1- 8-98	6.18	d	6-22-87	11.20	d
Little Tonawanda Creek at Linden, NY (04216500)	Lat 42°52'37", long 78°09'48", Genesee County, Hydrologic Unit 041201041, on right bank at upstream side of bridge on, County Highway 13A (Depot Road) in Linden and 9.3 mi upstream from mouth. Datum of gage is 1,081.62 ft above sea level. Drainage area is 22.1 mi ² .	1913-68†, 1970-72†, 1977-92†, 1993-98	7- 8-98	12.92	2,080	6-23-89	116.99	2,900
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 down- stream from dam at Lyndonville, and 4.4 mi upstream from mouth. Elevation of gage is 260 ft above sea level, from topographic map. Drainage area is 87.7 mi ² .	1962-70, 1972-73, 1976-98	1- 9-98	6.62	1,680	2-17-54 3-12-62	g 10.29	5,430 3,540
STREAMS TRIBUTARY TO LAKE ONTARIO								
West Creek near Hilton, NY (04220250)	Lat 43°18'10", long 77°48'50", Monroe County, Hydrologic Unit 04130001, on right bank just downstream from bridge on Collamer Road, 0.5 mi north of Collamer, and 1.5 mi northwest of Hilton. Datum of gage is 261.53 ft above sea level. Drainage area is 31.0 mi ² .	1958-64†, 1971-72, 1986-98	1- 8-98	8.95	1,100	3-30-60	10.67	1,480
Slater Creek near Greece, NY (0422028490)	Lat 43°15'10", long 77°38'54", Monroe County, Hydrologic Unit, 04130001, on left bank about 25 ft upstream from bridge on Latta Road near Mt. Read Blvd., 4.3 mi east of North Greece, and 1.7 mi above mouth. Elevation of gage is 270 ft above sea level, from topographic map. Drainage area is 1.52 mi ² .	1989-98	1- 8-98	4.39	179	10-20-96	4.80	219
Stony Brook tributary at South Dansville, NY (04224807)	Lat 42°28'16", long 77°40'21" Steuben County, Hydrologic Unit 04130002, at culvert on Willey Road, 0.6 mi upstream from mouth, and 0.9 mi west of South Dansville. Elevation of gage is 1,400 ft above sea level, from topographic map. Drainage area is 3.15 mi ² .	1977-82, 1984-91, 1996-98	1- 8-98	15.30	730	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 sea level, from topographic map. Drainage area is 6.74 mi ² .	1971-73, 1975-98	1- 8-98	13.38	238	1- 8-98	13.38	238

† Operated as a continuous-record gaging station.

d No stage-discharge relationship defined at this site.

g None available.

i From floodmark.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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

Station name and number	Location and drainage area	Period of record	Water year 1998 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
STREAMS TRIBUTARY TO LAKE ONTARIO--Continued								
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 sea level, from topographic map. Drainage area is 41.1 mi ² .	1957-62§, 1964-66§, 1970§, 1976-77‡, 1987-98	1- 8-98	6.01	1,140	11- 8-96	8.48	e4,700
Sugar Creek at Guyanoga, NY (04232460)	Lat 42°37'23", long 77°09'30", Yates County, Hydrologic Unit 04140201, at bridge on Sid White Road, 0.4 mi east of Guyanoga, and 2.3 mi upstream from mouth. Elevation of gage is 750 ft above sea level, from topographic map. Drainage area is 28.9 mi ² .	1966-98	1- 8-98	4.98	1,320	1-19-96	a5.88	e1,800
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 sea level, from topographic map. Drainage area is 13.8 mi ² .	1966-98	2-28-98 3-22-94 3- 8-95 1-19-96 11- 9-96	14.90 15.36 13.57 15.32 15.27	540 643 291 633 622	7-31-92 3-15-78	n6.32 n6.72	1,000 c
Cayuga Inlet at Ithaca, NY (04233255)	Lat 42°25'38", long 76°31'19", Tompkins County, Hydrologic Unit 04140201, on upstream abutment face of flood-control weir, at east end of Burrill 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 sea level. Drainage area is 86.7 mi ² .	1971-72, 1975-98	7- 8-98	--	e4,200	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 sea level. Drainage area is 3.56 mi ² .	1983-98	7- 8-98	--	e340	1-19-96	22.23	820
Schaeffer Creek near Canandaigua, NY (04234138)	Lat 42°54'25", long 77°22'14", Ontario County, Hydrologic Unit 04140201, at culvert on McCann Road, 0.8 mi upstream from Mud Creek, 1.7 mi north of U.S. Highway 20, and 3.2 mi west of Canandaigua. Elevation of gage is 860 ft above sea level, from topographic map. Drainage area is 7.84 mi ² .	1980-98	1- 8-98	12.88	336	3- 5-79 4-11-90 1- 8-98	g 12.88 12.88	e520 336 336

‡ Operated as a continuous-record gaging station.

§ Operated as a low-flow partial-record station.

a Ice jam.

c Discharge not determined.

e Estimated.

g None available.

n Datum prior to Oct. 1991.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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

Station name and number	Location and drainage area	Period of record	Water year 1998 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
STREAMS TRIBUTARY TO LAKE ONTARIO--Continued								
Mud Creek at East Victor, NY (04234200)	Lat 42°58'28", long 77°22'58", Ontario County, Hydrologic Unit 04140201, on left bank, 25 ft down- stream from bridge on State Highway 96 at East Victor, 0.3 mi upstream from Fish Creek, and 0.5 mi upstream from mouth. Elevation of gage is 580 ft above sea level, from topographic map. Drainage area is 64.2 mi ² .	1958-68‡, 1972, 1976-98	1- 8-98	6.76	1,630	6-22-72 4-21-91	7.85 7.22	1,800 1,880
Canandaigua Outlet tributary near Alloway, NY (04235255)	Lat 43°00'21", long 77°00'54", Ontario County, Hydrologic Unit 04140201, at bridge on Pre- Emption Road, 0.5 mi south of Wayne-Ontario County line, 1.8 mi southwest of Alloway, and 2.9 mi upstream from mouth. Elevation of gage is 490 ft above sea level, from topographic map. Drainage area is 2.94 mi ² .	1978-98	1- 8-98	7.34	102	1-19-96 1- 8-98	7.34 7.34	102 102
Scriba Creek near Constantia, NY (04245840)	Lat 43°15'35" long 76°00'11", Oswego County, Hydrologic Unit 04140202, on right bank, 8 ft upstream from bridge on Cemetery Road, and about 0.8 mi north of village of Constantia. Datum of gage is 410.00 ft above sea level. Drainage area is 38.4 mi ² .	1966-68‡, 1969, 1971-98	1- 8-98	7.32	1,300	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 sea level, from topographic map. Drainage area is 31.7 mi ² .	1962-66, 1968-98	1- 8-98	6.24	811	3-18-73	7.85	1,350

‡ Operated as a continuous-record gaging station.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during water year 1998--Continued

Stream	Tributary to	Location	Drainage area ² (mi)	Measured previously (water years)	Measurements	
					Date	Discharge ³ (ft /s)
ALLEGHENY RIVER BASIN						
03010820	Ohio River	Lat 42°04'19", long 78°27'10",	1,192	1967-69,	10- 2-97	1,670
Allegheny River		Cattaraugus County, Hydrologic		1971,	1- 5-98	7,080
		Unit 05010001, on right bank		1975,	1-11-98	15,000
		at sewage treatment plant ,		1983,		
		1.3 mi upstream of Two Mile		1997		
		Creek and 1.7 mi downstream				
		of Olean Creek.				
STREAMS TRIBUTARY TO LAKE ONTARIO						
04237944	Onondaga Creek	Lat 42°51'13", long 76°08'34",	0.26	1992-94†	10-16-97	0.102
Onondaga Creek		Onondaga County, Hydrologic		1995-97	1- 6-98	2.14
Trib. No. 6		Unit 04140201, about 450 ft				
		upstream of the main mudboil				
		Depression area, 1,325 ft east				
		of Tully Farms road, 2,000				
		ft south of Otisco road, and				
		4.2 mi northwest of Tully.				

† Operated as a continuous-record gaging station.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES 277

STREAMS TRIBUTARY TO LAKE ONTARIO

04237906 ONONDAGA CREEK AT TULLY VALLEY, NY

LOCATION.--Lat 42°48'55", long 76°09'46", Onondaga County, Hydrologic Unit 04140201, at culvert on Hallinan Road, 0.9 mi southwest of Vesper.

DRAINAGE AREA.--4.23 mi².

PERIOD OF RECORD.--July 20, 1998.

CHEMICAL DATA: 1998 (a).

SEDIMENT DATA: 1998 (a).

WATER QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)
JUL 20...	0745	3.3	490	8.3	17.7	7.1	220	70	10	18	1.4

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	SEDI- MENT, DIS- SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
JUL 20...	28	11	174	212	5.2	284	15	<4.0	.029	19	.17

STREAMS TRIBUTARY TO LAKE ONTARIO

04237917 ONONDAGA CREEK AT CARDIFF, NY

LOCATION.--Lat 42°49'30", long 76°08'38", Onondaga County, Hydrologic Unit 04140201, at Tully Farms Road, 2.0 mi north of State Route 80.

DRAINAGE AREA.--6.40 mi².

PERIOD OF RECORD.--July 20, 1998.

CHEMICAL DATA: 1998 (a).

SEDIMENT DATA: 1998 (a).

WATER QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS TOTAL AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)
JUL 20...	0945	7.1	456	8.2	16.6	7.7	210	60	15	14

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)
JUL 20...	1.0	21	12	224	273	6.0	271	<10	<4.0	.024

STREAMS TRIBUTARY TO LAKE ONTARIO

04237932 ONONDAGA NEAR TULLY VALLEY, NY

LOCATION.--Lat 42°50'24", long 76°08'05", Onondaga County, Hydrologic Unit 04140201, at point where creek approaches State Route 11A about 0.8 mi south of Tully Town line, and 1.5 mi north of Solvay Road.

PERIOD OF RECORD.--July 20, 1998.

CHEMICAL DATA: 1998 (a).

SEDIMENT DATA: 1998 (a).

WATER QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)
JUL 20...	1030	10	554	8.2	18.0	7.4	220	60	16	34	1.2

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
JUL 20...	39	17	212	259	6.0	307	<10	13	.11	16	.45

STREAMS TRIBUTARY TO LAKE ONTARIO

04237936 ONONDAGA CREEK ABOVE MUDBOIL DEPRESSION AREA AT TULLY, NY

LOCATION.--Lat 42°51'18", long 76°08'15", Onondaga County, Hydrologic Unit 04140201, 1600 ft upstream of the collapsed Otisco Road bridge, 860 ft east of the main depression area, 1100 ft west of State Route 11A, and 0.3 mi southwest of Tully Valley.

DRAINAGE AREA.--14.2 mi².

PERIOD OF RECORD.--November 1997 to current year.

CHEMICAL DATA: 1997 (b).

SEDIMENT DATA: 1997 (b).

WATER QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)
NOV 17...	1215	7.3	689	8.1	3.1	14.0	110	250	71	19	34	1.4
FEB 10...	0930	15	681	8.3	.6	--	--	210	61	15	62	.96
MAY 28...	0900	11	626	8.3	14.3	8.3	--	210	58	16	49	1.2
JUL 20...	1230	11	604	8.3	19.0	7.9	--	210	58	16	53	1.2

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	SEDI- MENT, SUS- PENDEDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDEDED (T/DAY) (80155)
NOV 17...	56	24	220	268	6.1	356	17	21	.13	52	1.0
FEB 10...	71	27	204	249	5.3	391	<10	24	.24	51	2.0
MAY 28...	55	20	226	276	4.9	353	18	15	.18	--	--
JUL 20...	51	19	208	254	5.6	331	<10	7.8	.19	33	1.0

STREAMS TRIBUTARY TO LAKE ONTARIO

04237950 ONONDAGA CREEK AT TULLY VALLEY, NY

LOCATION.--Lat 42°51'31", long 76°08'19", Onondaga County, Hydrologic Unit 04140201, 25 ft north (downstream) of the collapsed Otisco Road bridge, 1100 ft west of State Route 11A, and 450 ft west-northwest of the Baily Cemetery, at Tully Valley.

DRAINAGE AREA.--16.4 mi².

PERIOD OF RECORD.--November 1997 to current year.

CHEMICAL DATA: 1998 (b).

SEDIMENT DATA: 1998 (b).

WATER QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED SATUR- ATION (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)
NOV 17...	1245	8.6	1510	8.2	3.2	14.0	111	310	82	26	179	1.9
FEB 10...	1130	19	1300	8.2	2.0	--	--	260	71	20	158	1.3
MAY 28...	1030	12	1440	8.2	15.0	8.4	85	270	69	24	183	1.5
JUL 20...	1330	12	1410	8.2	19.3	7.6	--	270	68	23	185	1.7

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	ALKA- LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	BICAR- BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	SEDI- MENT, DIS- SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
NOV 17...	300	56	188	229	6.2	808	76	36	.49	78	1.8
FEB 10...	240	50	194	237	5.5	698	<10	32	.50	82	4.3
MAY 28...	300	53	204	249	5.2	810	43	37	.57	--	--
JUL 20...	290	50	184	225	5.8	782	<10	17	.57	55	1.8

STREAMS TRIBUTARY TO LAKE ONTARIO

04237956 ONONDAGA NORTH OF TULLY VALLEY, NY

LOCATION.--Lat 42°52'20", long 76°08'20", Onondaga County, Hydrologic Unit 04140201, at bridge on Nichols Road, 0.1 mi west of State Route 11A, and 1.4 mi south of Cardiff.

DRAINAGE AREA.--28.9 mi².

PERIOD OF RECORD.--July 20, 1998.

CHEMICAL DATA: 1998 (a).

SEDIMENT DATA: 1998 (a).

WATER QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)
JUL 20...	1415	14	1160	8.2	21.1	7.0	270	69	23	174	1.7
DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
JUL 20...	270	50	200	244	7.7	754	<10	21	.50	52	2.0

STREAMS TRIBUTARY TO LAKE ONTARIO

04237957 ONONDAGA CREEK AT TULLY VALLEY, NY

LOCATION.--Lat 42°37'57", long 76°09'14", Onondaga County, Hydrologic Unit 04140201, at bridge on Webster Road, 0.4 mi south of Baily's Settlement, and 13.5 mi upstream of Onondaga Lake.

DRAINAGE AREA.--31.2 mi².

PERIOD OF RECORD.--November 1997 to current year.

CHEMICAL DATA: 1998 (b).

SEDIMENT DATA: 1998 (b).

WATER QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)
NOV 17...	1330	15	1940	8.0	3.0	13.7	106	350	94	28	230	2.3
FEB 10...	1200	32	1530	8.1	1.6	--	--	290	80	22	192	1.6
MAY 28...	1115	21	1880	8.1	16.0	7.8	77	310	81	25	257	1.8
JUL 20...	1430	18	2010	8.1	20.5	7.3	--	320	84	26	295	2.0

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
NOV 17...	420	72	200	244	6.1	1040	8.5	58	.015	106	4.3
FEB 10...	310	64	206	251	5.1	842	<10	39	.44	85	7.4
MAY 28...	430	71	188	229	5.1	1040	15	61	.52	73	4.2
JUL 20...	470	73	184	225	5.6	1130	<30	30	.52	92	4.5

STREAMS TRIBUTARY TO LAKE ONTARIO

04237959 ONONDAGA CREEK AT CARDIFF, NY

LOCATION.--Lat 42°53'17", long 76°09'22", Onondaga County, Hydrologic Unit 04140201, at culvert on Tully Farms Road,
0.6 mi southwest of Cardiff.

DRAINAGE AREA.--32.1 mi².

PERIOD OF RECORD.--July 20, 1998.

CHEMICAL DATA: 1998 (a).

SEDIMENT DATA: 1998 (a).

WATER QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)
JUL 20...	1530	19	1970	8.1	21.0	7.1	320	83	26	290	1.9

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	ALKA- LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	BICAR- BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	SEDI- MENT, DIS- SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
JUL 20...	460	72	198	242	5.5	1110	59	29	.65	85	4.3

STREAMS TRIBUTARY TO LAKE ONTARIO

04237962 ONONDAGA CREEK NEAR CARDIFF, NY

LOCATION.--Lat 42°54'00", long 76°10'10", Onondaga County, Hydrologic Unit 04140201, at bridge on State Route 20, 1.5 mi northwest of Cardiff, and 12.1 mi upstream of Onondaga Lake.

PERIOD OF RECORD.--November 1997 to current year.

CHEMICAL DATA: 1998 (b).

SEDIMENT DATA: 1998 (b).

WATER QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)
NOV 17...	1430	15	2110	7.9	2.2	13.2	100	370	99	29	278	2.4
FEB 10...	1300	33	1580	8.1	1.2	--	--	300	83	23	200	1.6
MAY 28...	1200	23	2070	8.0	17.6	7.0	74	330	85	28	287	2.0
JUL 20...	1600	18	2250	8.0	22.2	5.9	--	330	86	28	340	2.2

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
NOV 17...	470	85	204	249	6.2	712	11	57	.51	111	4.6
FEB 10...	320	70	196	239	5.1	868	<10	42	.43	109	9.6
MAY 28...	480	87	196	239	4.9	1160	36	64	.57	93	5.8
JUL 20...	540	92	172	210	5.5	1260	<30	50	.75	96	4.5

STREAMS TRIBUTARY TO LAKE ONTARIO

424811076085100 GATEHOUSE POND NEAR TULLY, NY

LOCATION.--Lat 42°48'11", long 76°08'51", Onondaga County, Hydrologic Unit 04140201, at Gatehouse Road, 300 ft south of intersection with State Route 80, and 1.9 mi west of Tully.

PERIOD OF RECORD.--November 1997 to current year.

CHEMICAL DATA: 1998 (b).

SEDIMENT DATA: 1998 (b).

WATER QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)
NOV 17...	0800	340	7.7	1.9	8.1	61	150	42	11	7.6
FEB 10...	0745	353	7.6	2.4	--	--	160	48	11	9.9
MAY 28...	0730	322	8.0	20.0	5.3	--	150	43	9.7	8.6
JUL 20...	0830	297	8.1	24.9	6.5	--	140	39	9.8	9.0

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	ALKA- LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	BICAR- BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)
NOV 17...	.82	15	5.3	132	161	1.3	178	8.7	3.2	<.01
FEB 10...	1.1	20	8.0	166	203	4.5	203	<10	16	<.01
MAY 28...	.81	18	5.7	104	127	1.2	191	16	6.1	<.01
JUL 20...	.68	16	4.8	112	137	.95	173	11	<4.0	<.01

STREAMS TRIBUTARY TO LAKE ONTARIO

430449077294201 CARTERSVILLE WASTE CHANNEL AT PITTSFORD, NY

LOCATION.--Lat 43°04'49", long 77°29'42", Hydrologic Unit 04140101, at Marsh Road, 0.1 mi south of New York State Highway 31 and 0.25 mi north of Erie Canal.

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

CHEMICAL DATA: 1988-91 (d), 1992 (c) 1993 (b), 1994 (d), 1995 (b), 1996-97 (a), 1998 (b).

NUTRIENT DATA: 1988-91 (d), 1992 (c) 1993 (b), 1994 (d), 1995 (b), 1996-97 (a), 1998 (b).

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

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	RESIDUE VOLATILE, TILE, SUS- PENDED (MG/L) (00535)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L) AS N (00608)
MAY							
20...	1115	1.4	21	8.0	21	<5	.02
JUN							
03...	0955	1.3	12	8.5	14	<5	.02
17...	0930	1.1	13	8.1	28	4	.03
AUG							
05...	0915	1.1	8.0	8.0	16	2	.01
SEP							
15...	0915	1.4	5.8	8.0	8	<3	.01

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L) AS N (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L) AS N (00630)	PHOS- PHORUS TOTAL (MG/L) AS P (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L) AS P (00671)	CHLO- RIDE, DIS- SOLVED (MG/L) AS CL (00940)	SULFATE DIS- SOLVED (MG/L) AS SO4 (00945)
MAY						
20...	.60	.68	.085	.033	30	35
JUN						
03...	.24	.94	.070	.021	45	91
17...	.46	1.3	.065	.029	55	96
AUG						
05...	.61	.68	.060	.039	38	81
SEP						
15...	.25	.60	.045	.029	46	81

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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.--December 1984 to current year.

CHEMICAL DATA: 1984-86 (a), 1988-96 (a), 1998 (b).

NUTRIENT DATA: 1984-86 (a), 1988-96 (a), 1998 (b).

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	RESIDUE VOLA- TILE, SUS- PENDED (MG/L) (00535)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
JUN							
03...	1045	--	11	7.5	<5	5	.20
17...	1025	--	20	6.7	27	3	.47
SEP							
15...	1037	3.8	65	5.8	84	12	.29

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
JUN						
03...	1.0	.14	.100	.012	110	29
17...	1.4	.18	.140	.026	110	28
SEP						
15...	.86	.63	.230	.037	61	24

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.--December 1984 to current year.

CHEMICAL DATA: 1984-86 (a), 1988-96 (a), 1998 (b).

NUTRIENT DATA: 1984-86 (a), 1988-96 (a), 1998 (b).

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	RESIDUE VOLA- TILE, SUS- PENDED (MG/L) (00535)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
JUN							
03...	1100	3.0	20	8.0	35	<5	.07
17...	1035	--	17	7.9	23	3	.16
SEP							
15...	1036	6.4	56	6.5	77	10	.22

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
JUN						
03...	.54	.83	.095	.014	59	83
17...	.83	1.3	.075	.037	67	59
SEP						
15...	.78	.64	.210	.033	57	40

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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.--December 1984 to current year.

CHEMICAL DATA: 1984-86 (a), 1988-95 (b), 1998 (b).

NUTRIENT DATA: 1984-86 (a), 1988-95 (b), 1998 (b).

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	RESIDUE VOLA- TILE, SUS- PENDE (MG/L) (00535)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L) AS N) (00608)
JUN							
03...	1115	--	22	--	53	--	.05
17...	1045	--	15	8.2	20	<3	.11
SEP							
15...	1038	2.6	21	8.2	47	5	.07

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L) AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L) AS N) (00630)	PHOS- PHORUS TOTAL (MG/L) AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L) AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L) AS CL) (00940)	SULFATE DIS- SOLVED (MG/L) AS SO4) (00945)
JUN						
03...	.55	.96	.085	.013	47	93
17...	.62	1.6	.055	.039	57	65
SEP						
15...	.44	.64	.090	.025	50	73

STREAMS TRIBUTARY TO LAKE ONTARIO

430557077344401 ALLEN CREEK ABOVE ERIE CANAL SIPHON NEAR ROCHESTER, NY

LOCATION.--Lat 43°05'57", long 77°34'44", Hydrologic Unit 04140101, at north bank of Erie Canal, 0.01 mi east of Winton Road.

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

CHEMICAL DATA: 1986-87 (a), 1988 (d), 1989 (c), 1990 (d), 1991-92 (c), 1993 (b), 1994 (d), 1995 (a), 1996-97 (a), 1998 (b).

NUTRIENT DATA: 1986-87 (a), 1988 (d), 1989 (c), 1990 (d), 1991-92 (c), 1993 (b), 1994 (d), 1995 (a), 1996-97 (a), 1998 (b).

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

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	RESIDUE VOLATILE, SUS- PENDED (MG/L) (00535)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
MAY							
19...	1425	3.0	4.4	9.2	<5	<5	.09
JUN							
03...	1200	1.1	65	8.7	<5	<5	.06
17...	1115	1.1	7.7	6.7	9	<3	.07
AUG							
05...	1035	.40	58	8.1	54	6	.04
SEP							
15...	1320	1.3	5.1	6.4	5	<3	.04

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
MAY						
19...	.82	.21	.058	.020	310	64
JUN						
03...	.74	.45	.065	.015	290	49
17...	.63	.36	.065	.022	280	44
AUG						
05...	.74	.14	.120	.008	130	49
SEP						
15...	.38	.12	.050	.011	130	44

STREAMS TRIBUTARY TO LAKE ONTARIO

430557077344402 ALLEN CREEK BELOW ERIE CANAL SIPHON NEAR ROCHESTER, NY

LOCATION.--Lat 43°05'57", long 77°34'44", Hydrologic Unit 04140101, at north bank of Erie Canal, 0.01 mi east of Winton Road.

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

CHEMICAL DATA: 1985 (a), 1986 (b), 1987 (a), 1988 (d), 1989 (c), 1990 (d), 1991-93 (c), 1994 (d), 1995 (c), 1996-97 (a), 1998 (b).

NUTRIENT DATA: 1985 (a), 1986 (b), 1987 (a), 1988 (d), 1989 (c), 1990 (d), 1991-93 (c), 1994 (d), 1995 (c), 1996-97 (a), 1998 (b).

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

REMARKS.--Prior to 1994 water year, data published in "Water Resources of Monroe County New York, Water Years 1984-88 with Emphasis on Water Quality in the Irondequoit Creek Basin", U. S. Geological Survey open-file report 96-4054 and in "Water Resources of Monroe County New York, Water Years 1989-93", U. S. Geological Survey Open-File Report 97-587.

WATER QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	RESIDUE VOLATILE, TILE, SUS- PENDED (MG/L) (00535)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
MAY							
19...	1305	.92	12	8.8	10	<5	.07
JUN							
03...	1230	--	7.1	9.1	8	<5	.06
17...	1110	--	11	7.4	11	<3	.09
AUG							
05...	1035	8.5	23	8.2	41	3	.02
SEP							
15...	1245	4.5	15	6.9	28	4	.03

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHOPHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	CHLO- RYD, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
MAY						
19...	.81	.37	.060	.019	220	52
JUN						
03...	.60	.64	.058	.014	200	58
17...	.62	.75	.063	.030	190	44
AUG						
05...	.36	.72	.095	.031	40	69
SEP						
15...	.30	.57	.065	.020	70	71

STREAMS TRIBUTARY TO LAKE ONTARIO

430557077344403 ALLEN CREEK AT ERIE CANAL SIPHON NEAR ROCHESTER, NY

LOCATION.--Lat 43°05'57", long 77°34'44", Hydrologic Unit 04140101, at north bank of Erie Canal, 0.01 mi east of Winton Road.

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

CHEMICAL DATA: 1989 (a), 1987 (b), 1988 (d), 1989 (c), 1990 (d), 1991-93 (c), 1994 (d), 1995 (c), 1996 (b), 1997 (a), 1998 (b).

NUTRIENT DATA: 1989 (a), 1987 (b), 1988 (d), 1989 (c), 1990 (d), 1991-93 (c), 1994 (d), 1995 (c), 1996 (b), 1997 (a), 1998 (b).

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

REMARKS.--Prior to 1994 water year, data published in "Water Resources of Monroe County New York, Water Years 1984-88 with Emphasis on Water Quality in the Irondequoit Creek Basin", U. S. Geological Survey Open-File Report 96-4054 and in "Water Resources of Monroe County New York, Water Years 1989-93", U. S. Geological Survey Open-File Report 97-587.

WATER QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

WATER-QUALITY DATA

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	RESIDUE TOTAL AT 105 DEG. C, SUS- SOLVED PENDEDED (MG/L) (00530)	RESIDUE VOLATILE, SUS- SOLVED PENDEDED (MG/L) (00535)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
MAY							
19...	1315	--	32	8.6	34	<5	.04
JUN							
17...	1115	--	38	--	42	--	.14
AUG							
05...	1015	--	18	6.2	32	2	.03
JUN							
03...	1250	--	24	8.8	43	<5	.03
SEP							
15...	1400	3.2	17	9.5	32	4	.04

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED TOTAL (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
MAY						
19...	.47	.68	.075	.018	27	30
JUN						
17...	.86	2.3	.110	.041	45	64
AUG						
05...	.55	.73	.090	.032	38	70
JUN						
03...	.48	1.1	.085	.012	53	96
SEP						
15...	.24	.62	.070	.020	61	72

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD AND MISCELLANEOUS SITES

STREAMS TRIBUTARY TO LAKE ONTARIO

430605077262201 FAIRPORT WASTE CHANNEL AT FAIRPORT, NY

LOCATION.--Lat 43°06'05", long 77°26'22", Hydrologic Unit 04140101, at State Street, 0.15 mi east of New York State Highway 250, and 0.05 mi north of Erie canal.

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

CHEMICAL DATA: 1988-89 (d), 1990 (c), 1991 (a), 1992-95 (c), 1996-98 (a).

NUTRIENT DATA: 1988-89 (d), 1990 (c), 1991 (a), 1992-95 (c), 1996-98 (a).

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

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	RESIDUE VOLLA- TILE, SUS- PENDED (MG/L) (00535)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
AUG 26...	0757	.87	6.1	7.5	8	<2	.08

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
AUG 26...	.47	.39	.055	.032	36	87

STREAMS TRIBUTARY TO LAKE ONTARIO

431510077363501 GENESEE RIVER AT CHARLOTTE PUMP STATION, NEAR ROCHESTER, NY

LOCATION.--Lat 43°15'10", long 77°36'35", Monroe County, Hydrologic Unit 04130003, at Charlotte, in Rochester, on west bank of the Genesee River, 1300 ft downstream of Stutson Street Bridge, 0.5 mi upstream of mouth, and 5.0 mi downstream from gaging station (04232000) at Rochester.

DRAINAGE AREA.--2,467 mi² at station 04232000.

PERIOD OF RECORD.--Water years 1990 to current year.

CHEMICAL DATA: 1990-98 (e).

NUTRIENT DATA: 1990-98 (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 1997 TO SEPTEMBER 1998

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	TUR- BID- ITY (NTU) (00076)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	RESIDUE VOLATILE TILE, SUS- PENDED (MG/L) (00535)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
OCT							
02-04	0945	0845	3960	46	121	10	.06
04-06	0945	0845	2400	29	--	--	.07
06-08	1010	0910	2370	18	--	--	.09
08-10	1010	0910	1490	18	--	--	.09
10-12	0935	0835	1190	17	--	--	.10
12-14	0935	0835	1020	15	--	--	.12
14-16	0945	0845	1420	15	--	--	.12
16-18	0940	0840	1210	13	--	--	.10
18-20	0940	0840	1910	14	--	--	.10
20-21	0955	2055	1450	15	--	--	.03
21-23	2155	0855	1610	12	--	--	.03
23-25	0945	0845	1380	8.5	--	--	.07
25-27	0945	0845	1080	8.3	--	--	.14
27-28	1010	2110	1170	4.9	--	--	.08
28-30	2210	0910	1440	5.3	--	--	.07
OCT 30-							
NOV 01	1050	0950	1180	4.4	--	--	.12
01-03	1050	0950	1770	8.6	--	--	.13
03-04	1020	2120	4760	31	56	<5	.05
04-06	2220	0920	4370	67	102	6	.05
06-08	1055	0955	3160	38	53	<5	.07
08-10	1055	0955	1860	14	--	--	.07
10-11	1015	2115	1830	6.6	--	--	.12
11-13	2215	0915	1610	6.4	--	--	.12
13-15	1020	0920	1320	15	--	--	.10
15-17	1020	0920	1440	4.5	--	--	.17
17-18	1025	2125	1450	3.4	--	--	.09
18-20	2225	0925	1540	4.1	--	--	.10
20-22	1020	0920	2010	14	--	--	.12
24-26	1025	0925	3640	23	--	--	.07
26-28	0950	2050	4170	24	--	--	.08
NOV 28-							
DEC 01	2150	0850	5090	89	133	8	.05
01-02	1020	2120	5580	36	62	<5	.05
02-04	2220	0920	5650	53	95	6	.05
04-06	1015	0915	4600	34	57	<5	.06
06-08	1015	0915	4030	19	--	--	.04
08-09	1025	2125	3000	14	--	--	.09
09-11	2225	0925	2720	19	--	--	.11
11-13	1000	0900	2380	7.3	--	--	.11
13-15	1000	0900	2430	6.8	--	--	.12
15-17	1000	0900	2300	5.1	--	--	.15
17-19	1000	0900	2630	6.2	--	--	.14
19-20	1010	2110	2510	5.6	--	--	.16
20-22	2210	0910	3000	6.9	--	--	.11
22-24	1005	0905	2390	7.5	--	--	.12
24-26	1005	0905	3550	8.4	--	--	.08
26-27	1005	2105	5560	36	67	<5	.07
27-29	2205	0905	4930	40	80	<5	.04
29-31	1045	0945	3640	18	--	--	.03

STREAMS TRIBUTARY TO LAKE ONTARIO

431510077363501 GENESEE RIVER AT CHARLOTTE PUMP STATION, NEAR ROCHESTER, NY--continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
OCT						
02-04	.62	.74	.110	.027	27	48
04-06	.39	.73	.090	.031	26	42
06-08	.39	.78	.065	.033	34	53
08-10	.45	.85	.065	.035	36	61
10-12	.45	.81	.075	.039	39	62
12-14	.50	.84	.075	.044	38	64
14-16	.56	.96	.090	.060	48	78
16-18	.50	.80	.055	.034	55	80
18-20	.56	.75	.055	.030	45	66
20-21	.47	.80	.055	.030	38	63
21-23	.49	.65	.050	.029	35	60
23-25	.55	.62	.055	.049	38	63
25-27	.67	.65	.060	.041	38	64
27-28	.44	.74	.070	.042	39	70
28-30	.35	.72	.055	.036	45	90
OCT 30-						
NOV 01	.42	.79	.050	.026	59	110
01-03	.49	.87	.025	.040	56	110
03-04	.56	.94	.110	.033	49	77
04-06	.75	.70	.120	.028	32	53
06-08	.49	.66	.120	.031	32	55
08-10	.56	.80	.075	.035	38	65
10-11	.46	1.0	.065	.038	50	80
11-13	.44	.92	.050	.030	43	64
13-15	.36	.88	.060	.031	43	66
15-17	.59	.92	.050	.029	60	73
17-18	.47	.92	.055	.035	59	74
18-20	.43	1.1	.050	.030	57	78
20-22	.48	1.1	.055	.022	57	75
24-26	.85	1.3	.080	.026	51	59
26-28	.39	1.3	.075	.023	47	58
NOV 28-						
DEC 01	.55	1.1	.130	.023	35	44
01-02	.75	1.1	.095	.019	33	43
02-04	.54	.96	.110	.017	30	38
04-06	.44	.99	.035	.020	30	41
06-08	.78	1.1	.110	.018	37	47
08-09	.43	1.1	.050	.020	39	52
09-11	.48	1.2	.055	.019	45	61
11-13	.22	1.2	.035	.018	52	62
13-15	.47	1.2	.045	.022	51	64
15-17	--	1.2	.040	.024	47	61
17-19	.47	1.3	.040	.019	50	67
19-20	.61	1.2	.040	.023	50	64
20-22	.50	1.3	.045	.021	56	68
22-24	.62	1.4	.055	.035	56	62
24-26	.47	1.4	.045	.022	59	66
26-27	.48	1.5	.120	.029	48	50
27-29	.36	1.4	.130	.025	40	46
29-31	.45	--	.065	.022	40	48

STREAMS TRIBUTARY TO LAKE ONTARIO

431510077363501 GENESEE RIVER AT CHARLOTTE PUMP STATION, NEAR ROCHESTER, NY--continued

WATER YEAR-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	TUR- BID- ITY (NTU) (00076)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	RESIDUE VOLATILE, SUS- PENDED (MG/L) (00535)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
DEC 31-							
JAN 02	1045	0945	2060	16	--	--	.04
02-03	1105	2205	2750	7.1	--	--	.04
03-05	2305	1005	5230	22	--	--	.05
05-06	1040	1540	6420	60	165	9	.05
06-07	1640	1840	4930	50	114	7	.05
12-13	1055	1355	8360	85	203	54	.06
13-14	1455	0955	8830	170	251	15	.06
16-18	1125	1025	8990	250	354	286	.06
18-20	1125	0925	9590	200	239	13	.07
20-21	1015	0915	9300	160	231	12	.07
21-22	1015	0915	8880	150	124	<10	.07
22-24	1010	0910	8590	120	163	10	.07
24-26	1010	0910	8660	100	119	<10	.08
26-27	1100	2200	8310	90	142	8	.06
27-29	2300	1000	7570	80	117	7	.07
29-31	1040	0940	6080	45	69	<5	.08
JAN 31-							
FEB 02	1040	0940	2950	33	52	<5	.10
02-03	1015	2115	2200	22	--	--	.13
03-05	2215	0915	3030	22	--	--	.20
05-07	1005	0905	3820	29	--	--	.11
07-09	1005	0905	2480	20	--	--	.09
09-11	0955	0855	1550	12	--	--	.14
11-13	0955	0855	3760	14	--	--	.14
13-15	1010	0910	3410	38	66	<5	.13
15-17	1010	0910	2020	45	74	<5	.13
17-18	1035	0935	2200	25	--	--	.15
18-19	1035	0935	5520	26	--	--	.13
19-21	1015	0915	7800	170	293	20	.10
21-23	1015	0915	5940	75	122	9	.08
23-24	1020	2120	4750	45	76	5	.08
24-26	2220	0920	4620	29	--	--	.09
26-28	1015	0915	4910	27	--	--	.09
FEB 28-							
MAR 02	1015	0915	7460	75	162	10	.09
02-03	1040	2140	9360	230	394	<6	.08
03-05	2240	0940	7960	160	252	12	.06
05-07	1000	0900	6840	65	80	8	.07
07-09	1000	0900	5580	29	--	--	.06
09-10	1015	2115	5290	55	113	7	.09
10-12	2215	0915	5150	50	93	6	.09
12-14	1020	0920	3630	50	76	5	.08
14-16	1020	0920	2950	17	--	--	.10
16-17	1100	2200	2320	12	--	--	.07
17-19	2300	1000	2550	12	--	--	.15
19-21	1015	0515	4380	24	--	--	.11
23-24	1150	2250	5840	31	41	6	.05
24-26	2350	1050	7040	31	38	<5	.05
26-28	1035	0935	9770	90	189	11	.04
28-30	1035	0935	6810	31	133	7	.05
30-31	1050	0650	6650	70	118	7	.08
APR							
02-03	1050	1350	6710	80	133	<10	.06
06-07	1050	2150	4190	25	--	--	.10
07-09	2250	0950	2870	18	--	--	.13
09-11	1050	0950	4010	22	--	--	.14
11-13	1050	0950	5260	140	165	17	.07
13-14	1035	2135	4680	100	133	<10	.07
14-16	2235	0935	4290	34	53	<10	.08
16-18	1035	0935	3380	16	--	--	.11
18-20	1035	0935	2950	18	--	--	.12
20-21	1115	2215	6720	85	--	--	.09
22-23	2315	1015	5850	180	--	--	.08
23-25	1040	0940	5560	120	165	10	.09
25-27	1040	0940	5790	90	164	10	.07
27-28	1020	2120	4220	50	76	5	.07
28-30	2220	0920	3980	27	--	--	.06

STREAMS TRIBUTARY TO LAKE ONTARIO

431510077363501 GENESEE RIVER AT CHARLOTTE PUMP STATION, NEAR ROCHESTER, NY--continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
DEC 31-						
JAN 02	.31	1.4	.060	.027	44	53
02-03	.36	1.4	.055	.026	58	66
03-05	.50	1.4	.095	.021	66	60
05-06	.49	1.2	.140	.018	45	42
06-07	.83	1.1	.150	.018	50	46
12-13	.45	1.3	.190	.002	33	44
13-14	.64	1.3	.290	.027	35	43
16-18	.82	1.1	.340	.033	29	31
18-20	.86	1.0	.270	.023	27	30
20-21	.83	1.1	.095	.016	31	33
21-22	.34	1.1	.090	.016	31	33
22-24	.17	1.1	.180	.030	34	30
24-26	.26	1.2	.060	.072	36	33
26-27	.26	1.3	.150	.023	31	34
27-29	.26	1.3	.120	.041	30	34
29-31	.43	1.5	.090	.017	40	44
JAN 31-						
FEB 02	.47	1.6	.075	.020	50	62
02-03	.48	1.7	.065	.022	59	84
03-05	.57	1.9	.080	.021	64	95
05-07	.39	1.7	.075	.018	42	63
07-09	.38	1.6	.050	.014	39	60
09-11	.33	1.6	.045	.022	46	75
11-13	.40	1.8	.050	.022	53	79
13-15	.35	1.7	.085	.019	41	66
15-17	.05	1.6	.100	.019	40	69
17-18	.47	1.4	.085	.025	51	75
18-19	.61	1.5	.100	.026	52	74
19-21	.76	1.3	.110	.026	38	44
21-23	.44	1.2	.120	.021	34	43
23-24	.59	1.2	.085	.021	34	44
24-26	.50	1.3	.080	.054	39	47
26-28	.49	1.4	.075	.019	43	50
FEB 28-						
MAR 02	.67	1.3	.170	.026	43	46
02-03	.95	1.1	.350	.022	32	38
03-05	.70	1.0	.210	.019	31	38
05-07	.39	1.0	.110	.015	29	36
07-09	.52	1.2	.070	.014	31	41
09-10	.33	1.3	.120	.019	37	49
10-12	.33	1.2	.100	.015	38	49
12-14	.42	1.1	.095	.017	34	52
14-16	.49	1.3	.055	.016	47	60
16-17	.37	1.4	.040	.017	48	69
17-19	.37	1.4	.040	.014	53	77
19-21	.45	1.3	.075	.021	54	63
23-24	.37	1.2	.070	.030	51	44
24-26	.36	1.1	.060	.010	45	40
26-28	.65	1.1	.180	.020	40	37
28-30	.38	1.1	.150	.022	39	42
30-31	.56	1.1	.120	.019	38	46
APR						
02-03	.45	.96	.140	.032	36	37
06-07	.50	1.0	.060	.016	30	48
07-09	.57	1.1	.060	.016	32	54
09-11	.44	1.2	.080	.022	38	63
11-13	.29	.92	.220	.018	31	40
13-14	.57	.74	.060	.018	27	36
14-16	.37	.87	.095	.017	30	40
16-18	.31	.98	.060	.017	37	51
18-20	.28	.99	.055	.017	38	57
20-21	.80	.94	.160	.020	38	51
22-23	1.0	.83	.240	.021	31	37
23-25	.72	.67	.180	.017	27	35
25-27	.60	.63	.150	.017	23	30
27-28	.36	.80	.085	.018	22	32
28-30	.36	.87	.070	.021	23	34

STREAMS TRIBUTARY TO LAKE ONTARIO

431510077363501 GENESEE RIVER AT CHARLOTTE PUMP STATION, NEAR ROCHESTER, NY--continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	TUR- BID- ITY (NTU) (00076)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	RESIDUE VOLATILE, TILE, SUS- PENDE (MG/L) (00535)	NITRO- GEN, DIS- SOLVED (MG/L) (00608)
MAY 02	1050	0950	2910	20	--	--	.10
02-04	1050	0950	2610	18	--	--	.16
04-06	1100	0700	3790	22	--	--	.10
07-08	1055	1755	3490	16	--	--	.09
11-12	1120	0720	6550	27	--	--	.08
14-16	1110	1810	6080	80	117	10	.07
22-23	1020	1720	1710	22	--	--	.11
28-30	1050	0150	1290	17	--	--	.08
30-31	0250	1350	1210	14	--	--	.10
JUN							
01-02	1100	2200	1440	19	--	--	.11
02-04	2300	1000	1530	21	--	--	.12
04-06	1100	1000	1310	23	--	--	.12
06-08	1100	0600	1020	13	--	--	.15
08-09	1015	2115	838	13	--	--	.17
09-11	2215	0915	845	13	--	--	.22
11-13	1020	0920	962	18	--	--	.20
13-15	1020	0920	1870	15	--	--	.14
15-16	1020	1520	1760	20	--	--	.10
16-17	1620	1820	1860	26	--	--	.16
18-20	1100	1000	1120	12	--	--	.18
20-22	1100	1000	708	12	--	--	.13
22-23	1035	2135	629	11	--	--	.12
23-25	2235	0935	921	14	--	--	.14
25-27	1025	0925	2220	6.6	--	--	.09
27-29	1025	0925	3370	39	--	--	.08
JUN 29-							
JUL 01	1105	0205	3290	110	132	10	.09
01-02	0305	1405	3100	90	92	7	.10
02-04	1105	1005	3540	53	68	6	.07
04-06	1105	1005	5210	97	150	11	.05
06-08	1140	0740	4610	58	91	8	.06
09-11	1025	0925	8440	350	464	34	.06
11-13	1025	0925	4680	100	137	11	.06
13-15	1115	2215	5390	130	178	12	.05
14-16	2315	1015	6560	150	182	13	.07
16-18	1100	1000	4970	56	101	8	.06
18-20	1100	1000	1490	38	62	5	.06
23-25	1035	0935	1910	20	--	--	.09
25-27	1035	0935	1670	22	--	--	.07
27-28	1110	2210	1170	18	--	--	.07
28-30	2310	1010	1010	17	--	--	.10
JUL 30-							
AUG 01	1055	0955	984	17	--	--	.11
01-03	1055	0955	877	15	--	--	.08
03-04	1020	2120	766	16	--	--	.05
04-06	2220	0920	645	18	--	--	.06
06-08	1010	0910	452	21	--	--	.11
08-10	1010	0910	671	26	--	--	.10
10-11	1050	2150	868	19	--	--	.15
11-13	2250	0950	941	15	--	--	.06
13-15	1110	1010	907	7.9	--	--	.20
15-17	1110	1010	794	11	--	--	.15
17-18	1115	2215	986	15	--	--	.13
18-20	2315	1015	942	10	--	--	.15
20-22	1125	1025	831	13	--	--	.14
22-24	1125	1025	824	7.5	--	--	.13
24-25	1005	2105	998	4.3	52	9	.09
25-27	2205	0905	1640	5.7	--	--	.11
27-29	1035	0835	1090	13	--	--	.10
29-31	0935	0835	894	11	--	--	.14
SEP							
01-02	0215	0715	395	8.2	--	--	.12
02-03	0815	1015	550	12	--	--	.28
04-06	1000	0900	577	8.3	--	--	.19
06-08	1000	0900	750	6.8	--	--	.16
08-10	1015	0915	958	17	--	--	.07

STREAMS TRIBUTARY TO LAKE ONTARIO

431510077363501 GENESEE RIVER AT CHARLOTTE PUMP STATION, NEAR ROCHESTER, NY--continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHOPHOS- PHATE TOTAL (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
MAY 02	.50	.86	.060	.016	24	42
02-04	.55	.92	.065	.021	31	58
04-06	.59	.89	.065	.025	29	49
07-08	.74	.69	.060	.025	29	50
11-12	.37	.85	.095	.023	40	56
14-16	.75	.86	.160	.033	32	42
22-23	.68	.99	.130	.043	36	54
28-30	.57	1.1	.060	.019	42	73
30-31	.48	1.1	.055	.017	41	76
JUN						
01-02	.45	.91	.085	.028	42	80
02-04	.53	1.0	.100	.036	43	85
04-06	.48	1.2	.085	.024	44	82
06-08	.48	1.2	.050	.018	53	84
08-09	.70	1.2	.050	.020	44	83
09-11	.62	1.1	.060	.023	40	81
11-13	.60	1.0	.065	.022	53	86
13-15	.41	1.0	.065	.023	54	99
15-16	.50	1.3	.100	.038	54	75
16-17	.70	1.8	.110	.046	51	63
18-20	.63	1.8	.100	.055	54	73
20-22	.60	1.3	.085	.046	59	79
22-23	.37	1.2	.100	.042	54	73
23-25	.50	1.3	.113	.041	64	79
25-27	.66	1.1	.060	.037	67	86
27-29	.56	1.7	.120	.048	41	63
JUN 29-						
JUL 01	.86	1.7	.200	.042	33	51
01-02	.48	1.3	.180	.044	34	46
02-04	.73	1.0	.120	.039	34	42
04-06	.60	.77	.250	.035	26	33
06-08	.82	1.0	.120	.039	27	37
09-11	.66	2.0	.570	.054	28	34
11-13	.66	1.5	.160	.050	30	39
13-15	1.1	1.2	.210	.039	31	38
14-16	.92	1.1	.240	.036	22	27
16-18	.60	.73	.140	.028	21	29
18-20	.60	.79	.110	.029	25	45
23-25	.51	1.0	.100	.037	39	71
25-27	.48	1.1	.080	.035	44	61
27-28	.81	1.0	.075	.039	43	56
28-30	.40	1.0	.075	.034	46	59
JUL 30-						
AUG 01	.78	.85	.075	.029	46	67
01-03	.46	.77	.065	.022	42	79
03-04	.46	.81	.060	.023	44	79
04-06	.42	.83	.070	.019	44	84
06-08	.24	.72	.095	.035	43	76
08-10	.24	.72	.110	.034	43	71
10-11	1.3	.77	.095	.040	42	72
11-13	.51	.85	.085	.039	43	83
13-15	.46	.86	.060	.032	47	98
15-17	.51	.80	.065	.023	48	91
17-18	.63	.85	.085	.044	43	73
18-20	.38	.83	.080	.037	44	85
20-22	.32	.66	.060	.034	44	75
22-24	.75	.72	.070	.038	44	98
24-25	.65	.74	.120	.046	42	140
25-27	.60	.80	.075	.048	46	88
27-29	.59	.90	.110	.058	52	110
29-31	.54	.84	.110	.062	48	110
SEP						
01-02	.42	.80	.085	.058	46	84
02-03	.73	.71	.095	.050	50	88
04-06	1.0	.65	.070	.039	48	83
06-08	1.1	.65	.060	.029	47	85
08-10	.50	.54	.080	.016	43	80

STREAMS TRIBUTARY TO LAKE ONTARIO

431510077363501 GENESEE RIVER AT CHARLOTTE PUMP STATION, NEAR ROCHESTER, NY--continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	TUR- BID- ITY (NTU) (00076)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	RESIDUE VOLA- TILE, SUS- PENDE (MG/L) (00535)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
SEP - continued							
10-12	1030	0930	777	12	--	--	.11
12-14	1030	0930	706	11	--	--	.09
14-15	1100	2200	793	10	--	--	.09
15-17	2300	1000	598	10	--	--	.16
17-19	1105	1005	582	6.8	--	--	.20
19-21	1105	1005	976	8.4	--	--	.26
21-22	1110	2210	939	13	--	--	.12
22-24	2310	0910	597	8.7	--	--	.19
24-26	0955	0855	690	6.4	--	--	.19
26-28	0955	0855	574	6.3	--	--	.25
28-29	0955	2055	699	8.5	--	--	.21
SEP 29-							
OCT 01	2155	0855	797	7.1	--	--	.18

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
SEP - continued						
10-12	.54	.63	.070	.012	57	100
12-14	.56	.66	.075	.013	73	100
14-15	.54	.72	.060	.018	57	89
15-17	.43	.76	.070	.027	65	92
17-19	.69	.84	.050	.026	79	97
19-21	.59	.73	.060	.025	75	90
21-22	.53	.45	.055	.011	55	77
22-24	.62	.57	.060	.019	67	100
24-26	.51	.70	.055	.027	58	75
26-28	.64	.92	.070	.043	50	79
28-29	.71	1.0	.090	.050	58	100
SEP 29-						
OCT 01	.60	1.0	.095	.060	46	88

PESTICIDE ANALYSES, PERIOD, MAY 1997 TO SEPTEMBER 1998

In June, 1997, New York State and the U. S. Geological Survey began a cooperative effort to monitor pesticides in order to assess the presence and distribution of pesticides and their residues in waters of the State. The initial monitoring effort included a statewide survey of pesticide concentrations in surface waters of the State, particularly in areas where pesticides are used and areas where surface water provides water supply. Water samples collected from 41 sites in western New York State were analyzed for 47 pesticides or pesticide degradates.

The following sites were sampled as part of the state-wide sampling network in cooperation with the New York State Department of Environmental Conservation. The sampling network includes sites in eastern New York excluding Long Island (vol. 1), Long Island (vol. 2), and western New York (vol. 3). The sites located in eastern New York and Long Island are published in their respective volumes.

Method Detection Limits

REMARKS.--The table below lists the 47 pesticides on this schedule, the unit of measure (micrograms per liter, ug/L), the U.S. Geological Survey National Water Information System parameter code, and the method detection limit (MDL). This pesticide schedule includes selected pesticides and metabolites that are efficiently partitioned from a water sample by solid-phase extraction and are sufficiently volatile and thermally stable for analysis by gas chromatography. Samples are filtered through a glass-fiber membrane filter with openings that are 0.7 microns in size to remove sediment and microorganisms. Therefore, this schedule is suitable for compounds dissolved in water. Each sample was analyzed for all of the compounds in this schedule. Pesticide compounds measured at or above the MDL in one or more samples are listed in the water-quality table following the MDL table. The MDL provides an index to indicate where measurement uncertainty is increased. When an analyte is detected and all criteria for a positive result are met, the concentration is reported. If the concentration is less than the MDL, an 'E' code will be reported with the value. If the analyte is qualitatively identified as present, but the quantitative determination is substantially more uncertain, the NWQL will identify the result with an 'E' code even though the measured value is greater than the MDL. A value reported with an 'E' code should be used with caution. When no analyte is detected in a sample, the default reporting value is the MDL preceded by a less-than sign (<).

Parameter Code	Compound Name	MDL	Unit	Parameter Code	Compound Name	MDL	Unit
49260	ACETOCHLOR	0.002	ug/L	82667	METHYL PARATHION	0.006	ug/L
46342	ALACHLOR	0.002	ug/L	39415	METOLACHLOR	0.002	ug/L
34253	ALPHA BCH	0.002	ug/L	82630	METRIBUZIN	0.004	ug/L
39632	ATRAZINE	0.001	ug/L	82671	MOLINATE	0.004	ug/L
82673	BENFLURALIN	0.002	ug/L	82684	NAPROPAMIDE	0.003	ug/L
04028	BUTYLATE	0.002	ug/L	34653	P, P' -DDE	0.006	ug/L
82680	CARBARYL	0.003	ug/L	39542	PARATHION	0.004	ug/L
82674	CARBOFURAN	0.003	ug/L	82669	PEBULATE	0.004	ug/L
38933	CHLORPYRIFOS	0.004	ug/L	82683	PENDIMETHALIN	0.004	ug/L
04041	CYANAZINE	0.004	ug/L	82687	CIS-PERMETHRIN	0.005	ug/L
82682	DCPA	0.002	ug/L	82664	PHORATE	0.002	ug/L
04040	DESETHYL ATRAZINE	0.002	ug/L	04037	PROMETON	0.018	ug/L
39572	DIAZINON	0.002	ug/L	82676	PRONAMIDE	0.003	ug/L
39381	DIELDRIN	0.001	ug/L	04024	PROPACHLOR	0.007	ug/L
82660	2,6-DIETHYLANILINE	0.003	ug/L	82679	PROPANIL	0.004	ug/L
82677	DISULFOTON	0.017	ug/L	82685	PROPARGITE	0.013	ug/L
82668	EPTC	0.002	ug/L	04035	SIMAZINE	0.005	ug/L
82663	ETHALFLURALIN	0.004	ug/L	82670	TEBUTHIURON	0.010	ug/L
82672	ETHOPROP	0.003	ug/L	82665	TERBACIL	0.007	ug/L
04095	FONOFOS	0.003	ug/L	82675	TERBUFOS	0.013	ug/L
39341	LINDANE	0.004	ug/L	82681	THIOBENCARB	0.002	ug/L
82666	LINURON	0.002	ug/L	82678	TRIALATE	0.001	ug/L
39532	MALATHION	0.005	ug/L	82661	TRIFLURALIN	0.002	ug/L
82686	METHYL AZINPHOS	0.001	ug/L				

PESTICIDE ANALYSES, PERIOD, AUGUST 1996 TO SEPTEMBER 1998

MULTIPLE STATION ANALYSES

The following pesticide analyses were conducted as part of the statewide monitoring program for pesticides with the New York State Department of Environmental Conservation, in cooperation with the U.S. Geological Survey, and the U.S. Geological Survey National Water Quality Assessment (NAWQA) Program in New York State. The samples were collected to assess the water quality of selected lakes in western New York. The work consisted of two elements: (1) synoptic sampling of the 11 Finger Lakes, Onondaga Lake, and Oneida Lake in 1997 and 1998, and (2) sampling of water at two depths in five cross sections in Cayuga Lake in 1998. The second work element also included sampling of storm runoff in 6 tributaries to Cayuga Lake (unpublished).

STATION NUMBER	STATION NAME	DATE	TIME	ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)
424800077423001	CONESUS LAKE (MISC. DEC SITE)	09-10-97 07-16-98	1000 1420	<.002 <.002	.010 .031
424200077361501	HEMLOCK LAKE (MISC. DEC SITE)	09-02-97	0950	<.002	E.002
424230077340101	CANADICE LAKE (MISC. DEC SITE)	09-02-97	1140	<.002	E.002
424445077310001	HONEOYE LAKE (MISC. DEC SITE)	09-03-97 07-09-98	1100 1430	<.002 <.002	<.002 <.002
424730077173001	CANANDAIGUA LAKE (MISC. DEC SITE)	09-04-97 07-22-98	1110 1220	<.002 <.002	.004 <.002
422500077120501	KEUKA LAKE (MISC. DEC SITE)	09-10-97 07-15-98	1400 1200	<.002 <.002	<.002 <.002
423000076540101	SENECA LAKE (MISC. DEC SITE)	09-08-97 07-14-98	1000 1120	<.002 <.002	E.003 <.002
423331076358501	CAYUGA LAKE, NY (MISC. DEC SITE)	08-06-96 09-11-97 07-28-98	1145 1000 1350	<.002 <.002 <.002	.005 E.002 <.002
425232076314001	OWASCO LAKE (MISC. DEC SITE)	09-11-97 07-27-98	1200 1200	<.002 <.002	E.003 .022
425359076242401	SKANEATELES LAKE, NY (MISC. DEC SITE)	08-08-96 09-11-97 07-27-98	0805 1440 1200	<.002 <.002 <.002	.004 <.002 <.002
425140076170101	OTISCO LAKE (MISC. DEC SITE)	09-11-97 07-27-98	1630 1200	<.002 <.002	<.002 <.002
430701076144201	ONONDAGA LAKE AT OUTLET (MISC. DEC SITE)	09-09-97	1400	<.002	<.002
431426076082701	ONEIDA LAKE AT OUTLET (MISC. DEC SITE)	09-09-97	1500	<.002	<.002
422814076304901	CAYUGA LAKE, CROSS-SECTION SITE A2	07-28-98	0930	<.002	<.002
423022076315901	CAYUGA LAKE, CROSS-SECTION SITE B2	07-28-98 07-28-98	1250 1300	<.002 <.002	<.002 <.002
423711076395401	CAYUGA LAKE, CROSS-SECTION SITE C2	07-28-98 07-28-98	1440 1450	<.002 <.002	<.002 <.002
424547076435601	CAYUGA LAKE, CROSS-SECTION SITE D2	07-28-98 07-28-98	1600 1610	<.002 <.002	<.002 <.002
425426076441801	CAYUGA LAKE, CROSS-SECTION SITE E2	07-28-98	1720	<.002	<.002

ANALYSES OF SAMPLES AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

PESTICIDE ANALYSES, PERIOD, AUGUST 1996 TO SEPTEMBER 1998

STATION NUMBER	DATE	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)
424800077423001	09-10-97	.141	E.012	<.001	<.002	<.002	<.003	<.003	<.004	.010
	07-16-98	.273	E.027	<.001	<.002	<.002	<.003	<.003	<.004	.022
424200077361501	09-02-97	.015	E.003	<.001	<.002	<.002	<.003	<.003	<.004	<.004
424230077340101	09-02-97	.010	E.003	<.040	<.002	<.002	<.003	<.003	<.004	<.004
424445077310001	09-03-97	.012	E.003	<.070	<.002	<.002	<.003	<.003	<.004	<.004
	07-09-98	.017	E.006	<.001	<.002	<.002	<.003	<.003	<.004	<.004
424730077173001	09-04-97	.086	E.026	<.001	<.002	<.002	<.003	<.003	<.004	.011
	07-22-98	.149	E.068	<.001	<.002	<.002	<.003	<.003	<.004	.028
422500077120501	09-10-97	.034	E.007	<.010	<.002	<.002	<.003	<.003	<.004	.005
	07-15-98	.036	E.012	<.001	<.002	<.002	<.003	<.003	<.004	.012
423000076540101	09-08-97	.092	E.023	<.001	<.002	<.002	<.003	<.003	<.004	.011
	07-14-98	.143	E.053	<.001	<.002	<.002	<.003	<.003	<.004	.033
423331076358501	08-06-96	.193	E.063	<.001	<.002	<.002	<.003	<.003	<.004	.025
	09-11-97	.156	E.057	<.020	<.002	<.002	<.003	<.003	<.004	.014
	07-28-98	.239	E.104	<.001	<.002	<.002	<.003	<.003	<.004	.033
425232076314001	09-11-97	.059	E.024	<.001	<.002	<.002	<.003	<.003	<.004	.005
	07-27-98	.148	E.045	<.001	<.002	<.002	<.003	<.003	<.004	.016
425359076242401	08-08-96	.049	E.034	<.001	<.002	<.002	<.003	<.003	<.004	.010
	09-11-97	.033	E.022	<.040	<.002	<.002	<.003	<.003	<.004	<.004
	07-27-98	.086	E.061	<.001	<.002	<.002	<.003	<.003	<.004	<.004
425140076170101	09-11-97	.037	E.016	<.040	<.002	<.002	<.003	<.003	<.004	E.004
	07-27-98	.114	E.037	<.001	<.002	<.002	<.003	<.003	<.004	<.004
430701076144201	09-09-97	.060	E.017	<.080	<.002	<.002	<.003	<.003	<.004	.010
431426076082701	09-09-97	.017	E.004	<.030	<.002	<.002	<.003	<.003	<.004	<.004
422814076304901	07-28-98	.225	E.095	<.001	<.002	<.002	<.003	<.003	<.004	.026
423022076315901	07-28-98	.180	E.102	<.001	<.002	<.002	<.003	<.003	<.004	.028
	07-28-98	.224	E.104	<.001	<.002	<.002	<.003	<.003	<.004	.028
423711076395401	07-28-98	.191	E.112	<.001	<.002	<.002	<.003	<.003	<.004	.032
	07-28-98	.172	E.097	<.001	<.002	<.002	<.003	<.003	<.004	.023
424547076435601	07-28-98	.258	E.115	<.001	<.002	<.002	<.003	<.003	<.004	.042
	07-28-98	.174	E.095	<.001	<.002	<.002	<.003	<.003	<.004	.022
425426076441801	07-28-98	.314	E.135	<.001	<.002	<.002	<.003	<.003	<.004	.048

PESTICIDE ANALYSES, PERIOD, AUGUST 1996 TO SEPTEMBER 1998

STATION NUMBER	DATE	DCPA WATER FLTRD 0.7 U	P,P' DDE DISSOLV (UG/L)	DI- AZINON, DIS- SOLVED (UG/L)	DI- ELDRIN DIS- SOLVED (UG/L)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U	DISUL- FOTON WATER FLTRD 0.7 U	EPTC WATER FLTRD 0.7 U	ETHAL- FLUR- ALIN WAT FLT 0.7 U	ETHO- PROP WATER FLTRD 0.7 U
		GF, REC (UG/L) (82682)	(UG/L) (34653)	(UG/L) (39572)	(UG/L) (39381)	GF, REC (UG/L) (82660)	GF, REC (UG/L) (82677)	GF, REC (UG/L) (82668)	GF, REC (UG/L) (82663)	GF, REC (UG/L) (82672)
424800077423001	09-10-97	<.002	<.006	<.002	<.001	<.003	<.017	E.002	<.004	<.003
	07-16-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
424200077361501	09-02-97	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
424230077340101	09-02-97	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
424445077310001	09-03-97	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	07-09-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
424730077173001	09-04-97	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	07-22-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
422500077120501	09-10-97	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	07-15-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
423000076540101	09-08-97	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	07-14-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
423331076358501	08-06-96	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	09-11-97	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	07-28-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
425232076314001	09-11-97	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	07-27-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
425359076242401	08-08-96	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	09-11-97	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	07-27-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
425140076170101	09-11-97	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	07-27-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
430701076144201	09-09-97	<.002	<.006	.0074	<.001	<.003	<.017	<.002	<.004	<.003
431426076082701	09-09-97	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
422814076304901	07-28-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
423022076315901	07-28-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	07-28-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
423711076395401	07-28-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	07-28-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
424547076435601	07-28-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	07-28-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
425426076441801	07-28-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003

ANALYSES OF SAMPLES AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

PESTICIDE ANALYSES, PERIOD, AUGUST 1996 TO SEPTEMBER 1998

STATION NUMBER	DATE	FONOPOS WATER DISS REC (UG/L) (04095)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	LINDANE DIS- SOLVED (UG/L) (39341)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA- THION, DIS- SOLVED (UG/L) (39532)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN WATER DISSOLV (UG/L) (82630)	MOL- INATE WATER GF, REC (UG/L) (82671)	NAPROP- AMIDE WATER GF, REC (UG/L) (82684)
424800077423001	09-10-97	<.003	<.002	<.004	<.002	<.005	.038	<.004	<.004	<.003
	07-16-98	<.003	<.002	<.004	<.002	<.005	.128	<.004	<.004	<.003
424200077361501	09-02-97	<.003	<.002	<.004	<.002	<.005	.014	<.004	<.004	<.003
424230077340101	09-02-97	<.003	<.002	<.004	<.002	<.005	.005	<.004	<.004	<.003
424445077310001	09-03-97	<.003	<.002	<.004	<.002	<.005	E.004	<.004	<.004	<.003
	07-09-98	<.003	<.002	<.004	<.002	<.005	.005	<.004	<.004	<.003
424730077173001	09-04-97	<.003	<.002	<.004	<.002	<.005	.007	<.004	<.004	<.003
	07-22-98	<.003	<.002	<.004	<.002	<.005	.025	<.004	<.004	<.003
422500077120501	09-10-97	<.003	<.002	<.004	<.002	<.005	.005	<.004	<.004	<.003
	07-15-98	<.003	<.002	<.004	<.002	<.005	.007	<.004	<.004	<.003
423000076540101	09-08-97	<.003	<.002	<.004	<.002	<.005	.009	<.004	<.004	<.003
	07-14-98	<.003	<.002	<.004	<.002	<.005	.017	<.004	<.004	<.003
423331076358501	08-06-96	<.003	<.002	<.004	<.002	<.005	.072	<.004	<.004	<.003
	09-11-97	<.003	<.002	<.004	<.002	<.005	.048	<.004	<.004	<.003
	07-28-98	<.003	<.002	<.004	<.002	<.005	.120	<.004	<.004	<.003
425232076314001	09-11-97	<.003	<.002	<.004	<.002	<.005	.030	<.004	<.004	<.003
	07-27-98	<.003	<.002	<.004	<.002	<.005	.101	<.004	<.004	<.003
425359076242401	08-08-96	<.003	<.002	<.004	<.002	<.005	.012	<.004	<.004	<.003
	09-11-97	<.003	<.002	<.004	<.002	<.005	.006	<.004	<.004	<.003
	07-27-98	<.003	<.002	<.004	<.002	<.005	.048	<.004	<.004	<.003
425140076170101	09-11-97	<.003	<.002	<.004	<.002	<.005	.019	<.004	<.004	<.003
	07-27-98	<.003	<.002	<.004	<.002	<.005	.123	<.004	<.004	<.003
430701076144201	09-09-97	<.003	<.002	<.004	<.002	<.005	.019	<.004	<.004	<.003
431426076082701	09-09-97	<.003	<.002	<.004	<.002	<.005	.009	<.004	<.004	<.003
422814076304901	07-28-98	<.003	<.002	<.004	<.002	<.005	.109	<.004	<.004	<.003
423022076315901	07-28-98	<.003	<.002	<.004	<.002	<.005	.086	<.004	<.004	<.003
	07-28-98	<.003	<.002	<.004	<.002	<.005	.078	<.004	<.004	<.003
423711076395401	07-28-98	<.003	<.002	<.004	<.002	<.005	.098	<.004	<.004	<.003
	07-28-98	<.003	<.002	<.004	<.002	<.005	.060	<.004	<.004	<.003
424547076435601	07-28-98	<.003	<.002	<.004	<.002	<.005	.128	<.004	<.004	<.003
	07-28-98	<.003	<.002	<.004	<.002	<.005	.055	<.004	<.004	<.003
425426076441801	07-28-98	<.003	<.002	<.004	<.002	<.005	.106	<.004	<.004	<.003

ANALYSES OF SAMPLES AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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PESTICIDE ANALYSES, PERIOD, AUGUST 1996 TO SEPTEMBER 1998

STATION NUMBER	DATE	PARA- THION, DIS- SOLVED (UG/L) (39542)	METHYL PARA- THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	PEB- ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROP- CHLOR, WATER, DISS, REC (UG/L) (04024)
424800077423001	09-10-97	<.004	<.006	<.004	<.004	<.005	<.002	E.005	<.003	<.007
	07-16-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
424200077361501	09-02-97	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
424230077340101	09-02-97	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
424445077310001	09-03-97	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	07-09-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
424730077173001	09-04-97	<.004	<.006	<.004	<.004	<.005	<.002	E.002	<.003	<.007
	07-22-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
422500077120501	09-10-97	<.004	<.006	<.004	<.004	<.005	<.002	E.006	<.003	<.007
	07-15-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
423000076540101	09-08-97	<.004	<.006	<.004	<.004	<.005	<.002	E.004	<.003	<.007
	07-14-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
423331076358501	08-06-96	<.004	<.006	<.004	<.004	<.005	<.002	E.006	<.003	<.007
	09-11-97	<.004	<.006	<.004	<.004	<.005	<.002	E.003	<.003	<.007
	07-28-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
425232076314001	09-11-97	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	07-27-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
425359076242401	08-08-96	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	09-11-97	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	07-27-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
425140076170101	09-11-97	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	07-27-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
430701076144201	09-09-97	<.004	<.006	<.004	<.004	<.005	<.002	E.009	<.003	<.007
431426076082701	09-09-97	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
422814076304901	07-28-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
423022076315901	07-28-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	07-28-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
423711076395401	07-28-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	07-28-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
424547076435601	07-28-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	07-28-98	<.004	<.200	<.004	<.004	<.005	<.002	E.004	<.003	<.007
425426076441801	07-28-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007

ANALYSES OF SAMPLES AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

PESTICIDE ANALYSES, PERIOD, AUGUST 1996 TO SEPTEMBER 1998

STATION NUMBER	DATE	PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)
424800077423001	09-10-97	<.004	<.013	.019	<.010	<.007	<.013	<.002	<.001	<.002
	07-16-98	<.004	<.013	.060	<.010	<.007	<.013	<.002	<.001	<.002
424200077361501	09-02-97	<.004	<.013	.008	<.010	<.007	<.013	<.002	<.001	<.002
424230077340101	09-02-97	<.004	<.013	E.004	<.010	<.007	<.013	<.002	<.001	<.002
424445077310001	09-03-97	<.004	<.013	E.004	<.010	<.007	<.013	<.002	<.001	<.002
	07-09-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
424730077173001	09-04-97	<.004	<.013	.015	<.010	<.007	<.013	<.002	<.001	<.002
	07-22-98	<.004	<.013	.023	<.010	<.007	<.013	<.002	<.001	<.002
422500077120501	09-10-97	<.004	<.013	.073	<.010	<.007	<.013	<.002	<.001	<.002
	07-15-98	<.004	<.013	.103	<.010	<.007	<.013	<.002	<.001	<.002
423000076540101	09-08-97	<.004	<.013	.031	<.010	<.007	<.013	<.002	<.001	<.002
	07-14-98	<.004	<.013	.044	<.010	<.007	<.013	<.002	<.001	<.002
423331076358501	08-06-96	.004	<.013	.018	<.010	<.007	<.013	<.002	<.001	<.002
	09-11-97	<.004	<.013	.013	<.010	<.007	<.013	<.002	<.001	<.002
	07-28-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
425232076314001	09-11-97	<.004	<.013	E.005	<.0100	<.007	<.013	<.002	<.001	<.002
	07-27-98	<.004	<.013	<.010	<.010	<.007	<.013	<.002	<.001	<.002
425359076242401	08-08-96	<.004	<.013	E.004	<.010	<.007	<.013	<.002	<.001	<.002
	09-11-97	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	07-27-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
425140076170101	09-11-97	<.004	<.013	E.005	<.010	<.007	<.013	<.002	<.001	<.002
	07-27-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
430701076144201	09-09-97	<.004	<.013	.011	<.0100	<.007	<.013	<.002	<.001	<.002
431426076082701	09-09-97	<.004	<.013	<.005	<.0100	<.007	<.013	<.002	<.001	<.002
422814076304901	07-28-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
423022076315901	07-28-98	<.004	<.013	.011	<.010	<.007	<.013	<.002	<.001	<.002
	07-28-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
423711076395401	07-28-98	<.004	<.013	.014	<.010	<.007	<.013	<.002	<.001	<.002
	07-28-98	<.004	<.013	.014	<.010	<.007	<.013	<.002	<.001	<.002
424547076435601	07-28-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	07-28-98	<.004	<.013	.011	<.010	<.007	<.013	<.002	<.001	<.002
425426076441801	07-28-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002

PESTICIDE ANALYSES, PERIOD, JULY 1998 TO SEPTEMBER 1998

The following pesticide analyses were determined as part of the statewide monitoring program for pesticides with the New York State Department of Environmental Conservation, in cooperation with the U.S. Geological Survey, and the U.S. Geological Survey National Water Quality Assessment (NAWQA) Program in New York State. The samples were collected during a one-day period to assess the effects of lakes in western New York on pesticide concentrations and loads at selected sites in the Seneca and Oswego River system in July 1998.

STATION NUMBER	STATION NAME	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)
04235000	CANANDAIGUA OUTLET AT CHAPIN NY	07-30-98	0710	47	<.002	.005
04232730	SENECA RIVER NEAR SENECA FALLS NY	07-29-98	1030	372	<.002	<.002
0423406130	SENECA RIVER AT FREE BRIDGE CORNERS NY	07-29-98	1150	203	<.002	<.002
04235600	SENECA RIVER (ERIE CANAL) NEAR PORT BYRON NY	07-29-98	0830	887	<.002	.025
04237500	SENECA RIVER AT BALDWINVILLE NY	07-29-98	1420	1040	<.002	.017
04246500	ONEIDA RIVER AT CAUGHDENY NY	07-29-98	1700	5250	<.002	<.002
04249000	OSWEGO RIVER AT LOCK 7, OSWEGO NY	07-29-98	1530	3010	<.002	.014

STATION NUMBER	DATE	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR- PYRIFOS DIS- SOLVED REC (UG/L) (38933)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)
04235000	07-30-98	.119	E.063	<.001	<.002	<.002	<.003	<.003	<.004	.025
04232730	07-29-98	.141	E.054	<.001	<.002	<.002	<.003	<.003	<.004	.041
0423406130	07-29-98	.179	E.064	<.001	<.002	<.002	<.003	<.003	<.004	.036
04235600	07-29-98	.275	E.090	<.001	<.002	<.002	<.003	<.003	<.004	.049
04237500	07-29-98	.325	E.100	<.001	<.002	<.002	<.003	<.003	<.004	.067
04246500	07-29-98	.038	E.011	<.001	<.002	<.002	<.003	<.003	<.004	<.004
04249000	07-29-98	.247	E.054	<.001	<.002	<.002	<.003	<.003	<.004	.057

STATION NUMBER	DATE	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	P,P' DDE DISSOLV (UG/L) (34653)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)
04235000	07-30-98	<.002	<.006	.038	<.001	<.003	<.017	<.002	<.004	<.003
04232730	07-29-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
0423406130	07-29-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
04235600	07-29-98	<.002	<.006	<.002	<.001	<.003	<.017	.008	<.004	<.003
04237500	07-29-98	<.002	<.006	<.002	<.001	<.003	<.017	.006	<.004	<.003
04246500	07-29-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
04249000	07-29-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003

ANALYSES OF SAMPLES AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

PESTICIDE ANALYSES, PERIOD, JULY 1998 TO SEPTEMBER 1998

STATION NUMBER	DATE	FONOFOS WATER DISS REC (UG/L) (04095)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	LINDANE DIS- SOLVED (UG/L) (39341)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA- THION, DIS- SOLVED (UG/L) (39532)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)
04235000	07-30-98	<.003	<.002	<.004	<.002	<.005	.014	<.004	<.004	<.003
04232730	07-29-98	<.003	<.002	<.004	<.002	<.005	.018	<.004	<.004	<.003
0423406130	07-29-98	<.003	<.002	<.004	<.002	<.005	.033	<.004	<.004	<.003
04235600	07-29-98	<.003	<.002	<.004	<.002	<.005	.140	<.004	<.004	<.003
04237500	07-29-98	<.003	<.002	<.004	<.002	<.005	.173	<.004	<.004	<.003
04246500	07-29-98	<.003	<.002	<.004	<.002	<.005	.017	<.004	<.004	<.003
04249000	07-29-98	<.003	<.002	<.004	<.002	<.005	.137	<.004	<.004	<.003
STATION NUMBER	DATE	PARA- THION, DIS- SOLVED (UG/L) (39542)	METHYL PARA- THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	PEB- ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROP- CHLOR, WATER, DISS, REC (UG/L) (04024)
04235000	07-30-98	<.004	<.006	<.004	<.004	<.005	<.002	E.014	<.003	<.007
04232730	07-29-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
0423406130	07-29-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
04235600	07-29-98	<.004	<.006	<.004	<.004	<.005	<.002	E.007	<.003	<.007
04237500	07-29-98	<.004	<.006	<.004	<.004	<.005	<.002	E.007	<.003	<.007
04246500	07-29-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
04249000	07-29-98	<.004	<.006	<.004	<.004	<.005	<.002	E.007	<.003	<.007
STATION NUMBER	DATE	PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)
04235000	07-30-98	<.004	<.013	.020	<.010	<.007	<.013	<.002	<.001	<.002
04232730	07-29-98	<.004	<.013	.043	<.010	<.007	<.013	<.002	<.001	<.002
0423406130	07-29-98	<.004	<.013	.038	<.010	<.007	<.013	<.002	<.001	<.002
04235600	07-29-98	<.004	<.013	.015	<.010	<.007	<.013	<.002	<.001	<.002
04237500	07-29-98	<.004	<.013	.024	<.010	<.007	<.013	<.002	<.001	<.002
04246500	07-29-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
04249000	07-29-98	<.004	<.013	.016	<.010	<.007	<.013	<.002	<.001	<.002

PESTICIDE ANALYSES, PERIOD, MAY 1998 TO SEPTEMBER 1998

The following pesticide analyses were determined as part of the statewide monitoring program for pesticides with the New York State Department of Environmental Conservation, in cooperation with the U.S. Geological Survey, and the U.S. Geological Survey National Water Quality Assessment (NAWQA) Program in New York state. The samples were collected to assess the water quality of selected lakes and streams that provide public-water supply in western New York. The work consisted of two elements: (1) synoptic sampling of water withdrawn at six public-water-supply intakes that serve the cities of Rochester, Syracuse, Ithaca, and Hornell and the villages of LeRoy and Perry. Additional samples were collected at the Hornell, Perry, and LeRoy sites to assess the effects of tributaries on pesticide concentrations that were observed in the public-water-supply samples at those sites.

STATION NUMBER	STATION NAME	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)
422306077380401	HORNELL RESERVOIR NO. 1 PUBLIC-SUPPLY INTAKE,	05-18-98	1430	--	<.002	<.002
		06-22-98	1530	--	<.002	<.002
		07-20-98	1310	--	<.002	<.002
		09-28-98	1310	--	<.002	<.002
422402077373901	HORNELL RESERVOIR NO. 2, INFLOW	05-18-98	1500	4.4	<.002	<.002
		06-22-98	1600	2.8	<.002	<.002
		06-26-98	1040	16	E.003	E.003
		07-20-98	1020	1.5	<.002	<.002
		09-28-98	1000	4.1	<.002	<.002
422357077371701	HORNELL RESERVOIR NO. 2, SPILLWAY OUTFLOW	07-20-98	1150	2.0	<.002	<.002
		09-28-98	1130	5.1	<.002	E.003
422403077370901	HORNELL RESERVOIR NO. 3, INFLOW	05-18-98	1520	4.6	<.002	<.002
		06-22-98	1640	2.6	<.002	<.002
		06-26-98	1120	42	<.002	.008
		07-20-98	1100	2.3	<.002	<.002
		09-28-98	1050	7.5	<.002	<.002
422328077374001	HORNELL RESERVOIR NO. 3, SPILLWAY OUTFLOW	07-20-98	1230	4.0	<.002	<.002
		09-28-98	1210	11	<.002	<.002
425225077584901	LAKE LEROY INFLOW TRIBUTARY	06-26-98	1030	--	<.002	.071
		07-20-98	1140	1.1	<.002	<.002
		09-28-98	1210	--	<.002	<.002
424708078000901	LITTLE BEARDS CREEK, INFLOW TO LAKE LAGRANGE, NY	05-18-98	1030	.64	<.002	<.002
		06-22-98	1200	.07	<.002	<.002
		06-26-98	1050	57	<.002	.132
		07-20-98	1220	.51	<.002	<.002
		09-28-98	1320	--	<.002	<.002
424735077595401	LAGRANGE LAKE OUTFLOW, NY	05-18-98	0910	.85	<.002	<.002
		06-22-98	1110	--	<.002	E.004
		07-20-98	1120	--	<.002	<.002
		09-28-98	1140	--	<.002	<.002
425338077583101	LEROY RESERVOIR, RAW WATER SUPPLY, LEROY, NY	05-18-98	0900	--	<.002	.016
		06-22-98	1100	--	<.002	.013
		07-20-98	1100	--	<.002	<.002
		09-28-98	1100	--	<.002	<.002
424318078014601	SILVER LAKE INLET NEAR PERRY, NY	05-18-98	1230	--	<.002	.005
		06-22-98	1320	--	<.002	.008
		06-26-98	1130	--	<.002	.547
		07-20-98	1300	--	<.002	.030
		09-28-98	1410	--	<.002	E.003
424237078012801	SILVER LAKE PUBLIC-SUPPLY INTAKE AT PERRY, NY	05-18-98	1200	--	<.002	.008
		06-22-98	1350	--	<.002	.010
		07-20-98	1320	--	<.002	.027
		09-28-98	1350	--	<.002	.012

ANALYSES OF SAMPLES AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

PESTICIDE ANALYSES, PERIOD, MAY 1998 TO SEPTEMBER 1998

STATION NUMBER	DATE	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)
422306077380401	05-18-98	.022	E.021	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	06-22-98	.132	E.023	<.001	<.002	<.002	<.003	<.003	<.004	.005
	07-20-98	.157	E.032	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	09-28-98	.047	E.025	<.001	<.002	<.002	<.003	<.003	<.004	<.004
422402077373901	05-18-98	.008	E.008	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	06-22-98	.030	E.012	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	06-26-98	.539	E.112	<.001	<.002	<.002	<.003	<.003	<.020	<.004
	07-20-98	.016	E.010	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	09-28-98	.016	E.019	<.001	<.002	<.002	<.003	<.003	<.004	<.004
422357077371701	07-20-98	.068	E.034	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	09-28-98	.019	E.013	<.001	<.002	<.002	<.003	<.003	<.004	<.004
422403077370901	05-18-98	.010	E.011	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	06-22-98	.033	E.020	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	06-26-98	1.36	E.210	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	07-20-98	.041	E.027	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	09-28-98	.018	E.018	<.001	<.002	<.002	<.003	<.003	<.004	<.004
422328077374001	07-20-98	.107	E.045	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	09-28-98	.019	E.014	<.001	<.002	<.002	<.003	<.003	<.004	<.004
425225077584901	06-26-98	11	E1.75	<.001	<.002	<.002	<.003	<.003	<.004	.025
	07-20-98	.369	E.191	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	09-28-98	.036	E.014	<.001	<.002	<.002	<.003	<.003	<.004	<.004
424708078000901	05-18-98	.450	E.078	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	06-22-98	.230	E.105	<.001	<.002	<.002	<.003	<.003	<.004	.063
	06-26-98	8.02	E1.06	<.001	<.002	<.002	<.003	<.003	<.250	4.48
	07-20-98	.715	E.312	<.001	<.002	<.002	<.003	<.003	<.004	.091
	09-28-98	.044	E.040	<.001	<.002	<.002	<.003	<.003	<.004	.008
424735077595401	05-18-98	.747	E.082	<.001	<.002	<.002	<.003	<.003	<.004	.024
	06-22-98	1.30	E.138	<.001	<.002	<.002	<.003	<.003	<.010	.052
	07-20-98	1.45	E.225	<.001	<.002	<.002	<.003	<.003	<.004	.686
	09-28-98	.927	E.305	<.001	<.002	<.002	<.003	<.003	<.004	.423
425338077583101	05-18-98	.112	E.042	<.001	<.002	<.002	<.003	<.003	<.004	.018
	06-22-98	.821	E.106	<.010	<.002	<.002	<.003	<.003	<.004	.031
	07-20-98	1.49	E.164	<.001	<.002	<.002	<.003	<.003	<.004	.044
	09-28-98	.998	E.236	<.001	<.002	<.002	<.003	<.003	<.004	.128
424318078014601	05-18-98	.705	E.088	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	06-22-98	.273	E.065	<.001	<.002	<.002	<.003	<.003	<.004	.018
	06-26-98	21	E1.83	<.001	<.002	<.002	<.003	E.052	<.004	.218
	07-20-98	.555	E.108	<.001	<.002	<.002	<.003	<.003	<.004	.027
	09-28-98	.213	E.058	<.001	<.002	<.002	<.003	<.003	<.004	<.004
424237078012801	05-18-98	.231	E.043	<.001	<.002	<.002	<.003	<.003	<.004	.018
	06-22-98	.238	E.057	<.001	<.002	<.002	<.003	<.003	<.004	.023
	07-20-98	.442	E.127	<.001	<.002	<.002	<.003	<.003	<.004	.032
	09-28-98	.299	E.117	<.001	<.002	<.002	<.003	<.003	<.004	.029

PESTICIDE ANALYSES, PERIOD, MAY 1998 TO SEPTEMBER 1998

STATION NUMBER	DATE	DCPA				2,6-DI-	DISUL-		ETHAL-	ETHO-
		WATER		DI-	DI-	ETHYL	FOTON	EPTC	FLUR-	PROP
		FLTRD	P, P'	AZINON,	ELDRIN	ANILINE	WAT FLT	WATER	ALIN	WATER
		0.7 U	DDE	DIS-	DIS-	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
		GF, REC	DISSOLV	SOLVED	SOLVED	GF, REC	GF, REC	GF, REC	GF, REC	GF, REC
		(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)
		(82682)	(34653)	(39572)	(39381)	(82660)	(82677)	(82668)	(82663)	(82672)
422306077380401	05-18-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	06-22-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	07-20-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	09-28-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
422402077373901	05-18-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	06-22-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	06-26-98	<.002	.021	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	07-20-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	09-28-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
422357077371701	07-20-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	09-28-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
422403077370901	05-18-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	06-22-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	06-26-98	<.002	<.006	<.002	<.001	<.003	<.017	E.003	<.004	<.003
	07-20-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	09-28-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
422328077374001	07-20-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	09-28-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
425225077584901	06-26-98	<.002	<.006	<.002	<.001	<.003	<.017	.181	<.004	<.003
	07-20-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	09-28-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
424708078000901	05-18-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	06-22-98	<.002	<.006	<.002	<.001	<.003	<.017	.005	<.004	<.003
	06-26-98	<.002	<.006	<.002	<.001	<.003	<.017	2.75	.335	<.003
	07-20-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	09-28-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
424735077595401	05-18-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	06-22-98	<.002	<.006	<.002	<.001	<.003	<.017	E.003	<.004	<.003
	07-20-98	<.002	<.006	<.002	<.001	<.003	<.017	.030	<.004	<.003
	09-28-98	<.002	<.006	<.002	<.001	<.003	<.017	E.003	<.004	<.003
425338077583101	05-18-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	06-22-98	<.002	<.006	<.002	<.001	<.003	<.017	.016	<.004	<.003
	07-20-98	<.002	<.006	<.002	<.001	<.003	<.017	.013	<.004	<.003
	09-28-98	<.002	<.006	<.002	<.001	<.003	<.017	E.003	<.004	<.003
424318078014601	05-18-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	06-22-98	<.002	<.006	<.002	<.001	<.003	<.017	E.003	<.004	<.003
	06-26-98	<.002	<.006	<.002	<.001	<.003	<.017	.221	<.004	<.003
	07-20-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	09-28-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
424237078012801	05-18-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	06-22-98	<.002	<.006	<.002	<.001	<.003	<.017	.009	<.004	<.003
	07-20-98	<.002	<.006	<.002	<.001	<.003	<.017	<.020	<.004	<.003
	09-28-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003

ANALYSES OF SAMPLES AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

PESTICIDE ANALYSES, PERIOD, MAY 1998 TO SEPTEMBER 1998

STATION NUMBER	DATE	FONOFOS WATER DISS REC (UG/L) (04095)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	LINDANE DIS- SOLVED (UG/L) (39341)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA- THION, DIS- SOLVED (UG/L) (39532)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)
422306077380401	05-18-98	<.003	<.002	<.004	<.002	<.005	.029	<.004	<.004	<.003
	06-22-98	<.003	<.002	<.004	<.002	<.005	.099	<.004	<.004	<.003
	07-20-98	<.003	<.002	<.004	<.002	<.005	.235	<.004	<.004	<.003
	09-28-98	<.003	<.002	<.004	<.002	<.005	.054	<.004	<.004	<.003
422402077373901	05-18-98	<.003	<.002	<.004	<.002	<.005	.005	<.004	<.004	<.003
	06-22-98	<.003	<.002	<.004	<.002	<.005	.031	<.004	<.004	<.003
	06-26-98	<.003	<.002	<.004	.021	<.005	1.51	.146	<.004	<.003
	07-20-98	<.003	<.002	<.004	<.002	<.005	.008	<.004	<.004	<.003
	09-28-98	<.003	<.002	<.004	<.002	<.005	.046	<.004	<.004	<.003
422357077371701	07-20-98	<.003	<.002	<.004	<.002	<.005	.241	.018	<.004	<.003
	09-28-98	<.003	<.002	<.004	<.002	<.005	.050	<.004	<.004	<.003
422403077370901	05-18-98	<.003	<.002	<.004	<.002	<.005	.005	<.004	<.004	<.003
	06-22-98	<.003	<.002	<.004	<.002	<.005	.012	<.004	<.004	<.003
	06-26-98	<.003	<.002	<.004	<.002	<.005	.991	<.004	<.004	<.003
	07-20-98	<.003	<.002	<.004	<.002	<.005	.006	<.004	<.004	<.003
	09-28-98	<.003	<.002	<.004	<.002	<.005	.006	<.004	<.004	<.003
422328077374001	07-20-98	<.003	<.002	<.004	<.002	<.005	.160	<.004	<.004	<.003
	09-28-98	<.003	<.002	<.004	<.002	<.005	.026	<.004	<.004	<.003
425225077584901	06-26-98	<.003	<.002	<.004	<.002	<.005	E27	.223	<.004	<.003
	07-20-98	<.003	<.002	<.004	<.002	<.900	1.42	<.004	<.004	<.003
	09-28-98	<.003	<.002	<.004	<.002	<.005	.055	<.004	<.004	<.003
424708078000901	05-18-98	<.003	<.002	<.004	<.002	<.005	.395	<.004	<.004	<.003
	06-22-98	<.003	<.002	<.004	<.002	<.005	.172	<.004	<.004	<.003
	06-26-98	<.003	<.002	<.004	<.002	<.005	E32	<.004	<.004	<.003
	07-20-98	<.003	<.002	<.004	<.002	<.005	.490	<.004	<.004	<.003
	09-28-98	<.003	<.002	<.004	<.002	<.005	.030	<.004	<.004	<.003
424735077595401	05-18-98	<.003	<.002	<.004	<.002	<.005	.909	<.004	<.004	<.003
	06-22-98	<.003	<.002	<.004	<.002	<.005	1.19	<.004	<.004	<.003
	07-20-98	<.003	<.002	<.004	<.002	<.005	2.64	<.004	<.004	<.003
	09-28-98	<.003	<.002	<.004	<.002	<.005	.736	<.004	<.004	<.003
425338077583101	05-18-98	<.003	<.002	<.004	<.002	<.005	.201	<.004	<.004	<.003
	06-22-98	<.003	<.002	<.004	<.002	<.010	1.60	<.004	<.004	<.003
	07-20-98	<.003	<.002	<.004	<.002	<.005	2.12	<.010	<.004	<.003
	09-28-98	<.003	<.002	<.004	<.002	<.005	.422	<.004	<.004	<.003
424318078014601	05-18-98	<.003	<.002	<.004	<.002	<.005	.471	<.004	<.004	<.003
	06-22-98	<.003	<.002	<.004	<.002	<.020	.096	<.004	<.004	<.003
	06-26-98	<.003	<.002	<.004	<.002	<.005	12	<.004	<.004	<.003
	07-20-98	<.003	<.002	<.004	<.002	<.030	.409	<.004	<.004	<.003
	09-28-98	<.003	<.002	<.004	<.002	<.005	.097	<.004	<.004	<.003
424237078012801	05-18-98	<.003	<.002	<.004	<.002	<.005	.137	<.004	<.004	<.003
	06-22-98	<.003	<.002	<.004	<.002	<.005	.137	<.004	<.004	<.003
	07-20-98	<.003	<.002	<.004	<.002	<.005	.320	<.004	<.004	<.003
	09-28-98	<.003	<.002	<.004	<.002	<.005	.163	<.004	<.004	<.003

PESTICIDE ANALYSES, PERIOD, MAY 1998 TO SEPTEMBER 1998

STATION NUMBER	DATE	PARA- THION, DIS- SOLVED (UG/L) (39542)	METHYL PARA- THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	PEB- ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROP- CHLOR, WATER, DISS, REC (UG/L) (04024)
422306077380401	05-18-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	06-22-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	07-20-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	09-28-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
422402077373901	05-18-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	06-22-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	06-26-98	<.004	<.006	<.004	.111	<.005	<.002	<.018	<.003	<.007
	07-20-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	09-28-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
422357077371701	07-20-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	09-28-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
422403077370901	05-18-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	06-22-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	06-26-98	<.004	<.006	<.004	<.004	<.005	<.002	E.003	<.003	<.007
	07-20-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	09-28-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
422328077374001	07-20-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	09-28-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
425225077584901	06-26-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	07-20-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	09-28-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
424708078000901	05-18-98	<.004	<.006	<.004	.039	<.005	<.002	<.018	<.003	<.007
	06-22-98	<.004	<.006	<.004	.037	<.005	<.002	<.018	<.003	<.007
	06-26-98	<.004	<.006	<.004	.267	<.005	<.002	<.018	<.003	<.007
	07-20-98	<.004	<.006	<.004	<.020	<.005	<.002	<.018	<.003	<.007
	09-28-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
424735077595401	05-18-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	06-22-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	07-20-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	09-28-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
425338077583101	05-18-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	06-22-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	07-20-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	09-28-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
424318078014601	05-18-98	<.004	<.006	<.004	<.004	<.005	<.002	E.004	<.003	<.007
	06-22-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	06-26-98	<.004	<.006	<.004	.078	<.005	<.002	E.006	<.003	<.007
	07-20-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	09-28-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
424237078012801	05-18-98	<.004	<.006	<.004	<.004	<.005	<.002	E.006	<.003	<.007
	06-22-98	<.004	<.006	<.004	<.004	<.005	<.002	E.005	<.003	<.007
	07-20-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	09-28-98	<.004	<.006	<.004	<.004	<.005	<.002	E.004	<.003	<.007

ANALYSES OF SAMPLES AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

PESTICIDE ANALYSES, PERIOD, MAY 1998 TO SEPTEMBER 1998

STATION NUMBER	DATE	PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	SI- MAZINE, WATER, FLTRD DISS, REC (UG/L) (04035)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)
422306077380401	05-18-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	06-22-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	07-20-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	09-28-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
422402077373901	05-18-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	06-22-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	06-26-98	<.004	<.013	E.001	<.010	<.007	<.013	<.002	<.001	<.002
	07-20-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	09-28-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
422357077371701	07-20-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	09-28-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
422403077370901	05-18-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	06-22-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	06-26-98	<.004	<.013	.007	<.010	<.007	<.013	<.002	<.001	<.002
	07-20-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	09-28-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
422328077374001	07-20-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	09-28-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
425225077584901	06-26-98	<.004	<.013	<.020	<.010	<.007	<.013	<.002	<.001	<.002
	07-20-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	09-28-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
424708078000901	05-18-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	06-22-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	06-26-98	<.004	<.013	.255	<.010	<.007	<.013	<.002	<.001	<.002
	07-20-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	09-28-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
424735077595401	05-18-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	06-22-98	<.004	<.013	E.003	<.010	<.007	<.013	<.002	<.001	<.002
	07-20-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	09-28-98	<.004	<.013	.008	<.010	<.007	<.013	<.002	<.001	<.002
425338077583101	05-18-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	06-22-98	<.004	<.013	E.005	<.010	<.007	<.013	<.002	<.001	<.002
	07-20-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	09-28-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
424318078014601	05-18-98	<.004	<.013	.026	<.010	<.007	<.013	<.002	<.001	<.002
	06-22-98	<.004	<.013	.018	<.010	<.007	<.013	<.002	<.001	<.002
	06-26-98	<.004	<.013	.061	<.010	<.007	<.013	<.002	<.001	<.002
	07-20-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	09-28-98	<.004	<.013	E.004	<.010	<.007	<.013	<.002	<.001	<.002
424237078012801	05-18-98	<.004	<.013	.031	<.010	<.007	<.013	<.002	<.001	<.002
	06-22-98	<.004	<.013	.019	<.010	<.007	<.013	<.002	<.001	<.002
	07-20-98	<.004	<.013	.013	<.010	<.007	<.013	<.002	<.001	<.002
	09-28-98	<.004	<.013	.015	<.010	<.007	<.013	<.002	<.001	<.002

ANALYSES OF SAMPLES AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

PESTICIDE ANALYSES, PERIOD, MAY 1997 TO SEPTEMBER 1998

STATION NUMBER	STATION NAME	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	ACETO- CHLOR, WATER, FLTRD REC (UG/L) (49260)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)				
422950076305901	CAYUGA LAKE, BOLTON POINT WATER-SUPPLY INTAKE	05-06-97	1225	--	<.002	<.002				
		07-02-97	0910	--	<.002	<.002				
		09-09-97	1020	--	<.002	E.002				
		02-03-98	0920	--	<.002	E.003				
		07-17-98	0920	--	<.002	<.002				
425549076250201	SKANEATELES LAKE PUBLIC-SUPPLY INTAKE NO. 1	05-06-97	1040	--	<.002	<.002				
		07-02-97	1400	--	<.002	<.002				
		09-09-97	1300	--	<.002	<.002				
		02-03-98	1050	--	<.002	<.002				
		07-17-98	0740	--	<.002	<.002				
STATION NUMBER	DATE	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)
422950076305901	05-06-97	.178	E.051	<.001	<.002	<.002	<.003	<.003	<.004	.021
	07-02-97	.176	E.104	<.001	<.002	<.002	<.003	<.003	<.004	.020
	09-09-97	.171	E.055	<.001	<.002	<.002	<.003	<.003	<.004	.014
	02-03-98	.148	E.107	<.001	<.002	<.002	<.003	<.003	<.004	.020
	07-17-98	.139	E.086	<.001	<.002	<.002	<.003	<.003	<.004	.022
425549076250201	05-06-97	.050	E.030	<.001	<.002	<.002	<.003	<.003	<.004	.006
	07-02-97	.044	E.046	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	09-09-97	.037	E.022	<.070	<.002	<.002	<.003	<.003	<.004	E.004
	02-03-98	.038	E.053	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	07-17-98	.056	E.045	<.001	<.002	<.002	<.003	<.003	<.004	<.004
STATION NUMBER	DATE	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DI- P, P' AZINON, DIS- SOLVED (UG/L) (34653)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISUL- FOTON WATER FLTRD GF, REC (UG/L) (82677)	EPTC WATER FLTRD GF, REC (UG/L) (82668)	ETHAL- FLUR- ALIN WAT FLT GF, REC (UG/L) (82663)	ETHO- PROP WATER FLTRD GF, REC (UG/L) (82672)	
422950076305901	05-06-97	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	07-02-97	E.001	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	09-09-97	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	02-03-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	07-17-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
425549076250201	05-06-97	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	07-02-97	E.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	09-09-97	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	02-03-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	07-17-98	E.003	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003

ANALYSES OF SAMPLES AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

PESTICIDE ANALYSES, PERIOD, MAY 1997 TO SEPTEMBER 1998

STATION NUMBER	DATE	FONOFOS	ALPHA		LIN- URON			METRI-	MOL-	NAPROP-
		WATER	BHC	LINDANE	WATER	MALA-	METO-	BUZIN	INATE	AMIDE
		DISS	DIS-	DIS-	FLTRD	THION,	LACHLOR	SENCOR	WATER	WATER
		REC	SOLVED	SOLVED	GF, REC	SOLVED	DISSOLV	DISSOLV	FLTRD	FLTRD
		(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)
		(04095)	(34253)	(39341)	(82666)	(39532)	(39415)	(82630)	(82671)	(82684)
422950076305901	05-06-97	<.003	<.002	<.004	<.002	<.005	.056	<.004	<.004	<.003
	07-02-97	<.003	<.002	<.004	<.002	<.005	.058	<.004	<.004	<.003
	09-09-97	<.003	<.002	<.004	<.002	<.005	.053	<.004	<.004	<.003
	02-03-98	<.003	<.002	<.004	<.002	<.005	.056	<.004	<.004	<.003
	07-17-98	<.003	<.002	<.004	<.002	<.005	.066	<.004	<.004	<.003
425549076250201	05-06-97	<.003	<.002	<.004	<.002	<.005	.009	<.004	<.004	<.003
	07-02-97	<.003	<.002	<.004	<.002	<.005	.010	<.004	<.004	<.003
	09-09-97	<.003	<.002	<.004	<.002	<.005	.006	<.004	<.004	<.003
	02-03-98	<.003	<.002	<.004	<.002	<.005	.009	<.004	<.004	<.003
	07-17-98	<.003	<.002	<.004	<.002	<.005	.033	<.004	<.004	<.003
STATION NUMBER	DATE	PARA- THION, DIS-	METHYL PARA- THION WAT FLT 0.7 U	PEB- ULATE WATER 0.7 U	PENDI- METH- ALIN WAT FLT 0.7 U	PER- METHRIN CIS WAT FLT 0.7 U	PHORATE WATER FLTRD 0.7 U	PRO- METON, WATER, DISS, REC	PRON- AMIDE WATER FLTRD 0.7 U	PROP- CHLOR, WATER, DISS, REC
		SOLVED	GF, REC	GF, REC	GF, REC	GF, REC	GF, REC	REC	GF, REC	GF, REC
		(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)
		(39542)	(82667)	(82669)	(82683)	(82687)	(82664)	(04037)	(82676)	(04024)
422950076305901	05-06-97	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	07-02-97	<.004	<.006	<.004	<.004	<.005	<.002	E.003	<.003	<.007
	09-09-97	<.004	<.006	<.004	<.004	<.005	<.002	E.003	<.003	<.007
	02-03-98	<.004	<.006	<.004	<.004	<.005	<.002	E.004	<.003	<.007
	07-17-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
425549076250201	05-06-97	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	07-02-97	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	09-09-97	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	02-03-98	<.004	<.006	<.004	<.004	<.005	<.002	E.002	<.003	<.007
	07-17-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
STATION NUMBER	DATE	PRO- PANIL WATER FLTRD 0.7 U	PRO- PARGITE WATER FLTRD 0.7 U	SI- MAZINE, WATER, DISS, REC	TEBU- THIURON WATER FLTRD 0.7 U	TER- BACIL WATER FLTRD 0.7 U	TER- BUFOS WATER FLTRD 0.7 U	THIO- BENCARB WATER FLTRD 0.7 U	TRIAL- LATE WATER FLTRD 0.7 U	TRI- FLUR- ALIN WAT FLT 0.7 U
		GF, REC	GF, REC	REC	GF, REC	GF, REC	GF, REC	GF, REC	GF, REC	GF, REC
		(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)
		(82679)	(82685)	(04035)	(82670)	(82665)	(82675)	(82681)	(82678)	(82661)
422950076305901	05-06-97	<.004	<.013	.031	<.010	<.007	<.013	<.002	<.001	<.002
	07-02-97	<.004	<.013	.017	<.010	<.007	<.013	<.002	<.001	<.002
	09-09-97	<.004	<.013	.016	<.010	<.007	<.013	<.002	<.001	<.002
	02-03-98	<.004	<.013	.014	<.010	<.007	<.013	<.002	<.001	<.002
	07-17-98	<.004	<.013	.011	<.010	<.007	<.013	<.002	<.001	<.002
425549076250201	05-06-97	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	07-02-97	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	09-09-97	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	02-03-98	<.004	<.013	E.002	<.010	<.007	<.013	<.002	<.001	<.002
	07-17-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002

ANALYSES OF SAMPLES AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

PESTICIDE ANALYSES, PERIOD, JULY 1997 TO SEPTEMBER 1998

MULTIPLE STATION ANALYSES

In July 1997, the city of Rochester and the U. S. Geological Survey began a cooperative effort to appraise the occurrence and distribution of pesticides in the Hemlock Lake and Canadice Lake watersheds, which provide drinking water for the city. The monitoring effort included six surveys of pesticide concentrations in both lakes and six streams within the watersheds. Samples were collected during baseflow and storm runoff. Samples of bottom material from both lakes were also collected on two dates for analysis of gross PCB and organochloride insecticides.

STATION NUMBER	STATION NAME	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)
04228880	SPRINGWATER CREEK SOUTH OF SPRINGWATER NY	07-09-97	1220	11	<.002	<.002
04228890	SPRINGWATER CREEK SOUTHWEST OF SPRINGWATER NY	07-09-97	1250	12	<.002	E.004
		07-23-97	1840	3.5	<.002	<.002
		04-20-98	1110	58	<.002	<.002
		04-29-98	1100	15	<.002	<.002
		06-26-98	1330	30	<.002	E.003
		07-16-98	1440	13	<.002	<.002
04228900	SPRINGWATER CREEK AT SPRINGWATER NY	07-09-97	1320	15	<.002	E.003
		07-23-97	1730	2.9	<.002	<.002
		04-20-98	1140	71	<.002	<.002
		04-29-98	1120	17	<.002	<.002
		06-26-98	1300	43	<.002	<.002
		07-16-98	1540	15	<.002	<.002
04228905	LIMEKILN CREEK AT SPRINGWATER NY	07-09-97	1100	6.0	<.002	<.002
		07-23-97	1920	.64	<.002	<.002
		04-20-98	0950	41	<.002	<.002
		04-29-98	0950	4.7	<.002	<.002
		06-26-98	1240	23	<.002	<.002
		07-16-98	1430	2.5	<.002	<.002
04228908	LIMEKILN CREEK NORTH OF SPRINGWATER NY	07-09-97	1140	9.0	<.002	<.002
		07-23-97	1650	.82	<.002	<.002
		04-20-98	1030	60	<.002	<.002
		04-29-98	1030	7.5	<.002	<.002
		06-26-98	1240	36	<.002	<.002
		07-16-98	1530	3.4	<.002	<.002
04228915	REYNOLDS BROOK NEAR SPRINGWATER NY	07-09-97	1400	5.6	<.002	<.002
		07-23-97	2000	.69	<.002	<.002
		04-20-98	1210	33	<.002	<.002
		04-29-98	1140	4.6	<.002	<.002
		06-26-98	1400	16	<.002	<.002
		07-16-98	1630	2.8	<.002	<.002
04228916	REYNOLDS BROOK NORTH OF SPRINGWATER NY	07-09-97	1520	2.1	<.002	<.002
04228950	CANADICE LAKE NEAR HEMLOCK NY	07-09-97	1600	.00	<.002	E.004
		07-23-97	1400	.00	<.002	<.002
		04-20-98	1330	129	<.002	<.002
		04-29-98	1210	11	<.002	<.002
		06-26-98	1500	53	<.002	E.003
		07-16-98	1250	.00	<.002	<.002
04229019	CANADICE OUTLET AT HEMLOCK NY	07-09-97	1640	4.1	<.002	<.002
		07-23-97	1520	.99	<.002	<.002
		04-20-98	1430	153	<.002	<.002
		04-29-98	1300	15	<.002	<.002
		06-26-98	1500	47	<.002	<.002
		07-16-98	1700	6.2	<.002	<.002
424054077355701	HEMLOCK LAKE, SOUTH END	07-09-97	1445	--	<.002	<.002
		07-23-97	1210	--	<.002	<.002
		07-16-98	1100	--	<.002	<.002

ANALYSES OF SAMPLES AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

PESTICIDE ANALYSES, PERIOD, JULY 1997 TO SEPTEMBER 1998

MULTIPLE STATION ANALYSES

STATION NUMBER	DATE	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	METHYL PHOS WAT FLT GF, REC (UG/L) (82686)	BEN- FLUR- ALIN WAT PLD GF, REC (UG/L) (82673)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	CAR- BARYL WATER FLTRD GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD GF, REC (UG/L) (82674)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)
04228880	07-09-97	.143	E.012	<.001	<.002	<.002	<.003	<.003	<.004	<.004
04228890	07-09-97	.147	E.032	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	07-23-97	.022	E.004	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	04-20-98	.013	E.012	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	04-29-98	.005	E.004	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	06-26-98	1.52	E.062	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	07-16-98	.135	E.022	<.001	<.002	<.002	<.003	<.003	<.004	<.004
04228900	07-09-97	.142	E.033	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	07-23-97	.017	E.004	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	04-20-98	.011	E.010	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	04-29-98	.005	E.004	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	06-26-98	1.58	E.064	<.001	<.002	<.002	E.007	<.003	<.004	<.004
	07-16-98	.103	E.017	<.001	<.002	<.002	<.003	<.003	<.004	<.004
04228905	07-09-97	.023	E.012	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	07-23-97	.009	E.004	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	04-20-98	.009	E.004	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	04-29-98	E.003	E.003	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	06-26-98	.574	E.026	<.001	<.002	<.002	E.035	<.003	<.004	<.004
	07-16-98	.019	E.008	<.001	<.002	<.002	<.003	<.003	<.004	<.004
04228908	07-09-97	.023	E.014	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	07-23-97	<.001	<.002	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	04-20-98	.008	E.006	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	04-29-98	E.002	E.003	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	06-26-98	.368	E.026	<.001	<.002	<.002	E.038	<.003	<.004	<.004
	07-16-98	.012	E.008	<.001	<.002	<.002	<.003	<.003	<.004	<.004
04228915	07-09-97	.011	E.006	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	07-23-97	E.004	<.002	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	04-20-98	E.001	E.001	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	04-29-98	<.001	<.002	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	06-26-98	.011	E.007	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	07-16-98	<.001	<.002	<.001	<.002	<.002	<.003	<.003	<.004	<.004
04228916	07-09-97	.009	E.005	<.001	<.002	<.002	<.003	<.003	<.004	<.004
04228950	07-09-97	.016	E.004	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	07-23-97	.014	E.004	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	04-20-98	.009	E.004	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	04-29-98	.007	E.003	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	06-26-98	.017	E.006	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	07-16-98	.016	E.008	<.001	<.002	<.002	<.003	<.003	<.004	<.004
04229019	07-09-97	.016	E.006	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	07-23-97	.009	E.003	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	04-20-98	.006	E.004	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	04-29-98	.006	E.003	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	06-26-98	.057	E.017	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	07-16-98	.020	E.007	<.001	<.002	<.002	<.003	<.003	<.004	<.004
424054077355701	07-09-97	.021	E.005	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	07-23-97	.017	E.004	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	07-16-98	.040	E.012	<.001	<.002	<.002	<.003	<.003	<.004	<.004

PESTICIDE ANALYSES, PERIOD, JULY 1997 TO SEPTEMBER 1998

MULTIPLE STATION ANALYSES

STATION NUMBER	DATE	DCPA		DI-	DI-	2,6-DI-	DISUL-		ETHAL-	ETHO-
		WATER FLTRD 0.7 U	P,P' DDE	AZINON, DIS-	ELDRIN DIS-	ETHYL ANILINE WAT FLT 0.7 U	FOTON WATER FLTRD 0.7 U	EPTC WATER FLTRD 0.7 U	FLUR- ALIN WAT FLT 0.7 U	PROP WATER FLTRD 0.7 U
		GF, REC (UG/L) (82682)	DISSOLV (UG/L) (34653)	SOLVED (UG/L) (39572)	SOLVED (UG/L) (39381)	GF, REC (UG/L) (82660)	GF, REC (UG/L) (82677)	GF, REC (UG/L) (82668)	GF, REC (UG/L) (82663)	GF, REC (UG/L) (82672)
04228880	07-09-97	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
04228890	07-09-97	<.002	<.006	<.002	<.001	<.003	<.017	E.002	<.004	<.003
	07-23-97	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	04-20-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	04-29-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	06-26-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	07-16-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
04228900	07-09-97	<.002	<.006	<.002	<.001	<.003	<.017	E.003	<.004	<.003
	07-23-97	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	04-20-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	04-29-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	06-26-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	07-16-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
04228905	07-09-97	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	07-23-97	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	04-20-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	04-29-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	06-26-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	07-16-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
04228908	07-09-97	<.002	E.001	<.002	<.001	<.003	<.017	E.002	<.004	<.003
	07-23-97	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	04-20-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	04-29-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	06-26-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	07-16-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
04228915	07-09-97	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	07-23-97	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	04-20-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	04-29-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	06-26-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	07-16-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
04228916	07-09-97	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
04228950	07-09-97	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	07-23-97	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	04-20-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	04-29-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	06-26-98	<.002	<.006	<.002	<.001	<.003	<.017	.011	<.004	<.003
	07-16-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
04229019	07-09-97	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	07-23-97	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	04-20-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	04-29-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	06-26-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	07-16-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
424054077355701	07-09-97	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	07-23-97	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	07-16-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003

ANALYSES OF SAMPLES AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

PESTICIDE ANALYSES, PERIOD, JULY 1997 TO SEPTEMBER 1998

MULTIPLE STATION ANALYSES

STATION NUMBER	DATE	FONOFOS WATER DISS REC (UG/L) (04095)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	LINDANE DIS- SOLVED (UG/L) (39341)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA- THION, DIS- SOLVED (UG/L) (39532)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)
04228880	07-09-97	<.003	<.002	<.004	<.002	<.005	.189	<.004	<.004	<.003
04228890	07-09-97	<.003	<.002	<.004	<.002	<.005	.204	<.004	<.004	<.003
	07-23-97	<.003	<.002	<.004	<.002	<.005	.058	<.004	<.004	<.003
	04-20-98	<.003	<.002	<.004	<.002	<.005	.023	<.004	<.004	<.003
	04-29-98	<.003	<.002	<.004	<.002	<.005	.006	<.004	<.004	<.003
	06-26-98	<.003	<.002	<.004	<.002	<.020	1.19	.006	<.004	<.003
	07-16-98	<.003	<.002	<.004	<.002	<.005	.200	<.004	<.004	<.003
04228900	07-09-97	<.003	<.002	<.004	.0073	<.005	.204	<.004	<.004	<.003
	07-23-97	<.003	<.002	<.004	<.002	<.005	.043	<.004	<.004	<.003
	04-20-98	<.003	<.002	<.004	<.002	<.005	.019	<.004	<.004	<.003
	04-29-98	<.003	<.002	<.004	<.002	<.005	.006	<.004	<.004	<.003
	06-26-98	<.003	<.002	<.004	<.002	<.010	1.30	<.004	<.004	<.003
	07-16-98	<.003	<.002	<.004	<.002	<.005	.154	<.004	<.004	<.003
04228905	07-09-97	<.003	<.002	<.004	<.002	<.005	.013	<.004	<.004	<.003
	07-23-97	<.003	<.002	<.004	<.002	<.005	E.003	<.004	<.004	<.003
	04-20-98	<.003	<.002	<.004	<.002	<.005	.005	<.004	<.004	<.003
	04-29-98	<.003	<.002	<.004	<.002	<.005	E.002	<.004	<.004	<.003
	06-26-98	<.003	<.002	<.004	.430	<.005	1.84	<.004	<.004	<.003
	07-16-98	<.003	<.002	<.004	<.002	<.005	.070	<.004	<.004	<.003
04228908	07-09-97	<.003	<.002	<.004	<.002	<.005	.012	<.004	<.004	<.003
	07-23-97	<.003	<.002	<.004	<.002	<.005	<.002	<.004	<.004	<.003
	04-20-98	<.003	<.002	<.004	<.002	<.005	E.004	<.004	<.004	<.003
	04-29-98	<.003	<.002	<.004	<.002	<.005	E.002	<.004	<.004	<.003
	06-26-98	<.003	<.002	<.004	.334	<.005	1.35	<.004	<.004	<.003
	07-16-98	<.003	<.002	<.004	<.002	<.005	.036	<.004	<.004	<.003
04228915	07-09-97	<.003	<.002	<.004	<.002	<.005	.006	<.004	<.004	<.003
	07-23-97	<.003	<.002	<.004	<.002	<.005	<.002	<.004	<.004	<.003
	04-20-98	<.003	<.002	<.004	<.002	<.005	.005	<.004	<.004	<.003
	04-29-98	<.003	<.002	<.004	<.002	<.005	E.003	<.004	<.004	<.003
	06-26-98	<.003	<.002	<.004	<.002	<.005	.007	<.004	<.004	<.003
	07-16-98	<.003	<.002	<.004	<.002	<.005	<.002	<.004	<.004	<.003
04228916	07-09-97	<.003	<.002	<.004	<.002	<.005	.006	<.004	<.004	<.003
04228950	07-09-97	<.003	<.002	<.004	<.002	<.005	.007	<.004	<.004	<.003
	07-23-97	<.003	<.002	<.004	<.002	<.005	.006	<.004	<.004	<.003
	04-20-98	<.003	<.002	<.004	<.002	<.005	E.003	<.004	<.004	<.003
	04-29-98	<.003	<.002	<.004	<.002	<.005	E.003	<.004	<.004	<.003
	06-26-98	<.003	<.002	<.004	<.002	<.005	.011	<.004	<.004	<.003
	07-16-98	<.003	<.002	<.004	<.002	<.005	.009	<.004	<.004	<.003
04229019	07-09-97	<.003	<.002	<.004	<.002	<.005	.007	<.004	<.004	<.003
	07-23-97	<.003	<.002	<.004	<.002	<.005	E.003	<.004	<.004	<.003
	04-20-98	<.003	<.002	<.004	<.002	<.005	E.003	<.004	<.004	<.003
	04-29-98	<.003	<.002	<.004	<.002	<.005	E.003	<.004	<.004	<.003
	06-26-98	<.003	<.002	<.004	<.002	<.005	.010	<.004	<.004	<.003
	07-16-98	<.003	<.002	<.004	<.002	<.005	.008	<.004	<.004	<.003
424054077355701	07-09-97	<.003	<.002	<.004	<.002	<.005	.023	<.004	<.004	<.003
	07-23-97	<.003	<.002	<.004	<.002	<.005	.015	<.004	<.004	<.003
	07-16-98	<.003	<.002	<.004	<.002	<.005	.048	<.004	<.004	<.003

PESTICIDE ANALYSES, PERIOD, JULY 1997 TO SEPTEMBER 1998

MULTIPLE STATION ANALYSES

STATION NUMBER	DATE	PARA- THION, DIS- SOLVED (UG/L) (39542)	METHYL PARA- THION WAT FLT GF, REC (UG/L) (82667)	PEB- ULATE WATER FILTRD GF, REC (UG/L) (82669)	PENDI- METH- ALIN WAT FLT GF, REC (UG/L) (82683)	PER- METHRIN CIS WAT FLT GF, REC (UG/L) (82687)	PHORATE WATER FLTRD GF, REC (UG/L) (82664)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	PRON- AMIDE WATER FLTRD GF, REC (UG/L) (82676)	PROP- CHLOR, WATER, DISS, REC (UG/L) (04024)
04228880	07-09-97	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
04228890	07-09-97	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	07-23-97	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	04-20-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	04-29-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	06-26-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	07-16-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
04228900	07-09-97	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	07-23-97	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	04-20-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	04-29-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	06-26-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	07-16-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
04228905	07-09-97	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	07-23-97	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	04-20-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	04-29-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	06-26-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	07-16-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
04228908	07-09-97	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	07-23-97	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	04-20-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	04-29-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	06-26-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	07-16-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
04228915	07-09-97	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	07-23-97	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	04-20-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	04-29-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	06-26-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	07-16-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
04228916	07-09-97	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
04228950	07-09-97	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	07-23-97	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	04-20-98	<.004	<.006	<.004	<.004	<.005	<.002	E.004	<.003	<.007
	04-29-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	06-26-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	07-16-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
04229019	07-09-97	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	07-23-97	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	04-20-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	04-29-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	06-26-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	07-16-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
424054077355701	07-09-97	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	07-23-97	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	07-16-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007

ANALYSES OF SAMPLES AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

PESTICIDE ANALYSES, PERIOD, JULY 1997 TO SEPTEMBER 1998

MULTIPLE STATION ANALYSES

STATION NUMBER	DATE	PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	SI- MAZINE, WATER, FLTRD DISS, REC (UG/L) (04035)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)
04228880	07-09-97	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
04228890	07-09-97	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	07-23-97	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	04-20-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	04-29-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	06-26-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	07-16-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
04228900	07-09-97	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	07-23-97	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	04-20-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	04-29-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	06-26-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	07-16-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
04228905	07-09-97	<.004	<.013	E.004	<.010	<.007	<.013	<.002	<.001	<.002
	07-23-97	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	04-20-98	<.004	<.013	E.004	<.010	<.007	<.013	<.002	<.001	<.002
	04-29-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	06-26-98	<.004	<.013	.007	<.010	<.007	<.013	<.002	<.001	<.002
	07-16-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
04228908	07-09-97	<.004	<.013	.005	<.010	<.007	<.013	<.002	<.001	<.002
	07-23-97	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	04-20-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	04-29-98	<.004	<.013	E.003	<.010	<.007	<.013	<.002	<.001	<.002
	06-26-98	<.004	<.013	E.005	<.010	<.007	<.013	<.002	<.001	<.002
	07-16-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
04228915	07-09-97	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	07-23-97	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	04-20-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	04-29-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	06-26-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	07-16-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
04228916	07-09-97	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
04228950	07-09-97	<.004	<.013	.005	<.010	<.007	<.013	<.002	<.001	<.002
	07-23-97	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	04-20-98	<.004	<.013	E.004	<.010	<.007	<.013	<.002	<.001	<.002
	04-29-98	<.004	<.013	E.004	<.010	<.007	<.013	<.002	<.001	<.002
	06-26-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	07-16-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
04229019	07-09-97	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	07-23-97	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	04-20-98	<.004	<.013	E.004	<.010	<.007	<.013	<.002	<.001	<.002
	04-29-98	<.004	<.013	E.004	<.010	<.007	<.013	<.002	<.001	<.002
	06-26-98	<.004	<.013	E.003	<.010	<.007	<.013	<.002	<.001	<.002
	07-16-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
424054077355701	07-09-97	<.004	<.013	.008	<.010	<.007	<.013	<.002	<.001	<.002
	07-23-97	<.004	<.013	.008	<.010	<.007	<.013	<.002	<.001	<.002
	07-16-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002

ANALYSES OF SAMPLES AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

PESTICIDE ANALYSES, PERIOD, MAY 1997 TO SEPTEMBER 1998

MULTIPLE STATION ANALYSES

STATION NUMBER	STATION NAME	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	ACETO- CHLOR, WATER, FLTRD REC (UG/L) (49260)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)
424618077364701	HEMLOCK LAKE WATER-SUPPLY INTAKE	05-06-97	0820	--	<.002	<.002
		07-02-97	0850	--	<.002	<.002
		07-09-97	1720	--	<.002	E.003
		07-23-97	2110	--	<.002	<.002
		09-09-97	1030	--	<.002	E.002
		02-02-98	0900	--	<.002	<.002
		04-20-98	1520	--	<.002	<.002
		04-29-98	1340	--	<.002	<.002
		06-26-98	1700	--	<.002	.004
		07-16-98	1750	--	<.002	<.002

STATION NUMBER	DATE	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	BEN- FLUR- ALIN WAT PLD 0.7 U GF, REC (UG/L) (82673)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)
424618077364701	05-06-97	.013	E.003	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	07-02-97	.013	E.006	<.001	<.002	<.002	<.003	<.003	<.004	E.003
	07-09-97	.014	E.005	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	07-23-97	.018	E.005	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	09-09-97	.016	E.002	<.200	<.002	<.002	<.003	<.003	<.004	<.004
	02-02-98	.012	E.006	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	04-20-98	.010	E.006	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	04-29-98	.010	E.005	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	06-26-98	.019	E.008	<.001	<.002	<.002	<.003	<.003	<.004	<.004
	07-16-98	.038	E.011	<.001	<.002	<.002	<.003	<.003	<.004	<.004

STATION NUMBER	DATE	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	P, P' DDE DISSOLV (UG/L) (34653)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)
424618077364701	05-06-97	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	07-02-97	E.001	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	07-09-97	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	07-23-97	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	09-09-97	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	02-02-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	04-20-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	04-29-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003
	06-26-98	<.002	<.006	<.002	<.001	<.003	<.017	.005	<.004	<.003
	07-16-98	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004	<.003

ANALYSES OF SAMPLES AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

PESTICIDE ANALYSES, PERIOD, MAY 1997 TO SEPTEMBER 1998

MULTIPLE STATION ANALYSES

STATION NUMBER	DATE	FONOFOS WATER DISS REC (UG/L) (04095)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	LINDANE DIS- SOLVED (UG/L) (39341)	LIN- URON WATER FLTRD 0.7 U GF, REC (82666)	MALA- THION, DIS- SOLVED (UG/L) (39532)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN WATER DISSOLV (UG/L) (82630)	MOL- INATE WATER FLTRD 0.7 U GF, REC (82671)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (82684)
424618077364701	05-06-97	<.003	<.002	<.004	<.002	<.005	.006	<.004	<.004	<.003
	07-02-97	<.003	<.002	<.004	<.002	<.005	.013	<.004	<.004	<.003
	07-09-97	<.003	<.002	<.004	<.002	<.005	.013	<.004	<.004	<.003
	07-23-97	<.003	<.002	<.004	<.002	<.005	.015	<.004	<.004	<.003
	09-09-97	<.003	<.002	<.004	<.002	<.005	.012	<.004	<.004	<.003
	02-02-98	<.003	<.002	<.004	<.002	<.005	.011	<.004	<.004	<.003
	04-20-98	<.003	<.002	<.004	<.002	<.005	.008	<.004	<.004	<.003
	04-29-98	<.003	<.002	<.004	<.002	<.005	.008	<.004	<.004	<.003
	06-26-98	<.003	<.002	<.004	<.002	<.005	.018	<.004	<.004	<.003
	07-16-98	<.003	<.002	<.004	<.002	<.005	.045	<.004	<.004	<.003
STATION NUMBER	DATE	PARA- THION, DIS- SOLVED (UG/L) (39542)	METHYL THION WAT FLT 0.7 U GF, REC (82667)	PEB- ULATE WATER FILTRD 0.7 U GF, REC (82669)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (82683)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (82664)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (82676)	PROP- CHLOR, WATER, DISS, REC (UG/L) (04024)
424618077364701	05-06-97	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	07-02-97	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	07-09-97	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	07-23-97	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	09-09-97	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	02-02-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	04-20-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	04-29-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	06-26-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
	07-16-98	<.004	<.006	<.004	<.004	<.005	<.002	<.018	<.003	<.007
STATION NUMBER	DATE	PRO- PANIL WATER FLTRD 0.7 U GF, REC (82679)	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (82685)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (82670)	TER- BACIL WATER FLTRD 0.7 U GF, REC (82665)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (82675)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (82681)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (82678)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (82661)
424618077364701	05-06-97	<.004	<.013	.025	<.010	<.007	<.013	<.002	<.001	<.002
	07-02-97	<.004	<.013	.010	<.010	<.007	<.013	<.002	<.001	<.002
	07-09-97	<.004	<.013	.009	<.010	<.007	<.013	<.002	<.001	<.002
	07-23-97	<.004	<.013	.008	<.010	<.007	<.013	<.002	<.001	<.002
	09-09-97	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
	02-02-98	<.004	<.013	.007	<.010	<.007	<.013	<.002	<.001	<.002
	04-20-98	<.004	<.013	.007	<.010	<.007	<.013	<.002	<.001	<.002
	04-29-98	<.004	<.013	.006	<.010	<.007	<.013	<.002	<.001	<.002
	06-26-98	<.004	<.013	.009	<.010	<.007	<.013	<.002	<.001	<.002
	07-16-98	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002

ANALYSES OF SAMPLES AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

327

CHEMICAL QUALITY OF BOTTOM MATERIAL, PERIOD, MAY 1997 TO SEPTEMBER 1998

MULTIPLE STATION ANALYSES

STATION	NUMBER	STATION	NAME	DATE	TIME	CARBON, ORGANIC TOT. IN INORG, BOTTOM SED, BM MAT. WS, <2MM (GM/KG DW, REC AS C) (G/KG) (00687) (49270)				
424424077341403		CANADICE LAKE, BOTTOM MATERIAL NEAR OUTLET		07-23-97 07-16-98	1400 1240	-- 28	-- <.1			
424618077364703		HEMLOCK LAKE, BOTTOM MATERIAL NEAR PS INTAKE		07-23-97 07-16-98	1130 1030	-- 28	-- <.1			
STATION	NUMBER	DATE	CARBON, ORG + INORG SED, BM WS, <2MM DW, REC (G/KG) (49272)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39333)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39351)	P,P' - DDD, RECOVER IN BOT- TOM MA- TERIAL (UG/KG) (39363)	P,P' - DDE, RECOVER IN BOT- TOM MA- TERIAL (UG/KG) (39368)	P,P' - DDT, RECOVER IN BOT- TOM MA- TERIAL (UG/KG) (39373)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39383)	ENDO- SULFAN I TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39389)
424424077341403		07-23-97 07-16-98	-- 28	<.2 <.2	<3 <3	6.8 4.4	4.7 3.0	.6 .6	.3 .2	<.2 <.2
424618077364703		07-23-97 07-16-98	-- 28	<.2 <.2	<3 <3	12 7.2	7.8 2.9	1.0 .6	.3 <.2	<.2 <.2
STATION	NUMBER	DATE	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39393)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39413)	HEPTA- CHLOR EPOXIDE TOT. IN IN BOT- TOM MA- TERIAL (UG/KG) (39423)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39343)	METH- OXY- CHLOR, TOT. IN IN BOT- TOM MA- TERIAL (UG/KG) (39481)	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39758)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39519)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39403)
424424077341403		07-23-97 07-16-98	<.2 <.2	<.2 <.2	<.2 <.2	<.2 <.2	<2.5 <2.6	<.2 .5	24 20	<50 <50
424618077364703		07-23-97 07-16-98	<.2 <.2	<.2 <.2	<.2 <.2	<.2 <.2	<2.5 <2.5	.3 <.2	<5 <5	<50 <50

GROUND-WATER LEVELS

BROOME COUNTY

420657075583501. Local number, Bm 121.

LOCATION.--Lat 42°06'57", long 75°58'35", Hydrologic Unit 02050103, at Camden and Main Streets, Johnson City. Owner: U.S. Geological Survey.

AQUIFER.--Unconfined aquifer in sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 53 ft, cased to 53 ft, open end.

INSTRUMENTATION.--Electronic data recorder--hourly.

DATUM.--Elevation of land-surface datum is 833.62 ft above sea level. Measuring point: Top of shelter base, 3.42 ft above land-surface datum.

REMARKS.--Well cleaned from 46 ft to original depth on Oct. 19, 1970. Water level affected by floods of Susquehanna River and by pumping from municipal well field 1,100 ft south.

PERIOD OF RECORD.--March 1947 to August 1995, December 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.69 ft below land-surface datum, Apr. 12, 1993; lowest, 33.47 ft below land-surface datum, Sept. 23, 1965.

EXTREMES FOR CURRENT YEAR.--Highest water level, 15.01 ft below land-surface datum, Jan. 12; lowest, 26.21 ft below land-surface datum, Oct. 28.

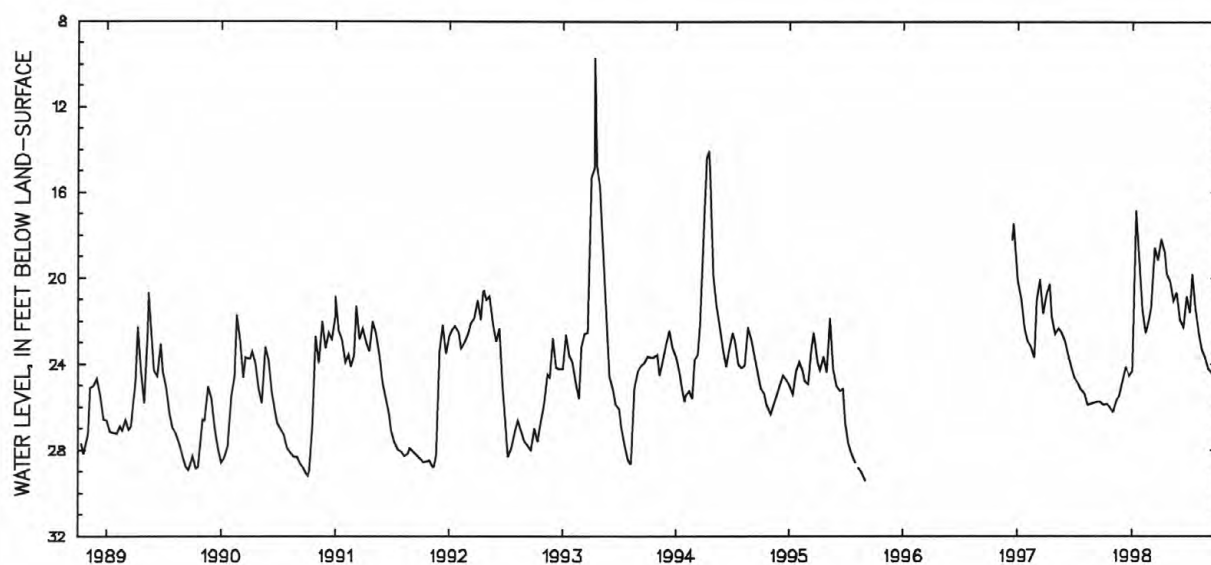
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.87	26.16	24.68	24.40	21.56	20.96	18.28	20.32	21.85	21.04	22.61	24.23
2	25.84	26.12	24.51	24.47	21.68	20.20	17.90	20.46	21.78	20.80	22.70	24.27
3	25.82	26.06	24.36	24.48	21.81	19.57	17.43	20.61	21.72	20.77	22.79	24.30
4	25.82	25.99	24.27	24.35	21.92	19.29	17.58	20.72	21.69	20.85	22.88	24.33
5	25.82	25.94	24.21	24.01	22.02	19.27	17.92	20.76	21.70	20.91	22.96	24.37
6	25.82	25.90	24.14	23.39	22.13	19.37	18.26	20.80	21.80	20.93	23.04	24.40
7	25.81	25.88	24.10	22.49	22.23	19.51	18.60	20.86	21.93	20.99	23.12	24.42
8	25.81	25.84	24.08	21.30	22.34	19.64	18.90	20.94	22.05	21.01	23.21	24.41
9	25.81	25.76	24.08	19.16	22.44	19.54	19.08	21.02	22.16	20.31	23.28	24.41
10	25.83	25.64	24.10	16.81	22.54	18.57	18.77	21.04	22.26	19.81	23.35	24.43
11	25.87	25.55	24.14	15.38	22.63	17.30	18.68	20.62	22.36	19.81	23.40	24.43
12	25.89	25.47	24.16	15.11	22.66	16.64	18.88	20.01	22.42	19.97	23.44	24.42
13	25.91	25.43	24.18	15.74	22.55	16.88	19.11	19.78	22.36	20.16	23.45	24.42
14	25.92	25.41	24.23	16.50	22.37	17.26	19.29	19.79	22.08	20.37	23.46	24.43
15	25.92	25.40	24.28	17.07	22.33	17.74	19.50	19.91	21.83	20.58	23.46	24.45
16	25.93	25.41	24.32	17.55	22.40	18.17	19.69	20.06	21.64	20.78	23.49	24.48
17	25.96	25.43	24.37	17.97	22.48	18.53	19.85	20.21	21.45	20.95	23.52	24.50
18	25.98	25.45	24.42	18.38	22.47	18.82	20.04	20.37	21.21	21.12	23.56	24.52
19	26.01	25.47	24.47	18.77	22.24	19.02	20.18	20.52	20.90	21.27	23.61	24.55
20	26.04	25.48	24.49	19.13	21.84	19.15	19.80	20.68	20.80	21.40	23.67	24.57
21	26.07	25.50	24.52	19.48	21.54	19.04	19.20	20.84	20.86	21.54	23.74	24.60
22	26.09	25.49	24.54	19.77	21.44	18.69	19.00	21.00	20.99	21.66	23.79	24.63
23	26.12	25.41	24.58	19.96	21.41	18.72	19.05	21.16	21.13	21.76	23.85	24.66
24	26.16	25.31	24.62	20.18	21.43	18.90	19.22	21.31	21.26	21.88	23.90	24.69
25	26.18	25.22	24.62	20.39	21.45	19.09	19.42	21.43	21.39	21.98	23.95	24.72
26	26.19	25.14	24.58	20.60	21.44	19.21	19.60	21.54	21.45	22.07	23.99	24.76
27	26.19	25.09	24.47	20.78	21.38	19.20	19.74	21.64	21.50	22.14	24.03	24.79
28	26.18	25.01	24.36	20.94	21.32	18.93	19.88	21.73	21.59	22.23	24.08	24.62
29	26.15	24.92	24.30	21.10	---	18.57	20.03	21.76	21.66	22.33	24.12	24.49
30	26.13	24.81	24.27	21.26	---	18.24	20.17	21.84	21.59	22.42	24.16	24.52
31	26.14	---	24.33	21.42	---	18.14	---	21.89	---	22.51	24.19	---
MEAN	25.98	25.52	24.35	20.08	22.00	18.78	19.10	20.83	21.65	21.17	23.51	24.49
MAX	26.19	26.16	24.68	24.48	22.66	20.96	20.18	21.89	22.42	22.51	24.19	24.79
MIN	25.81	24.81	24.08	15.11	21.32	16.64	17.43	19.78	20.80	19.81	22.61	24.23

GROUND-WATER LEVELS
BROOME COUNTY

329

420657075583501. Local number, Bm 121.--continued



GROUND-WATER LEVELS
CATTARAUGUS COUNTY

420530078445201. Local number, Ct 121.

LOCATION.--Lat 42°05'30", long 78°44'52", Hydrologic Unit 05010001, near Red House. Owner: New York State Department of Environmental Conservation.

AQUIFER.--Confined aquifer in sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled unused well, diameter 6 in, depth 53 ft, cased to 53 ft, open end.

INSTRUMENTATION.--Electronic data recorder--hourly. Prior to Mar. 5, 1990, weekly float tape readings by observer; periodic measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 1,467.08 ft above sea level. Measuring point: Top of casing, 0.28 ft above land-surface datum, reset to 2.30 ft above land-surface datum, Apr. 3, 1997.

REMARKS.--Well is in a New York State owned and operated campground area. Extreme low water levels occurred from 1969 to 1979 due to the effect of pumping at the campground area. A central water system for the campground, utilizing a well about 1.5 mi from the observation well was put in operation in 1980.

PERIOD OF RECORD.--September 1950 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.97 ft below land-surface datum, June 26, 1989; lowest measured, 34.87 ft below land-surface datum, Nov. 21, 1972.

EXTREMES FOR CURRENT YEAR.--Highest water level recorded, 2.11 ft below land-surface datum, May 16; lowest recorded, 7.40 ft below land-surface datum, Sep. 23.

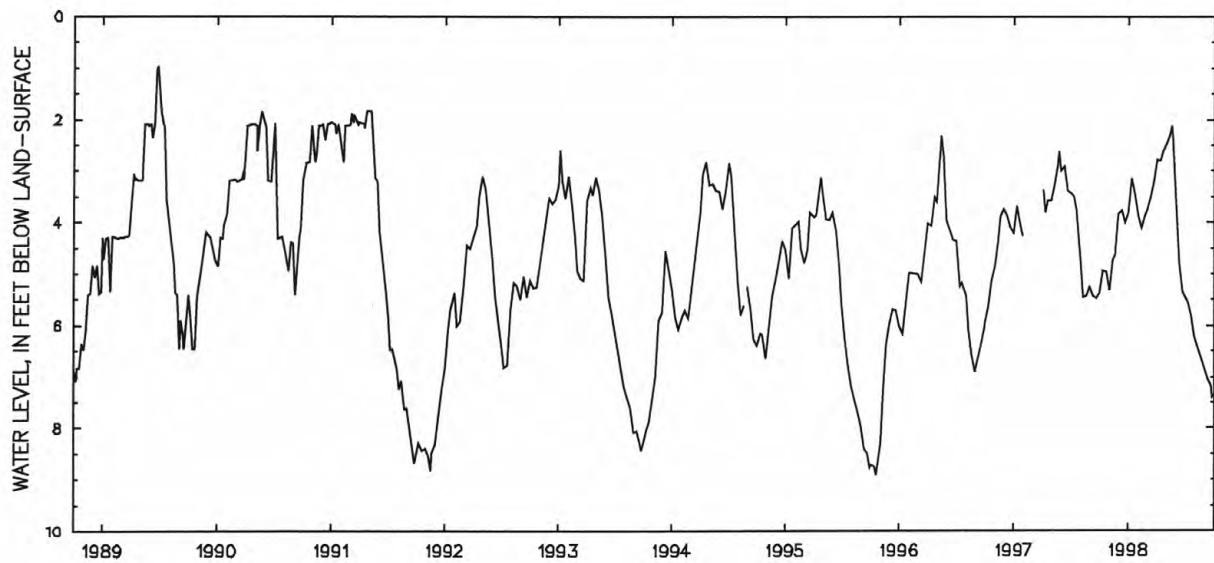
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.49	5.18	3.91	3.99	3.89	3.67	2.73	2.37	3.80	5.51	6.34	---
2	5.42	5.00	4.09	3.98	3.86	3.57	2.79	2.31	3.83	5.60	6.34	---
3	5.20	5.08	4.00	4.01	3.92	3.48	2.85	2.37	4.05	5.60	6.32	---
4	5.15	5.13	3.76	4.01	3.81	3.56	2.77	2.37	4.18	5.52	6.35	---
5	5.11	5.22	3.75	3.83	3.73	3.68	2.83	2.37	4.28	5.57	6.39	---
6	5.04	5.12	3.76	3.59	3.85	3.74	2.83	2.37	4.43	5.60	6.41	---
7	5.01	4.94	3.89	3.43	3.91	3.69	2.86	2.28	4.55	5.57	6.46	---
8	4.98	4.77	4.05	3.05	3.94	3.55	2.80	2.17	4.70	5.52	6.56	---
9	4.92	4.70	3.95	2.89	4.02	3.22	2.73	2.30	4.80	5.53	---	---
10	4.93	4.72	3.77	3.14	4.10	3.50	2.81	2.31	4.81	5.55	---	---
11	4.97	4.80	3.89	3.19	3.99	3.67	2.92	2.24	4.88	5.59	---	7.05
12	4.89	4.77	3.99	3.20	3.85	3.59	2.94	2.24	4.86	5.59	---	7.02
13	4.83	4.79	3.87	3.16	4.11	3.53	2.84	2.22	4.89	5.59	---	7.08
14	4.86	4.57	3.92	3.39	4.20	3.30	2.64	2.19	4.96	5.63	---	7.12
15	4.98	4.68	3.95	3.16	4.29	3.56	2.66	2.18	4.99	5.66	---	7.13
16	5.00	4.74	3.93	3.12	4.24	3.68	2.61	2.14	5.11	5.66	---	7.18
17	4.96	4.86	3.90	3.20	4.02	3.62	2.67	2.23	5.28	5.66	---	7.19
18	4.94	4.81	3.97	3.31	3.78	3.46	2.91	2.32	5.38	5.75	---	7.21
19	4.92	4.66	3.97	3.37	3.90	3.29	2.80	2.30	5.36	5.80	---	7.19
20	4.96	4.63	4.00	3.47	3.87	3.21	2.63	2.34	5.35	5.81	---	7.19
21	5.04	4.58	4.14	3.65	3.91	3.02	2.56	2.45	5.39	5.89	---	7.20
22	5.09	4.49	4.04	3.69	4.02	3.00	2.44	2.62	5.43	5.91	---	7.24
23	5.17	4.47	3.92	3.58	3.86	3.10	2.32	2.75	5.42	5.88	---	7.36
24	5.22	4.50	3.99	3.58	3.74	3.25	2.28	2.86	5.47	5.94	---	7.36
25	5.28	4.42	3.75	3.70	3.88	3.33	2.44	2.91	5.48	6.03	---	7.34
26	5.32	4.15	3.81	3.86	3.94	3.11	2.46	3.10	5.42	6.04	---	7.36
27	5.13	4.30	3.73	3.84	3.79	2.99	2.60	3.29	5.48	6.00	---	7.29
28	5.39	4.11	3.73	3.72	3.76	2.85	2.67	3.41	5.59	5.99	---	7.34
29	5.40	4.10	3.61	3.65	---	2.89	2.58	3.49	5.59	6.03	---	7.37
30	5.43	3.83	3.38	3.70	---	2.82	2.47	3.66	5.47	6.13	---	7.32
31	5.33	---	3.81	3.86	---	2.77	---	3.63	---	6.21	---	---
MEAN	5.11	4.67	3.88	3.53	3.93	3.35	2.68	2.57	4.97	5.75	---	---
MAX	5.49	5.22	4.14	4.01	4.29	3.74	2.94	3.66	5.59	6.21	---	---
MIN	4.83	3.83	3.38	2.89	3.73	2.77	2.28	2.14	3.80	5.51	---	---

GROUND-WATER LEVELS
CATTARAUGUS COUNTY

331

420530078445201. Local number, Ct 121--Continued.



GROUND-WATER LEVELS
CHAUTAUQUA COUNTY

420815079121401. Local number, Cu 10.

LOCATION.--Lat 42°08'15", long 79°12'14", Hydrologic Unit 05010002, at Falconer. Owner: City of Jamestown.

AQUIFER.--Confined aquifer in sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 12 inch to 10 inch, depth 232 ft, filled in from original depth of 240 ft, diameter 12 inch from 0 ft to 130 ft, diameter 10 inch from 130 ft to 240 ft, slotted 130 ft to 144 ft, open end.

INSTRUMENTATION.--Weekly measurements by City of Jamestown personnel. Prior to Dec. 14, 1978, Type F graphic recorder at same site and datum. Dec. 14, 1978 to Sept. 16, 1982, digital recorder every fifth day high water-level published. Sept. 1982 to Sept. 1987, twice-daily readings by City of Jamestown personnel, every fifth day high water-level published. Periodic measurements by USGS personnel

DATUM.--Elevation of land-surface datum is 1,252.52 ft above sea level. Measuring point: Top of well casing, 5.48 ft above land-surface datum.

REMARKS.--Water level affected by pumping from municipal well field.

PERIOD OF RECORD.--November 1939 to September 1943, August 1946 to August 1995, October 1996 to current. Records for November 1939 to September 1943, August 1946 to September 1976 are unpublished and available in files of the Geological Survey.

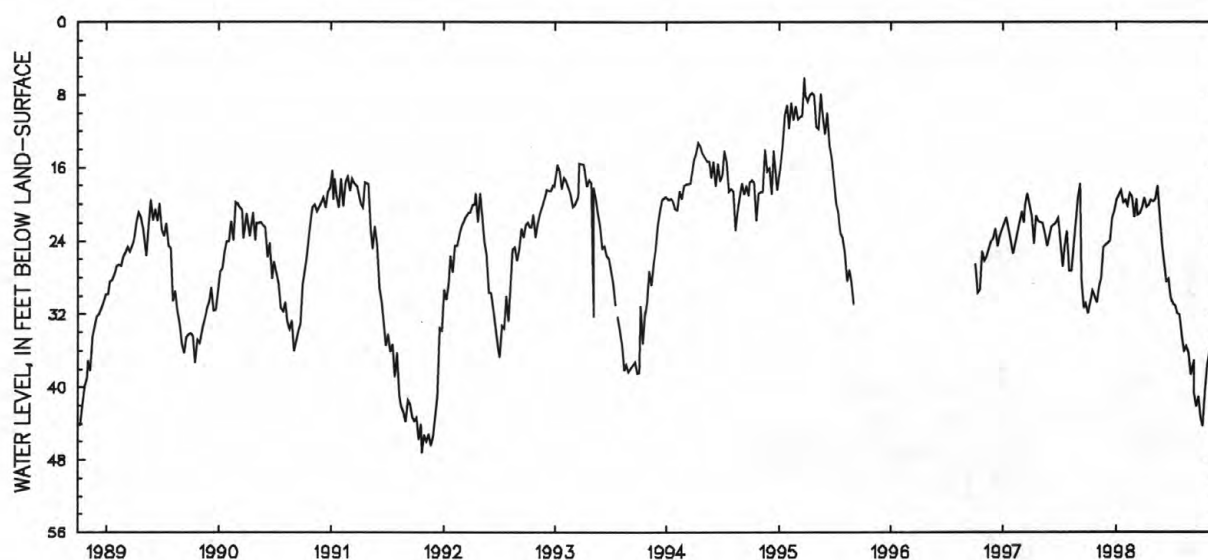
REVISED RECORD.--WDR NY-87-3: 1983-86. WDR NY-91-3: 1988-90.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.2 ft above land-surface datum, Mar. 14, 1942; lowest measured, 66.6 ft below land-surface datum, Nov. 3, 1971.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 17.94 ft below land-surface datum, May 15; lowest measured, 42.14 ft below land-surface datum, Sep. 18.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03	31.95	DEC 26	20.65	FEB 27	21.36	APR 24	19.49	JUN 19	28.12	AUG 14	35.55
17	29.45	JAN 02	19.55	MAR 06	19.39	MAY 01	19.59	26	30.28	21	36.28
31	30.75	16	18.44	13	21.04	08	19.45	JUL 02	30.84	28	38.70
NOV 07	29.08	23	19.79	20	20.91	15	17.94	10	31.07	SEP 08	37.14
14	28.04	30	19.55	27	20.40	22	21.22	17	31.93	11	40.73
21	24.63	FEB 06	20.05	APR 03	19.30	29	24.33	24	32.13	18	42.14
DEC 12	23.99	13	18.84	09	20.25	JUN 05	26.20	31	34.37	25	41.02
19	21.33	20	19.13	17	20.00	12	28.32	AUG 07	36.04		



GROUND-WATER LEVELS
CHEMUNG COUNTY

333

420829076484801. Local number, Cm 46.

LOCATION.--Lat 42°08'29", long 76°48'48", Hydrologic Unit 02050105, near Horseheads. Owner: Unknown.

AQUIFER.--Unconfined aquifer in sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled unused well, diameter 6 inch, depth 34 ft, cased to 34 ft, open end.

INSTRUMENTATION.--Electronic data recorder--hourly.

DATUM.--Elevation of land-surface datum is 885.69 ft above sea level. Measuring point: Top of pipe flange, 3.44 ft above land-surface datum.

REMARKS.--Water level affected by stage of Newtown Creek.

PERIOD OF RECORD.--October 1955 to current year. Records for October 1955 to September 1976 are unpublished and available in files of the Geological Survey.

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

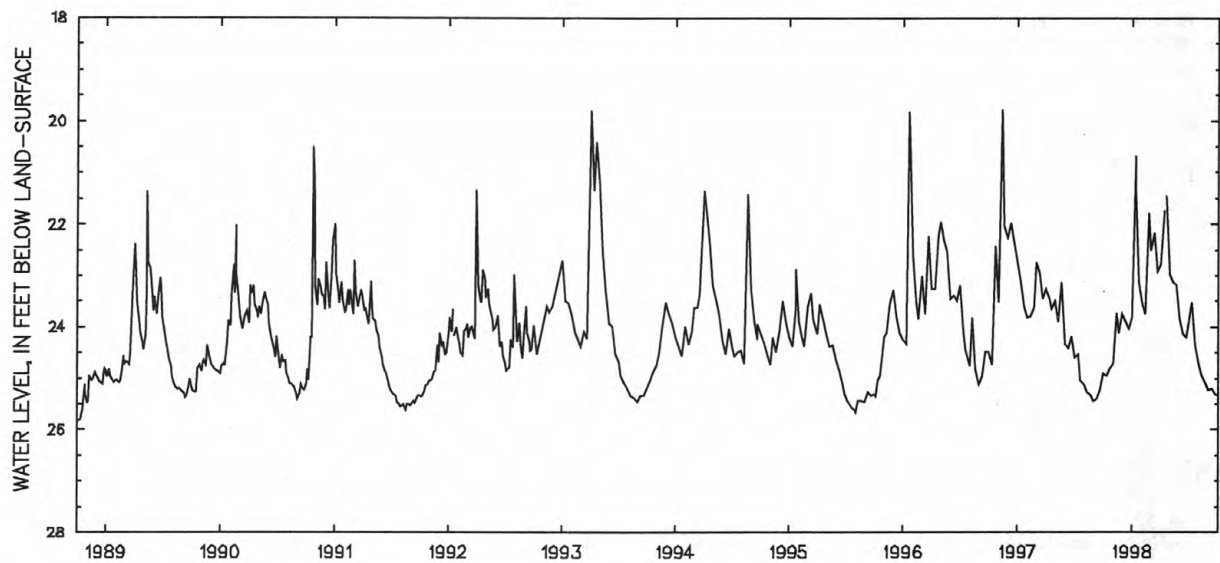
EXTREMES FOR CURRENT YEAR.--Highest water level, 20.67 ft below land-surface datum, Jan. 9; lowest, 25.34 ft below land-surface datum, Sep. 26, 27, 30.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.98	24.68	23.56	23.88	23.54	21.20	22.85	23.04	23.54	22.70	24.74	25.23
2	24.99	24.49	23.59	23.89	23.56	21.58	22.76	23.09	23.62	23.18	24.76	25.24
3	24.99	24.13	23.68	23.82	23.58	21.94	22.84	23.10	23.72	23.49	24.78	25.24
4	24.99	24.25	23.70	23.14	23.59	22.21	22.90	23.14	23.79	23.69	24.81	25.25
5	24.98	24.27	23.69	22.56	23.62	22.39	22.97	23.17	23.87	23.56	24.83	25.26
6	24.97	24.31	23.70	21.98	23.66	22.53	23.05	23.22	23.94	23.66	24.85	25.27
7	24.96	24.35	23.76	21.84	23.70	22.65	23.12	23.23	24.00	23.82	24.87	25.25
8	24.96	24.22	23.83	21.03	23.73	22.74	23.17	23.27	24.05	23.73	24.90	25.20
9	24.94	23.76	23.87	20.79	23.73	22.62	22.94	23.28	24.10	23.23	24.92	25.21
10	24.94	23.72	23.90	21.32	23.75	22.16	21.73	23.12	24.14	23.51	24.94	25.21
11	24.92	23.87	23.91	21.84	23.75	22.28	22.15	22.01	24.16	23.71	24.94	25.23
12	24.90	23.97	23.93	22.20	23.50	22.54	22.43	21.64	24.13	23.86	24.96	25.25
13	24.87	24.05	23.94	22.42	23.29	22.71	22.60	22.04	24.00	23.97	24.99	25.27
14	24.86	24.09	23.94	22.61	23.42	22.79	22.72	22.36	23.74	24.06	25.00	25.28
15	24.85	24.10	24.01	22.78	23.56	22.88	22.81	22.58	23.81	24.14	25.02	25.29
16	24.84	24.10	24.02	22.83	23.64	22.96	22.87	22.74	23.93	24.20	25.04	25.28
17	24.81	24.12	24.02	22.90	23.66	23.02	22.94	22.88	24.03	24.23	25.05	25.29
18	24.81	24.13	24.03	22.98	22.49	23.04	23.01	23.00	24.08	24.20	25.06	25.30
19	24.83	24.12	24.03	23.05	21.45	22.98	22.98	23.10	24.14	24.27	25.07	25.31
20	24.80	24.12	24.03	23.12	21.78	22.91	21.46	23.17	24.20	24.33	25.08	25.31
21	24.79	24.12	24.02	23.19	22.13	22.78	21.65	23.26	24.26	24.35	25.10	25.31
22	24.79	23.98	24.05	23.25	22.39	22.45	22.07	23.35	24.31	24.37	25.11	25.31
23	24.79	23.73	24.05	23.30	22.56	22.59	22.31	23.42	24.22	24.43	25.13	25.31
24	24.76	23.66	24.05	23.33	22.67	22.69	22.48	23.49	24.18	24.46	25.15	25.32
25	24.76	23.73	23.95	23.37	22.74	22.74	22.63	23.54	24.24	24.51	25.16	25.33
26	24.76	23.80	23.68	23.43	22.72	22.61	22.73	23.59	24.23	24.55	25.17	25.33
27	24.73	23.73	23.64	23.46	22.71	22.33	22.69	23.65	24.09	24.58	25.18	25.33
28	24.71	23.72	23.68	23.48	22.51	22.44	22.80	23.71	24.19	24.62	25.18	25.30
29	24.70	23.75	23.74	23.51	---	22.56	22.89	23.77	24.27	24.65	25.20	25.32
30	24.70	23.74	23.78	23.52	---	22.68	22.97	23.81	23.79	24.68	25.21	25.34
31	24.70	---	23.81	23.52	---	22.78	---	23.83	---	24.71	25.22	---
MEAN	24.85	24.03	23.86	22.85	23.12	22.54	22.65	23.12	24.03	24.05	25.01	25.28
MAX	24.99	24.68	24.05	23.89	23.75	23.04	23.17	23.83	24.31	24.71	25.22	25.34
MIN	24.70	23.66	23.56	20.79	21.45	21.20	21.46	21.64	23.54	22.70	24.74	25.20

GROUND-WATER LEVELS
CHEMUNG COUNTY

420829076484801. Local number, Cm 46--Continued.



GROUND-WATER LEVELS
CHENANGO COUNTY

335

421556075281602. Local number, Cn 12.

LOCATION.--Lat 42°15'56", long 75°28'16", Hydrologic Unit 02050101, 400 ft south of intersection of County Highways 39 and 12, 0.5 mi east of Susquehanna River, and 2.0 mi south of Bainbridge. Owner: Ilse Maehlman.

AQUIFER.--Unconfined aquifer in gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 inch, depth 13 ft, cased to 13 ft, open end.

INSTRUMENTATION.--Electronic data recorder--hourly.

DATUM.--Elevation of land-surface datum is 979.28 ft above sea level. Measuring point: File mark at top of shelter base, 1.37 ft above land-surface datum.

REMARKS.--This well drilled April 1974 as a replacement for 421556075281601 (local number Cn 11), located 90 ft north, which has a period of record from October 1965 to September 1972 (unpublished).

PERIOD OF RECORD.--April 1975 to current year. Records for April 1975 to September 1976 are unpublished and available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.45 ft below land-surface datum, Apr. 3-4, 1993; lowest, 11.81 ft below land-surface datum, Sep. 26-29, 1982.

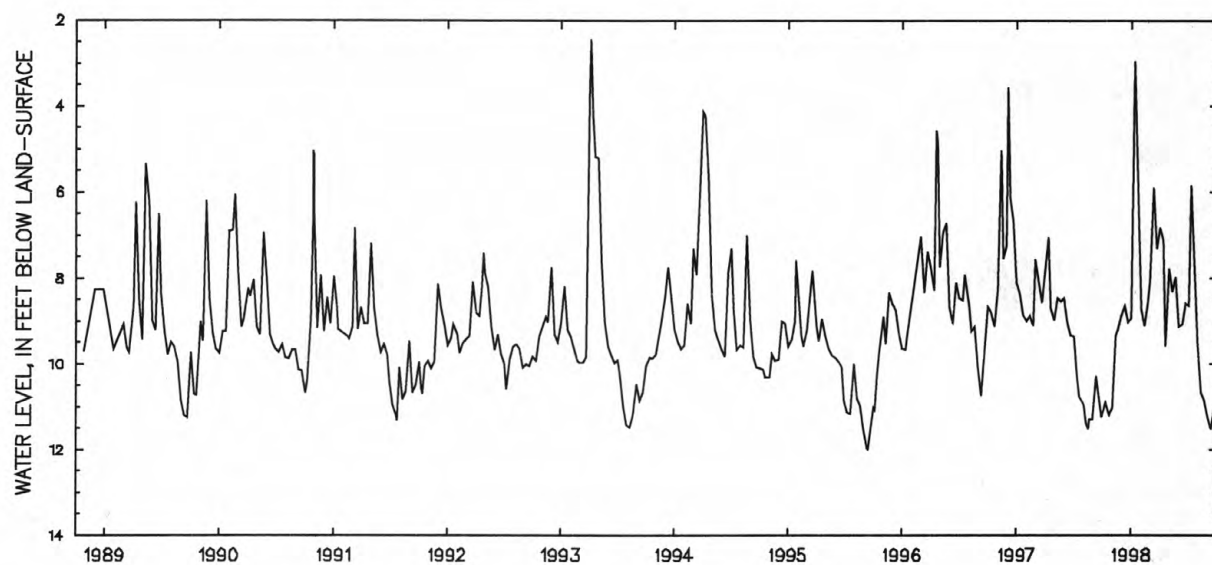
EXTREMES FOR CURRENT YEAR.--Highest water level recorded, 2.96 ft below land-surface datum, Jan. 11; lowest, 11.52 ft below land-surface datum, Sep. 10, 11, 12.

WATER LEVEL IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	10.86	8.81	8.89	8.78	7.94	6.83	7.96	9.17	8.30	9.64	11.25
2	---	10.71	8.75	8.87	8.84	7.24	6.83	8.12	9.16	7.67	9.78	11.29
3	---	10.60	8.68	8.85	8.89	6.17	6.73	8.25	9.08	7.26	9.91	11.33
4	---	10.50	8.62	8.83	8.93	5.44	6.56	8.34	9.01	7.13	10.05	11.37
5	---	10.18	8.58	8.77	8.96	5.19	6.44	8.35	8.95	7.13	10.18	11.40
6	---	9.82	8.56	8.44	8.99	5.15	6.43	8.30	8.93	7.22	10.30	11.42
7	---	9.60	8.56	7.60	9.02	5.25	6.51	8.27	8.94	7.38	10.41	11.44
8	10.99	9.47	8.57	6.63	9.05	5.48	6.68	8.25	8.98	7.53	10.51	11.46
9	10.94	9.39	8.59	4.86	9.08	5.76	6.90	8.26	9.03	6.93	10.59	11.49
10	10.89	9.33	8.63	3.26	9.11	5.91	7.10	8.30	9.09	5.84	10.67	11.51
11	10.86	9.27	8.66	2.97	9.14	5.61	7.17	8.31	9.15	---	10.74	11.52
12	10.85	9.22	8.71	3.05	9.17	5.18	7.16	8.17	9.21	---	10.81	11.51
13	10.85	9.17	8.75	3.28	9.17	5.09	7.15	7.81	9.25	---	10.86	11.44
14	10.88	9.15	8.80	3.67	9.10	5.16	7.17	7.53	9.24	---	10.90	11.30
15	10.93	9.13	8.85	4.19	8.97	5.40	7.25	7.42	9.16	---	10.88	11.15
16	10.99	9.13	8.89	4.78	8.84	5.76	7.44	7.40	9.04	---	10.83	11.05
17	11.05	9.13	8.94	5.37	8.73	6.19	7.96	7.47	8.92	---	10.80	11.00
18	11.10	9.14	8.98	5.89	8.67	6.61	8.63	7.62	8.80	---	10.79	11.00
19	11.14	9.16	9.01	6.35	8.62	6.99	9.23	7.79	8.70	---	10.82	11.03
20	11.17	9.17	9.03	6.73	8.58	7.31	9.59	7.97	8.60	---	10.85	11.06
21	11.18	9.19	9.06	7.06	8.48	7.54	8.64	8.16	8.52	---	10.90	11.10
22	11.17	9.20	9.08	7.35	8.35	7.64	6.62	8.32	8.48	---	10.92	11.13
23	11.18	9.20	9.10	7.61	8.22	7.62	5.35	8.47	8.48	---	10.94	11.15
24	11.19	9.18	9.13	7.83	8.11	7.54	5.08	8.60	8.50	---	10.96	11.18
25	11.20	9.13	9.14	8.03	8.05	7.47	5.20	8.72	8.54	---	10.98	11.21
26	11.21	9.06	9.15	8.20	8.04	7.44	5.71	8.81	8.57	---	11.01	11.26
27	11.22	9.01	9.13	8.34	8.04	7.38	6.49	8.90	8.60	---	11.05	11.31
28	11.23	8.97	9.08	8.46	8.04	7.25	7.32	8.96	8.63	---	11.09	11.35
29	11.22	8.92	9.03	8.56	---	7.04	7.59	9.02	8.66	---	11.13	11.39
30	11.15	8.87	8.97	8.64	---	6.88	7.78	9.08	8.63	---	11.17	11.42
31	11.02	---	8.92	8.71	---	6.82	---	9.14	---	9.50	11.21	---
MEAN	---	9.43	8.86	6.78	8.71	6.43	7.05	8.26	8.87	---	10.70	11.28
MAX	---	10.86	9.15	8.89	9.17	7.94	9.59	9.14	9.25	---	11.21	11.52
MIN	---	8.87	8.56	2.97	8.04	5.09	5.08	7.40	8.48	---	9.64	11.00

GROUND-WATER LEVELS
CHENANGO COUNTY

421556075281602. Local number, Cn 12--Continued.



GROUND-WATER LEVELS
CORTLAND COUNTY

337

423541076114701. Local number, C 102.

LOCATION.--Lat 42°35'41", long 76°11'47", Hydrologic Unit 02050102, at Municipal Water Works, Cortland. Owner: City of Cortland.

AQUIFER.--Unconfined aquifer in gravel of Pleistocene age.

WELL CHARACTERISTICS.--Driven observation well, diameter 1.25 inch, depth 45 ft, 1.25 inch well point.

INSTRUMENTATION.--Electronic data recorder--hourly, Nov. 20, 1997 to Sep. 30, 1998; periodic measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 1136.59 ft above sea level. Measuring point: Top of coupling, 1.99 ft above land-surface datum.

REMARKS.--Water level is affected by pumping from nearby municipal supply wells. This well is a replacement for 423539076114801 (local number C 19), located 80 ft southwest, which had a period of record from February 1947 to May 1976.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.07 ft below land-surface datum, Sept. 25, 1977; lowest measured, 14.56 ft below land-surface datum, Oct. 28, 1997.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 4.03 ft below land-surface datum, Jan. 9; lowest measured, 14.56 ft below land-surface datum, Oct. 28.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

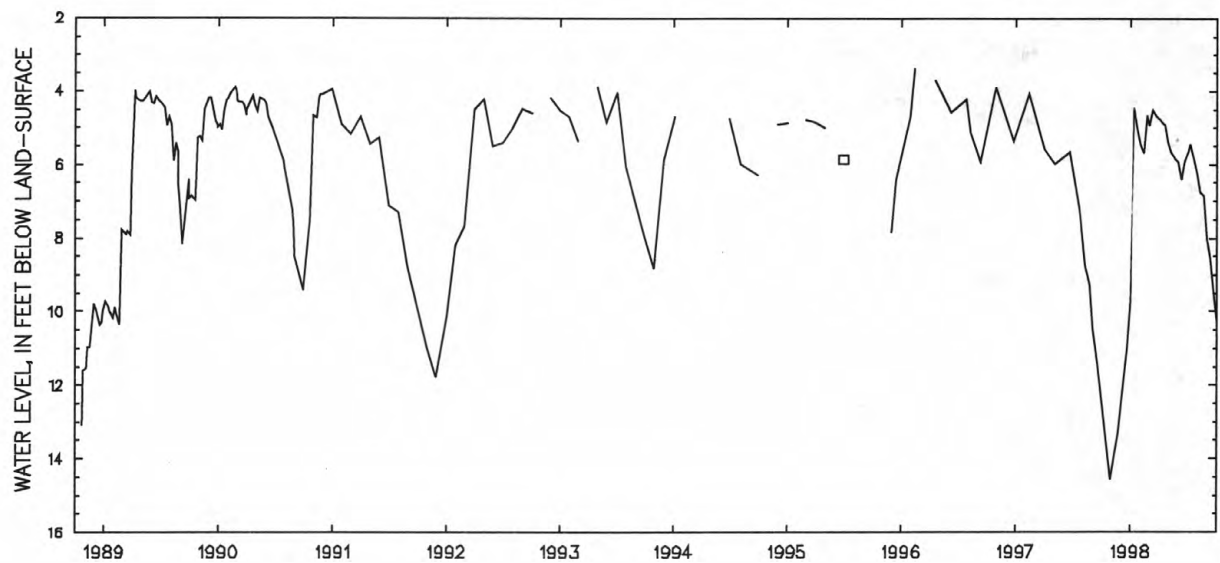
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15	13.21	OCT 28	14.56	NOV 19	13.72

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	12.50	9.60	5.60	4.55	4.73	5.46	5.55	5.64	6.27	8.07
2	---	---	12.35	9.55	5.65	4.48	4.72	5.47	5.65	5.69	6.27	7.98
3	---	---	12.09	9.62	5.48	4.54	4.78	5.48	5.86	5.67	6.35	8.13
4	---	---	12.00	9.23	5.44	4.68	4.87	5.50	5.93	5.65	6.44	8.24
5	---	---	11.98	9.08	5.53	4.70	4.91	5.53	6.03	5.64	6.50	8.34
6	---	---	11.90	6.83	5.51	4.78	5.00	5.60	6.16	5.66	6.59	8.30
7	---	---	11.73	5.41	5.52	4.78	5.05	5.68	6.20	5.68	6.68	8.32
8	---	---	12.14	4.57	5.54	4.77	5.07	5.70	6.25	5.53	6.64	8.41
9	---	---	11.83	4.42	5.59	4.69	4.91	5.76	6.32	5.32	6.67	8.46
10	---	---	11.83	4.46	5.67	4.50	4.87	5.67	6.40	5.44	6.77	8.51
11	---	---	11.72	4.51	5.45	4.65	4.92	5.29	6.39	5.51	6.76	8.53
12	---	---	11.72	4.68	5.35	4.73	4.96	5.27	6.41	5.50	6.63	8.61
13	---	---	11.51	4.62	5.18	4.79	5.06	5.40	6.18	5.57	6.71	8.72
14	---	---	11.33	4.77	5.25	4.83	5.16	5.51	5.85	5.64	6.75	8.85
15	---	---	11.24	4.71	5.33	4.86	5.24	5.56	5.97	5.67	6.73	8.93
16	---	---	11.25	4.83	5.37	4.91	5.22	5.64	5.94	5.48	6.79	9.16
17	---	---	11.14	4.83	5.36	4.80	5.26	5.65	5.87	5.70	6.85	9.24
18	---	---	11.30	4.89	5.01	4.87	5.31	5.73	5.77	5.75	6.91	9.34
19	---	---	11.21	4.98	4.61	4.86	5.25	5.75	5.83	5.74	6.91	9.40
20	---	---	11.03	4.98	4.66	4.67	4.89	5.83	5.89	5.84	6.86	9.41
21	---	13.27	10.93	5.06	4.78	4.66	4.96	5.84	5.90	5.67	7.11	9.55
22	---	13.39	10.99	5.10	4.83	4.63	5.07	5.85	5.87	5.92	7.18	9.71
23	---	13.49	11.00	5.18	4.89	4.72	5.12	5.87	5.92	5.94	7.18	9.19
24	---	13.55	10.75	5.28	4.90	4.78	5.23	5.90	6.06	5.94	7.32	9.44
25	---	13.52	10.19	5.24	4.91	4.90	5.29	5.93	6.00	5.95	7.18	9.80
26	---	13.48	9.95	5.37	4.96	4.77	5.33	5.97	5.85	5.94	7.49	10.00
27	---	13.26	9.89	5.36	4.95	4.51	5.29	6.09	5.63	6.06	7.61	9.96
28	---	12.99	9.85	5.49	4.94	4.52	5.33	6.07	5.67	6.11	7.72	10.03
29	---	12.84	9.86	5.46	---	4.59	5.37	6.06	5.74	6.13	7.74	9.92
30	---	12.68	9.57	5.52	---	4.72	5.40	6.13	5.64	6.18	7.77	10.28
31	---	---	9.68	5.45	---	4.76	---	5.92	---	6.22	8.00	---
MEAN	---	---	11.18	5.78	5.22	4.71	5.09	5.71	5.96	5.75	6.95	9.03
MAX	---	---	12.50	9.62	5.67	4.91	5.40	6.13	6.41	6.22	8.00	10.28
MIN	---	---	9.57	4.42	4.61	4.48	4.72	5.27	5.55	5.32	6.27	7.98

GROUND-WATER LEVELS
CORTLAND COUNTY

423541076114701. Local number, C 102--Continued.



GROUND-WATER LEVELS
MADISON COUNTY

339

430056075354102. Local number, M 178.

LOCATION.--Lat 43°00'56", long 75°35'41", Hydrologic Unit 04140202, at Valley Mills. Owner: Donald L. Greene.

AQUIFER.--Unconfined aquifer in gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 inch, depth 15.3 ft, cased to 16 ft, open end.

INSTRUMENTATION.--Electronic data recorder--hourly; periodic measurement with chalked tape by USGS personnel Oct. 1 to Feb. 19; electronic data recorder Feb. 20 to Sept. 30. April 1975 to May 1986, digital recorder at same site and datum. Weekly observer readings May 1986 to Dec. 1988. Dec. 1988 to Feb. 1991, electronic data recorder at same site and datum.

DATUM.--Elevation of land-surface datum is 573.76 ft above sea level. Measuring point: Top of flange, 3.07 ft above land-surface datum.

REMARKS.--Well drilled April 1974 as a replacement for 430056075354101 (local number M 177), located 10 ft west, which has a period of record from October 1965 to September 1973 (unpublished).

PERIOD OF RECORD.--April 1975 to August 1995, December 1996 to current year. Records for April 1975 to September 1976 are unpublished and available in files of the Geological Survey.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.60 ft below land-surface datum, Mar. 5, 1979; lowest, 10.97 ft below land-surface datum, Oct. 24, 25, 1980.

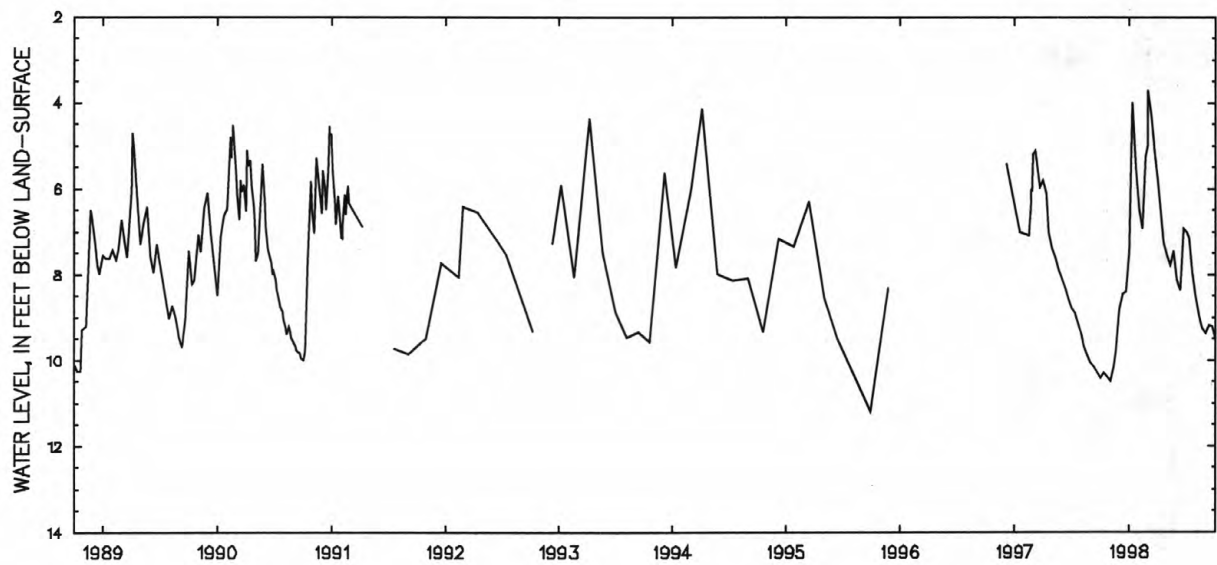
EXTREMES FOR CURRENT PERIOD.--Highest water level recorded, 3.69 ft below land-surface datum, Mar. 2, 3; lowest measured, 10.49 ft below land-surface datum, Nov. 1, 2.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.40	10.48	8.71	7.51	6.53	4.22	5.92	7.59	8.14	7.06	8.56	9.39
2	10.41	10.49	8.61	7.52	6.58	3.85	5.93	7.64	8.18	7.11	8.60	9.41
3	10.41	10.45	8.53	7.48	6.60	3.78	6.01	7.69	8.18	7.16	8.65	9.44
4	10.42	10.39	8.48	6.72	6.62	4.02	6.09	7.68	8.18	7.22	8.69	9.46
5	10.41	10.35	8.46	5.72	6.63	4.20	6.19	7.67	8.19	7.02	8.73	9.49
6	10.36	10.31	8.44	5.19	6.67	4.38	6.30	7.67	8.22	6.90	8.76	9.51
7	10.32	10.28	8.44	4.99	6.72	4.54	6.42	7.68	8.25	6.93	8.81	9.49
8	10.29	10.26	8.44	4.14	6.78	4.70	6.52	7.70	8.29	6.99	8.85	9.39
9	10.28	10.22	8.44	3.82	6.85	4.61	6.57	7.74	8.32	7.05	8.90	9.30
10	10.28	10.15	8.43	3.97	6.92	4.29	6.65	7.76	8.36	7.13	8.94	9.18
11	10.28	10.06	8.42	4.23	6.92	4.40	6.76	7.67	8.39	7.20	8.98	9.10
12	10.28	9.98	8.41	4.44	6.69	4.61	6.86	7.46	8.42	7.28	9.01	9.06
13	10.28	9.93	8.41	4.56	6.16	4.81	6.93	7.26	8.40	7.38	9.05	9.06
14	10.29	9.88	8.41	4.73	5.97	4.91	7.00	7.23	8.24	7.47	9.07	9.06
15	10.29	9.86	8.42	4.87	5.99	5.04	7.08	7.22	8.15	7.55	9.09	9.07
16	10.31	9.84	8.42	5.01	6.06	5.17	7.16	7.22	8.12	7.64	9.13	9.10
17	10.34	9.83	8.42	5.15	6.16	5.26	7.23	7.24	7.69	7.72	9.15	9.13
18	10.35	9.82	8.41	5.28	6.07	5.32	7.32	7.31	7.10	7.81	9.19	9.16
19	10.36	9.80	8.40	5.40	5.60	5.23	7.39	7.37	6.97	7.89	9.23	9.19
20	10.38	9.77	8.39	5.52	5.23	5.14	7.22	7.43	6.93	7.96	9.26	9.21
21	10.40	9.75	8.37	5.65	5.18	5.18	7.09	7.51	6.94	8.04	9.29	9.24
22	10.41	9.68	8.32	5.76	5.24	5.20	7.07	7.59	7.01	8.10	9.31	9.27
23	10.42	9.54	8.27	5.85	5.31	5.27	7.08	7.65	7.08	8.15	9.33	9.29
24	10.43	9.37	8.25	5.91	5.35	5.25	7.13	7.72	7.14	8.17	9.36	9.33
25	10.45	9.24	8.22	6.00	5.36	5.21	7.23	7.78	7.21	8.21	9.35	9.35
26	10.45	9.14	8.11	6.10	5.24	5.24	7.30	7.84	7.25	8.26	9.31	9.38
27	10.46	9.08	7.82	6.18	5.10	5.34	7.38	7.90	6.94	8.30	9.31	9.40
28	10.46	8.99	7.60	6.25	4.97	5.45	7.45	7.96	6.91	8.35	9.31	9.43
29	10.47	8.90	7.50	6.32	---	5.57	7.49	8.00	6.95	8.40	9.32	9.46
30	10.47	8.81	7.43	6.39	---	5.69	7.54	8.06	6.99	8.45	9.34	9.48
31	10.48	---	7.47	6.46	---	5.81	---	8.10	---	8.50	9.36	---
TOTAL	321.64	294.65	256.45	173.12	169.50	151.69	206.31	236.34	231.14	237.40	281.24	278.83
MEAN	10.38	9.82	8.27	5.58	6.05	4.89	6.88	7.62	7.70	7.66	9.07	9.29
MAX	10.48	10.49	8.71	7.52	6.92	5.81	7.54	8.10	8.42	8.50	9.36	9.51
MIN	10.28	8.81	7.43	3.82	4.97	3.78	5.92	7.22	6.91	6.90	8.56	9.06

GROUND-WATER LEVELS
MADISON COUNTY

430056075354102. Local number, M 178--Continued.



GROUND-WATER LEVELS

341

MONROE COUNTY

430855077304202. Local number Mo 2

LOCATION.--Lat 43°08'55", long 77°30'42", Hydrologic Unit 04140101, near east valley wall, north of Blossom Road, in Ellison Park. Owner: U.S. Geological Survey.

AQUIFER.--Unconfined aquifer in coarse sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 2 inch, depth 45 ft, cased to 41 ft, screened 41 to 45 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by Monroe County Environmental Health Laboratory personnel.

DATUM.--Elevation of land-surface datum is 252.60 ft above sea level. Measuring point: arrow at top of casing, 4.08 ft above land-surface datum.

REMARKS.--Well also sampled for water-quality.

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

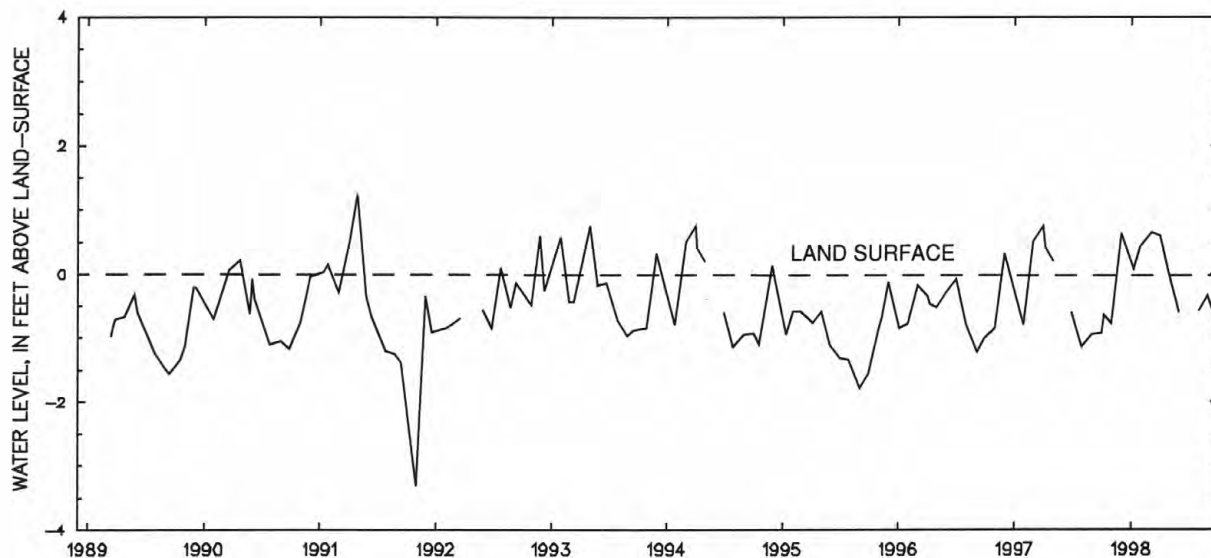
PERIOD OF RECORD.--September 1984 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.25 ft above land-surface datum, Dec. 3, 1996; lowest measured, 3.32 ft below land-surface datum, Oct. 29, 1991.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 0.65 ft above land-surface datum, Mar. 4; lowest measured, 0.77 ft below land-surface datum, Oct. 31, Sep. 28.

WATER LEVEL, IN FEET ABOVE (+) OR BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 07	.64	DEC 02	+.63	JAN 30	+.43	MAR 31	+.59	MAY 29	.59	AUG 28	.33
31	.77	JAN 06	+.09	MAR 04	+.65	APR 28	+.02	JUL 31	.57	SEP 28	.77



GROUND-WATER LEVELS

MONROE COUNTY

430854077304601. Local number Mo 3

LOCATION.--Lat 43°08'54", long 77°30'46", Hydrologic Unit 04140101, on right bank of Irondequoit Creek, north of Blossom Road, in Ellison Park. Owner: U.S. Geological Survey.

AQUIFER.--Unconfined aquifer in alluvium of Holocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 2 inch, depth 16 ft, cased to 13.5 ft, screened 13.5 ft to 16 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by Monroe County Environmental Health Laboratory personnel.

DATUM.--Elevation of land-surface datum is 253.2 ft above sea level. Measuring point: arrow at top of casing, 3.74 ft above land-surface datum.

REMARKS.--Well also sampled for water quality.

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

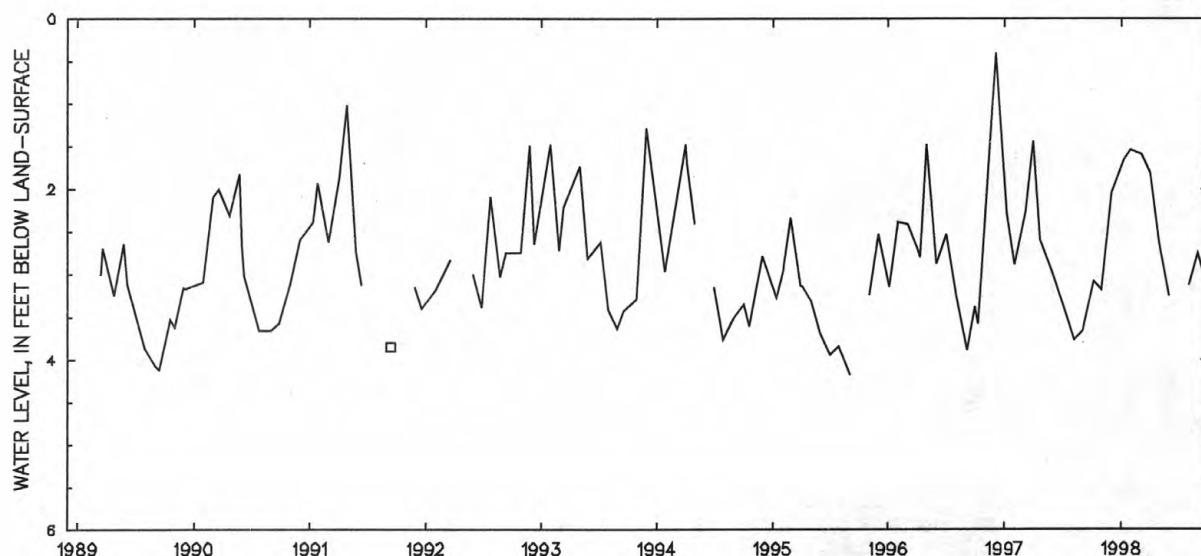
PERIOD OF RECORD.--September 1984 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.03 ft above land-surface datum, Feb. 27, 1985; lowest measured, 4.17 ft below land-surface datum, Aug. 31, 1995.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 1.54 ft above land-surface datum, Jan. 30; lowest measured, 3.24 ft below land-surface datum, May 29.

WATER LEVEL, IN FEET ABOVE (+) OR BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 07	3.08	DEC 02	2.04	JAN 30	1.54	MAR 31	1.81	MAY 29	3.24	AUG 28	2.75
31	3.18	JAN 06	1.66	MAR 04	1.59	APR 28	2.62	JUL 31	3.11	SEP 28	3.17



GROUND-WATER LEVELS

343

MONROE COUNTY

430932077311501. Local number Mo 659

LOCATION.--Lat 43°09'32", long 77°31'15", Hydrologic Unit 04140101, at top of right bank about 400 ft north east of bridge over Irondequoit Creek overflow channel at Old Browncroft Boulevard. Owner: U.S. Geological Survey.

AQUIFER.--Confined aquifer in sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 inch, depth 215 ft, cased to 215 ft, perforated 80 to 90 ft and 160 to 170 ft, open-ended at 215 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by Monroe County Environmental Health Laboratory personnel; periodic measurement by USGS personnel.

DATUM.--Elevation of land-surface datum is 266.58 ft above sea level. Measuring point: arrow at top of casing, 1.80 ft above land-surface datum.

REMARKS.--Well also sampled for water quality.

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

PERIOD OF RECORD.--December 1986 to current year.

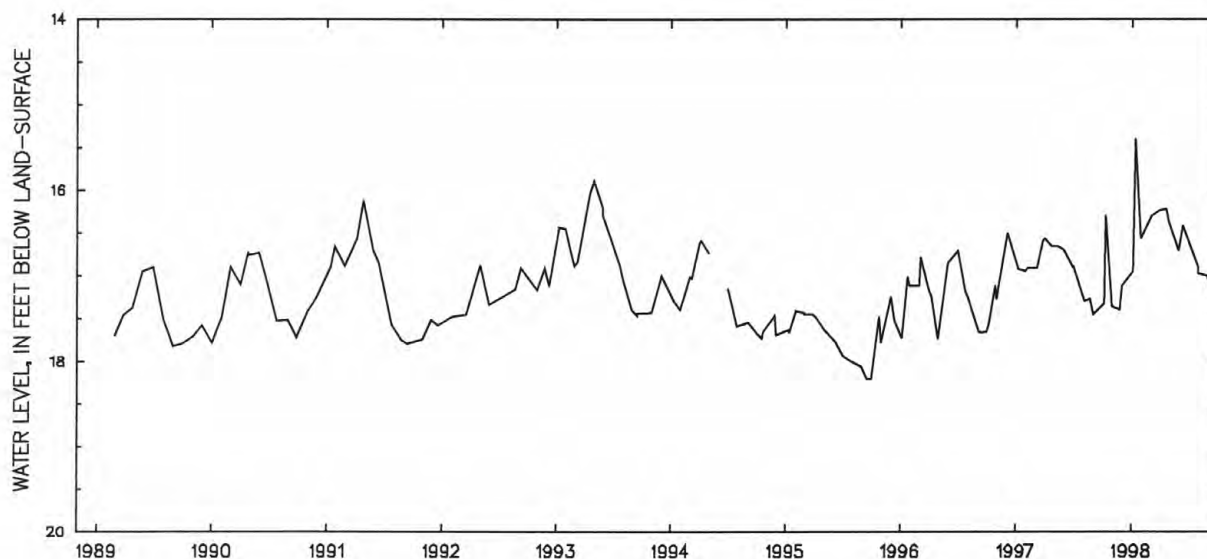
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.40 ft below land-surface datum, Jan. 14, 1998; lowest measured, 18.21 ft below land-surface datum, Sep. 29, 1995.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 15.40 ft below land-surface datum, Jan. 14; lowest measured, 17.36 ft below land-surface datum, Oct. 31.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

WATER LEVEL	WATER LEVEL	WATER LEVEL	WATER LEVEL	WATER LEVEL	WATER LEVEL
OCT 07 17.32	DEC 02 17.12	MAR 04 z16.29	APR 21 z16.22	JUN 10 z16.41	AUG 28 17.00
09 z16.30	JAN 06 16.95	04 16.36	28 16.36	JUL 30 z16.90	SEP 17 z17.27
31 17.36	14 z15.40	31 16.23	MAY 29 16.70	31 16.98	28 17.32
NOV 26 z17.04	30 16.57				

z Measured by USGS personnel.



GROUND-WATER LEVELS

MONROE COUNTY

430912077313301. Local number Mo 663

LOCATION.--Lat 43°09'12", long 77°31'33", Hydrologic Unit 04140101, on east bank of Irondequoit Creek about 1200 ft. south of Browncroft Boulevard. Owner: U.S. Geological Survey.

AQUIFER.--Unconfined aquifer in alluvium of Holocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 2 in, depth 10 ft, cased to 7.5 ft, screened 7.5 ft to 10 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by Monroe County Environmental Health Laboratory personnel.

DATUM.--Elevation of land-surface datum is 251.16 ft above sea level. Measuring point: arrow at top of casing, 3.60 ft above land-surface datum.

REMARKS.--Well also sampled for water quality.

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

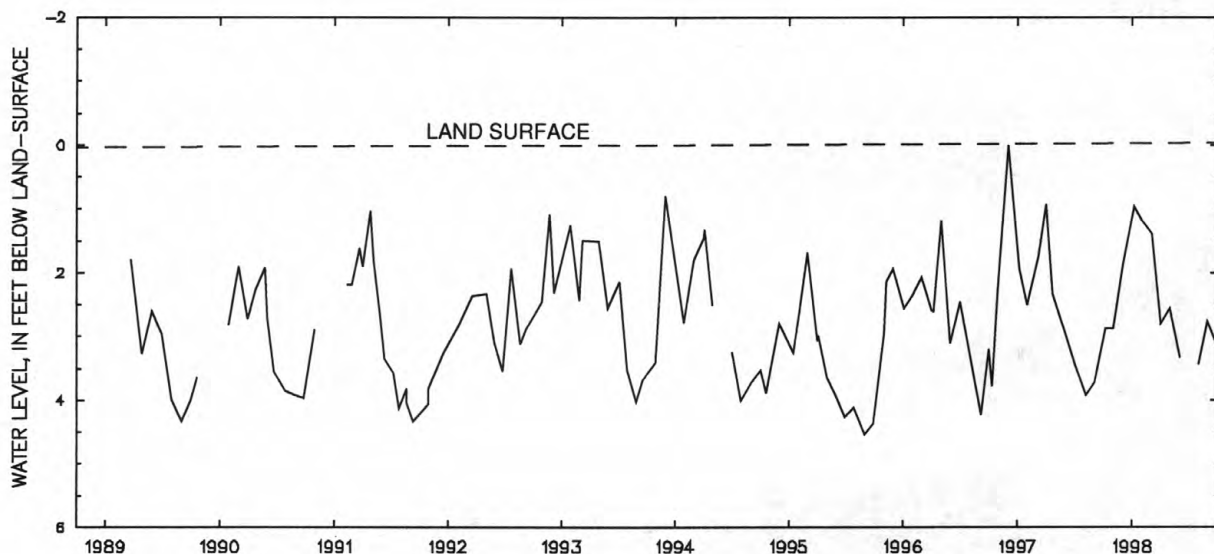
PERIOD OF RECORD.--September 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.00 ft, land-surface datum, Dec. 3, 1996; lowest measured, 4.53 ft below land-surface datum, Aug. 31, 1995.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 0.95 ft, land-surface datum, Jan. 6; lowest measured, 3.42 ft below land-surface datum, Jul. 31.

WATER LEVEL, IN FEET ABOVE (+) OR BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 07	2.88	DEC 02	1.85	JAN 30	1.18	MAR 31	2.79	MAY 29	3.32	AUG 28	2.75
31	2.87	JAN 06	.95	MAR 04	1.38	APR 28	2.54	JUL 31	3.42	SEP 28	3.14



GROUND-WATER LEVELS

345

MONROE COUNTY

430912077313302. Local number Mo 664

LOCATION.--Lat 43°09'12", long 77°31'33", Hydrologic Unit 04140101, on east bank of Irondequoit Creek about 1200 ft south of Browncroft Boulevard. Owner: U.S. Geological Survey.

AQUIFER.--Unconfined aquifer in alluvium of Holocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 2 inch, depth 27 ft, cased to 22 ft, screened 22 ft to 27 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by Monroe County Environmental Health Laboratory personnel.

DATUM.--Elevation of land-surface datum is 251.18 ft above sea level. Measuring point: arrow at top of casing, 3.20 ft above land-surface datum.

REMARKS.--Well also sampled for water quality.

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

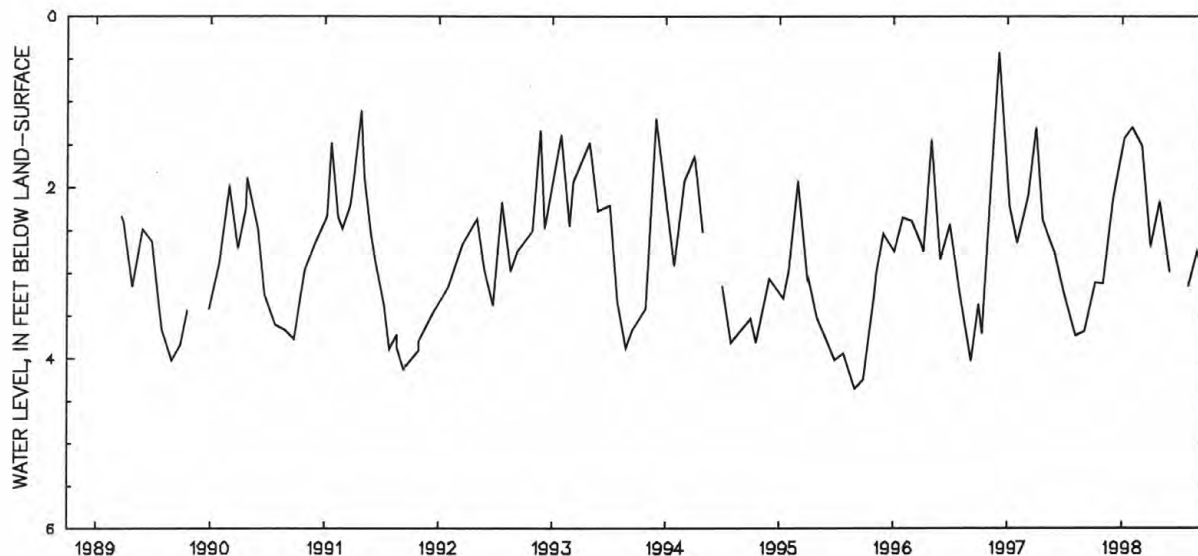
PERIOD OF RECORD.--September 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.42 ft below land-surface datum, Dec. 3, 1996; lowest measured, 4.35 ft below land-surface datum, Aug. 31, 1995.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 1.30 ft below land-surface datum, Jan. 30; lowest measured, 3.14 ft below land-surface datum, July 31.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 07	3.10	DEC 02	2.12	JAN 30	1.30	MAR 31	2.68	MAY 29	2.98	AUG 28	2.75
31	3.12	JAN 06	1.43	MAR 04	1.51	APR 28	2.16	JUL 31	3.14	SEP 28	3.08



GROUND-WATER LEVELS

MONROE COUNTY

430928077313802. Local number Mo 665

LOCATION.--Lat 43°09'28", long 77°31'38", Hydrologic Unit 04140101, on east bank of Irondequoit Creek about 100 ft north of Browncroft Boulevard. Owner: U.S. Geological Survey.

AQUIFER.--Unconfined aquifer in alluvium of Holocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 2 inch, depth 17 ft, cased to 12 ft, screened 12 ft to 17 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by Monroe County Environmental Health Laboratory personnel.

DATUM.--Elevation of land-surface datum is 254.14 ft sea level. Measuring point: arrow at top of casing, 2.45 ft above land-surface datum.

REMARKS.--Well also sampled for water quality.

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

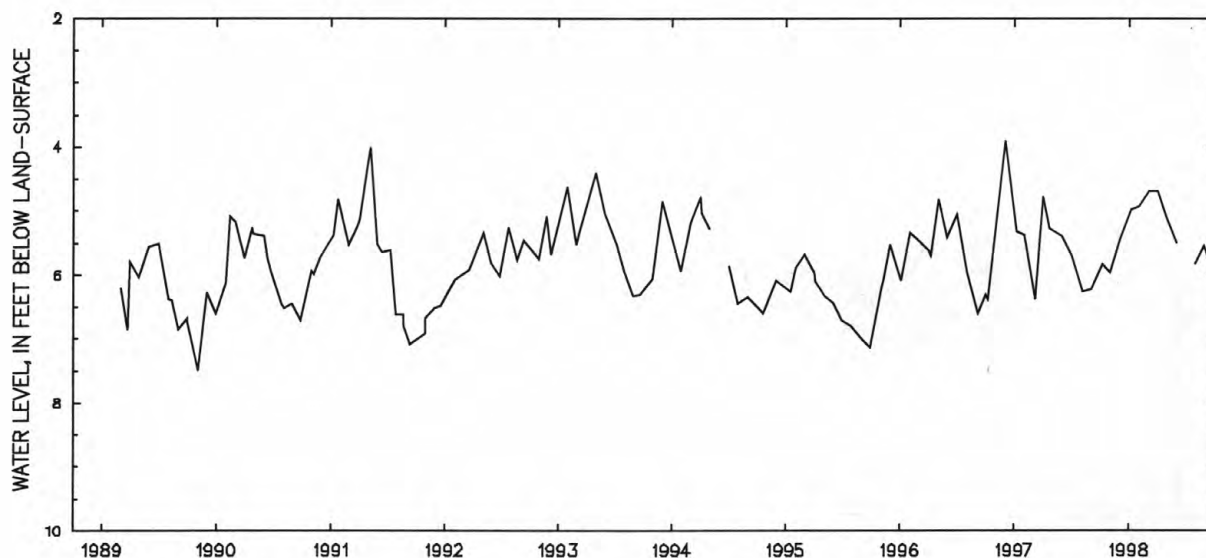
PERIOD OF RECORD.--September 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.90 ft below land-surface datum, Dec. 3, 1996; lowest measured, 7.48 ft below land-surface datum, Oct. 31, 1989.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 4.68 ft below land-surface datum, Mar. 31; lowest measured, 5.99 ft below land-surface datum, Sep. 28.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 07	5.83	DEC 02	5.43	JAN 30	4.93	MAR 31	4.68	MAY 29	5.49	AUG 28	5.54
31	5.97	JAN 06	4.98	MAR 04	4.69	APR 28	5.09	JUL 31	5.81	SEP 28	5.99



GROUND-WATER LEVELS

347

MONROE COUNTY

430928077313803. Local number Mo 666

LOCATION.--Lat 43°09'28", long 77°31'38", Hydrologic Unit 04140101, on east bank of Irondequoit Creek about 100 ft north of Browncroft Boulevard. Owner: U.S. Geological Survey.

AQUIFER.--Unconfined aquifer in alluvium of Holocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 2 inch, depth 27 ft, cased to 22 ft, screened 22 ft to 27 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by Monroe County Environmental Health Laboratory personnel; periodic measurement by USGS personnel.

DATUM.--Elevation of land-surface datum is 254.14 ft above sea level. Measuring point: arrow at top of casing, 3.65 ft above land-surface datum.

REMARKS.--Well also sampled for water quality.

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

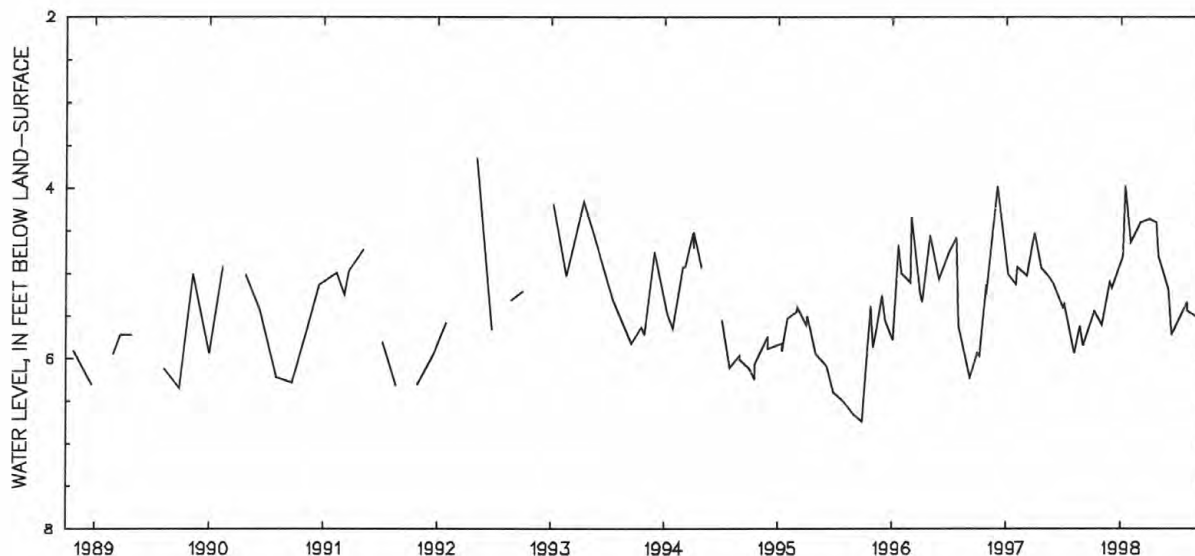
PERIOD OF RECORD.--September 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.66 ft below land-surface datum, May 6, 1992; lowest measured, 6.75 ft below land-surface datum, Sept. 29, 1995.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 3.97 ft below land-surface datum, Jan. 14; lowest measured, 5.72 ft below land-surface datum, June 10.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 07	5.45	DEC 02	5.17	JAN 30	4.63	MAR 31	4.36	MAY 29	5.18	JUL 31	5.43
09	z5.43	JAN 06	4.80	MAR 04	z4.35	APR 21	z4.40	JUN 10	z5.72	SEP 17	z5.55
31	5.60	14	z3.97	MAR 04	4.40	28	4.79	JUL 30	z5.33	28	5.65
NOV 26	z5.10										



GROUND-WATER LEVELS

MONROE COUNTY

430928077314001. Local number Mo 667

LOCATION.--Lat 43°09'28", long 77°31'40", Hydrologic Unit 04140101, on west bank of Irondequoit Creek about 300 ft. north of Browncroft Boulevard and 100 ft west of Irondequoit Creek. Owner: U.S. Geological Survey.

AQUIFER.--Unconfined aquifer in alluvium of Holocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 2 inch, depth 15 ft, cased to 10 ft, screened 10 ft to 15 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by Monroe County Environmental Health Laboratory personnel.

DATUM.--Elevation of land-surface datum is 255.38 ft above sea level. Measuring point: arrow at top of casing, 2.05 ft above land-surface datum.

REMARKS.--Well also sampled for water quality.

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

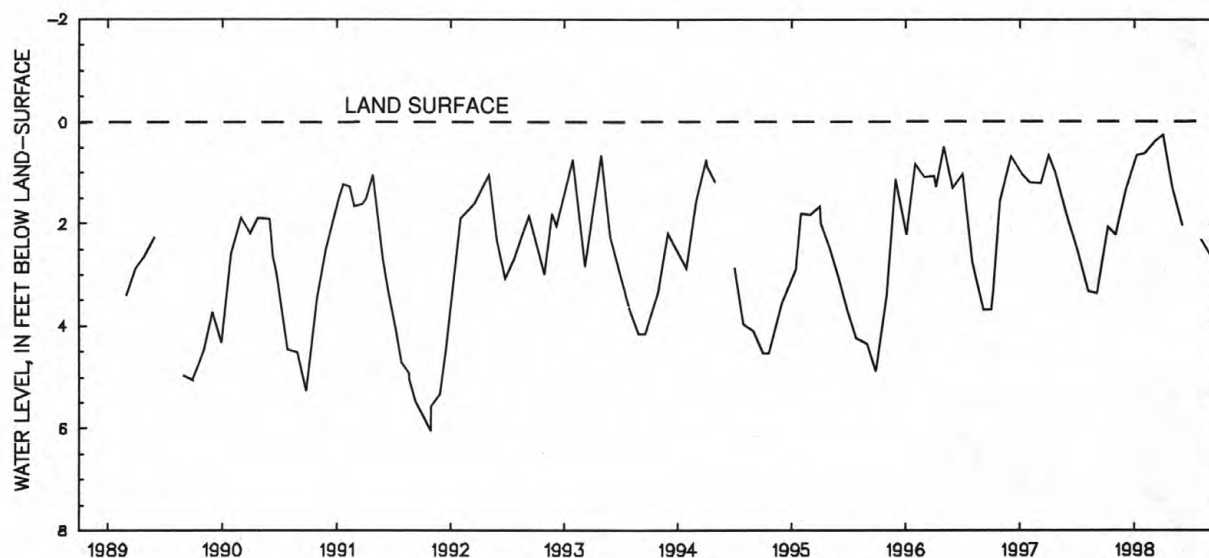
PERIOD OF RECORD.--September 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.24 ft below land-surface datum, Mar. 31, 1998; lowest measured, 6.06 ft below land-surface datum, Oct. 29, 1991.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 0.24 ft below land-surface datum, Mar. 31; lowest measured, 2.89 ft below land-surface datum, Sep. 28.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 07	2.06	DEC 02	1.33	JAN 30	.60	MAR 31	.24	MAY 29	2.01	AUG 28	2.60
31	2.21	JAN 06	.66	MAR 04	.37	APR 28	1.27	JUL 31	2.31	SEP 28	2.89



GROUND-WATER LEVELS

349

MONROE COUNTY

430928077314002. Local number Mo 668

LOCATION.--Lat 43°09'28", long 77°31'40", Hydrologic Unit 04140101, on west bank of Irondequoit Creek about 300 ft north of Browncroft Boulevard and 100 ft west of Irondequoit Creek. Owner: U.S. Geological Survey.

AQUIFER.--Unconfined aquifer in alluvium of Holocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 2 inch, depth 36 ft, cased to 31 ft, screened 31 ft to 36 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by Monroe County Environmental Health Laboratory personnel.

DATUM.--Elevation of land-surface datum is 255.32 ft above sea level. Measuring point: arrow at top of casing, 1.40 ft above land-surface datum.

REMARKS.--Well also sampled for water quality.

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

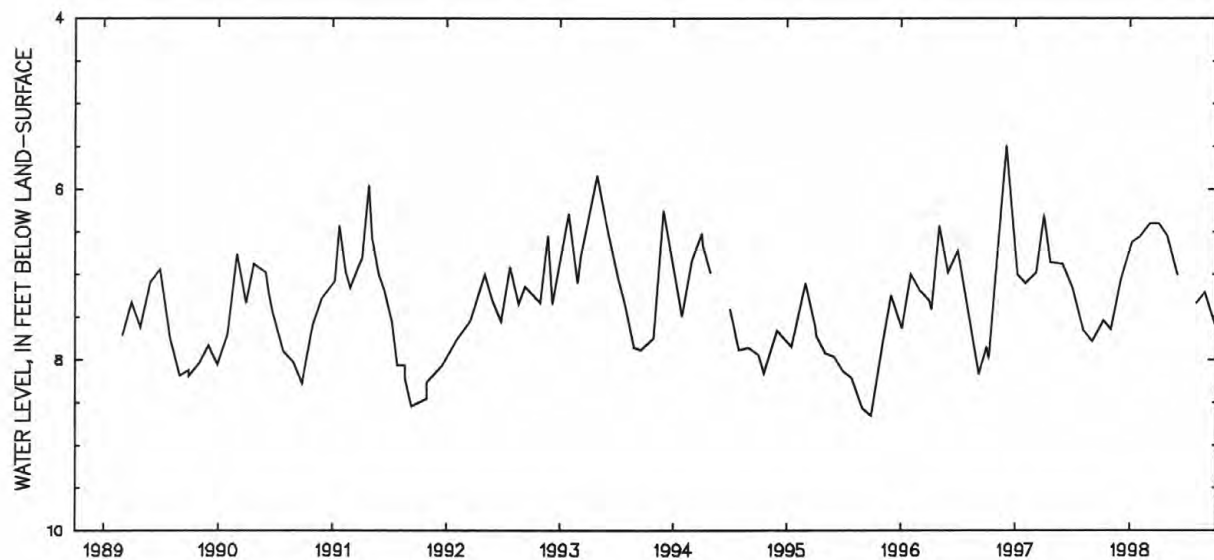
PERIOD OF RECORD.--September 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.49 ft below land-surface datum, Dec. 3, 1996; lowest measured, 8.65 ft below land-surface datum, Sep. 29, 1995.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 6.40 ft below land-surface datum, Mar. 4, 31; lowest measured, 7.64 ft below land-surface datum, Oct. 31.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 07	7.54	DEC 02	7.05	JAN 30	6.55	MAR 31	6.40	MAY 29	7.00	AUG 28	7.21
31	7.64	JAN 06	6.62	MAR 04	6.40	APR 28	6.55	JUL 31	7.33	SEP 28	7.58



GROUND-WATER LEVELS
OTSEGO COUNTY

424136075025101. Local number, Og 23.

LOCATION.--Lat 42°41'36", long 75°02'51", Hydrologic Unit 02050101, at "Wild Creek Farm", 0.6 mi northeast of intersection of State Highway 205 and Kallan Road, 2.2 mi north of Hartwick, and 3.2 mi southeast of Oaksville. Owner: Thomas Kallan.

AQUIFER.--Till of Pleistocene age.

WELL CHARACTERISTICS.--Dug unused well, diameter 36 inch, depth 15 ft, stone-lined.

INSTRUMENTATION.--Weekly measurement with chalked tape by observer; periodic measurement by USGS personnel.

DATUM.--Elevation of land-surface datum is 1,432.44 ft above sea level. Measuring point: Top edge of hole drilled through concrete well cover, at land-surface datum.

PERIOD OF RECORD.--May 1953 to August 1995, December 1996 to current year. Records for May 1953 to September 1976 are unpublished and available in files of the Geological Survey.

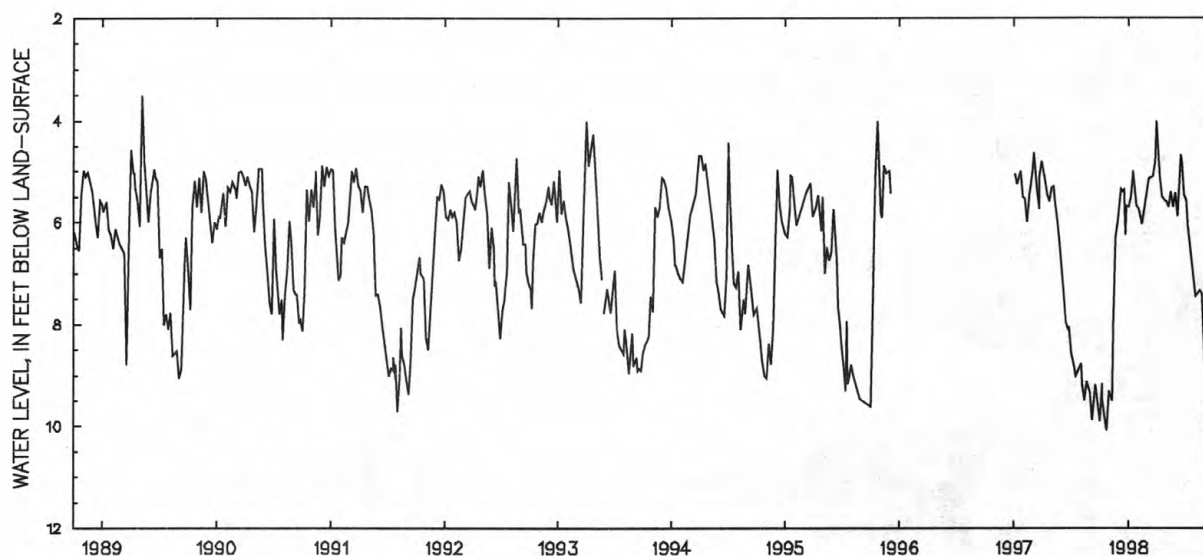
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.98 ft below land-surface datum, Apr. 2, 1960, Sep. 19, 1977; lowest measured, 12.66 ft below land-surface datum, Nov. 14, 1964.

EXTREMES FOR CURRENT PERIOD.--Highest water level measured, 4.00 ft below land-surface datum, Mar. 30; lowest measured, 10.88 ft below land-surface datum, Sep. 14.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 07	z9.16	DEC 07	5.35	JAN 23	5.67	APR 26	5.60	JUN 16	4.78	AUG 31	8.90
09	9.45	08	z5.40	30	5.74	28	z5.59	23	5.46	SEP 07	9.42
15	9.80	16	5.35	FEB 12	6.05	MAY 05	5.70	30	5.57	14	10.88
23	10.08	19	6.25	MAR 05	z5.15	07	5.70	JUL 06	6.05	22	z8.71
30	9.30	24	5.67	19	5.10	13	5.40	17	6.67	24	8.60
NOV 07	9.50	31	5.70	25	4.80	20	5.70	30	z7.44	30	8.48
11	8.00	JAN 06	5.50	30	4.00	28	5.42	AUG 11	7.35		
17	6.30	13	5.00	APR 08	5.10	JUN 04	5.90	19	7.40		
27	6.00	14	z5.03	16	5.50	15	z4.67	24	8.00		

z Measured by USGS personnel.



GROUND-WATER LEVELS
STEUBEN COUNTY

351

422445077203301. Local number, Sb 472.

LOCATION.--Lat 42°24'45", long 77°20'33", Hydrologic Unit 02050105, near Kanona. Owner: David Owens.

AQUIFER.--Unconfined aquifer in gravel of Pleistocene age.

WELL CHARACTERISTICS.--Driven observation well, diameter 2.5 inch, depth 17 ft, filled in from original depth of 18 ft, cased to 16 ft, 1.25 inch well point (60-gauze screen 16 ft to 18 ft, damaged during well installation).

INSTRUMENTATION.--Electronic data recorder--hourly, Dec. 9, 1997 to Sep. 30, 1998; periodic measurement by USGS personnel.

DATUM.--Elevation of land-surface datum is 1,209.78 ft above sea level. Measuring point: Top of casing, 2.99 ft above land-surface datum.

PERIOD OF RECORD.--November 1965 to current year. Records for November 1965 to September 1976 are unpublished and available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.61 ft below land-surface datum, May 12, 1996; lowest measured, 10.84 ft below land-surface datum, Sept. 22, 1966.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 4.26 ft below land-surface datum, Jan. 10; lowest measured, 10.16 ft below land-surface datum, Sep. 5, 6.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

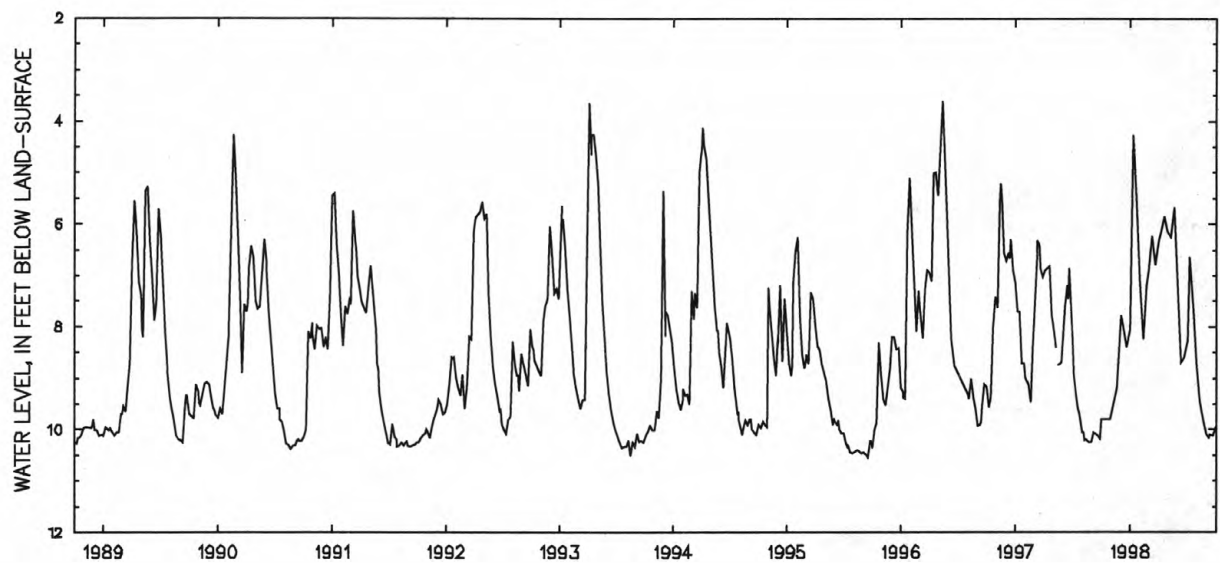
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01	9.80	OCT 28	9.81	NOV 17	9.17	NOV 19	9.28	DEC 01	7.76

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	8.11	7.21	6.50	6.28	6.22	7.50	7.74	8.80	10.10
2	---	---	---	8.16	7.34	6.32	6.23	6.29	7.64	7.72	8.91	10.11
3	---	---	---	8.12	7.46	6.30	6.21	6.37	7.79	7.73	8.99	10.12
4	---	---	---	7.76	7.57	6.29	6.24	6.44	7.93	7.71	9.07	10.13
5	---	---	---	7.49	7.68	6.29	6.31	6.53	8.08	7.64	9.14	10.14
6	---	---	---	7.33	7.79	6.30	6.37	6.63	8.22	7.63	9.21	10.15
7	---	---	---	7.15	7.91	6.30	6.43	6.76	8.35	7.58	9.28	10.07
8	---	---	---	6.11	8.02	6.27	6.48	6.82	8.46	7.25	9.34	10.07
9	---	---	---	4.80	8.14	6.19	6.40	6.89	8.58	6.66	9.40	10.07
10	---	---	8.00	4.30	8.24	6.24	6.06	6.88	8.68	6.63	9.44	10.10
11	---	---	8.06	4.42	8.31	6.30	6.11	6.26	8.68	6.70	9.46	10.12
12	---	---	8.11	4.55	8.31	6.40	6.24	5.67	8.73	6.78	9.50	10.12
13	---	---	8.16	4.62	8.25	6.48	6.32	5.59	8.75	6.87	9.56	10.12
14	---	---	8.21	4.77	8.27	6.54	6.38	5.57	8.33	6.97	9.62	10.13
15	---	---	8.24	4.87	8.33	6.65	6.41	5.48	8.35	7.06	9.66	10.13
16	---	---	8.28	4.97	8.39	6.76	6.45	5.43	8.38	7.15	9.70	10.05
17	---	---	8.30	5.11	8.41	6.85	6.52	5.45	8.40	7.22	9.73	10.05
18	---	---	8.33	5.24	7.98	6.87	6.60	5.52	8.43	7.37	9.74	10.08
19	---	---	8.38	5.37	7.46	6.82	6.59	5.58	8.50	7.48	9.79	10.10
20	---	---	8.39	5.51	7.19	6.79	5.85	5.67	8.58	7.60	9.82	10.11
21	---	---	8.41	5.68	7.14	6.79	5.71	5.79	8.65	7.72	9.86	10.11
22	---	---	8.41	5.84	7.18	6.86	5.69	5.94	8.73	7.84	9.89	10.10
23	---	---	8.42	5.94	7.17	6.95	5.73	6.10	8.77	7.88	9.92	10.09
24	---	---	8.46	6.09	7.11	7.02	5.75	6.25	8.78	7.96	9.95	10.09
25	---	---	8.38	6.27	7.12	7.08	5.81	6.40	8.85	8.08	9.97	10.09
26	---	---	8.13	6.45	7.04	6.83	5.83	6.57	8.73	8.19	9.98	10.10
27	---	---	7.94	6.59	6.98	6.33	5.88	6.75	8.55	8.30	10.02	10.06
28	---	---	7.90	6.72	6.88	6.23	5.96	6.93	8.59	8.41	10.04	9.92
29	---	---	7.92	6.88	---	6.27	6.04	7.09	8.65	8.52	10.05	9.91
30	---	---	7.95	6.98	---	6.30	6.14	7.25	8.26	8.62	10.07	9.91
31	---	---	8.04	7.09	---	6.31	---	7.36	---	8.72	10.09	---
MEAN	---	---	---	6.11	7.67	6.53	6.17	6.27	8.43	7.60	9.61	10.08
MAX	---	---	---	8.16	8.41	7.08	6.60	7.36	8.85	8.72	10.09	10.15
MIN	---	---	---	4.30	6.88	6.19	5.69	5.43	7.50	6.63	8.80	9.91

GROUND-WATER LEVELS
STEUBEN COUNTY

422445077203301. Local number, Sb 472--Continued.



GROUND-WATER LEVELS
WYOMING COUNTY

353

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 sea level. Measuring point: Top of casing 2.64 ft above land-surface datum.

REMARKS.--Well drilled May 1974 as a replacement for 423743078070801 (local number Wo 2), located 25 ft southeast, which has a period of record from November 1965 to May 1974 (unpublished). Water level may be affected by periodic water-quality sampling by county health department.

PERIOD OF RECORD.--May 1974 to current year. Records for May 1974 to September 1976 are unpublished and available in files of the Geological Survey.

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

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

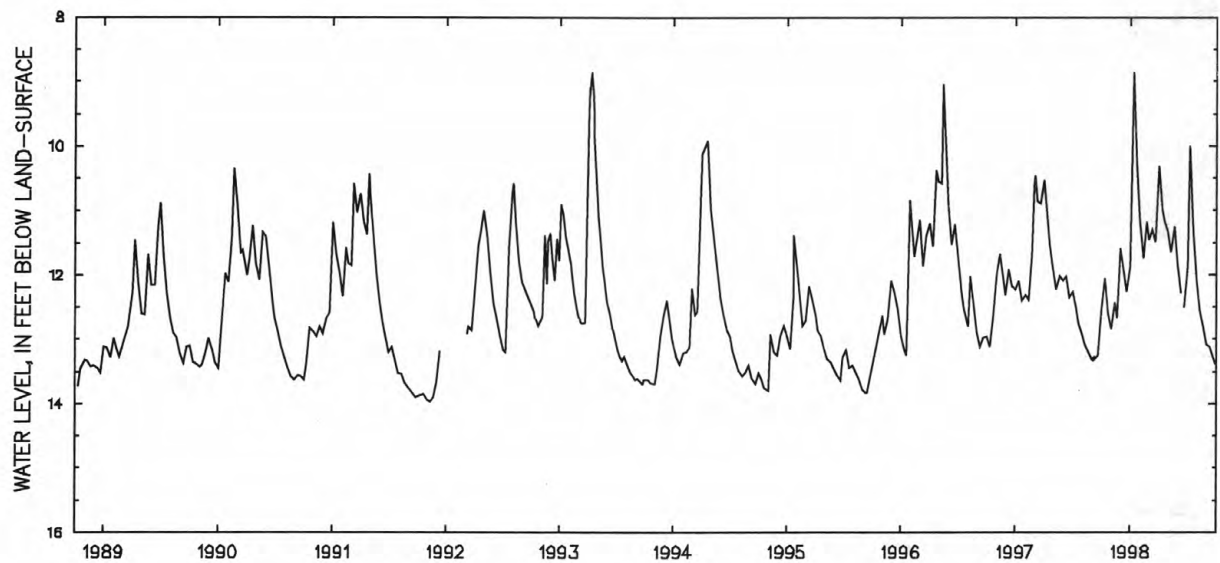
EXTREMES FOR CURRENT YEAR.--Highest water level, 8.86 ft, below land-surface datum, Jan. 10; lowest, 13.36 ft, below land-surface datum, Sep. 27, 30.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.23	12.84	11.56	11.92	11.24	11.26	10.40	11.35	11.88	11.89	12.13	13.10
2	12.09	12.71	11.56	11.95	11.30	11.07	10.51	11.41	11.92	11.94	12.19	13.11
3	12.05	12.51	11.60	11.96	11.36	10.99	10.60	11.47	11.96	11.99	12.24	13.13
4	12.06	12.40	11.63	11.64	11.42	11.01	10.68	11.52	12.00	12.04	12.30	13.15
5	11.98	12.36	11.68	11.28	11.47	11.07	10.75	11.57	12.05	11.91	12.35	13.17
6	11.90	12.36	11.71	11.06	11.53	11.14	10.85	11.61	12.10	11.88	12.39	13.19
7	11.89	12.37	11.77	10.93	11.59	11.20	10.92	11.60	12.15	11.88	12.43	13.17
8	11.93	12.37	11.83	10.12	11.65	11.26	11.00	11.61	12.20	11.63	12.47	13.14
9	11.98	12.40	11.86	9.06	11.71	11.26	11.05	11.62	12.23	10.43	12.51	13.12
10	12.06	12.42	11.92	8.86	11.75	11.30	10.97	11.65	12.27	10.00	12.55	13.12
11	12.12	12.45	11.96	8.92	11.79	11.31	11.00	11.53	12.30	10.03	12.57	13.14
12	12.18	12.48	12.00	9.07	11.73	11.36	11.06	11.17	12.32	10.20	12.59	13.16
13	12.23	12.51	12.04	9.21	11.66	11.41	11.11	10.95	12.34	10.37	12.61	13.19
14	12.30	12.53	12.09	9.40	11.66	11.45	11.16	10.90	12.35	10.54	12.65	13.21
15	12.36	12.57	12.13	9.54	11.71	11.52	11.22	10.91	12.37	10.69	12.68	13.23
16	12.42	12.58	12.16	9.70	11.76	11.57	11.27	10.97	12.39	10.83	12.71	13.24
17	12.46	12.63	12.18	9.84	11.73	11.61	11.32	11.05	12.42	10.97	12.73	13.24
18	12.50	12.65	12.21	9.99	11.49	11.63	11.38	11.12	12.45	11.11	12.77	13.26
19	12.55	12.66	12.24	10.14	11.30	11.62	11.41	11.19	12.47	11.22	12.79	13.26
20	12.60	12.67	12.26	10.29	11.18	11.48	11.16	11.25	12.50	11.32	12.81	13.27
21	12.66	12.68	12.27	10.41	11.17	11.36	10.92	11.32	12.53	11.40	12.83	13.29
22	12.70	12.67	12.27	10.52	11.23	11.33	10.84	11.39	12.56	11.50	12.87	13.30
23	12.73	12.63	12.27	10.61	11.28	11.34	10.83	11.46	12.58	11.52	12.89	13.30
24	12.75	12.60	12.27	10.68	11.32	11.37	10.89	11.52	12.61	11.55	12.92	13.30
25	12.77	12.57	12.26	10.77	11.38	11.40	10.99	11.58	12.65	11.62	12.94	13.33
26	12.82	12.53	12.13	10.87	11.42	11.29	11.06	11.64	12.40	11.69	12.97	13.33
27	12.80	12.21	11.95	10.95	11.46	10.51	11.12	11.69	12.00	11.76	12.99	13.35
28	12.78	11.87	11.86	11.02	11.46	10.21	11.19	11.74	11.94	11.84	13.00	13.35
29	12.78	11.70	11.82	11.09	---	10.17	11.24	11.78	11.89	11.91	13.04	13.35
30	12.80	11.59	11.82	11.13	---	10.22	11.31	11.82	11.87	11.97	13.06	13.35
31	12.83	---	11.87	11.18	---	10.31	---	11.87	---	12.05	13.08	---
MEAN	12.40	12.45	11.97	10.46	11.49	11.16	11.01	11.43	12.26	11.34	12.68	13.23
MAX	12.83	12.84	12.27	11.96	11.79	11.63	11.41	11.87	12.65	12.05	13.08	13.35
MIN	11.89	11.59	11.56	8.86	11.17	10.17	10.40	10.90	11.87	10.00	12.13	13.10

GROUND-WATER LEVELS
WYOMING COUNTY

423743078070802. Local number, Wo 4--Continued.



QUALITY OF GROUND WATER

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WATER-QUALITY DATA, WATER YEAR, OCTOBER 1997 TO SEPTEMBER 1998

MONROE COUNTY

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

STATION NUMBER	LOCAL IDENT- I- FIER	DATE	TUR- BID- ITY (NTU) (00076)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	OXYGEN, DIS- SOLVED (MG/L) (00300)	PH WATER WHOLE LAB (STAND- ARD UNITS) (00403)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2) (00405)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)
430854077304601	MO 3	10-07-97 04-28-98	.20 .60	1340 1320	1.8 .7	7.6 7.8	13 7.0	<.01 <.01	<.10 .19	.57 .75	.010 .015
430855077304202	MO 2	10-07-97 04-28-98	150 380	952 943	.4 .2	7.7 7.9	9.7 3.3	.06 <.01	.41 .20	<.05 <.05	.485 .720
430912077313301	MO 663	10-07-97 04-28-98	1.3 17	1440 1400	.7 .6	7.5 7.5	65 40	.10 .33	1.2 1.1	3.6 .33	.030 .040
430912077313302	MO 664	04-28-98	35	20400	<.1	7.0	100	2.4	3.0	<.05	.140
430928077313802	MO 665	10-07-97 04-28-98	66 80	2180 2190	.2 .2	7.1 7.7	162 36	2.1 1.9	3.0 4.0	<.05 <.05	.340 .480
430928077313803	MO 666	10-07-97 04-28-98	65 120	1920 1610	<.1 <.1	7.2 7.1	198 92	8.6 8.8	9.4 8.9	<.05 <.050	.300 .350
430928077314001	MO 667	10-07-97 04-28-98	180 400	2540 2320	.1 .9	7.2 7.3	152 73	9.2 7.9	10 9.6	<.05 <.05	2.35 12.0
430928077314002	MO 668	10-07-97 04-28-98	65 90	2770 2630	<.1 <.1	7.1 7.6	169 34	5.1 5.6	5.6 6.6	<.05 <.05	.590 .640
430932077311501	MO 659	10-07-97 04-28-98	60 70	787 768	<.1 <.1	7.7 7.6	9.4 5.7	.02 <.01	.15 .21	<.05 <.05	<.005 .005

STATION NUMBER	DATE	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA) (00916)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	SOLIDS SUM OF CONSTITUENTS DIS- SOLVE (MG/L (70301)
430854077304601	10-07-97 04-28-98	.010 .005	410 380	120 100	28 26	138 124	2.3 2.4	220 220	94 91	50 100	740 748
430855077304202	10-07-97 04-28-98	.006 .002	310 320	110 86	25 23	67 67	1.4 1.4	150 150	88 88	12000 21000	541 568
430912077313301	10-07-97 04-28-98	.015 .002	860 660	290 200	30 32	47 40	.97 .77	84 130	160 21	160 2400	935 770
430912077313302	04-28-98	<.002	5000	1200	414	2400	24	6800	600	34000	12100
430928077313802	10-07-97 04-28-98	.003 <.002	680 700	250 190	41 42	225 228	.46 .50	240 240	.50 1.5	12000 22000	1260 1320
430928077313803	10-07-97 04-28-98	.002 .002	1000 720	370 190	50 50	108 90	9.4 12	220 120	13 18	28000 27000	882 933
430928077314001	10-07-97 04-28-98	.003 .003	720 790	250 210	49 51	238 205	21 19	200 310	23 .50	32000 17000	1370 1310
430928077314002	10-07-97 04-28-98	.003 .002	1200 840	250 190	64 67	261 271	5.6 6.4	270 530	.70 .90	26000 41000	1420 1490
430932077311501	10-07-97 04-28-98	<.002 <.002	290 290	43 36	49 48	39 39	2.3 2.3	150 140	18 20	6800 13000	360 390

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR, OCTOBER 1997 TO SEPTEMBER 1998

ONONDAGA COUNTY

STATION NUMBER	LOCAL IDENT- I- FIER	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED WATER (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)			
424830076084401	OD 476	11-17-97	509	7.9	9.9	10.1	--	240	66			
		02-10-98	486	7.9	5.2	--	--	230	62			
		05-28-98	464	7.7	10.8	8.5	--	210	59			
		07-20-98	467	7.7	12.9	7.8	--	220	60			
424830076084501	OD 477	11-17-97	419	7.4	8.8	6.7	60	200	57			
		02-10-98	410	7.7	8.0	--	--	200	58			
		05-28-98	435	7.5	9.6	6.1	--	210	59			
		07-20-98	442	7.5	10.2	6.0	--	210	60			
424909076081001	OD 490	05-28-98	695	8.6	12.0	2.0	29	58	12			
425117076083001	OD 466	07-20-98	21300	7.3	13.3	1.7	--	1700	360			
425121076082501	OD 471	02-10-98	14900	7.4	11.3	--	--	1300	270			
425122076082201	OD 464	11-17-97	12700	7.3	9.0	4.9	47	1400	280			
425126076082101	OD 465	05-28-98	13300	7.2	11.9	2.5	--	1600	340			
425131076081901	OD 450	11-17-97	1270	7.8	10.5	4.0	37	250	52			
		07-20-98	1350	7.8	10.8	3.3	--	270	56			
DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	ALKA- LITY WAT DIS TOT IT FIELD (MG/L AS CACO3 (39086)	BICAR- BONATE WATER DIS IT FIELD (MG/L AS HCO3 (00453)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)
11-17-97	19	10	1.0	18	15	196	239	6.4	273	<3.0	<1.0	.03
02-10-98	17	13	.77	30	8.3	202	246	5.3	269	<10	<4.0	.02
05-28-98	16	12	.93	26	8.5	192	234	5.4	266	<10	<4.0	.04
07-20-98	16	14	1.2	25	7.8	118	229	5.9	264	<10	<4.0	.02
11-17-97	14	6.7	.71	14	6.1	184	225	5.7	222	<3.0	<1.0	.02
02-10-98	14	6.4	.63	16	6.3	196	239	5.8	226	<10	<4.0	.01
05-28-98	15	7.8	.73	17	6.5	192	234	5.6	243	<10	<4.0	.03
07-20-98	15	8.1	.71	16	6.1	192	234	5.7	249	<10	<4.0	.03
05-28-98	6.7	119	3.4	92	7.0	182	222	7.4	382	51	41	.53
07-20-98	188	4340	10	7000	990	166	203	12	13500	3100	140	9.4
02-10-98	152	2710	7.2	4600	720	148	181	12	8920	1900	60	7.9
11-17-97	161	2120	6.5	4000	590	124	151	11	7610	1800	80	.56
05-28-98	196	2280	6.4	4200	550	92	112	11	8260	1600	74	6.1
11-17-97	29	127	1.3	320	17	100	122	9.6	1020	180	21	.47
07-20-98	32	135	1.6	340	18	84	103	10	804	200	25	.55

QUANTITY OF PRECIPITATION
425129076082701 AT OTISCO ROAD NEAR TULLY, NY

357

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

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

INSTRUMENTATION.--Tipping bucket raingage with 8.214 in. diameter receiving funnel, mounted on a pedestal in the backyard of residence. Funnel is heated to facilitate melting of snow. Each tip of the raingage bucket is equivalent to .01 in. of precipitation. Tips of the raingage bucket are recorded and accumulated at hourly intervals on an electronic data logger.

REMARKS.--Rain gage is operated in conjunction with streamflow station 04237946 Onondaga Creek Tributary No. 6, downstream of main depression area, for the Tully mudboil project.

PERIOD OF RECORD MAXIMUM.--Maximum recorded daily precipitation, 3.92 in. on November 8, 1996.

ANNUAL MAXIMUM.--Maximum recorded daily precipitation, 2.45 in. on April 2.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.10	.00	.01	.02	.00	.00	.42	.00	.00	.28	.00	.00
2	.00	.00	.00	.00	.00	.00	2.45	.00	.46	.00	.00	.11
3	.05	.51	.02	.09	.00	.00	.05	.03	.00	.00	.00	.00
4	.12	.23	.05	.26	.00	.01	.00	.31	.00	.54	.00	.00
5	.26	.12	.08	.00	.00	.09	.00	.01	.00	.00	.00	.00
6	.00	.00	.01	.25	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.12	.49	.00	.00	.00	.00	.01	.14	.00	.57
8	.00	.58	.02	.82	.00	.25	.32	.00	.01	.04	.00	.41
9	.01	.34	.00	.11	.00	.35	.20	.06	.00	.08	.00	.64
10	.05	.06	.30	.00	.00	.20	.00	.74	.01	.02	.61	.01
11	.01	.00	.00	.00	.12	.00	.00	.31	.03	.00	.04	.00
12	.00	.00	.01	.00	.46	.01	.00	.00	.36	.00	.00	.00
13	.00	.00	.00	.11	.01	.00	.00	.00	.28	.00	.00	.00
14	.00	.00	.01	.00	.00	.02	.00	.00	.04	.00	.00	.00
15	.06	.02	.00	.30	.00	.05	.12	.00	.00	.00	.00	.08
16	.01	.04	.00	.22	.00	.01	.00	.00	.05	.00	.00	.05
17	.01	.00	.00	.11	.43	.00	.05	.00	.66	.00	.00	.01
18	.00	.00	.00	.06	.42	.14	.00	.00	.02	.00	.26	.00
19	.02	.00	.00	.00	.38	.19	.85	.00	.00	.00	.00	.00
20	.00	.00	.14	.03	.06	.01	.10	.00	.00	.00	.00	.03
21	.24	.00	.00	.00	.05	.96	.00	.00	.00	.00	.01	.10
22	.00	.29	.09	.00	.00	.10	.00	.00	.44	.00	.00	.00
23	.03	.10	.12	.18	.02	.00	.00	.00	.01	.81	.00	.01
24	.00	.00	.06	.01	1.13	.00	.01	.00	.00	.00	.37	.00
25	.00	.00	.08	.00	.14	.00	.17	.43	.39	.00	.15	.00
26	.00	.19	.09	.00	.00	.00	.02	.00	.44	.00	.08	.00
27	.55	.06	.01	.00	.00	.00	.00	.00	.05	.00	.00	.05
28	.72	.04	.00	.00	.68	.08	.00	.00	.00	.00	.00	.00
29	.02	.00	.24	.06	---	.00	.00	.28	.51	.07	.09	.00
30	.06	.17	1.11	.09	---	.00	.00	.00	.37	.00	.01	.03
31	.00	---	.00	.01	---	.00	---	.92	---	.00	.00	---
TOTAL	2.32	2.75	2.57	3.22	3.90	2.47	4.76	3.09	4.14	1.98	1.62	2.10

CHEMICAL QUALITY OF PRECIPITATION

GENESEE RIVER BASIN

430117077350101 AT MENDON PONDS, ROCHESTER, NY

LOCATION.--Lat 43°01'17", long 77°35'01", Monroe County, Hydrologic Unit 04130003, in Mendon Ponds County Park, 200 ft east of rangers' quarters, 300 ft east of State Highway 65, and 1.7 mi south of Interstate Highway 90.

PERIOD OF RECORD.--June 1980 to current year (monthly composite).

June 1980 to current year (monthly wetfall).

June 1980 to current year (monthly dustfall).

INSTRUMENTATION.--Tipping bucket raingage with 8.21 in. diameter receiving funnel; Tips are recorded on an electronic data logger at 5 minute intervals.

The composite sample collector is a straight-sided polyethylene funnel approximately 6.5 inch in diameter that drains into a Teflon receiving bottle. A looped plastic tubing connects the funnel with the receiving bottle to retard evaporation. The polyethylene funnel is heated during the cold-weather season to aid in complete collection of snow. The receiving bottle is enclosed in an insulated box. The opening for the collector is approximately 5 ft above ground level.

Wet/dry precipitation collector used for wetfall and dustfall samples. An automatic sensor detects precipitation and activates a motor that removes the cover from the wetfall-collection vessel and covers the dustfall-collection vessel. When precipitation ceases, the cycle is reversed. The sampling vessels are polyethylene and have a collection diameter of 11.26 inch and a capacity of about 3.4 gallons. The openings of the collectors are approximately 8 ft above ground level.

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

REMARKS.--Prior to 1994 water year, data published in "Water Resources of Monroe County New York, Water Years 1984-88", U. S. Geological Survey Open-File Report 93-370 and in "Water Resources of Monroe County New York, Water Years 1989-93", U. S. Geological Survey Open-File Report 97-587.

DUSTFALL CHEMICAL ANALYSES, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
MONTHLY DUSTFALL

DATE	TIME	PRECIP- ITATION TOTAL INCHES (00045)	CALCIUM	MAGNE-	SODIUM, DIS- SOLVED (MG/L (AS NA) (00930)	POTAS-	CHLO-	SULFATE DIS- SOLVED (MG/L (AS SO4) (00945)	NITRO-						
			TOTAL	SIUM, DIS- SOLVED (MG/L (AS MG) (00925)		SIUM, DIS- SOLVED (MG/L (AS K) (00935)	RIDE, DIS- SOLVED (MG/L (AS CL) (00940)		GEN, AMMONIA DIS- SOLVED (MG/L (AS N) (00608)						
			RECOV- ERABLE (MG/L (AS CA) (00916)	DIS- SOLVED (MG/L (AS MG) (00925)		DIS- SOLVED (MG/L (AS K) (00935)	DIS- SOLVED (MG/L (AS CL) (00940)		DIS- SOLVED (MG/L (AS N) (00608)						
SEP 30-OCT 31	1000	1.97	.72	.52	.10	2.7	.90	2.2	.08						
OCT 31-DEC 02	0915	2.82	1.4	.21	1.4	.11	1.9	3.7	.72						
DEC 02-JAN 06	1015	1.39	1.2	.27	4.3	.10	6.5	6.1	1.3						
JAN 06-30	0915	2.88	.81	.17	.99	.06	3.4	3.5	.54						
JAN 30-MAR 04	0915	1.70	1.7	.35	1.5	.04	1.8	4.6	.56						
MAR 04-31	0915	2.83	2.0	.29	3.9	.22	4.6	5.6	.57						
MAR 31-APR 29	0945	2.12	1.6	.39	.080	.48	.37	4.2	.27						
APR 29-MAY 30	0845	0.41	1.7	.46	.23	1.1	.50	4.0	.11						
MAY 30-JUN 30	0945	0.98	2.8	.50	.22	1.3	.39	5.7	.07						
JUN 30-JUL 31	0930	1.46	.48	.20	<.010	.50	.50	2.3	.22						
JUL 31-AUG 28	0845	2.38	1.0	.45	.060	.34	<.20	5.1	.09						
AUG 28-SEP 28	0945	3.88	1.6	1.5	.20	8.4	1.5	11	.04						
DATE		NITRO-	NITRO-	PHOS-	PHOS-	PH	ACIDITY	LEAD,	ZINC,						
		GEN,AM-								GEN,	PHORUS	ORTH,	WATER	TOTAL	TOTAL
		MONIA +								NO2+NO3	DIS-	SPE-	WHOLE	RECOV-	RECOV-
		ORGANIC								NO2+NO3	CON-	CIFIC	LAB	ERABLE	ERABLE
TOTAL	TOTAL	TOTAL	SOLVED	DUCT-	(STAND-	(MG/L	ERABLE	ERABLE							
(MG/L	(MG/L	(MG/L	(MG/L	ANCE	ARD	AS	(UG/L	(UG/L							
AS N)	AS N)	AS P)	AS P)	(US/CM)	UNITS)	CACO3)	AS PB)	AS ZN)							
(00625)	(00630)	(00665)	(00671)	(00095)	(00403)	(00435)	(01051)	(01092)							
SEP 30-OCT 31	1.0	.40	.720	.565	22	7.1	7.4	5	10						
OCT 31-DEC 02	.10	1.3	.035	.024	35	4.3	8.1	9	20						
DEC 02-JAN 06	1.4	2.5	.035	.014	88	3.4	14	17	30						
JAN 06-30	.60	1.6	.015	.008	57	3.5	8.7	9	40						
JAN 30-MAR 04	.66	1.6	.020	.011	47	4.0	7.4	6	20						
MAR 04-31	1.6	1.5	.260	.152	49	6.4	4.9	9	30						
MAR 31-APR 29	1.7	.83	.260	.098	24	6.0	3.6	15	30						
APR 29-MAY 30	2.8	.65	.520	.140	24	5.5	6.4	7	40						
MAY 30-JUN 30	2.1	.70	.650	.481	30	6.2	3.1	14	30						
JUN 30-JUL 31	1.3	.19	.180	.130	12	6.2	2.9	3	10						
JUL 31-AUG 28	2.8	.34	.100	.066	19	5.8	3.9	14	20						
AUG 28-SEP 28	.85	.10	2.90	1.28	52	5.9	11	12	20						

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.

CHEMICAL QUALITY OF PRECIPITATION

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GENESEE RIVER BASIN

430117077350101 AT MENDON PONDS, ROCHESTER, NY--Continued

WETFALL CHEMICAL ANALYSES, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

MONTHLY WETFALL

		PRECIP- ITATION	CALCIUM TOTAL RECOV- ERABLE	MAGNE- SIUM, DIS- SOLVED	SODIUM, DIS- SOLVED	POTAS- SIUM, DIS- SOLVED	CHLO- RIDE, DIS- SOLVED	SULFATE DIS- SOLVED	NITRO- GEN, AMMONIA DIS- SOLVED
DATE	TIME	TOTAL INCHES (00045)	(MG/L AS CA) (00916)	(MG/L AS MG) (00925)	(MG/L AS NA) (00930)	(MG/L AS K) (00935)	(MG/L AS CL) (00940)	(MG/L AS SO4) (00945)	(MG/L AS N) (00608)
SEP 30-OCT 31	0945	1.97	1.7	.62	.15	2.3	1.8	4.6	.35
OCT 31-DEC 02	0900	2.82	.61	.50	.30	8.3	3.2	2.2	.06
DEC 02-JAN 06	1000	1.39	.32	.040	1.0	.01	1.9	2.0	.38
JAN 06-30	1100	2.88	.10	<.010	.15	.02	.30	1.1	.08
JAN 30-MAR 04	0900	1.70	.13	.080	.39	.01	1.3	2.5	.25
MAR 04-31	0900	2.83	.65	.080	.94	.06	1.6	4.2	.37
MAR 31-APR 29	0930	2.12	1.6	.39	.26	.30	.45	8.1	1.5
APR 29-MAY 30	0830	0.41	1.5	.42	.21	.96	.87	7.5	1.6
MAY 30-JUN 30	0930	0.98	.62	.15	.040	.12	.43	6.0	.96
JUN 30-JUL 31	1100	1.46	.27	.040	<.010	.06	.25	3.9	.35
JUL 31-AUG 28	0830	2.38	.63	.10	.090	.08	.30	4.9	.64
AUG 28-SEP 28	1115	3.88	.94	.35	.010	1.1	.60	6.0	.73

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE LAB (STAND- ARD UNITS) (00403)	ACIDITY (MG/L AS CACO3) (00435)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
SEP 30-OCT 31	1.0	1.3	.600	.420	37	5.0	9.4	4	20
OCT 31-DEC 02	2.3	.21	.300	.076	45	4.9	29	<3	20
DEC 02-JAN 06	.46	.97	.010	.004	32	3.7	9.0	8	40
JAN 06-30	<.10	.29	<.005	<.002	15	3.9	6.1	<3	20
JAN 30-MAR 04	.34	.92	.005	.002	25	4.0	9.0	4	10
MAR 04-31	.54	1.1	.020	.003	45	3.3	12	3	20
MAR 31-APR 29	2.3	1.6	.130	.031	43	4.5	7.0	10	30
APR 29-MAY 30	3.1	1.1	.430	.150	40	5.4	6.0	12	20
MAY 30-JUN 30	1.4	.97	.040	<.002	39	4.1	6.6	4	10
JUN 30-JUL 31	.68	.53	.020	<.002	34	4.0	7.1	1	10
JUL 31-AUG 28	.93	.92	.030	.006	33	4.0	6.7	8	10
AUG 28-SEP 28	.85	.60	.325	.266	31	4.5	6.2	2	10

CHEMICAL QUALITY OF PRECIPITATION

GENESEE RIVER BASIN

430117077350101 AT MENDON PONDS, ROCHESTER, NY--Continued

BULK CHEMICAL ANALYSES, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

MONTHLY COMPOSITE

DATE	TIME	PRECIP- ITATION TOTAL INCHES (00045)	CALCIUM	MAGNE-	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS-	CHLO-	SULFATE	NITRO-
			TOTAL	SIUM,		SIUM,	RIDE,	DIS-	GEN,
			RECOV-	DIS-		DIS-	DIS-	DIS-	DIS-
			ERABLE (MG/L AS CA) (00916)	SOLVED (MG/L AS MG) (00925)		SOLVED (MG/L AS K) (00935)	SOLVED (MG/L AS CL) (00940)	SOLVED (MG/L AS SO4) (00945)	SOLVED (MG/L AS N) (00608)
SEP 30-OCT 31	1045	1.97	1.0	.26	.14	1.2	1.0	4.1	.52
OCT 31-DEC 02	1000	2.82	.49	.080	.22	.14	.80	2.1	.31
DEC 02-JAN 06	1100	1.39	.47	.090	1.4	.16	2.3	3.8	.52
JAN 06-30	1015	2.88	.17	.020	.17	.02	.30	1.8	.09
JAN 30-MAR 04	1015	1.70	.46	.10	.76	.03	1.0	3.3	.27
MAR 04-31	1000	2.83	.42	.050	.77	.07	1.7	3.1	.40
MAR 31-APR 29	1030	2.12	.64	.17	.15	.15	.72	3.7	.58
APR 29-MAY 30	0930	0.41	.70	.15	.18	.44	.72	3.2	1.0
MAY 30-JUN 30	1030	0.98	1.0	.25	.15	1.2	.81	5.6	1.5
JUN 30-JUL 31	1015	1.46	.42	.11	<.010	.36	.30	2.3	.71
JUL 31-AUG 28	0930	2.38	.70	.070	.020	.25	.50	4.4	1.7
AUG 28-SEP 28	1030	3.88	.55	.13	<.010	.25	.20	4.1	.81

DATE		NITRO-	NITRO-	PHOS-	PHOS-	SPE-	PH	LEAD,	ZINC,
		GEN,AM-		PHORUS	PHORUS	CIFIC			
		MONIA +		ORTH,	DIS-	CON-			
		ORGANIC	NO2+NO3	PHORUS	SOLVED	DUCT-	WATER	TOTAL	TOTAL
DATE		TOTAL	TOTAL	TOTAL	(MG/L	ANCE	LAB	RECOV-	RECOV-
		(MG/L	(MG/L	(MG/L	(MG/L	ANCE	(STAND-	ERABLE	ERABLE
		AS N) (00625)	AS N) (00630)	AS P) (00665)	AS P) (00671)	(US/CM) (00095)	ARD (UNITS) (00403)	AS (MG/L CACO3) (00435)	AS (UG/L AS PB) (01051)
SEP 30-OCT 31	.99	.66	.310	.260	25	5.4	6.8	<3	20
OCT 31-DEC 02	.45	.44	.015	.010	18	4.6	7.6	<3	20
DEC 02-JAN 06	.80	.98	.025	<.002	45	3.5	10	<5	50
JAN 06-30	.16	.29	.020	<.002	19	4.4	5.0	3	20
JAN 30-MAR 04	.57	.82	.030	<.002	37	3.8	8.0	<3	30
MAR 04-31	.80	.70	.025	<.002	32	3.6	9.1	3	30
MAR 31-APR 29	1.3	.58	.040	.002	24	4.5	6.4	4	20
APR 29-MAY 30	1.4	.29	.085	.019	20	5.8	4.2	<3	20
MAY 30-JUN 30	3.5	.80	.110	.006	38	4.6	13	4	40
JUN 30-JUL 31	.85	.25	.050	.013	15	5.2	9.7	2	30
JUL 31-AUG 28	2.7	.66	.070	.006	30	4.6	7.0	6	40
AUG 28-SEP 28	1.1	.54	.035	<.002	29	4.3	8.1	<2	30

CHEMICAL QUALITY OF PRECIPITATION

361

IRONDEQUOIT CREEK BASIN

430836077314101 AT INDIAN LANDING SCHOOL, ROCHESTER, NY

LOCATION.--Lat 43°08'36", long 77°31'41", Monroe County, Hydrologic Unit 04140101, at Indian Landing School, about 200 ft. east of North Landing Road.

PERIOD OF RECORD.--October 1997 to current year (monthly dustfall).
October 1997 to current year (monthly wetfall).

INSTRUMENTATION.--Tipping bucket raingage with 8.21 in. diameter receiving funnel; Tips are recorded on an electronic data logger at 5 minute intervals.

Wet/dry precipitation collector used for wetfall and dustfall samples. An automatic sensor detects precipitation and activates a motor that removes the cover from the wetfall-collection vessel and covers the dustfall-collection vessel. When precipitation ceases, the cycle is reversed. The sampling vessels are polyethylene and have a collection diameter of 11.26 inches and a capacity of about 3.4 gallons. The openings of the collectors are approximately 8 ft above ground level.

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

REMARKS.--Prior to the 1998 water year, data collected at a site (431021077315902) in the Irondequoit Wetlands 1,350 ft. south of New York State Highway 404.

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

DUSTFALL CHEMICAL ANALYSES, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

MONTHLY DUSTFALL

DATE	TIME	PRECIP- ITATION TOTAL INCHES (00045)	CALCIUM	MAGNE-	SODIUM, DIS- SOLVED (MG/L (AS NA) (00930)	POTAS-	CHLO-	SULFATE DIS- SOLVED (MG/L (AS SO4) (00945)	NITRO-
			RECOV-	SIUM,		SIUM,	RIDE,		AMMONIA
			ERABLE	DIS-		DIS-	DIS-		DIS-
			SOLVED (MG/L (AS CA) (00916)	SOLVED (MG/L (AS MG) (00925)		SOLVED (MG/L (AS K) (00935)	SOLVED (MG/L (AS CL) (00940)		SOLVED (MG/L (AS N) (00608)
SEP 30-OCT 31	1115	--	1.2	.19	.070	.08	.80	3.1	.13
OCT 31-DEC 02	1030	--	1.6	.50	1.3	.05	2.5	5.4	.50
DEC 02-JAN 06	1130	2.45	1.8	.70	4.4	.08	7.7	8.2	1.3
JAN 06-30	1045	6.81	.89	.030	.48	.05	2.7	3.4	.54
JAN 30-MAR 04	1045	2.60	2.1	.69	1.5	.07	2.3	6.2	.45
MAR 04-31	1030	1.15	3.4	.87	4.1	.25	7.4	8.5	1.0
MAR 31-APR 29	1100	2.21	1.4	.26	.11	.29	.29	2.8	.09
APR 29-MAY 30	1000	3.20	1.8	.49	.17	1.4	.60	3.3	.24
MAY 30-JUN 30	1100	4.09	2.0	.44	.080	.33	.30	4.8	.05
JUN 30-JUL 31	1045	5.25	.55	.13	<.010	.07	.30	1.4	.03
JUL 31-AUG 28	1000	2.68	1.6	.46	.020	.13	.20	4.4	.05
AUG 28-SEP 28	1100	--	1.3	.32	.030	.29	.20	3.1	.04

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS ORTHOPHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHOPHOS- PHORUS TOTAL (MG/L AS P) (00671)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE LAB ACIDITY (STAND- ARD UNITS) (00403)		LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
SEP 30-OCT 31	.32	.35	.030	.007	14	7.6	2.9	8	30
OCT 31-DEC 02	.25	.80	.035	.027	41	4.0	8.5	14	40
DEC 02-JAN 06	1.5	2.1	.035	.017	94	3.9	11	16	50
JAN 06-30	.58	1.1	.015	.011	42	4.1	7.4	5	40
JAN 30-MAR 04	.65	.91	.025	.007	36	6.0	4.4	8	40
MAR 04-31	1.7	2.1	.100	.025	66	5.4	6.1	11	40
MAR 31-APR 29	1.6	.56	.180	.058	18	6.2	2.6	10	40
APR 29-MAY 30	2.9	.90	.540	.184	26	6.0	4.2	9	40
MAY 30-JUN 30	.96	.54	.160	.071	21	6.4	1.9	19	50
JUN 30-JUL 31	<.10	.15	.040	.015	8	6.1	2.2	4	30
JUL 31-AUG 28	.62	.32	.110	.035	18	6.2	3.2	18	30
AUG 28-SEP 28	.19	.43	.085	.033	16	5.6	3.1	10	20

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.

CHEMICAL QUALITY OF PRECIPITATION

IRONDEQUOIT CREEK BASIN

430836077314101 AT INDIAN LANDING SCHOOL, ROCHESTER, NY--continued

WETFALL CHEMICAL ANALYSES, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

MONTHLY WETFALL

DATE	TIME	PRECIP- ITATION TOTAL INCHES (00045)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA) (00916)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
SEP 30-OCT 31	1100	--	.81	.30	<.050	.31	.60	4.8	.61
OCT 31-DEC 02	1015	--	.36	.10	.31	.03	.76	2.4	.35
DEC 02-JAN 06	1115	2.45	.42	.13	.96	.01	1.8	3.1	.56
JAN 06-30	1030	6.81	.12	.030	.12	<.01	.50	1.2	.12
JAN 30-MAR 04	1030	2.60	.51	.12	.26	.02	.80	2.8	.37
MAR 04-31	1015	1.15	1.1	.24	.90	.07	2.1	5.6	.61
MAR 31-APR 29	1045	2.21	1.7	.55	.36	.28	1.0	12	2.1
APR 29-MAY 30	0945	3.20	2.1	.69	.21	.71	.50	13	2.4
MAY 30-JUN 30	1115	4.09	.81	.20	.060	.08	.49	87	.93
JUN 30-JUL 31	1000	5.25	.83	.22	<.010	.12	<.20	10	1.2
JUL 31-AUG 28	1015	2.68	.42	.060	<.010	.03	.26	4.8	.54
AUG 28-SEP 28	1045	--	.53	.12	<.010	.08	.40	6.3	.73

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHOPHOS- PHATE DIS- SOLVED (MG/L AS P) (00671)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE LAB (STAND- ARD UNITS) (00403)	ACIDITY (MG/L AS CACO3) (00435)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
SEP 30-OCT 31	.88	.88	.025	.004	35	4.1	9.4	7	20
OCT 31-DEC 02	.49	.62	.005	.007	31	3.9	9.4	4	10
DEC 02-JAN 06	.61	.98	.010	.004	47	3.5	9.9	6	20
JAN 06-30	.12	.35	<.005	<.002	18	4.1	5.4	<3	10
JAN 30-MAR 04	.41	.86	.010	.005	38	3.8	8.0	<3	20
MAR 04-31	.84	1.2	.035	.008	51	3.5	9.4	13	20
MAR 31-APR 29	2.7	2.3	.120	.025	76	4.0	11	16	30
APR 29-MAY 30	3.9	1.2	.360	.099	53	5.1	4.8	6	60
MAY 30-JUN 30	1.4	1.0	.030	<.002	60	3.9	9.1	7	10
JUN 30-JUL 31	1.4	1.2	.065	.027	75	3.8	12	5	20
JUL 31-AUG 28	.62	.56	<.005	<.002	38	4.0	7.2	6	20
AUG 28-SEP 28	.93	.65	.035	<.002	46	4.0	8.4	3	10

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CONVERSION FACTORS AND VERTICAL DATUM

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

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

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