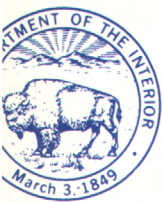
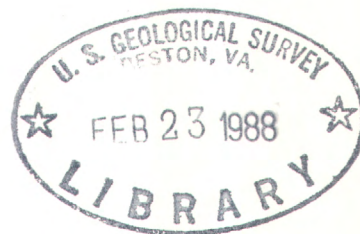


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Water Resources Data New York Water Year 1986



Volume 3. Western New York



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NY-86-3
Prepared in cooperation with the State of New York
and with other agencies

CALENDAR FOR WATER YEAR 1986

1985

OCTOBER

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Water Resources Data New York Water Year 1986

Volume 3. Western New York

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



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NY-86-3
Prepared in cooperation with the State of New York
and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

DONALD PAUL HODEL, Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

For information on the water program in New York write to
District Chief, Water Resources Division
U.S. Geological Survey
U.S. Post Office and Courthouse
P.O. Box 1669
Albany, New York 12201
1986

PREFACE

This volume of the annual hydrologic data report of New York is one of a series of annual reports that document hydrologic data gathered from the U. S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and quality of water provide the hydrologic information needed by State, local, and Federal agencies, and the private sector for developing and managing our Nation's land and water resources. Hydrologic data for New York are contained in three volumes:

- Volume 1. Eastern New York excluding Long Island
- Volume 2. Long Island
- Volume 3. Western New York

The data contained in these three volumes were collected, computed, and processed from three subdistrict offices and one area field office. The offices, and personnel in charge, are:

- Volume 1. Albany, Daniel C. Hahl, Subdistrict Chief
Potsdam, Howard G. Lent, Jr., Technician-in-charge
- Volume 2. Syosset, Donald L. Bingham, Subdistrict Chief
- Volume 3. Ithaca, Richard P. Novitzki, Subdistrict Chief

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

H. L. Dixon	R. L. Mulks	M. J. Welsh
J. B. Hood, Jr.	C. O. Szabo	H. J. Zajd, Jr.

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

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

REPORT DOCUMENTATION PAGE		1. REPORT NO. USGS/WRD/HD-87/275	2.	3. Recipient's Accession No.
4. Title and Subtitle Water Resources Data - New York, Water Year 1986 Volume 3. Western New York			5. Report Date August 1987	
			6. USGS-WDR-NY-86-3	
7. Author(s) W.F. Coon, W.H. Johnston, D.A. Sherwood and D.D. Deloff			8. Performing Organization Rept. No.	
9. Performing Organization Name and Address U. S. Geological Survey, Water Resources Division 521 West Seneca Street Ithaca, New York 14850-4094			10. Project/Task/Work Unit No.	
			11. Contract(C) or Grant(G) No. (C) (G)	
12. Sponsoring Organization Name and Address U. S. Geological Survey, Water Resources Division U. S. Post Office and Courthouse P. O. Box 1669 Albany, New York 12201-1669			13. Type of Report & Period Covered Annual-October 1, 1985 to September 30, 1986	
			14.	
15. Supplementary Notes Prepared in cooperation with the State of New York and other agencies.				
16. Abstract (Limit: 200 words) Water resources data for the 1986 water year for New York consist of records of stage, discharge, and water quality of streams; stage and contents of lakes and reservoirs; and water levels of ground-water wells. This volume contains records for water discharge at 80 gaging stations; stage only at 19 gaging stations; stage and contents at 6 gaging stations; water quality at 7 gaging stations; and water levels at 22 observation wells. Also included are data for 67 crest-stage partial-record stations. Additional water data were collected at various sites not involved in the systematic data-collection program and are published as miscellaneous measurements. These data together with the data in Volumes 1 and 2 represent that part of the National Water Data System operated by the U. S. Geological Survey and cooperating State, local, and Federal agencies in New York.				
17. Document Analysis a. Descriptors *New York, *Hydrologic data, *Surface water, *Ground water, *Water quality, Streamflow, Flow rates, Gaging stations, Lakes, Reservoirs, Chemical analysis, Sediments, Water analysis, Water temperature, Water levels, Water wells, Data collection, Sites. b. Identifiers/Open-Ended Terms c. COSATI Field/Group				
18. Availability Statement: No restriction on distribution. This report may be purchased from: National Technical Information Service Springfield, VA 22162		19. Security Class (This Report) UNCLASSIFIED		21. No. of Pages 197
		20. Security Class (This Page) UNCLASSIFIED		22. Price

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

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

Station number	Station name	Drainage area (mi ²)	Period of record
Susquehanna River Basin			
01496450	Canadarago Lake at Schuyler Lake	65.0	10/68 - 10/78
01497000	Cherry Valley Creek at Westville	81.4	1/30 - 6/31 6/38 - 7/41
01497500	Susquehanna River at Colliersville	349	5/07 - 12/08 7/24 - 9/68
01498000	Charlotte Creek at Davenport Center	164	9/38 - 9/56
01498500	Charlotte Creek at West Davenport	167	6/38 - 10/75
01499000	Otego Creek near Oneonta	108	8/40 - 9/68
01499050	Flax Island Creek near Otego	4.22	7/66 - 9/68
01499470	East Branch Handsome Brook at Franklin	9.12	9/66 - 9/68
01501000	Unadilla River near New Berlin	199	7/24 - 9/68
01501015	Mill Brook at New Berlin	4.64	5/74 - 11/80*
01501500	Sage Brook near South New Berlin	0.70	11/32 - 9/68
01505500	Canasawacta Creek near South Plymouth	57.9	9/45 - 9/75
*01507000	Chenango River at Greene	593	2/37 - 9/70
01507470	Red Brook at Smithville Flats	7.06	7/66 - 9/68
01507500	Genegantslet Creek at Smithville Flats	82.3	6/38 - 9/70
01507975	Muller Gulf Creek near Cuyler	2.67	7/66 - 9/68
01508000	Shackham Brook near Truxton	2.95	11/32 - 9/68
01508500	Albright Creek at East Homer	6.81	10/38 - 9/68
01508804	West Branch Tioughnioga River below Homer	--	10/46 - 9/76
01508962	Otter Creek at mouth at Cortland	14.3	12/75 - 12/76
01509150	Gridley Creek above East Virgil	10.36	7/74 - 9/81
01509500	Dudley Creek at Lisle	30.0	6/38 - 7/40
01510500	Otselic River near Upper Lisle	217	1/37 - 9/69
*01511500	Tioughnioga River at Itaska	730	10/29 - 6/67
*01513500	Susquehanna River at Vestal	3,941	3/37 - 6/67
01513719	East Branch Nanticoke Creek above Glen Aubrey	12.8	9/76 - 10/77
01513720	East Branch Nanticoke Creek at Glen Aubrey	15.4	3/76 - 7/76
01513790	Nanticoke Creek at Union Center	90.7	8/75 - 10/77
01513840	Pumpelly Creek at Owego	8.59	7/66 - 9/68
*01514000	Owego Creek near Owego	185	1/30 - 11/78
01514500	Dean Creek at Spencer	8.03	7/54 - 9/60
01515500	Cayuta Creek near Alpine	17.6	11/29 - 9/31
01522000	Canisteo River at Hornell	93.7	6/38 - 4/43
01522500	Karr Valley Creek at Almond	27.4	2/37 - 9/68
01524000	Canacadea Creek at Hornell	58.5	9/25 - 9/29 9/38 - 9/44
01525000	Bennett Creek at Canisteo	95.3	5/38 - 9/47
*01525500	Canisteo River at West Cameron	340	1/30 - 9/31 2/37 - 9/70
01525750	Tuscarora Creek Tributary near Woodhull	9.43	7/66 - 9/68
01526000	Tuscarora Creek near South Addison	114	2/37 - 9/70
01526495	Mulholland Creek near Erwins	5.06	7/66 - 9/68

* No winter record.

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

* No winter record.

DISCONTINUED SURFACE-WATER STATIONS--continued

xi

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

* No winter record.

WATER RESOURCES DATA FOR NEW YORK, 1986
Volume 3.--Western New York

INTRODUCTION

Water resources data for the 1986 water year for New York consist of records of stage, discharge, and water quality of streams; stage and contents of lakes and reservoirs; and water levels of ground-water wells. This volume contains records for water discharge at 80 gaging stations; stage only at 19 gaging stations; stage and contents at 6 gaging stations; water quality at 7 gaging stations; and water levels at 22 observation wells. Locations of these sites are shown on figure 1. Also included are data for 67 crest-stage partial-record stations. Additional water data were collected at various sites not involved in the systematic data-collection program and are published as measurements made at miscellaneous sites. These data together with the data in Volumes 1 and 2 represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State, local, and Federal agencies in New York.

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

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

Beginning with the 1971 water year, the Geological Survey publishes annual water data for streamflow, water quality, and ground water for all States. These reports are identified by the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report NY-86-3." These water-data reports are for sale, in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

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

COOPERATION

The U.S. Geological Survey and organizations of the State of New York and other agencies have had cooperative agreements for the systematic collection of water records since 1900. Organizations that assisted in collecting data included in Volume 3, water year 1986, through cooperative agreement with the Survey are:

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

Assistance in the form of funds for collecting records at gaging stations published in this report was also given by the U.S. Army Corps of Engineers.

The following organizations aided in collecting records:

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

Organizations that supplied data are acknowledged in station descriptions.

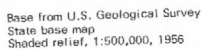
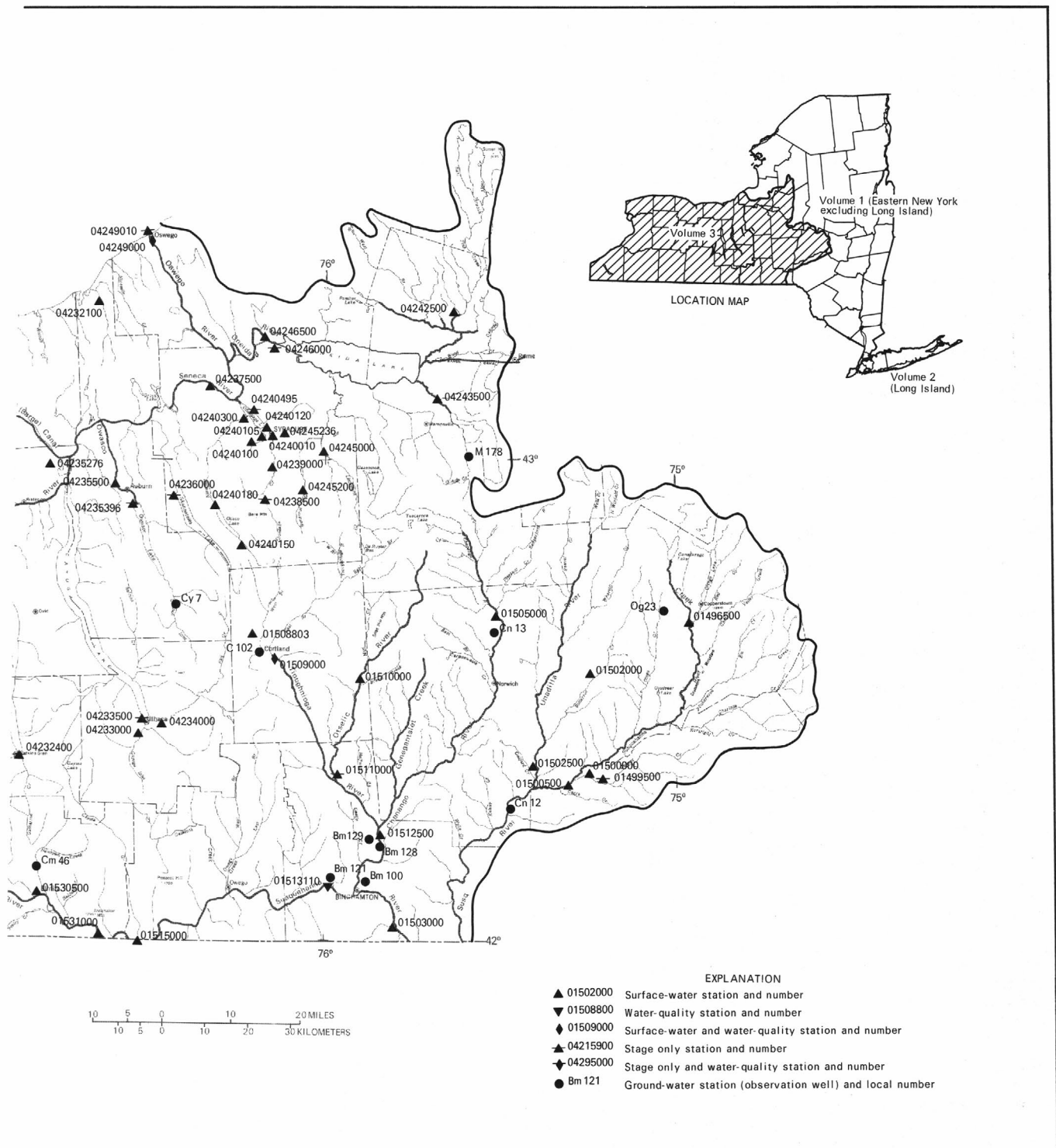


FIGURE 1 --LOCATION OF GAGING STATIONS AND



OBSERVATION WELLS IN WESTERN NEW YORK

SUMMARY OF HYDROLOGIC CONDITIONS¹

In contrast to the generally below-average precipitation and streamflow in western New York during the 1985 water year, the 1986 water year was relatively wet, and annual mean discharges were in the normal range². (See table 1.) Above-average precipitation through the summer resulted in frequent localized, sometimes destructive, floods, and kept monthly mean flows in or near the excessive range. The Great Lakes' water surface remained at the unprecedented high levels that have prevailed since 1985. This trend was a result of above-normal precipitation on the Great Lakes basin in 13 of the past 15 years. Lake Erie and Lake Ontario were near or above record-high levels. Lake Erie set several new record high monthly mean levels and reached a period-of-record instantaneous maximum elevation on December 2, 1985.

Table 1.--Comparison of annual mean discharge of the 1986 water year with average discharge for the period of record for selected streams.
(Locations are shown in figure 1.)

Station	Period of record	1986 Water year mean discharge (ft ³ /s)	Percentage of period-of-record mean discharge	
01503000	Susquehanna River at Conklin	1914-1986	3,987	111
01531000	Chemung River at Chemung	1906-13, 1915-86	2,599	102
03011020	Allegheny River at Salamanca	1904-1986	2,809	101
04213500	Cattaraugus Creek at Gowanda	1941-1986	913	123
04217000	Tonawanda Creek at Batavia	1945-1986	266	126
04221000	Genesee River at Wellsville	1956-58, 1973-86	368	92
04234000	Fall Creek near Ithaca	1926-1986	180	97
04242500	East Branch Fish Creek at Taberg	1924-1986	639	118

Frequent showers through October kept discharges of most streams in western New York within the normal range, but flows in the upper Susquehanna and eastern Oswego River basins were in the excessive range after Hurricane Gloria dropped 3 to 4 inches of rain at the end of September and as a result of intermittent showers during the latter half of October. At the other extreme, the upper Genesee River basin had deficient flows for the seventh consecutive month.

November's weather was characterized by intermittent moderate to heavy precipitation that resulted in New York State's second wettest November on record. Precipitation stations in western New York reported measurable precipitation on 13 consecutive days during the first half of the month. This above-average precipitation resulted in generally excessive flows in most streams in the area, and some stations in the far western part of the State recorded annual peaks.

Streamflow receded into the normal range in December; rain predominated during the first half of the month, and snow predominated during the latter half. Storm-generated winds on December 2 produced a nearly 8-foot water-level rise on the east shore of Lake Erie and a corresponding increase in discharge of the Niagara River. This produced period-of-record (126 years) maximums for both Lake Erie elevation and Niagara River discharge. The high water levels and wind-generated waves caused extensive damage on the Lake Erie shore. Generally below-freezing temperatures and lake-effect snow marked the second half of the month as heavy snow accumulations were recorded at locations in the snowbelt regions adjacent to Lake Erie and Lake Ontario. Total monthly snowfalls ranged from 68 inches in Buffalo and 76 inches in Oswego to below-normal snowfall outside the snowbelt. Water levels were affected by backwater from ice formation at many streamflow-measurement stations during the second half of the month.

Weather and streamflow patterns in January were similar to those in February and March. Each began with streamflow in a general recession accompanied by below-freezing temperatures, snow accumulation, and ice formation on streams. These periods were followed by above-normal temperatures, snowmelt, and rain, which produced high runoff and annual peaks on some streams in the snowbelt regions in January and on many others in March. These rises, coupled with ice jamming, also produced local flooding during January and March. These high-flow periods were followed by more seasonable near- or below-freezing temperatures and a corresponding reduction in runoff. Streamflow during January and February was generally excessive, but fell into the normal range in March as a result of below-normal amounts of precipitation.

During April, precipitation in the form of rain and snow kept streamflows within the normal range. A mid-month storm produced the only significant runoff for the month, which resulted in moderately high peak flows on many streams. Slightly below-normal precipitation in May caused generally deficient flows in western New York. Rain and hail were the predominant precipitation forms during May and, like April, May had only one significant runoff period, which produced minor rises in most streams. Some urban flooding occurred at this time in the Buffalo area, which received 2 inches of rain in 3 hours.

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

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

Frequent showers and thunderstorms occurred during June, July, and August. All three months had above-normal precipitation, and monthly totals marked the fifth wettest June and the seventh wettest July recorded in New York. Streamflows increased from the deficient range of May into the excessive range and generally remained at this level throughout this 3-month period. (See table 2.) Localized storms with heavy rain at times produced frequent flash flooding throughout western New York, especially in the southwest corner of the State.

Table 2.--Comparison of monthly mean discharges for June, July, and August 1986 with period-of-record mean monthly discharges for selected streams.
(Locations are shown in figure 1.)

Station	Period of record used	Percentage of period-of-record mean monthly discharge			
		June	July	August	
01503000	Susquehanna River at Conklin	1914-1983	201	178	340
01531000	Chemung River at Chemung	1915-1983	216	193	165
03011020	Allegheny River at Salamanca	1904-1983	256	376	171
04213500	Cattaraugus Creek at Gowanda	1941-1983	300	427	511
04217000	Tonawanda Creek at Batavia	1945-1983	166	230	463
04221000	Genesee River at Wellsville	1956-58, 1973-83	203	224	169
04234000	Fall Creek near Ithaca	1930-1980	204	208	340
04242500	East Branch Fish Creek at Taberg	1924-1980	211	271	475

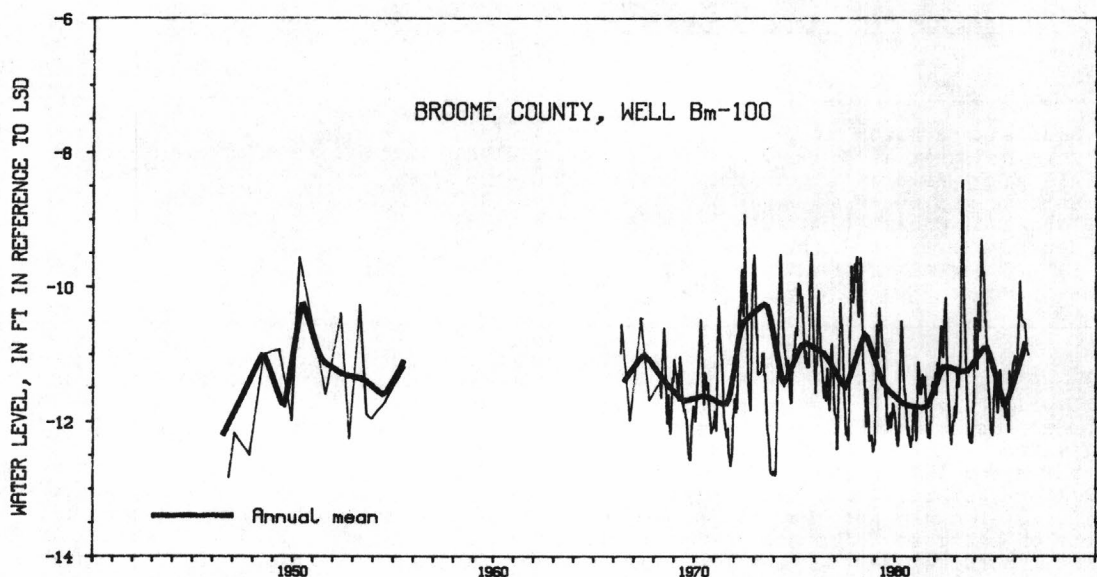
During June 11-13, 2 to 4 inches of rain fell in the southwest corner of the State and caused some flooding, primarily in low-lying areas. Some locations reported over 2 inches of rain in less than an hour, and most streamflow-measurement sites recorded monthly peak discharges at this time. On June 16, a strong line of thunderstorms with little precipitation, but high-velocity winds, damaged structures and left downed power lines and toppled trees in its wake across most counties of central and western New York. The most significant damage was in the Cortland area, where winds estimated at 70 to 90 miles per hour caused several million dollars worth of damage and left the city in a state of emergency. The next significant storm occurred on July 17-20, when 2 to 4 inches of rain fell over parts of western New York and resulted in flooding and associated damage on small streams in the Chemung River basin and in the southwest corner of the State. Chautauqua County reported damages in excess of \$5 million, which included costs of repair to nearly 50 bridges. The village of Panama suffered an estimated \$1 million worth of damage when a small dam was overtopped and floodwaters passed through the village. A third major storm occurred in western New York from July 31 to August 1. Rains of as much as 4 inches in some locations fell on already saturated ground and caused further flooding. A precipitation station at Fredonia recorded 2.50 inches of rain in an hour and a half. Hardest hit by the flooding were parts of Chautauqua and Cattaraugus Counties, where severe flash floods occurred in Fredonia, Dunkirk, Silver Creek, and Gowanda. Most of the flooding occurred on small streams and was aggravated by debris-blocked culverts. Throughout this 3-month period, receding streams were recharged by frequent showers and thunderstorms, which kept flows generally in the excessive range.

The first 3 weeks of September brought a break in the weather pattern and relief from the frequent storms of the preceding summer. Streams were in a general recession through this period, but three large storms passed through the area during the last week of the month and caused minor flooding in Cattaraugus and Chautauqua Counties. Flows remained in the normal range at most streamflow-measurement sites through the month.

Analysis of stream-water samples and associated discharge data collected from the five NASQAN stations in western New York indicated no significant changes in chemical or biological quality from previous years. Tonawanda Creek at Batavia, which had exhibited degraded water quality for several years in terms of elevated concentrations of fecal coliform and fecal streptococci, showed slight improvement during the 1986 water year, however. Mean concentrations of fecal coliform and fecal streptococci in samples from this stream during the 1986 water year were 220 and 127 colonies per 100 milliliters, well below the period-of-record mean concentrations of 1,200 and 1,000 colonies per 100 milliliters, respectively. Tonawanda Creek was discontinued as a NASQAN site at the end of the 1986 water year.

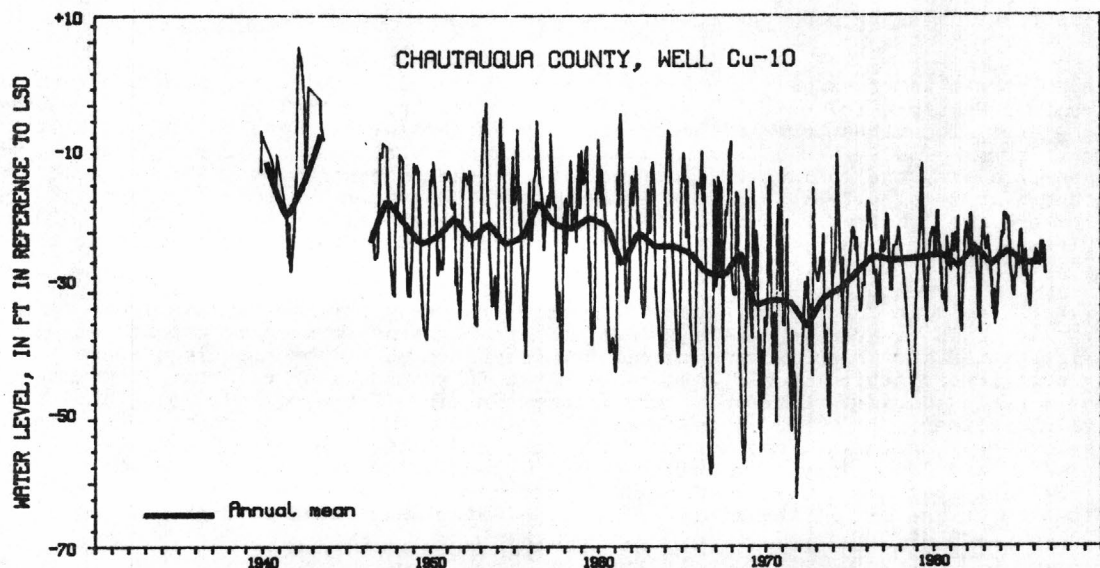
Ground-water levels in October were declining and were below the monthly average. In November, however, they rose to above-average levels in response to recharge from heavy precipitation and the cessation of vegetation growth, but during December, they receded to the monthly average. Warm weather along with precipitation in mid-January resulted in ground-water recharge, and water levels rose above the monthly average. Extremely cold weather in early February reduced recharge, however, and water levels declined. In March, a small winter snowpack and less-than-normal precipitation resulted in below-normal recharge, and water levels remained below the monthly average. Above-normal precipitation in June, July, and August raised ground-water levels to above the monthly averages. Early September was a period of gradual recession, but water levels rose in response to heavy precipitation at the end of the month. Thus, the water year ended with normal ground-water levels.

The mild drought of the 1985 water year, which was indicated by below-average ground-water levels as shown in the period-of-record hydrograph (A) for well Bm-100, was reversed during the 1986 water year. This rise in water level was a result of increased precipitation, primarily during the summer months, which recharged aquifer systems at a time when they normally would be declining. Bm-100 is located in the south-central part of the State and taps a water-table sand and gravel aquifer that probably is in hydraulic connection with the nearby Susquehanna River. In this area, fluctuation of stage in the river is moderated by Rockbottom Dam in Binghamton. The well shows relatively small annual water-level fluctuations (1.64 feet during the 1986 water year) and relatively stable long term means.



Hydrograph A --Well hydrograph for period of record

The period-of-record hydrograph (B) for well Cu-10 shows the effects of ground-water withdrawal in a confined aquifer. Cu-10 is located in a municipal well field in the southwest part of the State and taps a buried sand and gravel aquifer that is not in good hydraulic connection with the nearby Cassadaga Creek. The well shows pronounced annual fluctuations in response to pumpage. In the mid-1970's pumpage in the well field was reduced from 6.0 million gallons per day to the current rate of 4.4 million gallons per day. The response to this change has been a significant reduction in annual water-level fluctuations from over 40 feet to less than 20 feet. The annual range in water levels during the 1986 water year was 10.55 feet.



Hydrograph B --Well hydrograph for period of record

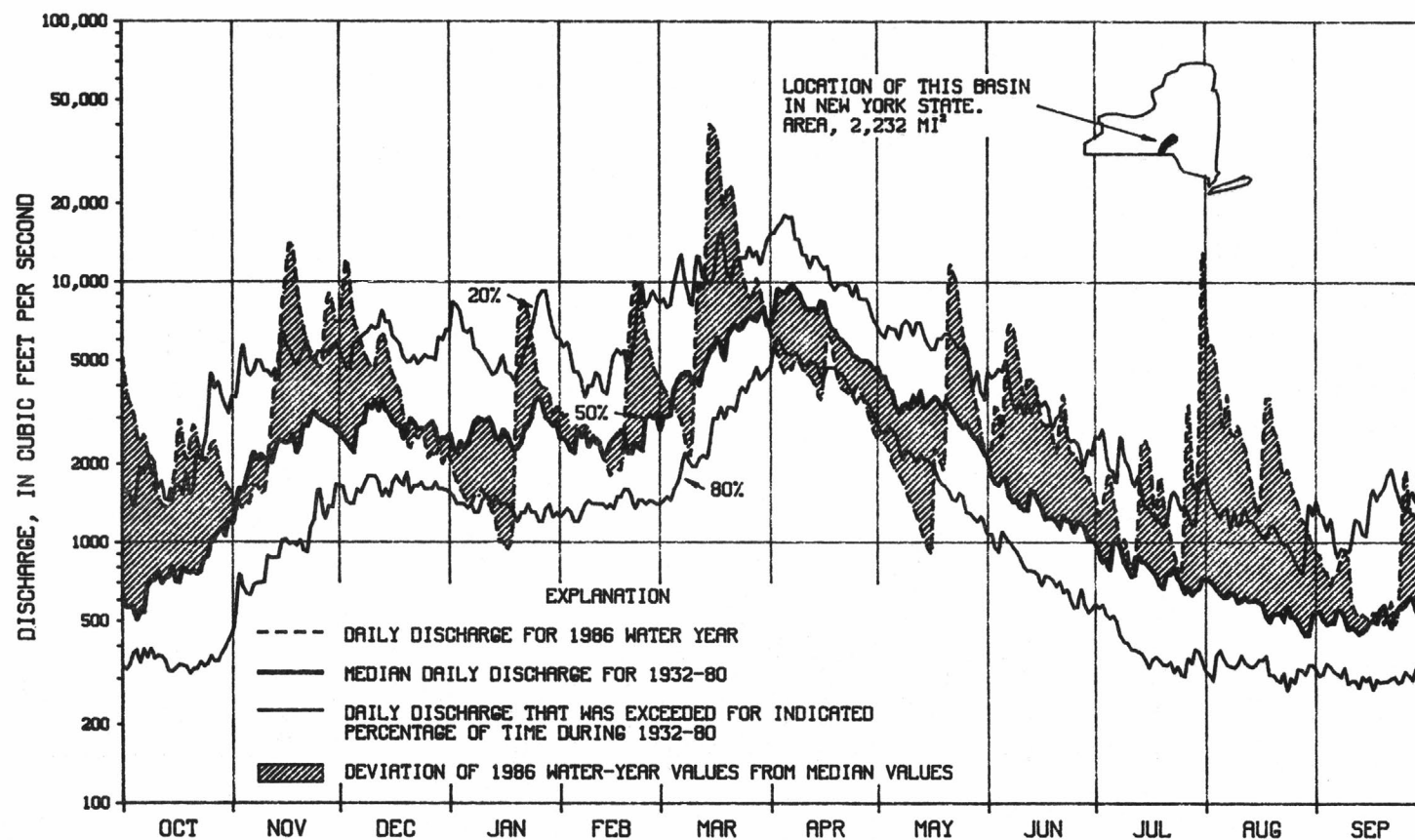


Figure 2.--Comparison of discharge at Susquehanna River at Conklin during 1986 water year with median discharge for period 1932-80.

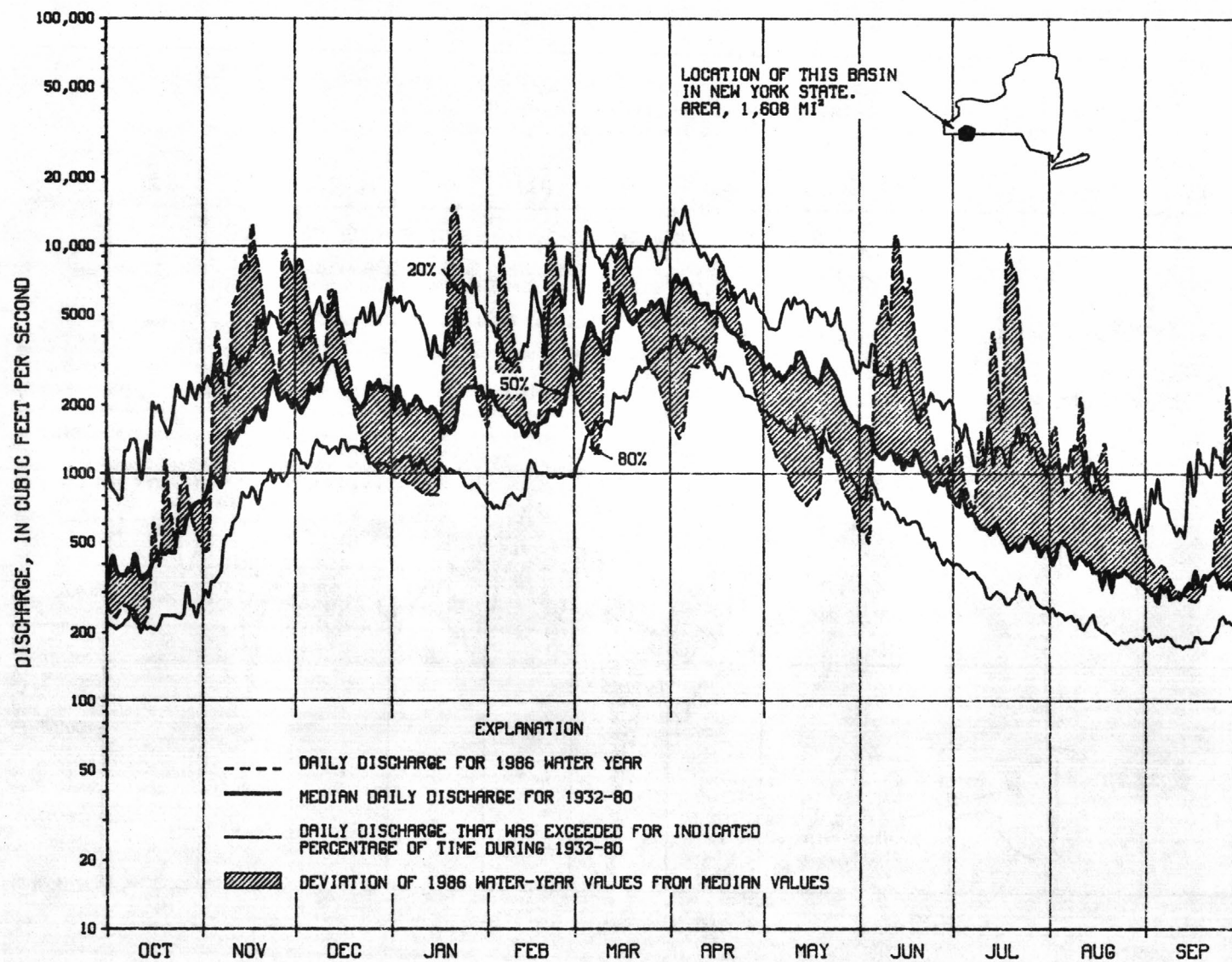


Figure 3.--Comparison of discharge at Allegheny River at Salamanca during 1986 water year with median discharge for period 1932-80.

SPECIAL NETWORKS AND PROGRAMS

National Stream Quality Accounting Network (NASQAN) is a data collection network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated into the network design. NASQAN sites are generally located at the downstream ends of hydrologic accounting units (identified by 8-digit hydrologic-unit numbers) designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of streamflow and water quality on a yearly basis in streams flowing from the United States and (2) to detect and assess long-term changes in streamflow and stream quality.

EXPLANATION OF THE RECORDS

The surface-water and ground-water data in this report are for the water year that began October 1, 1985, and ended September 30, 1986. A calendar of the water year is provided on the inside of the front cover. The data include discharge or stage of streams and canals, stage, surface area, and contents of lakes or reservoirs, surface-water quality, and ground-water levels. The locations of the stations and wells where data were collected are shown in figure 1. The following provide an explanation of how the data were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

Each surface-water station and well in this report is assigned a unique identification number. The "downstream order" system is used for surface-water stations and the "latitude-longitude" system is used for wells.

Downstream Order System

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary that enters between two main-stream stations is listed between them. A similar order is followed on listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary on which a station is situated with respect to the stream to which it is immediately tributary is indicated by an 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 4 below.

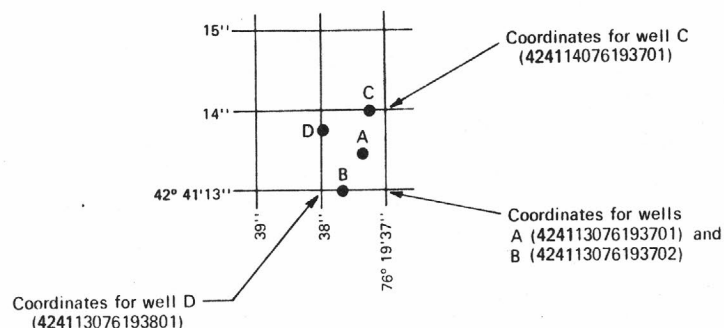


Figure 4. System for numbering wells (latitude and longitude)

Records of Stage and Water Discharge

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

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

Data Collection and Computation

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

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

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

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

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

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

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

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

Data Presentation

The records published for each gaging station consist of two parts, the station description and the data table for the current water year. The station description provides, under different headings, information such as station location; period of record; average discharge; historical extremes; record accuracy; and other remarks pertinent to station operation and regulation. Following is a list of headings for complete record stations and a discussion of the information provided under each heading.

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

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

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

REVISED RECORDS.--Published records are occasionally revised in light of new information, and revisions published in later reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years for which revisions apply. If a revision did not include daily, monthly, or annual figures of discharge, that fact is noted after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the most recently revised figure was first published is given. It should be noted that for all stations for which cubic feet per second per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

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

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

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

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

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

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

EXTREMES FOR CURRENT YEAR.--Extremes given here are similar to those for the period of record, except secondary peaks are also included. Secondary peaks are those that are less than the peak for the year but that exceed a selected base discharge. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for canals, ditches, drains, or streams for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

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

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 contents are given.

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

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

Identifying Estimated Daily Discharge

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

Accuracy of the Records

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

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

Daily mean discharges in this report are given to the nearest hundredth of a cubic foot per second for discharges of less than 1 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 measurement sites.

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

Other Records Available

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

Records of Surface-Water Quality

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

Classification of Records

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

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

Arrangement of Records

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

On-site Measurements and Sample Collection

In obtaining water-quality data, a major concern is that the data obtained represent the in situ quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen, need to be made onsite when the samples are taken. To assure that measurements made in the laboratory also represent the in situ water, carefully prescribed procedures need to be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in publications on "Techniques of Water-Resources Investigations," Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4. All of these references are listed on pp. 25-26 of this report. Also, detailed information on collecting, treating, and shipping samples may be obtained from the Geological Survey District office.

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

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

Water Temperature

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

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentrations in the cross sections. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow and in predicting long-term sediment-discharge characteristics of the stream.

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

Laboratory Measurements

Sediment samples, samples for biochemical-oxygen demand (BOD), samples for indicator bacteria, and daily samples for specific conductance are analyzed locally. All other samples are analyzed in the Geological Survey laboratories in Arvada, Colo., or Doraville, Ga. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chap. C1. Methods used by the Geological Survey laboratories are given in TWRI, Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4.

Data Presentation

For continuing-record stations, information pertinent to the history of station operation, including station location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily 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 basin to another, the accuracy of drainage areas likewise varies. Drainage areas are updated as better maps become available.

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

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

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

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

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

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

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

Remark Codes

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

<u>PRINTED OUTPUT</u>	<u>REMARK</u>
E	Estimated value
>	Actual value is known to be greater than the value shown
<	Actual value is known to be less than the value shown
K	Results based on colony count outside the acceptance range (non-ideal colony count)

Records of Ground-Water Levels

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

Data Collection and Computation

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

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

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

Data Presentation

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

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

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

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

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

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

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

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

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

The second part of the well-record is a table of water levels, reported in feet above or below land-surface datum. For wells not equipped with continuous-stage recorders, the table lists the water levels and measurement dates. For well records longer than one year, a hydrograph of ground-water level fluctuations for the past ten water years (including the current water year) is presented following the data table.

ACCESS TO WATSTORE DATA

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

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

General inquiries about WATSTORE may be directed to:

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

DEFINITION OF TERMS

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

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

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

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

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

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

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

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as the organisms which produce colonies within 24 hours when incubated at 35°C \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.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

The classification is as follows:

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

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

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

Periphyton is the assemblage of algae, fungi, and bacteria which are attached to or live upon submerged objects in lakes and rivers.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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 bed-load 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 microseimens per centimeter at 25°C . Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

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

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

Substrate is the physical surface upon which an organism lived.

Natural substrates refers to any naturally 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 planimetered. All areas shown are those for the stage when the planimetered map was made.

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

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

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

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

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

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

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

Kingdom.....Animal
Phylum.....Arthropoda
Class.....Insecta
Order.....Ephemeroptera
Family.....Ephemeridae
Genus.....Hexagenia
Species.....Hexagenia limbata

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

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

WATER RESOURCES DATA FOR NEW YORK

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

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

Total (as used in tables of chemical analyses):

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

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

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

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

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

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

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

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

- 1-D1. *Water temperature--influential factors, field measurement, and data presentation*, by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.
- 1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.
- 2-D1. *Application of surface geophysics to ground-water investigations*, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.
- 2-E1. *Application of borehole geophysics to water-resources investigations*, by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.
- 3-A1. *General field and office procedures for indirect discharge measurements*, by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.
- 3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.
- 3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.
- 3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 Pages.
- 3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.
- 3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.
- 3-A7. *Stage measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.
- 3-A8. *Discharge measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.
- 3-A9. *Measurement of time of travel and dispersion in streams by dye tracing*, by E. F. Hubbard, F. A. Kilpatrick, L. A. Martens, and J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1982. 44 pages.
- 3-A10. *Discharge ratings at gaging stations*, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A10. 1984. 59 pages.
- 3-A11. *Measurement of discharge by moving-boat method*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.
- 3-A13. *Computation of continuous records of streamflow*, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A13. 1983. 53 pages.
- 3-A14. *Use of flumes in measuring discharge*, by F. A. Kilpatrick and V. R. Schneider: USGS--TWRI Book 3, Chapter A14. 1983. 46 pages.
- 3-A15. *Computation of water-surface profiles in open channels*, by Jacob Davidian: USGS--TWRI Book 3, Chapter A15. 1984. 48 pages.
- 3-B1. *Aquifer-test design, observation, and data analysis*, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.
- 3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.
- 3-B3. *Type curves for selected problems of flow to wells in confined aquifers*, by J. E. Reed: USGS--TWRI Book 3, Chapter B3. 1980. 106 pages.

- 3-C1. *Fluvial sediment concepts* by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.
- 3-C2. *Field methods for measurement of fluvial sediment*. by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.
- 3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.
- 4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.
- 4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.
- 4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.
- 4-B2. *Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.
- 4-B3. *Regional analyses of streamflow characteristics*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.
- 4-D1. *Computation of rate and volume of stream depletion by wells* by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.
- 5-A1. *Methods for determination of inorganic substances in water and fluvial sediments* by M. W. Skougstad and others, editors: USGS--TWRI Book 5, Chapter A1. 1979. 626 pages.
- 5-A2. *Determination of minor elements in water by emission spectroscopy*, by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.
- 5-A3. *Methods for analysis of organic substances in water*, by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages.
- 5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, edited by P. E. Greenson, T. A. Ehlike, G. A. Irwin, B. W. Lium, and K. V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 pages.
- 5-A5. *Methods for determination of radioactive substances in water and fluvial sediments*, by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.
- 5-A6. *Quality assurance practices for the chemical and biological analyses of water and fluvial sediments*, by L. C. Friedman and D. E. Erdmann: USGS--TWRI Book 5, Chapter A6. 1982. 181 pages.
- 5-C1. *Laboratory theory and methods for sediment analysis*, by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.
- 7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.
- 7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water*, by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.
- 7-C3. *A model for simulation of flow in singular and interconnected channels* by R. W. Schaffranek, R. A. Baltzer, and D. E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1981. 110 pages.
- 8-A1. *Methods of measuring water levels in deep wells*, by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages.
- 8-A2. *Installation and service manual for U.S. Geological Survey manometers* by J. D. Craig: USGS--TWRI Book 8, Chapter A2. 1983. 57 pages.
- 8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.

SUSQUEHANNA RIVER BASIN

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01496500 OAKS CREEK AT INDEX, NY

LOCATION.--Lat 42°39'56", long 74°57'36", Otsego County, Hydrologic Unit 02050101, on right bank 200 ft upstream from bridge on State Highway 28 at Index, 0.5 mi upstream from mouth, and 3 mi southwest of Cooperstown.

DRAINAGE AREA.--102 mi².

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

REVISED RECORDS.--WSP 2103: Drainage area.

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

REMARKS.--Estimated daily discharges Dec. 15 to Mar. 10. Records fair. Prior to June 1964 and since October 1979 flow regulated by natural storage in Canadarago Lake. June 1964 to September 1979 flow regulated by moveable gate at Panther Mountain Dam at outlet. Satellite rain gage telemeter at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--51 years (1931-32, 1938-86), 170 ft³/s, 22.63 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,320 ft³/s Oct. 17, 1977, from rating extended above 1,700 ft³/s by logathmic plotting, gage height, 7.62 ft; minimum, 1.3 ft³/s Aug. 4, 5, 1962, gage height, 1.79 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)
Mar. 15	1900	1370	5.54	Mar. 19	2400	*2,220	*6.52

Minimum discharge, 9.6 ft³/s Sept. 23; gage height, 2.18 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	88	257	100	180	110	600	157	164	111	49	60
2	82	76	410	94	200	110	535	151	189	143	93	59
3	108	74	368	94	200	120	489	139	157	138	70	55
4	109	75	329	100	180	120	453	127	136	122	52	51
5	104	82	312	98	190	130	425	119	125	111	47	52
6	99	90	304	90	170	130	432	113	133	104	44	64
7	93	82	288	78	160	110	457	106	140	97	45	54
8	86	80	274	64	150	70	434	102	128	92	130	48
9	93	77	267	66	140	66	416	99	112	86	78	42
10	77	78	258	74	130	100	403	58	96	81	108	38
11	74	98	258	70	110	261	386	33	90	74	106	36
12	69	101	289	74	100	295	370	30	114	76	97	34
13	73	118	269	76	94	300	349	36	133	98	88	34
14	75	147	260	68	90	376	332	27	111	143	82	33
15	115	249	210	50	82	1010	316	24	102	106	76	31
16	133	202	200	56	86	876	337	25	109	94	122	34
17	104	310	190	60	94	708	336	68	151	89	217	32
18	97	274	170	74	110	708	316	56	114	86	140	35
19	102	252	120	80	140	1210	291	58	105	84	132	25
20	110	243	130	170	180	1760	276	175	222	39	116	16
21	100	234	140	230	200	1310	261	305	169	23	106	16
22	95	237	140	220	220	1150	248	316	150	22	100	14
23	93	246	140	210	200	1010	246	296	168	20	93	84
24	92	235	150	200	190	891	249	278	159	19	104	188
25	105	224	130	200	170	780	230	264	162	18	92	110
26	99	225	110	200	140	743	213	240	150	21	82	110
27	94	278	100	220	120	871	204	220	143	23	87	108
28	92	269	100	220	110	858	189	205	137	21	83	97
29	88	253	100	190	---	753	177	186	127	29	74	94
30	84	245	110	180	---	700	170	167	119	63	70	115
31	92	---	100	180	---	647	---	151	---	50	65	---
TOTAL	2904	5242	6483	3886	4136	18283	10140	4331	4115	2283	2848	1769
MEAN	93.7	175	209	125	148	590	338	140	137	73.6	91.9	59.0
MAX	133	310	410	230	220	1760	600	316	222	143	217	188
MIN	67	74	100	50	82	66	170	24	90	18	44	14
CFSM	.92	1.71	2.05	1.23	1.45	5.78	3.31	1.37	1.34	.72	.90	.58
IN.	1.06	1.91	2.36	1.42	1.51	6.67	3.70	1.58	1.50	.83	1.04	.65

CAL YR 1985	TOTAL 45780	MEAN 125	MAX 621	MIN 4.8	CFSM 1.23	IN. 16.7
WTR YR 1986	TOTAL 66420	MEAN 182	MAX 1760	MIN 14	CFSM 1.78	IN. 24.2

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

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

AVERAGE DISCHARGE.--46 years, 172 ft³/s.

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, 1.2 ft³/s Aug. 13, 14, 17, 1949, gage height, 0.32 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, 1,660 ft³/s Mar. 25 at 1030 hours and Mar. 26 at 1045 hours, gage height, 4.46 ft; minimum, 1.7 ft³/s Mar. 21, gage height, 0.68 ft (result of regulation).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	885	105	300	60	182	209	184	69	76	37	539	40
2	258	106	636	60	175	180	181	70	162	37	278	25
3	272	106	608	60	136	163	151	71	189	51	230	17
4	235	87	305	61	137	163	102	72	86	76	198	18
5	134	73	392	61	136	162	86	72	32	76	118	18
6	178	73	407	62	177	130	119	73	638	76	77	18
7	244	73	398	61	142	116	138	73	1060	76	77	18
8	206	75	340	60	103	96	137	45	701	39	77	18
9	102	75	298	60	129	89	122	31	607	9.5	78	18
10	103	75	291	60	137	114	112	31	336	9.7	79	18
11	103	75	284	60	103	786	112	31	275	8.6	80	18
12	103	188	343	42	86	607	113	20	301	7.7	80	26
13	104	287	347	31	77	506	113	13	306	36	80	40
14	106	430	257	31	65	816	112	13	259	78	53	40
15	182	689	180	31	86	20	99	13	155	77	40	40
16	220	385	190	31	97	19	80	13	137	53	66	31
17	217	874	204	46	97	421	106	13	212	38	144	17
18	120	706	172	60	100	1240	119	20	245	31	143	17
19	73	482	104	118	232	872	119	64	171	27	143	17
20	130	388	87	832	538	2.3	120	138	159	27	74	17
21	167	272	106	642	642	478	119	446	156	27	41	17
22	167	239	142	445	707	1300	119	615	92	27	41	17
23	167	240	141	371	503	1430	119	552	75	27	41	17
24	166	241	140	248	368	1460	137	349	75	27	41	17
25	165	196	131	183	319	1540	236	270	89	22	68	30
26	165	164	67	339	243	1570	265	196	112	19	82	35
27	110	388	53	317	208	1460	238	168	112	19	62	33
28	77	442	70	192	210	925	88	167	80	19	40	33
29	77	346	138	122	---	282	66	115	35	32	40	33
30	77	296	104	152	---	184	68	76	96	66	40	33
31	93	---	72	184	---	184	---	76	---	509	40	---
TOTAL	5406	8176	7307	5082	6135	17524.3	3880	3975	6969	1664.5	3190	736
MEAN	174	273	236	164	219	565	129	128	232	53.7	103	24.5
MAX	885	874	636	832	707	1570	265	615	1060	509	539	40
MIN	73	73	53	31	65	2.3	66	13	32	7.7	40	17

CAL YR 1985 TOTAL 44929.7 MEAN 123 MAX 1610 MIN 9.9
WTR YR 1986 TOTAL 70044.8 MEAN 192 MAX 1570 MIN 2.3

SUSQUEHANNA RIVER BASIN

29

01500500 SUSQUEHANNA RIVER AT UNADILLA, NY

LOCATION.--Lat 42°19'17", long 75°19'01", Otsego County, Hydrologic Unit 02050101, on right bank 25 ft downstream from bridge on Bridge Street at Unadilla, 1.0 mi upstream from Carrs Creek, and 1.6 mi downstream from Ouleout Creek.

DRAINAGE AREA.--982 mi².

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

REVISED RECORDS.--WSP 851: 1938(M). WSP 2103: 1966(M); Drainage area.

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

REMARKS.--Estimated daily discharges: Dec. 12 to Mar. 12. Records good except those for estimated daily discharges with ice effect, which are fair. Slight regulation by upstream lakes and reservoirs. Satellite and gage height telemeters at station.

AVERAGE DISCHARGE.--48 years, 1,564 ft³/s, 21.63 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,500 ft³/s Mar. 14, 1977, gage height, 14.64 ft; minimum, 39 ft³/s Oct. 17, 1964, gage height, 1.38 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Mar. 18, 1936, reached a stage of 16.6 ft, from floodmarks, discharge, 31,300 ft³/s, from publications of the Corps of Engineers, Baltimore District.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 11,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Mar. 16	0130	*19,000	*13.18	Mar. 20	1900	12,600	10.81

Minimum discharge, 160 ft³/s Sept. 22, gage height, 1.94 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1650	671	2770	720	1500	1600	3390	1080	944	662	1480	393
2	1190	641	4720	720	1500	1600	3000	1130	1690	662	1400	368
3	1220	610	5150	720	1300	1400	2700	1050	1720	991	1570	342
4	1030	576	3560	680	1300	1300	2410	954	1070	784	1180	331
5	901	572	3160	660	1400	1200	2240	884	881	931	838	302
6	1410	696	2940	680	1600	1200	2170	825	1700	501	677	412
7	1150	716	2700	660	1400	1100	2410	778	3430	493	686	460
8	931	664	2430	700	1100	780	2420	723	2680	563	910	597
9	736	626	2230	760	1200	1000	2170	660	2380	356	1150	263
10	692	613	2120	840	1200	1100	2030	636	1790	397	972	203
11	657	863	1980	700	1000	3400	2020	563	1360	380	1030	182
12	607	1150	2500	680	880	4000	1900	521	1520	567	821	249
13	673	1580	2500	580	860	3680	1800	468	1830	564	653	205
14	748	2370	2200	560	780	5740	1660	433	1700	1060	564	229
15	840	4370	1900	520	840	14500	1550	401	1380	957	505	283
16	1330	3800	1800	620	860	17300	1680	400	1180	605	1020	283
17	1100	5800	1700	720	820	11600	2040	654	1340	496	1280	212
18	849	5040	1500	760	900	8580	1850	678	1300	461	1380	185
19	806	3910	980	880	1300	8540	1650	579	1020	468	1120	194
20	1190	3320	700	2700	2500	11500	1540	991	1540	420	1320	387
21	1060	2830	720	3500	3200	10800	1530	2030	1950	391	1010	196
22	1010	2490	900	3000	4100	7950	1390	3460	1420	337	801	167
23	901	2490	1300	2900	3600	6770	1280	3950	1190	317	681	254
24	864	2320	1200	2000	2800	6090	1480	3250	1210	293	683	576
25	1070	2040	1200	1800	2600	5540	1740	2750	1140	271	668	809
26	1140	1940	960	2200	2100	5290	1570	2230	1130	262	604	491
27	922	3000	880	2200	1800	5530	1470	1880	1030	460	559	602
28	793	3230	900	1700	1900	5580	1250	1650	944	421	533	554
29	734	2790	940	1500	---	4590	1150	1280	858	408	492	419
30	701	2520	900	1600	---	4000	1120	1090	741	824	440	448
31	690	---	800	1600	---	3620	---	931	---	2480	418	---
TOTAL	29595	64238	60240	39860	46340	166880	56610	38909	44068	18782	27445	10596
MEAN	955	2141	1943	1286	1655	5383	1887	1255	1469	606	885	353
MAX	1650	5800	5150	3500	4100	17300	3390	3950	3430	2480	1570	809
MIN	607	572	700	520	780	780	1120	400	741	262	418	167
CFSM	.97	2.18	1.98	1.31	1.69	5.48	1.92	1.28	1.50	.62	.90	.36
IN.	1.12	2.43	2.28	1.51	1.76	6.32	2.14	1.47	1.67	.71	1.04	.40

CAL YR 1985 TOTAL 425312 MEAN 1165 MAX 8280 MIN 93 CFSM 1.19 IN. 16.1
WTR YR 1986 TOTAL 603563 MEAN 1654 MAX 17300 MIN 167 CFSM 1.68 IN. 22.9

SUSQUEHANNA RIVER BASIN

01502000 BUTTERNUT CREEK AT MORRIS, NY

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

DRAINAGE AREA.--59.7 mi².

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

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

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

REMARKS.--Estimated daily discharges Dec. 15 to Jan. 1, Jan. 3-6, 10, 12-14, Jan. 22 to Feb. 19 and Feb. 26 to Mar. 7. Records good except those for estimated daily discharges with ice effect, which are fair. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--48 years, 99.7 ft³/s, 22.68 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,980 ft³/s Oct. 17, 1977, gage height, 9.44 ft; minimum daily, 1.3 ft³/s Sept. 24, 1939.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Mar. 15	1000	*2,080	*8.06	Mar. 19	2030	1,840	7.56

Minimum discharge, 12 ft³/s Sept. 19-20; gage height, 1.66 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	106	52	238	54	76	130	160	65	107	37	166	35
2	137	49	561	50	78	120	140	69	150	55	272	33
3	110	47	351	50	80	110	125	64	102	53	189	31
4	93	45	268	48	82	110	114	58	83	42	137	30
5	84	55	229	46	94	100	115	54	78	36	103	32
6	75	60	207	44	92	96	124	52	90	32	93	39
7	66	51	181	41	86	94	144	51	100	30	101	32
8	56	48	164	40	80	89	122	49	93	28	231	29
9	50	45	152	39	74	96	110	49	79	27	133	32
10	51	48	141	38	72	103	109	47	71	24	107	20
11	53	74	150	38	70	307	108	44	69	21	98	17
12	46	72	208	37	64	271	101	42	75	27	82	18
13	51	111	172	36	62	260	93	39	91	41	71	18
14	56	203	160	32	60	529	85	37	77	121	64	18
15	120	417	130	31	56	1860	80	34	68	51	60	17
16	121	282	130	30	56	972	123	35	64	43	156	17
17	84	503	120	31	54	521	130	52	72	37	104	14
18	81	313	110	35	58	471	100	43	66	36	84	16
19	108	239	92	56	80	1100	90	44	64	36	82	14
20	118	199	88	383	220	1010	86	137	165	34	69	15
21	91	161	90	341	277	415	87	453	87	32	61	18
22	82	149	86	200	292	318	85	375	60	29	57	17
23	79	159	86	150	241	277	86	275	65	22	53	28
24	80	136	86	130	209	240	98	222	60	21	56	63
25	102	127	80	110	187	210	88	181	58	19	52	25
26	84	139	60	98	150	225	77	146	50	34	46	24
27	73	234	64	92	150	359	73	124	45	34	51	34
28	67	192	64	86	140	315	69	110	43	28	48	24
29	63	165	62	84	---	240	66	95	40	32	42	20
30	57	157	60	80	---	216	69	84	37	157	40	31
31	54	---	56	78	---	186	---	76	---	206	37	---
TOTAL	2498	4532	4646	2608	3240	11350	3057	3206	2309	1425	2945	761
MEAN	80.6	151	150	84.1	116	366	102	103	77.0	46.0	95.0	25.4
MAX	137	503	561	383	292	1860	160	453	165	206	272	63
MIN	46	45	56	30	54	89	66	34	37	19	37	14
CFSM	1.35	2.53	2.51	1.41	1.94	6.13	1.71	1.73	1.29	.77	1.59	.42
IN.	1.56	2.82	2.89	1.63	2.02	7.07	1.90	2.00	1.44	.89	1.84	.47

CAL YR 1985 TOTAL 29168 MEAN 79.9 MAX 987 MIN 4.8 CFMS 1.34 IN. 18.2
WTR YR 1986 TOTAL 42577 MEAN 117 MAX 1860 MIN 14 CFMS 1.95 IN. 26.5

SUSQUEHANNA RIVER BASIN

31

01502500 UNADILLA RIVER AT ROCKDALE, NY

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

DRAINAGE AREA.--520 mi².

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

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

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

REMARKS.--Estimated daily discharges: Dec. 15 to Mar. 15. Records good except those for estimated daily discharges, which are fair. Satellite telemeter at station. National Weather Service gage-height telemeter at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--52 years (water years 1931-33, 1938-86), 840 ft³/s, 21.94 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,400 ft³/s Dec. 31, 1942, gage height, 12.98 ft; minimum daily, 27 ft³/s Sept. 20-27, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Mar. 16	0230	*13,000	*11.47	Mar. 20	1600	9,170	9.91

Minimum discharge, 122 ft³/s Sept. 20, gage height, 3.86 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	911	383	1920	420	680	800	1620	482	550	245	821	211
2	978	359	3880	400	620	740	1400	472	960	281	1370	196
3	998	341	3800	380	610	700	1230	455	827	518	1060	183
4	770	325	2410	380	580	640	1070	409	536	446	747	171
5	659	336	1890	370	600	600	1040	373	453	323	543	185
6	602	446	1630	350	700	600	1060	349	622	263	463	240
7	524	451	1410	330	800	500	1600	337	742	226	432	223
8	452	397	1240	330	600	400	1590	332	668	204	750	193
9	399	359	1140	320	560	450	1370	307	594	189	724	171
10	360	361	1070	320	500	600	1250	285	454	176	558	158
11	358	513	1120	300	460	1000	1200	264	398	159	478	146
12	334	613	1630	290	440	2000	1110	247	420	198	416	141
13	376	752	1490	290	430	2500	992	232	611	310	347	138
14	450	1210	1260	290	400	3500	885	217	612	639	300	133
15	608	2990	900	230	400	9800	807	208	460	569	268	128
16	1080	2240	940	240	390	12200	1080	217	374	363	794	130
17	745	3820	880	250	390	7780	1440	462	436	266	836	129
18	584	2990	780	260	390	4740	1130	552	463	227	819	128
19	592	2130	600	310	620	5460	910	375	357	205	686	128
20	851	1720	600	1200	1100	8510	819	514	780	194	583	125
21	709	1440	620	2800	1900	6600	779	2230	1190	189	447	130
22	596	1220	660	2400	2300	3730	812	3170	645	179	393	148
23	537	1240	620	1700	1900	2840	781	2480	505	169	348	182
24	520	1140	620	1400	1500	2380	788	1790	571	153	369	766
25	638	984	580	1200	1200	1960	727	1440	492	143	369	645
26	671	1000	500	1000	1000	1930	632	1100	437	229	313	360
27	564	1790	500	1000	900	2780	593	871	370	304	303	398
28	497	1880	490	840	860	3160	549	731	339	194	304	327
29	454	1500	460	680	---	2540	506	616	312	516	272	261
30	428	1360	450	660	---	2160	491	532	283	807	245	262
31	405	---	440	700	---	1910	---	465	---	1660	234	---
TOTAL	18650	36290	36530	21640	22830	95510	30261	22514	16461	10544	16592	6736
MEAN	602	1210	1178	698	815	3081	1009	726	549	340	535	225
MAX	1080	3820	3880	2800	2300	12200	1620	3170	1190	1660	1370	766
MIN	334	325	440	230	390	400	491	208	283	143	234	125
CFSM	1.16	2.33	2.27	1.34	1.57	5.92	1.94	1.40	1.06	.65	1.03	.43
IN.	1.33	2.60	2.61	1.55	1.63	6.83	2.16	1.61	1.18	.75	1.19	.48

CAL YR 1985 TOTAL 237800 MEAN 652 MAX 7190 MIN 50 CFSM 1.25 IN. 17.0
WTR YR 1986 TOTAL 334558 MEAN 917 MAX 12200 MIN 125 CFSM 1.76 IN. 23.9

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 National Geodetic Vertical Datum of 1929. Prior to Oct. 4, 1914, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 17 to Mar. 11. Records good except those for estimated daily discharges, which are fair. Minor regulation by upstream lakes and reservoirs. Satellite telemeter at station. National Weather Service gage height telemeter at station.

AVERAGE DISCHARGE.--73 years (water years 1914-86), 3,594 ft³/s, 21.87 in/yr.

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)
Mar. 15	1100	*44,400	*17.10	No other peak greater than base discharge.			

Minimum discharge, 441 ft³/s Sept. 21, gage height, 2.20 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5100	1520	7000	2100	3300	4200	6370	2480	2250	1500	7790	909
2	4010	1470	9470	1900	3000	3900	5790	2460	2270	1270	5830	893
3	3430	1400	12200	1700	3100	3700	5200	2400	3320	1360	5660	784
4	3190	1340	9890	1600	3300	3400	4750	2290	3240	1650	4730	768
5	2700	1360	7300	1500	3000	3300	4410	2030	2520	1820	3550	686
6	2370	1430	6480	1400	3200	3100	4510	1890	5040	1470	2780	759
7	2580	1650	5900	1400	3600	2900	4660	1810	6880	1230	3670	780
8	2290	1660	5360	1500	2800	2500	5120	1710	6870	943	2640	874
9	1940	1550	4930	1500	2700	2200	4920	1570	5670	1030	2570	919
10	1640	1530	4630	1600	2600	2500	4610	1450	4560	908	2810	862
11	1510	2030	4680	1500	2400	6200	4400	1360	3680	792	2510	579
12	1400	2850	5850	1400	2300	10200	4350	1250	4220	867	2310	542
13	1360	4080	6370	1300	2100	9420	4130	1140	4240	1220	1990	507
14	1470	5020	5890	1200	2000	14900	3820	1030	4150	2480	1640	532
15	1690	8000	5080	1000	1800	40300	3530	948	3580	2470	1400	516
16	1990	10300	4390	1000	1900	38700	4460	898	2910	2290	1290	502
17	2940	14000	4100	920	1900	35900	6340	2290	2800	1580	2140	541
18	2470	13800	3800	980	1900	25000	5980	2150	2840	1230	3590	539
19	2080	10300	3100	1500	2700	19400	4910	1980	2590	1810	3580	517
20	2340	7900	2500	5600	5200	23300	4210	2400	2210	1490	2730	488
21	2810	6680	2300	8100	8000	23400	3890	9460	2860	1240	2550	510
22	2500	5750	2600	8500	10000	19100	3810	11200	3690	1060	2130	592
23	2220	5360	2500	7600	9600	13100	3710	10200	2740	916	1780	491
24	2050	5150	2600	6200	7600	10900	3610	8210	2200	795	1910	557
25	2130	4710	2500	5100	6400	9560	4000	6420	2200	727	1690	1090
26	2380	4730	2100	4100	5600	8680	3920	5370	2050	1440	1520	1910
27	2440	7190	2200	3900	4800	8890	3540	4410	1990	3390	1370	1460
28	2140	8990	2100	3900	4400	10300	3260	3720	1790	2020	1220	1280
29	1830	8180	2300	3700	---	9550	2900	3240	1770	1530	1190	1320
30	1690	7000	2000	3100	---	7880	2640	2650	1570	2550	1080	1070
31	1600	---	2200	3300	---	6960	---	2280	---	12300	973	---
TOTAL	72290	156930	144320	90100	111200	383340	131750	102696	98700	57378	82623	23777
MEAN	2332	5231	4655	2906	3971	12370	4392	3313	3290	1851	2665	793
MAX	5100	14000	12200	8500	10000	40300	6370	11200	6880	12300	7790	1910
MIN	1360	1340	2000	920	1800	2200	2640	898	1570	727	973	488
CFSM	1.04	2.34	2.09	1.30	1.78	5.54	1.97	1.48	1.47	.83	1.19	.36
IN.	1.20	2.62	2.41	1.50	1.85	6.39	2.20	1.71	1.64	.96	1.38	.40

CAL YR 1985 TOTAL 971731 MEAN 2662 MAX 18700 MIN 234 CFSM 1.19 IN. 16.2
WTR YR 1986 TOTAL 1455100 MEAN 3987 MAX 40300 MIN 488 CFSM 1.79 IN. 24.3

01505000 CHENANGO RIVER AT SHERBURNE, NY

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

DRAINAGE AREA.--263 mi².

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

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

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

REMARKS.--Estimated daily discharges: Dec. 16 to Mar. 10 and Aug. 12-18. Records good except those for estimated daily discharges, which are fair. Flow from 82 mi² of drainage area formerly may have been diverted into Mohawk River basin through abandoned Chenango Canal; no diversion from this cause known during period of record. National Weather Service gage height telemeter at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--48 years, 402 ft³/s, 20.76 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,400 ft³/s Mar. 6, 1979, gage height, 9.94 ft; maximum gage height, 9.99 ft Dec. 30, 1942 (ice jam); minimum discharge, 12 ft³/s Sept. 25, 1964; minimum gage height, 1.52 ft Sept. 19, 1963.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Mar. 15	1900	*7,070	*b9.88	Mar. 19	2130	3,940	b8.62

b Backwater from debris.

Minimum discharge, 66 ft³/s Sept. 19-20, gage height, 1.91 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	247	128	684	200	310	390	596	248	220	111	338	144
2	222	127	1570	200	300	360	543	258	370	205	456	140
3	172	122	1090	190	300	340	494	243	259	269	456	126
4	145	120	857	190	290	340	462	224	206	213	347	115
5	134	139	728	190	300	330	459	215	179	167	277	113
6	131	176	631	180	330	320	574	183	193	133	225	135
7	117	160	557	150	290	270	830	173	189	115	195	113
8	108	152	515	160	300	190	731	158	204	119	411	103
9	101	146	488	160	290	280	660	152	179	108	324	97
10	98	161	460	170	260	300	622	143	148	98	281	93
11	96	217	485	160	220	1010	594	136	142	88	268	90
12	96	211	659	160	220	928	566	130	171	99	250	86
13	109	237	575	150	220	972	529	123	303	154	235	83
14	129	348	537	140	220	1810	478	121	243	256	220	77
15	186	681	481	150	210	5650	443	115	187	203	210	74
16	226	524	440	160	210	4840	707	122	167	164	600	77
17	188	1100	370	160	200	3080	779	406	199	132	500	77
18	166	739	380	150	220	2330	635	231	166	114	390	72
19	177	609	350	190	270	2800	561	267	145	104	546	69
20	213	532	330	890	610	3110	515	421	422	100	351	68
21	188	448	320	1000	820	1990	493	1290	321	102	289	72
22	172	397	300	840	770	1500	475	1020	243	97	248	74
23	159	425	300	760	710	1240	425	817	216	91	220	348
24	155	381	290	550	640	1050	390	676	199	85	260	487
25	186	338	280	570	530	876	360	551	188	82	237	296
26	177	355	240	500	420	884	333	447	161	88	203	262
27	162	605	240	460	410	1090	318	373	141	122	212	260
28	152	545	240	380	420	1050	293	318	134	125	203	196
29	143	493	230	360	---	891	263	256	126	112	176	172
30	138	480	230	340	---	781	262	224	119	293	162	258
31	134	---	210	330	---	675	---	201	---	301	152	---
TOTAL	4827	11096	15067	10190	10290	41677	15390	10242	6140	4450	9242	4377
MEAN	156	370	486	329	367	1344	513	330	205	144	298	146
MAX	247	1100	1570	1000	820	5650	830	1290	422	301	600	487
MIN	96	120	210	140	200	190	262	115	119	82	152	68
CFSM	.59	1.41	1.85	1.25	1.40	5.11	1.95	1.26	.78	.55	1.13	.55
IN.	.68	1.57	2.13	1.44	1.46	5.89	2.18	1.45	.87	.63	1.31	.62

CAL YR 1985 TOTAL 99163 MEAN 272 MAX 2240 MIN 19 CFSM 1.03 IN. 14.0
WTR YR 1986 TOTAL 142988 MEAN 392 MAX 5650 MIN 68 CFSM 1.49 IN. 20.2

SUSQUEHANNA RIVER BASIN

01508803 WEST BRANCH TIOUGHNIOGA RIVER AT HOMER, N.Y.

LOCATION.--Lat 42°38'18", long 76°10'36", Cortland County, Hydrologic Unit 02050102, on left bank at downstream side of bridge on Wall Street at Homer and 3.4 mi upstream from confluence with East Branch.

DRAINAGE AREA.--71.5 mi².

PERIOD OF RECORD.--November 1966 to September 1968, October 1972 to September, 1986 (discontinued as a continuous-record station; converted to a crest-stage partial-record station).

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

GAGE.--Water-stage recorder. Datum of gage is 1,114.81 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1968, water-stage recorder at bridge on Water Street 500 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Dec. 15 to Jan. 18, Jan. 28 to Feb. 1, Feb. 3, 7-18, Feb. 26 to Mar. 3, and Mar. 7-10. Records good except those for estimated daily discharges with ice effect, which are fair. Slight diversion from Gate House Pond 13 mi upstream from station into Onondaga Creek basin (St. Lawrence River basin) for manufacturing purposes by Linden Chlorine Process Co. Satellite rain gage telemeter at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--15 years (water years 1968, 1973-86), 128 ft³/s, 24.31 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,710 ft³/s Oct. 28, 1981, gage height, 8.74 ft; minimum, 8.8 ft³/s Sept. 26, 1985, gage height, 1.00 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 650 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Mar. 15	0900	*1,380	*6.48	Mar. 19	2030	863	5.25

Minimum discharge, 9.3 ft³/s Oct. 14, gage height, 1.01 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	32	158	72	100	130	172	108	102	43	141	51
2	22	32	236	70	110	120	156	104	102	59	159	50
3	19	31	191	70	100	120	147	99	87	58	134	47
4	17	32	168	68	103	119	138	96	81	53	106	45
5	18	40	156	66	118	115	135	92	78	49	91	45
6	17	41	149	62	112	114	146	90	79	47	82	45
7	16	39	140	62	98	100	159	88	77	49	89	43
8	14	42	132	60	94	92	158	84	89	54	140	41
9	13	38	126	60	96	98	157	81	80	47	102	40
10	14	63	121	60	90	100	165	77	73	44	91	39
11	16	62	133	62	88	251	162	76	72	42	89	38
12	16	58	161	62	84	199	163	72	80	48	78	38
13	20	102	142	62	82	271	163	70	102	60	71	38
14	18	116	137	56	78	496	159	68	84	68	67	37
15	21	169	120	56	78	1220	168	66	77	59	66	36
16	37	135	120	56	80	840	310	70	76	53	232	37
17	62	248	110	54	76	604	355	95	79	50	183	36
18	74	169	100	56	76	500	288	92	71	49	155	35
19	79	144	92	78	90	655	246	93	70	69	127	36
20	72	130	94	275	144	633	220	136	109	57	106	41
21	55	116	94	311	202	444	204	288	81	53	102	42
22	27	111	92	226	209	369	186	234	75	49	87	36
23	18	111	92	204	189	328	169	201	84	46	82	58
24	22	102	90	169	177	291	156	171	74	42	83	62
25	33	95	86	157	169	259	145	147	71	45	73	57
26	34	114	82	157	150	250	137	129	66	45	68	49
27	31	183	82	152	140	269	129	120	66	45	74	61
28	31	151	78	120	140	257	122	105	68	42	67	55
29	30	139	76	120	---	230	117	94	64	39	55	53
30	40	135	74	110	---	213	113	87	49	84	52	76
31	35	---	74	110	---	194	---	83	---	150	51	---
TOTAL	942	2980	3706	3303	3273	9881	5245	3416	2366	1698	3103	1367
MEAN	30.4	99.3	120	107	117	319	175	110	78.9	54.8	100	45.6
MAX	79	248	236	311	209	1220	355	288	109	150	232	76
MIN	13	31	74	54	76	92	113	66	49	39	51	35
CFSM	.42	1.39	1.67	1.49	1.63	4.46	2.45	1.54	1.10	.77	1.40	.64
IN.	.49	1.55	1.93	1.72	1.70	5.14	2.73	1.78	1.23	.88	1.61	.71

CAL YR 1985 TOTAL 34859 MEAN 95.5 MAX 654 MIN 10 CFSM 1.34 IN. 18.1
WTR YR 1986 TOTAL 41280 MEAN 113 MAX 1220 MIN 13 CFSM 1.58 IN. 21.5

01509000 TIOUGHNIOGA RIVER AT CORTLAND, NY

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

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

WATER-DISCHARGE RECORDS

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

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

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

REMARKS.--Estimated daily discharges: Dec. 15-24, Dec. 26 to Jan. 17, Jan. 24 to Feb. 18, Feb. 25 to Mar. 3, and Mar. 7-9. Records good except those for estimated daily discharges with ice effect, which are fair. Diurnal fluctuation at low and medium flow caused by powerplants in mills on West Branch. Slight diversion from East Branch for operation of Erie (Barge) Canal. Slight diversion from Gate House Pond on West Branch 17 mi upstream from station into Onondaga Creek basin (St. Lawrence River basin) for manufacturing purposes by Linden Chlorine Process Co. Gage height telemeter at station.

AVERAGE DISCHARGE.--48 years (water years 1939-86), 496 ft³/s, 23.07 in/yr.

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 (present datum) Apr. 5, 1950; minimum discharge, 9.8 ft³/s Sept. 20, 1939, Sept. 29, 1959; minimum daily, 17 ft³/s Sept. 26, 27, 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)
Mar. 15	2100	*8,900	*11.01	No other peak greater than base discharge.			

Minimum discharge, 66 ft³/s; gage height, 2.60 ft Oct. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	139	134	702	250	410	450	667	324	377	164	482	186
2	129	128	1290	240	380	420	584	313	484	223	742	176
3	128	123	1120	240	380	410	532	296	375	276	633	164
4	108	123	857	240	390	399	487	281	311	239	540	157
5	99	140	724	230	432	383	480	268	281	191	397	154
6	99	188	647	220	436	377	522	256	289	166	333	162
7	91	177	579	210	360	330	682	247	289	158	317	153
8	84	182	529	210	350	250	631	231	322	172	582	142
9	77	176	495	200	360	320	598	221	299	151	436	135
10	75	236	470	200	320	349	615	209	257	137	362	129
11	72	354	517	200	310	1150	615	199	235	131	351	127
12	73	350	710	200	280	1080	614	190	269	148	313	125
13	81	444	626	200	270	1110	621	182	396	213	279	116
14	95	658	514	180	260	2150	578	175	341	305	254	110
15	101	1230	450	180	260	6200	551	170	292	261	237	106
16	205	977	450	190	270	6090	1040	185	277	192	1040	114
17	209	1590	440	180	260	3080	1430	802	292	163	893	119
18	202	1310	410	189	258	2090	1090	469	259	145	577	114
19	212	936	350	288	373	2440	871	530	240	221	659	111
20	291	744	360	1320	684	3410	753	603	403	178	519	114
21	236	610	340	1820	1010	2080	686	1470	346	160	421	117
22	184	534	330	1340	1030	1440	627	1670	287	146	370	108
23	157	528	330	1020	878	1210	557	1090	308	135	337	198
24	150	483	320	700	730	1030	498	778	278	128	340	372
25	215	424	320	620	620	900	453	615	250	124	319	241
26	220	453	300	600	540	917	415	515	222	131	287	182
27	185	906	300	540	490	1130	400	444	208	150	300	258
28	159	815	290	450	500	1140	372	385	210	130	283	219
29	153	666	280	450	---	972	348	337	204	125	234	190
30	152	611	270	460	---	882	341	305	188	238	210	322
31	142	---	270	430	---	775	---	279	---	436	197	---
TOTAL	4523	16230	15590	13797	12841	44964	18658	14039	8789	5737	13244	4921
MEAN	146	541	503	445	459	1450	622	453	293	185	427	164
MAX	291	1590	1290	1820	1030	6200	1430	1670	484	436	1040	372
MIN	72	123	270	180	258	250	341	170	188	124	197	106
CFSM	.50	1.85	1.72	1.52	1.57	4.97	2.13	1.55	1.00	.63	1.46	.56
IN.	.58	2.07	1.99	1.76	1.64	5.73	2.38	1.79	1.12	.73	1.69	.63

CAL YR 1985 TOTAL 137895 MEAN 378 MAX 3180 MIN 41 CFSM 1.29 IN. 17.6
WTR YR 1986 TOTAL 173333 MEAN 475 MAX 6200 MIN 72 CFSM 1.63 IN. 22.1

SUSQUEHANNA RIVER BASIN

01509000 TIOUGHNIAGA RIVER AT CORTLAND, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957 to current year.

CHEMICAL DATA: 1957 (e), 1970, 1972 (a).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1956 to September 1957, once-daily measurements, unpublished.

pH: October 1956 to September 1957, once-daily measurements, unpublished.

WATER TEMPERATURES: October 1956 to current year.

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

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

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

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum daily, 19.0°C Aug. 18; minimum daily, 0.5° C Jan. 29, Feb. 27, 28.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

(ONCE DAILY AT 0900)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.0	7.5	3.5	4.0	3.0	2.5	7.5	12.0	16.0	12.5	15.0	14.0
2	13.0	8.0	6.0	3.5	3.0	2.5	7.5	9.5	15.0	12.0	15.5	14.0
3	11.5	9.0	4.0	4.0	3.0	2.5	8.0	7.5	13.0	12.0	16.0	13.5
4	13.0	9.0	2.0	4.0	3.0	3.0	7.0	7.5	13.0	12.0	16.0	14.0
5	13.5	8.5	3.0	3.5	3.0	3.0	8.5	11.5	14.5	14.5	15.5	15.0
6	11.0	8.5	3.0	3.0	1.5	3.5	7.0	12.0	14.0	15.0	15.5	14.5
7	11.0	9.0	3.0	2.0	2.0	1.0	7.0	13.0	14.5	16.5	15.5	14.5
8	11.0	8.0	3.5	2.0	2.0	2.5	8.5	12.0	16.5	16.0	16.0	11.0
9	10.5	9.0	5.5	2.0	2.5	2.5	8.0	12.0	14.5	16.0	17.5	12.5
10	11.0	9.0	5.0	3.5	3.0	2.5	6.5	11.5	13.0	16.0	16.0	12.5
11	12.0	9.0	5.0	4.5	3.0	2.5	7.0	11.5	13.0	14.0	16.5	15.0
12	9.5	7.5	5.0	4.5	2.5	1.5	5.5	12.5	14.5	15.0	15.0	15.0
13	10.0	8.0	4.0	4.0	2.0	1.5	6.0	13.0	14.0	16.0	14.5	14.5
14	13.0	8.0	3.5	3.5	2.0	1.5	6.5	12.5	14.5	15.5	14.0	14.0
15	13.5	6.5	3.0	2.0	2.5	1.0	8.0	12.0	14.5	14.5	15.5	13.0
16	11.5	6.5	3.0	3.0	2.5	2.0	6.5	13.0	14.5	15.0	17.5	12.5
17	9.5	6.5	2.5	4.0	2.0	1.5	6.0	13.0	14.0	15.0	15.5	12.5
18	10.0	7.0	1.5	4.5	4.5	3.0	8.0	13.0	14.0	15.5	19.0	12.0
19	10.5	7.5	1.0	4.5	4.5	3.5	9.0	13.0	13.5	16.0	18.5	12.5
20	11.0	9.0	1.0	4.0	3.0	3.0	9.0	13.0	14.0	16.5	18.5	13.0
21	9.0	7.5	1.5	3.5	4.0	2.5	8.0	13.0	14.0	16.0	18.0	13.0
22	9.5	8.0	1.0	3.0	3.5	2.5	7.5	13.0	14.0	14.0	18.0	13.0
23	10.0	5.5	3.0	3.0	3.5	2.5	7.0	13.0	14.0	14.5	16.0	13.5
24	11.0	5.5	3.5	1.0	3.5	3.0	7.0	13.5	11.5	14.5	16.0	14.5
25	11.0	4.5	3.5	1.0	1.5	3.0	7.5	14.0	14.0	15.0	14.0	14.0
26	9.0	4.5	1.0	1.5	1.5	7.5	10.0	15.0	13.0	15.5	14.5	14.0
27	9.0	4.5	1.0	2.0	.5	8.0	10.5	15.0	15.0	16.5	16.0	14.0
28	9.0	3.0	2.0	1.5	.5	5.0	10.5	15.0	16.0	15.0	15.0	14.5
29	8.5	4.0	1.5	.5	---	7.0	10.5	15.5	16.0	16.0	13.0	15.0
30	7.5	4.0	3.0	1.0	---	7.0	12.0	15.5	15.0	16.0	12.0	14.5
31	7.5	---	3.0	1.0	---	7.5	---	16.5	---	16.5	13.0	---
MEAN	10.5	7.0	3.0	3.0	2.5	3.5	8.0	12.5	14.0	15.0	16.0	13.5
MAX	13.5	9.0	6.0	4.5	4.5	8.0	12.0	16.5	16.5	16.5	19.0	15.0
MIN	7.5	3.0	1.0	.5	.5	1.0	5.5	7.5	11.5	12.0	12.0	11.0
WTR YR 1986	MEAN	9.0		MAX	19.0		MIN	.5				

SUSQUEHANNA RIVER BASIN

37

01510000 OTSELIC RIVER AT CINCINNATUS, NY

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

DRAINAGE AREA.--147 mi².

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

REVISED RECORDS.--WSP 2103: Drainage area.

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

REMARKS.--Estimated daily discharges: Dec. 14 to Jan. 20, Jan. 23 to Feb. 3, Feb. 6-17, Feb. 24 to Mar. 4, Mar. 6-9, and 15. Records fair except those for estimated daily discharges with ice effect, which are poor. Gage height and satellite telemeters at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--43 years (water years 1939-64, 1970-86), 266 ft³/s, 24.57 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,390 ft³/s Dec. 30, 1942; maximum gage height, 10.68 ft Apr. 4, 1950; minimum discharge, 3.8 ft³/s Sept. 25, 1939; minimum gage height, 0.11 ft Aug. 24, 28, 29, Sept. 25, 1985.

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

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Mar. 15	1400	*6,010	*9.22	Mar. 20	0030	3,240	6.32

Minimum discharge, 24 ft³/s July 26, gage height, 0.48 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95	85	657	94	120	200	370	110	127	75	399	67
2	103	80	1280	86	140	160	308	100	226	108	583	63
3	92	76	798	88	140	170	259	93	133	108	810	62
4	77	72	623	86	140	160	225	89	106	85	412	58
5	82	83	532	84	191	160	215	86	98	72	276	60
6	89	112	475	80	180	150	259	84	105	63	205	73
7	69	97	408	70	120	120	350	78	106	57	192	61
8	56	97	367	68	120	100	307	75	111	58	417	54
9	51	91	332	70	120	130	272	72	106	51	254	50
10	49	119	303	74	100	180	271	68	91	45	195	46
11	50	214	354	70	92	679	260	66	88	42	241	44
12	47	210	550	68	94	564	259	63	95	49	173	43
13	65	411	422	66	88	760	253	60	199	72	134	42
14	77	666	360	52	84	1560	228	57	142	86	114	41
15	180	1010	270	56	88	4800	210	54	110	64	107	41
16	217	777	290	56	86	2940	513	57	102	50	513	42
17	140	1300	250	56	88	1470	627	259	122	42	356	42
18	116	814	220	60	125	1240	461	136	99	39	244	40
19	190	644	170	96	171	2150	386	104	93	39	381	39
20	249	547	170	820	456	2380	336	192	270	38	221	39
21	175	456	160	819	641	918	300	839	159	37	173	39
22	150	397	150	601	585	655	311	614	122	33	146	38
23	134	404	160	480	481	603	242	415	134	30	126	156
24	130	344	160	230	380	521	199	290	118	28	130	251
25	199	287	140	200	310	431	177	227	108	26	113	115
26	169	378	110	180	250	474	162	184	96	25	96	92
27	140	744	120	170	230	682	152	154	88	31	109	136
28	121	568	120	160	230	711	134	134	89	33	102	99
29	106	489	110	110	---	580	126	117	84	31	85	93
30	99	462	100	110	---	537	115	105	88	82	78	231
31	93	---	100	110	---	476	---	95	---	252	72	---
TOTAL	3610	12034	10261	5370	5850	26661	8287	5077	3615	1851	7457	2257
MEAN	116	401	331	173	209	860	276	164	120	59.7	241	75.2
MAX	249	1300	1280	820	641	4800	627	839	270	252	810	251
MIN	47	72	100	52	84	100	115	54	84	25	72	38
CFSM	.79	2.73	2.25	1.18	1.42	5.85	1.88	1.11	.82	.41	1.64	.51
IN.	.91	3.05	2.60	1.36	1.48	6.75	2.10	1.28	.91	.47	1.89	.57

CAL YR 1985 TOTAL 68253 MEAN 187 MAX 1900 MIN 8.2 CFSM 1.27 IN. 17.3
WTR YR 1986 TOTAL 92330 MEAN 253 MAX 4800 MIN 25 CFSM 1.72 IN. 23.4

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

REMARKS.--Estimated daily discharges: Dec. 14 to Mar. 10. Records good except those for estimated daily discharges, which are fair. Since March 1942, flood flows partly regulated by Whitney Point Lake (see station 01511000). Slight diversion from upstream tributaries for operation of Erie (Barge) Canal. Satellite telemeter at station. National Weather Service gage-height telemeter at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--73 years (water years 1914-86), 2,410 ft³/s.

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, 84 ft³/s Sept. 19, 25, 1939, gage height, 2.24 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)
Mar. 15	2400	*26,500	*11.26	No other peak greater than base discharge.			

Minimum discharge, 372 ft³/s Sept. 20, gage height, 2.74 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1350	852	5190	1100	1500	2000	4720	1200	1290	746	3280	590
2	1340	820	9240	1100	1400	1900	3620	1160	2010	797	4840	562
3	1390	798	8750	1100	1400	1700	2930	1090	1910	1070	3550	538
4	1110	779	5950	1100	1400	1600	2440	1020	1330	1030	2930	516
5	952	835	4730	1000	1500	1500	2310	960	1130	868	1980	533
6	909	1040	4130	940	1700	1500	2490	898	1370	773	1530	585
7	838	1030	3740	840	1600	1400	2880	868	1930	702	1380	594
8	750	906	3420	760	1500	1300	3170	824	1760	640	1610	558
9	670	881	3220	760	1400	1400	3010	779	1860	592	2100	517
10	602	886	2990	840	1200	1600	2730	745	1300	554	1520	489
11	571	1460	3160	820	1100	5220	2680	706	1250	515	1420	467
12	561	1830	4890	800	1100	6480	2640	679	1220	655	1420	454
13	649	2430	4480	780	980	5240	2600	655	2220	1090	1180	446
14	958	3950	3700	900	940	9250	2420	620	2220	1220	919	434
15	1240	7880	3100	1000	900	22500	2210	574	1620	1100	786	420
16	2430	6600	2800	960	940	24700	4130	578	1130	853	2080	404
17	2120	10800	2500	1000	940	16500	6090	1200	1510	749	3580	404
18	1250	8420	2300	1000	1100	10800	5170	1540	1410	631	2360	383
19	1360	5390	2000	2000	1500	11800	3740	1120	1100	987	1610	385
20	2200	4380	1800	7000	3000	15600	3180	1390	1450	861	1850	380
21	1950	3620	1700	8200	5600	12900	2890	7230	1950	738	1550	383
22	1710	3020	1800	6200	6200	10000	2910	7790	1570	591	1240	387
23	1260	2880	1700	4400	5000	8660	2610	5650	1260	542	1020	429
24	1120	2720	1600	3300	4000	7800	2220	3830	1170	508	1050	897
25	1500	2450	1600	2600	3400	6990	1990	2950	1030	468	1020	1350
26	1500	2560	1600	2300	2800	6760	1830	2340	912	461	912	1130
27	1340	5830	1500	2100	2400	7910	1700	1770	778	681	852	926
28	1160	5610	1400	1900	2200	7900	1610	1560	771	588	888	1000
29	971	4600	1300	1600	---	6830	1410	1430	781	539	817	753
30	929	4220	1100	1500	---	6200	1250	1270	790	944	732	682
31	890	---	1200	1600	---	5600	---	1140	---	2170	654	---
TOTAL	37580	99477	98590	61500	58700	231540	85580	55566	42032	24653	52660	17596
MEAN	1212	3316	3180	1984	2096	7469	2853	1792	1401	795	1699	587
MAX	2430	10800	9240	8200	6200	24700	6090	7790	2220	2170	4840	1350
MIN	561	779	1100	760	900	1300	1250	574	771	461	654	380

CAL YR 1985 TOTAL 661289 MEAN 1812 MAX 14100 MIN 153
WTR YR 1986 TOTAL 865474 MEAN 2371 MAX 24700 MIN 380

SUSQUEHANNA RIVER BASIN

39

01513110 SUSQUEHANNA RIVER AT JOHNSON CITY, NY

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

DRAINAGE AREA.--3,891 mi².

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

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1955 to current year.

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

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

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

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum daily, 27.0°C July 8; minimum daily, 0.0°C on Jan. 21-24, Feb. 22-26, Mar. 12.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1985 to SEPTEMBER 1986

(ONCE DAILY AT 0800)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.0	7.0	3.0	1.0	2.0	1.0	10.0	16.0	23.0	21.0	21.0	19.0
2	16.0	7.0	4.0	1.0	1.0	1.0	11.0	14.0	22.0	22.0	21.0	19.0
3	14.0	7.0	3.0	1.0	1.0	1.0	11.0	11.0	18.0	19.0	21.0	20.0
4	14.0	8.0	1.0	1.0	1.0	2.0	12.0	10.0	18.0	19.0	21.0	20.0
5	14.0	8.0	1.0	1.0	1.0	2.0	11.0	12.0	21.0	21.0	21.0	19.0
6	13.0	9.0	1.0	1.0	1.0	2.0	9.0	14.0	20.0	23.0	22.0	19.0
7	13.0	8.0	1.0	1.0	1.0	1.0	9.0	16.0	19.0	26.0	22.0	19.0
8	12.0	9.0	1.0	1.0	1.0	1.0	9.0	18.0	19.0	27.0	23.0	16.0
9	13.0	8.0	2.0	2.0	1.0	1.0	9.0	17.0	19.0	26.0	23.0	17.0
10	15.0	8.0	2.0	1.0	1.0	1.0	9.0	17.0	19.0	24.0	22.0	18.0
11	15.0	8.0	3.0	1.0	1.0	2.0	8.0	18.0	21.0	24.0	22.0	18.0
12	13.0	7.0	3.0	1.0	1.0	.0	7.0	18.0	20.0	22.0	21.0	21.0
13	13.0	8.0	3.0	1.0	1.0	1.0	6.0	18.0	18.0	21.0	21.0	18.0
14	13.0	8.0	2.0	1.0	1.0	2.0	8.0	19.0	17.0	21.0	22.0	18.0
15	13.0	8.0	1.0	1.0	1.0	2.0	9.0	17.0	19.0	21.0	22.0	17.0
16	13.0	6.0	1.0	1.0	1.0	2.0	8.0	17.0	21.0	22.0	22.0	15.0
17	11.0	5.0	1.0	1.0	1.0	2.0	8.0	18.0	21.0	22.0	22.0	13.0
18	11.0	6.0	1.0	1.0	1.0	2.0	8.0	19.0	19.0	23.0	22.0	14.0
19	12.0	6.0	1.0	1.0	1.0	4.0	10.0	19.0	19.0	24.0	23.0	15.0
20	12.0	8.0	1.0	1.0	1.0	5.0	12.0	19.0	18.0	22.0	23.0	15.0
21	11.0	8.0	1.0	.0	1.0	2.0	12.0	18.0	18.0	22.0	22.0	16.0
22	10.0	6.0	1.0	.0	.0	1.0	11.0	16.0	19.0	22.0	21.0	16.0
23	11.0	5.0	2.0	.0	.0	2.0	8.0	16.0	21.0	24.0	22.0	16.0
24	11.0	4.0	1.0	.0	.0	3.0	7.0	16.0	22.0	24.0	21.0	16.0
25	12.0	4.0	1.0	1.0	.0	3.0	8.0	16.0	20.0	25.0	19.0	16.0
26	10.0	3.0	1.0	1.0	.0	4.0	13.0	17.0	19.0	26.0	20.0	17.0
27	10.0	4.0	2.0	1.0	1.0	7.0	13.0	18.0	21.0	24.0	21.0	19.0
28	10.0	4.0	1.0	1.0	1.0	6.0	14.0	19.0	22.0	25.0	20.0	17.0
29	8.0	3.0	1.0	1.0	---	7.0	17.0	20.0	22.0	25.0	18.0	17.0
30	7.0	3.0	1.0	1.0	---	7.0	15.0	22.0	22.0	26.0	17.0	18.0
31	7.0	---	1.0	1.0	---	9.0	---	23.0	---	22.0	18.0	---
MEAN	12.0	6.5	1.5	1.0	1.0	3.0	10.0	17.0	20.0	23.0	21.0	17.5
MAX	16.0	9.0	4.0	2.0	2.0	9.0	17.0	23.0	23.0	27.0	23.0	21.0
MIN	7.0	3.0	1.0	.0	.0	.0	6.0	10.0	17.0	19.0	17.0	13.0
WTR YR 1986		MEAN	11.0		MAX	27.0		MIN	.0			

SUSQUEHANNA RIVER BASIN

01515000 SUSQUEHANNA RIVER NEAR WAVERLY, NY

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

DRAINAGE AREA.--4,773 mi².

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

REVISED RECORDS.--WSP 2103: Drainage area.

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

REMARKS.--Estimated daily discharges: Dec. 18 to Mar. 11. Records good except those for estimated daily discharges with ice effect, which are fair. Minor regulation by upstream lakes and reservoirs. Slight diversion from upstream tributaries for operation of Erie (Barge) Canal. Satellite telemeter at station. National Weather Service gage-height telemeter at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--49 years (water years 1938-86), 7,558 ft³/s, 21.50 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 121,000 ft³/s June 23, 1972, gage height, 21.24 ft; minimum daily, 237 ft³/s Sept. 22, 23, 1964; minimum gage height, 0.52 ft Sept. 24, 25, 1939.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1936 reached a stage of about 21.4 ft, from flood profile (discharge, 128,000 ft³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 52,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Mar. 15	2300	*93,800	*18.12	No other peak greater than base discharge.			

Minimum discharge, 949 ft³/s Sept. 21-22, gage height, 1.22 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9180	2640	15800	3600	5600	8200	13800	4880	4040	2600	18000	1800
2	7490	2520	21100	3600	5600	7400	12200	4700	4440	2690	16300	1640
3	6300	2420	25700	3400	5400	6800	10500	4480	5380	2660	14100	1570
4	5520	2360	22600	3200	5400	6600	9230	4260	6100	2840	11400	1460
5	4750	2330	16900	3100	5400	6400	8540	3990	5290	3050	8960	1450
6	3990	2330	13900	3200	5600	6400	9050	3600	9020	2850	6680	1440
7	3570	2550	12600	2700	5600	6000	9510	3510	9780	2460	5800	1460
8	3630	2650	11400	2000	5200	4600	9840	3230	12000	2130	5800	1460
9	3160	2530	10500	2100	5000	4200	10100	3020	9730	1880	5570	1520
10	2710	2410	9850	2300	5000	4700	9510	2790	8570	1800	5910	1500
11	2330	2930	9760	2300	4700	16000	9090	2590	6630	1630	5330	1470
12	2130	4560	13200	2400	4300	22900	8930	2460	7390	1660	4940	1200
13	2040	6790	14600	2400	3700	21600	8810	2300	9030	2330	4430	1120
14	2080	9350	13300	2100	3400	28000	8320	2140	9060	5070	3690	1040
15	2540	15400	11400	1600	3200	75800	7710	2000	7790	5060	2990	1000
16	3260	20000	9910	1600	3100	87400	13700	1890	6250	4310	3040	1010
17	5000	30500	8920	1400	3000	71300	24900	2730	5480	3490	5210	985
18	5310	30400	8200	1500	3300	53000	20000	4880	5700	2670	8030	1010
19	4040	23500	7200	2300	5400	38200	14600	4470	5140	4320	7480	1040
20	4440	17300	6000	10000	11000	43300	11600	4290	4480	5740	6270	1030
21	5390	14000	5200	22000	19000	42800	10000	17700	4630	4000	5520	986
22	5310	11900	5200	22000	25000	37800	9390	25400	5990	2930	4810	952
23	4590	10400	5400	17000	22000	28500	8940	23000	5680	2310	3980	1080
24	3840	9810	5400	13000	18000	23200	8300	17300	4420	1940	4220	1220
25	3620	9170	5800	10000	14000	20300	7810	13400	3810	1690	3660	1510
26	4170	8730	5200	8600	12000	18400	7650	10800	3590	1530	3150	2760
27	4350	15100	4400	8400	9600	18400	7140	8780	3310	2660	2780	3890
28	4120	19100	3800	8200	8600	20700	6520	7220	3080	4160	2490	2920
29	3530	19500	4000	7000	---	20100	6030	6240	2950	2880	2340	2650
30	3020	16500	3800	5800	---	17400	5340	5420	2870	2550	2210	2380
31	2800	---	3800	5600	---	15400	---	4580	---	9530	2000	---
TOTAL	128210	319680	314840	184400	227100	781800	307060	208050	181630	97420	187090	46553
MEAN	4136	10660	10160	5948	8111	25220	10240	6711	6054	3143	6035	1552
MAX	9180	30500	25700	22000	25000	87400	24900	25400	12000	9530	18000	3890
MIN	2040	2330	3800	1400	3000	4200	5340	1890	2870	1530	2000	952
CFSM	.87	2.23	2.13	1.25	1.70	5.28	2.14	1.41	1.27	.66	1.26	.33
IN.	1.00	2.49	2.45	1.44	1.77	6.09	2.39	1.62	1.42	.76	1.46	.36

CAL YR 1985 TOTAL 2015141 MEAN 5521 MAX 38100 MIN 504 CFSM 1.16 IN. 15.7
WTR YR 1986 TOTAL 2983830 MEAN 8175 MAX 87400 MIN 952 CFSM 1.71 IN. 23.3

SUSQUEHANNA RIVER BASIN

41

01520500 TIOGA RIVER AT LINDLEY, NY

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

DRAINAGE AREA.--771 mi².

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

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

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

REMARKS.--Estimated daily discharges: Dec. 18-31, Jan. 2-16, Jan. 28 to Feb. 4, Feb. 8-18 and Feb. 25 to Mar. 8. Records good except those for estimated daily discharges, which are fair. Since March 1979, flood flows regulated by detention in upstream reservoirs. Satellite and gage height telemeters at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--56 years, 803 ft³/s, 14.14 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 128,000 ft³/s June 23, 1972, gage height, 26.27 ft, from flood-mark in gage house, from rating curve extended above 31,000 ft³/s on basis of velocity-area and slope-area studies at gage height 19.2 ft and conveyance study and slope-area measurements at gage heights 22.87 ft and 26.27 ft; minimum, 6.1 ft³/s Sept. 1, 1939; minimum gage height, 2.68 ft Aug. 28, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Mar. 15	0230	*10,500	*11.94	No other peak greater than base discharge.			

Minimum discharge, 64 ft³/s Oct. 1, gage height, 2.94 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	70	1760	270	520	740	513	475	1350	137	118	95
2	72	70	3140	270	520	680	496	492	812	306	188	94
3	68	72	2170	270	520	620	465	457	380	550	188	96
4	68	78	1310	270	580	600	458	391	187	434	131	95
5	68	98	737	270	900	700	474	283	1100	163	118	98
6	68	188	745	280	1600	640	668	282	5290	137	105	94
7	68	186	770	300	934	600	1040	281	3110	128	109	93
8	68	156	761	280	680	580	929	266	1870	117	121	95
9	68	118	719	240	680	575	783	250	1210	118	126	86
10	68	120	720	200	600	713	694	244	696	114	122	82
11	69	169	796	200	500	4140	664	229	579	113	148	81
12	69	244	1340	200	480	3050	670	177	1470	167	220	81
13	69	617	1410	200	460	2090	638	174	1910	226	175	80
14	68	706	984	200	430	4380	554	165	938	213	128	80
15	70	820	694	200	400	4450	552	150	862	270	93	80
16	68	1060	573	200	390	4300	2390	132	560	216	116	81
17	68	3140	425	199	380	7580	7830	129	816	212	131	78
18	68	1540	320	200	500	8590	6360	127	765	251	172	82
19	73	984	210	457	2480	7760	3290	130	663	279	211	82
20	71	841	200	5080	5780	4770	2150	307	621	294	103	80
21	70	713	190	5600	6170	778	1760	1180	345	583	96	80
22	70	491	230	3560	5320	743	1680	1170	324	353	96	79
23	70	457	230	2380	2500	937	1210	602	237	268	98	85
24	72	430	230	1840	1770	1050	1000	528	232	183	138	81
25	71	441	230	1150	1400	1060	872	256	232	167	212	80
26	70	449	250	1100	1200	859	815	216	227	156	113	91
27	70	1580	250	974	1000	874	617	234	156	165	100	105
28	70	1990	270	780	900	858	562	218	149	158	99	159
29	70	1700	270	540	---	811	524	202	135	140	97	186
30	70	1480	270	520	---	762	483	200	136	125	96	179
31	74	---	270	520	---	665	---	194	---	120	96	---
TOTAL	2155	21008	22474	28750	39594	66955	41141	10141	27362	6863	4064	2858
MEAN	69.5	700	725	927	1414	2160	1371	327	912	221	131	95.3
MAX	74	3140	3140	5600	6170	8590	7830	1180	5290	583	220	186
MIN	68	70	190	199	380	575	458	127	135	113	93	78
CFSM	.09	.91	.94	1.20	1.83	2.80	1.78	.42	1.18	.29	.17	.12
IN.	.10	1.01	1.08	1.39	1.91	3.23	1.99	.49	1.32	.33	.20	.14

CAL YR 1985 TOTAL 177358 MEAN 486 MAX 5630 MIN 67 CFSM .63 IN. 8.56
WTR YR 1986 TOTAL 273365 MEAN 749 MAX 8590 MIN 68 CFSM .97 IN. 13.2

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 National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 1 to Nov. 14, Dec. 15 to Jan. 19, Jan. 23 to Feb. 2, Feb. 6-17, and Feb. 24 to Mar. 10. Records fair except those for estimated daily discharges, which are poor. Since November 1939, flows above 500 ft³/s controlled by detention in Arkport Reservoir (see station 01521000). Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--49 years, 35.4 ft³/s.

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).

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, 632 ft³/s Jan. 20 at 1700 hours, gage height, 3.05 ft; maximum gage height, 3.21 ft Nov. 13 at 1200 hours (beaver dam); minimum daily discharge, 1.2 ft³/s Oct. 8-9; minimum gage height, 0.65 ft part of each day Sept. 7-12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	6.0	185	11	15	18	18	14	4.7	4.9	46	2.3
2	6.0	4.5	281	11	14	17	17	13	5.7	15	37	2.2
3	5.0	3.2	82	11	14	16	15	11	6.2	10	16	2.1
4	4.0	15	51	11	15	14	15	10	5.2	6.2	8.3	1.9
5	3.0	26	40	10	102	12	28	9.0	7.3	4.6	5.4	2.0
6	3.4	60	36	10	67	11	76	8.7	15	3.8	4.6	1.8
7	2.0	36	31	10	58	10	57	8.6	21	3.4	4.4	1.7
8	1.2	17	29	10	52	10	64	7.6	113	6.6	5.7	1.4
9	1.2	16	27	11	35	10	51	6.9	41	18	7.6	1.6
10	1.9	90	31	11	21	70	51	6.4	19	21	5.2	1.4
11	2.6	170	88	10	20	255	50	5.8	398	24	11	1.3
12	3.2	98	165	9.6	18	62	54	5.4	577	44	5.9	1.4
13	9.2	140	75	8.8	18	67	48	5.1	343	50	4.3	1.4
14	9.4	150	55	8.6	17	167	46	4.8	65	54	3.6	1.5
15	22	123	37	8.0	17	345	51	4.6	37	27	3.8	1.6
16	18	211	36	7.8	18	104	251	4.7	92	16	29	1.8
17	11	280	32	10	18	65	485	5.1	126	12	13	1.7
18	10	81	30	20	43	49	100	7.1	41	36	7.7	1.8
19	30	57	26	130	263	59	63	10	26	37	5.4	1.9
20	29	45	25	532	230	54	52	52	21	24	4.3	2.0
21	9.2	34	21	353	263	37	57	51	16	24	3.9	2.2
22	6.6	28	18	84	99	37	46	39	11	14	3.6	2.2
23	5.2	33	18	54	65	25	37	53	10	7.7	3.4	4.9
24	8.5	28	18	44	42	23	31	30	8.0	5.2	3.3	5.5
25	27	22	19	22	34	22	27	21	6.5	4.1	2.9	3.9
26	15	99	18	20	32	24	24	16	5.3	3.7	2.8	4.0
27	14	208	16	18	28	28	22	11	5.1	3.5	3.0	4.1
28	13	91	15	17	20	27	19	9.1	5.3	3.4	2.7	4.3
29	11	66	14	16	---	23	18	7.3	6.3	10	2.7	4.1
30	10	65	13	15	---	22	15	5.7	6.8	35	2.5	4.6
31	8.0	---	12	15	---	20	---	4.9	---	72	2.4	---
TOTAL	305.6	2302.7	1544	1508.8	1638	1703	1888	447.8	2044.4	600.1	261.4	74.6
MEAN	9.86	76.8	49.8	48.7	58.5	54.9	62.9	14.4	68.1	19.4	8.43	2.49
MAX	30	280	281	532	263	345	485	53	577	72	46	5.5
MIN	1.2	3.2	12	7.8	14	10	15	4.6	4.7	3.4	2.4	1.3

CAL YR 1985 TOTAL 10440.2 MEAN 28.6 MAX 460 MIN .75
WTR YR 1986 TOTAL 14318.3 MEAN 39.2 MAX 577 MIN 1.2

43

LOCATION.--Lat 42°20'05", long 77°41'00", Steuben County, Hydrologic Unit 02050104, on right bank 35 ft downstream from bridge on State Highway 21, 1.2 mi west of Hornell, 1.5 mi downstream from Almond Dam, and 2 mi upstream from mouth.

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

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

REMARKS.--Estimated daily discharges: Dec. 16-28, Jan. 5-13, Jan. 25 to Feb. 4, Feb. 8-17, and Feb. 26 to Mar. 10. Records good except those for estimated daily discharges, which are fair. Since October 1948, floodflows regulated by detention in Almond Lake (see station 01523000). Occasional regulation at low flows to clear debris from gates at Almond Lake. Monthly figures for 1952-66 water years adjusted for regulation. Satellite telemeter at station. Several measurements of water temperature were made during the year.

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, 0.5 ft³/s May 29, 1965, gage height, 0.61 ft; minimum daily, 0.6 ft³/s May 30 to June 1, 1965.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,140 ft³/s Nov. 17 at 0130 hours, gage height, 2.96 ft; minimum, 2.2 ft³/s May 16, gage height, 0.71 ft.

[illegible]

SUSQUEHANNA RIVER BASIN

01524500 CANISTEO RIVER BELOW CANACADEA CREEK, AT HORNEILL, 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.

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

REMARKS.--Estimated daily discharges: Dec. 20 to Jan. 17, Jan. 19-23, Jan. 25 to Feb. 4, Feb. 9-17 and Feb. 26 to Mar. 8. Records fair. Diversion from Carrington Creek, a tributary upstream from station, by City of Hornell for municipal supply (1986 average, 3.5 ft³/s); sewage enters river downstream from gage. Since Nov. 1939, flood flows regulated by Arkport Reservoir (see station 01521000), and, since October 1948, by Almond Lake (see station 01523000); normal regulation occasionally sufficient to materially affect figures of monthly runoff. Satellite and gage height telemeters at station. Several measurements of water temperature were made during the year.

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

AVERAGE DISCHARGE.--44 years, 158 ft³/s, 13.58 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,560 ft³/s June 23, 1972, gage height, 13.45 ft from flood-mark, from rating curve extended above 7,600 ft³/s on basis of critical-depth measurement of peak flow; minimum, 7.4 ft³/s Sept. 13, 14, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,050 ft³/s Apr. 17 at 0130 hours, gage height, 6.85 ft; minimum, 16 ft³/s Oct. 12, gage height, 0.43 ft.

REVISIONS.--The minimum daily discharge for water year 1971 has been revised to 12 ft³/s Aug. 8-12. Revised daily discharges, in cubic feet per second, for Sept. 12-23, 1971, are given below. These figures supersede those published in the report for 1971.

Sept. 12.....	17	Sept. 15.....	94	Sept. 18.....	96	Sept. 21.....	90
13.....	28	16.....	98	19.....	94	22.....	44
14.....	68	17.....	98	20.....	100	23.....	30
MONTH	TOTAL	MEAN	MAX	MIN			
September 1971	1196	39.9	100	13			
Wtr Yr 1971	57363	157	2110	12			
Cal Yr 1971	46755	128	2110	12			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	21	501	58	94	96	97	89	51	53	127	22
2	27	21	1190	60	90	94	85	76	55	107	157	22
3	30	21	536	66	90	94	89	59	50	80	112	32
4	25	27	270	64	96	92	99	56	48	53	66	42
5	25	105	210	50	279	92	127	61	52	49	49	35
6	23	118	175	49	326	92	290	73	65	46	46	27
7	23	74	139	50	211	70	289	72	62	45	44	26
8	23	58	191	50	157	68	307	61	252	38	45	25
9	24	49	184	50	140	94	229	117	241	61	72	26
10	24	76	150	52	120	274	201	50	101	59	62	25
11	22	177	324	52	110	953	225	42	771	43	76	25
12	21	120	720	52	100	297	254	38	1620	135	70	26
13	22	350	470	54	96	411	239	32	1330	144	53	25
14	20	500	290	54	90	772	290	39	372	173	42	25
15	42	612	220	52	88	1490	255	35	205	100	42	24
16	46	467	170	52	88	856	707	34	443	86	78	26
17	30	825	155	50	88	409	1810	37	702	69	55	24
18	24	361	142	115	144	279	923	45	194	239	47	26
19	61	355	137	600	774	313	420	103	138	155	45	26
20	60	527	130	1500	1130	360	266	541	116	125	41	26
21	39	476	120	1600	1270	149	320	535	104	272	39	26
22	32	404	110	1400	726	125	269	232	86	152	39	25
23	34	389	100	540	392	149	182	229	73	78	38	48
24	34	338	96	253	273	153	183	181	67	59	38	51
25	35	95	90	210	216	139	150	117	62	46	37	44
26	34	191	80	160	140	116	123	100	58	45	36	41
27	28	750	74	130	130	132	122	70	57	45	37	39
28	26	572	76	96	110	149	115	65	58	43	31	41
29	24	446	78	98	---	131	110	59	62	45	23	39
30	22	235	66	96	---	106	97	54	57	66	29	45
31	22	---	60	98	---	120	---	52	---	120	32	---
TOTAL	929	8760	7254	7811	7568	8675	8873	3354	7552	2831	1708	934
MEAN	30.0	292	234	252	270	280	296	108	252	91.3	55.1	31.1
MAX	61	825	1190	1600	1270	1490	1810	541	1620	272	157	51
MIN	20	21	60	49	88	68	85	32	48	38	23	22

CAL YR 1985 TOTAL 49227 MEAN 135 MAX 1730 MIN 17
WTR YR 1986 TOTAL 66249 MEAN 182 MAX 1810 MIN 20

SUSQUEHANNA RIVER BASIN

45

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 National Geodetic Vertical Datum of 1929. Prior to June 21, 1931, nonrecording gage on highway bridge at same datum.

REMARKS.--Estimated daily discharges: Dec. 18 to Jan. 18, Jan. 28 to Feb. 4, Feb. 8-18, and Feb. 27 to Mar. 8. Records good except those for estimated daily discharges, which are fair. High flows regulated by upstream reservoirs. Satellite telemeter at station. National weather service gage height telemeter at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--68 years, 1,377 ft³/s, 13.58 in/yr.

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, 18 ft³/s Sept. 2, 3, 1939; minimum gage height, 0.40 ft Sept. 8, 9, 1954, July 23, Aug. 10, 11, 1955.

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

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 20	1900	19,800	11.11	Apr. 17	0600	19,700	11.06
Mar. 15	0600	*21,400	*11.55				

Minimum discharge, 97 ft³/s Oct. 14, gage height, 0.65 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	115	109	2820	500	760	1200	947	814	1320	328	388	162
2	122	104	5830	500	760	1000	879	813	1060	640	671	154
3	111	104	4690	500	760	960	812	753	573	936	585	150
4	109	124	2600	500	840	940	797	671	345	690	422	147
5	112	161	1600	500	1480	1100	865	524	1030	397	326	162
6	106	562	1480	470	2980	1000	1570	509	5910	299	266	167
7	104	564	1390	430	1570	900	2220	546	3830	269	262	155
8	102	415	1320	410	1000	800	1970	514	2430	248	291	146
9	100	318	1310	390	960	874	1730	464	2020	257	288	139
10	103	278	1270	380	880	1180	1480	495	1190	303	310	131
11	104	370	1450	350	820	6470	1410	436	905	268	305	129
12	103	661	3130	350	780	4890	1480	350	4180	551	432	128
13	107	1040	3140	350	720	3190	1420	324	6650	878	356	124
14	103	1910	2310	350	680	6950	1240	305	2820	839	281	123
15	112	2350	1550	350	640	14500	1240	284	1860	749	213	120
16	124	2030	1400	350	620	7430	4510	267	1340	523	234	125
17	171	6690	1100	350	560	9490	16000	255	2750	480	293	122
18	142	3270	820	360	740	9550	10600	255	1790	662	408	129
19	141	1950	560	965	4050	9400	5630	287	1270	1110	426	147
20	238	1760	410	13700	10600	6930	3650	850	1130	748	271	141
21	243	1630	470	11600	10400	1910	3040	2650	768	1720	211	145
22	177	1250	470	6930	9080	1480	2870	2320	672	1060	197	138
23	152	1160	470	4660	4560	1670	2170	1310	532	694	203	156
24	146	1060	470	3010	3100	1740	1770	1180	487	488	254	189
25	153	974	470	1910	2530	1730	1570	736	452	412	351	205
26	130	769	470	1860	1960	1470	1410	573	429	366	225	371
27	131	2940	480	1650	1600	1460	1150	515	348	409	188	474
28	123	3810	520	1200	1400	1460	1030	453	346	353	180	500
29	115	3100	500	760	---	1370	953	406	401	338	171	422
30	110	2530	500	760	---	1270	869	381	365	288	164	359
31	108	---	500	760	---	1140	---	358	---	314	158	---
TOTAL	4017	43993	45500	57155	66830	105454	77282	20598	49203	17617	9330	5760
MEAN	130	1466	1468	1844	2387	3402	2576	664	1640	568	301	192
MAX	243	6690	5830	13700	10600	14500	16000	2650	6650	1720	671	500
MIN	100	104	410	350	560	800	797	255	345	248	158	120
CFSM	.09	1.06	1.07	1.34	1.73	2.47	1.87	.48	1.19	.41	.22	.14
IN.	.11	1.19	1.23	1.54	1.81	2.85	2.09	.56	1.33	.48	.25	.16

CAL YR 1985 TOTAL 337838 MEAN 926 MAX 10800 MIN 92 CFSM .67 IN. 9.13
WTR YR 1986 TOTAL 502739 MEAN 1377 MAX 16000 MIN 100 CFSM 1.00 IN. 13.6

SUSQUEHANNA RIVER BASIN

01528000 FIVEMILE CREEK NEAR KANONA, NY

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

DRAINAGE AREA.--66.8 mi².

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

REVISED RECORDS.--WSP 2103: Drainage area.

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

REMARKS.--Estimated daily discharges: Dec. 15 to Jan. 20, Jan. 24 to Feb. 3, Feb. 7-21, Feb. 25 to Mar. 3, Mar. 7-9, Mar. 21, 22, Apr. 18 to May 20 and June 16-23. Records good except for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--49 years, 75.8 ft³/s, 15.41 in./yr. This was published correctly in 1985 WY.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,110 ft³/s June 23, 1972, gage height, 6.95 ft present datum; maximum gage height, 7.10 ft present datum, Mar. 31, 1940 (ice jam); minimum discharge, 0.04 ft³/s Sept. 27, 29, 1941; minimum gage height, 0.42 ft Sept. 7, 8, 1985.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 880 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 20	0930	ice jam	*a5.06	Mar. 15	1930	929	4.20
Jan. 21	0200	*1,190	4.59	Apr. 17	1400	1,110	4.47

a Ice jam.

Minimum discharge, 0.70 ft³/s Oct. 5, 7-8, 9, gage height, 0.49 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	3.5	217	16	34	37	55	39	12	18	31	5.6
2	1.3	6.6	599	14	37	30	59	37	17	27	46	5.3
3	1.1	5.3	347	13	40	34	54	36	15	25	33	5.4
4	1.0	4.9	152	10	39	51	47	33	13	19	22	5.0
5	.88	30	104	9.8	88	47	60	29	10	15	20	4.8
6	.78	110	93	9.8	116	52	97	24	12	11	16	4.1
7	.75	82	84	9.8	64	37	94	22	17	10	12	3.9
8	.73	53	77	9.0	48	20	108	19	21	8.5	14	3.4
9	.76	38	76	9.0	46	25	121	16	29	7.7	27	4.8
10	.83	39	70	9.4	38	78	112	15	16	7.2	19	5.5
11	1.1	83	114	9.4	30	464	111	14	32	6.6	29	4.1
12	1.2	81	230	9.8	27	257	125	14	69	16	23	4.1
13	1.7	136	159	10	25	180	117	13	243	21	16	9.8
14	2.9	196	125	9.0	24	409	109	13	93	39	12	2.2
15	4.0	223	82	8.0	24	852	88	12	49	39	9.5	1.7
16	2.8	219	62	8.4	27	706	380	11	58	20	151	1.9
17	2.0	546	58	8.4	28	321	1040	8.8	53	13	59	1.9
18	5.2	301	56	12	36	196	700	7.6	44	13	28	2.5
19	7.0	136	50	110	84	228	300	9.8	36	14	20	3.4
20	5.6	101	52	800	260	218	180	66	33	27	16	2.7
21	4.4	85	48	1070	500	120	130	103	34	115	16	2.7
22	3.7	71	47	559	420	94	110	65	28	44	12	2.7
23	3.3	70	36	227	223	101	84	49	24	25	11	4.8
24	3.3	65	28	120	144	94	70	39	24	16	9.5	5.4
25	3.1	56	24	84	100	87	66	32	18	13	7.1	5.7
26	3.0	72	26	80	56	86	63	26	15	72	8.8	4.2
27	3.1	244	23	70	47	87	62	23	14	40	8.8	4.1
28	3.5	183	18	50	43	80	59	21	19	31	7.2	4.1
29	3.5	130	16	30	---	74	52	17	19	20	6.3	11
30	3.4	125	16	31	---	69	45	13	23	15	5.9	38
31	3.3	---	20	32	---	63	---	12	---	36	6.4	---
TOTAL	80.83	3495.3	3109	3447.8	2648	5197	4698	839.2	1090	784.0	702.5	164.8
MEAN	2.61	117	100	111	94.6	168	157	27.1	36.3	25.3	22.7	5.49
MAX	7.0	546	599	1070	500	852	1040	103	243	115	151	38
MIN	.73	3.5	16	8.0	24	20	45	7.6	10	6.6	5.9	1.7
CFSM	.04	1.74	1.50	1.66	1.42	2.51	2.34	.41	.54	.38	.34	.08
IN.	.05	1.95	1.73	1.92	1.47	2.89	2.62	.47	.61	.44	.39	.09

CAL YR 1985 TOTAL 19509.01 MEAN 53.4 MAX 715 MIN .53 CFSM .80 IN. 10.9
WTR YR 1986 TOTAL 26256.35 MEAN 71.9 MAX 1070 MIN .73 CFSM 1.08 IN. 14.6

SUSQUEHANNA RIVER BASIN

47

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

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

DRAINAGE AREA.--45.5 mi².

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

GAGE.--Daily power generation records.

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

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

AVERAGE DISCHARGE.--20 years, 20.5 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 73 ft³/s June 23, 1972; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 72 ft³/s many days; no flow many days.

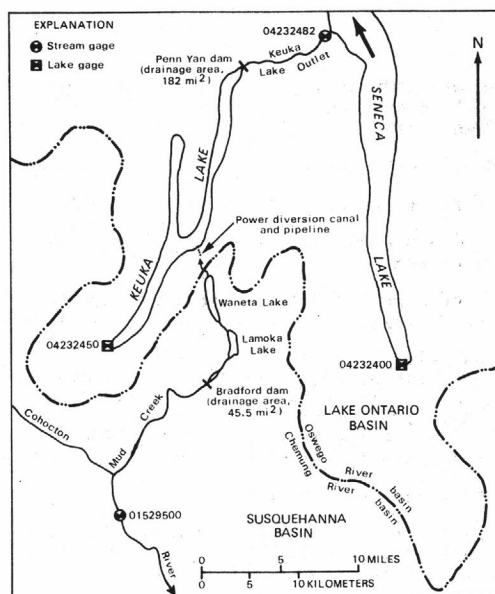


Figure 5.--Gaging stations and transbasin diversion, Cohocton River-Keuka Lake area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	60	.00	72	72	72	.00	.00	.00	.00
2	.00	.00	39	55	.00	72	72	72	.00	.00	.00	.00
3	.00	.00	72	31	36	72	72	72	.00	.00	.00	.00
4	.00	.00	72	.00	72	72	72	72	.00	.00	.00	.00
5	.00	.00	72	.00	72	72	72	72	.00	.00	.00	.00
6	.00	.00	72	30	72	72	72	72	.00	.00	.00	.00
7	.00	.00	72	55	72	72	72	72	.00	.00	.00	.00
8	.00	.00	72	55	72	71	72	72	.00	.00	.00	.00
9	.00	.00	72	55	72	71	63	35	39	.00	.00	.00
10	.00	.00	72	35	72	65	37	.00	72	.00	.00	.00
11	.00	.00	72	.00	72	.00	11	.00	72	.00	.00	.00
12	.00	.00	72	.00	72	36	.00	.00	72	.00	.00	.00
13	.00	.00	72	.00	63	69	.00	.00	63	.00	.00	.00
14	.00	.00	72	.00	63	72	.00	.00	72	.00	.00	.00
15	.00	.00	72	.00	71	72	.00	.00	72	.00	.00	.00
16	.00	.00	72	.00	71	72	33	.00	72	.00	.00	.00
17	.00	.00	72	.00	71	72	72	.00	72	.00	.00	.00
18	.00	.00	72	.00	63	72	72	.00	72	.00	.00	.00
19	.00	.00	72	.00	69	72	72	.00	72	.00	.00	.00
20	.00	.00	72	39	72	72	72	39	72	.00	.00	.00
21	.00	.00	72	72	63	72	72	72	72	.00	.00	.00
22	.00	.00	72	72	72	72	72	72	72	.00	.00	.00
23	.00	.00	72	72	72	72	72	41	29	.00	.00	.00
24	.00	.00	72	69	72	72	72	.00	.00	.00	.00	.00
25	.00	.00	72	72	72	72	72	.00	.00	.00	.00	.00
26	.00	.00	69	72	71	72	72	.00	.00	.00	.00	.00
27	.00	.00	71	72	71	72	72	.00	.00	.00	.00	.00
28	.00	.00	69	6.0	71	72	72	.00	.00	.00	.00	.00
29	.00	.00	69	.00	---	72	.00	.00	.00	.00	.00	.00
30	.00	.00	66	.00	---	72	30	.00	.00	.00	.00	.00
31	.00	---	60	.00	---	72	---	.00	---	.00	.00	---
TOTAL	.00	.00	2099.00	922.00	1791.00	2112.00	1614.00	835.00	995.00	.00	.00	.00
MEAN	.000	.000	67.7	29.7	64.0	68.1	53.8	26.9	33.2	.000	.000	.000
MAX	.00	.00	72	72	72	72	72	72	72	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

CAL YR 1985 TOTAL 6757.10 MEAN 18.5 MAX 72 MIN .00
WTR YR 1986 TOTAL 10368.00 MEAN 28.4 MAX 72 MIN .00

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 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 National Geodetic Vertical Datum of 1929. Prior to Mar. 5, 1937, nonrecording gage on highway bridge.

REMARKS.--Estimated daily discharges: Oct. 1-13, Dec. 15 to Jan. 20, Jan. 25 to Feb. 4, Feb. 7-18, and Feb. 26 to Mar. 9. Records good except those for periods of estimated daily discharges, which are fair. During each year since March 1931, a large part of flow from 45.5 mi² of drainage area upstream from Lake Lamoka on Mud Creek, a tributary upstream from this station, is diverted into Keuka Lake (Oswego River basin), for power development. For table of diversion, see station 01528700. Satellite telemeter at station. National Weather Service gage height telemeter at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--68 years, 449 ft³/s.

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, 8 ft³/s Sept. 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. 20	1730	*6,460	*6.22	Apr. 17	0730	4,760	5.23
Mar. 15	1000	5,070	5.42				

Minimum daily discharge, 26 ft³/s Oct. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	39	1110	280	380	450	390	392	135	164	255	74
2	32	40	2260	280	350	400	378	368	169	201	319	71
3	30	46	1540	280	350	380	357	338	156	200	260	67
4	29	60	967	270	360	400	340	322	132	161	208	63
5	28	175	767	260	655	380	400	298	125	136	180	64
6	28	425	675	250	685	360	707	286	151	120	162	62
7	28	339	596	250	440	330	633	291	161	111	146	59
8	27	267	538	250	420	270	637	268	229	112	159	55
9	27	219	510	250	400	300	624	251	276	105	220	53
10	26	210	491	250	380	458	614	241	181	101	184	53
11	29	319	664	240	360	1820	610	235	274	94	217	49
12	29	342	1200	240	350	1150	654	220	650	156	191	43
13	31	580	937	240	330	992	615	209	1220	222	152	49
14	44	799	815	230	310	1690	597	200	713	335	130	48
15	46	1000	660	220	300	4340	581	194	452	268	117	39
16	88	1100	540	220	290	3030	1950	189	436	187	289	45
17	73	2150	470	270	280	1840	4290	190	423	152	263	44
18	60	1230	420	370	300	1460	2790	182	347	150	187	43
19	86	833	400	800	643	1570	1750	275	283	167	152	54
20	161	661	390	4200	1740	1440	1360	465	263	210	134	55
21	92	542	370	4090	2500	895	1290	628	267	421	124	53
22	73	471	360	2350	1970	747	1040	472	221	282	118	52
23	64	456	360	1520	1420	703	867	393	221	208	112	60
24	60	414	360	1000	1050	645	735	323	197	168	112	106
25	65	359	470	800	845	584	642	277	180	149	101	81
26	68	416	500	700	620	561	590	232	160	221	93	73
27	61	1140	420	600	560	548	539	203	148	206	94	69
28	55	922	360	470	500	517	494	187	157	172	91	68
29	50	756	320	410	---	476	451	169	166	150	83	68
30	47	727	300	400	---	449	419	152	183	186	79	133
31	43	---	280	390	---	420	---	142	---	234	77	---
TOTAL	1610	17037	20050	22380	18788	29605	27344	8592	8676	5749	5009	1853
MEAN	51.9	568	647	722	671	955	911	277	289	185	162	61.8
MAX	161	2150	2260	4200	2500	4340	4290	628	1220	421	319	133
MIN	26	39	280	220	280	270	340	142	125	94	77	39

CAL YR 1985 TOTAL 120503 MEAN 330 MAX 2650 MIN 26
WTR YR 1986 TOTAL 166693 MEAN 457 MAX 4340 MIN 26

SUSQUEHANNA RIVER BASIN

49

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) 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 National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Nov. 6, 8-17, 20-28, Dec. 1-2, 5-12, 15-16, Dec. 19 to Jan. 20, Jan. 28 to Feb. 19 and Feb. 26 to Mar. 11. 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 from Mud Creek, an upstream tributary, into Keuka Lake (Oswego River basin) for power development. For table of diversion, see station 01528700. Satellite and gage height telemeters at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--12 years, 2,179 ft³/s, 14.75 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 127,000 ft³/s Sept. 26, 1975, gage height, 32.46 ft; minimum, 102 ft³/s Oct. 3, 1980, gage height, 14.22 ft.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 24,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 20	2100	27,700	22.58	Apr. 17	0700	27,200	22.43
Mar. 15	0800	*31,700	*23.11				

Minimum discharge, 130 ft³/s Oct. 10-11, gage height, 14.30 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	163	162	4700	960	1200	1700	1420	1290	1290	562	706	254
2	169	153	9000	940	1300	1500	1330	1250	1270	782	1030	248
3	158	153	8080	940	1300	1500	1250	1160	796	1100	983	239
4	151	178	5310	920	1300	1400	1200	1060	570	883	755	234
5	149	227	3700	880	1900	1400	1310	906	905	632	615	242
6	137	450	3000	840	3500	1400	2410	862	5970	499	534	244
7	137	1100	2700	820	2500	1400	3090	892	4080	457	508	229
8	140	900	2500	800	1600	1300	2800	845	2570	428	522	217
9	135	600	2400	800	1400	1300	2530	781	2330	457	560	207
10	133	540	2400	800	1300	1300	2260	772	1420	467	577	196
11	131	520	2600	760	1200	8400	2180	727	1120	439	553	192
12	137	860	4300	740	1200	7000	2270	632	4800	795	665	186
13	154	1200	5830	700	1200	4600	2200	591	9220	1190	586	179
14	160	2200	4780	660	1200	9080	2010	563	4070	1240	496	183
15	177	3500	3500	640	1100	24000	1950	530	2500	1100	413	181
16	202	3700	2700	640	1100	12900	6880	510	1940	817	472	178
17	252	9400	2510	640	1100	12700	23200	491	3210	731	628	176
18	208	6560	2120	640	1100	12000	15400	487	2300	793	627	182
19	214	4430	1600	740	2200	11800	8360	539	1650	1300	674	202
20	376	3000	1400	12000	14000	9230	5680	1100	1450	1530	504	201
21	369	2500	1400	18800	14400	3190	4830	3460	1140	2440	406	204
22	266	2200	1400	10200	13700	2370	4300	2980	974	1600	389	196
23	220	2000	1400	6730	7160	2450	3300	1840	838	1110	391	253
24	209	1800	1400	4440	4960	2410	2660	1610	766	826	428	300
25	203	1600	1300	2940	3910	2370	2340	1140	703	710	518	318
26	199	1600	1100	2670	2800	2150	2150	905	663	661	398	415
27	192	3900	1000	2370	2300	2110	1830	805	588	739	325	549
28	179	6000	1000	2100	2000	2090	1640	728	562	657	300	577
29	176	5530	1000	1500	---	1940	1500	655	620	617	287	518
30	170	4820	1000	1300	---	1810	1370	613	602	563	272	491
31	163	---	1000	1300	---	1640	---	578	---	615	259	---
TOTAL	5829	71783	88130	81210	93930	150440	115650	31302	60917	26740	16381	7991
MEAN	188	2393	2843	2620	3355	4853	3855	1010	2031	863	528	266
MAX	376	9400	9000	18800	14400	24000	23200	3460	9220	2440	1030	577
MIN	131	153	1000	640	1100	1300	1200	487	562	428	259	176

CAL YR 1985 TOTAL 525801 MEAN 1441 MAX 13800 MIN 123
WTR YR 1986 TOTAL 750303 MEAN 2056 MAX 24000 MIN 131

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 National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 20-21, 23-25, 27-28, Jan. 25 to Feb. 4, Feb. 7-18 and Mar. 2-9. Records fair except those for estimated daily discharges, which are poor. Diurnal fluctuation at low flow caused by operations of a sand and gravel plant upstream. Satellite and rain gage telemeter at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--48 years, 87.1 ft³/s, 15.26 in/yr.

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); minimum daily discharge, 1.7 ft³/s Sept. 16, 1985.

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. 20	1730	1,390	10.44	Mar. 15	1015	*1,920	*12.26
Feb. 21	1515	1,290	10.13	Apr. 17	0530	1,800	11.95

Minimum daily discharge, 4.5 ft³/s Oct. 9; minimum gage height, 4.96 ft Sept. 7-8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.8	11	202	22	39	90	42	42	21	17	119	14
2	11	12	394	20	45	76	39	39	25	25	178	15
3	7.2	12	189	21	48	70	38	36	20	21	98	17
4	5.7	14	128	21	50	66	38	33	19	18	101	17
5	5.0	19	107	21	111	62	52	31	28	17	66	18
6	6.1	19	99	16	125	58	146	31	36	17	59	17
7	5.3	17	89	17	80	54	120	31	31	17	49	14
8	6.0	16	82	16	68	52	93	29	33	17	43	14
9	4.5	14	78	16	54	58	76	27	27	32	53	17
10	5.1	15	82	17	48	125	81	26	23	20	44	17
11	5.7	19	149	17	43	546	86	25	24	18	58	19
12	6.0	26	257	17	39	235	97	24	90	49	46	26
13	6.5	35	167	18	35	240	90	24	288	58	35	24
14	5.3	38	143	16	33	489	79	23	102	65	31	23
15	7.9	46	109	16	32	1470	79	22	62	36	29	24
16	13	49	98	15	30	482	916	22	50	29	36	28
17	15	425	85	16	29	254	1290	24	59	26	124	27
18	15	145	67	18	32	175	411	22	38	38	70	22
19	18	102	54	115	137	158	226	23	32	296	44	21
20	12	83	46	984	641	136	163	44	30	371	35	17
21	10	68	41	539	879	98	135	267	26	294	31	17
22	11	60	37	320	520	82	112	120	24	138	27	17
23	11	55	32	232	313	77	95	79	22	91	28	27
24	12	50	29	142	222	72	80	58	21	65	36	29
25	12	44	27	110	172	64	69	45	20	50	26	24
26	13	71	25	90	146	60	62	38	19	42	23	25
27	13	249	24	70	122	61	56	32	18	38	22	25
28	13	171	24	58	102	58	52	29	20	34	20	23
29	15	160	23	50	---	52	49	25	18	40	18	22
30	11	179	23	46	---	48	45	23	18	49	17	24
31	11	---	22	42	---	44	---	22	---	116	15	---
TOTAL	301.1	2224	2932	3118	4195	5612	4917	1316	1244	2144	1581	624
MEAN	9.71	74.1	94.6	101	150	181	164	42.5	41.5	69.2	51.0	20.8
MAX	18	425	394	984	879	1470	1290	267	288	371	178	29
MIN	4.5	11	22	15	29	44	38	22	18	17	15	14
CFSM	.13	.96	1.22	1.30	1.93	2.34	2.11	.55	.54	.89	.66	.27
IN.	.14	1.07	1.41	1.50	2.01	2.69	2.36	.63	.60	1.03	.76	.30

CAL YR 1985 TOTAL 18374.4 MEAN 50.3 MAX 531 MIN 1.7 CFSM .65 IN. 8.82
WTR YR 1986 TOTAL 30208.1 MEAN 82.8 MAX 1470 MIN 4.5 CFSM 1.07 IN. 14.5

SUSQUEHANNA RIVER BASIN

51

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

REMARKS.--Estimated daily discharges: Dec. 19 to Jan. 20, Jan. 28 to Feb. 4, Feb. 7-17, and Feb. 26 to Mar. 9. 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 from Mud Creek, an upstream tributary, into Keuka Lake (Oswego River basin) for power development. For table of diversion, see station 01528700. Satellite telemeter at station. National Weather Service gage height telemeter at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--80 years (water years 1906-13, 1915-86), 2,541 ft³/s, 13.77 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 189,000 ft³/s June 23, 1972, gage height, 31.62 ft, from flood-mark, 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, 49 ft³/s Aug. 14, 1911, gage height, 1.47 ft.

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

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 21	0400	33,500	13.76	Apr. 17	1600	34,000	13.85
Mar. 15	1700	*41,200	*15.21				

Minimum discharge, 189 ft³/s Oct. 12, gage height, 3.00 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	277	243	5100	1000	1400	2300	1980	1860	864	759	923	355
2	276	239	9450	1000	1500	2100	1810	1780	1840	930	1250	346
3	257	234	9300	1000	1500	2000	1710	1700	1290	1340	1450	340
4	233	278	5590	960	1500	1900	1610	1560	991	1260	1240	325
5	228	348	3870	940	2300	2100	1670	1420	821	1020	989	328
6	219	556	3230	880	4630	1900	2800	1280	4230	752	842	330
7	214	1210	2940	880	3200	1700	3920	1320	5510	636	757	325
8	209	973	2700	860	1800	1400	3820	1250	3700	566	712	309
9	203	732	2540	860	1600	1600	3420	1140	3140	615	747	294
10	202	615	2520	860	1500	1920	3120	1050	2230	579	800	284
11	201	596	2700	820	1400	8690	2940	1040	1650	552	814	271
12	194	910	5210	800	1400	9760	3000	925	3220	731	812	267
13	218	1390	6040	760	1300	6020	2970	829	11400	1420	852	263
14	225	2690	4940	720	1300	9180	2690	793	6590	1690	744	250
15	234	3990	3630	680	1300	32100	2530	753	3850	1500	649	249
16	259	3980	3110	680	1300	19600	6510	719	2900	1220	634	256
17	274	10100	2680	680	1300	15600	28200	692	3510	974	804	254
18	326	7510	2210	680	1420	13100	22000	667	3690	938	878	255
19	308	4490	1700	800	2550	13600	12100	656	2590	1780	847	295
20	338	3400	1500	14000	16300	11200	7440	962	2230	2180	807	290
21	469	3060	1500	26700	19400	6120	6080	4390	1960	4390	644	285
22	449	2510	1500	14200	19200	3610	5500	4560	1590	2830	546	279
23	360	2160	1500	8890	9270	3410	4670	3010	1420	2000	514	289
24	322	1990	1500	6050	6610	3390	3780	2360	1270	1460	647	382
25	320	1810	1400	4240	5280	3270	3290	1940	1160	1160	595	377
26	303	1690	1300	3710	4100	2980	2980	1480	1070	1010	621	399
27	296	4070	1100	3400	3200	2810	2630	1260	989	967	516	542
28	289	6640	1100	2500	2700	2770	2320	1140	884	978	450	657
29	276	5620	1100	1900	---	2590	2120	1030	845	881	418	690
30	258	4910	1100	1600	---	2410	1980	938	824	847	397	611
31	247	---	1100	1500	---	2210	---	875	---	862	373	---
TOTAL	8484	78944	95160	104550	120260	193340	151590	45379	78258	38827	23272	10397
MEAN	274	2631	3070	3373	4295	6237	5053	1464	2609	1252	751	347
MAX	469	10100	9450	26700	19400	32100	28200	4560	11400	4390	1450	690
MIN	194	234	1100	680	1300	1400	1610	656	821	552	373	249
CFSM	.11	1.05	1.22	1.35	1.71	2.49	2.02	.58	1.04	.50	.30	.14
IN.	.13	1.17	1.41	1.55	1.79	2.87	2.25	.67	1.16	.58	.35	.15

CAL YR 1985 TOTAL 629415 MEAN 1724 MAX 19000 MIN 187 CFSM .69 IN. 9.34
WTR YR 1986 TOTAL 948461 MEAN 2599 MAX 32100 MIN 194 CFSM 1.04 IN. 14.1

LAKES AND RESERVOIRS IN SUSQUEHANNA RIVER BASIN

01499500 EAST SIDNEY LAKE.--Lat 42°19'40", long 75°13'42", Delaware County, Hydrologic Unit 02050101, at East Sidney Dam, on Ouleout Creek, 0.3 mi upstream from bridge on County Highway 44 at East Sidney, 4.0 mi upstream from mouth, and 4.5 mi east of Unadilla. DRAINAGE AREA, 103 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 1985 to September 1986 (monthend elevations and contents). Prior to October 1970, published as "East Sidney Reservoir at East Sidney". REVISED RECORDS, WSP 2103: Drainage area. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1979, at datum 0.05 ft lower.

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

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

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

EXTREMES FOR CURRENT YEAR.--Maximum contents, 17,960 acre-ft, Mar. 21, elevation, 1,185.34 ft; minimum, 1,549 acre-ft, Jan. 24, elevation, 1,139.34 ft.

01511000 WHITNEY POINT LAKE.--Lat 42°20'34", long 75°57'57", Broome County, Hydrologic Unit 02050102, on left bank at control-gate structure for Whitney Point Dam on Otselic River, 0.3 mi upstream from spillway, 0.9 mi upstream from mouth, and 1.0 mi north of Whitney Point. DRAINAGE AREA, 257 mi². PERIOD OF RECORD, October 1942 to September 1985 (mean daily elevations and monthend contents), October 1985 to September 1986 (monthend elevations and contents). REVISED RECORDS, WSP 2103: Drainage area. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to October 1970, published as "Whitney Point Reservoir at Whitney Point".

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

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

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

EXTREMES FOR CURRENT YEAR.--Maximum contents, 52,390 acre-ft, Mar. 21, elevation, 996.84 ft; minimum, 4938 acre-ft, Mar. 9, elevation, 965.71 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

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.....	1,155.58	4,606	--	973.45	13,260	--
Oct. 31.....	1,150.84	3,458	- 18.7	973.33	13,100	- 2.6
Nov. 30.....	1,150.32	3,349	- 1.8	972.70	12,325	- 13.0
Dec. 31.....	1,139.80	1,605	- 28.4	966.42	5,629	- 109
CAL YR 1985...	--	--	0.0	--	--	+ 0.4
Jan. 31.....	1,140.98	1,757	+ 2.5	966.38	5,589	- 0.7
Feb. 28.....	1,140.95	1,754	- 0.1	966.40	5,609	+ 0.4
Mar. 31.....	1,140.78	1,731	- 0.4	969.43	8,677	+ 49.9
Apr. 30.....	1,143.92	2,185	+ 7.6	966.67	5,875	- 47.1
May 31.....	1,150.55	3,397	+ 19.7	973.09	12,800	+ 113
June 30.....	1,150.49	3,384	- 0.2	973.28	13,040	+ 4.0
July 31.....	1,152.74	3,888	+ 8.2	973.51	13,330	+ 4.7
Aug. 31.....	1,150.30	3,344	- 8.8	973.17	12,900	- 7.0
Sept. 30.....	1,151.18	3,532	+ 3.2	973.08	12,790	- 1.8
WTR YR 1986...	--	--	- 1.5	--	--	- 0.6

Lakes and Reservoirs in Susquehanna River basin--Continued

01517900 TIOGA LAKE.--Lat 41°53'57", long 77°08'21", Tioga County, Hydrologic Unit 02050104, at Tioga Dam on Tioga River, 0.8 mi south of Tioga, and 1.7 mi upstream from Crooked Creek. DRAINAGE AREA, 280 mi². PERIOD OF RECORD, November 1979 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

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

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

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

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

01518498 HAMMOND LAKE.--Lat 41°53'56", long 77°08'52", Tioga County, Hydrologic Unit 02050104, at Hammond Dam on Crooked Creek, 3 mi upstream from mouth, and 0.8 mi southwest of Tioga. DRAINAGE AREA, 122 mi². PERIOD OF RECORD, November 1979 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

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

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

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

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

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

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.....	1,078.84	8,530	--	1,085.72	8,640	--
Oct. 31.....	1,078.69	8,460	- 1.1	1,085.21	8,260	- 6.2
Nov. 30.....	1,081.68	9,830	+ 23.0	1,086.56	9,190	+ 15.6
Dec. 31.....	1,083.65	10,820	+ 16.1	1,087.22	9,620	+ 7.0
CAL YR 1985.....	--	--	+ 1.5	--	--	+ 0.8
Jan. 31.....	1,082.13	10,060	- 12.4	1,086.59	9,210	- 6.7
Feb. 28.....	1,081.66	9,820	- 4.3	1,086.36	9,070	- 2.5
Mar. 31.....	1,081.77	9,880	+ 1.0	1,087.00	9,460	+ 6.3
Apr. 30.....	1,081.94	9,960	+ 1.3	1,087.00	9,460	0.0
May 31.....	1,082.37	10,180	+ 3.6	1,087.10	9,530	+ 1.1
June 30.....	1,082.14	10,060	- 2.0	1,086.75	9,310	- 3.7
July 31.....	1,081.26	9,630	- 7.0	1,086.24	9,000	- 5.0
Aug. 31.....	1,081.11	9,550	- 1.3	1,086.03	8,870	- 2.1
Sept. 30.....	1,080.80	9,410	- 2.4	1,085.42	8,420	- 7.6
WTR YR 1986.....	--	--	+ 1.2	--	--	- 0.3

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 National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

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

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

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

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

01521000 ARKPORT RESERVOIR.--Lat 42°23'45", long 77°43'08", Steuben County, Hydrologic Unit 02050104, on right bank 1,000 ft upstream from Arkport Dam on Canisteo River, 1.3 mi west of Arkport, and 2.3 mi upstream from small tributary. DRAINAGE AREA, 30.5 mi². PERIOD OF RECORD, January 1951 to September 1985 (mean daily elevations and monthend contents), October 1985 to September 1986 (monthend elevations and contents). REVISED RECORDS, WSP 1552: 1951-57. WRD NY 1974: 1973. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by earthfill dam with concrete spillway, completed by Corps of Engineers in 1940 for flood control; first used for flood regulation on Mar. 31, 1940. Usable capacity, 7,936 acre-ft between elevations 1,218.0 ft (sill of conduit) and 1,304.0 ft (crest of spillway). No dead storage. The flood control works consist of a pressure conduit and a side-channel spillway and are not provided with gates. Water is stored during high flows and released gradually. Satellite, gage height, and rain gage telemeters at station.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 7,944 acre-ft, June 23, 1972, elevation, 1,304.04 ft; minimum contents, 0.3 acre-ft, one or more days during water years 1978-81 and 1984-86; minimum elevation, 1,226.26 ft, several days in October 1980.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,079 acre-ft, June 12, elevation, 1,250.55 ft; minimum, 0.3 acre-ft, many days in October, elevation, 1,226.30 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

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				01521000 Arkport Reservoir		
Sept. 30.....	1,044.43	7,100	--	1,226.31	0.3	--
Oct. 31.....	1,044.73	7,220	+ 2.0	1,226.34	0.3	0.0
Nov. 30.....	1,045.36	7,480	+ 4.4	1,227.80	6.6	+ 0.1
Dec. 31.....	1,045.18	7,400	- 1.2	1,226.40	0.4	- 0.1
CAL YR 1985.....	--	--	- 0.1	--	--	0.0
Jan. 31.....	1,045.48	7,530	+ 2.0	1,226.49	0.5	0.0
Feb. 28.....	1,045.44	7,510	- 0.3	1,227.19	2.3	0.0
Mar. 31.....	1,045.15	7,390	- 2.0	1,226.56	0.6	0.0
Apr. 30.....	1,045.25	7,430	+ 0.7	1,226.87	0.9	0.0
May 31.....	1,045.27	7,440	+ 0.1	1,226.76	0.8	0.0
June 30.....	1,045.43	7,510	+ 1.1	1,227.40	3.8	0.0
July 31.....	1,045.30	7,460	- 0.9	1,228.00	8.0	+ 0.1
Aug. 31.....	1,045.03	7,340	- 1.8	1,227.30	3.1	- 0.1
Sept. 30.....	1,045.01	7,330	- 0.2	1,228.30	20.9	+ 0.3
WTR YR 1986.....	--	--	+ 0.3	--	--	0.0

Lakes and Reservoirs in Susquehanna River basin--Continued

01523000 ALMOND LAKE NEAR ALMOND, NY

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

DRAINAGE AREA.--55.8 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 September 1986 (monthend elevations and contents). Prior to October 1970, published as "Almond Reservoir near Almond".

REVISED RECORDS.--WSP 2103: Drainage area.

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

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

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

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

EXTREMES FOR CURRENT YEAR.--Maximum contents, 4,122 acre-ft, Nov. 16, elevation, 1,271.53 ft; minimum, 17.2 acre-ft, Nov. 29-30, elevation, 1,235.72 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)
Sept. 30.....	1,255.94	1,193	--
Oct. 31.....	1,259.79	1,718	+ 8.5
Nov. 30.....	1,249.06	495	- 20.5
Dec. 31.....	1,252.36	796	+ 4.9
CAL YR 1985.....	--	--	+ 0.2
Jan. 31.....	1,251.42	702	- 1.5
Feb. 28.....	1,250.31	598	- 1.9
Mar. 31.....	1,250.41	607	+ 0.1
Apr. 30.....	1,250.70	633	+ 0.4
May 31.....	1,255.37	1,124	+ 8.0
June 30.....	1,255.90	1,188	+ 1.1
July 31.....	1,255.82	1,178	- 0.2
Aug. 31.....	1,255.43	1,132	- 0.7
Sept. 30.....	1,255.79	1,175	+ 0.7
WTR YR 1986.....	--	--	0.0

DIVERSION OF WATER AFFECTING THE SUSQUEHANNA RIVER BASIN

01528700 Diversion from Waneta Lake to Keuka Lake at Keuka, NY (see station for daily discharge).

OHIO RIVER MAIN STEM

03011020 ALLEGHENY RIVER AT SALAMANCA, NY

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

DRAINAGE AREA.--1,608 mi².

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

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

GAGE.--Water-stage recorder. Datum of gage is 1,358.00 ft above National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). Prior to Sept. 3, 1917, nonrecording gage and Sept. 4, 1917 to Sept. 30, 1964, water-stage recorder at site 7.5 mi downstream at different datum. Oct. 1, 1964 to Sept. 30, 1967, at present site at datum 0.04 ft lower.

REMARKS.--Estimated daily discharges: Dec. 21 to Jan. 21, Jan. 29 to Feb. 3, Feb. 14-17, and Feb. 27 to Mar. 7. Records good except for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite and gage height telemeters at station.

AVERAGE DISCHARGE.--83 years, 2,784 ft³/s, 23.51 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 73,000 ft³/s June 23, 1972, gage height, 24.01 ft from flood-marks; minimum daily, 79 ft³/s Sept. 10, 11, 1971.

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. 21	0300	*16,100	*a9.69	No peak greater than base discharge.			

a Ice jam.

Minimum discharge, 206 ft³/s Oct. 12-13, gage height, 2.78 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	264	471	7570	980	1600	2400	1740	1710	560	912	1150	446
2	245	451	8890	960	1800	2100	1630	1610	559	1230	1530	421
3	233	461	8500	940	2300	1900	1510	1450	548	1440	1620	402
4	231	1170	7310	940	2630	1700	1420	1310	494	1090	1190	389
5	246	3020	5940	920	7680	1600	1480	1210	942	878	947	389
6	261	4230	4940	900	9420	1500	1870	1120	3600	783	817	396
7	262	2970	4190	900	6460	1300	2630	1100	4580	716	864	387
8	258	2360	3570	880	5060	1200	2970	1050	5250	705	885	358
9	243	1960	3180	860	4270	1360	2950	968	6150	1110	1330	334
10	225	2850	2980	840	3580	1920	2920	891	5200	1520	1310	315
11	218	5540	3410	820	3000	7730	3000	837	4530	1180	2160	304
12	210	5890	6300	800	2590	6950	3090	799	9640	1260	1640	299
13	218	7200	6380	800	2100	5630	2940	765	11000	2820	1160	292
14	231	8590	5450	800	1700	7670	3150	741	8850	4180	900	290
15	328	9030	4480	800	1600	10100	3180	721	6590	2980	797	276
16	599	7830	3930	800	1500	10700	4230	757	6260	2020	1020	275
17	467	12400	3530	1600	1400	9930	8580	793	7200	1850	1130	273
18	390	9920	2940	2800	1920	8680	8200	772	5300	7180	1230	281
19	574	8320	2520	5000	3600	7540	6750	818	3830	9890	1350	286
20	1130	6780	1960	11000	7570	6980	5740	1280	3240	8010	880	309
21	801	4890	1700	15000	10500	5390	6690	1610	2610	7970	734	357
22	631	3810	1500	14000	10800	4470	6110	1540	2030	5850	657	358
23	523	3470	1300	11700	8860	4010	4970	1300	1760	3880	621	428
24	599	3050	1200	7910	7030	3530	4090	1180	1510	2850	763	639
25	881	2560	1100	5330	5370	3070	3520	1050	1300	2220	808	607
26	982	2990	1100	4300	4160	2770	3090	911	1130	1870	688	540
27	862	9200	1100	3770	3500	2750	2720	827	1020	1650	614	1890
28	685	9520	1000	2750	3000	2620	2390	787	1160	1450	588	2140
29	601	8550	1000	2100	---	2290	2130	737	1190	1370	560	1240
30	544	7760	1000	1900	---	2070	1890	677	1060	1220	513	1270
31	507	---	1000	1700	---	1900	---	608	---	1170	471	---
TOTAL	14449	157243	110970	104800	125000	133760	107580	31929	109093	83254	30927	16191
MEAN	466	5241	3580	3381	4464	4315	3586	1030	3636	2686	998	540
MAX	1130	12400	8890	15000	10800	10700	8580	1710	11000	9890	2160	2140
MIN	210	451	1000	800	1400	1200	1420	608	494	705	471	273
CFSM	.29	3.26	2.23	2.10	2.78	2.68	2.23	.64	2.26	1.67	.62	.34
IN.	.33	3.64	2.57	2.42	2.89	3.09	2.49	.74	2.52	1.93	.72	.37

CAL YR 1985 TOTAL 884473 MEAN 2423 MAX 21500 MIN 210 CFSM 1.51 IN. 20.5
WTR YR 1986 TOTAL 1025200 MEAN 2809 MAX 15000 MIN 210 CFSM 1.75 IN. 23.7

ALLEGHENY RIVER BASIN

57

03013000 CONEWANGO CREEK AT WATERBORO, N.Y.

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

DRAINAGE AREA.--290 mi².

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

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

REMARKS.--Estimated daily discharges: Dec. 18 to Jan. 18, Jan. 27 to Feb. 1, Feb. 14-17, Mar. 1-2, and Mar. 6-9. Records good except those for periods of estimated daily discharges, which are fair. U. S. Army Corps of Engineers satellite telemeter at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--48 years, 538 ft³/s, 25.19 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,600 ft³/s Apr. 7, 1947; maximum gage height, 12.13 ft Feb. 22, 1981; minimum discharge observed, 22 ft³/s Aug. 18, 1940, Sept. 27, 29, 1941.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Nov. 17	1900	*3,130	*9.25	Mar. 16	0700	3,020	9.12
Jan. 22	2300	2,340	8.23				

Minimum discharge, 26 ft³/s Oct. 4, gage height, 2.91 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	97	1220	340	380	410	349	293	167	343	407	102
2	42	87	1330	340	599	370	325	285	163	277	1100	99
3	40	111	1230	340	760	380	307	274	159	261	1270	95
4	37	890	1040	330	744	399	295	263	157	236	1410	89
5	43	1800	834	330	1600	392	305	254	365	220	1400	96
6	45	2050	694	330	1910	350	424	245	747	207	929	99
7	48	2180	618	330	1910	300	609	254	550	195	509	92
8	46	2270	584	330	1630	280	555	244	1310	195	401	90
9	43	2220	528	320	1270	330	574	227	1550	227	507	87
10	41	2170	598	320	973	636	616	219	1400	241	470	83
11	42	2370	921	310	684	1800	684	212	1460	213	1240	81
12	41	2350	1370	310	528	2010	729	205	1890	349	968	86
13	45	2450	1400	310	442	2270	780	198	2070	815	662	89
14	58	2680	1240	310	410	2620	1020	193	2030	1020	414	89
15	102	2790	952	310	370	2900	1140	192	1720	864	271	83
16	130	2880	787	310	360	3000	1270	197	1320	612	476	83
17	115	3100	655	330	380	2860	1550	205	1190	484	378	86
18	88	3000	500	550	629	2460	1610	202	956	475	269	82
19	411	2670	460	1320	1420	2030	1420	267	701	1640	212	84
20	678	2110	450	1870	1800	1920	1100	542	496	1620	178	99
21	468	1540	430	2210	2100	1620	1190	593	388	1430	156	127
22	289	1210	420	2320	2220	1250	1110	414	354	1110	142	104
23	202	1080	400	2310	2160	1010	919	317	325	764	138	132
24	174	882	390	2130	1820	761	696	272	302	474	154	192
25	530	662	370	1720	1360	594	550	248	270	346	136	146
26	476	649	360	1280	989	584	468	230	245	297	129	408
27	297	1310	360	960	705	634	406	212	235	271	136	1330
28	202	1380	360	580	500	602	362	208	473	251	130	1530
29	153	1280	350	470	---	522	329	196	689	276	125	1320
30	128	1160	350	440	---	440	306	182	472	312	118	1380
31	111	---	350	400	---	387	---	173	---	310	111	---
TOTAL	5163	51428	21551	24060	30653	36121	21998	8016	24154	16335	14946	8463
MEAN	167	1714	695	776	1095	1165	733	259	805	527	482	282
MAX	678	3100	1400	2320	2220	3000	1610	593	2070	1640	1410	1530
MIN	37	87	350	310	360	280	295	173	157	195	111	81
CFSM	.57	5.91	2.40	2.68	3.77	4.02	2.53	.89	2.78	1.82	1.66	.97
IN.	.66	6.60	2.76	3.09	3.93	4.63	2.82	1.03	3.10	2.10	1.92	1.09

CAL YR 1985 TOTAL 215117 MEAN 589 MAX 5830 MIN 37 CFSM 2.03 IN. 27.6
WTR YR 1986 TOTAL 262888 MEAN 720 MAX 3100 MIN 37 CFSM 2.48 IN. 33.7

ALLEGHENY RIVER BASIN

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 National Geodetic Vertical Datum of 1929. Prior to Nov. 1974 at site 950 ft northwest at same datum.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,311.23 ft Mar. 5, 1976; minimum, 1,306.35 ft Mar. 11, 12, 13, 14, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,309.98 ft July 21, minimum, 1,306.96 ft Jan. 17.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1307.37	1307.89	1308.66	1307.42	1307.47	1307.88	1307.79	1308.22	1308.25	1308.30	1308.46	1308.06
2	1307.35	1307.86	1308.65	1307.39	1307.50	1307.81	1307.78	1308.19	1308.24	1308.34	1308.48	1308.05
3	1307.33	1307.90	1308.60	1307.37	1307.51	1307.74	1307.76	1308.17	1308.21	1308.31	1308.39	1308.04
4	1307.31	1307.99	1308.51	1307.36	1307.52	1307.68	1307.75	1308.15	1308.19	1308.26	1308.28	1308.02
5	1307.29	1308.53	1308.43	1307.36	1307.89	1307.63	1307.75	1308.14	1308.32	1308.24	1308.24	1308.05
6	1307.31	1308.99	1308.36	1307.37	1308.10	1307.58	1307.78	1308.16	1308.58	1308.24	1308.23	1308.03
7	1307.30	1308.97	1308.28	1307.34	1308.12	1307.55	1307.80	1308.20	1308.60	1308.24	1308.23	1308.02
8	1307.28	1308.93	1308.20	1307.29	1308.11	1307.49	1307.81	1308.21	1308.99	1308.24	1308.25	1308.00
9	1307.26	1308.84	1308.13	1307.24	1308.08	1307.45	1307.85	1308.21	1309.09	1308.34	1308.25	1307.98
10	1307.26	1308.84	1308.09	1307.21	1308.04	1307.47	1307.94	1308.20	1308.97	1308.33	1308.24	1307.97
11	1307.27	1309.06	1308.11	1307.17	1307.99	1307.99	1308.01	1308.20	1309.06	1308.28	1308.40	1307.96
12	1307.26	1309.04	1308.21	1307.14	1307.93	1308.09	1308.07	1308.19	1309.79	1308.27	1308.31	1307.99
13	1307.26	1309.07	1308.21	1307.12	1307.88	1308.20	1308.11	1308.18	1309.94	1308.36	1308.24	1307.99
14	1307.27	1309.28	1308.18	1307.09	1307.82	1308.46	1308.24	1308.17	1309.82	1308.40	1308.21	1307.97
15	1307.33	1309.36	1308.14	1307.05	1307.77	1308.60	1308.37	1308.16	1309.67	1308.31	1308.21	1307.96
16	1307.37	1309.30	1308.16	1307.02	1307.72	1308.63	1308.50	1308.19	1309.55	1308.29	1308.30	1307.97
17	1307.37	1309.56	1308.13	1306.99	1307.69	1308.59	1308.63	1308.21	1309.47	1308.26	1308.31	1307.95
18	1307.36	1309.48	1308.10	1307.02	1307.69	1308.51	1308.60	1308.23	1309.31	1308.24	1308.27	1307.94
19	1307.52	1309.37	1308.04	1307.21	1307.86	1308.53	1308.53	1308.35	1309.16	1309.46	1308.24	1307.94
20	1307.69	1309.24	1307.99	1307.63	1308.03	1308.57	1308.46	1308.59	1309.05	1309.67	1308.22	1307.95
21	1307.70	1309.09	1307.95	1307.84	1308.22	1308.50	1308.42	1308.61	1308.91	1309.97	1308.20	1307.97
22	1307.69	1308.98	1307.89	1307.88	1308.29	1308.42	1308.36	1308.52	1308.78	1309.86	1308.19	1307.96
23	1307.70	1308.89	1307.80	1307.89	1308.27	1308.33	1308.28	1308.42	1308.66	1309.69	1308.19	1308.00
24	1307.74	1308.79	1307.77	1307.85	1308.22	1308.26	1308.26	1308.31	1308.52	1309.53	1308.19	1308.02
25	1307.89	1308.68	1307.73	1307.81	1308.16	1308.18	1308.26	1308.28	1308.39	1309.36	1308.16	1308.03
26	1307.92	1308.64	1307.71	1307.77	1308.09	1308.11	1308.26	1308.28	1308.32	1309.21	1308.15	1308.16
27	1307.91	1308.79	1307.66	1307.73	1308.03	1308.05	1308.26	1308.28	1308.30	1309.06	1308.17	1308.42
28	1307.90	1308.81	1307.61	1307.68	1307.95	1307.99	1308.26	1308.29	1308.29	1308.92	1308.15	1308.37
29	1307.90	1308.75	1307.56	1307.63	---	1307.93	1308.25	1308.29	1308.30	1308.79	1308.10	1308.29
30	1307.91	1308.68	1307.51	1307.58	---	1307.88	1308.23	1308.27	1308.30	1308.66	1308.08	1308.33
31	1307.89	---	1307.46	1307.52	---	1307.82	---	1308.26	---	1308.53	1308.07	---
MEAN	1307.51	1308.85	1308.06	1307.42	1307.93	1308.06	1308.15	1308.26	1308.83	1308.71	1308.24	1308.05
MAX	1307.92	1309.56	1308.66	1307.89	1308.29	1308.63	1308.63	1308.61	1309.94	1309.97	1308.48	1308.42
MIN	1307.26	1307.86	1307.46	1306.99	1307.47	1307.45	1307.75	1308.14	1308.19	1308.24	1308.07	1307.94

CAL YR 1985 MEAN 1308.06 MAX 1309.56 MIN 1306.92
WTR YR 1986 MEAN 1308.17 MAX 1309.97 MIN 1306.99

ALLEGHENY RIVER BASIN

59

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

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

AVERAGE DISCHARGE.--51 years (water years 1936-86), 357 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,250 ft³/s Sept. 14, 1979, gage height, 4.93 ft; minimum, 2.7 ft³/s Nov. 20, 21, 1960, gage height, 0.15 ft; minimum daily, 3.0 ft³/s Nov. 20, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,940 ft³/s Jul. 20 at 1200 hours, gage height, 4.48 ft; minimum, 46 ft³/s May 19, gage height, 0.63 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	49	984	550	567	721	225	166	91	93	904	63
2	86	50	1050	520	587	700	219	151	91	272	922	63
3	86	62	1050	496	573	678	217	112	65	401	901	64
4	82	317	966	489	580	643	218	71	52	243	518	63
5	85	973	924	483	653	636	218	59	515	65	202	71
6	81	1130	903	480	662	607	222	62	968	65	64	63
7	77	1120	865	474	660	601	221	60	981	66	68	63
8	62	1110	812	470	664	505	202	58	1140	75	120	63
9	54	1070	791	460	662	484	138	57	1180	248	572	62
10	55	1120	775	316	651	492	144	55	1120	346	212	62
11	54	1130	780	422	636	621	144	55	1250	338	790	63
12	54	1140	814	430	628	755	142	55	1430	857	775	69
13	55	1190	805	432	614	800	142	54	1480	933	411	62
14	53	1250	821	420	609	915	145	53	1430	930	66	62
15	74	1240	366	412	604	988	469	52	1370	743	68	64
16	52	1250	307	405	591	999	760	52	1370	286	121	63
17	52	1330	687	397	590	993	1010	49	1330	442	216	62
18	52	1270	712	383	606	972	1010	50	1260	293	385	64
19	75	1240	705	398	706	975	982	164	1200	1080	153	62
20	52	1210	693	524	753	996	955	735	1160	1460	99	63
21	52	1170	687	641	798	978	964	1010	1090	1490	64	62
22	52	1110	671	648	805	943	939	982	1040	1430	64	65
23	51	1100	661	645	803	911	645	954	1010	1370	68	76
24	65	1070	647	639	793	894	163	810	978	1320	63	64
25	54	1030	621	628	785	852	163	92	856	1250	62	64
26	51	1010	611	626	772	832	164	85	198	1220	65	209
27	51	1060	598	622	756	830	165	84	253	1160	63	805
28	52	1050	594	599	743	738	164	87	443	1100	137	834
29	51	1040	583	589	---	615	164	88	108	1060	220	696
30	51	1010	571	586	---	603	163	91	93	1020	64	482
31	50	---	555	576	---	583	---	91	---	951	63	---
TOTAL	1905	29901	22609	15760	18851	23860	11477	6544	25552	22607	8500	4628
MEAN	61.5	997	729	508	673	770	383	211	852	729	274	154
MAX	86	1330	1050	648	805	999	1010	1010	1480	1490	922	834
MIN	50	49	307	316	567	484	138	49	52	65	62	62

CAL YR 1985 TOTAL 144858 MEAN 397 MAX 1330 MIN 30
WTR YR 1986 TOTAL 192194 MEAN 527 MAX 1490 MIN 49

LAKES IN ALLEGHENY RIVER BASIN

03013946 Chautauqua Lake at Bemus Point, NY (see station for daily mean elevation).

STREAMS TRIBUTARY TO LAKE ERIE

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04213500 CATTARAUGUS CREEK AT GOWANDA, NY
(National stream-quality accounting network station)

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

DRAINAGE AREA.--436 mi².

WATER-DISCHARGE RECORDS

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

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

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

REMARKS.--Estimated daily discharges: Dec. 16 to Jan. 20, Jan. 25 to Feb. 19 and Feb. 22 to Mar. 10. Records good except those for estimated daily discharges, which are fair. Diurnal fluctuation at low and medium flow caused by powerplant 20 mi. upstream from station. Gage height telemeter at station.

AVERAGE DISCHARGE.--46 years (water years 1941-86), 742 ft³/s, 23.32 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 34,600 ft³/s Mar. 7, 1956, gage height, 14.14 ft; minimum, about 6 ft³/s Aug. 21, 1941, result of regulation; minimum gage height, 0.90 ft Oct. 26, 1951; minimum daily discharge, 52 ft³/s Sept. 13, 1945, Aug. 1, 1955.

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

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Nov. 13	1330	12,000	8.27	June 11	1700	9,990	7.55
Jan. 20	1400	*12,300	*8.35	July 20	1200	10,100	7.60
Mar. 11	0400	10,600	7.77	Aug. 1	0030	10,600	7.78

Minimum discharge, 94 ft³/s Oct. 3-4, gage height, 1.36 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	99	151	2030	440	500	440	461	416	189	288	4470	218
2	98	143	2370	440	1100	440	441	400	208	457	2840	215
3	95	271	1370	430	920	440	416	365	192	336	1100	202
4	94	1450	964	430	920	440	417	348	173	259	671	194
5	121	4010	821	430	4400	440	479	326	342	230	497	235
6	153	2780	768	430	2100	420	659	329	524	214	421	228
7	133	1360	694	420	1000	360	697	384	352	211	1350	206
8	117	1010	642	420	740	260	921	315	3850	194	1070	196
9	107	719	629	410	560	260	913	293	1310	280	1460	188
10	104	2120	770	400	540	1200	914	276	594	225	1560	181
11	129	2730	1770	400	540	7220	949	262	5190	191	3040	179
12	130	1830	2960	390	500	2100	970	253	5730	567	992	205
13	327	6330	1530	380	440	3030	1210	234	3510	2190	663	226
14	248	3740	1100	370	370	4460	1670	230	1410	2040	524	215
15	445	2450	818	380	360	3370	1300	234	859	982	457	199
16	426	2780	760	410	360	2250	1930	332	772	584	573	228
17	228	3520	680	520	400	1480	3900	381	1290	506	537	207
18	169	1520	640	1200	1000	1160	1670	288	721	2360	434	191
19	1010	1070	600	3600	3300	1740	1070	415	514	3200	377	202
20	804	898	580	8000	3460	1740	938	642	459	3860	336	209
21	378	742	560	3690	4410	963	1710	747	398	2340	316	232
22	254	678	540	2290	1900	820	1210	515	352	1060	301	211
23	210	1040	520	1660	1200	798	907	532	414	673	291	350
24	292	804	500	1050	1000	731	738	455	354	508	369	487
25	974	640	480	880	780	672	642	351	312	427	299	296
26	422	1400	470	660	520	723	576	290	276	385	266	279
27	294	2950	460	520	480	799	528	263	271	421	322	1070
28	221	1620	460	450	450	675	487	243	544	361	298	613
29	194	1200	450	440	---	586	449	220	395	394	282	553
30	176	1200	450	440	---	536	428	210	340	428	248	2030
31	163	---	440	440	---	492	---	197	---	718	229	---
TOTAL	8615	53156	27826	32420	34250	41045	29600	10746	31845	26889	26593	10245
MEAN	278	1772	898	1046	1223	1324	987	347	1061	867	858	341
MAX	1010	6330	2960	8000	4410	7220	3900	747	5730	3860	4470	2030
MIN	94	143	440	370	360	260	416	197	173	191	229	179
CFSM	.64	4.06	2.06	2.40	2.81	3.04	2.26	.80	2.43	1.99	1.97	.78
IN.	.74	4.54	2.37	2.77	2.92	3.50	2.53	.92	2.72	2.29	2.27	.87

CAL YR 1985 TOTAL 265639 MEAN 728 MAX 10700 MIN 68 CFSM 1.67 IN. 22.7
WTR YR 1986 TOTAL 333230 MEAN 913 MAX 8000 MIN 94 CFSM 2.09 IN. 28.4

STREAMS TRIBUTARY TO LAKE ERIE

04213500 CATTARAUGUS CREEK AT GOWANDA, NY--Continued

WATER-QUALITY RECORDS

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

CHEMICAL DATA: 1959 (e), 1963 (b), 1972 (a), 1975 (b), 1976-78 (c), 1979-80 (d), 1981-82 (c), 1983-86 (b).

MINOR ELEMENTS DATA: 1972-74 (a), 1975 (b), 1976-77 (c), 1978-86 (b).

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

NUTRIENT DATA: 1975 (b), 1976-77 (c), 1978-80 (d), 1981-82 (c), 1983-86 (b).

BIOLOGICAL DATA:

Bacterial--1978-80 (d), 1981-82 (c), 1983-86 (b).

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

SEDIMENT DATA: 1964 (b), 1978-82 (c), 1983-86 (b).

PERIOD OF DAILY RECORD.--

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

pH: October 1958 to September 1959, unpublished.

WATER TEMPERATURES: October 1958 to September 1959, January 1978 to September 1981.

EXTREMES FOR PERIOD OF DAILY RECORD.--

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

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 to SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
OCT 29...	1600	188	396	8.20	8.0	4.0	750	12.4	106	42
MAR 19...	1100	1610	235	8.06	7.5	93	728	9.4	82	630
JUN 17...	1115	1370	250	8.11	19.0	180	749	8.2	90	--
AUG 19...	1145	319	359	8.24	21.5	4.6	748	8.7	101	82

DATE	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS WH WAT (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT 29...	K12	180	46	56	10	13	1.9	135	41	20
MAR 19...	170	120	34	36	6.2	6.4	1.1	82	17	15
JUN 17...	7600	120	37	38	5.9	6.4	1.7	81	21	10
AUG 19...	K18	170	42	54	9.1	9.2	1.9	129	30	13

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

04213500 - CATTARAUGUS CREEK AT GOWANDA, NY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	FLUORIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
OCT 29...	<0.1	2.9	248	230	0.51	0.31	0.4	0.02	0.02	<0.01
MAR 19...	<0.1	4.5	140	140	1.30	0.02	0.2	0.04	<0.01	0.01
JUN 17...	<0.1	4.8	159	140	--	--	--	--	--	--
AUG 19...	<0.1	3.3	207	220	0.81	<0.01	0.3	0.02	0.04	0.02

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
OCT 29...	30	<1	61	2	<1	<1	<3	7	8	3
MAR 19...	30	<1	45	<0.5	<1	<1	<3	1	26	<1
JUN 17...	--	--	--	--	--	--	--	--	--	--
AUG 19...	20	<1	62	<0.5	<1	4	<3	2	11	<5

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 29...	6	11	<0.1	<10	<1	<1	<1	110	<6	5
MAR 19...	6	9	<0.1	<10	1	<1	<1	64	<6	21
JUN 17...	--	--	--	--	--	--	--	--	--	--
AUG 19...	6	5	0.2	<10	<1	<1	<1	96	<6	12

STREAMS TRIBUTARY TO LAKE ERIE

04213500 - CATTARAUGUS CREEK AT GOWANDA, NY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK)	DEPTH AT SAMPLE LOC- ATION, TOTAL (FEET)	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)
OCT								
29...	1605	120	1.7	1.0	396	8.53	7.5	12.4
29...	1610	100	2.0	1.0	400	8.50	7.5	12.3
29...	1615	80	1.8	1.0	406	8.51	8.0	12.0
29...	1620	60	2.0	1.0	395	8.51	7.5	12.2
29...	1625	40	1.9	1.0	395	8.50	8.0	12.3
29...	1630	20	1.4	1.0	398	8.52	8.0	12.3
MAR								
19...	1105	10	4.5	2.0	236	7.98	7.5	9.4
19...	1110	30	4.5	2.0	235	8.01	7.5	9.4
19...	1115	50	4.0	2.0	235	8.07	7.5	9.6
19...	1120	70	3.2	1.5	234	8.00	8.0	9.2
19...	1125	90	3.1	1.5	237	8.10	7.5	9.4
19...	1130	110	4.2	2.0	235	8.06	7.5	9.8
JUN								
17...	1120	10	4.2	2.0	250	8.11	17.5	--
17...	1125	30	4.1	2.0	247	8.09	17.5	--
17...	1130	50	3.6	2.0	252	8.10	17.5	--
17...	1135	70	3.0	1.5	251	8.10	17.5	--
17...	1140	90	2.9	1.5	245	8.15	17.5	--
17...	1145	110	3.9	2.0	248	8.12	17.5	--
AUG								
19...	1150	10	1.9	1.0	359	8.24	21.5	8.7
19...	1155	30	2.1	1.0	362	8.26	21.0	8.6
19...	1200	50	1.8	1.0	347	8.26	21.0	8.5
19...	1205	70	1.7	1.0	358	8.24	21.0	8.7
19...	1210	90	1.7	1.0	361	8.25	21.5	8.7
19...	1215	110	1.3	1.0	360	8.23	21.0	8.8

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
29...	1600	188	10	5.1	97
MAR					
19...	1100	1610	225	978	97
JUN					
17...	1115	1370	355	1310	98
AUG					
19...	1145	319	15	13	84

STREAMS TRIBUTARY TO LAKE ERIE

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0421402001 CATTARAUGUS CREEK BELOW IRVING, NY

LOCATION.--Lat 42°33'53", long 79°07'30", Chautauqua County, Hydrologic Unit 04120102, on left bank at downstream side of Conrail railroad bridge, 0.6 mi west of Irving, and 0.9 mi upstream from mouth.

DRAINAGE AREA.--554 mi².

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is International Great Lakes Datum of 1955.

COOPERATION.--Station established and maintained in cooperation with U.S. Army Corps of Engineers, Buffalo District, to evaluate magnitude and frequency of peak stages after breakwater construction.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 582.46 ft Feb. 25, 1985; minimum, 570.57 ft Oct. 20, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 582.04 ft Jan. 21; minimum, 570.57 ft Oct. 20.

ELEVATION (FEET IGLD), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	572.38	571.30	572.74	572.71	572.13	572.66	573.09	573.45	573.37	573.30	573.71	572.76
2	---	571.47	---	572.15	572.40	572.59	572.97	573.45	573.04	573.53	573.56	572.72
3	---	571.65	---	572.27	572.20	572.58	572.86	573.37	573.04	573.49	573.46	572.66
4	---	571.56	---	572.01	572.05	572.62	572.72	573.14	573.19	573.45	573.35	572.80
5	---	572.05	---	573.33	574.19	572.56	572.72	573.24	573.11	573.55	573.24	573.06
6	---	572.48	---	573.06	573.05	573.01	573.02	573.20	573.03	573.44	573.14	572.84
7	---	572.55	---	572.35	572.56	573.01	573.09	573.25	573.16	573.51	573.39	572.83
8	571.78	572.60	---	572.43	573.22	572.59	573.18	573.16	573.51	573.38	573.44	572.91
9	571.85	572.17	---	573.06	573.10	572.51	573.33	572.89	573.22	573.49	573.51	572.73
10	571.85	572.15	---	572.50	572.88	572.86	573.32	572.98	573.22	573.38	573.29	572.72
11	571.67	571.73	---	572.21	572.66	573.82	573.26	573.03	573.73	573.19	573.70	573.05
12	571.50	572.32	---	572.85	572.71	572.43	573.10	572.87	573.93	573.41	573.26	573.27
13	571.88	573.01	---	572.29	572.75	572.82	573.05	572.88	573.88	573.68	573.04	572.95
14	571.64	572.21	---	572.03	572.48	573.15	572.76	572.90	573.59	573.82	573.13	572.64
15	572.00	572.16	---	572.06	572.64	573.17	573.10	573.07	573.54	573.48	573.24	572.45
16	571.97	572.59	573.46	572.04	572.33	573.06	573.14	573.19	573.80	573.45	573.21	572.47
17	571.67	573.24	575.91	572.18	572.40	572.96	573.16	573.10	573.64	573.43	573.15	572.34
18	571.87	572.44	573.75	572.19	572.74	572.81	573.10	573.14	573.64	573.58	573.03	572.61
19	571.77	572.48	573.03	573.23	574.40	573.51	573.09	573.04	573.71	573.64	572.82	572.54
20	571.13	573.44	572.56	575.12	573.92	573.20	573.00	573.27	573.58	573.73	572.80	572.60
21	571.47	572.38	573.12	575.23	572.94	573.12	573.49	573.28	573.44	573.51	573.01	572.49
22	571.72	572.35	573.04	573.68	572.63	573.15	573.21	573.26	573.63	573.40	572.77	572.61
23	571.66	572.66	572.90	572.42	572.94	573.18	573.24	573.33	573.66	573.39	573.33	572.91
24	571.98	572.82	572.84	572.32	572.63	573.01	573.14	573.27	573.80	573.40	573.21	572.79
25	572.09	572.20	573.02	572.59	572.67	573.03	573.17	573.25	573.57	573.41	572.96	572.62
26	571.86	572.37	573.06	572.44	572.33	573.16	573.17	573.13	573.50	573.58	573.09	572.92
27	572.02	572.44	573.64	572.83	572.53	573.20	573.11	573.16	573.59	573.33	573.40	572.78
28	571.53	571.76	573.58	572.81	572.79	573.09	573.15	573.31	573.63	573.33	573.10	572.86
29	571.41	572.46	573.18	572.26	---	573.12	573.30	573.34	573.54	573.58	572.92	572.98
30	571.44	572.53	572.76	572.35	---	573.17	573.15	573.38	573.45	573.39	572.91	573.30
31	571.30	---	572.82	572.27	---	572.93	---	573.37	---	573.31	572.76	---
MEAN	---	572.32	---	572.69	572.80	572.97	573.11	573.18	573.49	573.47	573.19	572.77
MAX	---	573.44	---	575.23	574.40	573.82	573.49	573.45	573.93	573.82	573.71	573.30
MIN	---	571.30	---	572.01	572.05	572.43	572.72	572.87	573.03	573.19	572.76	572.34

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

REMARKS.--Estimated daily discharges: Dec. 14 to Jan. 19, Jan. 24 to Feb. 19, Feb. 23 to Mar. 10 and Mar. 21-23. Records good except those for estimated daily discharges, which are fair. Gage height telemeter at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--48 years, 201 ft³/s, 19.22 in/yr.

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 Sept. 1, 1964; minimum gage height, 0.58 ft Aug. 22, 23, 1985.

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

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Nov. 5	2100	5,030	6.47	Jan. 20	1430	*5,950	6.92
Jan. 18	2030	ice jam	*11.84	Mar. 11	0300	5,110	6.44

Minimum discharge, 9.5 ft³/s July 11, 12; minimum gage height, 0.64 ft Oct. 3-4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	28	643	90	600	96	83	79	48	21	157	25
2	14	28	707	88	700	96	79	78	119	24	421	22
3	13	65	338	90	360	98	70	69	62	25	110	21
4	13	956	226	88	290	100	68	64	41	17	66	21
5	20	3180	199	86	1600	110	80	59	87	13	41	21
6	28	1500	189	84	500	100	123	56	95	14	33	21
7	23	450	168	84	180	92	116	56	70	16	47	23
8	20	268	151	84	150	100	185	52	435	19	184	21
9	18	211	154	82	130	100	155	49	200	13	172	18
10	17	1340	220	82	110	1200	172	45	77	11	110	18
11	22	1410	729	80	100	3030	210	44	56	10	1120	25
12	26	509	993	80	96	536	244	40	313	144	258	27
13	63	2050	449	80	90	1540	279	38	555	293	103	26
14	70	1200	220	78	88	1840	292	37	170	237	88	28
15	73	910	200	76	84	1180	223	38	87	87	66	29
16	155	613	170	78	100	636	785	41	80	49	150	38
17	61	1150	150	80	130	375	1450	88	251	42	113	46
18	39	372	140	1000	250	292	379	64	112	75	68	33
19	335	262	130	2200	1000	825	225	116	66	220	53	30
20	324	216	120	3890	1300	479	243	189	57	125	46	32
21	100	173	120	1210	1590	190	719	196	50	81	40	35
22	65	179	120	737	507	180	315	120	42	54	35	35
23	51	476	110	499	300	180	211	286	74	37	32	224
24	119	300	100	220	200	173	160	146	76	32	36	254
25	210	189	100	170	130	149	138	86	49	27	38	86
26	105	729	98	110	110	163	122	63	40	27	30	60
27	62	822	96	80	100	168	106	52	33	25	31	124
28	46	366	96	60	98	137	95	47	27	27	31	92
29	38	299	98	52	---	116	86	43	32	26	29	121
30	34	313	98	54	---	103	81	38	37	45	31	338
31	31	---	94	64	---	90	---	35	---	138	27	---
TOTAL	2210	20564	7426	11756	10893	14474	7494	2414	3441	1974	3766	1894
MEAN	71.3	685	240	379	389	467	250	77.9	115	63.7	121	63.1
MAX	335	3180	993	3890	1600	3030	1450	286	555	293	1120	338
MIN	13	28	94	52	84	90	68	35	27	10	27	18
CFSM	.50	4.83	1.69	2.67	2.74	3.29	1.76	.55	.81	.45	.86	.44
IN.	.58	5.39	1.95	3.08	2.85	3.79	1.96	.63	.90	.52	.99	.50

CAL YR 1985 TOTAL 88566 MEAN 243 MAX 6680 MIN 8.8 CFSM 1.71 IN. 23.2
WTR YR 1986 TOTAL 88306 MEAN 242 MAX 3890 MIN 10 CFSM 1.70 IN. 23.1

STREAMS TRIBUTARY TO LAKE ERIE

67

04215000 CAYUGA CREEK NEAR LANCASTER, NY

LOCATION.--Lat 42°53'24", long 78°38'43", Erie County, Hydrologic Unit 04120103, on right bank 150 ft upstream from low dam in Como Lake Park, 700 ft downstream from bridge on Bowen Road, 800 ft downstream from Little Buffalo Creek, 2 mi southeast of Lancaster, and 8.7 mi upstream from mouth.

DRAINAGE AREA.--96.4 mi².

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

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

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

REMARKS.--Estimated daily discharges: Dec. 18 to Jan. 20, Jan. 24 to Feb. 1, Feb. 4-5, and Feb. 8 to Mar. 10. Records good except those for estimated daily discharges, which are poor. Since August 1962, undetermined amount of flow diverted by Lancaster Country Club for irrigation upstream from station. Concrete dam configuration modified in September 1974 resulting in a lower point of zero flow. Gage height telemeter at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--42 years (water years 1939-68, 1975-86) 132 ft³/s, 18.60 in/yr.

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 stoplogs 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)
Nov. 5	1915	*5,440	8.30	Feb. 19	2300	ice jam	*10.55
Nov. 13	1230	3,350	7.12	Feb. 20	--	2,800	ice jam
Jan. 20	1330	5,150	8.14	Mar. 11	0200	4,200	7.61

Minimum discharge, 4.7 ft³/s Sept. 10, gage height, 2.68 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	28	513	90	82	72	50	43	13	16	121	6.9
2	6.3	25	603	90	303	74	47	44	133	29	164	6.1
3	5.8	39	268	90	318	80	42	37	43	31	49	6.0
4	5.6	1050	208	90	210	86	40	33	21	14	26	5.8
5	7.2	3220	182	88	1300	92	47	29	34	9.1	19	5.6
6	17	1520	179	86	419	70	117	24	81	7.0	12	5.4
7	13	455	163	84	162	60	100	26	44	6.8	14	5.9
8	9.5	288	150	84	150	58	145	23	285	13	51	5.5
9	7.4	276	152	82	140	68	135	21	120	10	56	5.1
10	6.9	1200	204	82	110	1200	172	21	48	7.0	37	4.9
11	10	997	555	80	94	2180	175	18	33	5.7	646	6.5
12	13	454	567	80	86	365	200	16	96	50	131	8.7
13	61	1690	291	80	78	1160	233	15	233	116	51	7.8
14	66	981	210	78	70	1160	210	14	86	148	31	8.5
15	101	660	182	78	64	752	172	14	39	66	23	8.7
16	147	538	192	78	62	395	724	15	43	25	58	16
17	58	729	164	76	76	250	1370	26	111	17	42	14
18	32	275	140	600	100	194	266	18	43	17	23	10
19	576	212	130	1500	780	521	169	59	26	139	17	8.4
20	315	183	120	2600	2300	268	176	124	29	63	14	7.9
21	130	153	120	853	1100	141	540	109	25	75	22	8.5
22	77	159	120	535	360	133	216	58	16	39	60	9.9
23	62	391	110	342	240	138	158	247	20	19	24	74
24	189	291	110	180	180	131	123	105	16	13	16	83
25	236	186	100	130	140	111	98	50	15	9.0	12	27
26	117	519	100	84	110	113	83	31	13	8.4	10	20
27	70	711	100	52	90	119	68	22	11	9.3	11	38
28	50	293	98	48	80	102	58	19	23	8.9	9.7	26
29	39	248	98	52	---	80	49	16	20	8.1	9.0	98
30	34	269	96	60	---	67	46	13	22	50	8.4	285
31	31	---	94	68	---	57	---	11	---	99	7.6	---
TOTAL	2498.9	18040	6319	8520	9204	10297	6029	1301	1742	1128.3	1774.7	823.1
MEAN	80.6	601	204	275	329	332	201	42.0	58.1	36.4	57.2	27.4
MAX	576	3220	603	2600	2300	2180	1370	247	285	148	646	285
MIN	5.6	25	94	48	62	57	40	11	11	5.7	7.6	4.9
CFSM	.84	6.24	2.11	2.85	3.41	3.45	2.08	.44	.60	.38	.59	.28
IN.	.96	6.96	2.44	3.29	3.55	3.97	2.33	.50	.67	.44	.68	.32

CAL YR 1985 TOTAL 66200.8 MEAN 181 MAX 5830 MIN 2.0 CFSM 1.88 IN. 25.5
WTR YR 1986 TOTAL 67676.8 MEAN 185 MAX 3220 MIN 4.9 CFSM 1.92 IN. 26.1

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 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 National Geodetic Vertical Datum of 1929. Prior to Apr. 4, 1955, at datum 2.00 ft higher. Apr. 4 to Oct. 12, 1955, nonrecording gage at temporary site 1.3 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Dec. 16 to Jan. 20, Jan. 24 to Feb. 2, Feb. 6-19, and Feb. 26 to Mar. 9. Records fair. Gage height telemeter at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--46 years (water years 1941-86), 232 ft³/s, 23.34 in/yr.

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, 2.6 ft³/s Nov. 7, 1953; minimum gage height, 1.87 ft June 28.

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

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Nov. 5	1930	5,340	9.15	Jan. 20	0300	*a7,000	*b12.76
Nov. 13	1345	4,130	8.13	Mar. 11	0600	5,780	9.34

a About.

b Ice jam.

Minimum discharge, 12 ft³/s Sept. 10, 11; minimum gage height, 2.03 ft Oct. 3, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	20	685	100	170	82	135	88	63	61	385	15
2	15	24	828	100	500	88	124	87	91	74	425	15
3	16	86	380	100	433	100	110	75	58	68	137	14
4	15	1010	241	100	322	120	105	70	44	49	90	14
5	29	3450	202	98	1900	110	124	66	75	39	56	14
6	27	1350	195	96	500	110	193	75	85	33	45	14
7	22	489	172	96	300	100	191	63	87	32	86	14
8	19	366	160	94	180	96	285	59	674	31	103	14
9	16	273	166	94	160	90	237	56	229	28	157	13
10	17	1530	226	92	130	1300	273	53	96	26	88	13
11	23	1400	797	90	110	3380	304	52	133	25	1020	16
12	33	548	997	90	96	686	333	48	928	296	205	16
13	87	2220	438	90	84	1670	388	45	808	453	106	16
14	76	1160	280	88	76	2090	563	42	249	238	74	16
15	85	879	220	86	70	1420	502	39	135	109	65	17
16	114	687	220	86	76	839	943	48	158	65	94	22
17	54	1050	180	84	100	500	1540	85	331	54	57	24
18	36	371	160	800	220	391	476	60	138	56	49	17
19	339	253	150	5000	1400	1290	289	201	89	363	43	15
20	245	207	140	4000	1160	743	330	271	77	185	38	16
21	79	176	130	1110	1410	323	761	214	65	206	34	18
22	57	219	130	729	548	272	362	138	58	95	31	19
23	41	548	130	489	372	269	234	293	112	60	31	243
24	77	283	120	240	265	250	180	147	91	45	38	147
25	160	187	120	200	216	228	153	94	66	37	36	42
26	83	650	120	170	170	318	137	72	55	36	32	34
27	53	714	110	120	150	333	121	61	62	39	26	108
28	38	377	110	52	120	225	109	55	82	38	19	59
29	30	299	110	60	---	194	97	51	96	58	19	75
30	26	316	110	70	---	177	90	45	84	135	19	177
31	23	---	110	80	---	153	---	40	---	489	16	---
TOTAL	1951	21142	8137	14704	11238	17947	9689	2793	5319	3523	3624	1237
MEAN	62.9	705	262	474	401	579	323	90.1	177	114	117	41.2
MAX	339	3450	997	5000	1900	3380	1540	293	928	489	1020	243
MIN	15	20	110	52	70	82	90	39	44	25	16	13
CFSM	.47	5.22	1.94	3.51	2.97	4.29	2.39	.67	1.31	.84	.87	.31
IN.	.54	5.83	2.24	4.05	3.10	4.95	2.67	.77	1.47	.97	.00	.34

CAL YR 1985 TOTAL 91680 MEAN 251 MAX 6920 MIN 11 CFSM 1.86 IN. 25.3
WTR YR 1986 TOTAL 101304 MEAN 278 MAX 5000 MIN 13 CFSM 2.06 IN. 27.9

LAKE ERIE

69

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 (1955). Prior to Feb. 5, 1899, nonrecording gages.

COOPERATION.--Records furnished by U.S. Department of Commerce, NOAA-NOS, Lake Survey Center, Detroit, Mich.

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

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 580.65 ft Dec. 2; minimum elevation, 569.55 ft Feb. 6.

ELEVATION (FEET IGLD), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	572.55	571.38	572.78	572.95	572.22	572.80	573.20	573.66	573.45	573.40	573.67	572.91
2	572.08	571.62	576.52	572.34	572.48	572.71	573.06	573.62	573.10	573.66	573.59	572.82
3	571.88	571.80	572.91	572.41	572.20	572.68	572.88	573.57	573.14	573.61	573.58	572.81
4	572.25	571.49	572.76	572.13	572.07	572.76	572.74	573.32	573.34	573.68	573.48	573.03
5	573.52	571.32	572.74	573.83	572.47	572.68	572.78	573.42	573.16	573.67	573.37	573.27
6	572.53	572.41	572.72	573.25	571.24	573.13	573.16	573.38	573.06	573.59	573.25	572.95
7	572.06	572.76	573.12	572.50	571.92	573.20	573.19	573.38	573.29	573.64	573.49	572.96
8	571.96	572.85	573.02	572.61	572.73	572.73	573.29	573.26	573.57	573.53	573.64	573.14
9	572.05	572.40	572.75	573.33	572.71	572.61	573.42	572.95	573.32	573.61	573.74	572.89
10	572.00	572.12	572.76	572.66	572.62	572.84	573.38	573.09	573.33	573.50	573.47	572.96
11	571.76	571.39	572.37	572.42	572.56	573.44	573.34	573.11	573.63	573.25	573.65	573.33
12	571.66	572.41	573.00	573.09	572.70	572.43	573.18	572.90	573.86	573.55	573.41	573.49
13	572.06	572.42	572.81	572.41	572.80	572.77	573.15	573.00	573.85	573.89	573.13	573.09
14	571.72	572.51	573.88	572.19	572.55	572.97	572.80	573.02	573.67	573.94	573.27	572.80
15	572.20	572.05	574.41	572.21	572.69	573.14	573.24	573.19	573.66	573.62	573.45	572.46
16	572.03	572.63	573.74	572.17	572.33	573.13	573.19	573.37	573.93	573.58	573.33	572.58
17	571.78	573.22	573.71	572.33	572.42	573.07	573.10	573.22	573.74	573.58	573.28	572.46
18	572.06	572.57	574.02	572.21	572.54	572.92	573.20	573.29	573.78	573.73	573.11	572.75
19	571.82	572.67	573.41	572.22	572.56	573.65	573.23	573.08	573.88	573.64	572.87	572.63
20	571.13	573.84	572.72	572.77	572.55	573.28	573.14	573.40	573.68	573.68	572.96	572.70
21	571.62	572.51	573.36	572.40	572.66	573.23	573.72	573.40	573.57	573.47	573.14	572.54
22	571.89	572.41	573.48	572.81	572.50	573.27	573.35	573.40	573.78	573.51	572.84	572.71
23	571.88	572.87	573.20	572.35	573.04	573.31	573.41	573.48	573.82	573.50	573.54	573.04
24	572.28	573.00	573.10	572.10	572.74	573.14	573.30	573.38	573.94	573.51	573.31	572.91
25	572.31	572.31	573.21	572.54	572.78	573.15	573.28	573.36	573.73	573.57	573.10	572.70
26	572.07	572.43	573.53	572.47	572.42	573.26	573.27	573.22	573.63	573.72	573.32	573.02
27	572.26	572.36	574.38	572.91	572.67	573.32	573.20	573.30	573.78	573.48	573.54	572.79
28	571.67	571.62	574.16	572.93	572.93	573.19	573.28	573.44	573.78	573.46	573.25	572.97
29	571.54	572.57	573.53	572.36	---	573.20	573.45	573.47	573.69	573.74	573.10	573.09
30	571.57	572.64	573.01	572.45	---	573.27	573.28	573.51	573.58	573.51	573.04	573.44
31	571.42	---	573.12	572.38	---	573.02	---	573.49	---	573.42	572.87	---
MEAN	571.99	572.35	573.36	572.57	572.50	573.04	573.21	573.31	573.59	573.59	573.32	572.91
MAX	573.52	573.84	576.52	573.83	573.04	573.65	573.72	573.66	573.94	573.94	573.74	573.49
MIN	571.13	571.32	572.37	572.10	571.24	572.43	572.74	572.90	573.06	573.25	572.84	572.46

CAL YR 1985 MEAN 572.65 MAX 576.52 MIN 570.76

WTR YR 1986 MEAN 572.98 MAX 576.52 MIN 571.13

04216000 NIAGARA RIVER AT BUFFALO, NY

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

DRAINAGE AREA.--263,700 mi².

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

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

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

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

COOPERATION.--Records of daily discharge furnished by Detroit District Corps of Engineers and Canada Department of the Environment.

AVERAGE DISCHARGE.--126 years, 205,200 ft³/s.

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.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 347,000 ft³/s Dec. 2, result of high, storm-generated Lake Erie level; minimum daily, 196,000 ft³/s Jan. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	237000	217000	249000	242000	220000	242000	256000	269000	271000	264000	267000	244000
2	231000	222000	347000	234000	238000	244000	251000	272000	257000	266000	266000	241000
3	224000	226000	263000	234000	229000	242000	247000	270000	260000	264000	267000	240000
4	228000	228000	249000	226000	224000	244000	242000	268000	264000	270000	265000	245000
5	260000	223000	248000	256000	238000	243000	242000	268000	262000	269000	261000	251000
6	244000	244000	246000	227000	218000	252000	254000	264000	256000	266000	256000	247000
7	232000	251000	256000	196000	198000	247000	257000	266000	264000	265000	261000	244000
8	226000	255000	258000	198000	241000	245000	252000	261000	273000	263000	255000	247000
9	230000	243000	249000	205000	242000	244000	249000	255000	264000	263000	261000	245000
10	228000	240000	248000	207000	239000	249000	250000	258000	264000	262000	256000	242000
11	222000	226000	242000	204000	234000	268000	247000	261000	270000	258000	258000	252000
12	220000	238000	252000	224000	237000	252000	247000	254000	271000	264000	253000	259000
13	231000	244000	251000	217000	226000	256000	240000	254000	281000	271000	249000	250000
14	223000	242000	267000	208000	219000	261000	240000	257000	271000	273000	249000	241000
15	231000	240000	288000	204000	235000	266000	234000	261000	270000	265000	253000	236000
16	231000	237000	271000	204000	232000	264000	248000	262000	275000	265000	256000	234000
17	225000	270000	268000	216000	234000	260000	255000	265000	272000	264000	251000	233000
18	228000	244000	276000	222000	236000	255000	255000	263000	270000	268000	248000	239000
19	228000	247000	264000	225000	238000	267000	256000	263000	273000	269000	244000	237000
20	213000	270000	251000	244000	240000	264000	256000	266000	269000	270000	241000	239000
21	220000	250000	261000	235000	244000	261000	257000	271000	268000	263000	248000	236000
22	227000	238000	265000	245000	238000	261000	270000	266000	270000	264000	242000	239000
23	228000	251000	263000	232000	257000	263000	267000	271000	272000	264000	254000	247000
24	234000	256000	254000	225000	244000	258000	265000	268000	273000	263000	253000	243000
25	237000	241000	259000	233000	247000	259000	263000	266000	268000	263000	248000	241000
26	235000	238000	263000	235000	239000	260000	262000	264000	268000	270000	250000	246000
27	237000	242000	282000	237000	237000	262000	260000	261000	270000	262000	261000	240000
28	224000	227000	262000	238000	249000	257000	259000	264000	271000	262000	248000	244000
29	220000	243000	250000	226000	---	260000	267000	269000	270000	268000	248000	252000
30	221000	246000	244000	228000	---	262000	259000	269000	266000	263000	248000	256000
31	216000	---	241000	226000	---	253000	---	268000	---	261000	243000	---
TOTAL	7091000	7239000	8087000	6953000	6573000	7921000	7607000	8194000	8053000	8222000	7860000	7310000
MEAN	228700	241300	260900	224300	234700	255500	253600	264300	268400	265200	253500	243700
MAX	260000	270000	347000	256000	257000	268000	270000	272000	281000	273000	267000	259000
MIN	213000	217000	241000	196000	198000	242000	234000	254000	256000	258000	241000	233000
CAL YR 1985	TOTAL 87892700		MEAN 240800		MAX 347000		MIN 170000					
WTR YR 1986	TOTAL 91109600		MEAN 249600		MAX 347000		MIN 196000					

ST. LAWRENCE RIVER MAIN STEM

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04216052 BLACK ROCK CANAL AT PORTER AVENUE, BUFFALO, NY

LOCATION.--Lat 42°53'52", long 78°54'07", Erie County, Hydrologic Unit 04120104, on right bank at U. S. Navy Installation at Porter Avenue, Buffalo and 0.6 mi upstream from Peace bridge.

DRAINAGE AREA.--263,700 mi².

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

GAGE.--Water-stage recorder. Datum of gage is International Great Lakes Datum of 1955.

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

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 578.90 ft Dec. 2; minimum, 569.45 ft Feb. 7.

ELEVATION, (FEET IGLD), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	572.65	---	572.89	572.92	572.30	572.88	---	---	573.48	573.44	573.61	572.96
2	572.24	---	575.62	572.38	572.56	572.81	---	---	573.08	573.62	573.55	572.92
3	572.04	---	573.00	572.43	572.30	572.78	---	---	573.17	573.58	573.59	572.87
4	572.30	---	572.87	572.19	572.15	572.84	572.85	---	573.33	573.63	573.49	573.09
5	573.56	---	572.84	573.55	572.55	572.79	572.87	---	573.20	573.67	573.39	573.32
6	572.65	---	572.82	573.19	571.44	573.19	573.28	---	573.08	573.57	573.28	573.04
7	572.22	---	573.19	572.47	571.94	573.27	573.29	---	573.29	573.63	573.50	573.02
8	572.12	---	573.12	572.57	572.82	572.82	573.29	---	573.55	573.51	573.58	573.16
9	572.21	---	572.86	573.25	572.80	572.71	573.40	---	573.31	573.58	573.71	572.99
10	572.16	---	572.87	572.66	572.72	572.93	573.31	---	573.34	573.49	573.44	572.98
11	571.91	---	572.48	572.41	572.65	573.44	573.24	---	573.56	573.31	573.68	573.38
12	571.76	---	573.05	573.00	572.77	572.54	573.16	---	573.68	573.53	573.40	573.53
13	572.22	---	572.90	572.45	572.89	572.88	573.25	---	573.83	573.79	573.18	573.16
14	571.88	---	573.78	---	572.64	573.09	573.12	573.07	573.63	573.87	573.30	572.83
15	572.31	---	574.25	---	572.77	573.24	573.43	573.25	573.58	573.59	573.42	572.58
16	572.24	---	573.72	---	572.45	---	573.39	573.35	573.86	573.56	573.39	572.60
17	571.91	---	573.70	---	572.52	---	573.40	573.25	573.61	573.55	573.30	572.56
18	572.16	---	573.92	---	572.64	---	573.51	573.29	573.71	573.69	573.18	572.82
19	572.02	572.74	573.47	---	572.65	---	573.49	573.13	573.80	573.60	572.97	572.71
20	571.35	573.79	572.82	---	572.65	---	573.23	573.35	573.61	573.66	572.98	572.77
21	571.72	572.67	573.38	---	572.74	---	573.59	573.39	573.57	573.44	573.21	572.63
22	572.04	572.48	573.54	---	572.58	---	573.57	573.38	573.70	573.48	572.91	572.79
23	572.04	572.92	573.28	572.42	573.11	---	573.64	573.47	573.81	573.50	573.51	573.10
24	572.40	573.11	573.16	572.17	572.82	---	573.56	573.39	573.84	573.52	573.32	572.95
25	572.45	572.46	573.23	572.60	572.87	---	573.54	573.37	573.69	573.55	573.15	572.81
26	572.26	572.54	573.54	572.54	572.54	---	573.55	573.27	573.60	573.69	573.33	573.10
27	572.37	572.50	574.19	572.91	572.75	---	573.49	573.30	573.74	573.45	573.56	572.81
28	---	571.73	574.00	572.98	573.01	---	573.52	573.43	573.73	573.46	573.20	573.01
29	---	572.70	573.40	572.44	---	---	573.70	573.46	573.67	573.68	573.13	573.14
30	---	572.74	573.01	572.52	---	---	573.54	573.50	573.55	573.48	573.13	573.50
31	---	---	573.05	572.46	---	---	---	573.47	---	573.41	572.95	---
MEAN	---	---	573.35	---	572.59	---	---	---	573.55	573.57	573.33	572.97
MAX	---	---	575.62	---	573.11	---	---	---	573.86	573.87	573.71	573.53
MIN	---	---	572.48	---	571.44	---	---	---	573.08	573.31	572.91	572.56

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

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

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

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 572.05 ft Dec. 2; minimum, 564.78 ft Feb. 6.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	566.89	565.98	567.23	567.48	567.30	567.44	567.41	567.85	567.84	567.66	567.94	566.93
2	566.61	566.06	569.93	567.01	567.01	567.23	567.23	567.90	567.46	567.80	567.89	566.90
3	566.42	566.32	567.34	566.79	566.74	567.10	567.06	567.82	567.52	567.86	567.90	566.92
4	566.58	566.27	567.07	567.00	566.66	567.11	566.97	567.55	567.58	567.77	567.74	567.06
5	567.84	566.01	567.07	568.04	566.99	567.10	566.94	567.64	567.59	567.76	567.62	567.26
6	567.08	567.01	567.07	568.63	566.01	567.46	567.30	567.58	567.30	567.60	567.52	567.08
7	566.59	567.37	567.32	567.86	566.82	567.83	567.27	567.65	567.57	567.80	567.67	567.06
8	566.45	567.56	567.29	567.88	567.57	567.26	567.17	567.57	567.77	567.64	567.42	567.16
9	566.51	567.03	567.09	568.72	567.41	566.97	567.25	567.31	567.68	567.74	567.61	566.90
10	566.49	566.97	567.10	568.34	567.20	567.18	567.28	567.38	567.61	567.65	567.36	566.85
11	566.30	566.10	566.85	567.89	567.30	567.92	567.29	567.44	567.81	567.52	567.75	567.24
12	566.19	566.79	567.23	567.98	567.26	566.93	567.02	567.25	567.89	567.74	567.36	567.54
13	566.59	567.06	567.16	567.42	567.66	567.14	566.87	567.24	568.19	567.95	567.22	567.23
14	566.33	567.17	567.93	567.16	567.54	567.31	566.79	567.36	567.85	568.12	567.29	566.77
15	566.67	566.94	568.58	567.16	567.67	567.40	567.05	567.48	567.82	567.80	567.40	566.61
16	566.69	566.76	568.17	567.42	567.38	567.38	567.44	567.65	568.25	567.85	567.38	566.72
17	566.35	568.10	568.12	567.17	566.95	567.33	567.35	567.53	568.09	567.80	567.28	566.62
18	566.49	567.29	568.39	566.98	567.03	567.19	567.53	567.54	568.05	567.99	567.17	566.81
19	566.52	567.30	567.95	566.89	567.05	567.93	567.55	567.57	568.18	567.92	566.98	566.73
20	565.95	568.16	567.09	567.30	567.05	567.60	567.44	567.73	568.05	567.98	566.96	566.92
21	566.20	567.27	567.53	566.98	567.21	567.47	568.02	567.75	567.98	567.71	567.19	566.68
22	566.44	566.75	567.57	567.32	567.23	567.60	567.98	567.65	567.98	567.72	566.93	566.77
23	566.42	567.20	567.41	567.02	567.50	567.48	567.67	567.76	568.19	567.70	567.42	567.31
24	566.66	567.37	567.48	566.90	567.24	567.37	567.56	567.66	568.28	567.70	567.36	566.89
25	566.78	566.86	567.42	567.16	567.34	567.35	567.55	567.63	568.08	567.78	567.16	566.78
26	566.62	566.81	567.84	566.97	567.19	567.42	567.55	567.53	567.88	567.98	567.23	567.05
27	566.74	567.02	568.38	567.34	567.27	567.47	567.45	567.59	568.07	567.70	567.70	566.85
28	566.34	566.09	568.60	567.76	567.36	567.38	567.53	567.73	568.02	567.6		

NIAGARA RIVER BASIN

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04216200 SCAJAQUADA CREEK AT BUFFALO, NY

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

DRAINAGE AREA.--15.4 mi².

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

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

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

REMARKS.--Estimated daily discharges: Dec. 15 to Jan. 18, Jan. 23 to Feb. 2, Feb. 6-19, Feb. 22 to Mar. 3, and Mar. 7-9, 21-24. Records good except those for estimated daily discharges with ice effect, which are fair. Prior to July 1982 discharge included flow diverted from Lake Erie and Niagara River as sewage-plant effluent entering basin upstream from station. Gage height telemeter at station. Several measurements of water temperature were made during the year.

COOPERATION.--Town of Cheektowaga maintains records of sewage-plant discharge.

AVERAGE DISCHARGE.--29 years, 33.7 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,620 ft³/s Aug. 7, 1963, gage height, 14.38 ft; minimum, 1.2 ft³/s Sept. 12, 13, 1982, July 4, 1985, gage height, 1.36 ft.

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

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Nov. 5	1345	1,010	7.20	Apr. 16	2300	600	5.10
Nov. 13	0745	602	5.11	May 19	2315	*1,750	*10.63
Mar. 10	2300	721	5.74	June 5	1330	656	5.40

Minimum discharge, 1.5 ft³/s July 5, 6, gage height, 1.38 ft.

 DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	3.6	47	7.8	6.0	3.1	3.7	4.6	65	3.3	64	2.0
2	3.0	4.2	68	7.8	70	3.3	3.9	4.0	29	5.2	9.0	2.2
3	2.7	108	19	7.8	28	5.8	3.3	3.4	5.7	3.0	9.1	2.1
4	2.7	488	13	7.6	75	10	5.3	3.2	4.0	2.2	3.5	2.2
5	46	685	11	7.6	200	12	18	3.2	123	1.9	2.6	7.3
6	10	118	15	7.4	23	15	20	3.3	27	1.9	2.3	2.3
7	3.5	32	13	7.2	12	6.0	8.5	3.4	43	50	38	2.8
8	3.1	18	12	7.0	8.0	5.4	25	3.4	35	9.6	71	2.4
9	3.0	26	15	7.0	6.0	13	11	3.2	7.6	2.8	7.4	2.4
10	8.2	268	29	6.8	5.0	271	13	2.9	4.3	2.2	11	2.2
11	6.2	81	61	6.8	4.7	197	20	2.6	13	2.2	60	27
12	18	37	58	6.8	4.3	28	17	2.8	22	55	6.2	13
13	51	197	26	6.6	4.0	103	8.7	2.8	5.8	22	3.7	4.5
14	7.8	79	14	6.6	3.8	67	6.0	2.8	3.6	38	3.0	3.4
15	27	37	10	6.6	3.7	62	43	3.0	3.1	4.9	2.7	36
16	6.9	116	9.6	6.6	3.4	25	180	5.0	14	3.5	4.5	24
17	4.3	62	9.4	40	4.0	15	140	2.9	7.1	7.3	2.4	4.5
18	3.7	19	8.8	260	15	12	19	6.1	3.0	13	2.3	3.2
19	121	12	8.4	178	50	55	10	234	3.9	36	2.1	2.9
20	14	9.4	8.2	335	100	17	90	220	3.8	6.2	2.0	3.4
21	6.0	7.1	8.2	62	112	6.4	96	19	2.5	4.8	19	2.8
22	4.7	14	8.2	37	16	6.0	19	19	3.0	3.1	7.2	2.4
23	3.9	16	8.0	13	9.0	6.0	11	40	14	2.8	2.7	26
24	85	9.8	8.0	8.0	7.4	6.0	7.4	8.4	4.8	2.7	2.3	4.9
25	18	6.9	8.0	6.4	6.6	6.2	6.2	4.9	3.0	2.7	2.0	3.2
26	6.8	80	8.0	5.8	5.4	6.5	5.2	3.9	2.7	7.8	5.5	3.6
27	4.5	52	8.0	5.0	4.5	12	4.7	3.2	16	2.8	9.3	4.4
28	3.8	22	7.8	4.4	3.8	7.3	4.6	3.2	6.6	2.5	2.8	2.8
29	3.5	28	8.0	4.2	---	5.3	4.5	3.1	20	19	3.1	56
30	3.2	36	8.0	4.0	---	4.5	4.2	3.1	8.4	9.7	2.4	72
31	3.1	---	7.8	4.0	---	3.9	---	3.1	---	5.9	2.1	---
TOTAL	489.0	2672.0	543.4	1080.8	790.6	995.7	808.2	627.5	503.9	334.0	365.2	327.9
MEAN	15.8	89.1	17.5	34.9	28.2	32.1	26.9	20.2	16.8	10.8	11.8	10.9
MAX	121	685	68	335	200	271	180	234	123	55	71	72
MIN	2.7	3.6	7.8	4.0	3.4	3.1	3.3	2.6	2.5	1.9	2.0	2.0

CAL YR 1985 TOTAL 10160.3 MEAN 27.8 MAX 804 MIN 2.2
 WTR YR 1986 TOTAL 9538.1 MEAN 26.1 MAX 685 MIN 1.9

ST. LAWRENCE RIVER MAIN STEM

04216218 BLACK ROCK CANAL AT BLACK ROCK LOCK, BUFFALO, NY

LOCATION.--Lat 42°56'01", long 78°54'18", Erie County, Hydrologic Unit 04120104, at Black Rock Lock adjacent to U.S. Army Corps of Engineers installation at foot of Hamilton Street, Buffalo and 0.2 mi downstream from International railroad bridge.

DRAINAGE AREA.--263,700 mi².

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

GAGE.--Water stage recorder. Datum of gage is International Great Lakes Datum of 1955.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 579.26 ft Dec. 2, 1985; minimum recorded, 570.31 ft Nov. 28, 1985, but may have been lower during period of no gage-height record Jan. 24 to Feb. 20, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 579.26 ft Dec. 2; minimum recorded, 570.31 ft Nov. 28, but may have been lower during period of no gage-height record Jan. 24 to Feb. 20, 1986.

ELEVATION (FEET IGLD), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	571.40	572.78	---	---	---	---	573.50	573.36	573.30	---	572.86
2	---	571.61	575.95	---	---	572.09	---	573.46	572.85	573.50	---	572.81
3	---	571.81	---	---	---	572.35	---	573.42	573.02	573.44	---	572.76
4	---	571.56	---	---	---	572.31	---	573.23	573.22	573.51	---	573.00
5	---	571.25	---	---	---	572.27	---	573.34	573.08	573.62	---	573.20
6	---	572.36	---	---	---	---	---	573.25	572.96	573.48	---	572.92
7	---	572.73	---	---	---	---	---	573.27	573.17	573.54	---	572.93
8	---	572.87	---	---	---	---	---	573.16	573.41	573.45	---	573.09
9	571.96	572.40	572.76	573.14	---	---	---	572.88	573.16	573.56	---	572.89
10	572.01	572.14	572.76	572.86	---	---	573.06	573.02	573.21	573.45	---	572.90
11	571.76	571.39	572.39	572.55	---	---	572.95	573.06	573.42	573.34	573.74	573.31
12	571.62	572.35	572.95	572.92	---	---	572.83	572.85	573.51	573.52	573.48	573.61
13	572.09	572.42	572.81	---	---	---	572.90	572.93	573.68	573.81	573.04	573.13
14	571.75	572.47	573.78	---	---	---	572.74	572.97	573.45	573.81	573.18	572.76
15	572.16	572.08	---	---	---	---	573.05	573.12	573.44	573.52	573.30	572.51
16	572.10	572.31	---	---	---	---	573.00	573.28	573.74	---	573.48	572.55
17	571.77	573.29	---	---	---	---	573.04	573.14	573.49	---	573.20	572.51
18	572.02	572.53	---	---	---	---	573.15	573.17	573.60	---	573.14	572.96
19	571.86	572.66	---	---	---	---	573.13	573.23	573.73	---	572.93	573.22
20	571.20	573.67	---	---	---	---	572.86	573.30	573.47	---	572.88	572.87
21	571.57	572.55	---	---	572.26	---	573.21	573.28	573.44	---	573.12	572.55
22	571.90	572.34	---	---	---	---	573.22	573.27	573.58	---	572.82	573.13
23	571.89	572.79	---	572.20	---	---	573.28	573.36	573.68	---	---	573.06
24	572.27	573.00	---	---	---	---	573.22	573.27	573.69	---	---	572.87
25	572.30	572.34	---	---	---	---	573.19	573.25	573.56	---	---	573.04
26	572.12	572.38	---	---	---	---	573.19	573.14	573.52	573.82	---	573.03
27	572.28	572.38	---	---	---	---	573.13	573.17	573.62	573.33	573.18	572.93
28	571.69	571.59	---	---	---	---	573.17	573.31	573.64	573.37	573.08	572.93
29	571.54	572.57	---	---	---	---	573.35	573.34	573.56	573.55	573.01	---
30	571.59	572.60	---	---	---	---	573.19	573.41	573.42	573.25	573.00	---
31	571.41	---	---	---	---	---	---	573.32	---	573.34	572.82	---
MEAN	---	572.33	---	---	---	---	---	573.22	573.42	---	---	---
MAX	---	573.67	---	---	---	---	---	573.50	573.74	---	---	---
MIN	---	571.25	---	---	---	---	---	572.85	572.85	---	---	---

ST. LAWRENCE RIVER MAIN STEM

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04216220 NIAGARA RIVER AT BLACK ROCK LOCK, BUFFALO, NY

LOCATION.--Lat 42°56'02", long 78°54'17", Erie County, Hydrologic Unit 04120104, at Black Rock Lock adjacent to U.S. Army Corps of Engineers installation at foot of Hamilton Street, Buffalo and 0.2 mi downstream from International railroad bridge.

DRAINAGE AREA.--263,700 mi².

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

GAGE.--Water-stage recorder. Datum of gage is International Great Lakes Datum of 1955.

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

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 570.48 ft Dec. 2; minimum, 563.91 ft Feb. 7.

ELEVATION (FEET IGLD), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	564.93	566.01	566.51	566.44	566.49	566.34	566.59	566.64	566.45	566.63	565.78
2	---	564.99	568.70	566.07	566.09	566.26	566.17	566.80	566.15	566.58	566.59	565.77
3	---	565.25	566.24	565.72	565.75	566.07	565.96	566.58	566.26	566.65	566.58	565.81
4	---	565.24	565.96	566.06	565.63	566.09	565.91	566.61	566.34	566.52	566.52	565.92
5	---	564.97	565.97	566.98	566.01	566.09	565.84	566.46	566.31	566.57	566.43	566.07
6	---	565.91	565.97	567.85	565.23	566.36	566.21	566.43	566.09	566.40	566.32	565.90
7	---	566.34	566.19	567.21	565.50	566.85	---	566.43	566.37	566.58	566.40	565.83
8	---	566.53	566.19	567.22	566.71	566.29	---	566.43	566.58	566.41	566.22	565.91
9	565.32	565.97	565.99	568.08	566.51	565.89	---	566.30	566.48	566.49	566.39	565.80
10	565.40	565.89	566.00	567.76	566.27	566.10	566.14	566.18	566.46	566.42	566.15	565.70
11	565.23	565.03	565.79	567.27	566.36	566.89	566.20	566.30	566.64	566.26	566.50	566.12
12	565.11	565.61	566.08	567.26	566.39	565.93	565.92	566.21	566.73	566.44	566.16	566.27
13	565.52	565.97	566.07	566.68	566.79	566.08	565.78	566.02	566.93	566.68	566.03	565.95
14	565.28	566.01	566.77	566.40	566.73	566.22	565.67	566.19	566.65	566.84	566.09	565.58
15	565.57	565.83	567.56	566.39	566.82	566.34	565.92	566.25	566.60	566.56	566.22	565.44
16	565.66	565.64	567.14	566.71	566.52	566.31	566.33	566.43	566.97	566.50	566.18	565.39
17	565.33	566.98	567.09	566.39	565.96	566.27	566.22	566.35	566.78	566.52	566.12	565.47
18	565.45	566.16	567.36	566.17	566.04	566.12	566.41	566.40	566.91	566.73	565.98	565.65
19	565.51	566.24	566.98	566.01	566.06	566.81	566.46	566.40	567.04	566.66	565.80	565.57
20	564.98	567.08	566.03	566.35	566.05	566.51	566.32	566.53	566.85	566.73	565.77	565.62
21	565.18	566.22	566.42	566.10	566.20	566.40	566.87	566.58	566.82	566.47	565.99	565.53
22	565.41	565.49	566.51	566.36	566.26	566.55	566.85	566.49	566.82	566.49	565.77	565.60
23	565.40	565.94	566.32	566.11	566.49	566.37	566.47	566.60	567.02	566.47	566.14	565.87
24	565.61	566.09	566.44	566.02	566.25	566.29	566.35	566.51	567.06	566.47	566.14	565.76
25	565.74	565.66	566.31	566.24	566.33	566.24	566.35	566.46	566.90	566.55	565.97	565.67
26	565.62	565.55	566.81	566.00	566.24	566.33	566.36	566.38	566.70	566.68	566.02	565.87
27	565.69	565.80	567.34	566.29	566.27	566.36	566.28	566.40	566.87	566.45	566.34	565.65
28	565.31	564.87	567.65	566.84	566.37	566.27	566.38	566.54	566.84	566.40	565.98	565.80
29	565.18	565.82	567.34	566.58	---	566.28	566.48	566.54	566.79	566.65	565.98	565.96
30	565.18	565.87	566.94	566.35	---	566.33	566.35	566.52	566.63	566.51	565.92	566.16
31	565.04	---	566.77	566.52	---	566.18	---	566.51	---	566.46	565.79	---
MEAN	---	565.80	566.61	566.60	566.22	566.31	---	566.43	566.67	566.54	566.17	565.78
MAX	---	567.08	568.70	568.08	566.82	566.89	---	566.80	567.06	566.84	566.63	566.27
MIN	---	564.87	565.79	565.72	565.23	565.89	---	566.02	566.09	566.26	565.77	565.39

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

REMARKS.--Estimated daily discharges: Dec. 16 to Feb. 19, Feb. 26-27, and Mar. 1-4, 6-10. Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--9 years, 118 ft³/s, 20.84 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,700 ft³/s Dec. 29, 1984, gage height, 9.25 ft; maximum gage height, 12.40 ft Feb. 18, 1979 (backwater from ice); minimum discharge, 5.4 ft³/s July 27, 28, 29, 1983; minimum gage height, 3.34 ft July 27, 28, 29, 1983 and Aug. 14, 15, 16, 1985.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Nov. 5	1645	*3,290	*8.01	Jan. 20	1030	2,660	7.38
Nov. 13	1100	2,150	6.84	Mar. 10	2330	1,760	6.41
Nov. 16	2100	1,410	5.97	Aug. 11	0145	1,600	6.21

Minimum daily discharge, 11 ft³/s Oct. 2-5, gage height, 3.38 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	30	391	62	80	76	83	59	38	36	220	15
2	12	29	361	64	120	70	76	56	104	36	155	14
3	11	31	181	64	150	68	71	49	45	34	64	14
4	11	304	137	64	130	70	68	47	33	25	43	14
5	13	1570	130	64	450	73	75	45	32	21	33	14
6	18	725	119	64	330	68	98	43	47	19	30	16
7	18	288	103	62	170	58	84	40	40	17	56	14
8	18	192	98	62	120	56	137	37	177	26	77	12
9	17	161	89	62	110	54	123	37	83	21	73	12
10	14	665	116	62	96	460	145	35	46	16	113	12
11	14	585	352	62	86	484	141	32	40	14	720	13
12	14	287	285	60	80	260	156	31	134	100	126	15
13	38	1080	181	60	72	421	217	30	171	165	73	17
14	41	638	142	60	68	703	213	27	80	110	53	16
15	97	424	119	60	66	375	183	27	52	60	42	14
16	83	477	110	62	66	231	517	54	77	36	99	28
17	43	445	100	70	68	216	715	53	168	31	54	20
18	33	215	92	120	80	194	293	33	58	38	38	16
19	289	168	86	300	200	468	183	40	42	73	32	14
20	147	133	84	1400	540	234	180	163	42	44	29	15
21	69	108	80	1000	616	150	321	139	34	107	36	23
22	51	114	78	580	259	137	176	84	29	43	57	20
23	42	231	74	360	190	135	134	223	51	30	31	214
24	73	147	72	220	150	127	112	87	36	25	32	94
25	124	111	70	140	128	120	97	60	38	21	25	44
26	61	440	68	120	100	142	89	45	28	20	22	50
27	44	367	66	98	96	140	81	36	27	21	24	61
28	35	215	64	74	86	114	72	33	45	19	22	43
29	30	180	64	62	---	104	66	30	64	31	20	168
30	30	222	64	58	---	99	62	27	54	121	18	175
31	30	---	62	58	---	90	---	24	---	136	16	---
TOTAL	1532	10582	4038	5654	4707	5997	4968	1726	1915	1496	2433	1197
MEAN	49.4	353	130	182	168	193	166	55.7	63.8	48.3	78.5	39.9
MAX	289	1570	391	1400	616	703	715	223	177	165	720	214
MIN	11	29	62	58	66	54	62	24	27	14	16	12
CFSM	.64	4.59	1.69	2.37	2.19	2.52	2.15	.72	.83	.63	1.02	.52
IN.	.74	5.12	1.95	2.74	2.28	2.90	2.40	.83	.93	.72	1.18	.58

CAL YR 1985 TOTAL 45521 MEAN 125 MAX 2630 MIN 6.1 CFSM 1.62 IN. 22.0
WTR YR 1986 TOTAL 46245 MEAN 127 MAX 1570 MIN 11 CFSM 1.65 IN. 22.4

NIAGARA RIVER BASIN

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04216500 LITTLE TONAWANDA CREEK AT LINDEN, NY

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

DRAINAGE AREA.--22.1 mi².

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

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

REMARKS.--Estimated daily discharges: Dec. 17, 22-25, Dec. 27 to Jan. 5, Jan. 7-13, 15-16, 18, Jan. 23 to Feb. 1, Feb. 6-18 and Feb. 22 to Mar. 9. Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--64 years (water years 1913-19, 1921-68, 1978-86), 27.5 ft³/s, 16.90 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,700 ft³/s Mar. 7, 1956, gage height, 16.04 ft, from high-water mark; minimum, 0.08 ft³/s Aug. 3, 4, 1955; minimum gage height, -0.14 ft Jan. 17, 1966 (siphonic action).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 530 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Nov. 5	2300	535	5.38	Mar. 11	0530	656	6.04
Jan. 20	1500	810	6.83	Apr. 17	0615	*880	*7.18

Minimum discharge, 0.51 ft³/s Oct. 3, 12, gage height, 0.24 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.67	1.9	139	17	18	18	17	17	13	9.6	18	2.1
2	.63	1.9	141	17	49	18	16	16	65	11	24	2.1
3	.59	1.9	60	17	40	18	15	14	20	10	11	2.0
4	.59	16	43	16	34	19	15	13	12	6.5	8.2	2.0
5	.92	217	39	16	183	19	17	12	11	4.9	6.4	1.7
6	1.1	263	36	16	60	17	25	11	17	3.9	4.2	1.4
7	1.2	83	31	16	34	16	20	9.9	15	3.4	3.6	1.3
8	.67	44	29	16	30	15	32	8.4	39	3.5	4.3	1.6
9	.65	42	28	17	28	14	31	7.8	21	3.1	5.1	1.5
10	.66	140	33	17	23	172	41	7.6	13	2.6	7.5	1.3
11	.60	171	78	16	21	413	39	7.2	10	2.4	149	1.6
12	.61	80	82	16	19	102	42	6.5	22	15	30	1.6
13	1.2	229	53	16	18	256	49	5.7	38	28	15	1.6
14	1.7	183	41	15	16	379	44	5.3	19	25	9.3	1.4
15	2.0	139	31	15	15	246	44	5.1	13	13	6.6	1.4
16	4.5	105	31	16	14	133	165	12	12	7.8	9.3	2.7
17	2.6	148	26	20	18	80	469	11	44	6.2	8.5	2.3
18	2.3	64	24	74	34	64	104	7.5	15	7.1	5.7	2.0
19	15	48	23	250	178	133	61	8.9	11	15	5.9	1.9
20	17	39	22	533	191	91	60	49	13	12	5.1	1.9
21	7.9	30	21	195	228	46	123	46	9.8	12	4.9	2.0
22	4.8	35	20	119	86	42	62	26	7.5	8.9	7.3	2.1
23	3.3	67	20	70	54	41	44	87	9.1	5.4	4.6	10
24	5.3	46	19	35	43	37	35	31	8.1	4.3	4.0	11
25	9.2	33	19	27	34	32	30	19	8.2	2.8	3.0	6.0
26	5.3	66	19	23	28	32	26	14	5.7	2.8	2.4	4.0
27	4.7	129	18	20	22	31	23	11	4.9	3.2	2.2	3.8
28	3.6	68	18	17	19	27	21	9.7	8.6	3.1	2.3	3.6
29	3.0	54	18	16	---	23	19	7.9	23	2.4	2.2	8.5
30	2.2	56	17	15	---	21	18	6.8	16	8.0	2.1	21
31	1.7	---	17	15	---	18	---	5.8	---	11	2.3	---
TOTAL	106.19	2600.7	1196	1688	1537	2573	1707	499.1	523.9	253.9	374.0	107.4
MEAN	3.43	86.7	38.6	54.5	54.9	83.0	56.9	16.1	17.5	8.19	12.1	3.58
MAX	17	263	141	533	228	413	469	87	65	28	149	21
MIN	.59	1.9	17	15	14	14	15	5.1	4.9	2.4	2.1	1.3
CFSM	.15	3.92	1.75	2.46	2.48	3.76	2.57	.73	.79	.37	.55	.16
IN.	.18	4.38	2.01	2.84	2.59	4.33	2.87	.84	.88	.43	.63	.18

CAL YR 1985 TOTAL 11894.57 MEAN 32.6 MAX 939 MIN .38 CFSM 1.47 IN. 20.0
WTR YR 1986 TOTAL 13166.11 MEAN 36.1 MAX 533 MIN .59 CFSM 1.63 IN. 22.2

NIAGARA RIVER BASIN

04217000 TONAWANDA CREEK AT BATAVIA, NY
(National stream-quality accounting network station)

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. Water-quality sampling site at discharge station.

DRAINAGE AREA.--171 mi².

WATER-DISCHARGE RECORDS

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

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

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

REMARKS.--Estimated daily discharges: Dec. 16-18, Dec. 20 to Jan. 18, Jan. 30-31, Feb. 2, 9-13, 15-19 and Feb. 25 to Mar. 9. Records good except those for estimated daily discharges, which are fair. Diversion upstream from station by city of Batavia for municipal supply; sewage, which may include water from municipal and industrial wells upstream from gage, enters creek downstream from gage. Gage height telemeter at station. Several measurements of water temperature were made during the year.

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

AVERAGE DISCHARGE.--42 years, 211 ft³/s.

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. 5-7, 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)
Nov. 6	1930	2,460	7.49	Mar. 14	1900	2,250	7.08
Jan. 21	0300	*3,450	*9.15	Apr. 17	2200	2,540	7.65
Mar. 11	2030	3,010	8.47				

Minimum discharge, 11 ft³/s Oct. 3; gage height, 1.40 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	41	610	140	147	160	145	124	65	83	141	28
2	12	38	876	140	200	150	134	121	301	71	373	26
3	12	37	715	140	332	150	122	110	186	80	161	24
4	13	162	373	140	277	160	115	101	99	58	99	23
5	15	658	316	140	622	170	123	97	77	48	73	24
6	24	1740	281	140	989	150	184	93	112	39	58	22
7	23	1590	258	140	500	130	179	89	107	38	50	22
8	17	712	230	130	260	120	205	82	228	42	103	21
9	17	401	214	130	240	130	238	75	280	43	88	19
10	14	564	234	130	210	345	263	72	127	35	100	19
11	16	1050	428	130	190	2110	270	71	88	32	551	22
12	21	1050	692	120	170	1630	279	65	108	47	546	24
13	26	847	523	120	160	898	305	61	296	206	197	26
14	62	1480	354	120	148	1870	379	57	194	255	118	27
15	44	1310	266	120	140	1820	282	54	117	149	86	26
16	150	915	250	120	140	1200	551	59	94	83	102	33
17	71	955	220	130	140	742	1610	112	240	64	119	41
18	47	845	210	220	140	479	1560	80	165	65	73	29
19	79	429	187	922	430	576	606	62	99	109	59	25
20	395	329	180	2500	1310	828	373	149	90	118	50	25
21	153	270	180	2960	1360	420	649	338	81	137	47	27
22	88	235	170	1270	1150	302	502	205	68	111	92	30
23	65	392	170	798	651	308	339	333	75	69	65	58
24	60	434	160	399	373	276	269	267	89	53	51	267
25	194	302	160	351	305	247	231	155	73	45	74	89
26	135	304	150	286	230	253	199	113	62	41	37	59
27	77	856	150	247	200	258	174	87	51	41	33	81
28	60	795	140	152	180	233	159	75	69	43	36	71
29	49	456	140	127	---	194	144	66	87	53	33	66
30	46	386	140	130	---	179	134	58	111	88	31	337
31	45	---	140	130	---	162	---	49	---	212	29	---
TOTAL	2043	19583	9117	12722	11194	16650	10723	3480	3839	2558	3675	1591
MEAN	65.9	653	294	410	400	537	357	112	128	82.5	119	53.0
MAX	395	1740	876	2960	1360	2110	1610	338	301	255	551	337
MIN	12	37	140	120	140	120	115	49	51	32	29	19

CAL YR 1985 TOTAL 90779 MEAN 249 MAX 5610 MIN 6.9
WTR YR 1986 TOTAL 97175 MEAN 266 MAX 2960 MIN 12

04217000 TONAWANDA CREEK AT BATAVIA, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971, 1978 to current year.
 CHEMICAL DATA: 1971 (a), 1978 (c), 1980 (d), 1981-82 (c), 1983-86 (b).
 MINOR ELEMENT DATA: 1978-86 (b).
 ORGANIC DATA: OC--1978-80 (c), 1981 (b).
 NUTRIENT DATA: 1971 (a), 1978 (c), 1979-80 (d), 1981-82 (c), 1983-86 (b).
 BIOLOGICAL DATA:
 Bacteria--1978 (c), 1979-80 (d), 1981 (b), 1982 (c), 1983-86 (b).
 Phytoplankton--1978 (b), 1979-80 (c), 1981 (b).
 SEDIMENT DATA: 1978 (c), 1979-80 (d), 1981-82 (c), 1983-86 (b).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: January 1978 to September 1981.
 WATER TEMPERATURES: January 1978 to September 1981.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 850 microsiemens Mar. 14, 1978; minimum daily, 200 microsiemens Feb. 20, 1981.
 WATER TEMPERATURES: Maximum daily, 27.0°C July 15, 19, 1979, July 19, 21, 1980; minimum daily, 0.0°C on many days during winter periods.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
OCT 30...	1200	45	476	8.00	7.5	3.4	755	10.4	88	130
MAR 19...	0830	424	336	7.98	5.0	28	721	9.8	81	130
JUN 17...	0845	185	394	7.82	19.5	9.5	751	7.2	80	--
AUG 19...	0900	60	414	7.60	21.5	17	743	7.5	87	K400

DATE	STREP- TOCOCCE FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS WH WAT (MG/L AS CACO3)	HARD- NESS NONCARB TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT 30...	42	210	49	64	13	15	3.1	165	39	25
MAR 19...	K260	150	35	47	9.0	11	1.7	112	19	18
JUN 17...	160	200	37	59	12	11	2.0	160	24	19
AUG 19...	46	190	32	58	11	10	2.7	158	25	16

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

04217000 TONAWANDA CREEK AT BATAVIA, NY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	FLUORIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
OCT 30...	0.1	4.3	287	270	0.62	0.10	0.4	0.04	0.04	0.02
MAR 19...	0.1	4.4	196	180	1.40	0.05	0.3	0.05	0.01	0.02
JUN 17...	0.1	4.2	241	230	--	--	--	--	--	--
AUG 19...	<0.1	5.8	237	220	0.68	0.05	0.6	0.19	0.05	0.02

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
OCT 30...	10	<1	61	2	<1	<1	<3	7	33	<1
MAR 19...	20	<1	48	<0.5	1	<1	<3	<1	28	<1
JUN 17...	--	--	--	--	--	--	--	--	--	--
AUG 19...	70	1	60	0.8	<1	5	<3	4	37	<5

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 30...	4	54	<0.1	<10	1	<1	<1	160	<6	14
MAR 19...	5	33	<0.1	<10	1	<1	<1	110	<6	11
JUN 17...	--	--	--	--	--	--	--	--	--	--
AUG 19...	7	40	0.1	<10	3	<1	<1	140	<6	4

04217000 TONAWANDA CREEK AT BATAVIA, NY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK)	DEPTH AT SAMPLE LOC- ATION, TOTAL (FEET)	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)
OCT								
30...	1205	10	1.5	1.0	475	8.04	7.5	10.4
30...	1210	20	1.5	1.0	478	8.10	7.5	10.6
30...	1215	30	2.1	1.0	476	8.06	7.5	10.5
30...	1220	40	2.0	1.0	475	8.05	7.5	10.5
30...	1225	50	1.2	1.0	476	8.05	7.5	10.6
MAR								
19...	0835	6	1.8	1.0	338	7.99	5.0	9.8
19...	0840	18	2.7	1.0	335	7.94	5.0	9.9
19...	0845	30	3.0	1.0	335	7.89	5.0	9.8
19...	0850	42	2.9	1.0	332	8.02	5.0	9.6
19...	0855	54	2.8	1.0	341	8.00	5.0	10.0
19...	0900	66	1.6	1.0	336	7.98	5.0	9.8
JUN								
17...	0850	10	2.0	1.0	394	7.82	19.5	--
17...	0855	20	2.2	1.0	395	7.81	19.5	--
17...	0900	30	2.2	1.0	398	7.82	19.5	--
17...	0905	40	2.4	1.0	391	7.80	19.5	--
17...	0910	50	1.8	1.0	396	7.81	19.5	--
AUG								
19...	0905	10	1.5	1.0	414	7.60	21.5	7.5
19...	0910	20	1.5	1.0	423	7.62	21.5	7.5
19...	0915	30	2.1	1.0	418	7.64	21.5	7.4
19...	0920	40	2.0	1.0	415	7.60	21.5	7.4
19...	0925	50	1.2	1.0	420	7.58	21.5	7.5

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
30...	1200	45	8	0.97	95
MAR					
19...	0830	424	52	60	98
JUN					
17...	0845	185	22	11	85
AUG					
19...	0900	60	31	5.0	93

NIAGARA RIVER BASIN

04217500 TONAWANDA CREEK NEAR ALABAMA, NY

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

DRAINAGE AREA.--231 mi².

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

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

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

REMARKS.--Estimated daily discharges: Dec. 16 to Jan. 21 and Jan. 28 to Mar. 10. Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--31 years, 286 ft³/s, 16.81 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,980 ft³/s Mar. 31, 1960, gage height, 14.28 ft; maximum gage height, 15.95 ft Jan. 23, 1959 (ice jam); minimum daily, 7.7 ft³/s Sept. 14, 15, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Nov. 7	0630	2,720	11.53	Mar. 15	0330	2,430	11.04
Jan. 21	--	*a5,000	*b13.18	Apr. 18	0800	2,500	11.18
Mar. 12	0630	3,080	11.87				

a About.

b Ice jam.

Minimum discharge, 20 ft³/s Oct. 5, gage height, 5.05 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	43	706	200	180	230	211	162	69	109	229	38
2	26	39	1100	200	210	210	194	152	233	103	330	37
3	23	38	1110	200	400	210	180	141	334	91	291	35
4	22	124	662	200	470	210	170	127	160	87	149	33
5	25	992	481	200	430	220	172	119	123	68	108	35
6	34	1730	418	200	1000	220	271	118	153	60	86	33
7	34	2400	377	190	1300	190	308	113	166	54	83	32
8	38	1240	334	190	600	160	296	105	176	74	99	30
9	34	647	308	190	440	170	361	96	377	59	142	29
10	31	663	311	180	320	250	342	90	207	56	112	29
11	32	1240	454	180	270	1830	384	86	132	49	225	30
12	32	1450	847	180	240	2470	391	83	119	52	766	36
13	41	1160	851	170	220	1320	396	78	226	114	309	34
14	48	1570	581	170	200	1760	435	75	293	251	164	34
15	90	1780	457	170	200	2280	431	71	168	218	117	37
16	108	1400	400	170	190	1660	610	71	124	131	105	52
17	158	1200	350	170	190	1150	1480	82	136	90	130	50
18	89	1280	310	180	190	756	2140	115	270	86	108	51
19	93	761	290	700	250	719	991	98	140	157	83	42
20	357	528	270	1900	1000	1020	575	127	109	186	70	38
21	270	411	260	3800	1500	756	785	339	102	157	63	35
22	120	342	250	2490	1800	465	808	301	90	183	59	36
23	80	400	240	1200	900	438	535	308	107	118	98	48
24	73	634	230	762	680	409	397	449	102	85	73	193
25	121	491	220	504	450	368	321	230	99	68	62	169
26	205	402	220	426	350	339	274	157	89	62	57	91
27	112	887	210	375	300	354	235	121	78	56	48	80
28	74	1190	210	300	260	342	209	99	71	52	43	93
29	59	771	200	200	---	292	188	88	86	56	43	100
30	49	601	200	180	---	258	171	77	109	59	41	259
31	45	---	200	180	---	235	---	69	---	142	40	---
TOTAL	2551	26414	13057	16357	14540	21291	14261	4347	4648	3133	4333	1839
MEAN	82.3	880	421	528	519	687	475	140	155	101	140	61.3
MAX	357	2400	1110	3800	1800	2470	2140	449	377	251	766	259
MIN	22	38	200	170	180	160	170	69	69	49	40	29
CFSM	.36	3.81	1.82	2.28	2.25	2.97	2.06	.61	.67	.44	.61	.27
IN.	.41	4.25	2.10	2.63	2.34	3.43	2.30	.70	.75	.50	.70	.30

CAL YR 1985 TOTAL 124122 MEAN 340 MAX 6400 MIN 11 CFSM 1.47 IN. 20.0
WTR YR 1986 TOTAL 126771 MEAN 347 MAX 3800 MIN 22 CFSM 1.50 IN. 20.4

STREAMS TRIBUTARY TO LAKE ERIE

83

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 National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 3-7, Dec. 15 to Jan. 21, Jan. 23 to Feb. 3, Feb. 8-18, Feb. 22 to Mar. 10, Mar. 19-23 and Aug. 19 to Sept. 30. Records good except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,000 ft³/s Feb. 25, 1985, gage height, 7.16 ft; minimum discharge, 1.2 ft³/s Oct. 12, 1985; minimum gage height, 1.48 ft, Sept. 21, 1985.

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

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 20	--	*a1,100	*b5.20	Mar. 12	1800	690	4.43

Minimum discharge, 1.2 ft³/s Oct. 12, gage height, 1.52 ft.

a About.

b Ice jam.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	5.3	157	40	41	45	46	36	20	11	13	6.2
2	2.2	3.7	186	40	54	40	43	34	47	12	18	5.8
3	2.1	5.0	200	41	70	39	39	31	77	10	26	5.4
4	2.1	29	180	40	102	40	36	29	62	11	26	5.2
5	3.1	132	140	39	219	42	40	28	46	11	17	5.0
6	2.3	260	110	39	238	42	67	28	72	8.5	13	4.8
7	2.7	422	90	37	320	40	83	27	79	9.1	14	4.7
8	2.4	353	87	36	170	36	92	25	72	9.3	17	4.5
9	2.4	210	80	35	90	35	89	23	72	8.4	36	4.5
10	2.8	183	80	34	80	35	89	22	72	9.3	26	4.5
11	3.2	209	104	34	68	376	93	21	53	8.4	22	4.9
12	1.9	271	135	33	60	590	97	21	40	8.9	28	5.4
13	3.9	276	177	33	52	466	90	19	40	8.4	29	5.6
14	2.9	293	157	33	47	402	82	16	49	15	20	5.8
15	4.8	348	110	33	45	477	76	16	49	22	14	6.0
16	3.7	285	90	32	42	369	142	15	36	29	12	6.4
17	3.2	272	80	35	42	256	280	14	28	21	10	7.6
18	3.3	241	70	45	42	191	347	13	27	15	9.7	6.6
19	13	213	60	60	87	160	252	21	28	18	9.0	6.0
20	3.9	155	58	450	174	140	160	43	22	38	8.9	5.6
21	7.7	116	56	900	334	110	207	60	18	40	8.6	6.0
22	21	89	54	781	290	100	193	56	16	30	13	6.4
23	14	80	52	350	200	88	162	74	15	20	11	10
24	13	85	50	280	150	82	113	74	16	14	10	22
25	8.9	99	49	120	110	74	85	58	25	12	11	15
26	7.7	114	48	100	94	68	69	41	18	11	9.0	12
27	15	163	47	84	72	65	58	32	15	10	8.4	17
28	13	206	46	60	60	67	51	26	12	9.8	8.0	14
29	9.1	215	44	45	---	63	45	22	11	9.3	7.6	13
30	6.9	164	42	42	---	57	39	19	12	9.3	7.0	19
31	5.8	---	41	41	---	49	---	16	---	9.0	6.8	---
TOTAL	190.6	5497.0	2880	3972	3353	4689	3265	960	1149	457.7	469.0	244.9
MEAN	6.15	183	92.9	128	120	151	109	31.0	38.3	14.8	15.1	8.16
MAX	21	422	200	900	334	590	347	74	79	40	36	22
MIN	1.9	3.7	41	32	41	35	36	13	11	8.4	6.8	4.5
CFSM	.10	3.12	1.58	2.18	2.04	2.57	1.85	.53	.65	.25	.26	.14
IN.	.12	3.48	1.82	2.51	2.12	2.97	2.07	.61	.73	.29	.30	.15

CAL YR 1985 TOTAL 27659.0 MEAN 75.8 MAX 2710 MIN 1.8 CFSM 1.29 IN. 17.5
WTR YR 1986 TOTAL 27127.1 MEAN 74.3 MAX 900 MIN 1.9 CFSM 1.26 IN. 17.2

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

REMARKS.--Estimated daily discharges Dec. 17 to Feb. 26 and Mar. 7-10. Records good except those for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--17 years (water years 1956-65, 1980-86), 387 ft³/s, 15.06 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,280 ft³/s Apr. 1, 1960, gage height, 16.96 ft; minimum 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)
Nov. 8	1700	2,480	9.19	Mar. 13	1130	3,960	12.84
Jan. 22	--	*5,000	*a15.00	Apr. 19	0930	2,530	9.32
Feb. 23	--	3,100	unknown				

a Ice jam.

Minimum discharge, 20 ft³/s Oct. 5, 6, gage height, 1.12 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	66	1050	320	300	473	316	278	108	126	203	47
2	25	63	1210	320	340	388	287	264	195	126	270	44
3	23	60	1440	320	450	362	260	246	390	117	386	42
4	21	123	1420	330	640	367	241	227	401	105	338	41
5	21	583	1090	330	780	377	237	209	261	96	202	39
6	21	1470	794	320	1000	389	369	216	261	77	145	42
7	27	1840	659	320	1900	380	473	220	334	66	121	38
8	29	2370	584	310	2100	380	497	207	332	63	138	36
9	33	2100	533	300	1500	400	508	197	354	82	168	33
10	32	1440	516	290	860	490	522	185	446	66	208	33
11	29	1390	589	290	560	1790	534	175	314	62	187	35
12	29	1590	822	280	450	2840	564	167	233	60	370	37
13	32	1870	1120	280	370	3860	547	165	216	66	643	40
14	37	1920	1140	280	330	3290	525	159	336	155	398	38
15	48	2030	843	280	320	2710	556	142	348	293	236	38
16	80	2260	734	280	310	2990	720	131	245	252	176	46
17	105	2220	640	300	300	2480	1530	128	183	168	156	59
18	131	1900	540	500	300	1680	2050	142	226	117	183	56
19	94	1720	500	1600	300	1240	2420	172	284	126	147	55
20	104	1310	460	2200	500	1210	1670	268	189	200	113	49
21	325	892	430	3000	2500	1280	1250	335	148	257	97	43
22	272	646	410	4200	2900	935	1340	478	134	230	85	38
23	162	546	390	4700	3000	646	1160	502	117	227	82	48
24	117	623	370	3500	2100	602	804	554	134	150	118	66
25	115	757	360	2500	1300	548	594	521	133	107	92	215
26	168	670	350	1500	900	495	488	341	129	87	78	170
27	214	826	340	860	644	475	424	248	112	78	69	119
28	146	1220	330	600	518	482	377	196	99	70	60	111
29	105	1430	330	450	---	446	337	161	86	67	54	128
30	85	1240	330	360	---	392	302	136	98	71	50	247
31	72	---	330	300	---	349	---	116	---	81	49	---
TOTAL	2726	37175	20654	31420	27472	34746	21902	7486	6846	3848	5622	2033
MEAN	87.9	1239	666	1014	981	1121	730	241	228	124	181	67.8
MAX	325	2370	1440	4700	3000	3860	2420	554	446	293	643	247
MIN	21	60	330	280	300	349	237	116	86	60	49	33
CFSM	.25	3.55	1.91	2.90	2.81	3.21	2.09	.69	.65	.36	.52	.19
IN.	.29	3.96	2.20	3.35	2.93	3.70	2.33	.80	.73	.41	.60	.22

CAL YR 1985 TOTAL 182399 MEAN 500 MAX 6100 MIN 18 CFSM 1.43 IN. 19.4
WTR YR 1986 TOTAL 201930 MEAN 553 MAX 4700 MIN 21 CFSM 1.59 IN. 21.5

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 National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 16 to Jan. 18, Jan. 29 to Feb. 3, Feb. 9-18 and Feb. 27 to Mar. 9. Records good except those for estimated daily discharges, which are fair. Regulation by seasonal manipulation of dam at Island Park 2.4 mi upstream by Village of Williamsville and by intermittent pumping from stone quarry into stream upstream from station. Records at medium and high flows may be comparable with those obtained at station 04218500 between October 1955 and September 1972. Gage height telemeter at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--14 years, 133 ft³/s, 22.13 in/yr.

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)
Nov. 6	2045	1,430	6.64	Mar. 11	2245	1,790	7.44
Jan. 21	1700	*1,830	*7.53	Apr. 17	2230	1,130	5.73

Minimum discharge, 8.3 ft³/s June 4, gage height, 1.08 ft, result of regulation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	30	220	64	58	74	102	72	112	41	56	26
2	14	24	328	64	90	70	98	73	118	38	46	26
3	11	61	319	64	150	68	94	78	152	40	69	26
4	13	304	196	64	244	68	92	71	77	51	44	27
5	25	824	144	64	464	84	106	66	108	44	36	35
6	20	1260	122	64	687	96	136	65	176	40	32	25
7	19	932	123	62	285	84	171	64	189	59	51	24
8	17	310	113	62	119	76	174	65	131	48	60	25
9	15	184	108	60	100	76	191	87	154	48	63	24
10	17	324	118	58	84	224	180	68	106	41	49	23
11	19	611	192	58	76	1210	205	67	88	36	65	32
12	23	466	314	56	68	1100	228	66	86	59	97	22
13	40	425	299	56	62	482	214	67	96	54	61	16
14	30	747	190	56	58	782	155	73	117	101	42	14
15	43	487	112	56	50	623	168	73	82	106	36	29
16	35	361	100	58	48	433	349	77	76	69	33	45
17	40	395	98	62	48	281	885	75	48	47	32	36
18	34	370	94	120	70	205	719	73	60	43	32	26
19	78	204	88	828	204	249	275	210	56	41	31	20
20	91	144	84	1500	566	348	214	357	49	56	38	18
21	94	111	78	1650	743	205	401	193	45	57	31	17
22	60	74	78	823	587	143	416	147	45	46	29	20
23	44	104	76	402	333	137	230	162	47	41	55	51
24	70	162	74	210	204	130	159	183	49	36	41	34
25	80	138	72	162	151	127	132	124	52	34	32	41
26	82	142	70	118	120	123	118	92	45	34	33	27
27	54	321	68	96	98	133	107	78	48	33	32	22
28	41	360	66	65	82	141	78	72	42	32	30	22
29	42	206	66	60	---	131	88	66	47	37	30	83
30	42	181	66	58	---	120	84	61	45	35	28	100
31	39	---	64	58	---	110	---	59	---	37	27	---
TOTAL	1247	10262	4140	7178	5849	8133	6569	3084	2546	1484	1341	936
MEAN	40.2	342	134	232	209	262	219	99.5	84.9	47.9	43.3	31.2
MAX	94	1260	328	1650	743	1210	885	357	189	106	97	100
MIN	11	24	64	56	48	68	78	59	42	32	27	14
CFSM	.49	4.19	1.64	2.84	2.56	3.22	2.68	1.22	1.04	.59	.53	.38
IN.	.57	4.68	1.89	3.27	2.67	3.71	2.99	1.41	1.16	.68	.61	.43
CAL YR 1985	TOTAL 49463	MEAN 136	MAX 3280	MIN 9.9	CFSM 1.66	IN. 22.5						
WTR YR 1986	TOTAL 52769	MEAN 145	MAX 1650	MIN 11	CFSM 1.77	IN. 24.1						

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 National Geodetic Vertical Datum of 1929. Nov. 1, 1919 to Dec. 28, 1920, nonrecording gage at same site at different datum.

REMARKS.--Estimated daily discharges: May 1-4. 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. Record is not published during the non-navigation period, which this year extended from Dec. 1 to May 4. Several measurements of water temperature were made during the year.

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

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

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	256	230						1.4	321	332	298	284
2	255	237						1.5	306	349	295	259
3	251	231						2.5	316	345	294	254
4	247	239						5.6	317	361	268	251
5	254	247						18	313	371	274	261
6	257	257						119	319	355	287	263
7	252	254						170	324	344	279	253
8	255	240						180	326	339	287	264
9	250	242						174	320	342	301	257
10	244	250						174	307	349	289	259
11	251	252						179	316	344	290	254
12	253	250						198	311	331	274	244
13	256	262						200	324	344	266	241
14	255	267						195	319	337	260	245
15	248	264						235	312	324	248	242
16	255	257						269	314	330	271	247
17	256	253						270	315	328	313	247
18	247	249						275	322	318	290	239
19	253	244						271	317	331	286	240
20	249	237						270	335	334	289	233
21	246	230						264	333	329	290	244
22	246	225						266	320	314	277	231
23	246	235						264	309	309	273	238
24	246	233						275	310	317	281	222
25	249	221						275	312	315	269	221
26	249	206						291	307	306	269	222
27	251	192						263	320	318	267	237
28	233	179						277	333	298	255	258
29	231	163						285	356	300	254	243
30	224	137						275	323	293	269	261
31	227	---						285	---	290	267	---
TOTAL	7692	6983						6228.0	9577	10197	8630	7414
MEAN	248	233						201	319	329	278	247
MAX	257	267						291	356	371	313	284
MIN	224	137						1.4	306	290	248	221

ST. LAWRENCE RIVER MAIN STEM

04219640 NIAGARA RIVER (LAKE ONTARIO) AT FORT NIAGARA, NY
(National stream-quality accounting network station)

WATER QUALITY RECORDS

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

DRAINAGE AREA.--265,000 mi².

PERIOD OF RECORD.--Water years 1971 to current year.

CHEMICAL DATA: 1971 (a), 1973-74 (b), 1975-82 (c), 1983-86 (b).

MINOR ELEMENT DATA: 1971 (a), 1972-86 (b).

ORGANIC DATA: OC--1973 (a), 1974-75 (b), 1978-80 (c), 1981 (b).

NUTRIENT DATA: 1971 (a), 1973-74 (b), 1975-82 (c), 1983-86 (b).

BIOLOGICAL DATA:

Bacteria--1973 (b), 1974 (d), 1975-82 (c), 1983-86 (b).

Phytoplankton--1973 (b), 1974 (d), 1975-77 (c), 1978-81 (c).

Periphyton--1974 (a), 1975-80 (b).

SEDIMENT DATA: 1975-77 (c), 1978 (b), 1979-82 (c), 1983-86 (b).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: September 1973 to June 1980.

WATER TEMPERATURES: September 1973 to June 1980.

REMARKS.--Published in 1971 as "at Youngstown". Discharge is the daily mean reported for Niagara River at Buffalo (station 04216000).

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
OCT 30...	0900	213000	284	8.10	13.5	1.5	760	10.5	101	K20
MAY 07...	0930	262000	272	8.26	8.0	5.0	762	9.6	81	62
JUN 19...	0900	276000	273	8.24	16.0	14	757	9.6	98	--
AUG 21...	1000	259000	280	8.24	23.0	2.5	762	9.1	106	50

DATE	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT 30...	K4	120	32	36	8.3	8.5	1.4	92	24	16
MAY 07...	K4	--	--	35	--	9.8	1.3	77	25	14
JUN 19...	K16	120	39	35	8.1	8.9	1.4	82	--	--
AUG 21...	K8	120	38	35	8.4	8.8	1.4	84	25	15

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

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
OCT 30...	<0.1	0.1	186	150	0.15	0.16	0.3	<0.01	0.01	0.02
MAY 07...	<0.1	0.1	162	--	--	--	--	--	--	--
JUN 19...	--	0.3	--	--	--	--	--	--	--	--
AUG 21...	0.1	0.3	158	170	0.16	<0.01	0.4	0.06	0.03	<0.01

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
OCT 30...	20	<1	23	1	<1	2	<3	5	<3	<1
MAY 07...	--	--	--	--	--	--	--	--	--	--
JUN 19...	20	<1	24	<0.5	<1	<1	<3	4	19	<5
AUG 21...	<10	<1	22	0.8	<1	10	<3	1	5	<5

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 30...	<4	<1	<0.1	<10	<1	<1	<1	160	<6	11
MAY 07...	--	--	--	--	--	--	--	--	--	--
JUN 19...	6	2	<0.1	<10	1	<1	<1	160	<6	21
AUG 21...	5	<1	0.1	<10	<1	<1	<1	160	<6	9

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK)	DEPTH AT SAMPLE LOC- ATION, TOTAL (FEET)	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)
OCT								
30...	0905	1200	36.0	3.0	285	8.37	13.5	10.8
30...	0910	1200	36.0	10.0	284	8.40	13.5	10.5
30...	0915	1200	36.0	20.0	285	8.42	13.5	10.3
30...	0920	1200	36.0	30.0	284	8.45	13.5	10.3
30...	0925	300	48.0	3.0	283	8.37	13.0	10.3
30...	0930	300	48.0	10.0	284	8.44	13.5	10.2
30...	0935	300	48.0	25.0	284	8.42	13.5	10.3
30...	0940	300	48.0	40.0	283	8.42	13.5	10.2
MAY								
07...	0935	1200	48.0	3.0	273	8.18	8.5	9.6
07...	0940	1200	48.0	10.0	273	8.23	8.0	9.6
07...	0945	1200	48.0	25.0	272	8.28	8.0	9.7
07...	0950	1200	48.0	40.0	271	8.32	8.0	9.7
07...	0955	300	66.0	3.0	273	8.12	8.0	9.6
07...	1000	300	66.0	10.0	272	8.22	8.0	9.5
07...	1005	300	66.0	30.0	272	8.26	8.0	9.7
07...	1010	300	66.0	50.0	270	8.23	8.0	9.8
JUN								
19...	0905	1200	52.0	3.0	273	8.21	16.0	--
19...	0910	1200	52.0	10.0	273	8.23	16.0	--
19...	0915	1200	52.0	25.0	273	8.27	16.0	--
19...	0920	1200	52.0	45.0	272	8.26	16.0	--
19...	0925	300	60.0	3.0	273	8.18	16.0	--
19...	0930	300	60.0	10.0	273	8.21	16.0	--
19...	0935	300	60.0	30.0	272	8.23	16.0	--
19...	0940	300	60.0	50.0	271	8.23	16.0	--
AUG								
21...	1005	1200	55.0	3.0	280	8.24	23.0	9.1
21...	1010	1200	55.0	10.0	280	8.26	23.0	9.1
21...	1015	1200	55.0	25.0	280	8.27	23.0	9.0
21...	1020	1200	55.0	45.0	279	8.27	23.0	8.9
21...	1025	300	48.0	3.0	280	8.21	23.0	9.4
21...	1030	300	48.0	10.0	280	8.24	23.0	9.1
21...	1035	300	48.0	25.0	279	8.24	23.0	8.8
21...	1045	300	48.0	45.0	279	8.26	23.0	8.8

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
30...	0900	213000	4	2300	82
MAY					
07...	0930	262000	13	9200	81
JUN					
19...	0900	276000	14	10400	91
AUG					
21...	1000	259000	2	1400	88

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 National Geodetic Vertical Datum of 1929. October 1957 to September 1958, nonrecording gage at site 0.4 mi upstream at datum 3.00 ft higher. August 1955 to September 1957, at same site at datum 8.00 ft higher.

REMARKS.--Estimated daily discharges: Dec. 15-Jan. 13, Jan. 15-20, Jan. 24 to Feb. 5, Feb. 8-16, Feb. 26 to Mar. 3, and Mar. 7-9. Records good except those for estimated daily discharges, which are fair. Record for station 04221500 Genesee River at Scio, 5.2 mi downstream, published for June 1916 to September 1972. Satellite and gage height telemeter at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--17 years (water years 1956-58, 1973-86), 400 ft³/s, 18.86 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,800 ft³/s Mar. 8, 1956 (site and datum then in use, from graph based on gage readings) and Oct. 28, 1981 (present site and datum); maximum gage height, 13.60 ft October 28, 1981; minimum daily, 18 ft³/s Sept. 9, 1957.

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. 20	1300	*8,430	*10.78	Apr. 17	0230	3,880	8.13
Mar. 15	0630	4,870	8.77				

Minimum discharge, 23 ft³/s Oct. 11, 12, 13, gage height, 4.25 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	36	883	130	250	340	264	234	88	129	344	50
2	32	35	1480	130	300	300	247	223	121	264	394	47
3	33	42	852	120	390	300	230	197	92	192	231	45
4	30	116	675	120	600	282	228	181	77	132	171	44
5	30	190	588	110	1100	257	266	166	326	107	147	46
6	30	207	529	120	650	253	397	156	643	90	127	45
7	29	150	458	120	378	200	443	155	389	83	198	40
8	28	144	405	120	390	200	386	139	602	78	171	39
9	26	121	376	110	360	300	358	127	367	107	160	38
10	26	175	362	110	330	462	363	118	271	98	134	37
11	26	378	549	110	320	1120	381	109	323	75	219	35
12	25	353	949	110	300	530	395	100	1450	220	144	35
13	25	538	643	110	280	618	379	94	1440	317	113	35
14	27	616	588	110	260	1380	378	89	711	311	98	34
15	40	727	490	110	240	3710	392	86	519	175	90	33
16	51	1040	480	110	200	1920	1330	86	692	141	153	36
17	39	1630	420	120	200	1300	2640	83	1050	160	116	36
18	34	759	340	190	295	1010	1340	98	497	838	104	37
19	53	586	320	800	1360	1170	1010	177	400	533	89	50
20	97	484	310	5800	1760	960	850	883	360	808	76	49
21	60	392	310	2700	1870	656	822	524	287	617	71	54
22	48	341	290	1530	1210	583	686	366	239	383	71	48
23	45	324	260	1080	925	543	561	346	221	290	72	76
24	48	276	250	720	725	485	474	263	185	234	128	141
25	59	241	230	600	588	434	418	217	166	202	79	64
26	54	540	170	560	490	409	374	177	143	214	67	217
27	47	1300	160	500	450	416	336	151	129	211	64	546
28	42	794	150	330	380	370	303	140	167	168	62	290
29	39	647	150	300	---	329	276	121	177	147	59	157
30	38	639	140	270	---	305	250	106	144	144	56	220
31	36	---	130	260	---	286	---	95	---	167	53	---
TOTAL	1228	13821	13937	17610	16601	21428	16777	6007	12276	7635	4061	2624
MEAN	39.6	461	450	568	593	691	559	194	409	246	131	87.5
MAX	97	1630	1480	5800	1870	3710	2640	883	1450	838	394	546
MIN	25	35	130	110	200	200	228	83	77	75	53	33
CFSM	.14	1.60	1.56	1.97	2.06	2.40	1.94	.67	1.42	.86	.45	.30
IN.	.16	1.79	1.80	2.27	2.14	2.77	2.17	.78	1.59	.99	.52	.34

CAL YR 1985 TOTAL 102242 MEAN 280 MAX 3600 MIN 23 CFSM .97 IN. 13.2
WTR YR 1986 TOTAL 134005 MEAN 367 MAX 5800 MIN 25 CFSM 1.27 IN. 17.3

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

REMARKS.--Estimated daily discharges: Dec. 16 to Jan. 19, Jan. 24-25, Jan. 27 to Feb. 3, Feb. 5, 7-19, Feb. 25 to Mar. 2 and Mar. 7-9. Records good except those for estimated daily discharges, which are fair. Since July 1928, some seasonal regulation by Rushford Lake. Diurnal fluctuation at low flow caused by powerplant. Monthly figures of discharge and runoff 1952 to 1966 water years adjusted for change in contents in Rushford Lake. Gage height telemeter at station. Satellite gage height and rain gage telemeter at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--78 years (water years 1909-86), 1,256 ft³/s, unadjusted.

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, 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. 20	1800	*19,400	*17.04	No other peak greater than base discharge.			
Minimum discharge, 80 ft ³ /s Oct. 5, 10, 11, 12, gage height, 8.27 ft.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	101	160	4030	520	580	800	865	757	270	467	1080	207
2	93	152	6400	540	660	720	818	688	274	426	2210	194
3	88	158	3730	520	800	749	769	577	290	550	1110	183
4	86	276	2360	500	857	786	723	531	253	404	743	174
5	89	1820	2030	500	3400	725	807	495	242	310	656	173
6	93	3410	1830	580	3280	704	1420	465	904	261	496	169
7	95	1380	1320	620	1400	560	1560	448	948	231	542	164
8	96	952	1140	520	1100	420	1680	409	2950	221	858	164
9	91	782	1070	450	1000	740	1500	373	1990	269	769	164
10	88	1130	1090	400	900	1480	1380	357	1100	386	687	164
11	81	2600	1850	420	800	7140	1400	341	5540	263	1550	167
12	87	2210	4640	420	720	3660	1530	337	8430	417	1020	172
13	144	5310	2600	440	600	2380	1440	384	6220	2110	556	178
14	169	5200	1900	420	560	5030	1470	352	2690	2440	450	170
15	245	5280	1470	400	600	8040	1290	274	1540	1300	385	170
16	432	4870	1340	410	540	5510	3160	282	2170	652	720	167
17	331	9300	1300	450	560	3700	9720	328	4680	510	850	164
18	231	4380	1040	660	740	2680	4570	291	1750	3030	561	164
19	246	2040	920	3000	4000	3060	2600	372	1140	1900	473	164
20	725	1630	900	13900	6480	3410	1980	979	940	2720	368	1030
21	449	1340	900	9880	7150	1920	2390	1970	791	4220	314	1050
22	317	1110	780	4570	4460	1690	1950	1300	641	1430	296	436
23	259	1250	820	3360	2970	1770	1830	1330	601	940	288	293
24	303	1070	720	1700	2030	1550	1450	986	546	709	387	480
25	421	903	600	1400	1500	1230	1120	747	451	595	327	351
26	427	1420	520	1390	1200	1250	988	637	398	652	284	561
27	355	5280	520	1100	1100	1310	897	474	356	515	279	1580
28	301	3200	520	680	900	1260	828	455	393	470	260	1930
29	206	2200	500	560	---	1080	794	370	539	422	319	1170
30	181	2120	500	540	---	999	803	323	545	585	294	750
31	168	---	500	540	---	927	---	288	---	713	219	---
TOTAL	6998	72933	49840	51390	50887	67280	53732	17920	49582	30118	19351	12903
MEAN	226	2431	1608	1658	1817	2170	1791	578	1653	972	624	430
MAX	725	9300	6400	13900	7150	8040	9720	1970	8430	4220	2210	1930
MIN	81	152	500	400	540	420	723	274	242	221	219	164

CAL YR 1985 TOTAL 382309 MEAN 1047 MAX 13000 MIN 62
WTR YR 1986 TOTAL 482934 MEAN 1323 MAX 13900 MIN 81

04224000 MOUNT MORRIS LAKE NEAR MOUNT MORRIS, NY

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

DRAINAGE AREA.--1,080 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 National Geodetic Vertical Datum of 1929 (levels by U. S. Army Corps of Engineers). Prior to Apr. 8, 1952, reference point at same site and datum.

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

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

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

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 661.77 ft Jan. 23, contents, 81,660 acre-ft; minimum, 585.36 ft Sept. 18-19, contents 671 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	600.00	5,610	640.00	43,700
586.00	782	605.00	8,250	660.00	78,200
588.00	1,210	610.00	11,600	680.00	119,800
590.00	1,730	620.00	19,800	700.00	166,300
595.00	3,410	630.00	30,500	730.00	245,200
				750.00	305,100

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	586.32	586.79	642.44	611.31	601.70	624.77	591.53	591.80	588.32	613.60	611.35	586.73
2	586.19	586.71	642.63	610.90	591.62	617.23	591.24	591.42	588.24	614.34	615.30	586.63
3	586.14	586.68	642.71	609.14	596.79	606.03	590.94	590.67	588.25	615.05	618.24	586.54
4	586.11	587.19	639.34	608.39	602.99	592.38	590.72	590.46	588.24	615.53	617.55	586.48
5	586.13	594.21	634.62	609.51	608.68	595.62	590.77	590.11	587.94	615.40	616.11	586.42
6	586.14	611.06	629.83	610.30	621.93	600.81	593.63	589.83	590.11	615.05	615.86	586.42
7	586.16	619.30	624.36	610.08	622.68	601.65	594.83	589.69	594.81	614.84	615.56	586.41
8	586.21	621.59	616.99	609.48	617.53	598.31	595.41	589.52	599.74	614.76	615.91	586.34
9	586.17	622.42	610.07	607.88	611.06	596.71	595.58	589.30	610.97	614.62	616.80	586.24
10	586.14	623.04	602.08	604.62	601.31	602.35	594.39	589.29	609.45	614.86	617.28	586.19
11	586.09	625.82	596.88	603.03	595.93	620.53	594.39	589.18	614.68	615.08	618.68	586.15
12	586.05	626.99	610.31	604.63	600.31	632.73	594.79	589.15	626.79	615.13	621.14	585.74
13	586.41	628.51	616.99	605.97	600.44	633.36	594.37	589.30	633.78	616.68	617.70	585.53
14	586.78	637.68	616.44	606.19	597.74	633.90	594.83	589.37	633.36	618.82	595.87	585.55
15	587.21	643.23	613.42	604.80	595.99	638.48	594.21	588.84	627.54	615.16	587.32	585.52
16	588.47	647.32	608.49	602.57	597.41	644.43	599.02	588.79	618.38	608.66	589.19	585.60
17	588.42	655.05	603.30	596.26	595.53	644.77	622.75	588.92	615.59	609.71	589.93	585.50
18	587.75	660.23	594.82	594.62	594.59	641.69	632.73	589.09	614.05	613.78	588.68	585.38
19	587.30	661.20	592.83	604.78	607.69	636.32	633.43	589.23	611.04	622.43	588.29	585.39
20	590.03	660.71	595.97	627.92	628.04	633.09	632.00	591.91	610.16	623.75	587.73	586.94
21	589.50	659.76	602.66	652.13	639.77	628.68	630.35	601.75	610.46	628.84	587.30	587.99
22	588.32	658.53	604.61	659.02	646.19	622.87	628.88	598.38	610.15	627.40	587.22	587.13
23	587.76	657.13	605.14	661.46	647.38	616.45	626.63	594.93	609.90	622.27	587.13	586.05
24	587.83	655.86	607.84	660.05	646.73	610.62	623.65	594.13	610.11	616.27	587.33	586.63
25	588.58	654.21	610.88	656.30	643.83	601.75	619.13	592.05	609.92	614.08	587.26	586.41
26	588.91	651.90	611.09	651.20	640.04	594.10	613.38	591.05	609.40	613.89	587.11	586.11
27	588.54	651.01	608.69	646.13	635.65	594.13	605.70	590.18	609.36	612.36	587.02	588.93
28	588.06	650.91	607.48	640.45	630.82	594.31	593.79	589.59	609.85	611.96	586.95	590.52
29	587.53	648.52	608.48	633.70	---	593.40	592.13	589.40	611.09	611.73	586.94	592.17
30	588.63	645.03	609.58	625.71	---	592.64	592.12	588.87	612.54	611.60	587.04	590.52
31	586.89	---	610.48	616.05	---	592.12	---	588.50	---	612.11	586.91	---
MEAN	587.32	633.95	613.60	620.79	615.08	614.07	604.91	590.80	608.47	615.80	600.09	586.81
MAX	590.03	661.20	642.71	661.46	647.38	644.77	633.43	601.75	633.78	628.84	621.14	592.17
MIN	586.05	586.68	592.83	594.62	591.62	592.12	590.72	588.50	587.94	608.66	586.91	585.38
†	963	49,800	12,190	11,920	28,220	2,275	2,343	1,306	13,920	12,930	948	1,898
††	+1.54	+821	-612	-4.39	+294	-422	+1.14	-16.9	+212	-16.1	-195	+16.0
CAL YR 1985	MEAN 601.35	MAX 665.40	MIN 585.74	†† -26.2								
WTR YR 1986	MEAN 607.57	MAX 661.46	MIN 585.38	†† +1.42								

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

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

STREAMS TRIBUTARY TO LAKE ONTARIO

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04224775 CANASERAGA CREEK ABOVE DANSVILLE, NY

LOCATION.--Lat 42°32'08", long 77°42'16", Livingston County, Hydrologic Unit 04130002, on right bank on Poags Hole Road, 0.7 mi upstream from Stony Brook, and 1.7 mi south of Dansville.

DRAINAGE AREA.--88.9 mi².

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

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

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

REMARKS.--Estimated daily discharges: Dec. 13 to Mar. 10. Records fair. Gage height telemeter at station. Satellite gage height and rain gage telemeter at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--12 years, 97.0 ft³/s, 14.82 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,870 ft³/s Sept. 20, 1977, gage height, 5.51 ft; minimum discharge, 6.7 ft³/s Aug. 27, Sept 7, 8, 1985; minimum gage height, 0.70 ft several days in August, September, and October 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Nov. 16	2100	1,020	3.20	June 11	1000	*1,060	*3.25

Minimum discharge, 6.9 ft³/s part of each day Oct. 1, 4-5, 7-10, gage height, 0.79 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.1	9.1	271	41	96	110	69	92	30	25	162	14
2	7.1	8.9	407	41	92	110	69	88	42	32	181	14
3	7.1	9.1	199	40	96	110	69	85	31	30	109	14
4	7.1	11	144	40	100	100	69	83	26	23	73	13
5	7.3	121	119	40	130	100	71	80	28	21	57	14
6	7.2	187	118	40	110	100	86	77	45	20	49	13
7	7.1	89	114	39	100	98	75	77	44	21	45	12
8	7.0	48	114	37	96	96	124	65	236	20	50	12
9	6.9	34	114	37	92	100	82	42	136	19	74	12
10	7.1	78	114	35	90	170	84	36	71	17	49	12
11	7.2	211	177	34	86	419	80	33	283	17	88	11
12	7.7	138	294	34	86	213	85	30	388	46	49	11
13	8.8	292	150	33	86	211	78	27	335	171	37	11
14	8.2	283	130	31	84	379	75	25	196	169	32	11
15	21	255	90	31	82	501	85	24	141	90	29	12
16	23	279	74	33	80	337	351	24	140	51	42	14
17	11	327	64	33	78	252	518	23	135	44	36	13
18	9.5	188	60	60	78	175	307	24	97	61	32	13
19	19	135	54	100	130	174	219	33	79	136	26	14
20	31	122	50	450	350	152	177	107	66	77	23	14
21	15	113	46	150	300	110	178	108	54	70	21	14
22	12	109	45	120	250	101	149	77	47	54	19	14
23	10	109	44	110	200	92	116	120	45	42	19	20
24	10	106	43	110	150	88	109	84	40	35	18	22
25	16	101	42	100	130	84	109	66	34	35	17	16
26	14	127	42	100	120	81	104	52	28	31	16	15
27	12	233	42	98	110	81	100	44	26	32	17	15
28	10	153	41	98	110	78	100	40	30	31	16	15
29	9.9	126	41	98	---	74	96	36	30	38	16	17
30	9.5	128	41	96	---	73	95	31	29	83	15	30
31	9.3	---	41	96	---	71	---	28	---	220	15	---
TOTAL	345.1	4130.1	3325	2405	3512	4840	3929	1761	2912	1761	1432	432
MEAN	11.1	138	107	77.6	125	156	131	56.8	97.1	56.8	46.2	14.4
MAX	31	327	407	450	350	501	518	120	388	220	181	30
MIN	6.9	8.9	41	31	78	71	69	23	26	17	15	11
CFSM	.13	1.55	1.21	.87	1.41	1.76	1.47	.64	1.09	.64	.52	.16
IN.	.14	1.73	1.39	1.01	1.47	2.03	1.64	.74	1.22	.74	.60	.18

CAL YR 1985 TOTAL 24993.0 MEAN 68.5 MAX 570 MIN 6.8 CFSM .77 IN. 10.5
WTR YR 1986 TOTAL 30784.2 MEAN 84.3 MAX 518 MIN 6.9 CFSM .95 IN. 12.9

STREAMS TRIBUTARY TO LAKE ONTARIO

04227000 CANASERAGA CREEK AT SHAKERS CROSSING, NY

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

DRAINAGE AREA.--335 mi².

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

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

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

REMARKS.--Estimated daily discharges: Dec. 16-18, 20-21, Dec. 27 to Jan 6, Jan. 9-17, 28-29, Feb. 2-6, Mar. 3-7 and Aug. 13-14. Records good except those for estimated daily discharges, which are fair. Gage-height telemeter at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--23 years (water years 1960-70, 1975-86), 290 ft³/s, 11.76 in/yr.

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 (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 20	1100	*4,030	*11.27	Apr. 17	0600	3,610	10.76

Minimum discharge, 27 ft³/s Oct. 10, gage height, 3.44 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	44	1190	150	216	317	213	200	99	111	625	59
2	30	47	1600	150	230	280	205	190	133	140	648	57
3	35	43	788	150	260	260	191	177	112	128	312	54
4	30	60	439	150	300	250	186	170	96	100	227	52
5	33	399	355	140	760	240	216	163	92	91	167	59
6	36	745	334	130	630	220	313	157	132	81	138	52
7	32	367	312	120	354	200	292	168	150	77	130	48
8	30	242	240	116	312	166	349	148	775	75	177	48
9	29	173	248	110	295	219	330	142	423	75	166	47
10	28	242	300	110	278	509	325	134	231	70	135	46
11	30	556	638	110	266	1700	315	128	420	64	266	45
12	31	361	1570	110	246	723	330	123	864	170	157	49
13	54	937	876	100	209	830	312	117	1130	474	120	45
14	48	986	572	100	201	1310	303	113	462	559	110	46
15	87	761	390	100	217	2100	296	110	318	223	94	45
16	122	694	350	110	197	1440	1030	110	301	146	371	59
17	68	1610	310	120	201	803	2740	112	329	139	185	57
18	48	693	280	244	368	541	1310	124	210	177	48	49
19	70	405	261	954	1790	523	724	177	196	335	108	54
20	135	314	250	3270	1990	483	528	374	171	359	95	59
21	81	245	240	2210	2200	302	556	386	146	267	91	59
22	60	215	222	1550	1510	272	401	303	127	139	82	53
23	51	256	252	1220	1070	286	323	363	145	94	81	108
24	56	214	294	621	625	254	278	259	127	97	49	106
25	76	164	232	418	454	264	254	203	120	110	82	68
26	72	367	158	371	497	295	239	166	101	99	71	61
27	59	879	150	334	478	294	245	143	94	110	71	70
28	51	618	150	300	352	295	248	132	110	106	41	56
29	47	485	150	260	---	265	229	118	207	117	65	88
30	46	599	150	238	---	246	212	105	143	234	67	118
31	45	---	150	229	---	228	---	95	---	539	62	---
TOTAL	1650	13721	13451	14295	16506	16115	13493	5410	7964	5506	5041	1817
MEAN	53.2	457	434	461	589	520	450	175	265	178	163	60.6
MAX	135	1610	1600	3270	2200	2100	2740	386	1130	559	648	118
MIN	28	43	150	100	197	166	186	95	92	64	41	45
CFSM	.16	1.37	1.30	1.38	1.76	1.55	1.34	.52	.79	.53	.49	.18
IN.	.18	1.52	1.49	1.59	1.83	1.79	1.50	.60	.88	.61	.56	.20

CAL YR 1985 TOTAL 87168 MEAN 239 MAX 3060 MIN 23 CFSM .71 IN. 9.68
WTR YR 1986 TOTAL 114969 MEAN 315 MAX 3270 MIN 28 CFSM .94 IN. 12.8

STREAMS TRIBUTARY TO LAKE ONTARIO

95

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

REMARKS.--No estimated daily discharges. Records good. Diurnal fluctuation at low flow caused by powerplant. Flow regulated to some extent by Rushford Lake since July 1928, and at high flows since November 1951 by Mount Morris Lake (see station 04224000). Monthly figures of discharge and runoff 1952 to 1966 water years adjusted for change in contents in Rushford Lake and Mount Morris Lake. U.S. Army Corps of Engineers gage height tele-meter at station. Satellite gage height telemeter at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--76 years (water years 1909-13, 1916-86), 1,672 ft³/s.

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, 12 ft³/s July 23, 1955, gage height, 0.22 ft, partially obstructed intake; minimum daily, 30 ft³/s Aug. 8, 1909.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,990 ft³/s Dec. 2 at 1145 hours, gage height, 12.35 ft; minimum, 66 ft³/s Oct. 30, gage height, 1.41 ft, result of regulation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	147	230	7320	1990	3040	4210	1180	1200	425	457	1800	276
2	133	215	7850	1970	1210	3860	1110	1110	455	472	2010	274
3	129	212	7250	1670	1250	3240	1020	937	434	509	1590	253
4	120	281	7110	1630	1240	1560	970	847	412	540	1570	247
5	127	1590	6690	1490	2010	1190	1010	770	383	532	1110	248
6	135	2510	6240	1650	2540	1150	1670	689	649	485	731	235
7	131	813	5020	1790	3340	1090	2080	679	1440	414	721	232
8	129	780	3860	2080	3380	991	2190	622	2560	378	772	211
9	125	863	3230	2130	3150	994	2240	568	3240	375	773	206
10	123	953	2650	1810	2640	1440	1940	539	1750	370	750	196
11	121	2120	2550	1610	1430	3020	1930	511	2090	403	913	201
12	118	3200	4210	1420	1260	2780	2080	488	5070	460	1010	230
13	179	2950	4010	1350	1150	4340	2000	508	6530	991	3500	224
14	226	2410	3640	1730	1170	6000	1960	515	6650	3470	2850	228
15	298	2330	3310	2230	1030	6950	1820	451	6580	4050	515	222
16	475	2480	3070	2150	1040	6290	3140	428	5740	2710	1230	251
17	442	3530	2780	1510	959	6500	6320	462	5150	528	1210	228
18	343	3160	2030	1150	1160	7490	5280	463	4740	532	803	212
19	304	3330	1610	2710	2800	7480	4660	540	2070	1150	599	215
20	736	3200	1350	6190	3540	6710	4390	1170	1510	2110	491	641
21	623	3090	1210	3340	4050	5890	4350	2600	1150	3000	414	1070
22	419	3030	1310	2560	4410	5160	4090	2400	1040	4110	386	798
23	344	3060	1280	4030	4360	4410	3900	2090	900	3840	368	393
24	341	2980	1340	5970	4560	3700	3710	1720	769	3140	421	503
25	442	3120	1440	6820	5250	2910	3490	1220	754	1210	402	454
26	504	4430	1390	6560	5010	1870	3220	980	661	851	363	370
27	443	5790	1720	6300	4730	1860	2840	795	513	1190	345	1140
28	376	6200	1940	5860	4460	1880	1850	647	433	658	331	2190
29	317	6130	2230	5610	---	1630	1270	604	517	640	333	1800
30	245	6710	2240	4920	---	1440	1270	499	487	753	356	966
31	236	---	2190	4180	---	1310	---	442	---	1560	319	---
TOTAL	8831	81697	104070	96410	76169	109345	78980	27494	65102	41888	28986	14714
MEAN	285	2723	3357	3110	2720	3527	2633	887	2170	1351	935	490
MAX	736	6710	7850	6820	5250	7490	6320	2600	6650	4110	3500	2190
MIN	118	212	1210	1150	959	991	970	428	383	370	319	196

CAL YR 1985 TOTAL 587621 MEAN 1610 MAX 8430 MIN 79
WTR YR 1986 TOTAL 733686 MEAN 2010 MAX 7850 MIN 118

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

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 822.50 ft June 24, 1972; minimum observed, 816.33 ft present datum, Nov. 3-8, 1963.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	817.03	816.72	818.23	817.82	818.35	818.72	818.48	818.51	818.50	818.35	818.56	818.08
2	817.01	816.70	818.29	817.78	818.33	818.66	818.43	818.49	818.54	818.36	818.63	818.06
3	816.99	816.69	818.30	817.75	818.29	818.61	818.37	818.46	818.52	818.36	818.66	818.03
4	816.98	816.71	818.29	817.73	818.26	818.56	818.32	818.44	818.49	818.35	818.66	818.01
5	816.98	816.88	818.27	817.71	818.35	818.52	818.29	818.42	818.48	818.33	818.65	817.98
6	816.96	817.09	818.25	817.69	818.39	818.48	818.26	818.41	818.49	818.33	818.63	817.95
7	816.94	817.16	818.23	817.65	818.41	818.44	818.22	818.41	818.48	818.32	818.61	817.92
8	816.92	817.18	818.20	817.63	818.42	818.39	818.20	818.40	818.56	818.32	818.61	817.88
9	816.89	817.19	818.18	817.60	818.39	818.35	818.16	818.38	818.63	818.31	818.59	817.85
10	816.87	817.24	818.16	817.56	818.36	818.37	818.14	818.36	818.67	818.29	818.57	817.83
11	816.86	817.30	818.18	817.53	818.32	818.56	818.12	818.34	818.69	818.27	818.58	817.81
12	816.85	817.33	818.26	817.51	818.28	818.62	818.11	818.32	818.71	818.31	818.55	817.80
13	816.86	817.45	818.33	817.49	818.24	818.72	818.08	818.31	818.78	818.37	818.52	817.78
14	816.85	817.62	818.38	817.47	818.20	818.88	818.06	818.29	818.81	818.45	818.49	817.75
15	816.89	817.73	818.38	817.45	818.17	819.10	818.06	818.27	818.82	818.48	818.46	817.74
16	816.90	817.82	818.36	817.42	818.13	819.24	818.19	818.28	818.84	818.50	818.45	817.74
17	816.88	817.96	818.34	817.40	818.11	819.27	818.62	818.28	818.87	818.50	818.44	817.72
18	816.85	818.01	818.30	817.40	818.10	819.26	818.79	818.29	818.81	818.50	818.43	817.69
19	816.89	818.04	818.26	817.51	818.26	819.24	818.84	818.33	818.75	818.49	818.41	817.67
20	816.90	818.04	818.22	818.02	818.52	819.20	818.85	818.38	818.69	818.49	818.39	817.66
21	816.88	818.02	818.19	818.45	818.77	819.13	818.86	818.43	818.63	818.52	818.38	817.65
22	816.86	818.00	818.15	818.61	818.91	819.06	818.82	818.47	818.57	818.52	818.35	817.64
23	816.85	818.00	818.13	818.67	818.96	819.00	818.78	818.53	818.52	818.50	818.33	817.73
24	816.86	817.98	818.10	818.67	818.96	818.93	818.73	818.55	818.47	818.49	818.29	817.77
25	816.86	817.95	818.07	818.65	818.93	818.87	818.68	818.56	818.44	818.47	818.24	817.76
26	816.84	817.97	818.03	818.61	818.89	818.82	818.63	818.57	818.41	818.45	818.22	817.76
27	816.82	818.05	818.00	818.58	818.84	818.76	818.58	818.56	818.39	818.44	818.21	817.76
28	816.79	818.12	817.96	818.55	818.78	818.71	818.54	818.54	818.39	818.42	818.18	817.76
29	816.77	818.16	817.92	818.49	---	818.65	818.53	818.52	818.37	818.42	818.15	817.77
30	816.75	818.18	817.88	818.44	---	818.59	818.52	818.50	818.36	818.48	818.12	817.81
31	816.74	---	817.85	818.39	---	818.53	---	818.47	---	818.52	818.10	---
MEAN	816.88	817.58	818.18	817.94	818.46	818.78	818.44	818.42	818.59	818.42	818.43	817.81
MAX	817.03	818.18	818.38	818.67	818.96	819.27	818.86	818.57	818.87	818.52	818.66	818.08
MIN	816.74	816.69	817.85	817.40	818.10	818.35	818.06	818.27	818.36	818.27	818.10	817.64
CAL YR 1985	MEAN 817.83 MAX 818.83 MIN 816.69											
WTR YR 1986	MEAN 818.16 MAX 819.27 MIN 816.69											

STREAMS TRIBUTARY TO LAKE ONTARIO

97

04228500 GENESEE RIVER AT AVON, NY

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

DRAINAGE AREA.--1,673 mi².

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

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

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

REMARKS.--Estimated daily discharges: Dec. 22 and Jan. 22. 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. Satellite gage height and rain gage telemeter at station. National Weather Service gage height telemeter at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--31 years (water years 1956-86), 1,948 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,500 ft³/s, June 25, 1972, gage height, 40.67 ft; minimum, 47 ft³/s, Oct. 10-11, 1980, gage height, 13.70 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,620 ft³/s, Mar. 15 at 2115 hours, gage height, 30.59 ft; minimum, 155 ft³/s, Oct. 12, gage height, 14.06 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	182	255	7350	2520	3990	4570	1470	1360	602	588	1660	332
2	176	248	7870	2390	2400	4250	1360	1290	791	562	2170	301
3	165	239	7560	2330	1580	3840	1290	1190	704	592	1840	299
4	162	285	7050	2200	1470	2810	1220	1050	576	621	1580	278
5	159	1190	6730	2170	2810	1740	1200	973	518	620	1500	274
6	164	4120	6340	2080	3210	1490	1430	889	546	596	955	271
7	166	2270	5830	2020	3570	1470	2080	842	1150	498	873	261
8	164	1200	4540	1940	4000	1330	2240	802	1880	450	914	258
9	162	1120	3960	1910	3720	1580	2480	745	3150	427	943	240
10	162	1250	3280	1960	3270	1870	2230	697	2830	419	928	235
11	159	2120	3000	1840	2370	4420	2090	662	1220	435	1350	226
12	157	3140	4360	1820	1470	3920	2140	626	3670	502	1220	228
13	163	3910	4990	1850	1620	4930	2250	600	5630	720	1840	243
14	211	3670	4430	1750	1920	7530	2110	631	6380	2720	4030	243
15	256	3250	3950	1660	2090	8130	2070	615	6320	3750	1330	246
16	393	2990	3620	1670	2030	7830	2700	574	5930	3230	867	254
17	549	4360	3320	1650	2000	6850	7300	575	5320	1000	1340	268
18	454	3790	2850	1510	1670	7200	7230	586	5040	638	1120	248
19	383	3770	2110	2480	3250	7660	5510	595	3370	834	784	236
20	484	3590	1990	5770	5490	7050	4790	836	2050	1800	653	247
21	857	3380	1830	7220	5710	6310	4720	2050	1430	2600	552	919
22	609	3260	2100	4800	5580	5430	4530	2690	1310	3690	475	1040
23	449	3400	2900	4140	5300	4950	4240	2340	1170	3770	454	629
24	378	3350	2980	5240	4820	4160	4010	2130	1020	3410	443	542
25	428	3200	2920	6530	5430	3630	3800	1550	899	1830	518	591
26	553	3820	2690	6570	5290	2620	3540	1190	857	907	438	473
27	553	5680	2700	6300	5130	2120	3240	1010	720	1190	399	663
28	473	6350	2740	5920	4850	2130	2700	827	583	929	379	1760
29	400	6250	2590	5900	---	2010	1620	757	590	753	353	1970
30	316	6590	2630	5630	---	1760	1380	662	650	836	377	1410
31	272	---	2540	5030	---	1600	---	586	---	1160	384	---
TOTAL	10159	92047	123750	106800	96040	127190	88970	31930	66906	42077	32669	15185
MEAN	328	3068	3992	3445	3430	4103	2966	1030	2230	1357	1054	506
MAX	857	6590	7870	7220	5710	8130	7300	2690	6380	3770	4030	1970
MIN	157	239	1830	1510	1470	1330	1200	574	518	419	353	226

CAL YR 1985 TOTAL 659348 MEAN 1806 MAX 8980 MIN 134
WTR YR 1986 TOTAL 833723 MEAN 2284 MAX 8130 MIN 157

04228845 HONEOYE LAKE NEAR HONEOYE, NY

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

DRAINAGE AREA.--41.0 mi².

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

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

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

REMARKS.--Area of water surface, 2.71 mi².

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

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 804.05 ft Apr. 18-19; minimum, 802.19 ft Oct. 12-13.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	802.35	802.32	803.66	803.07	803.41	803.41	803.20	803.70	803.40	803.48	803.59	802.81
2	802.34	802.30	803.65	803.05	803.39	803.37	803.17	803.70	803.41	803.51	803.65	802.78
3	802.33	802.29	803.63	803.03	803.35	803.33	803.13	803.60	803.41	803.46	803.64	802.75
4	802.32	802.33	803.62	803.03	803.33	803.31	803.11	803.60	803.37	803.44	803.61	802.74
5	802.34	802.56	803.59	803.02	803.37	803.28	803.11	803.60	803.37	803.39	803.57	802.72
6	802.34	802.91	803.56	803.02	803.38	803.26	803.10	803.60	803.39	803.33	803.53	802.70
7	802.32	803.01	803.53	803.00	803.37	803.24	803.08	803.60	803.38	803.27	803.49	802.69
8	802.31	803.05	803.49	802.98	803.36	803.21	803.10	803.60	803.51	803.22	803.47	802.68
9	802.29	803.08	803.47	802.97	803.33	803.18	803.09	803.60	803.55	803.17	803.44	802.67
10	802.28	803.15	803.44	802.95	803.30	803.22	803.10	803.50	803.53	803.12	803.41	802.67
11	802.25	803.22	803.45	802.94	803.28	803.41	803.11	803.50	803.51	803.08	803.41	802.71
12	802.21	803.25	803.50	802.93	803.25	803.46	803.12	803.50	803.56	803.15	803.39	802.74
13	802.20	803.40	803.51	802.93	803.21	803.52	803.12	803.50	803.81	803.31	803.34	802.73
14	802.21	803.60	803.52	802.92	803.19	803.62	803.14	803.50	803.78	803.41	803.30	802.71
15	802.24	803.72	803.49	802.92	803.18	803.79	803.17	803.50	803.78	803.37	803.27	802.71
16	802.32	803.75	803.45	802.90	803.15	803.88	803.36	803.40	803.88	803.33	803.28	802.70
17	802.33	803.85	803.43	802.90	803.15	803.88	803.90	803.40	803.85	803.33	803.27	802.67
18	802.31	803.87	803.39	802.92	803.15	803.84	804.03	803.40	803.81	803.31	803.25	802.66
19	802.34	803.84	803.35	803.06	803.29	803.81	804.03	803.40	803.77	803.29	803.22	802.66
20	802.46	803.79	803.32	803.62	803.46	803.75	803.98	803.50	803.71	803.38	803.20	802.65
21	802.45	803.75	803.30	803.94	803.64	803.68	803.94	803.50	803.70	803.46	803.17	802.64
22	802.42	803.70	803.28	804.01	803.69	803.62	803.85	803.50	803.69	803.44	803.13	802.62
23	802.39	803.67	803.26	803.99	803.69	803.59	803.77	803.50	803.68	803.42	803.10	802.79
24	802.37	803.61	803.24	803.91	803.66	803.53	803.80	803.50	803.65	803.40	803.07	802.91
25	802.43	803.57	803.22	803.82	803.62	803.48	803.80	803.40	803.60	803.40	803.04	802.92
26	802.42	803.57	803.20	803.75	803.57	803.44	803.80	803.40	803.58	803.40	803.01	802.93
27	802.41	803.63	803.16	803.70	803.52	803.39	803.80	803.40	803.52	803.42	803.00	802.94
28	802.38	803.65	803.14	803.64	803.46	803.35	803.80	803.40	803.54	803.41	802.96	802.95
29	802.36	803.65	803.11	803.57	---	803.31	803.70	803.40	803.53	803.40	802.91	802.98
30	802.35	803.63	803.10	803.51	---	803.27	803.70	803.40	803.52	803.48	802.87	803.02
31	802.34	---	803.08	803.45	---	803.23	---	803.40	---	803.54	802.83	---
MEAN	802.34	803.32	803.39	803.27	803.38	803.47	803.47	803.50	803.59	803.36	803.27	802.76
MAX	802.46	803.87	803.66	804.01	803.69	803.88	804.03	803.70	803.88	803.54	803.65	803.02
MIN	802.20	802.29	803.08	802.90	803.15	803.18	803.08	803.40	803.37	803.08	802.83	802.62
CAL YR 1985	MEAN 803.08		MAX 804.02		MIN 802.20							
WTR YR 1986	MEAN 803.26		MAX 804.03		MIN 802.20							

STREAMS TRIBUTARY TO LAKE ONTARIO

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04229500 HONEOYE CREEK AT HONEOYE FALLS, NY

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

DRAINAGE AREA.--196 mi².

PERIOD OF RECORD.--October 1945 to September 1970, October 1972 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 610.00 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 30, 1970, water-stage recorder at same site at datum 609.76 ft NGVD.

REMARKS.--Estimated daily discharges: Oct. 1-15 and Dec. 15 to Mar. 9. Records good except those for estimated daily discharges, which are poor. Outlet of Honeoye Lake not controlled (see station 04228845). Some diversion from and regulation of Hemlock and Canadice Lakes for water supply of city of Rochester. Diurnal fluctuation at low flow caused by mills upstream from station. Prior to 1967 water year, published monthly figures adjusted for change in contents in, and diversion from, Hemlock and Canadice Lakes. During low-water periods the village of Honeoye Falls pumps water from two deep wells with maximum pumping capacity of 600 gal/min (1.33 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.

AVERAGE DISCHARGE.--39 years (water years 1946-70, 1973-86), 120 ft³/s.

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, 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 current datum; discharge, about 6,600 ft³/s, from rating curve extended above 2,700 ft³/s by logarithmic plotting.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,190 ft³/s Jan. 21 at 0830 hours, gage height, 4.22 ft; minimum, 1.4 ft³/s Sept 16, gage height, 0.16 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	9.2	391	70	140	110	98	84	53	60	207	15
2	3.9	7.1	405	70	120	100	92	81	193	57	269	14
3	3.7	6.0	318	66	140	100	86	75	145	58	213	13
4	3.6	11	213	66	150	100	82	69	77	58	146	12
5	3.5	142	181	60	360	110	85	67	59	48	113	9.3
6	3.4	501	168	60	280	120	97	67	61	42	93	6.5
7	3.2	363	160	54	170	100	100	75	68	36	86	4.6
8	3.1	192	150	54	140	80	111	77	74	32	86	4.0
9	3.0	112	143	54	140	100	118	68	115	30	90	4.0
10	3.1	141	144	50	130	195	114	63	98	28	80	3.7
11	3.2	298	203	50	120	640	133	58	68	26	97	3.7
12	3.1	244	393	50	110	447	161	55	70	30	95	3.7
13	3.7	303	358	45	100	440	154	52	317	52	72	3.5
14	4.0	466	241	40	94	698	130	48	321	111	61	3.5
15	4.9	480	150	35	100	725	136	47	169	144	55	3.3
16	27	390	140	40	94	625	450	52	122	76	54	2.4
17	20	525	120	60	130	414	1410	45	311	54	57	1.5
18	12	397	110	140	180	326	906	43	376	53	54	1.6
19	13	280	100	300	340	298	442	58	237	64	49	1.6
20	43	230	100	880	680	282	337	111	164	71	45	1.8
21	34	199	96	1600	780	224	348	248	146	148	42	1.9
22	19	175	86	700	480	195	314	170	150	145	40	1.9
23	14	211	90	400	380	203	258	134	109	86	37	6.1
24	12	198	86	230	280	165	222	130	87	65	31	30
25	11	160	80	220	210	161	196	89	80	55	28	37
26	18	178	60	220	150	160	175	67	73	51	25	23
27	16	402	66	190	140	151	150	55	62	50	23	22
28	12	332	64	100	120	142	113	48	66	53	21	20
29	9.7	264	70	90	---	130	95	44	70	54	19	16
30	29	259	80	120	---	121	87	40	63	75	18	24
31	17	---	76	130	---	111	---	36	---	162	16	---
TOTAL	360.3	7475.3	5042	6244	6258	7773	7200	2356	4004	2074	2322	294.6
MEAN	11.6	249	163	201	223	251	240	76.0	133	66.9	74.9	9.82
MAX	43	525	405	1600	780	725	1410	248	376	162	269	37
MIN	3.0	6.0	60	35	94	80	82	36	53	26	16	1.5

CAL YR 1985 TOTAL 35902.5 MEAN 98.4 MAX 1000 MIN 2.7
WTR YR 1986 TOTAL 51403.1 MEAN 141 MAX 1600 MIN 1.5

STREAMS TRIBUTARY TO LAKE ONTARIO

04230380 OATKA CREEK AT WARSAW, NY

LOCATION.--Lat 42°44'39", long 78°08'16", Wyoming County, Hydrologic Unit 04130003, on right bank 400 ft downstream from bridge on Court Street, Warsaw.

DRAINAGE AREA.--39.1 mi².

PERIOD OF RECORD.--December 1963 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 987.15 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Estimated daily discharges: Jan. 7-15, 18-20, Jan. 28 to Mar. 2, Mar. 10 and May 19-20. Records fair. Gage height telemeter at station. Satellite gage height and rain-gage telemeter at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--22 years (water years 1965-86), 53.4 ft³/s, 18.55 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,010 ft³/s June 23, 1972, gage height, 9.75 ft, from rating curve extended above 1,770 ft³/s on basis of slope-area measurement of peak discharge; minimum, 0.90 ft³/s Aug. 1, 1965; minimum gage height, 0.96 ft Aug. 30-31, 1982.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 690 ft³/s and maximum(*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Nov. 5	1415	*1,340	5.44	Jan. 20	1115	946	4.29
Nov. 13	1100	735	3.95	Mar. 11	0030	1,050	4.54
Jan. 18	1745	ice jam	*5.80	Apr. 17	0400	715	3.74

Minimum discharge, 1.5 ft³/s Sept. 10, 11, 14-15, gage height, 1.14 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.9	6.6	238	36	33	33	41	25	14	17	84	2.7
2	3.9	6.0	206	32	37	35	37	21	34	16	60	2.4
3	3.2	6.2	84	31	40	39	32	19	14	11	23	2.7
4	3.5	37	68	32	40	37	31	18	10	6.5	13	2.1
5	5.4	596	76	32	200	33	34	15	16	4.5	9.0	2.2
6	4.7	281	66	29	80	32	42	12	27	3.6	9.3	1.9
7	3.8	95	66	28	60	26	34	11	24	4.0	29	2.2
8	3.5	68	58	27	56	26	59	9.2	142	4.4	32	2.5
9	2.9	60	52	26	50	28	55	8.4	48	3.0	42	1.7
10	2.6	199	54	27	48	350	60	7.4	25	2.3	63	1.9
11	3.3	199	118	30	45	495	59	5.6	24	2.0	180	1.9
12	3.7	91	141	28	40	127	62	4.3	95	57	39	1.9
13	10	350	84	27	35	381	65	3.9	90	69	24	2.4
14	8.5	208	72	26	35	469	62	3.6	40	34	17	1.7
15	30	142	72	26	33	311	54	4.4	25	17	14	2.2
16	26	236	72	25	31	176	194	28	44	8.0	62	7.9
17	8.9	183	70	25	28	116	376	29	61	8.8	24	2.5
18	6.2	79	70	30	35	99	108	15	25	13	17	1.8
19	62	67	70	180	300	214	77	60	20	14	13	1.9
20	46	62	67	540	250	132	86	220	21	15	10	2.7
21	16	52	68	210	290	87	119	95	17	51	7.7	4.9
22	8.7	51	61	144	86	83	67	58	14	15	12	2.5
23	6.5	86	62	102	60	80	61	89	29	7.6	8.4	140
24	9.8	62	63	82	56	78	55	40	20	4.9	9.1	34
25	31	51	59	76	40	73	49	26	21	3.9	5.7	10
26	24	232	53	68	35	78	43	18	13	3.4	5.1	15
27	14	181	53	60	35	77	36	13	14	4.1	7.4	16
28	9.3	88	51	35	33	66	32	12	22	3.5	4.1	9.4
29	7.8	74	51	38	---	56	29	9.4	63	20	3.8	55
30	6.8	90	46	35	---	50	27	7.8	30	48	3.3	86
31	6.8	---	40	33	---	46	---	6.9	---	38	3.0	---
TOTAL	382.7	3938.8	2411	2120	2111	3933	2086	894.9	1042	509.5	833.9	422.0
MEAN	12.3	131	77.8	68.4	75.4	127	69.5	28.9	34.7	16.4	26.9	14.1
MAX	62	596	238	540	300	495	376	220	142	69	180	140
MIN	2.6	6.0	40	25	28	26	27	3.6	10	2.0	3.0	1.7
CFSM	.32	3.36	1.99	1.75	1.93	3.24	1.78	.74	.89	.42	.69	.36
IN.	.36	3.75	2.29	2.02	2.01	3.74	1.98	.85	.99	.48	.79	.40

CAL YR 1985 TOTAL 20547.1 MEAN 56.3 MAX 1150 MIN 2.3 CFSM 1.44 IN. 19.5
WTR YR 1986 TOTAL 20684.7 MEAN 56.7 MAX 596 MIN 1.7 CFSM 1.45 IN. 19.7

STREAMS TRIBUTARY TO LAKE ONTARIO

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04230500 OATKA CREEK AT GARBUTT, NY

LOCATION.--Lat 43°00'36", long 77°47'30", Monroe County, Hydrologic Unit 04130003, on right bank 40 ft downstream from bridge on Union Street in Garbutt, 1.5 mi west of Scottsville, and 4.2 mi upstream from mouth.

DRAINAGE AREA.--200 mi².

PERIOD OF RECORD.--October 1945 to current year.

REVISED RECORDS.--WSP 2112; WDR NY-82-3: Drainage area. WRD NY 1971: 1960(M).

GAGE.--Water-stage recorder. Datum of gage is 560.86 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 15 to Jan. 21 and Jan. 23 to Mar. 10. Records good except those for periods of estimated daily discharges, which are fair. National Weather Service gage height telemeter at station. Satellite gage height and rain gage telemeter at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--41 years, 215 ft³/s, 14.60 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,050 ft³/s Mar. 31, 1960, gage height, 8.64 ft; minimum, 3.3 ft³/s Sept. 11, 12, 1958; minimum gage height, 1.88 ft June 19, 1959, result of regulation; minimum daily discharge, 13 ft³/s Oct. 30 to Nov. 1, 1966.

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. 21	2200	*2,060	*5.87	Mar. 15	1415	1,940	5.75
Mar. 12	0530	1,730	5.53	Apr. 18	1015	1,750	5.55

Minimum discharge, 28 ft³/s Oct. 9-10, 12, gage height, 2.27 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	34	592	170	180	240	225	231	104	118	147	56
2	30	34	775	170	200	220	208	222	273	111	170	55
3	30	34	780	170	240	220	193	208	259	93	205	55
4	30	44	651	160	260	230	184	198	154	84	130	55
5	31	245	444	170	520	230	186	191	130	77	93	56
6	30	912	378	160	620	230	234	189	137	70	77	54
7	29	1340	345	140	580	200	235	184	151	66	73	54
8	29	972	319	130	380	170	235	184	248	67	81	53
9	28	501	301	130	310	200	276	179	268	65	103	53
10	28	406	299	130	290	240	263	176	216	62	118	53
11	29	642	366	130	240	1240	285	173	141	61	397	53
12	28	703	540	150	230	1590	289	170	127	65	460	53
13	30	812	580	140	200	1260	284	167	160	73	392	51
14	29	836	516	120	190	1510	265	164	223	148	191	51
15	32	1080	360	110	190	1860	257	163	154	152	128	52
16	32	885	310	110	190	1460	384	173	123	108	115	56
17	43	883	290	120	190	995	1230	197	132	86	125	52
18	39	792	250	190	200	695	1610	197	230	76	124	50
19	37	709	230	560	480	594	967	171	148	75	100	49
20	54	464	240	1100	880	626	556	229	116	106	88	49
21	117	352	240	1800	1400	595	598	438	105	110	81	49
22	66	310	220	1690	1100	415	602	427	97	115	77	48
23	48	366	220	900	920	391	480	363	98	109	72	56
24	43	468	230	540	560	365	392	398	90	82	72	79
25	44	368	200	400	420	345	343	260	95	69	67	129
26	57	327	160	360	330	325	311	192	86	64	67	78
27	65	584	160	270	300	325	287	158	83	62	63	62
28	49	692	170	180	270	310	270	137	77	60	60	61
29	42	684	170	160	---	276	254	123	79	59	59	73
30	37	528	160	170	---	257	237	112	118	70	59	108
31	35	---	170	150	---	239	---	102	---	92	57	---
TOTAL	1253	17007	10666	10880	11870	17853	12140	6476	4422	2655	4051	1803
MEAN	40.4	567	344	351	424	576	405	209	147	85.6	131	60.1
MAX	117	1340	780	1800	1400	1860	1610	438	273	152	460	129
MIN	28	34	160	110	180	170	184	102	77	59	57	48
CFSM	.20	2.83	1.72	1.75	2.12	2.88	2.02	1.04	.74	.43	.65	.30
IN.	.23	3.16	1.98	2.02	2.21	3.32	2.26	1.20	.82	.49	.75	.34

CAL YR 1985 TOTAL 88037 MEAN 241 MAX 3520 MIN 26 CFSM 1.21 IN. 16.4
WTR YR 1986 TOTAL 101076 MEAN 277 MAX 1860 MIN 28 CFSM 1.38 IN. 18.8

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.

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder. Datum of gage is 500.00 ft above National Geodetic Vertical Datum of 1929.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 19.33 ft Mar. 5, 1976; minimum, 8.20 ft Nov. 9, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 16.19 ft Apr. 18; minimum, 8.95 ft Jan. 14.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.59	11.56	13.90	12.13	12.60	12.57	12.18	12.08	12.03	12.00	12.25	11.94
2	11.61	11.44	14.46	12.33	10.96	12.61	12.10	12.03	12.14	12.02	12.32	11.89
3	11.55	11.42	14.46	10.76	9.13	12.70	11.90	12.15	12.06	11.95	12.37	11.92
4	11.53	11.68	13.96	11.83	9.98	12.12	11.97	12.08	11.95	12.03	12.03	11.88
5	11.52	11.98	13.55	12.08	12.39	12.08	11.97	11.91	11.95	12.01	12.21	11.85
6	11.61	12.97	13.14	10.77	13.03	12.36	11.92	12.08	12.05	11.94	12.03	11.72
7	11.65	12.43	13.09	11.76	12.85	12.02	12.25	12.07	12.21	11.87	12.14	11.63
8	11.62	11.97	12.47	11.81	12.96	11.80	12.48	12.02	12.35	11.85	12.13	11.76
9	11.60	11.65	12.50	12.03	12.67	11.96	12.66	12.15	12.56	11.92	12.11	11.87
10	11.55	11.70	12.24	12.28	12.50	11.92	12.41	12.17	12.48	11.94	12.04	11.91
11	11.48	12.24	12.55	11.14	12.24	13.40	12.12	12.16	12.06	11.87	12.24	12.00
12	11.42	12.49	13.34	10.07	11.98	13.93	12.17	11.95	12.48	11.99	12.24	11.78
13	11.46	12.81	13.80	9.21	11.95	13.89	12.50	12.05	13.37	12.10	12.33	11.85
14	11.54	12.92	13.27	9.03	11.78	15.40	12.29	12.10	13.73	12.33	12.80	11.92
15	11.69	12.85	12.64	9.21	12.24	15.82	11.89	12.04	13.64	12.74	12.14	11.90
16	11.60	12.71	12.54	10.46	12.16	15.84	12.11	12.06	13.54	12.62	11.99	12.00
17	11.66	13.22	12.66	10.22	12.17	14.70	14.83	12.07	13.23	12.06	12.14	11.79
18	11.63	12.86	12.68	9.56	11.40	14.20	15.81	11.95	13.39	12.06	12.04	11.84
19	11.65	12.71	13.03	11.02	11.32	14.23	14.11	12.02	12.83	12.11	11.88	11.93
20	11.51	12.53	12.81	13.21	13.68	13.99	13.43	11.73	12.30	12.34	12.07	11.94
21	11.80	12.19	12.30	15.44	14.06	13.52	13.42	11.63	12.20	12.50	11.98	12.10
22	11.57	12.32	12.35	14.23	14.03	12.94	13.57	11.63	12.27	12.66	11.79	12.14
23	11.45	12.71	12.34	13.22	13.57	13.21	13.43	11.35	12.15	12.61	11.86	11.87
24	11.39	12.62	12.23	12.95	13.09	12.96	13.27	11.17	12.09	12.51	12.04	11.96
25	11.57	12.02	11.49	13.66	13.77	12.69	13.10	10.83	12.11	12.10	12.05	12.10
26	11.48	11.18	11.33	14.10	13.58	12.42	12.79	10.98	12.05	11.95	12.02	12.08
27	11.53	12.50	12.21	13.79	13.20	12.08	12.86	10.87	12.07	12.14	11.96	11.92
28	11.48	13.28	11.94	13.17	13.15	12.27	12.61	10.72	12.07	12.11	11.89	12.36
29	11.50	13.31	12.26	13.19	---	12.26	12.06	10.99	11.94	11.98	11.89	12.37
30	11.60	13.36	12.40	13.40	---	12.13	11.70	11.91	12.06	12.11	11.90	12.09
31	11.64	---	12.23	12.72	---	12.21						

STREAMS TRIBUTARY TO LAKE ONTARIO

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04231000 BLACK CREEK AT CHURCHVILLE, NY

LOCATION.--Lat 43°06'02", long 77°52'57", Monroe County, Hydrologic Unit 04130003, on right bank at east end of Carrol Street in Churchville, 100 ft downstream from main-line tracks of Penn Central Transportation Co., and 0.3 mi downstream from Black Creek Dam.

DRAINAGE AREA.--130 mi².

PERIOD OF RECORD.--October 1945 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 551.88 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Nov. 19-21, Jan. 6-9, Feb. 9-19 and Feb. 26 to Mar. 3. Records good except those for estimated daily discharges, which are fair. Prior to May 1952, small diversion by Penn Central Transportation Co. and slight regulation by pumping operations upstream from station. National Weather Service gage height telemeter at station. Satellite rain gage and gage height telemeter at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--41 years, 115 ft³/s, 12.01 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,880 ft³/s Mar. 31, 1960, gage height, 9.44 ft; minimum, 0.22 ft³/s Aug. 19, 1970; minimum gage height, 0.93 ft Aug. 5-7, Sept. 15, 1959.

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

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 21	2100	*1,420	*6.01	Mar. 15	1900	940	4.96
Mar. 12	1400	1,060	5.25	Apr. 18	0630	1,030	5.17

Minimum discharge, 2.0 ft³/s Oct. 3-4, gage height, 1.17 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	11	327	84	97	120	102	107	38	26	33	8.4
2	3.1	9.9	389	84	98	100	96	104	79	43	45	7.9
3	2.5	11	435	85	110	100	90	97	123	53	59	7.8
4	2.5	35	371	87	136	114	88	91	107	37	47	8.1
5	6.1	124	266	89	238	134	101	88	70	28	29	12
6	6.0	280	202	88	386	142	230	86	86	22	21	9.8
7	7.0	544	181	86	443	133	282	87	105	19	60	8.1
8	6.1	485	168	82	270	123	247	89	111	21	117	7.0
9	6.1	278	159	78	180	108	231	88	126	25	61	6.8
10	6.4	195	158	74	170	167	202	86	115	21	44	9.2
11	6.0	245	180	73	150	596	189	84	71	17	65	15
12	7.5	339	235	79	130	1030	181	81	65	21	71	15
13	9.8	357	288	88	110	800	165	74	70	28	73	15
14	12	332	272	111	100	732	141	67	65	34	38	15
15	14	417	198	125	100	906	135	67	55	37	29	18
16	13	412	176	87	94	825	257	74	50	29	27	28
17	12	419	161	86	94	559	697	73	46	23	29	30
18	11	473	151	153	96	393	965	66	40	23	25	23
19	18	380	151	344	140	339	570	65	38	27	21	15
20	27	280	116	849	305	343	343	113	36	33	18	15
21	23	180	117	1230	696	298	412	159	33	37	20	16
22	19	152	121	1150	731	206	483	158	31	34	21	17
23	16	155	108	622	604	190	366	134	40	29	20	25
24	19	191	109	368	397	178	245	121	45	21	18	40
25	25	216	115	251	274	163	192	100	37	17	15	36
26	27	202	132	219	210	151	162	75	30	15	13	30
27	21	249	87	181	150	143	144	60	28	15	14	37
28	16	369	96	146	130	134	131	50	29	15	12	31
29	13	414	84	127	---	125	120	44	28	15	10	75
30	13	335	80	111	---	118	110	40	28	18	9.4	150
31	12	---	82	106	---	109	---	34	---	28	8.8	---
TOTAL	384.2	8089.9	5715	7343	6639	9579	7677	2662	1825	811	1073.2	731.1
MEAN	12.4	270	184	237	237	309	256	85.9	60.8	26.2	34.6	24.4
MAX	27	544	435	1230	731	1030	965	159	126	53	117	150
MIN	2.5	9.9	80	73	94	100	88	34	28	15	8.8	6.8
CFSM	.10	2.07	1.42	1.82	1.82	2.38	1.97	.66	.47	.20	.27	.19
IN.	.11	2.31	1.64	2.10	1.90	2.74	2.20	.76	.52	.23	.31	.21

CAL YR 1985 TOTAL 45202.6 MEAN 124 MAX 2480 MIN .60 CFSM .95 IN. 12.9
WTR YR 1986 TOTAL 52529.4 MEAN 144 MAX 1230 MIN 2.5 CFSM 1.11 IN. 15.0

STREAMS TRIBUTARY TO LAKE ONTARIO

04232000 GENESEE RIVER AT ROCHESTER, NY

LOCATION.--Lat 43°10'50", long 77°37'40", Monroe County, Hydrologic Unit 04130003, on right bank 40 ft downstream from Rochester Gas and Electric Corp. plant 5, 100 ft upstream from bridge on Driving Park Avenue in Rochester, and 6.4 mi upstream from mouth.

DRAINAGE AREA.--2,467 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 246.24 ft above National Geodetic Vertical Datum of 1929 (247.00 ft, Barge Canal datum). April 1904 to December 1910, nonrecording gage and December 1910 to September 1918, water-stage recorder at site 5 mi upstream at datum 506.85 ft, Barge Canal datum. December 1919 to Apr. 4, 1927, water-stage recorder in plant 5, and Apr. 4, 1927 to June 19, 1956, at present site at datum 3.00 ft higher.

REMARKS.--Estimated daily discharges: Oct. 8-15, Oct. 29 to Nov. 14 and Sept. 5-9. Records fair except those for estimated daily discharges and Dec. 21 to Jan. 17, which are poor. Extensive diurnal fluctuation caused by powerplants upstream from station. New York State Erie (Barge) Canal crosses river 5.4 mi upstream from station. Water diverted by the canal from Lake Erie is discharged into river from the west, the canal again diverting a smaller amount of water from river to the east. Additional regulation is provided by Rushford Lake, Mount Morris Lake (see station 04224000), and Conesus Lake (see station 04227980).

AVERAGE DISCHARGE.--79 years (water years 1905-18, 1921-86), 2,808 ft³/s.

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, present datum; minimum discharge, less than 10 ft³/s, occurred during low-water periods when powerplant was shut down; minimum daily, 91 ft³/s Jan. 9, 29, Feb. 1, 8, 1961.

EXTREMES OUTSIDE PERIOD OF RECORD.--Discharge on Mar. 18, 1865, was about 54,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18,200 ft³/s Feb. 21 at 0345 hours, gage height, 14.63 ft, result of regulation; minimum daily 253 ft³/s Oct. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	304	510	8200	1840	4500	4970	2040	1040	889	773	2140	409
2	253	500	8880	2040	3870	4470	1640	1480	905	826	2570	323
3	270	490	8840	2160	2240	4320	1710	1020	1330	762	2820	340
4	304	580	8170	1440	1920	3890	1580	846	862	585	2080	340
5	300	1900	7700	1990	3650	2150	1470	820	810	677	1840	340
6	267	6000	7050	2080	4930	2190	2240	944	380	703	1120	330
7	282	4700	6580	1260	4290	2290	2740	1020	1470	561	996	320
8	320	3000	5000	1800	4500	1500	3020	1150	2480	657	1520	300
9	300	2200	4700	1370	4580	1700	3150	894	3630	585	1330	300
10	280	2200	3960	1660	4130	2670	3260	996	3810	652	1300	384
11	290	3500	4710	2090	3290	6170	2920	878	1690	677	1990	344
12	330	4600	5690	1840	1940	7010	2750	889	3330	552	2500	307
13	310	5600	6440	1770	1930	7420	2850	724	5640	1020	1880	323
14	320	5500	5940	1630	1570	10900	2770	618	6700	2910	4810	354
15	460	5510	5020	1350	1750	11400	2890	826	6440	4590	2160	362
16	642	5220	4160	1330	1780	11300	3910	708	6120	4380	815	362
17	687	6260	3950	1850	1760	9390	10200	751	5340	1690	1630	333
18	712	5900	3360	1600	2210	8630	11400	740	5230	698	1440	330
19	775	5380	2220	2580	3560	8710	8420	703	4210	884	927	300
20	713	5220	2370	7100	7310	8260	6350	1380	2420	1800	623	402
21	925	4550	1950	11200	8830	7410	5920	2840	1460	2830	692	538
22	1060	4030	1900	9070	8540	6140	5960	3840	1610	4320	698	1220
23	818	4370	1850	7170	7680	5400	5510	3440	1400	4400	372	1480
24	700	4560	2450	6850	6000	4920	4930	3150	1280	4120	590	571
25	662	5110	2290	7220	6320	4450	4450	2310	905	2480	507	1050
26	817	5040	1520	7580	6010	3780	4220	1550	1000	1000	561	662
27	800	6400	1650	7270	5620	2950	3960	1590	662	1060	502	576
28	833	7100	1860	6770	5200	2750	3290	1160	692	1210	409	1590
29	660	7270	1710	5450	---	2640	1980	795	667	762	354	2750
30	600	7470	1860	6380	---	2450	900	511	795	955	297	2660
31	540	---	1900	5040	---	2000	---	413	---	1450	307	---
TOTAL	16534	130670	133880	120780	119910	164230	118430	40026	74157	50569	41780	19900
MEAN	533	4356	4319	3896	4282	5298	3948	1291	2472	1631	1348	663
MAX	1060	7470	8880	11200	8830	11400	11400	3840	6700	4590	4810	2750
MIN	253	490	1520	1260	1570	1500	900	413	380	552	297	300
CAL YR 1985	TOTAL 981814	MEAN 2690	MAX 15000	MIN 253								
WTR YR 1986	TOTAL 1030870	MEAN 2824	MAX 11400	MIN 253								

STREAMS TRIBUTARY TO LAKE ONTARIO

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04232006 GENESEE RIVER AT CHARLOTTE DOCKS AT ROCHESTER, NY
(National stream-quality accounting network station)

WATER QUALITY RECORDS

LOCATION.--Lat 43°13'26", long 77°36'59", Monroe County, Hydrologic Unit 04130003, at Charlotte Docks, at the Rochester Cement Corp., in Rochester, 0.4 mi upstream from Rattlesnake Point, 1.6 mi upstream from Stutson Street Bridge, and 3.9 mi downstream from gaging station (04232000) at Rochester.

DRAINAGE AREA.--2,457 mi² at station 04232000.

PERIOD OF RECORD.--Water years 1971 to current year.

CHEMICAL DATA: 1971-72 (a), 1974 (b), 1975-82 (c), 1983-86 (b).

MINOR ELEMENTS DATA: 1971-73 (a), 1974-86 (b).

ORGANIC DATA: OC--1974 (a), 1975 (b), 1977 (b), 1978-80 (c), 1981 (b).

NUTRIENT DATA: 1971 (a), 1974 (b), 1975-82 (c), 1983-86 (b).

BIOLOGICAL DATA:

Bacteria--1974 (b), 1975-82 (c), 1983-86 (b).

Phytoplankton--1974 (b), 1975-77 (c), 1978-81 (b).

Periphyton--1975-80 (b).

SEDIMENT DATA: 1974 (b), 1975-82 (c), 1983-86 (b).

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
OCT 29...	1200	850	910	8.00	12.0	15	760	9.9	92	440
MAY 06...	1100	1360	650	7.86	13.5	5.0	750	7.4	72	120
JUN 18...	1130	5270	373	7.90	24.0	220	760	6.1	73	--
AUG 20...	1100	1030	668	7.67	24.5	27	763	6.9	83	K2700

DATE	STREP- TOOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT 29...	44	250	140	76	15	81	4.7	117	120	130
MAY 06...	K22	--	--	70	--	48	2.7	128	95	76
JUN 18...	500	130	30	40	8.3	21	2.4	94	--	--
AUG 20...	48	220	99	65	13	47	4.2	118	83	78

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

STREAMS TRIBUTARY TO LAKE ONTARIO

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	FLUORIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
OCT 29...	0.2	2.8	557	500	0.56	0.60	0.9	0.03	<0.01	<0.01
MAY 06...	0.1	1.9	425	--	--	--	--	--	--	--
JUN 18...	--	5.0	--	--	--	--	--	--	--	--
AUG 20...	0.1	3.6	239	370	1.00	0.23	1.0	0.12	0.07	0.03

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
OCT 29...	20	1	52	2	<1	2	<3	13	21	7
MAY 06...	--	--	--	--	--	--	--	--	--	--
JUN 18...	30	<1	38	<0.5	<1	<1	<3	4	35	<5
AUG 20...	20	2	56	<0.5	<1	5	<3	2	16	<5

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 29...	20	160	<0.1	<10	1	<1	<1	1000	<6	31
MAY 06...	--	--	--	--	--	--	--	--	--	--
JUN 18...	9	7	0.2	<10	1	<1	<1	290	<6	9
AUG 20...	31	67	0.6	<10	<1	<1	<1	660	<6	20

STREAMS TRIBUTARY TO LAKE ONTARIO

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK)	DEPTH AT SAMPLE LOC- ATION, TOTAL (FEET)	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)
OCT								
29...	1205	40	22.0	3.0	912	7.58	12.0	10.1
29...	1210	40	22.0	8.0	901	7.59	12.0	10.0
29...	1215	40	22.0	14.0	900	7.60	11.0	9.6
29...	1220	40	22.0	20.0	892	7.56	11.5	9.8
29...	1225	110	14.0	3.0	910	7.67	12.0	9.9
29...	1230	110	14.0	8.0	900	7.71	12.0	9.9
29...	1235	110	14.0	13.0	881	7.70	11.0	9.7
29...	1240	180	12.0	3.0	901	7.77	12.0	9.8
29...	1245	180	12.0	7.0	891	7.75	12.0	9.9
29...	1250	180	12.0	11.0	890	7.72	12.0	10.0
JUN								
18...	1135	40	20.0	3.0	374	7.86	19.5	--
18...	1140	40	20.0	7.0	373	7.89	19.5	--
18...	1145	40	20.0	11.0	373	7.91	19.5	--
18...	1150	40	20.0	15.0	373	7.91	19.5	--
18...	1155	110	17.0	3.0	374	7.80	19.5	--
18...	1200	110	17.0	7.0	373	7.83	19.5	--
18...	1205	110	17.0	11.0	373	7.85	19.5	--
18...	1210	110	17.0	15.0	373	7.90	19.5	--
18...	1215	180	13.0	3.0	373	7.81	19.5	--
18...	1220	180	13.0	7.0	373	7.82	19.5	--
18...	1225	180	13.0	11.0	374	7.82	19.5	--
AUG								
20...	1105	40	23.0	3.0	670	7.61	24.5	7.0
20...	1110	40	23.0	7.0	669	7.64	24.0	7.0
20...	1115	40	23.0	14.0	669	7.64	24.0	6.5
20...	1120	40	23.0	21.0	667	7.61	24.0	6.2
20...	1125	110	16.0	3.0	669	7.72	24.5	7.0
20...	1130	110	16.0	7.0	668	7.71	24.5	6.9
20...	1135	110	16.0	14.0	659	7.67	24.0	6.3
20...	1140	180	14.0	3.0	668	7.73	24.5	7.1
20...	1145	180	14.0	7.0	668	7.72	24.5	7.0
20...	1150	180	14.0	12.0	668	7.69	24.5	6.5

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
29...	1200	850	33	76	94
MAY					
06...	1100	1360	17	62	95
JUN					
18...	1130	5270	249	3540	98
AUG					
20...	1100	1030	38	106	99

STREAMS TRIBUTARY TO LAKE ONTARIO

04232040 IRONDEQUOIT CREEK NEAR PITTSFORD, NY

LOCATION.--Lat 43°03'15", long 77°29'28", Monroe County, Hydrologic Unit 04140101, on right bank 140 ft upstream from bridge on Thornell Road, 0.9 mi south of creek passage under Erie (Barge) Canal, and 2.7 mi southeast of Pittsford.

DRAINAGE AREA.--44.4 mi².

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1955, 1961-62, 1964-66, 1968, and annual maximum, water years 1962-63, 1965-66, 1968-70, 1972. March 1980 to current year.

REVISED RECORDS.--WDR NY-81-3: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Prior to March 1980, nonrecording gage and crest-stage gage at site 150 ft downstream at same datum. Elevation of gage is 405 ft above National Geodetic Vertical Datum of 1929, from Corps of Engineers river-profile map.

REMARKS.--Estimated daily discharges: Dec. 15 to Jan. 17, Jan. 26 to Feb. 3, Feb. 6-17, Feb. 26 to Mar. 3, Mar. 7-9 and Sept. 4-30. Records fair. Unpublished water-quality records are available in files of Monroe County Department of Health. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--6 years (water years 1981-86), 41.0 ft³/s, 12.54 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,140 ft³/s Mar. 12, 1962, gage height, 8.6 ft at site then in use; minimum discharge measured, 8.10 ft³/s Sept. 17, 1964; minimum gage height at present site, 2.98 ft Sept. 12, 1983.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 360 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 20	1945	477	7.33	Apr. 17	1715	*513	*7.56
Mar. 14	1130	374	6.50	Aug. 7	2245	444	7.07

Minimum discharge, 11 ft³/s Oct. 10, gage height, 3.08 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	18	108	24	31	35	35	39	24	23	79	16
2	14	18	111	24	38	33	33	40	37	46	75	16
3	14	19	75	23	43	34	32	37	27	33	40	16
4	14	46	55	22	52	44	32	37	24	25	28	16
5	17	117	50	21	167	47	41	34	24	23	24	16
6	16	189	52	21	120	50	87	34	30	22	22	16
7	15	99	49	21	72	40	59	33	40	21	130	16
8	14	56	49	22	64	38	59	32	56	20	190	16
9	13	54	48	23	56	36	52	32	40	21	62	16
10	12	95	47	24	50	79	52	31	28	19	44	15
11	12	119	60	23	45	225	56	30	25	18	111	18
12	13	80	90	22	40	95	68	29	43	27	58	18
13	15	129	88	21	37	173	55	27	83	33	37	18
14	15	111	71	20	34	349	47	27	44	38	30	16
15	19	133	52	20	32	238	57	27	30	28	26	25
16	20	85	45	19	31	138	221	45	33	22	25	40
17	15	140	42	27	30	89	450	44	41	22	33	30
18	15	73	38	60	41	76	196	34	28	24	27	25
19	28	56	35	121	107	72	83	33	25	30	22	18
20	28	49	34	365	223	67	74	82	63	27	21	20
21	19	42	33	357	274	53	97	89	42	25	21	20
22	17	44	32	126	140	50	75	59	30	22	25	18
23	16	64	32	84	78	52	62	49	46	20	21	60
24	19	52	31	55	61	52	56	43	31	19	22	30
25	19	44	30	51	54	48	51	37	27	19	20	25
26	18	57	29	47	41	47	49	33	24	20	18	20
27	17	141	28	40	39	47	47	29	25	21	18	25
28	16	97	28	35	37	47	44	28	27	19	18	25
29	17	72	27	34	---	44	41	25	24	27	18	145
30	17	74	26	32	---	41	39	23	27	60	17	175
31	18	---	25	30	---	37	---	22	---	81	16	---
TOTAL	516	2373	1520	1814	2037	2476	2350	1164	1048	855	1298	930
MEAN	16.6	79.1	49.0	58.5	72.7	79.9	78.3	37.5	34.9	27.6	41.9	31.0
MAX	28	189	111	365	274	349	450	89	83	81	190	175
MIN	12	18	25	19	30	33	32	22	24	18	16	15
CFSM	.37	1.78	1.10	1.32	1.64	1.80	1.76	.85	.79	.62	.94	.70
IN.	.43	1.99	1.27	1.52	1.71	2.07	1.97	.98	.88	.72	1.09	.78
CAL YR 1985	TOTAL 14570	MEAN 39.9	MAX 459	MIN 9.8	CFSM .90	IN. 12.2						
WTR YR 1986	TOTAL 18381	MEAN 50.4	MAX 450	MIN 12	CFSM 1.13	IN. 15.4						

04232046 THOMAS CREEK AT FAIRPORT, NY

LOCATION.--Lat 43°06'22, long 77°27'44", Monroe County, Hydrologic Unit 04140101, on right bank 48 ft upstream from culvert on Foreman Center Road, 0.5 mi northwest of Fairport, and 0.8 mi upstream from mouth. Water-quality sampling site at discharge station.

DRAINAGE AREA.--28.5 mi², flow from 0.86 mi² noncontributing.

PERIOD OF RECORD.--March 1980 to current year.

REVISED RECORDS.--WDR NY-81-3: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 403 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 14 to Jan. 19, Jan. 24, 25, Jan. 27 to Feb. 18, Feb. 21, 22, Feb. 24 to Mar. 3 and Mar. 7-11. Records fair. Unpublished water-quality records are available in files of Monroe County Health Department. Discharge subsequent to July 20, 1983 includes undetermined diversion (maximum 25 ft³/s) from Erie (Barge) Canal upstream from station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--6 years (water years 1981-86), 17.1 ft³/s, 8.41 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 232 ft³/s Feb. 15, 1984, gage height, 2.71 ft; maximum gage height, 3.62 ft Jan. 12, 1982 (ice jam); minimum discharge, 2.0 ft³/s Aug. 19, 20, Sept. 10, 1982; minimum gage height, 1.22 ft June 7, 8, 13, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 140 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 21	0045	*208	*2.62	No other peak greater than base discharge.			
Minimum discharge, 2.4 ft ³ /s Sept. 8-11, 15, gage height, 1.34 ft.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	3.3	46	7.4	17	10	7.2	11	6.2	11	13	4.8
2	4.1	3.1	62	7.0	22	9.8	7.4	10	11	29	12	4.3
3	3.9	3.3	56	6.4	21	10	7.0	9.2	8.5	22	12	4.3
4	3.9	17	40	6.2	17	15	8.3	8.3	5.3	18	14	3.9
5	6.9	66	29	6.0	30	16	13	8.6	7.3	13	11	3.9
6	5.1	77	26	6.0	24	21	38	8.9	8.1	11	8.9	3.9
7	4.5	48	23	5.8	18	18	39	9.3	21	11	12	3.3
8	4.0	22	20	5.6	14	17	29	9.1	42	11	18	2.7
9	3.9	17	19	6.2	10	15	25	8.7	34	9.6	15	2.4
10	4.1	35	18	7.4	11	26	25	9.3	20	9.2	16	2.4
11	4.1	44	23	6.0	9.8	70	28	9.0	12	8.3	44	2.9
12	3.6	33	30	6.0	9.4	67	28	8.0	28	13	26	3.1
13	5.4	35	33	5.8	9.0	60	24	6.9	44	11	16	3.4
14	4.7	39	31	5.6	8.4	94	18	6.2	55	13	12	3.2
15	7.1	44	26	5.8	7.4	89	30	5.5	41	10	9.1	4.1
16	6.0	43	22	6.2	6.6	70	59	6.1	27	7.9	26	6.6
17	5.0	50	18	6.0	7.2	51	106	5.4	22	7.4	20	5.9
18	4.5	42	16	6.0	15	38	81	4.6	17	10	13	4.5
19	13	25	13	21	39	34	47	4.3	16	17	11	3.6
20	8.9	18	12	141	62	35	34	29	46	20	8.5	4.3
21	5.9	16	11	159	78	26	33	31	66	17	7.1	4.4
22	4.7	16	11	88	68	20	29	22	49	12	7.3	4.0
23	4.0	19	10	60	52	19	21	16	32	11	7.4	18
24	7.2	19	10	50	34	18	17	13	21	9.6	8.2	9.3
25	7.6	17	9.8	32	26	17	14	11	15	9.2	7.0	7.4
26	5.2	19	9.0	24	24	16	12	9.0	12	8.5	6.3	6.8
27	4.6	39	8.4	23	18	16	12	7.2	12	8.7	6.3	6.3
28	3.9	50	7.8	21	12	16	12	6.1	13	8.2	5.8	5.3
29	3.6	40	7.6	19	---	15	11	4.8	16	8.1	5.6	20
30	3.5	34	7.4	17	---	12	10	3.9	14	19	5.3	29
31	3.4	---	7.4	16	---	8.3	---	3.8	---	15	4.9	---
TOTAL	160.7	933.7	662.4	782.4	669.8	949.1	824.9	305.2	721.4	388.7	388.7	188.0
MEAN	5.18	31.1	21.4	25.2	23.9	30.6	27.5	9.85	24.0	12.5	12.5	6.27
MAX	13	77	62	159	78	94	106	31	66	29	44	29
MIN	3.4	3.1	7.4	5.6	6.6	8.3	7.0	3.8	5.3	7.4	4.9	2.4
CFSM	.18	1.09	.75	.89	.84	1.07	.96	.35	.84	.44	.44	.22
IN.	.21	1.22	.86	1.02	.87	1.24	1.08	.40	.94	.51	.51	.25

CAL YR 1985 TOTAL 5726.5 MEAN 15.7 MAX 151 MIN 2.7 CFSM .55 IN. 7.47
WTR YR 1986 TOTAL 6975.0 MEAN 19.1 MAX 159 MIN 2.4 CFSM .67 IN. 9.10

STREAMS TRIBUTARY TO LAKE ONTARIO

04232047 IRONDEQUOIT CREEK AT LINDEN AVENUE, EAST ROCHESTER, NY

LOCATION.--Lat 43°07'16", long 77°28'36", Monroe County, Hydrologic Unit 04140101, on left bank 200 ft upstream from bridge on Linden Avenue, 2.2 mi upstream from Allen Creek, and 7.8 mi upstream from mouth.

DRAINAGE AREA.--101 mi², flow from 4.95 mi² noncontributing.

PERIOD OF RECORD.--August 1973 to current year.

REVISED RECORDS.--WDR NY-78-1: 1977. WDR NY-81-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 341.46 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharge: Dec. 15 to Jan. 16, Jan. 26-31, Feb. 6-17, and Feb. 26 to Mar. 4. Records good except for estimated daily discharges, which are fair. Prior to 1980, flow of undetermined magnitude diverted from Erie (Barge) Canal into Thomas Creek, a tributary upstream from station; diversion resumed July 20, 1983.

AVERAGE DISCHARGE.--13 years, 93.1 ft³/s, 12.52 in./yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,480 ft³/s Oct. 29, 1974, gage height, 15.64 ft (result of dewatering of Erie (Barge) Canal through accidental break in canal wall at Bushnell Basin); minimum discharge, 13 ft³/s Aug. 19, 1985; minimum gage height, 11.15 ft July 19, 1981, Aug. 6, 1985.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 570 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 20	1900	*848	*14.43	Apr. 18	0245	742	14.19
Mar. 14	0630	579	13.78				

Minimum discharge, 23 ft³/s Oct. 10, gage height, 11.20 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	28	195	50	60	66	62	64	48	47	132	35
2	26	28	229	50	90	60	60	63	71	133	118	35
3	26	28	154	48	92	66	57	57	49	75	85	33
4	25	94	107	48	94	76	60	56	41	57	67	32
5	38	265	89	47	279	79	85	55	51	49	52	33
6	30	291	87	47	220	92	186	53	54	43	47	32
7	27	178	82	47	130	80	136	53	150	42	123	31
8	26	100	78	47	96	72	121	51	170	42	383	31
9	24	93	76	52	82	67	104	50	101	40	125	30
10	25	174	76	48	72	148	102	49	65	37	102	30
11	26	200	96	47	68	410	107	48	53	36	285	34
12	25	142	136	47	66	231	121	46	190	61	133	33
13	32	206	148	46	64	327	102	44	213	56	85	34
14	30	190	123	45	62	558	83	42	142	71	65	32
15	43	204	90	44	60	459	115	43	96	51	55	45
16	39	166	80	43	58	294	349	81	81	43	93	81
17	33	224	76	59	58	181	700	74	91	41	102	45
18	30	146	72	115	84	140	494	55	62	53	80	38
19	74	102	68	242	211	142	192	53	59	75	56	36
20	55	85	62	714	376	129	170	185	209	87	50	39
21	38	73	60	749	496	97	202	163	153	55	48	39
22	34	79	60	318	330	87	146	100	103	44	58	37
23	32	106	58	190	188	89	112	80	112	40	48	123
24	46	94	58	116	129	87	97	68	74	37	52	75
25	45	76	56	104	109	82	87	61	59	36	43	51
26	36	102	56	86	88	79	81	54	52	36	41	44
27	33	206	54	76	78	82	76	49	56	41	42	47
28	30	187	54	72	70	82	72	46	58	36	40	45
29	29	141	52	70	---	76	66	42	57	46	38	204
30	28	139	52	64	---	70	63	39	57	153	37	363
31	28	---	52	58	---	64	---	38	---	142	36	---
TOTAL	1039	4147	2736	3789	3810	4572	4408	1962	2777	1805	2721	1767
MEAN	33.5	138	88.3	122	136	147	147	63.3	92.6	58.2	87.8	58.9
MAX	74	291	229	749	496	558	700	185	213	153	383	363
MIN	24	28	52	43	58	60	57	38	41	36	36	30
CFSM	.33	1.37	.87	1.21	1.35	1.46	1.45	.63	.92	.58	.87	.58
IN.	.38	1.53	1.01	1.40	1.40	1.68	1.62	.72	1.02	.66	1.00	.65

CAL YR 1985 TOTAL 26874 MEAN 73.6 MAX 766 MIN 14 CFSM .73 IN. 9.90
WTR YR 1986 TOTAL 35533 MEAN 97.4 MAX 749 MIN 24 CFSM .96 IN. 13.1

STREAMS TRIBUTARY TO LAKE ONTARIO

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04232050 ALLEN CREEK NEAR ROCHESTER, NY

LOCATION.--Lat 43°07'49", long 77°31'08", Monroe County, Hydrologic Unit 04140101, on right bank 525 ft downstream from Penn Central Transportation Co. bridge, near Rochester, and about 1.3 mi upstream from Irondequoit Creek.

DRAINAGE AREA.--30.1 mi², flow from 3.5 mi² noncontributing.

PERIOD OF RECORD.--November 1959 to current year.

REVISED RECORDS.--WRD NY 1974: 1972(M), 1973(M, P). WDR NY-76-1: 1960-75 (M, P), 1960-63, 1972-74.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 323.54 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 20 to Jan. 18, Jan. 25 to Feb. 2, Feb. 6-15 and Feb. 23 to Mar. 4. Records good except those for estimated daily discharges, which are fair. 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.

AVERAGE DISCHARGE.--26 years (water years 1961-86), 32.9 ft³/s.

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, 1.7 ft³/s Jan. 24, 1963; minimum gage height, 1.16 ft Feb. 19, 1962.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 20	1100	*955	*4.91	Sept. 29	1645	502	4.23
Apr. 17	0515	660	4.50				

Minimum discharge, 7.0 ft³/s Feb. 16, 17, gage height, 1.99 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	15	87	8.0	10	12	11	12	33	19	78	16
2	16	15	72	7.8	30	12	12	12	38	86	48	16
3	16	17	37	7.6	24	12	11	11	17	28	52	16
4	15	78	27	7.4	31	16	14	11	14	22	45	16
5	21	292	24	7.4	157	19	38	11	32	19	28	23
6	16	185	24	7.4	50	26	93	11	23	17	23	17
7	16	59	21	7.4	26	19	36	10	92	17	44	16
8	15	38	21	7.4	22	15	43	9.5	83	18	91	16
9	15	42	19	7.8	20	14	28	13	31	17	36	16
10	17	116	21	8.8	16	106	35	14	23	16	55	16
11	17	82	35	8.2	14	189	32	14	21	15	177	19
12	16	47	46	8.0	12	50	31	14	77	34	42	19
13	23	92	41	7.8	12	205	23	14	54	23	30	19
14	18	85	35	7.6	11	180	18	14	29	32	25	17
15	32	63	27	7.6	11	118	64	16	24	19	22	32
16	19	88	22	8.0	11	60	215	37	29	17	44	54
17	16	84	20	10	12	41	360	22	27	17	77	21
18	16	43	16	80	32	34	73	16	21	27	39	19
19	56	34	14	119	107	57	41	22	24	27	26	18
20	25	29	12	588	140	35	43	105	73	60	23	21
21	19	26	11	131	181	23	56	44	27	25	23	18
22	20	44	10	62	65	20	34	28	22	20	29	18
23	19	60	9.6	40	40	21	27	23	37	18	21	85
24	36	41	9.0	27	28	19	22	19	22	16	23	31
25	29	31	8.6	20	24	18	19	16	20	15	19	23
26	19	62	8.4	16	20	17	18	15	19	15	18	22
27	17	98	8.2	13	18	19	16	14	24	16	20	22
28	16	54	8.2	11	14	17	15	12	22	15	18	20
29	16	52	8.0	9.6	---	15	13	11	23	20	18	193
30	16	58	8.0	8.6	---	14	12	11	23	72	17	105
31	16	---	8.0	8.4	---	12	---	13	---	134	17	---
TOTAL	626	2030	718.0	1267.8	1138	1415	1453	594.5	1004	896	1228	944
MEAN	20.2	67.7	23.2	40.9	40.6	45.6	48.4	19.2	33.5	28.9	39.6	31.5
MAX	56	292	87	588	181	205	360	105	92	134	177	193
MIN	15	15	8.0	7.4	10	12	11	9.5	14	15	17	16

CAL YR 1985 TOTAL 10619.8 MEAN 29.1 MAX 381 MIN 6.8
WTR YR 1986 TOTAL 13315.3 MEAN 36.5 MAX 588 MIN 7.4

STREAMS TRIBUTARY TO LAKE ONTARIO

0423205010 IRONDEQUOIT CREEK AT BLOSSOM ROAD, ROCHESTER, NY

LOCATION.--Lat 43°08'50", long 77°30'48", Monroe County, Hydrologic Unit 04140101, on right bank 120 ft downstream from bridge on Blossom Road, 1.6 mi east of Rochester, 2.5 mi downstream from Allen Creek, and 3.6 mi upstream from mouth.

DRAINAGE AREA.--143 mi², flow from 8.45 mi² noncontributing.

PERIOD OF RECORD.--Occasional discharge measurements water years 1977-80. December 1980 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 246.31 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Estimated daily discharges: Dec. 4, 5, Dec. 15 to Jan. 4, Jan. 7-18, 20, 21, Jan. 27 to Feb. 4, Feb. 6-17, Feb. 25 to Mar. 10, and Mar. 22, 23. Records fair except those for estimated daily discharges, which are poor. Discharge includes undetermined diversion from Erie (Barge) Canal. Water-quality sampling site operated by Monroe County Department of Health; data in files of that organization. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--5 years (water years 1982-86), 127 ft³/s, 12.78 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,370 ft³/s Feb. 14, 1984, gage height, 7.91 ft; maximum gage height, 8.01 ft, Jan. 20, 1987 (backwater from ice); minimum discharge, 28 ft³/s Sept. 11, 14, 1982, gage height, 1.69 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. 20	1615	1,240	a*8.01	Apr. 17	0900	*1,290	7.86
Mar. 14	1030	926	7.38				

a Ice jam.

Minimum discharge, 42 ft³/s Oct. 4, 12, gage height, 1.99 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	47	299	60	100	84	91	100	83	81	240	54
2	46	47	335	60	140	80	90	98	140	244	212	53
3	43	48	226	62	130	80	85	90	78	135	158	51
4	43	177	150	60	130	94	91	85	65	100	147	51
5	61	537	130	69	479	98	125	83	93	84	97	60
6	50	564	126	67	310	110	326	79	94	75	83	51
7	45	291	118	58	160	100	207	77	223	74	124	48
8	44	160	111	54	150	100	195	73	330	74	505	47
9	44	149	106	62	130	96	161	73	154	70	192	47
10	46	293	107	60	110	230	143	73	108	67	153	47
11	47	309	142	58	92	649	114	72	91	64	490	53
12	44	204	193	56	86	370	125	69	305	109	215	53
13	60	307	204	56	85	526	123	67	362	96	140	54
14	52	294	178	58	83	870	122	66	207	117	112	49
15	78	286	120	56	82	757	175	65	151	86	97	69
16	63	264	110	60	80	484	644	123	139	74	143	151
17	52	347	100	68	78	293	1130	113	157	70	161	72
18	48	168	92	160	127	222	805	81	111	84	159	61
19	132	103	86	358	324	244	347	80	99	128	100	57
20	91	97	82	1070	539	209	279	304	333	154	87	61
21	64	108	76	1100	759	155	335	243	212	100	79	61
22	59	181	74	602	551	120	237	152	157	78	97	59
23	55	231	76	333	308	120	185	125	180	71	77	206
24	86	170	76	209	206	135	159	106	127	64	85	120
25	83	130	70	183	160	126	144	94	104	62	71	81
26	60	176	68	161	120	120	132	82	92	61	65	72
27	54	322	70	140	110	124	123	75	96	68	67	74
28	50	279	70	100	94	123	115	69	106	62	64	70
29	49	222	70	100	---	114	105	65	93	69	62	357
30	48	218	66	110	---	105	99	60	102	235	59	541
31	48	---	62	110	---	96	---	60	---	302	57	---
TOTAL	1791	6729	3793	5760	5723	7034	7012	3002	4592	3158	4398	2830
MEAN	57.8	224	122	186	204	227	234	96.8	153	102	142	94.3
MAX	132	564	335	1100	759	870	1130	304	362	302	505	541
MIN	43	47	62	54	78	80	85	60	65	61	57	47

CAL YR 1985 TOTAL 42965 MEAN 118 MAX 1100 MIN 29
WTR YR 1986 TOTAL 55822 MEAN 153 MAX 1130 MIN 43

STREAMS TRIBUTARY TO LAKE ONTARIO

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04232100 STERLING CREEK AT STERLING, NY

LOCATION.--Lat 43°19'31", long 76°38'51", Cayuga County, Hydrologic Unit 04140101, on right bank at Sterling, 25 ft downstream from bridge on State Highway 104A, 1.8 mi southwest of Sterling Valley, and 1.9 mi upstream from Sterling Valley Creek.

DRAINAGE AREA.--44.4 mi².

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

REVISED RECORDS.--WDR NY-85-3: 1960(M), 1979-80(M).

GAGE.--Water-stage recorder. Datum of gage is 264.69 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 13 to Jan. 9, Jan. 13-17, Jan. 22 to Feb. 16, Feb. 23 to Mar. 10 and Mar. 21-22. Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--29 years (water years 1958-86), 66.6 ft³/s, 20.37 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,760 ft³/s, revised, Mar. 22, 1980, gage height, 5.99 ft; minimum, 0.32 ft³/s Sept. 14, 1966, gage height, 1.50 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 630 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 20	1915	705	3.94	Sept. 30	2330	*816	*4.17
Mar. 15	2100	791	4.12				

Minimum discharge, 3.6 ft³/s Sept. 8-12, 14-15, gage height, 1.68 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.6	9.7	91	41	58	60	62	40	19	25	24	11
2	8.4	9.1	112	41	54	54	63	38	22	38	22	8.3
3	6.6	8.4	96	40	52	52	55	36	21	42	21	7.1
4	6.4	9.8	76	39	50	52	51	33	18	33	19	6.3
5	6.4	75	65	38	48	52	54	31	22	28	17	5.7
6	5.7	134	60	37	47	52	94	37	26	24	14	5.0
7	4.5	112	56	36	46	52	108	40	24	19	14	4.6
8	3.9	104	54	36	45	66	109	32	91	16	14	3.7
9	6.4	89	54	35	44	56	102	29	138	14	14	3.6
10	9.4	167	54	34	43	54	109	28	123	13	15	3.6
11	7.1	158	55	35	41	161	123	27	100	11	16	3.6
12	6.3	126	63	36	40	152	104	23	78	12	13	3.9
13	9.6	125	62	37	38	221	84	20	90	17	12	4.6
14	11	124	62	70	37	430	71	17	91	40	9.9	4.2
15	12	153	60	130	36	663	72	16	87	34	9.5	3.8
16	16	132	58	80	35	629	303	25	73	24	129	12
17	15	156	56	35	34	441	426	42	126	18	98	12
18	13	122	54	36	38	324	313	28	87	15	64	9.8
19	27	107	54	95	65	353	199	50	69	14	44	8.4
20	31	94	50	539	115	268	137	71	132	13	31	25
21	24	77	46	633	252	150	134	95	82	13	23	30
22	19	69	43	350	254	110	115	84	60	11	17	19
23	17	75	40	260	180	118	95	82	60	10	14	51
24	17	68	37	150	130	104	79	67	55	8.6	13	73
25	20	59	42	100	120	88	67	56	46	9.9	13	66
26	17	58	80	80	110	79	59	45	37	12	12	114
27	14	80	74	76	94	89	55	38	31	17	13	90
28	12	87	60	72	76	102	49	31	34	14	12	70
29	11	92	49	68	---	100	45	26	31	12	24	278
30	9.9	85	46	64	---	91	44	23	28	23	26	711
31	9.8	---	44	62	---	72	---	20	---	31	16	---
TOTAL	385.0	2765.0	1853	3385	2182	5295	3381	1230	1901	611.5	783.4	1648.2
MEAN	12.4	92.2	59.8	109	77.9	171	113	39.7	63.4	19.7	25.3	54.9
MAX	31	167	112	633	254	663	426	95	138	42	129	711
MIN	3.9	8.4	37	34	34	52	44	16	18	8.6	9.5	3.6
CFSM	.28	2.08	1.35	2.46	1.76	3.85	2.54	.89	1.43	.44	.57	1.24
IN.	.32	2.32	1.55	2.84	1.83	4.44	2.83	1.03	1.59	.51	.66	1.38

CAL YR 1985 TOTAL 20006.4 MEAN 54.8 MAX 779 MIN 1.7 CFSM 1.23 IN. 16.8
WTR YR 1986 TOTAL 25420.1 MEAN 69.6 MAX 711 MIN 3.6 CFSM 1.57 IN. 21.3

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 National Geodetic Vertical Datm of 1929 (1.59 ft Barge Canal datum). Prior to Oct. 1, 1975, at datum 438.41 ft higher.

REMARKS.--Area of water surface, 67.6 mi². Diversion from Susquehanna River basin enters lake through Keuka Lake Outlet at Dresden. For table of diversion, see station 01528700. Lake regulated by taintor gates on Seneca River at Lock 4, Waterloo, for operation of Erie (Barge) Canal and power generation by New York State Electric and Gas Corp.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 448.88 ft June 25, 1972; minimum, 442.64 ft Mar. 14, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 445.76 ft July 21; minimum, 443.57 ft Dec. 31.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	444.25	444.03	444.59	443.67	444.36	444.69	444.73	444.87	445.05	445.18	445.45	444.81
2	444.31	443.98	444.70	443.66	444.45	444.63	444.73	444.87	445.17	445.18	445.45	444.81
3	444.27	443.96	444.74	443.69	444.45	444.59	444.68	444.87	445.12	445.24	445.47	444.81
4	444.24	444.00	444.68	443.70	444.40	444.54	444.65	444.88	445.07	445.17	445.39	444.74
5	444.18	444.14	444.63	443.70	444.42	444.50	444.60	444.88	445.08	445.11	445.33	444.74
6	444.21	444.17	444.60	443.71	444.43	444.45	444.54	444.85	445.13	445.17	445.29	444.82
7	444.19	444.14	444.54	443.72	444.39	444.42	444.55	444.84	445.14	445.15	445.23	444.76
8	444.08	444.11	444.49	443.71	444.43	444.35	444.55	444.80	445.19	445.15	445.21	444.76
9	444.08	444.17	444.46	443.67	444.45	444.28	444.52	444.77	445.21	445.19	445.19	444.69
10	444.14	444.17	444.41	443.71	444.48	444.23	444.48	444.77	445.15	445.20	445.19	444.68
11	444.14	444.22	444.42	443.71	444.44	444.30	444.45	444.79	445.12	445.15	445.20	444.62
12	444.07	444.20	444.44	443.71	444.37	444.28	444.48	444.81	445.17	445.15	445.17	444.69
13	444.03	444.25	444.46	443.77	444.31	444.27	444.49	444.80	445.37	445.22	445.03	444.71
14	444.13	444.34	444.47	443.76	444.25	444.37	444.50	444.77	445.39	445.26	445.03	444.68
15	444.15	444.38	444.39	443.75	444.28	444.76	444.47	444.76	445.38	445.22	444.94	444.67
16	444.14	444.34	444.37	443.73	444.28	444.98	444.58	444.79	445.37	445.13	445.10	444.71
17	444.16	444.45	444.31	443.71	444.31	445.07	444.90	444.82	445.48	445.08	445.15	444.66
18	444.04	444.50	444.26	443.75	444.33	445.06	445.00	444.81	445.46	445.10	445.18	444.56
19	444.12	444.47	444.17	443.81	444.38	445.05	445.02	444.88	445.36	445.49	445.17	444.64
20	444.20	444.44	444.12	444.20	444.53	445.10	445.02	444.98	445.42	445.59	445.08	444.62
21	444.13	444.43	444.07	444.55	444.80	445.04	445.02	445.07	445.45	445.70	445.06	444.64
22	444.10	444.38	443.98	444.60	444.92	445.01	445.03	445.10	445.35	445.65	445.05	444.60
23	444.10	444.37	443.95	444.67	444.93	445.09	445.01	445.07	445.33	445.58	444.97	444.60
24	444.07	444.38	443.90	444.63	444.92	445.01	444.94	445.08	445.33	445.54	445.02	444.74
25	444.12	444.38	443.85	444.56	444.91	444.93	444.91	445.08	445.29	445.44	445.00	444.68
26	444.13	444.36	443.75	444.58	444.85	444.90	444.94	445.09	445.21	445.45	444.88	444.71
27	444.08	444.41	443.69	444.58	444.81	444.90	444.98	445.06	445.12	445.46	444.95	444.77
28	444.12	444.50	443.71	444.51	444.74	444.86	444.98	445.02	445.18	445.43	444.96	444.72
29	444.08	444.54	443.70	444.45	---	444.80	444.96	444.97	445.25	445.37	444.87	444.73
30	444.02	444.56	443.70	444.41	---	444.78	444.92	444.96	445.26	445.46	444.84	444.84
31	444.04	---	443.65	444.37	---	444.78	---	444.97	---	445.54	444.84	---
MEAN	444.13	444.29	444.23	444.02	444.52	444.71	444.75	444.91	445.25	445.31	445.12	444.71
MAX	444.31	444.56	444.74	444.67	444.93	445.10	445.03	445.10	445.48	445.70	445.47	444.84
MIN	444.02	443.96	443.65	443.66	444.25	444.23	444.45	444.76	445.05	445.03	444.84	444.56

CAL YR 1985 MEAN 444.45 MAX 445.15 MIN 443.57
WTR YR 1986 MEAN 444.66 MAX 445.70 MIN 443.65

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	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	713.32	713.15	713.34	713.09	713.56	713.81	714.02	714.51	714.31	713.96	714.02	713.93
2	713.33	713.13	713.48	713.06	713.56	713.82	714.04	714.46	714.36	713.98	714.05	713.92
3	713.31	713.12	713.53	713.04	713.41	713.80	714.04	714.40	714.33	713.99	714.04	713.90
4	713.29	713.16	713.52	713.01	713.33	713.73	714.04	714.35	714.30	713.95	714.03	713.87
5	713.22	713.29	713.51	712.96	713.37	713.70	714.07	714.29	714.33	713.94	714.02	713.86
6	713.25	713.28	713.51	712.91	713.41	713.68	714.09	714.26	714.36	713.95	714.01	713.86
7	713.23	713.24	713.48	712.90	713.41	713.65	714.14	714.22	714.36	713.94	714.01	713.85
8	713.19	713.22	713.47	712.87	713.40	713.62	714.17	714.19	714.39	713.95	714.02	713.82
9	713.17	713.20	713.45	712.82	713.39	713.60	714.20	714.14	714.42	713.95	714.02	713.80
10	713.18	713.19	713.44	712.81	713.37	713.59	714.22	714.08	714.40	713.95	714.02	713.78
11	713.18	713.21	713.47	712.77	713.35	713.65	714.23	714.02	714.45	713.92	714.05	713.74
12	713.15	713.17	713.54	712.72	713.32	713.67	714.24	713.97	714.54	713.96	714.05	713.74
13	713.15	713.21	713.57	712.71	713.30	713.68	714.24	713.92	714.73	714.01	714.03	713.75
14	713.18	713.25	713.60	712.68	713.30	713.77	714.24	713.90	714.73	714.03	714.01	713.75
15	713.20	713.27	713.57	712.63	713.30	714.11	714.25	713.89	714.70	714.03	714.00	713.73
16	713.22	713.28	713.55	712.60	713.30	714.27	714.44	713.91	714.66	714.02	714.13	713.74
17	713.20	713.43	713.52	712.56	713.30	714.31	714.84	713.93	714.68	714.02	714.15	713.71
18	713.16	713.45	713.50	712.54	713.24	714.31	714.95	713.93	714.62	714.05	714.17	713.68
19	713.21	713.42	713.46	712.58	713.28	714.31	714.96	713.97	714.57	714.10	714.17	713.70
20	713.25	713.40	713.44	713.09	713.45	714.35	714.96	714.09	714.56	714.14	714.13	713.69
21	713.22	713.38	713.40	713.50	713.70	714.32	714.96	714.19	714.51	714.20	714.12	713.70
22	713.21	713.34	713.37	713.57	713.86	714.28	714.95	714.22	714.46	714.18	714.13	713.67
23	713.20	713.30	713.36	713.62	713.88	714.25	714.90	714.25	714.41	714.17	714.09	713.71
24	713.19	713.26	713.33	713.61	713.90	714.24	714.85	714.26	714.35	714.16	714.08	713.74
25	713.22	713.22	713.31	713.58	713.89	714.19	714.81	714.28	714.29	714.16	714.05	713.73
26	713.20	713.22	713.26	713.59	713.88	714.17	714.77	714.28	714.21	714.20	714.03	713.74
27	713.20	713.28	713.23	713.58	713.86	714.16	714.74	714.26	714.14	714.19	714.02	713.73
28	713.19	713.34	713.21	713.55	713.83	714.12	714.69	714.27	714.10	714.12	714.02	713.68
29	713.17	713.32	713.17	713.56	---	714.09	714.64	714.27	714.06	714.07	713.97	713.68
30	713.16	713.31	713.14	713.56	---	714.06	714.57	714.25	714.01	714.05	713.95	713.70
31	713.15	---	713.11	713.56	---	714.05	---	714.27	---	714.04	713.94	---
MEAN	713.21	713.27	713.41	713.08	713.51	713.98	714.48	714.17	714.41	714.04	714.05	713.76
MAX	713.33	713.45	713.60	713.62	713.90	714.35	714.96	714.51	714.73	714.20	714.17	713.93
MIN	713.15	713.12	713.11	712.54	713.24	713.59	714.02	713.89	714.01	713.92	713.94	713.67
CAL YR 1985	MEAN 713.46	MAX 714.39	MIN 712.35									
WTR YR 1986	MEAN 713.78	MAX 714.96	MIN 712.54									

STREAMS TRIBUTARY TO LAKE ONTARIO

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.

GAGE.--Water-stage recorder. Datum of gage is 444.67 ft (revised) above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1982, at datum 2.00 ft higher.

REMARKS.--Estimated daily discharges: Dec. 26-31, Jan. 2, 6-9, 15, 20, Feb. 13, 14, 19, Mar. 7-8 and Sept. 10-16. 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 basin) for power development. For table of diversion, see station 01528700. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--21 years, 201 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,000 ft³/s June 22, 1972, gage height, 10.37 ft, present datum, from rating curve extended above 2,100 ft³/s on basis of contracted-opening measurement at Mays Mill, adjusted for intervening area; minimum, 3.2 ft³/s Sept. 6, 7, 8, 9, 10, 1982, gage height, 1.47 ft, present datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,600 ft³/s July 19 at 0515 hours, gage height, 7.31 ft; minimum 16 ft³/s Oct. 31 and Nov. 1, gage height, 1.61 ft.

REVISIONS.--The maximum discharge for the water year 1984 has been revised to 1,820 ft³/s, Aug. 11, 1984, gage height, 5.78 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	17	409	233	286	369	261	463	60	146	33	22
2	21	17	416	230	278	365	142	463	49	35	35	22
3	21	18	339	230	270	364	141	451	37	30	28	22
4	21	19	320	225	271	360	139	440	34	28	27	22
5	21	105	313	225	342	357	142	438	34	27	26	22
6	21	159	309	200	300	360	146	430	35	26	26	21
7	21	157	306	160	286	340	143	425	34	25	25	21
8	21	166	304	150	288	320	144	412	43	25	26	21
9	21	172	301	190	282	324	142	403	37	25	25	21
10	21	175	301	205	279	401	142	394	34	25	25	21
11	21	173	341	203	275	433	141	384	34	24	26	20
12	21	174	404	201	273	372	141	372	350	28	25	20
13	22	214	356	197	270	439	139	171	677	33	24	19
14	21	208	351	193	260	525	134	37	470	28	24	19
15	25	202	344	190	258	817	142	36	444	26	25	18
16	23	251	330	187	258	499	467	36	514	25	39	18
17	23	278	324	186	261	464	878	35	553	27	26	17
18	23	261	311	195	289	452	604	36	454	76	24	18
19	26	291	305	223	480	457	551	41	442	597	24	18
20	23	292	300	800	544	436	494	61	464	112	24	18
21	23	277	298	469	666	422	524	60	426	70	24	18
22	23	276	294	405	462	416	548	48	414	52	23	18
23	23	271	288	360	428	413	531	46	416	42	23	22
24	23	266	284	340	414	406	514	43	413	37	23	19
25	23	256	282	334	399	407	511	40	391	90	23	18
26	20	300	220	325	388	406	497	38	377	223	23	89
27	18	312	230	321	381	401	487	37	363	213	23	161
28	18	294	230	312	377	397	474	37	348	201	23	157
29	18	298	230	301	---	395	463	39	345	194	23	171
30	18	329	240	291	---	387	453	31	326	198	22	205
31	17	---	240	293	---	375	---	30	---	102	22	---
TOTAL	662	6228	9520	8374	9565	12879	10235	5977	8618	2790	789	1278
MEAN	21.4	208	307	270	342	415	341	193	287	90.0	25.5	42.6
MAX	26	329	416	800	666	817	878	463	677	597	39	205
MIN	17	17	220	150	258	320	134	30	34	24	22	17

CAL YR 1985 TOTAL 45608 MEAN 125 MAX 470 MIN 14
WTR YR 1986 TOTAL 76915 MEAN 211 MAX 878 MIN 17

STREAMS TRIBUTARY TO LAKE ONTARIO

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04233000 CAYUGA INLET NEAR ITHACA, NY

LOCATION.--Lat 42°23'35", long 76°32'43", Tompkins County, Hydrologic Unit 04140201, on left bank 0.8 mi upstream from Enfield (formerly Butternut) Creek, and 5 mi south of Ithaca.

DRAINAGE AREA.--35.2 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 National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Estimated daily discharges: Dec. 15 to Mar. 10. Records fair.

AVERAGE DISCHARGE.--49 years (water years 1938-86), 38.5 ft³/s, 14.85 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,800 ft³/s June 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. Several measurements of water temperature were made during the year.

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)
Mar. 15	0445	*921	*3.40	No other peak greater than base discharge.			
Minimum discharge, 4.3 ft ³ /s Oct. 4 and 12, gage height, 0.55 ft.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.3	5.8	61	14	21	38	27	38	16	12	63	8.3
2	6.4	5.7	107	13	20	36	26	35	17	18	65	8.0
3	5.3	5.8	57	12	22	33	24	33	14	16	45	7.8
4	5.0	9.9	42	12	25	30	24	31	14	12	34	7.5
5	5.5	19	36	11	43	28	28	29	18	11	26	11
6	5.0	16	34	10	37	26	47	25	23	9.5	24	11
7	4.6	12	31	10	32	25	40	26	19	8.9	23	8.7
8	4.6	10	29	11	30	25	34	30	19	8.6	31	7.8
9	4.7	9.1	28	11	24	26	31	22	16	8.5	43	7.3
10	4.8	11	29	12	21	54	34	20	12	9.1	27	6.9
11	4.8	15	52	12	20	155	34	19	50	7.6	33	6.6
12	4.6	18	70	12	18	80	38	19	73	27	23	6.8
13	6.1	25	53	11	16	83	36	18	83	40	19	6.6
14	5.9	33	47	10	14	198	31	20	45	41	17	6.3
15	8.2	40	34	9.6	15	611	32	16	31	20	16	6.4
16	7.2	52	32	9.2	16	234	252	21	29	14	43	7.4
17	6.3	80	29	9.2	18	135	349	30	25	12	47	6.9
18	5.7	42	27	14	23	101	165	22	19	12	27	7.2
19	14	31	25	50	80	98	116	25	17	42	21	7.8
20	12	26	24	340	160	83	101	48	30	23	18	7.4
21	8.6	21	21	170	260	61	90	145	20	18	16	7.6
22	7.4	19	19	110	150	54	81	74	16	16	15	7.4
23	6.8	19	20	78	110	52	74	68	16	12	18	15
24	7.8	17	20	56	88	47	82	56	14	11	18	14
25	8.3	15	19	38	68	41	76	43	13	9.7	14	9.8
26	7.2	30	18	32	54	39	62	33	12	9.9	12	20
27	6.8	63	17	30	48	55	54	27	11	9.8	11	12
28	6.4	46	15	27	42	40	48	22	14	10	10	11
29	6.2	41	17	25	---	33	43	23	20	14	9.3	12
30	6.0	47	17	23	---	31	40	18	15	56	9.0	19
31	6.0	---	16	22	---	28	---	16	---	119	8.8	---
TOTAL	203.5	784.3	1046	1204.0	1475	2580	2119	1052	721	637.6	786.1	281.5
MEAN	6.56	26.1	33.7	38.8	52.7	83.2	70.6	33.9	24.0	20.6	25.4	9.38
MAX	14	80	107	340	260	611	349	145	83	119	65	20
MIN	4.6	5.7	15	9.2	14	25	24	16	11	7.6	8.8	6.3
CFSM	.19	.74	.96	1.10	1.50	2.36	2.01	.96	.68	.58	.72	.27
IN.	.22	.83	1.11	1.27	1.56	2.73	2.24	1.11	.76	.67	.83	.30

CAL YR 1985 TOTAL 8824.5 MEAN 24.2 MAX 300 MIN 3.3 CFSM .69 IN. 9.33
WTR YR 1986 TOTAL 12890.0 MEAN 35.3 MAX 611 MIN 4.6 CFSM 1.00 IN. 13.6

LOCATION.--Lat 42°26'45", long 76°30'45", Tompkins County, Hydrologic Unit 04140201, on left bank of natural channel 40 ft upstream from flood-control channel of Cayuga Inlet, at north end of Taughannock Boulevard, and 1 mi upstream from mouth of Inlet, at Ithaca.

PERIOD OF RECORD.--August 1905 to December 1909, August 1956 to current year in reports of Geological Survey.
January 1910 to September 1925 in reports of State Engineer and Surveyor.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (1.43 ft Barge Canal datum). Prior to September 1925, nonrecording gage at several sites within 1 mi of present site. Prior to October 1968, at datum 378.57 ft higher. October 1968 to September 1975, at datum 376.57 ft higher.

EXTREMES FOR PERIOD OF RECORD---(1905-25 and since 1956): Maximum elevation, 386.33 ft June 26, 1972; minimum daily, 377.64 ft present datum. Mar. 28, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 383.06 ft June 16; minimum, 378.99 ft Jan. 12.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	381.71	381.61	381.40	379.71	380.19	380.41	381.16	382.04	382.54	382.40	382.64	381.96
2	381.77	381.52	381.50	379.59	380.10	380.35	381.23	382.17	382.71	382.48	382.66	381.98
3	381.71	381.46	381.62	379.52	379.96	380.31	381.21	382.16	382.60	382.60	382.69	381.96
4	381.67	381.45	381.52	379.42	379.86	380.26	381.22	382.10	382.51	382.51	382.63	381.86
5	381.65	381.58	381.46	379.32	379.90	380.22	381.21	382.08	382.52	382.44	382.57	381.90
6	381.70	381.59	381.47	379.27	379.92	380.16	381.18	382.14	382.56	382.48	382.52	381.96
7	381.66	381.52	381.38	379.29	379.84	380.24	381.30	382.24	382.53	382.44	382.45	381.92
8	381.56	381.50	381.31	379.26	379.77	380.19	381.35	382.31	382.61	382.46	382.42	381.90
9	381.57	381.51	381.25	379.20	379.65	380.12	381.38	382.35	382.68	382.46	382.34	381.84
10	381.64	381.51	381.17	379.24	379.54	380.10	381.41	382.34	382.65	382.47	382.22	381.80
11	381.67	381.54	381.16	379.22	379.46	380.34	381.44	382.34	382.61	382.40	382.17	381.74
12	381.57	381.46	381.20	379.20	379.38	380.43	381.47	382.33	382.58	382.35	382.16	381.83
13	381.54	381.53	381.19	379.28	379.29	380.48	381.46	382.29	382.72	382.40	382.08	381.85
14	381.66	381.60	381.20	379.25	379.19	380.70	381.47	382.24	382.77	382.47	382.06	381.82
15	381.68	381.72	381.07	379.22	379.19	381.30	381.50	382.23	382.78	382.52	382.04	381.80
16	381.71	381.61	381.04	379.19	379.13	381.53	381.78	382.26	382.71	382.47	382.29	381.88
17	381.70	381.78	380.97	379.15	379.09	381.60	382.20	382.31	382.80	382.48	382.37	381.78
18	381.59	381.82	380.92	379.19	379.09	381.63	382.40	382.31	382.70	382.54	382.45	381.69
19	381.71	381.84	380.80	379.27	379.26	381.65	382.45	382.38	382.59	382.59	382.43	381.75
20	381.78	381.91	380.71	379.87	379.56	381.79	382.49	382.49	382.70	382.61	382.29	381.73
21	381.71	381.97	380.65	380.23	380.03	381.69	382.51	382.63	382.68	382.68	382.21	381.78
22	381.69	381.93	380.51	380.39	380.29	381.58	382.57	382.68	382.56	382.61	382.24	381.70
23	381.70	381.84	380.46	380.60	380.39	381.49	382.55	382.70	382.52	382.56	382.13	381.75
24	381.65	381.76	380.40	380.66	380.47	381.49	382.43	382.68	382.49	382.49	382.26	381.86
25	381.77	381.64	380.36	380.61	380.55	381.40	382.35	382.63	382.49	382.44	382.15	381.81
26	381.76	381.58	380.20	380.73	380.52	381.41	382.22	382.55	382.40	382.45	382.04	381.84
27	381.72	381.69	380.08	380.80	380.49	381.47	382.08	382.47	382.33	382.49	382.10	381.88
28	381.80	381.68	380.04	380.68	380.45	381.44	381.93	382.48	382.40	382.44	382.13	381.82
29	381.											

CAL YR 1985	MEAN 381.30	MAX 382.73	MIN 378.73
WTR YR 1986	MEAN 381.52	MAX 382.80	MIN 379.09

STREAMS TRIBUTARY TO LAKE ONTARIO

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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.

PERIOD OF RECORD.--July 1908 to June 1909 (gage heights only), February 1925 to current year.

REVISED RECORDS.--WSP 874: 1935-38. WSP 1912: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 795.13 ft above National Geodetic Vertical Datum of 1929. July 1908 to June 1909, nonrecording gage at bridge 1.2 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Dec. 15 to Mar. 10 and Sept. 8-22. Records good except those for estimated daily discharges, which are fair. Diversion from point about 1 mi upstream from station by Cornell University for water supply and at several sites for irrigation purposes. Records of diversion from Fall Creek are in files of Cornell University. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--61 years (water years 1926-86), 186 ft³/s.

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, result of regulation; minimum daily, 3.6 ft³/s Aug. 17, 1965.

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)
Mar. 15	1130	*3,420	*4.71	No other peak greater than base discharge.			

Minimum discharge, 15 ft³/s Oct. 10; gage height, 0.35 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	32	438	100	78	150	178	111	379	80	283	38
2	29	31	822	86	80	140	162	111	307	139	226	33
3	31	29	418	82	80	130	153	101	150	154	158	32
4	26	41	285	82	86	120	145	97	103	92	115	30
5	25	73	241	84	120	110	154	91	87	71	92	31
6	25	98	200	74	200	100	186	87	113	57	84	32
7	23	77	190	58	160	96	208	84	115	51	74	30
8	20	72	180	52	120	80	202	78	297	119	80	32
9	18	70	190	54	94	100	199	76	263	79	86	31
10	18	78	195	56	84	190	241	71	118	56	74	30
11	19	166	303	60	76	1120	245	64	102	46	77	28
12	21	141	506	60	76	508	271	60	155	69	70	29
13	32	270	325	60	68	523	272	56	475	142	58	29
14	64	411	267	54	60	1160	239	52	232	146	48	32
15	67	693	170	47	64	2810	206	51	138	95	52	33
16	105	398	190	46	70	1540	778	66	115	69	660	32
17	58	931	160	48	74	776	805	142	182	59	242	31
18	41	420	140	60	100	555	484	96	123	63	126	30
19	58	289	110	270	300	614	331	106	97	170	96	33
20	127	235	120	1400	760	736	272	212	332	111	78	34
21	75	190	120	900	1000	422	246	812	204	111	69	60
22	54	168	110	500	740	343	218	406	120	85	63	70
23	44	175	120	360	440	327	192	285	116	61	58	50
24	39	155	120	180	310	295	172	205	121	50	64	121
25	61	132	110	130	240	259	158	154	99	44	58	62
26	69	242	78	120	200	250	146	123	83	44	48	49
27	49	751	84	110	180	289	139	102	80	110	49	43
28	41	414	82	110	160	306	130	90	93	80	58	45
29	36	313	82	110	---	246	120	79	107	57	44	39
30	33	303	84	88	---	218	122	68	106	94	41	47
31	34	---	88	82	---	191	---	60	---	361	39	---
TOTAL	1366	7398	6528	5523	6020	14704	7374	4196	5012	2965	3370	1216
MEAN	44.1	247	211	178	215	474	246	135	167	95.6	109	40.5
MAX	127	931	822	1400	1000	2810	805	812	475	361	660	121
MIN	18	29	78	46	60	80	120	51	80	44	39	28
CFSM	.35	1.96	1.67	1.41	1.71	3.76	1.95	1.07	1.33	.76	.86	.32
IN.	.40	2.18	1.93	1.63	1.78	4.34	2.18	1.24	1.48	.88	.99	.36

CAL YR 1985 TOTAL 49971 MEAN 137 MAX 1380 MIN 9.5 CFSM 1.09 IN. 14.8
WTR YR 1986 TOTAL 65672 MEAN 180 MAX 2810 MIN 18 CFSM 1.43 IN. 19.4

LOCATION.--Lat 42°52'19", long 77°16'22", Ontario County, Hydrologic Unit 04140201, at south end of city pier at northern end of Canandaigua Lake, 1 mi southeast of Canandaigua.

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.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. June 26, 1946 to Sept. 30, 1975, at datum 681.17 ft higher, and prior to June 26, 1946, nonrecording gage at E. T. Waldorf's boat-house 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 observed elevation, 689.26 ft Apr. 21; minimum, 686.52 ft Nov. 3.

REVISION.--Elevations for Aug. 9 to Sept. 30, 1985 have been revised: subtract 0.06 ft.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	686.93	686.60	687.84	687.20	687.86	687.91	688.26	688.60	688.80	688.37	688.37	687.95
2	686.88	686.61	687.87	687.17	687.84	687.87	688.24	688.54	688.78	688.39	688.37	687.92
3	686.91	686.59	687.84	687.15	687.80	687.82	688.25	688.52	688.76	688.37	688.33	687.91
4	686.91	686.62	687.84	687.13	687.77	687.79	688.25	688.53	688.70	688.39	688.29	687.95
5	686.91	686.69	687.82	687.12	687.79	687.77	688.24	688.55	688.62	688.37	688.25	687.89
6	686.85	686.88	687.79	687.08	687.80	687.75	688.25	688.56	688.57	688.35	688.23	687.84
7	686.82	686.95	687.77	687.04	687.79	687.74	688.19	688.57	688.53	688.35	688.23	687.81
8	686.84	686.97	687.74	687.02	687.79	687.68	688.23	688.57	688.52	688.34	688.25	687.79
9	686.77	686.98	687.71	687.03	687.77	687.66	688.24	688.58	688.45	688.37	688.25	687.77
10	686.74	687.04	687.70	687.00	687.73	687.67	688.28	688.58	688.48	688.42	688.25	687.77
11	686.72	687.07	687.70	687.00	687.70	687.78	688.31	688.57	688.46	688.42	688.25	687.77
12	686.74	687.15	687.75	687.01	687.66	687.82	688.35	688.57	688.51	688.41	688.23	687.73
13	686.76	687.22	687.78	686.97	687.62	687.88	688.37	688.58	688.64	688.41	688.21	687.70
14	686.69	687.36	687.81	686.97	687.57	687.98	688.39	688.62	688.63	688.43	688.21	687.67
15	686.74	687.45	687.80	686.97	687.55	688.19	688.45	688.60	688.60	688.43	688.22	687.65
16	686.75	687.57	687.75	686.96	687.51	688.35	688.58	688.59	688.64	688.46	688.25	687.64
17	686.74	687.68	687.73	686.97	687.49	688.39	688.98	688.55	688.65	688.38	688.24	687.63
18	686.76	687.73	687.68	686.96	687.46	688.42	689.14	688.54	688.64	688.41	688.22	687.64
19	686.74	687.79	687.66	687.04	687.52	688.45	689.15	688.55	688.60	688.46	688.20	687.59
20	686.75	687.76	687.63	687.52	687.69	688.39	689.20	688.65	688.56	688.52	688.20	687.59
21	686.74	687.71	687.59	687.98	687.91	688.37	689.26	688.75	688.54	688.54	688.20	687.57
22	686.73	687.70	687.59	688.14	688.04	688.34	689.15	688.74	688.50	688.55	688.16	687.57
23	686.73	687.68	687.53	688.15	688.09	688.32	689.04	688.70	688.47	688.56	688.18	687.64
24	686.78	687.64	687.50	688.15	688.08	688.27	689.00	688.70	688.43	688.57	688.11	687.67
25	686.73	687.61	687.46	688.22	688.06	688.27	688.94	688.71	688.35	688.58	688.09	687.67
26	686.72	687.62	687.45	688.09	688.03	688.25	688.87	688.72	688.35	688.53	688.09	687.69
27	686.70	687.67	687.42	688.06	687.99	688.21	688.81	688.73	688.37	688.46	688.08	687.69
28	686.66	687.72	687.34	688.04	687.95	688.22	688.76	688.71	688.36	688.4		

STREAMS TRIBUTARY TO LAKE ONTARIO

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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 National Geodetic Vertical Datum of 1929. Prior to June 25, 1974, at site 0.1 mi upstream at datum 676.90 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 18-19, 21-23, Dec. 26 to Jan. 1, Jan. 6-16, Jan. 23 to Feb. 3, Feb. 10-17 and March 6-11. Records fair. Flow regulated by Canandaigua Lake (see station 04234500), from which water is diverted for municipal supply by villages of Newark, Palmyra, and Gorham. Monthly runoff adjusted for change in contents in Canandaigua Lake from October 1945 to September 1966. Gage height telemeter at station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--46 years (water years 1941-86), 154 ft³/s.

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, 4.6 ft³/s Sept. 17, 1948.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 873 ft³/s Apr. 17 at 0500 hours, gage height, 5.67 ft; minimum, 17 ft³/s Sept. 24, gage height, 3.03 ft

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	37	322	210	240	360	72	417	42	55	298	53
2	47	38	318	205	250	345	59	325	152	73	303	53
3	46	38	296	195	350	332	56	58	424	61	287	52
4	46	44	285	194	402	322	90	50	433	59	281	52
5	47	81	279	186	383	294	401	49	420	57	243	49
6	45	83	275	150	355	260	434	48	411	57	65	48
7	45	58	270	88	324	220	317	50	427	59	56	44
8	49	52	266	52	315	210	66	49	449	59	55	44
9	49	54	259	31	311	230	58	48	379	57	54	45
10	47	71	258	31	290	250	58	48	70	56	55	44
11	46	86	269	31	260	280	59	48	55	56	58	44
12	46	69	310	33	250	267	65	48	66	67	55	43
13	48	83	298	34	240	339	59	48	130	66	56	43
14	44	93	294	36	240	378	54	48	373	71	56	42
15	51	144	281	44	240	466	57	47	391	61	57	43
16	47	286	277	86	240	422	256	48	395	58	61	45
17	44	286	279	572	240	409	775	48	405	58	57	42
18	45	261	260	519	263	420	646	52	396	60	57	41
19	52	273	190	418	282	466	633	46	392	83	57	40
20	46	269	285	420	344	458	632	56	434	65	58	39
21	43	259	240	408	400	445	686	164	389	62	58	38
22	43	256	250	370	364	431	739	347	373	60	60	39
23	41	261	280	300	438	379	725	323	366	61	60	47
24	43	253	287	280	454	363	707	48	357	61	58	34
25	41	245	279	310	450	344	690	26	304	88	56	40
26	42	273	200	260	391	330	671	25	64	293	56	41
27	42	312	180	250	385	288	651	29	55	308	56	42
28	40	278	180	250	375	82	638	38	54	294	55	41
29	40	279	170	250	---	73	610	38	54	298	55	51
30	39	290	190	240	---	72	515	37	55	333	54	50
31	38	---	200	220	---	71	---	37	---	300	54	---
TOTAL	1390	5112	8027	6673	9076	9606	11479	2743	8315	3396	2891	1329
MEAN	44.8	170	259	215	324	310	383	88.5	277	110	93.3	44.3
MAX	52	312	322	572	454	466	775	417	449	333	303	53
MIN	38	37	170	31	240	71	54	25	42	55	54	34

CAL YR 1985 TOTAL 45802 MEAN 125 MAX 527 MIN 29
WTR YR 1986 TOTAL 70037 MEAN 192 MAX 775 MIN 25

STREAMS TRIBUTARY TO LAKE ONTARIO

04235250 FLINT CREEK AT PHELPS, NY

LOCATION.--Lat 42°57'28", long 77°04'06", Ontario County, Hydrologic Unit 04140201, on right bank 25 ft downstream from bridge on Eagle Street at Phelps, and 1.1 mi upstream from Canandaigua Outlet.

DRAINAGE AREA.--102 mi².

PERIOD OF RECORD.--October 1959 to current year.

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 523.14 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 15-30, Jan. 7-10, 13-17, 19-20, 23-25, 27-31, Feb. 5-16, Feb. 19 to Mar. 3 and Mar. 7-9. Records good except those for estimated daily discharges, which are fair. Small diversion (during periods of low ground-water level) by Phelps Cement Products, Inc., located about 0.2 mile upstream. Since 1967, flow from Canandaigua Lake diverted into Flint Creek for municipal supply of village of Gorham; presently not exceeding 0.3 ft³/s. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--27 years, 89.4 ft³/s, 11.90 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,940 ft³/s Mar. 30, 1960, gage height, 5.83 ft; maximum gage height, 6.20 ft Mar. 17, 1963 (ice jam); no flow for many days 1962-65, 1969.

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

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 20	1900	*2,320	*5.54	Mar. 15	1730	934	4.22
Feb. 21	0800	947	4.24	Apr. 17	1000	1,340	4.74

Minimum discharge, 2.3 ft³/s Oct. 9-10, gage height, 0.88 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	6.0	337	47	72	76	68	67	116	30	126	9.3
2	4.5	5.8	378	45	68	72	63	65	103	52	156	8.8
3	3.8	6.0	313	43	68	78	57	57	63	55	102	8.2
4	3.3	8.8	199	43	70	90	57	53	45	38	68	7.9
5	3.3	53	135	43	150	84	62	50	47	29	47	7.7
6	3.1	159	116	40	180	90	82	47	40	23	36	7.5
7	3.1	169	104	40	120	64	83	54	45	22	31	7.7
8	2.8	116	95	31	110	36	86	46	60	19	32	7.1
9	2.5	74	89	37	100	58	87	41	64	17	47	6.9
10	2.6	81	88	40	96	142	87	38	45	16	38	7.0
11	2.9	115	118	35	80	397	91	36	34	14	38	7.1
12	2.8	113	241	34	68	301	99	33	67	21	33	7.1
13	3.6	153	233	35	56	338	97	31	362	41	27	7.6
14	3.7	247	176	28	54	474	88	29	192	101	22	7.3
15	6.0	260	110	26	52	816	95	28	104	54	19	7.4
16	8.1	237	100	28	50	681	333	29	136	36	53	9.8
17	11	485	94	30	62	408	1140	29	214	29	52	8.9
18	9.1	354	64	35	78	266	787	29	130	40	38	8.5
19	10	241	60	110	240	228	398	30	86	264	29	8.7
20	9.8	160	60	1200	320	203	259	63	213	158	23	9.4
21	9.4	120	52	1410	860	145	253	125	126	136	20	8.8
22	9.4	102	50	759	540	122	209	91	82	95	18	8.8
23	7.7	103	60	390	380	115	162	80	66	59	17	21
24	7.4	95	54	210	240	110	135	69	52	40	17	32
25	11	79	50	150	170	98	116	55	44	32	15	21
26	9.5	108	35	155	100	95	105	46	36	27	14	16
27	7.6	279	37	120	98	95	95	38	32	29	14	21
28	7.0	240	41	56	80	95	86	33	35	24	13	19
29	6.9	194	48	41	---	86	77	29	32	25	12	39
30	7.0	196	54	45	---	79	70	26	35	87	11	65
31	6.3	---	49	54	---	72	---	23	---	153	9.8	---
TOTAL	190.0	4559.6	3640	5360	4562	6014	5427	1470	2706	1766	1177.8	411.5
MEAN	6.13	152	117	173	163	194	181	47.4	90.2	57.0	38.0	13.7
MAX	11	485	378	1410	860	816	1140	125	362	264	156	65
MIN	2.5	5.8	35	26	50	36	57	23	32	14	9.8	6.9
CFSM	.06	1.49	1.15	1.70	1.60	1.90	1.77	.46	.88	.56	.37	.13
IN.	.07	1.66	1.33	1.95	1.66	2.19	1.98	.54	.99	.64	.43	.15

CAL YR 1985 TOTAL 25452.0 MEAN 69.7 MAX 740 MIN .84 CFSM .68 IN. 9.28
WTR YR 1986 TOTAL 37283.8 MEAN 102 MAX 1410 MIN 2.5 CFSM 1.00 IN. 13.6

STREAMS TRIBUTARY TO LAKE ONTARIO

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04235276 BLACK BROOK AT TYRE, NY

LOCATION.--Lat 42°59'30", long 76°48'13", Seneca County, Hydrologic Unit 04140201, on right bank 25 ft upstream from bridge on County Highway 101 in village of Tyre, and 0.8 mi upstream from mouth.

DRAINAGE AREA.--19.0 mi².

PERIOD OF RECORD.--Low-flow measurements, water years 1964-66, 1970-72, 1974, and annual maximum, water years 1965-73, 1975-85, November 1985 to September 1986.

GAGE.--Water-stage recorder. Elevation of gage is 390 ft above National Geodetic Vertical Datum of 1929, from topographic map. December 9, 1964 to November 21, 1985, crest-stage gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 4-5, 14-20, Dec. 25 to Jan. 3, Jan. 6-7, 13-14, 19-20, Jan. 23 to Feb. 2, Feb. 6-17, Feb. 22 to March 3 and March 6-9, 12, 21-22. Records good except those for estimated daily discharges, which are fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 786 ft³/s, Dec. 14, 1977, gage height, 5.02 ft; maximum gage height, 6.68 ft, Nov. 5, 1970, discharge not determined; minimum observed discharge, 0.42 ft³/s, Sept. 25, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 160 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 20	1730	*469	*4.13	Mar. 15	1030	282	2.80
Feb. 21	1300	309	2.95	Apr. 17	0800	352	3.19

Minimum discharge (November to September), 1.1 ft³/s June 4-5, Sept. 14-15, gage height, 0.26 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	90	5.8	9.4	10	9.0	5.5	1.5	2.6	34	1.8
2		---	91	6.8	8.4	8.4	7.1	5.2	2.1	12	29	1.7
3		---	54	6.6	9.1	8.0	5.3	4.6	1.6	11	23	1.6
4		---	27	7.1	9.0	12	5.4	5.1	1.3	8.3	15	1.5
5		---	22	6.7	25	13	6.1	5.8	1.6	4.9	11	3.4
6		---	21	4.9	26	9.8	32	5.0	3.9	3.2	7.5	3.9
7		---	20	4.6	22	8.0	41	4.2	9.5	9.3	22	3.5
8		---	19	6.9	19	6.2	39	2.8	21	7.2	15	2.4
9		---	19	6.5	13	5.8	32	2.5	18	4.7	9.8	1.8
10		---	19	6.1	12	22	32	2.3	11	3.9	7.2	1.5
11		---	28	6.8	12	108	34	2.2	6.1	2.6	6.8	1.4
12		---	64	8.0	10	55	36	2.0	6.7	4.8	5.1	1.4
13		---	55	4.6	9.4	89	25	1.8	32	9.1	4.4	1.3
14		---	38	4.1	8.4	174	19	1.7	32	37	3.6	1.2
15		---	28	6.9	7.2	243	18	1.6	19	20	12	1.5
16		---	21	6.4	6.2	151	131	2.0	19	9.9	50	2.2
17		---	17	5.5	8.4	73	302	1.8	18	5.6	47	1.5
18		---	14	5.7	15	48	126	1.7	11	4.0	20	1.4
19		---	13	34	69	41	55	2.1	7.8	4.4	10	1.9
20		---	9.8	320	166	32	37	5.1	110	19	6.2	1.8
21		21	8.1	359	262	15	34	6.6	80	32	4.5	1.5
22		19	7.7	194	170	13	28	6.3	31	18	3.8	1.3
23		21	7.5	88	96	16	21	6.1	17	8.8	3.5	2.8
24		20	7.3	62	54	15	16	4.7	11	5.2	3.1	4.9
25		16	6.6	42	38	13	13	3.8	8.0	3.7	2.7	3.8
26		21	5.6	19	32	12	11	3.0	6.0	4.1	2.6	2.1
27		84	5.2	13	20	12	9.6	2.5	4.7	2.9	2.6	2.4
28		59	4.9	12	15	12	8.4	2.2	3.7	2.3	2.3	1.8
29		49	4.1	11	---	13	7.2	1.9	3.5	2.4	2.1	26
30		56	4.4	11	---	12	6.0	1.6	3.4	13	2.0	45
31		---	4.9	10	---	8.5	---	1.6	---	45	1.9	---
TOTAL		---	736.1	1285.0	1151.5	1258.7	1146.1	105.3	501.4	320.9	369.7	130.3
MEAN		---	23.7	41.5	41.1	40.6	38.2	3.40	16.7	10.4	11.9	4.34
MAX		---	91	359	262	243	302	6.6	110	45	50	45
MIN		---	4.1	4.1	6.2	5.8	5.3	1.6	1.3	2.3	1.9	1.2
CFSM		---	1.25	2.18	2.16	2.14	2.01	1.18	.88	.54	.63	.23
IN.		---	1.44	2.52	2.25	2.46	2.24	.21	.98	.63	.72	.26

04235396 OWASCO LAKE NEAR AUBURN, NY

LOCATION.--Lat 42°53'56", long 76°32'17", Cayuga County, Hydrologic Unit 04140201, on east side of breakwater at city of Auburn water intake and pumping station, 1 mi south of city limits of Auburn, and 1.8 mi upstream from State dam.

DRAINAGE AREA.--205 mi².

PERIOD OF RECORD.--October 1967 to current year. Records since 1912 collected by, and in files of, city of Auburn.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to May 1, 1982, nonrecording gage read once daily by employees of city of Auburn Water Division at same site and datum from reference mark at elevation 718.59 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Lake elevation regulated by gates on outlet at State dam. Area of water surface, 10.6 mi².

COOPERATION.--Records furnished by city of Auburn until April 30, 1982.

EXTREMES FOR PERIOD OF RECORD.--Maximum observed elevation, 716.88 ft June 25, 1972; minimum observed, 708.58 ft Feb. 17, 18, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum observed elevation since 1912, 716.91 ft Mar. 23, 1936, Apr. 9, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum observed elevation, 713.59 ft Mar 16; minimum observed, 710.18 ft Jan. 19.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	711.19	711.03	712.27	711.57	711.68	711.98	712.53	712.83	711.95	712.24	712.84	711.93
2	711.18	711.03	712.35	711.56	711.56	711.95	712.55	712.72	712.03	712.29	712.98	711.88
3	711.17	711.01	712.45	711.45	711.62	711.92	712.50	712.65	712.09	712.33	712.98	711.88
4	711.16	711.02	712.48	711.35	711.58	711.88	712.48	712.60	712.13	712.45	712.96	711.79
5	711.16	711.06	712.47	711.19	711.58	711.86	712.41	712.56	712.16	712.45	712.95	711.85
6	711.12	711.12	712.45	711.25	711.65	711.83	712.36	712.50	712.19	712.46	712.89	711.84
7	711.08	711.17	712.41	711.12	711.64	711.79	712.41	712.43	712.28	712.46	712.86	711.80
8	711.07	711.20	712.38	711.05	711.63	711.74	712.40	712.33	712.53	712.54	712.84	711.78
9	711.03	711.23	712.36	711.01	711.61	711.68	712.35	712.26	712.58	712.56	712.81	711.80
10	711.01	711.31	712.33	710.92	711.57	711.65	712.36	712.20	712.58	712.54	712.80	711.76
11	711.00	711.40	712.31	710.77	711.51	711.86	712.38	712.13	712.54	712.56	712.70	711.70
12	710.99	711.49	712.40	710.70	711.46	712.06	712.39	712.05	712.52	712.50	712.62	711.72
13	711.00	711.61	712.49	710.64	711.40	712.16	712.41	712.01	712.62	712.53	712.58	711.74
14	711.00	711.75	712.52	710.58	711.33	712.47	712.43	711.85	712.66	712.55	712.55	711.71
15	711.01	711.86	712.51	710.45	711.28	713.02	712.35	711.79	712.61	712.52	712.48	711.72
16	711.03	711.99	712.48	710.37	711.21	713.51	712.62	711.72	712.61	712.56	712.67	711.69
17	711.06	712.15	712.53	710.28	711.17	713.41	713.00	711.68	712.57	712.45	712.73	711.69
18	711.08	712.25	712.43	710.20	711.13	713.30	713.19	711.66	712.56	712.33	712.74	711.64
19	711.07	712.30	712.39	710.30	711.16	713.30	713.27	711.70	712.51	712.30	712.69	711.67
20	711.10	712.28	712.36	711.76	711.44	713.03	713.30	711.81	712.50	712.31	712.63	711.70
21	711.10	712.21	712.26	711.33	711.84	712.83	713.26	711.98	712.55	712.18	712.58	711.65
22	711.10	712.17	712.04	711.63	712.16	712.69	713.10	712.10	712.52	712.15	712.48	711.65
23	711.11	712.15	712.13	711.73	712.26	712.68	713.07	712.13	712.47	712.19	712.37	711.73
24	711.10	712.10	712.06	711.78	712.26	712.66	713.05	712.11	712.48	712.24	712.28	711.80
25	711.11	712.03	712.03	711.83	712.22	712.63	713.03	712.08	712.41	712.26	712.34	711.82
26	711.10	711.97	711.95	711.81	712.16	712.62	713.00	712.06	712.36	712.23	712.35	711.84
27	711.09	712.04	711.89	711.83	712.08	712.61	712.96	712.00	712.36	712.25	712.18	711.83
28	711.08	712.13	711.85	711.82	712.00	712.61	712.93	711.93	712.27	712.29	712.09	711.91
29	711.07	712.18	711.79	711.80	---	712.62	712.88	711.85	712.20	712.36	712.02	711.89
30	711.05	712.21	711.69	711.75	---	712.60	712.83	711.88	712.17	712.47	712.00	711.98
31	711.03	---	711.64	711.75	---	712.56	---	711.90	---	712.65	711.92	---
MEAN	711.08	711.71	712.25	711.21	711.65	712.44	712.73	712.11	712.40	712.39	712.58	711.78
MAX	711.19	712.30	712.53	711.83	712.26	713.51	713.30	712.83	712.66	712.65	712.98	711.98
MIN	710.99	711.01	711.64	710.20	711.13	711.65	712.35	711.66	711.95	712.15	711.92	711.64
CAL YR 1985	MEAN 711.75	MAX 712.84	MIN 709.10									
WTR YR 1986	MEAN 712.03	MAX 713.51	MIN 710.20									

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 National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges Jan. 3-8. Records good. Diurnal fluctuation caused by mills in Auburn; regulation at State dam at outlet of lake. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--73 years (water years 1914-86), 289 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,250 ft³/s June 23, 1972, gage height, 6.28 ft; minimum, about 2 ft³/s Dec. 5, 1936; minimum gage height, 1.03 ft Oct. 13, 14, 21, 1982; minimum daily discharge, 5 ft³/s Nov. 11, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,640 ft³/s Mar. 17 at 1115 hours, gage height, 3.83 ft; minimum, 19 ft³/s Sept. 4, gage height, 1.07 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	36	360	346	389	365	354	353	56	49	437	60
2	42	35	389	344	384	364	353	347	74	61	344	56
3	40	35	192	344	380	364	348	347	44	46	345	49
4	39	44	351	344	357	363	352	348	69	44	343	31
5	40	59	349	344	366	364	354	349	47	43	331	41
6	38	47	349	344	355	364	360	345	47	42	332	46
7	38	43	346	344	355	361	350	342	126	46	337	51
8	37	41	345	344	355	365	352	339	484	42	334	46
9	36	43	349	344	354	361	349	341	322	39	326	45
10	37	58	352	351	350	368	352	344	330	37	332	44
11	35	48	355	356	350	372	353	343	327	200	331	44
12	34	51	362	351	350	459	350	342	346	311	326	46
13	38	50	359	341	350	603	350	340	350	331	328	47
14	35	236	356	329	350	633	349	341	326	316	326	46
15	67	393	355	329	350	733	357	342	323	313	357	47
16	39	365	355	329	350	1160	390	348	328	311	349	49
17	36	360	355	328	350	1500	383	328	318	315	350	45
18	35	368	355	323	381	1500	382	182	314	312	344	45
19	44	376	355	341	397	1490	389	75	318	305	337	44
20	36	386	355	388	381	1420	390	171	333	309	341	44
21	35	392	355	359	555	1200	814	344	315	299	343	40
22	34	392	355	358	677	765	679	345	312	141	338	41
23	38	386	355	351	679	584	368	338	316	48	335	82
24	56	381	352	348	675	326	355	333	318	47	323	45
25	46	360	345	348	673	384	351	328	316	46	313	42
26	40	427	344	348	670	354	353	326	321	54	321	53
27	38	428	348	350	665	359	353	328	331	45	323	63
28	38	355	345	350	501	352	351	330	326	44	306	59
29	38	355	344	389	---	352	352	173	324	55	289	81
30	37	356	344	389	---	361	352	62	146	266	281	75
31	36	---	346	389	---	355	---	54	---	415	183	---
TOTAL	1232	6906	10777	10843	12349	18901	11545	9228	7907	4932	10205	1507
MEAN	39.7	230	348	350	441	610	385	298	264	159	329	50.2
MAX	67	428	389	389	679	1500	814	353	484	415	437	82
MIN	34	35	192	323	350	326	348	54	44	37	183	31
CAL YR 1985	TOTAL	77301	MEAN 212	MAX 1300	MIN 22							
WTR YR 1986	TOTAL	106332	MEAN 291	MAX 1500	MIN 31							

STREAMS TRIBUTARY TO LAKE ONTARIO

04236000 SKANEATELES LAKE AT SKANEATELES, NY

LOCATION.--Lat 42°56'42", long 76°25'46", Onondaga County, Hydrologic Unit 04140201, on east side of breakwater, enclosed in city of Syracuse boathouse, at Skaneateles.

DRAINAGE AREA.--72.7 mi².

PERIOD OF RECORD.--October 1967 to current year. Records since September 1890 collected by, and in files of, city of Syracuse.

GAGE.--Nonrecording gages read once daily by employees of Syracuse Water Division. Datum of gage is National Geodetic Vertical Datum of 1929. October 1967 to September 1975, at same site at datum 801.75 ft higher.

REMARKS.--Lake elevation regulated by gates at outlet by Syracuse Water Division. Area of water surface, 13.6 mi².

COOPERATION.--Records furnished by city of Syracuse.

EXTREMES FOR PERIOD OF RECORD.--(since 1890): Maximum observed elevation, 866.95 ft June 25, 26, 1972; minimum observed, 858.90 ft Nov. 15, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum observed elevation, 864.35 ft Aug. 18; minimum observed, 860.87 ft Nov. 8, 9.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	861.62	860.91	861.37	861.38	861.48	861.93	863.00	863.58	863.66	864.10	864.10	863.98
2	861.59	860.89	861.37	861.33	861.53	861.92	862.95	863.59	863.70	864.15	864.11	863.95
3	861.55	860.88	861.41	861.29	861.55	861.93	862.98	863.57	863.71	864.15	864.13	863.91
4	861.50	860.90	861.40	861.31	861.53	861.91	863.01	863.55	863.70	864.15	864.15	863.88
5	861.45	860.93	861.40	861.32	861.53	861.90	863.01	863.53	863.67	864.13	864.14	863.86
6	861.43	860.90	861.43	861.27	861.54	861.94	863.05	863.52	863.67	864.13	864.14	863.84
7	861.40	860.89	861.44	861.24	861.55	861.93	863.04	863.48	863.67	864.09	864.13	863.82
8	861.40	860.87	861.44	861.20	861.55	861.91	863.04	863.50	864.00	864.10	864.16	863.79
9	861.37	860.87	861.44	861.20	861.57	861.92	863.13	863.49	863.96	864.09	864.19	863.75
10	861.35	860.93	861.43	861.17	861.58	861.94	863.15	863.48	863.95	864.06	864.19	863.72
11	861.30	860.91	861.42	861.17	861.57	861.99	863.17	863.45	863.97	864.03	864.15	863.71
12	861.28	860.95	861.40	861.20	861.55	862.06	863.18	863.42	863.99	864.05	864.15	863.67
13	861.27	860.99	861.43	861.17	861.54	862.07	863.21	863.40	864.15	864.07	864.15	863.64
14	861.25	861.01	861.50	861.10	861.52	862.20	863.20	863.40	864.10	864.10	864.14	863.59
15	861.23	861.15	861.52	861.10	861.52	862.50	863.20	863.38	864.10	864.11	864.13	863.54
16	861.28	861.20	861.54	861.09	861.49	862.64	863.31	863.38	864.20	864.08	864.23	863.52
17	861.25	861.25	861.55	861.10	861.50	862.70	863.46	863.48	864.13	864.08	864.33	863.49
18	861.20	861.24	861.53	861.06	861.50	862.74	863.49	863.46	864.10	864.07	864.35	863.47
19	861.20	861.24	861.51	861.03	861.51	862.85	863.52	863.54	864.10	864.05	864.34	863.45
20	861.20	861.30	861.52	861.19	861.62	862.88	863.55	863.55	864.12	864.05	864.33	863.43
21	861.20	861.25	861.50	861.41	861.73	862.92	863.57	863.71	864.11	864.03	864.32	863.42
22	861.18	861.25	861.48	861.49	861.84	862.95	863.56	863.71	864.11	864.03	864.28	863.40
23	861.15	861.27	861.46	861.50	861.94	862.96	863.55	863.71	864.13	864.02	864.25	863.39
24	861.15	861.27	861.47	861.51	861.93	862.93	863.57	863.73	864.13	864.01	864.23	863.46
25	861.13	861.25	861.43	861.50	861.95	862.95	863.60	863.73	864.08	864.01	864.22	863.49
26	861.10	861.30	861.42	861.51	861.94	862.96	863.59	863.73	864.08	864.00	864.16	863.55
27	861.07	861.30	861.45	861.49	861.94	862.98	863.60	863.73	864.09	863.99	864.15	863.55
28	861.03	861.33	861.41	861.55	861.93	862.98	863.59	863.73	864.08	863.96	864.08	863.50
29	861.00	861.35	861.42	861.55	---	862.99	863.59	863.72	864.08	863.95	864.05	863.45
30	860.95	861.36	861.38	861.54	---	863.00	863.58	863.69	864.11	863.97	864.04	863.50
31	860.93	---	861.40	861.50	---	863.00	---	863.68	---	864.09	864.00	---
MEAN	861.26	861.10	861.45	861.31	861.64	862.47	863.31	863.57	863.99	864.06	864.18	864.62
MAX	861.62	861.36	861.55	861.55	861.95	863.00	863.60	863.73	864.20	864.15	864.35	863.98
MIN	860.93	860.87	861.37	861.03	861.48	861.90	862.95	863.38	863.66	863.95	864.00	863.39

CAL YR 1985 MEAN 862.75 MAX 864.14 MIN 860.87
WTR YR 1986 MEAN 862.67 MAX 864.35 MIN 860.87

04237500 SENECA RIVER AT BALDWINVILLE, NY

LOCATION.--Lat 43°09'25", long 76°19'55", Onondaga County, Hydrologic Unit 04140201, on left bank 200 ft downstream from bridge on State Highways 31 and 48 in Baldwinsville, and 400 ft downstream from navigation dam at Lock 24 of New York State Erie (Barge) Canal.

DRAINAGE AREA.--3,138 mi².

PERIOD OF RECORD.--November 1949 to current year in reports of Geological Survey. November 1898 to December 1908, prior to construction of Erie (Barge) Canal, not equivalent to later records at same site because of extensive development of Erie (Barge) Canal system. January 1909 to September 1925 (gage heights only) in reports of State Engineer and Surveyor.

REVISED RECORDS.--WDR NY-78-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 361.38 ft above National Geodetic Vertical Datum of 1929 (362.60 ft Erie (Barge) Canal Datum). Prior to Dec. 31, 1908, nonrecording gage at same site at different datum. Auxiliary water-stage recorder 1,500 ft downstream from base gage at same datum.

REMARKS.--No estimated daily discharges. Records good except those below 2,000 ft³/s, which are fair. Discharge from 1898 to 1908 determined on basis of head on dam, flow through 10 mills nearby, lockages at Oswego Canal lock, estimated leakage of dam, wheel gates, flumes, and penstocks; not adjusted for inflow from Lake Erie through Erie (Barge) Canal. Discharge, since November 1949, computed by using fall as determined by auxiliary water-stage recorder. Published discharge represents the total flow at Baldwinsville and includes flow in Erie (Barge) Canal.

A large amount of natural storage and some artificial regulation is afforded by many large lakes and the Erie (Barge) Canal system in the river basin. Large diurnal fluctuations at low and medium flows caused by powerplants upstream from station. Seneca River basin receives water from Erie (Barge) Canal through Lock 32 near Pittsford. During part of year, entire flow from 45.5 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. Gage height telemeter at station.

COOPERATION.--Records of lockages at Lock 24 furnished by New York State Department of Transportation (since November 1949).

AVERAGE DISCHARGE.--36 years (water years 1951-86), 3,438 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 17,200 ft³/s Apr. 4, 1960, June 28, 1972; maximum gage height, 9.21 ft Apr. 4, 1960, June 30, 1972; minimum daily discharge, 34 ft³/s Sept. 17, 1985, result of extreme regulation; minimum gage height, 0.70 ft Feb. 20, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 9,230 ft³/s Jan. 23; maximum gage height, 5.51 ft Mar. 17, 18; minimum daily discharge, 166 ft³/s Oct. 24, minimum gage height, 1.06 ft Oct. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	444	1460	6590	4340	6230	6410	4890	2770	1330	2040	5770	938
2	612	1550	7020	4170	6510	6130	3880	2480	852	1660	5910	1170
3	708	1480	7210	4470	6540	5960	3630	1820	1130	2220	5980	1020
4	954	496	7330	4590	5910	5900	3190	1550	1690	2440	5860	665
5	821	1480	7120	4410	5910	5800	3080	1630	2190	1760	5210	390
6	506	2860	6760	2890	6030	5860	3390	1480	1330	1580	4980	377
7	218	3670	6500	1970	6250	5060	4600	1570	2230	1500	4910	418
8	196	3930	6440	1470	6380	4460	5120	1360	4190	1460	5460	771
9	673	3640	6370	1150	6260	4630	4860	1500	4930	1540	5330	1000
10	412	3650	6450	636	6160	4600	4560	1620	4600	1560	5010	600
11	381	3850	6260	342	6050	5300	3880	1610	4760	1540	5080	310
12	653	4060	6250	704	5960	6200	3790	1650	4180	1840	4270	641
13	535	4390	6400	1300	5790	6610	3630	1230	5120	2110	3490	555
14	506	4540	6640	1280	4860	7530	3130	1350	6270	1730	3010	590
15	375	4910	6640	792	3920	8580	2970	1530	6460	2590	1870	309
16	554	5590	6540	500	3510	8930	3550	1470	6370	3110	2340	871
17	953	5870	6390	1200	3380	9090	6050	1600	5940	2750	3410	1090
18	720	5950	6310	1340	2730	9000	7730	1660	5700	2730	3640	559
19	540	5890	6130	1330	2740	9070	8260	1880	5550	2990	3600	543
20	596	5660	6030	2860	4660	8570	8360	2560	5690	3030	3730	526
21	428	5360	6000	6500	7020	8200	8070	3660	6390	3690	3700	721
22	730	5150	5860	8570	8060	7770	7850	5160	6610	4250	3780	594
23	432	5400	5670	9230	8390	7420	7780	5250	6540	4210	3260	689
24	166	5610	5810	9100	8280	7250	7600	4780	6460	3860	2360	1020
25	525	5580	5970	8560	8130	6250	7190	4590	5750	3760	1770	1050
26	1110	5740	4720	7670	7700	5950	7030	3860	4650	3260	519	993
27	462	5970	4370	6960	7100	5920	6790	3420	3310	2740	866	521
28	358	6280	4390	6760	6740	5820	6430	3270	1570	2910	1780	488
29	373	6550	4320	5350	---	5640	4870	3340	1940	3590	1420	1320
30	671	6620	4240	6190	---	5390	3700	3280	2420	3840	710	4290
31	1110	---	3880	6410	---	4780	---	1850	---	5310	453	---
TOTAL	17722	133186	186610	123044	167200	204080	159860	76780	126152	83600	109478	25029
MEAN	572	4440	6020	3969	5971	6583	5329	2477	4205	2697	3532	834
MAX	1110	6620	7330	9230	8390	9090	8360	5250	6610	5310	5980	4290
MIN	166	496	3880	342	2730	4460	2970	1230	852	1460	453	309

CAL YR 1985 TOTAL 908444 MEAN 2489 MAX 8540 MIN 34
WTR YR 1986 TOTAL 1412740 MEAN 3871 MAX 9230 MIN 166

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 mi south of Syracuse, and 10.5 mi upstream from Onondaga Lake.

DRAINAGE AREA.--67.7 mi².

PERIOD OF RECORD.--June 1949 to September 1952 (monthly elevations and contents), October 1952 to current year.

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

REMARKS.--Reservoir is formed by a rolled earthfill dam, completed by Corps of Engineers in August 1949 for flood control; first used for flood regulation about a year prior to completion. Usable capacity, 18,200 acre-ft between elevations 457.0 ft, conduit invert at intake, and 504.5 ft crest of spillway. No dead storage. The flood-control works consist of a pressure conduit and a side-channel spillway and are not provided with gates. Water is stored during high flows and released gradually. Storage includes minor diversion from Gate House Pond in headwaters of West Branch Tioughnioga River basin.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 485.9 ft Apr. 1, 1960, contents, 5,960 acre-ft; no contents at times.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 472.11 ft Mar. 16, contents, 1,180 acre-ft; minimum elevation, 459.32 ft Sept. 14-16, no contents many days.

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

460.00	0	470.00	700
461.00	5	473.00	1,420
462.00	15	478.00	2,880
464.00	50	482.00	4,230
467.00	225	486.00	6,010

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	459.63	459.43	461.89	459.77	460.33	461.11	460.88	460.43	460.15	459.76	460.89	459.46
2	459.60	459.42	463.04	459.74	460.46	460.93	460.83	460.48	460.43	462.37	461.06	459.45
3	459.58	459.40	461.96	459.73	460.51	460.84	460.70	460.31	460.01	461.19	462.46	459.43
4	459.55	459.39	461.21	459.78	460.45	460.87	460.69	460.17	459.84	460.18	460.27	459.42
5	459.52	459.53	460.91	459.76	461.56	460.83	460.80	460.09	459.84	459.93	459.91	459.41
6	459.50	460.02	460.76	459.73	461.44	460.90	461.94	460.01	460.22	459.81	459.80	459.40
7	459.47	459.90	460.59	459.69	461.65	460.72	462.30	460.06	460.15	459.73	459.78	459.39
8	459.43	459.84	460.51	459.72	460.77	460.34	461.71	460.01	465.33	459.73	460.93	459.38
9	459.41	459.75	460.47	460.08	460.48	461.23	461.39	459.87	464.38	459.70	460.15	459.37
10	459.38	460.69	460.46	459.74	460.34	461.29	461.87	459.80	460.54	459.66	459.88	459.36
11	459.36	461.29	460.85	459.68	460.34	466.18	461.96	459.79	460.24	459.61	459.80	459.35
12	459.34	460.72	462.00	459.67	460.55	464.42	461.99	459.76	461.35	459.59	459.73	459.35
13	459.33	461.04	461.55	459.67	460.38	463.27	461.97	459.73	463.66	460.14	459.68	459.34
14	459.34	461.67	461.30	459.80	460.33	465.84	461.50	459.71	462.03	460.56	459.63	459.33
15	459.36	463.52	460.89	459.88	460.11	469.46	461.21	459.70	460.72	459.84	459.61	459.32
16	459.51	461.95	460.64	459.67	460.02	471.57	463.77	459.91	460.53	459.68	462.49	459.33
17	459.56	463.12	460.53	459.64	460.02	468.91	465.87	461.97	461.57	459.62	460.85	459.34
18	459.56	461.87	460.36	459.74	460.50	464.63	463.88	460.46	460.57	459.58	460.13	459.34
19	459.56	461.11	460.89	462.14	462.67	463.64	462.39	460.68	460.20	459.55	460.13	459.34
20	459.63	460.75	460.31	466.46	466.59	463.41	461.99	461.74	461.99	459.71	459.84	459.34
21	459.64	460.44	460.06	468.68	467.86	462.37	461.86	464.57	461.02	459.79	459.76	459.34
22	459.62	460.33	460.05	465.07	467.60	462.08	461.59	462.82	460.24	459.68	459.72	459.35
23	459.58	460.54	459.99	462.72	464.31	462.05	461.31	461.65	460.36	459.60	459.69	460.38
24	459.56	460.31	460.07	461.89	462.58	461.81	461.11	461.04	460.24	459.54	460.30	460.74
25	459.54	460.11	460.14	462.09	462.11	461.52	460.95	460.69	460.10	459.49	459.88	459.86
26	459.53	460.31	460.53	461.21	461.67	461.39	460.81	460.40	459.91	459.46	459.72	459.86
27	459.52	461.84	460.06	461.09	461.85	461.93	460.72	460.23	459.82	459.45	459.66	459.89
28	459.49	461.38	459.91	460.93	461.38	461.94	460.61	460.11	459.96	459.43	459.63	459.76
29	459.47	461.03	459.82	461.59	---	461.49	460.52	460.00	459.82	459.42	459.57	459.74
30	459.46	460.96	459.80	460.74	---	461.21	460.51	459.89	459.84	459.57	459.52	461.19
31	459.44	---	459.77	460.54	---	461.01	---	459.86	---	461.82	459.49	---
MEAN	459.50	460.72	460.69	460.99	461.74	462.88	461.65	460.51	460.84	459.91	460.13	459.59
MAX	459.64	463.52	463.04	468.68	467.86	471.57	465.87	464.57	465.33	462.37	462.49	461.19
MIN	459.33	459.39	459.77	459.64	460.02	460.34	460.51	459.70	459.82	459.42	459.49	459.32
†	0	6.0	0	2.3	6.2	4.6	2.1	0	0	6.7	0	5.8
††	0	+0.10	-0.10	-0.04	+0.07	-0.27	-0.04	-0.03	0	+0.11	-0.11	+0.10

CAL YR 1985 MEAN 460.37 MAX 473.14 MIN 458.96
WTR YR 1986 MEAN 460.75 MAX 471.57 MIN 459.32

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

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

STREAMS TRIBUTARY TO LAKE ONTARIO

129

04239000 ONONDAGA CREEK AT DORWIN AVENUE, SYRACUSE, NY

LOCATION.--Lat 42°59'00", long 76°09'04", Onondaga County, Hydrologic Unit 04140201, on left bank 550 ft upstream from bridge on Dorwin Avenue, at Syracuse, and 4 mi downstream from Onondaga Reservoir.

DRAINAGE AREA.--88.5 mi².

PERIOD OF RECORD.--May 1951 to current year.

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 414.19 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 14 to Jan. 10, Jan. 14-18, Jan. 24 to Feb. 18, Feb. 26 to Mar. 9 and Mar. 20-21. Records good except those for estimated daily discharges, which are fair. High flows regulated by Onondaga Reservoir (see station 04238500). Discharge includes minor diversion from Gate House Pond in headwaters of West Branch Tioughnioga River basin. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--35 years, 126 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,260 ft³/s July 3, 1974, gage height, 6.48 ft; minimum daily, 5.5 ft³/s Aug. 17, 1965; minimum gage height, 1.15 ft Sept. 16, 1959.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,320 ft³/s Mar. 15 at 1000 hours, gage height, 4.63 ft; minimum, 21 ft³/s Oct. 9-10, gage height, 1.42 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	32	202	62	96	130	125	103	79	53	134	41
2	41	30	307	62	92	120	122	106	94	191	151	39
3	33	29	211	60	92	120	116	98	74	126	237	38
4	28	33	155	60	90	120	117	91	66	76	94	36
5	29	64	137	60	90	120	124	85	67	61	70	35
6	29	83	129	60	88	120	226	82	83	54	61	36
7	25	69	118	58	88	110	219	84	88	51	67	35
8	23	67	114	58	86	98	183	81	471	51	140	34
9	22	61	113	56	86	100	162	75	416	46	85	33
10	23	142	112	56	84	176	197	71	107	44	69	32
11	25	153	138	59	82	561	196	69	86	42	64	30
12	23	118	221	61	80	423	195	67	154	60	56	30
13	28	141	179	66	80	343	191	65	315	84	52	31
14	32	187	150	66	78	553	163	63	183	125	48	32
15	48	347	120	64	76	1090	151	61	114	70	50	31
16	64	204	110	62	74	954	383	89	106	53	259	44
17	50	317	100	62	74	787	531	213	145	47	122	39
18	40	195	98	74	100	462	367	111	102	47	81	34
19	50	143	92	223	263	350	230	122	84	47	81	33
20	61	123	88	719	652	270	197	178	172	67	62	35
21	49	106	82	808	783	220	188	453	120	60	56	36
22	43	102	80	512	670	210	171	277	86	49	60	34
23	39	115	78	274	417	206	154	171	95	43	55	131
24	38	100	78	160	244	189	141	135	84	41	100	119
25	41	90	78	140	204	170	132	115	77	39	58	61
26	41	102	76	140	170	161	124	99	65	38	50	70
27	37	198	74	130	150	201	119	88	59	44	54	68
28	34	163	70	110	140	198	113	82	65	43	50	55
29	33	141	66	100	---	164	108	76	57	46	46	61
30	33	137	64	100	---	146	107	70	58	74	44	142
31	33	---	64	98	---	133	---	68	---	185	42	---
TOTAL	1123	3792	3704	4620	5229	9005	5552	3548	3772	2057	2598	1475
MEAN	36.2	126	119	149	187	290	185	114	126	66.4	83.8	49.2
MAX	64	347	307	808	783	1090	531	453	471	191	259	142
MIN	22	29	64	56	74	98	107	61	57	38	42	30

CAL YR 1985 TOTAL 36715 MEAN 101 MAX 1060 MIN 15
WTR YR 1986 TOTAL 46475 MEAN 127 MAX 1090 MIN 22

STREAMS TRIBUTARY TO LAKE ONTARIO

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.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 362.29 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Nov. 19 to Jan. 12, Jan. 15-19, Jan. 24 to Feb. 19, Feb. 26 to Mar. 1, Mar. 6-9, Aug. 4-18, and Sept. 23-30. Records fair except those for estimated daily discharges and Oct. 1-7, which are poor. High flows regulated by Onondaga Reservoir (see station 04238500). Discharge includes minor diversion from Gate House Pond in headwaters of West Branch Tioughnioga River basin. Flow may be affected by backwater from Onondaga Lake at times when the lake elevation exceeds 364.75 ft. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--16 years, 192 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,740 ft³/s July 3, 1974, gage height, 8.73 ft; minimum, 20 ft³/s Sept. 26, 1985, gage height, 2.16 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,030 ft³/s June 7 at 2200 hours, gage height, 7.47 ft; minimum, 38 ft³/s Oct. 1, 5, gage height, 2.35 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	70	260	72	110	190	186	143	112	105	240	68
2	51	71	340	72	110	180	179	142	124	288	275	67
3	45	72	280	70	110	174	171	134	105	208	341	67
4	42	89	200	70	100	178	172	126	96	148	170	67
5	43	131	170	70	100	175	192	121	95	129	140	66
6	45	129	160	70	100	170	323	116	113	116	130	67
7	40	104	150	68	100	150	279	116	291	109	180	67
8	40	103	150	66	98	130	248	114	505	107	210	66
9	39	105	150	66	98	140	221	107	428	100	170	65
10	47	200	150	66	98	230	247	101	151	98	160	65
11	43	213	180	70	96	587	248	98	129	98	150	65
12	43	186	250	80	94	468	240	96	210	137	140	65
13	60	218	220	87	94	416	242	93	345	142	130	65
14	57	273	200	70	92	603	215	90	229	204	120	67
15	111	429	180	70	90	1050	217	88	157	143	190	75
16	91	313	160	68	90	871	442	125	159	120	300	92
17	75	421	150	68	88	769	559	259	184	109	200	79
18	65	313	130	84	120	527	420	174	144	108	160	74
19	86	260	110	230	300	414	289	180	130	111	109	73
20	89	200	100	754	675	370	256	217	225	139	90	99
21	77	150	98	751	809	251	243	484	173	120	81	77
22	71	130	96	537	670	245	223	323	140	109	83	76
23	66	150	94	326	477	272	205	219	165	105	80	230
24	84	140	92	190	311	252	190	180	161	102	116	170
25	72	130	92	170	267	232	181	159	143	100	82	130
26	70	200	88	160	210	223	171	141	128	100	73	180
27	68	230	84	150	190	259	164	126	122	108	78	150
28	65	220	80	130	190	258	158	119	121	112	76	130
29	65	200	78	120	---	228	151	111	113	114	71	230
30	64	190	76	120	---	209	146	103	111	198	70	290
31	67	---	74	110	---	194	---	98	---	281	68	---
TOTAL	1925	5640	4642	5035	5887	10415	7178	4703	5309	4168	4483	3082
MEAN	62.1	188	150	162	210	336	239	152	177	134	145	103
MAX	111	429	340	754	809	1050	559	484	505	288	341	290
MIN	39	70	74	66	88	130	146	88	95	98	68	65

CAL YR 1985 TOTAL 49370 MEAN 135 MAX 1010 MIN 23
WTR YR 1986 TOTAL 62467 MEAN 171 MAX 1050 MIN 39

STREAMS TRIBUTARY TO LAKE ONTARIO

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04240100 HARBOR BROOK AT SYRACUSE, NY

LOCATION.--Lat 43°02'09", long 76°10'55", Onondaga County, Hydrologic Unit 04140201, on left bank 160 ft upstream from bridge on Holden Street at Syracuse, 220 ft downstream from gated outlet of Velasko Road Detention Basin, and 2.6 mi upstream from mouth.

DRAINAGE AREA.--10.0 mi².

PERIOD OF RECORD.--June 1959 to current year.

REVISED RECORDS.--WSP 2112: Drainage area. WDR NY-82-3: 1981 (M).

GAGE.--Water-stage recorder. Datum of gage is 391.16 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 30, 1978, at site 1,660 ft upstream and Oct. 1, 1978 to May 31, 1980, at site 1,800 ft upstream at datum 3.63 ft higher.

REMARKS.--Estimated daily discharges: Oct. 1-7, Aug. 2-18 and Aug. 29 to Sept. 30. Records fair except those for estimated daily discharges, which are poor. Flow includes some sewage and storm sewer inflow, some originating outside the basin. Flows can be regulated at detention basin by Onondaga County. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--27 years, 8.95 ft³/s, 12.15 in/yr.

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; minimum, 0.11 ft³/s, gage height, 0.77 ft Aug. 8, 1980, result of regulation.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 222 ft³/s June 8 at 0245 hours, gage height, 5.18 ft, from rating curve extended above 60 ft³/s on basis of indirect measurement of peak flow; minimum daily, 2.2 ft³/s Oct. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	3.3	8.2	4.4	5.9	7.0	8.3	8.0	5.5	5.0	7.8	3.8
2	4.5	3.2	10	4.4	6.5	7.1	7.9	7.3	4.9	13	6.0	4.0
3	4.1	3.2	5.9	4.3	6.1	7.1	7.7	7.1	4.4	5.6	5.2	3.7
4	4.8	5.3	5.2	4.0	5.6	6.8	8.4	7.1	4.4	5.3	4.8	3.5
5	4.8	7.3	5.0	4.0	7.5	6.7	9.4	7.1	4.6	5.2	4.5	3.4
6	3.9	3.9	5.1	3.9	5.8	6.9	22	6.9	4.4	5.1	5.0	3.3
7	3.3	3.9	4.8	3.8	5.4	6.4	11	6.7	26	5.3	6.0	3.2
8	2.8	3.8	4.8	3.8	5.4	6.3	12	6.6	70	4.9	9.6	3.1
9	2.8	4.6	4.9	4.0	5.2	6.3	9.8	6.4	6.4	5.0	6.0	3.0
10	3.6	7.7	5.1	3.9	5.2	21	11	6.0	5.7	4.9	5.2	3.0
11	2.9	4.8	6.2	3.7	5.0	39	11	6.0	6.4	4.8	6.0	2.9
12	2.7	5.6	8.9	3.9	5.0	11	10	5.9	13	8.1	5.4	2.8
13	3.4	6.9	5.7	3.9	5.0	31	9.3	5.9	15	5.2	5.2	2.8
14	2.8	7.3	5.4	3.7	4.8	37	8.8	5.8	7.4	5.1	8.2	2.8
15	7.0	8.0	5.2	3.7	4.8	87	14	5.9	6.5	5.0	18	3.5
16	3.2	7.4	5.1	3.7	4.8	29	43	7.4	7.9	5.0	7.0	4.3
17	2.8	8.1	5.0	3.9	4.9	23	34	5.7	7.2	5.2	9.2	3.0
18	2.8	4.6	5.0	4.4	5.0	20	17	10	5.7	5.2	6.0	2.7
19	4.5	4.4	4.8	19	13	25	15	11	7.0	5.2	4.2	2.5
20	3.1	4.3	4.8	60	39	19	13	9.4	13	6.5	4.1	5.0
21	2.8	4.1	4.7	22	47	16	13	15	5.9	5.2	4.0	3.1
22	2.7	4.9	4.7	15	18	15	12	6.8	5.7	4.9	4.2	2.5
23	2.2	4.3	4.8	11	12	14	11	5.8	7.2	5.2	4.4	9.0
24	4.1	4.0	5.0	8.1	10	12	10	5.5	6.9	5.2	4.1	3.5
25	3.6	4.1	4.8	7.1	9.3	11	9.7	5.3	5.4	5.1	3.8	2.8
26	3.0	5.7	4.6	6.8	8.4	11	9.4	5.1	5.2	5.2	3.9	8.0
27	3.0	6.3	4.5	6.5	7.5	12	9.0	5.1	6.0	5.6	4.8	3.5
28	3.1	4.9	4.4	6.3	7.2	10	8.7	5.0	5.4	5.7	4.0	2.6
29	3.0	4.7	4.4	6.1	---	9.7	8.0	4.8	5.1	6.1	3.9	16
30	3.0	4.6	4.4	6.0	---	9.3	7.6	4.7	5.0	9.2	3.7	8.4
31	3.0	---	4.4	5.8	---	8.5	---	4.6	---	6.8	3.7	---
TOTAL	106.2	155.2	165.8	251.1	269.3	531.1	381.0	209.9	283.2	178.8	177.9	125.7
MEAN	3.43	5.17	5.35	8.10	9.62	17.1	12.7	6.77	9.44	5.77	5.74	4.19
MAX	7.0	8.1	10	60	47	87	43	15	70	13	18	16
MIN	2.2	3.2	4.4	3.7	4.8	6.3	7.6	4.6	4.4	4.8	3.7	2.5
CFSM	.34	.52	.53	.81	.96	1.71	1.27	.68	.94	.58	.57	.42
IN.	.40	.58	.62	.93	1.00	1.98	1.42	.78	1.05	.67	.66	.47

CAL YR 1985 TOTAL 2756.3 MEAN 7.55 MAX 100 MIN 2.2 CFSM .76 IN. 10.3
WTR YR 1986 TOTAL 2835.2 MEAN 7.77 MAX 87 MIN 2.2 CFSM .78 IN. 10.5

STREAMS TRIBUTARY TO LAKE ONTARIO

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 and concrete control. Datum of gage is 365.86 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 7 to Nov. 7 and Aug. 5-17. Records good except those for estimated daily discharges, which are fair. 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.

AVERAGE DISCHARGE.--16 years, 14.0 ft³/s, 16.82 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 824 ft³/s July 3, 1974, gage height, 7.91 ft from rating curve extended above 160 ft³/s on basis of step-backwater computations; maximum gage height, 8.15 ft Sept. 26, 1975 (backwater from debris jam); minimum discharge, 0.42 ft³/s Sept. 26, 1985, caused by construction work upstream of gage.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 569 ft³/s June 7 at 2145 hours, gage height, 6.68 ft; minimum, 0.99 ft³/s Nov. 25, gage height, 1.60 ft (due to regulation); minimum daily, 2.5 ft³/s Oct. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.4	3.5	8.3	4.9	6.8	8.7	11	10	8.1	7.1	7.6	4.2
2	5.1	3.4	12	4.7	7.7	8.4	11	9.4	7.4	17	7.9	4.3
3	4.6	3.5	7.2	4.7	7.3	8.3	11	9.1	6.4	7.6	5.3	4.2
4	5.3	7.0	6.3	4.5	6.9	8.1	12	8.9	6.4	7.4	5.5	3.8
5	5.3	8.8	6.0	4.5	9.3	8.1	14	8.9	6.3	6.9	5.0	3.7
6	4.6	6.8	5.9	4.4	7.5	8.3	32	8.8	6.3	6.9	6.0	3.6
7	3.7	4.3	5.7	4.2	6.7	7.9	15	8.5	56	7.4	8.4	3.5
8	3.4	4.8	5.5	4.2	6.7	7.6	17	7.9	77	6.9	12	3.4
9	3.8	6.1	6.0	4.2	6.5	7.6	14	7.7	7.2	6.7	9.0	3.3
10	4.6	11	6.5	4.2	6.5	21	14	7.7	6.3	6.5	6.2	3.2
11	3.3	6.3	7.2	4.2	6.3	41	14	7.6	7.5	6.3	8.0	3.2
12	3.8	7.8	11	4.4	6.3	13	13	7.4	19	11	6.8	3.1
13	4.1	10	7.1	4.5	6.1	33	12	7.1	17	7.1	6.0	3.0
14	3.6	11	6.5	4.5	6.0	42	11	7.0	8.8	6.7	14	3.0
15	7.3	8.5	5.9	4.4	5.9	95	19	7.1	8.1	6.3	38	4.0
16	5.0	8.5	5.8	4.4	5.6	34	47	10	11	6.0	9.2	5.1
17	3.4	8.4	5.7	4.4	5.6	27	38	7.5	9.4	5.8	13	3.0
18	3.2	5.3	5.5	5.0	5.9	23	21	17	7.9	6.0	5.3	2.9
19	5.0	5.0	5.5	18	14	29	18	16	9.4	5.8	5.2	2.7
20	3.7	4.7	5.3	62	39	23	17	13	15	9.4	5.1	7.0
21	3.3	4.5	5.3	25	52	19	16	22	8.6	6.0	5.1	2.9
22	3.0	5.5	5.3	17	20	18	15	9.4	8.1	5.6	5.6	2.8
23	2.5	4.9	5.3	13	14	17	14	8.3	11	5.8	6.3	26
24	4.4	4.6	5.4	9.6	12	15	12	7.7	10	5.6	5.4	3.6
25	3.9	4.6	5.3	8.2	11	15	12	7.6	8.4	5.3	4.7	3.0
26	3.5	7.6	4.9	8.1	10	14	12	7.4	7.6	5.3	4.7	15
27	3.2	7.4	5.4	7.9	9.7	16	11	7.5	8.9	5.8	6.1	5.0
28	3.3	5.8	5.0	7.4	9.2	14	11	7.1	7.6	5.8	5.1	2.9
29	3.2	5.8	4.9	7.1	---	13	10	7.1	7.4	5.6	4.6	42
30	3.2	5.7	4.9	6.9	---	12	10	7.1	6.9	11	4.4	10
31	3.2	---	4.9	6.9	---	12	---	6.9	---	6.5	4.2	---
TOTAL	122.9	191.1	191.5	277.4	310.5	619.0	484	284.7	385.0	219.1	239.7	187.4
MEAN	3.96	6.37	6.18	8.95	11.1	20.0	16.1	9.18	12.8	7.07	7.73	6.25
MAX	7.3	11	12	62	52	95	47	22	77	17	38	42
MIN	2.5	3.4	4.9	4.2	5.6	7.6	10	6.9	6.3	5.3	4.2	2.7
CFSM	.35	.56	.55	.79	.98	1.77	1.43	.81	1.14	.63	.68	.55
IN.	.40	.63	.63	.91	1.02	2.04	1.59	.94	1.27	.72	.79	.62
CAL YR 1985	TOTAL 3113.1	MEAN 8.53	MAX 82	MIN 2.5	CFSM .75	IN. 10.2						
WTR YR 1986	TOTAL 3512.3	MEAN 9.62	MAX 95	MIN 2.5	CFSM .85	IN. 11.6						

STREAMS TRIBUTARY TO LAKE ONTARIO

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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 steel "H" beam control since July 9, 1984. Datum of gage is 362.76 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1978, at same site at datum 0.08 ft higher.

REMARKS.--Estimated daily discharges: Dec. 17, 19, 22, Jan. 6-8, 13-14, Feb. 8-11, 15-16, Mar. 7-8, 16-25, Apr. 20 to May 15, and June 8-19. Records 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.

AVERAGE DISCHARGE.--13 years (water years 1974-86), 44.8 ft³/s, 20.35 in/yr.

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; minimum daily, 1.9 ft³/s Feb. 6, 7, 1977; 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)
Mar. 15	0830	*571	*3.92	Sept. 23	1300	489	3.66
June 8	0330	468	3.59	Sept. 29	2030	555	3.87

Minimum daily discharge, 6.5 ft³/s Aug. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	16	69	18	22	25	37	30	21	11	30	12
2	29	16	97	18	30	24	34	31	33	85	26	16
3	9.7	17	65	19	29	25	34	30	21	25	36	16
4	9.0	41	43	19	27	30	57	28	20	13	18	19
5	12	99	34	18	44	32	55	27	23	9.5	10	21
6	9.3	43	31	17	35	36	201	27	41	7.8	9.2	17
7	8.6	27	27	17	29	32	101	26	57	9.9	31	14
8	8.3	31	25	17	27	28	79	26	210	16	85	16
9	8.5	30	28	18	25	24	53	25	53	12	32	14
10	14	120	29	20	24	54	50	25	27	9.7	17	14
11	16	81	43	19	23	138	42	24	17	12	21	15
12	9.3	79	74	23	22	75	33	24	130	55	13	13
13	37	90	54	22	21	141	24	23	45	25	8.8	13
14	17	116	50	19	21	209	22	23	20	20	6.5	11
15	107	123	37	17	20	423	58	22	14	17	18	14
16	40	90	31	15	20	290	236	37	25	16	142	46
17	20	118	26	15	21	220	181	34	50	12	44	19
18	17	64	22	30	29	170	100	32	26	13	27	19
19	57	48	20	62	64	130	70	72	20	17	17	21
20	27	41	19	321	168	120	60	96	105	38	15	58
21	18	32	19	249	262	90	52	184	44	25	16	29
22	15	37	19	154	142	80	45	69	24	21	13	19
23	15	44	20	91	106	70	42	44	41	14	17	228
24	19	32	26	52	75	60	39	33	23	15	26	78
25	30	28	26	38	52	50	36	25	18	17	17	43
26	15	42	21	33	38	41	34	22	14	26	16	97
27	13	66	20	31	31	63	32	27	16	37	26	47
28	13	51	19	26	28	52	31	24	18	40	17	32
29	13	55	19	25	---	48	30	21	10	42	18	181
30	13	53	19	23	---	46	29	23	8.5	114	14	208
31	14	---	18	23	---	43	---	20	---	74	12	---
TOTAL	646.7	1730	1050	1469	1435	2869	1897	1154	1174.5	848.9	798.5	1350
MEAN	20.9	57.7	33.9	47.4	51.2	92.5	63.2	37.2	39.1	27.4	25.8	45.0
MAX	107	123	97	321	262	423	236	184	210	114	142	228
MIN	8.3	16	18	15	20	24	22	20	8.5	7.8	6.5	11
CFSM	.70	1.93	1.13	1.58	1.71	3.10	2.11	1.25	1.31	.92	.86	1.51
IN.	.80	2.15	1.31	1.83	1.79	3.57	2.36	1.44	1.46	1.06	.99	1.68

CAL YR 1985 TOTAL 12169.3 MEAN 33.3 MAX 340 MIN 5.2 CFSM 1.12 IN. 15.1
WTR YR 1986 TOTAL 16422.6 MEAN 45.0 MAX 423 MIN 6.5 CFSM 1.50 IN. 20.4

STREAMS TRIBUTARY TO LAKE ONTARIO

04240150 SPAFFORD CREEK AT SAWMILL ROAD, NEAR SPAFFORD, NY

LOCATION.--Lat 42°49'33", Long 76°14'08", Onondaga County, Hydrologic Unit 04140201, on right bank just upstream from culvert on Sawmill Road, 0.2 mi west of intersection with Otisco Valley Road, 1.0 mi upstream from mouth, and 2.1 mi northeast of Spafford.

DRAINAGE AREA.--8.06 mi².

PERIOD OF RECORD.--November 1981 to September 1983, December 1985 to September 1986 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 800 ft, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 17 to Jan. 16, Jan. 24 to Feb. 16, Feb. 22 to Mar. 3 and Mar. 11 to Apr. 1. Records fair except those for estimated daily discharges, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 206 ft³/s May 16, 1986, gage height 5.30 ft; flood of Oct. 28, 1981 was considerably higher, discharge not determined; minimum discharge, 1.4 ft³/s July 20, 21, Sept. 4, 1983; minimum gage height, 0.76 ft July 20, 21, 1983.

EXTREMES FOR CURRENT PERIOD.--December 1985 to September 1986: Maximum discharge, 206 ft³/s May. 16 at 2100 hours, gage height, 5.30 ft; minimum, 2.9 ft³/s Sept. 7, gage height, 0.89 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			---	11	17	14	13	8.4	15	4.3	15	4.5
2			---	10	20	13	14	8.0	18	17	19	4.4
3			---	11	17	11	11	8.3	13	7.0	54	4.0
4			---	11	23	10	13	9.4	13	5.5	9.3	4.0
5			---	11	24	10	12	9.4	13	4.8	7.5	3.9
6			---	11	20	10	11	8.8	14	4.7	6.7	3.8
7			---	11	19	11	15	8.2	14	4.5	12	3.7
8			---	12	18	20	8.5	17	15	6.2	17	3.8
9			---	12	17	14	8.0	10	11	4.8	9.2	3.7
10			---	11	16	13	8.1	7.2	10	4.0	8.4	4.3
11			---	10	15	27	8.3	6.6	6.8	3.8	8.0	4.2
12			---	11	11	36	8.0	5.6	6.6	5.7	6.6	4.3
13			---	9.8	10	38	8.7	5.8	6.7	41	6.3	5.6
14			---	11	11	38	10	5.6	6.8	17	5.9	7.3
15			---	13	10	36	8.6	5.5	6.8	11	21	4.9
16			---	14	9.6	35	8.2	48	6.8	8.3	63	4.5
17			11	18	13	33	8.5	25	6.9	7.8	23	3.9
18			12	27	18	33	9.3	15	6.9	6.7	12	5.0
19			12	77	31	30	10	16	6.9	5.9	11	7.5
20			11	116	45	26	8.6	53	6.9	6.1	9.0	9.0
21			11	51	50	24	7.9	81	7.0	5.8	8.5	10
22			11	39	21	22	7.8	45	7.1	5.5	8.1	11
23			11	27	19	20	8.4	36	6.7	4.7	7.8	24
24			12	25	19	19	9.3	27	5.3	4.6	9.8	7.8
25			14	22	18	17	9.3	23	5.5	4.5	6.4	11
26			12	17	19	15	9.3	19	4.6	4.7	5.7	20
27			11	16	20	15	9.3	16	4.6	5.7	6.9	24
28			11	21	16	14	9.7	15	5.4	5.8	5.5	27
29			11	18	---	14	8.0	14	4.7	5.5	5.0	39
30			10	16	---	14	9.2	12	6.8	11	4.7	37
31			11	13	---	13	---	12	---	17	4.7	---
TOTAL			---	682.8	546.6	645	290.0	580.8	261.8	250.9	397.0	307.1
MEAN			---	22.0	19.5	20.8	9.67	18.7	8.73	8.09	12.8	10.2
MAX			---	116	50	38	15	81	18	41	63	39
MIN			---	9.8	9.6	10	7.8	5.5	4.6	3.8	4.7	3.7
CFSM			---	2.73	2.42	2.58	1.20	2.32	1.08	1.00	1.59	1.27
IN.			---	3.15	2.52	2.98	1.34	2.68	1.21	1.16	1.83	1.42

STREAMS TRIBUTARY TO LAKE ONTARIO

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04240180 NINEMILE CREEK NEAR MARIETTA, NY

LOCATION.--Lat 42°55'15", long 76°19'47", Onondaga County, Hydrologic Unit 04140201, on right bank 25 ft upstream from bridge on Schuyler Road, 0.9 mi north of Marietta, and 1.8 mi downstream from Otisco Lake. Water-quality sampling site at discharge station.

DRAINAGE AREA.--45.1 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 National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 6-18 and Feb. 6-17. Records good. Flow regulated by Otisco Lake from which water is diverted for city of Syracuse water supply. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--22 years (water years 1965-86), 39.9 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,030 ft³/s June 23, 1972, gage height, 8.65 ft; minimum, 0.80 ft³/s Sept. 13, 18, 19, 1966, gage height, 0.61 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 473 ft³/s June 7 at 2300 hours, gage height, 6.13 ft; minimum, 3.6 ft³/s many days in October, gage height, 0.76 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	6.4	14	21	25	62	63	40	25	19	46	22
2	4.7	6.6	14	20	24	62	56	32	26	19	51	22
3	3.8	8.4	8.1	21	24	62	45	27	25	13	53	21
4	3.7	9.5	7.4	21	24	62	33	25	24	11	50	21
5	4.5	16	7.0	21	27	62	34	23	25	11	45	21
6	3.9	9.3	7.2	20	13	62	47	21	25	11	41	21
7	3.7	8.0	6.5	20	13	61	37	19	66	11	39	21
8	3.6	8.1	7.0	20	12	61	38	17	98	11	50	21
9	3.9	8.3	6.8	19	12	61	38	14	30	10	44	20
10	4.6	19	7.1	19	12	72	44	9.0	27	9.9	40	12
11	4.7	11	10	19	12	90	46	8.7	27	9.5	37	12
12	4.4	10	13	19	12	68	47	8.5	41	11	33	12
13	7.0	14	9.1	19	12	84	47	8.2	53	14	32	12
14	6.2	19	8.4	23	11	97	45	8.1	32	14	28	12
15	12	15	8.5	22	11	203	47	7.8	30	13	23	12
16	6.5	15	11	21	11	215	73	12	35	18	55	20
17	5.5	15	21	20	11	214	108	8.9	41	15	43	37
18	5.2	9.7	22	20	16	201	104	8.4	48	13	41	37
19	9.7	8.3	22	37	43	198	101	11	47	12	39	37
20	7.0	7.3	21	73	65	186	97	18	57	16	36	37
21	6.1	6.4	21	36	64	167	94	26	70	12	33	37
22	5.8	7.1	21	32	43	150	82	44	68	15	29	37
23	5.5	7.0	21	28	39	137	71	43	69	23	28	45
24	6.8	7.7	21	26	37	119	66	42	67	22	30	40
25	8.0	5.3	22	25	43	86	61	42	65	22	25	39
26	7.0	9.3	29	25	62	80	56	42	53	23	24	43
27	8.4	13	22	26	62	82	52	41	26	22	24	41
28	5.6	9.0	21	29	62	81	49	41	25	22	22	40
29	6.0	8.2	21	25	---	77	44	41	25	23	22	44
30	6.4	9.0	20	25	---	71	41	34	25	43	22	44
31	6.5	---	21	24	---	66	---	25	---	40	22	---
TOTAL	180.7	305.9	471.1	776	802	3299	1766	747.6	1275	528.4	1107	840
MEAN	5.83	10.2	15.2	25.0	28.6	106	58.9	24.1	42.5	17.0	35.7	28.0
MAX	12	19	29	73	65	215	108	44	98	43	55	45
MIN	3.6	5.3	6.5	19	11	61	33	7.8	24	9.5	22	12

CAL YR 1985 TOTAL 10827.4 MEAN 29.7 MAX 175 MIN 3.2
WTR YR 1986 TOTAL 12098.7 MEAN 33.1 MAX 215 MIN 3.6

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).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 360.67 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 1-18, Oct. 22 to Nov. 6, Nov. 16, Dec. 2-7, 14-22, 24-26, Dec. 29 to Jan. 14, Jan. 21-25, 27-30, Feb. 1, 10-11, Feb. 22 to Mar. 1, Mar. 7, 8, 17, 18, 20-25, Apr. 22-24, May 2-14, June 4, 30, July 1, 4, 7-29, Aug. 4, 12, 14, and Sept. 3, 9, 12-14. Records poor. Flow regulated by Otisco Lake from which water is diverted for city of Syracuse water supply. Flow affected by backwater from Onondaga Lake whenever lake level exceeds about 362 ft NGVD. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--13 years (1972-73, 1976-86), 209 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,110 ft³/s June 23, 1972; maximum gage height, 8.75 ft Sept. 26, 1975 (backwater from Onondaga Lake); minimum daily discharge, 13 ft³/s Aug. 18, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,010 ft³/s Mar. 15; maximum gage height, 6.29 ft Mar. 15; minimum daily discharge, 17 ft³/s Sept. 8-10, 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	36	226	104	100	150	191	197	98	88	79	56
2	25	34	230	100	114	120	181	210	112	119	195	19
3	23	32	180	100	119	151	139	200	73	93	151	28
4	22	40	140	98	122	90	151	190	50	60	110	43
5	25	80	120	94	164	177	153	180	67	42	80	52
6	32	120	110	92	66	162	311	170	82	31	77	49
7	40	102	100	90	38	120	275	150	139	30	131	32
8	38	124	90	88	96	90	255	140	759	29	197	17
9	35	122	127	84	119	129	226	130	318	28	189	17
10	36	246	139	82	20	193	232	120	162	27	127	17
11	38	248	150	80	50	411	209	110	170	26	110	23
12	34	203	244	78	72	191	218	100	215	35	80	20
13	38	252	191	76	62	415	195	97	431	47	64	19
14	46	262	180	74	82	639	160	100	318	60	70	18
15	60	300	170	71	96	1010	185	102	268	50	75	17
16	70	150	160	89	66	893	510	110	187	43	262	56
17	60	290	150	87	57	450	690	148	197	37	183	52
18	50	174	140	104	79	200	493	136	211	32	124	62
19	63	136	130	191	163	325	431	189	151	30	119	67
20	80	119	130	567	399	200	426	330	252	50	96	83
21	64	90	130	200	375	160	404	355	213	45	95	69
22	52	92	130	150	310	180	360	290	157	40	95	62
23	48	104	122	130	280	250	300	241	164	37	68	207
24	44	83	120	120	240	270	280	203	153	34	83	162
25	50	64	110	120	220	250	273	185	164	32	60	95
26	48	107	120	112	200	224	255	166	143	30	54	159
27	46	189	126	100	190	232	235	150	112	40	62	144
28	44	185	115	96	180	230	230	143	114	55	44	114
29	42	170	110	90	---	228	207	136	95	80	19	250
30	40	146	110	88	---	226	191	110	70	137	36	368
31	38	---	106	84	---	209	---	77	---	271	57	---
TOTAL	1351	4300	4406	3639	4079	8575	8366	5165	5645	1758	3192	2377
MEAN	43.6	143	142	117	146	277	279	167	188	56.7	103	79.2
MAX	80	300	244	567	399	1010	690	355	759	271	262	368
MIN	20	32	90	71	20	90	139	77	50	26	19	17

CAL YR 1985 TOTAL 49445 MEAN 135 MAX 1220 MIN 13
WTR YR 1986 TOTAL 52853 MEAN 145 MAX 1010 MIN 17

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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.

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.

REMARKS.--Lake elevation regulated by operation of Erie (Barge) Canal. Area of water surface, 4.60 mi².

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 365.69 ft Mar. 19; minimum, 361.87 ft May 5.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	362.87	362.90	363.77	362.89	363.50	363.40	363.58	362.97	362.87	363.14	363.70	362.65
2	362.91	362.90	363.90	363.01	363.38	363.16	363.36	362.94	362.90	363.11	363.70	362.95
3	362.87	362.80	363.99	363.03	363.33	363.06	363.32	362.62	363.06	363.02	363.70	363.04
4	362.85	362.80	363.93	363.11	363.50	363.47	363.33	362.15	363.08	363.17	363.70	362.84
5	362.88	363.00	363.93	363.12	363.22	363.35	363.21	362.03	363.11	362.95	363.30	362.63
6	362.79	363.30	363.85	362.95	363.22	363.48	363.45	362.31	363.07	362.87	363.10	362.58
7	362.67	363.10	363.64	362.61	363.29	363.52	363.62	362.35	362.90	363.09	363.10	362.72
8	362.66	362.98	363.47	362.98	363.37	363.23	363.70	362.40	363.30	363.05	363.30	362.84
9	362.89	362.92	363.40	362.97	363.39	363.01	363.69	362.44	363.70	363.00	363.30	363.01
10	362.77	363.06	363.55	362.84	363.39	362.83	363.61	362.49	363.30	362.99	363.20	362.77
11	362.71	363.26	363.66	362.59	363.32	363.14	363.50	362.53	363.10	363.00	363.20	362.59
12	362.78	363.32	363.59	362.46	363.22	363.63	363.42	362.58	363.10	363.00	363.50	362.84
13	362.85	363.35	363.59	362.54	363.10	363.94	363.33	362.62	363.30	363.01	363.20	362.98
14	362.75	363.33	363.61	362.59	363.17	364.29	363.16	362.66	363.50	363.03	363.10	362.82
15	362.74	363.53	363.58	362.59	363.27	364.85	362.93	362.70	363.50	362.97	363.00	362.74
16	362.77	363.65	363.54	362.51	363.23	365.49	363.29	362.84	363.70	363.17	363.00	362.78
17	362.93	363.68	363.49	362.59	363.09	365.64	363.95	362.98	363.80	363.28	363.10	362.89
18	362.95	363.46	363.38	362.65	362.94	365.63	364.24	363.01	363.34	363.31	363.10	362.89
19	362.80	363.28	363.24	362.73	362.71	365.61	364.48	363.07	363.31	363.16	363.03	362.78
20	362.75	363.11	363.23	363.53	363.08	365.66	364.60	363.28	363.48	363.13	362.98	362.85
21	362.64	363.08	363.22	364.70	363.88	365.47	364.61	363.32	363.63	363.18	362.89	362.84
22	362.72	362.97	363.15	364.66	364.42	365.25	364.40	363.55	363.80	363.32	362.80	362.88
23	362.97	362.99	363.10	364.67	364.65	364.97	364.17	363.65	363.87	363.26	362.80	363.07
24	362.70	363.25	363.23	364.66	364.67	364.71	364.11	363.55	363.77	363.07	362.80	363.16
25	363.10	363.33	363.37	364.45	364.39	364.30	364.00	363.35	363.47	363.06	363.08	363.16
26	363.00	363.37	363.28	364.08	364.05	363.79	363.82	363.11	363.33	363.37	362.95	363.20
27	362.90	363.45	362.91	363.64	363.69	363.49	363.61	363.04	363.09	363.32	362.77	363.12
28	362.80	363.51	362.81	363.41	363.59	363.48	363.66	363.06	362.97	363.2		

STREAMS TRIBUTARY TO LAKE ONTARIO

04242500 EAST BRANCH FISH CREEK AT TABERG, NY

LOCATION.--Lat 43°18'06", long 75°37'09", Oneida County, Hydrologic Unit 04140202, on left bank at downstream side of bridge on Main Street at Taberg, just downstream from Furnace Creek, 300 ft upstream from bridge on State Highway 69, and 2.8 mi upstream from confluence of East and West Branches near Blossvale.

DRAINAGE AREA.--188 mi².

PERIOD OF RECORD.--April 1923 to current year.

REVISED RECORDS.--WSP 604: 1924. WSP 759: Drainage area. WSP 1034: 1944. WSP 1054: 1923-45. WDR NY-83-3: 1980 (M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 490.12 ft above National Geodetic Vertical Datum of 1929. Prior to May 20, 1969, at datum 1.00 ft higher.

REMARKS.--Estimated daily discharges: Nov. 12-13, Dec. 13 to Jan. 18 and Jan. 23 to Mar. 12. Records fair. Diversion upstream from station for municipal water supply by cities of Rome and Oneida (1986 average, 23 ft³/s). Diurnal fluctuation at low flow caused by power-generating operations upstream. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--63 years (water years 1924-86), 542 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,600 ft³/s Dec. 29, 1984, gage height, 13.81 ft, from slope-area indirect measurement of peak flow and result of release of upstream debris jam (constructed maximum discharge, about 16,000 ft³/s on same date at earlier time when adjusted for storage effects); minimum discharge, 4.9 ft³/s Aug. 15, 16, 1949.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,900 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Mar. 31	0215	*5,450	*6.73	No other peak greater than base discharge.			

Minimum discharge, 51 ft³/s Sept. 9, gage height, 0.93 ft (result of regulation).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	332	272	463	260	290	200	3310	281	217	218	959	254
2	318	256	1580	260	290	210	3710	315	285	315	626	228
3	297	243	1220	260	280	210	3120	291	248	464	655	206
4	242	238	746	240	280	210	2610	263	202	321	396	186
5	280	355	614	220	270	200	2320	264	185	271	280	228
6	557	755	536	190	260	200	2450	271	224	287	224	379
7	805	645	430	180	250	190	2210	270	232	233	290	336
8	662	754	445	180	250	180	2190	242	575	186	775	307
9	452	717	440	180	240	180	2340	228	651	157	726	108
10	368	1880	404	180	230	210	1660	208	357	136	826	85
11	471	2760	390	180	220	290	1230	184	312	118	799	143
12	405	1550	406	190	210	380	989	170	768	195	612	424
13	798	1250	360	190	210	461	856	156	1190	848	387	603
14	1290	1460	320	200	200	773	779	145	885	1550	284	429
15	1390	2450	300	200	200	1320	875	135	530	780	407	301
16	1360	1220	290	210	200	1570	1310	261	411	435	2000	803
17	846	1170	280	220	200	1330	1700	721	1020	282	1000	721
18	588	1120	280	230	210	1090	1460	519	684	227	598	465
19	1130	892	270	269	240	1740	1130	712	417	212	412	367
20	1250	759	260	974	350	2610	950	1290	1150	700	308	670
21	748	660	260	1570	450	1870	988	2050	763	620	259	890
22	560	571	250	1290	430	1420	1070	1470	447	394	236	589
23	457	558	250	920	390	1050	793	1240	688	268	214	1500
24	417	543	240	660	310	866	597	864	622	201	645	1870
25	832	490	240	520	250	785	509	621	515	172	550	948
26	733	452	240	450	220	1300	455	471	366	161	364	703
27	529	474	240	380	210	2600	414	368	297	181	835	573
28	419	499	240	350	210	2370	375	300	420	202	832	479
29	348	461	250	330	---	2210	330	251	398	205	499	753
30	314	425	250	320	---	3660	305	221	281	256	363	1330
31	291	---	260	300	---	4160	---	203	---	1420	303	---
TOTAL	19489	25879	12754	12103	7350	35845	43035	14985	15340	12015	17664	16878
MEAN	629	863	411	390	262	1156	1434	483	511	388	570	563
MAX	1390	2760	1580	1570	450	4160	3710	2050	1190	1550	2000	1870
MIN	242	238	240	180	200	180	305	135	185	118	214	85

CAL YR 1985 TOTAL 185914 MEAN 509 MAX 4150 MIN 27
WTR YR 1986 TOTAL 233337 MEAN 639 MAX 4160 MIN 85

STREAMS TRIBUTARY TO LAKE ONTARIO

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04243500 ONEIDA CREEK AT ONEIDA, NY

LOCATION.--Lat 43°05'51", long 75°38'22", Oneida County, Hydrologic Unit 04140202, on right bank 70 ft upstream from bridge on Sconondoa Street at Oneida, and 500 ft downstream from Sconondoa Creek.

DRAINAGE AREA.--113 mi².

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

REVISED RECORDS.--WSP 2112: Drainage area. WDR NY-78-1: 1951, 1956, 1958, 1961, 1963, 1964, 1972, 1976 (P).
WDR NY-83-3: 1950 (M), 1977 (M), 1979 (M).

GAGE.--Water-stage recorder. Datum of gage is 409.33 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 15 to Jan. 20, Jan. 24 to Feb. 2, Feb. 6-16, 22-23, Feb. 26 to Mar. 2 and Mar. 6-9. Records good except those for estimated daily discharges, which are poor. Occasional regulation by small mills upstream from station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--37 years, 166 ft³/s, 19.95 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,110 ft³/s Oct. 9, 1976, gage height, 15.01 ft; minimum, 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)
Mar. 15	1230	*7,900	*14.45	No other peak greater than base discharge.			
Minimum discharge, 27 ft ³ /s Sept. 15, gage height, 1.65 ft.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	54	500	110	150	150	173	96	69	47	99	34
2	82	52	857	100	150	140	163	97	83	262	149	33
3	64	51	382	86	162	138	151	90	71	138	94	33
4	57	51	245	90	135	139	159	84	63	90	71	32
5	67	102	203	90	191	146	161	82	56	68	56	33
6	64	103	186	90	170	140	539	77	58	57	48	36
7	51	82	164	90	160	110	487	76	64	51	65	33
8	47	80	155	94	150	100	367	70	106	47	466	32
9	43	76	162	96	130	140	299	68	75	44	160	30
10	39	206	160	98	120	222	358	64	60	40	123	30
11	56	182	206	100	120	1310	321	61	64	38	91	29
12	47	132	433	100	120	683	263	59	160	57	68	28
13	66	220	251	100	120	893	222	57	220	76	56	30
14	72	352	214	110	110	1360	197	54	144	88	50	28
15	169	596	160	120	110	4680	188	52	96	64	54	28
16	144	285	150	130	120	1460	584	62	104	52	440	39
17	94	785	140	140	127	872	514	112	248	47	116	34
18	76	348	140	150	156	705	299	87	100	45	83	31
19	141	229	140	620	301	943	231	173	79	44	68	31
20	144	182	140	1200	959	799	202	322	249	64	56	92
21	98	150	140	781	1040	462	198	847	124	59	50	70
22	81	139	130	447	700	356	175	417	88	44	46	47
23	71	180	130	337	440	322	152	252	109	40	46	563
24	68	147	120	210	332	290	143	183	89	37	72	297
25	96	123	120	190	255	242	130	147	95	35	49	104
26	77	140	120	170	200	236	122	118	73	92	43	93
27	68	389	120	160	180	317	118	100	66	314	48	84
28	63	261	120	140	160	319	110	90	67	102	45	69
29	58	218	110	130	---	250	103	80	56	109	52	286
30	57	213	110	130	---	216	101	73	50	137	42	402
31	55	---	110	140	---	189	---	70	---	95	37	---
TOTAL	2381	6128	6318	6549	7068	18329	7230	4220	2986	2483	2943	2711
MEAN	76.8	204	204	211	252	591	241	136	99.5	80.1	94.9	90.4
MAX	169	785	857	1200	1040	4680	584	847	249	314	466	563
MIN	39	51	110	86	110	100	101	52	50	35	37	28
CFSM	.68	1.81	1.80	1.87	2.23	5.23	2.13	1.20	.88	.71	.84	.80
IN.	.78	2.02	2.08	2.16	2.33	6.03	2.38	1.39	.98	.82	.97	.89

CAL YR 1985 TOTAL 48758 MEAN 134 MAX 1500 MIN 18 CFSM 1.18 IN. 16.1
WTR YR 1986 TOTAL 69346 MEAN 190 MAX 4680 MIN 28 CFSM 1.68 IN. 22.8

STREAMS TRIBUTARY TO LAKE ONTARIO

04245000 LIMESTONE CREEK AT FAYETTEVILLE, N.Y.

LOCATION.--Lat 43°01'48", long 76°00'49", Onondaga County, Hydrologic Unit 04140202, on left bank 100 ft downstream from bridge on Genesee Street at Fayetteville, and 8 mi upstream from mouth.

DRAINAGE AREA.--85.5 mi², not including 14.0 mi² of Middle Branch Tioughnioga Creek basin, flow from which may be completely diverted into Limestone Creek basin through DeRuyter Reservoir, and 0.8 mi² in closed basin.

PERIOD OF RECORD.--November 1939 to September 1986 (discontinued as a continuous-record station; converted to a crest-stage partial-record station).

REVISED RECORDS.--WSP 954: 1941. WSP 1912: 1958 (M).

GAGE.--Water-stage recorder. Datum of gage is 427.73 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 13-31, Jan. 4-13, Jan. 26 to Feb. 17, and Feb. 26 to Mar. 8. Records good except those for estimated daily discharges, which are fair. Flow slightly regulated by DeRuyter Reservoir. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--46 years (water years 1941-86), 141 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,490 ft³/s Oct. 28, 1981, gage height, 10.14 ft, from rating curve extended above 4,200 ft³/s; m³/s; minimum, 1.4 ft³/s Aug. 19, 1969.

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)
Mar. 15	1800	*2,430	*5.90	No other peak greater than base discharge.			

Minimum discharge, 17 ft³/s July 25, gage height, 1.41 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	49	264	88	120	150	142	96	72	43	93	42
2	59	48	363	84	120	140	139	99	95	147	188	41
3	56	47	227	87	120	140	132	91	76	107	144	39
4	46	54	182	82	120	140	134	88	65	69	89	37
5	42	86	168	78	120	140	145	83	63	55	69	39
6	42	102	163	74	110	130	337	79	80	48	60	38
7	38	81	149	72	110	130	294	76	77	44	78	37
8	35	83	145	72	110	120	245	72	111	41	215	36
9	35	79	144	72	110	130	211	70	76	38	114	34
10	38	155	143	72	110	223	260	66	59	36	89	32
11	40	157	180	74	100	675	249	63	57	34	80	29
12	40	124	271	80	100	392	230	63	109	45	70	29
13	45	159	180	88	100	444	208	59	176	75	62	30
14	56	260	160	121	100	748	184	56	105	110	57	29
15	68	414	130	149	100	2010	178	55	76	62	55	30
16	95	251	120	140	100	948	456	68	73	40	246	39
17	66	461	120	101	100	495	374	157	99	35	132	36
18	56	249	110	101	131	375	238	108	70	33	87	32
19	79	190	110	268	292	443	196	212	63	27	101	30
20	104	168	100	808	746	450	178	181	174	27	76	38
21	74	148	100	620	778	271	173	620	97	32	66	36
22	65	144	98	345	509	244	161	376	72	26	63	33
23	60	174	96	285	336	242	145	213	85	22	59	146
24	59	140	96	184	263	223	132	168	73	20	96	128
25	72	122	94	171	229	196	123	137	77	19	69	71
26	66	142	90	160	180	181	115	114	61	27	57	88
27	59	270	88	150	170	237	117	100	54	36	58	112
28	56	198	84	140	160	246	108	90	55	27	56	91
29	53	173	82	130	---	191	100	81	49	25	50	124
30	54	170	82	130	---	170	100	74	46	124	47	191
31	52	---	84	130	---	154	---	69	---	165	46	---
TOTAL	1757	4898	4423	5156	5644	10778	5804	3884	2445	1639	2772	1717
MEAN	56.7	163	143	166	202	348	193	125	81.5	52.9	89.4	57.2
MAX	104	461	363	808	778	2010	456	620	176	165	246	191
MIN	35	47	82	72	100	120	100	55	46	19	46	29
CFSM	.66	1.91	1.67	1.95	2.36	4.07	2.26	1.47	.95	.62	1.05	.67
IN.	.76	2.13	1.92	2.24	2.46	4.69	2.53	1.69	1.06	.71	1.21	.75

CAL YR 1985 TOTAL 38643 MEAN 106 MAX 1150 MIN 18 CFSM 1.24 IN. 16.8
WTR YR 1986 TOTAL 50917 MEAN 139 MAX 2010 MIN 19 CFSM 1.63 IN. 22.2

STREAMS TRIBUTARY TO LAKE ONTARIO

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04245200 BUTTERNUT CREEK NEAR JAMESVILLE, NY

LOCATION.--Lat 42°56'02", long 76°03'44", Onondaga County, Hydrologic Unit 04140202, on left bank 15 ft downstream from bridge on Walberger Road, 125 ft downstream from tributary from Stebbins Gulf, 2.2 mi upstream from Jamesville Reservoir, and 4 mi south of Jamesville.

DRAINAGE AREA.--32.2 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 National Geodetic Vertical Datum of 1929.

RECORDS.--Estimated daily discharges: Dec. 16 to Jan. 1, Jan. 6-11, Jan. 25 to Feb. 18, and Feb. 26 to Mar. 7. Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--28 years, 49.8 ft³/s, 21.00 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,820 ft³/s July 3, 1974, gage height, 7.84 ft; maximum gage height 8.46 ft Oct. 28, 1981; 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)
Mar. 15	0800	*1,140	*8.11	No other peak greater than base discharge.			

Minimum discharge, 8.8 ft³/s July 25-26, gage height, 5.14 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	15	96	29	44	54	52	39	32	13	40	13
2	21	13	138	29	43	52	50	39	41	67	55	13
3	15	12	89	30	41	48	47	35	28	29	107	12
4	13	16	73	30	40	47	49	32	22	19	38	11
5	15	32	66	28	40	44	50	31	24	16	24	12
6	13	29	63	25	39	43	87	29	29	14	19	12
7	11	23	57	25	38	41	73	28	29	13	25	11
8	11	24	55	25	37	57	68	26	37	13	26	10
9	10	21	54	24	37	65	63	25	24	12	27	10
10	11	59	52	24	35	95	83	22	19	11	27	10
11	13	49	68	24	34	236	75	22	20	9.8	24	12
12	12	41	93	24	34	115	79	21	46	17	19	12
13	16	57	70	25	34	153	75	19	58	41	17	12
14	16	95	63	29	34	274	67	17	31	39	16	11
15	28	128	59	31	34	759	69	18	23	19	19	11
16	24	94	52	41	33	315	164	46	24	14	101	17
17	18	132	46	39	33	177	148	93	31	12	45	14
18	15	83	42	46	41	140	99	55	21	12	29	12
19	26	66	39	107	95	172	83	56	19	12	24	12
20	26	58	37	285	204	152	76	77	46	23	21	13
21	18	51	36	177	242	106	72	245	26	17	19	12
22	17	52	35	119	153	95	65	118	19	13	19	11
23	15	55	34	92	114	89	59	76	21	11	22	76
24	15	46	34	77	93	81	54	59	20	10	36	38
25	18	40	33	68	81	72	50	49	18	9.3	21	20
26	16	54	32	58	66	68	48	42	16	10	17	32
27	15	92	31	54	60	88	46	37	15	11	19	25
28	14	69	30	52	56	78	42	34	16	10	17	19
29	14	61	29	49	---	65	41	30	14	15	16	34
30	15	61	29	47	---	60	40	27	14	24	15	46
31	13	---	29	45	---	55	---	26	---	34	14	---
TOTAL	496	1628	1664	1758	1835	3896	2074	1473	783	570.1	918	553
MEAN	16.0	54.3	53.7	56.7	65.5	126	69.1	47.5	26.1	18.4	29.6	18.4
MAX	28	132	138	285	242	759	164	245	58	67	107	76
MIN	10	12	29	24	33	41	40	17	14	9.3	14	10
CFSM	.50	1.69	1.67	1.76	2.04	3.90	2.15	1.48	.81	.57	.92	.57
IN.	.57	1.88	1.92	2.03	2.12	4.50	2.40	1.70	.90	.66	1.06	.64

CAL YR 1985 TOTAL 14456.9 MEAN 39.6 MAX 447 MIN 4.1 CFSM 1.23 IN. 16.7
WTR YR 1986 TOTAL 17648.1 MEAN 48.4 MAX 759 MIN 9.3 CFSM 1.50 IN. 20.4

STREAMS TRIBUTARY TO LAKE ONTARIO

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).

GAGE.--Water-stage recorder, crest-stage gage, and artificial control. Datum of gage is 511.50 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 1-9, Dec. 14 to Jan. 18, Jan. 23 to Feb. 19 and Mar. 7-8. Records poor. Flow includes storm sewer inflow, some originating outside the basin. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--9 years (water years 1972, 1979-86), 1.89 ft³/s, 8.85 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 595 ft³/s Oct. 21, 1976, gage height, 5.31 ft; maximum gage height, 6.51 ft July 3, 1974 (backwater from downstream channel conditions; Type IV flow); minimum discharge, 0.02 ft³/s Sept. 11, 1972.

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)
June 7	2200	*477	*4.79	Sept. 29	1630	146	3.20
Aug. 15	2115	207	3.59				

Minimum daily discharge, 0.25 ft³/s Aug. 4-6, 12-14, minimum gage height, 1.08 ft, Aug. 3-7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.45	.60	2.9	.70	1.5	2.1	2.6	2.3	1.6	.82	1.1	.60
2	.45	.60	3.3	.70	1.7	2.1	2.6	2.1	1.9	8.4	.58	.60
3	.40	.60	1.5	.70	1.7	2.2	2.4	2.0	1.5	.67	.26	.60
4	.40	1.8	1.3	.70	1.7	2.3	3.2	1.9	1.5	.60	.25	.60
5	.35	3.9	1.3	.70	2.6	2.3	3.2	1.8	1.8	.60	.25	.60
6	.35	1.1	1.3	.70	1.6	2.4	5.1	1.5	1.6	.60	.25	.57
7	.30	1.0	1.1	.50	1.4	2.1	2.9	1.5	21	.85	3.6	.52
8	.30	1.2	1.1	.40	1.3	1.8	2.7	1.5	19	.56	2.6	.52
9	.29	1.5	1.3	.40	1.2	2.0	2.9	1.5	1.1	.60	.52	.52
10	1.1	5.7	1.3	.50	1.2	6.8	3.7	1.5	1.2	.63	.48	.52
11	.72	1.9	2.4	.60	1.2	4.5	3.2	1.5	1.9	.71	.41	.52
12	.46	1.9	3.5	.80	1.1	2.3	2.9	1.5	7.0	3.1	.25	.52
13	1.7	4.0	1.9	.80	1.0	7.8	2.8	1.5	4.8	.68	.25	.60
14	.64	5.1	1.7	1.0	1.0	5.0	2.7	1.5	1.3	.55	.25	.60
15	7.1	2.1	1.0	1.1	1.0	5.3	5.2	1.5	1.0	.49	7.4	1.2
16	.87	3.7	1.0	1.1	1.0	4.0	11	4.1	3.1	.45	5.9	1.9
17	.54	2.1	.80	1.2	1.1	3.3	6.2	2.0	2.1	.45	.70	.65
18	.52	.93	.80	1.7	1.4	2.9	3.5	2.0	1.6	.39	.75	.60
19	3.1	.89	.70	3.6	6.0	2.9	3.3	3.1	2.5	.51	.74	.55
20	.81	.89	.60	9.2	7.5	2.8	3.3	7.5	3.5	1.1	.54	3.1
21	.60	.89	.60	3.9	11	2.6	2.9	8.6	.85	.47	.52	.70
22	.46	1.7	.60	2.7	3.3	2.6	2.5	1.6	.91	.45	.52	.57
23	.45	1.1	.60	1.9	2.7	2.6	2.4	2.0	3.0	.45	1.1	13
24	2.0	.88	.90	1.7	2.4	2.5	2.4	1.8	1.8	.45	.93	.92
25	1.8	.89	.70	1.4	2.3	2.3	2.4	1.5	.92	.45	.49	.62
26	.61	3.1	.50	1.3	2.3	2.3	2.4	1.2	.78	1.7	.45	6.7
27	.52	2.6	.50	1.1	2.1	2.3	2.4	1.1	1.0	.53	.96	1.1
28	.52	1.3	.60	1.0	2.1	2.3	2.4	1.1	.95	.93	.79	.72
29	.52	1.4	.60	1.0	---	2.3	2.4	1.1	.89	1.2	.71	17
30	.60	1.4	.70	1.0	---	2.3	2.3	1.1	.89	3.2	.60	2.2
31	.60	---	.70	1.3	---	2.4	---	1.1	---	.74	.60	---
TOTAL	29.53	56.77	37.80	45.40	66.4	93.4	99.9	66.0	92.99	33.33	34.75	59.42
MEAN	.95	1.89	1.22	1.46	2.37	3.01	3.33	2.13	3.10	1.08	1.12	1.98
MAX	7.1	5.7	3.5	9.2	11	7.8	11	8.6	21	8.4	7.4	17
MIN	.29	.60	.50	.40	1.0	1.8	2.3	1.1	.78	.39	.25	.52
CFSM	.33	.65	.42	.51	.82	1.04	1.15	.73	1.07	.37	.39	.68
IN.	.38	.73	.48	.58	.85	1.20	1.28	.85	1.19	.43	.45	.76

CAL YR 1985 TOTAL 545.83 MEAN 1.50 MAX 36 MIN .25 CFSM .52 IN. 7.00
WTR YR 1986 TOTAL 715.68 MEAN 1.96 MAX 21 MIN .25 CFSM .68 IN. 9.18

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.

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."

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (1.01 ft Barge Canal datum). November 1951 to September 1975, at datum 360.99 ft higher.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 372.83 ft June 26, 1972; minimum daily, 366.12 ft Feb. 11, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 370.81 ft Apr. 6; minimum, 367.04 ft Jan. 17, 19.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	370.07	369.50	369.32	367.69	367.87	367.93	370.56	369.27	369.88	369.70	369.72	369.81
2	369.97	369.55	368.83	367.65	367.85	367.90	370.54	369.02	369.87	369.79	369.67	369.80
3	369.94	369.65	369.04	367.60	367.81	367.87	370.62	369.23	369.91	369.72	369.57	369.84
4	369.89	369.76	369.20	367.58	367.80	367.83	370.59	369.38	369.88	369.80	369.51	369.91
5	369.69	369.39	369.25	367.53	367.77	367.79	370.60	369.45	369.86	369.79	369.54	369.78
6	369.51	369.34	369.11	367.49	367.74	367.77	370.67	369.48	369.89	369.81	369.56	369.76
7	369.51	369.37	369.03	367.47	367.73	367.74	370.56	369.43	369.94	369.79	369.64	369.77
8	369.60	369.33	368.93	367.43	367.70	367.74	370.47	369.53	369.78	369.77	369.81	369.75
9	369.55	369.45	368.90	367.39	367.66	367.73	370.43	369.62	369.82	369.74	369.88	369.76
10	369.50	369.52	368.87	367.34	367.63	367.72	370.40	369.62	369.87	369.70	370.04	369.76
11	369.54	369.72	368.78	367.32	367.59	367.71	370.40	369.64	369.84	369.72	369.96	369.70
12	369.60	369.96	368.74	367.29	367.55	367.82	370.28	369.68	370.23	369.81	369.96	369.59
13	369.58	369.81	368.75	367.24	367.54	367.94	370.19	369.74	370.03	369.78	369.91	369.62
14	369.57	369.84	368.60	367.21	367.52	368.11	370.11	369.76	370.07	369.76	369.88	369.65
15	369.64	369.88	368.60	367.18	367.48	368.50	370.06	369.78	370.11	369.90	369.89	369.64
16	369.73	370.29	368.55	367.14	367.45	369.03	370.12	369.80	370.00	369.97	370.01	369.61
17	369.81	369.93	368.46	367.11	367.44	369.37	370.12	369.82	369.93	369.94	370.19	369.67
18	369.84	369.99	368.38	367.08	367.40	369.58	370.14	369.93	369.94	369.87	370.19	369.72
19	369.82	369.95	368.38	367.07	367.39	369.77	370.14	369.95	369.95	369.84	370.06	369.67
20	369.89	369.80	368.32	367.21	367.44	370.07	370.05	370.10	369.92	369.78	369.98	369.78
21	369.97	369.69	368.25	367.51	367.56	370.28	369.93	370.16	369.87	369.73	369.79	369.80
22	369.94	369.79	368.21	367.73	367.74	370.35	369.79	370.26	369.79	369.74	369.67	369.92
23	369.87	369.54	368.16	367.87	367.87	370.34	369.68	370.27	369.60	369.74	369.70	369.95
24	369.80	369.38	368.11	367.96	367.96	370.27	369.60	370.20	369.52	369.75	369.45	370.02
25	369.57	369.34	368.06	368.00	367.99	370.21	369.50	370.12	369.53	369.71	369.60	370.00
26	369.62	369.49	368.02	367.99	368.00	370.13	369.40	370.04	369.65	369.70	369.69	369.94
27	369.52	369.23	367.96	368.00	367.98	370.14	369.31	369.90	369.67	369.76	369.61	369.84
28	369.45	369.33	367.90	367.99	367.96	370.26	369.27	369.78	369.64	369.7		

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 National Geodetic Vertical Datum of 1929 (362.00 ft Barge Canal datum). Prior to June 5, 1907, headwater readings, and June 5, 1907 to Dec. 31, 1909, nonrecording gage readings at former Oak Orchard State Dam 5.5 mi downstream at different datum. Jan. 1, 1910 to Dec. 31, 1912, nonrecording gage at site 2.5 mi downstream from present site at different datum. From Oct. 9, 1947 to Nov. 7, 1951, water-stage recorder at site 2.5 mi downstream at present datum.

Auxiliary gage: Water-stage recorder at site 2.5 mi downstream, 350 ft upstream from navigation dam at present datum (base gage site 1947-51).

Supplementary gage: Water-stage recorder at site 2.6 mi downstream, 180 ft downstream from navigation dam at present datum.

REMARKS.--Estimated daily discharges: Oct. 7-8 and Sept. 27-30. Records fair. Jan. 1, 1910 to Dec. 31, 1912: Flow over dam computed on basis of coefficient determined for model of dam of same general type; flow through gate and diversion through lock culverts estimated by theoretical calculations.

1947 to current year: Record represents total discharge at Caughdeny, including flow in Oneida and Erie (Barge) Canals. Considerable seasonal regulation by operation of gates in Oneida and Erie (Barge) Canals with a large amount of natural storage in Oneida Lake. Occasional large diurnal fluctuations caused by seiche in Oneida Lake. Water may be diverted into or received from Mohawk River basin through summit level of Erie (Barge) Canal between New London and Utica. Nearly all of flow from 14 mi² of Tioughnioga River basin may be diverted into De Ruyter Reservoir, in Oswego River basin. Several measurements of water temperature were made during the year.

COOPERATION.--Records of gate openings, lockages, and elevations of water surface in Erie (Barge) Canal above and below Lock 23, furnished by New York State Department of Transportation.

AVERAGE DISCHARGE.--49 years (water years 1903-12, 1948-86), 2,554 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 13,800 ft³/s Mar. 25-27, 1903; minimum daily, 52 ft³/s Oct. 24, 1910.

1947 to current year: Maximum daily discharge, 10,100 ft³/s June 25, 1972; minimum daily, 62 ft³/s July 29, 1950.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 7,320 ft³/s Apr. 6; minimum daily, 181 ft³/s May 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3370	796	4680	2420	2780	2750	7090	618	576	373	4900	589
2	3280	789	3910	2380	2700	2700	7030	364	1420	364	4850	626
3	3280	793	4220	2300	2660	2660	7190	181	1960	909	4740	644
4	3250	1560	4480	2280	2650	2620	7150	190	1950	1280	3170	623
5	3150	2230	4570	2210	2600	2580	7170	183	1940	1270	1220	578
6	3100	2220	4350	2150	2580	2550	7320	197	1950	1260	594	586
7	1860	2210	4220	2140	2560	2470	7090	255	1820	1250	617	592
8	990	2200	4060	2080	2490	2500	6900	278	1820	1270	661	772
9	992	2220	4020	2040	2480	2500	6820	236	1800	1270	694	908
10	984	2260	4040	1980	2420	2500	6760	235	1770	1270	720	873
11	1070	2340	3950	1970	2370	2460	6800	232	1740	1280	2160	865
12	1260	2800	3880	1920	2300	2610	6560	206	1870	1290	3220	882
13	1260	4500	3920	1870	2240	2790	6400	195	2460	1310	3210	917
14	1250	5470	3670	1840	2210	3030	6180	190	3040	1290	1600	898
15	1250	5530	3670	1800	2190	3540	6030	447	3010	1300	901	874
16	1780	6060	3580	1760	2130	4320	6140	608	3230	1650	1140	876
17	2400	5600	3450	1730	2120	4880	6140	610	3370	2500	1260	896
18	2380	5690	3320	1710	2090	5260	6170	689	3340	2610	3620	894
19	2380	5680	3330	1700	2050	5580	6160	1480	3310	2360	5240	876
20	2420	5420	3250	1710	2070	6160	6000	3550	4620	2360	5140	902
21	2420	5240	3160	1700	2180	6550	5770	4740	5550	2350	4980	902
22	2900	5430	3100	1830	2420	6700	5500	5600	5420	1640	2620	895
23	3280	5010	3040	2060	2640	6660	5280	6130	5100	908	1180	3200
24	3220	4750	2980	2370	2760	6510	5160	6060	3660	908	1150	5250
25	3170	4690	2910	2560	2830	6430	4990	5970	1700	925	868	5620
26	3160	4940	2860	2750	2860	6280	4810	5850	1250	986	612	5620
27	3140	4520	2780	2870	2820	6300	4650	5610	1240	990	577	5130
28	3100	4690	2690	2870	2790	6520	3890	3280	1250	1530	593	5030
29	1870	4510	2620	2840	---	6620	1030	578	1240	1880	612	4820
30	803	4720	2550	2860	---	6660	588	526	720	1920	611	4620
31	807	---	2490	2820	---	6890	---	563	---	3570	592	---
TOTAL	69576	114868	109750	67520	68990	138580	174768	55851	74126	46073	64052	56758
MEAN	2244	3829	3540	2178	2464	4470	5826	1802	2471	1486	2066	1892
MAX	3370	6060	4680	2870	2860	6890	7320	6130	5550	3570	5240	5620
MIN	803	789	2490	1700	2050	2460	588	181	576	364	577	578

CAL YR 1985 TOTAL 871417 MEAN 2387 MAX 7720 MIN 164
WTR YR 1986 TOTAL 1040910 MEAN 2852 MAX 7320 MIN 181

CAL YR 1985	TOTAL 2010080	MEAN 5507	MAX 18500	MIN 261
WTR YR 1986	TOTAL 2718600	MEAN 7448	MAX 20500	MIN 542

STREAMS TRIBUTARY TO LAKE ONTARIO

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

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957, 1964-66, 1971 to current year.

CHEMICAL DATA: 1957 (a), 1958-60 (a) unpublished, 1964 (b), 1965 (c), 1966 (a), 1971-72 (a), 1974 (a), 1975 (c), 1976-81 (d), 1982 (c), 1983-86 (b).

MINOR ELEMENTS DATA: 1971-1973 (a), 1975 (b), 1976 (a), 1977-86 (b).

ORGANIC DATA: OC--1975 (b), 1978-81 (d).

NUTRIENT DATA: 1971 (a), 1974 (a), 1975 (c), 1976-81 (d), 1982 (c), 1983-86 (b).

BIOLOGICAL DATA:

Bacteria--1974 (a), 1975 (c), 1976-81 (d), 1982 (c), 1983-86 (b).

Phytoplankton--1974 (a), 1975 (c), 1976 (d), 1977-81 (c).

Periphyton--1975-80 (a).

SEDIMENT DATA: 1974 (a), 1975 (c), 1976 (d), 1977 (b), 1978-79 (c), 1980-81 (d), 1982 (c), 1983-86 (b).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: September 1975 to September 1981.

WATER TEMPERATURES: July 1975 to September 1981.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE (water years 1975-78, 1981): Maximum recorded, 2,290 microsiemens Oct. 25, 1980; minimum recorded, 430 microsiemens Apr. 19, 1976.

WATER TEMPERATURES (water years 1975-78, 1981): Minimum, 0.0°C on many days during winter periods.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 to SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
OCT 28...	0900	4050	1130	8.00	12.0	3.0	767	9.9	92	K12
MAR 18...	0845	18900	620	7.68	2.0	12	765	11.9	86	260
JUN 16...	0900	9930	632	7.75	20.5	6.0	752	8.1	91	370
AUG 18...	0900	5680	651	7.54	24.5	5.2	757	6.7	81	710

DATE	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT 28...	66	300	210	100	12	89	3.0	90	72	250
MAR 18...	510	210	110	63	12	43	2.4	93	54	100
JUN 16...	130	200	100	62	12	47	2.3	104	63	91
AUG 18...	78	220	140	69	12	47	2.5	83	59	100

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

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 to SEPTEMBER 1986

DATE	FLUORIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
OCT 28...	0.1	0.7	812	580	0.32	0.13	0.6	0.03	0.03	<0.01
MAR 18...	0.1	2.9	364	340	1.20	0.22	0.6	0.07	0.03	0.04
JUN 16...	0.2	2.0	375	340	--	--	--	--	--	--
AUG 18...	0.1	3.0	358	340	0.40	0.03	2.6	0.08	0.04	0.01

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC, DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM, DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
OCT 28...	<10	<1	50	2	<1	1	<3	25	6	<1
MAR 18...	20	3	45	<0.5	1	7	<3	4	37	4
JUN 16...	--	--	--	--	--	--	--	--	--	--
AUG 18...	10	1	39	0.8	<1	7	<3	3	21	<5

DATE	LITHIUM, DIS- SOLVED (UG/L AS LI)	MANGANESE, DIS- SOLVED (UG/L AS MN)	MERCURY, DIS- SOLVED (UG/L AS HG)	MOLYBDENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELENIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRONTIUM, DIS- SOLVED (UG/L AS SR)	VANADIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 28...	19	11	0.5	<10	8	<1	<1	870	<6	7
MAR 18...	9	12	<0.1	<10	<1	<1	<1	520	<6	110
JUN 16...	--	--	--	--	--	--	--	--	--	--
AUG 18...	13	6	1.0	<10	2	<1	<1	600	<6	17

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 to SEPTEMBER 1986

DATE	TIME	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK)	DEPTH AT SAMPLE LOC- ATION, TOTAL (FEET)	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)
OCT								
28...	0905	190	4.0	2.0	1140	7.95	12.0	9.8
28...	0910	85	11.0	2.0	1130	7.95	12.0	9.9
28...	0915	85	11.0	6.0	1130	7.92	11.5	9.7
28...	0920	55	11.0	2.0	1120	7.89	12.0	9.8
28...	0925	55	11.0	6.0	1110	7.92	12.0	9.6
28...	0930	25	11.5	2.0	1110	7.96	11.5	10.1
28...	0935	25	11.5	6.0	1120	8.00	11.5	9.8
MAR								
18...	0850	190	4.0	2.0	628	7.68	2.5	11.8
18...	0855	85	8.1	3.0	618	7.69	2.0	11.8
18...	0900	85	8.1	5.0	622	7.54	2.5	11.7
18...	0905	85	8.1	7.0	627	7.68	2.0	11.7
18...	0910	55	15.8	3.0	623	7.66	2.0	11.7
18...	0915	55	15.8	10.0	630	7.71	2.0	11.9
18...	0920	55	15.8	15.0	629	7.70	2.0	11.9
18...	0925	25	16.1	3.0	620	7.68	2.0	11.9
18...	0930	25	16.1	10.0	625	7.72	2.0	12.0
18...	0935	25	16.1	15.0	625	7.51	2.0	11.6
JUN								
16...	0905	190	5.0	2.0	630	7.75	20.5	--
16...	0910	85	14.5	3.0	632	7.73	20.5	--
16...	0915	85	14.5	7.0	630	7.73	20.5	--
16...	0920	85	14.5	11.0	635	7.74	20.5	--
16...	0925	55	15.0	3.0	625	7.70	20.5	--
16...	0930	55	15.0	7.0	628	7.72	20.5	--
16...	0935	55	15.0	12.0	622	7.75	20.5	--
16...	0940	25	14.0	3.0	630	7.75	20.5	--
16...	0945	25	14.0	7.0	635	7.76	20.5	--
16...	0950	25	14.0	11.0	632	7.74	20.5	--
AUG								
18...	0905	190	4.5	2.0	651	7.54	24.5	6.7
18...	0910	85	11.5	2.0	650	7.54	24.5	6.7
18...	0915	85	11.5	6.0	649	7.52	24.5	6.7
18...	0920	55	11.6	2.0	651	7.54	24.5	6.7
18...	0925	55	11.6	6.0	653	7.56	24.5	6.7
18...	0930	25	12.2	2.0	649	7.53	24.5	6.7
18...	0935	25	12.2	6.0	648	7.58	24.5	6.7

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
28...	0900	4050	8	87	86
MAR					
18...	0845	18900	21	1070	91
JUN					
16...	0900	9930	6	161	1
AUG					
18...	0900	5680	3	46	95

STREAMS TRIBUTARY TO LAKE ONTARIO

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LAKES AND RESERVOIRS IN STREAMS TRIBUTARY TO LAKE ONTARIO

- 04224000 MOUNT MORRIS LAKE NEAR MOUNT MORRIS, NY (see station for daily mean elevation, skeleton capacity table, monthly contents, and change in contents).
- 04227980 CONESUS LAKE NEAR LAKEVILLE, NY (see station for daily mean elevation).
- 04228845 HONEOYE LAKE NEAR HONEOYE, NY (see station for daily mean elevation).
- 04232400 SENECA LAKE AT WATKINS GLEN, NY (see station for daily mean elevation).
- 04232450 KEUKA INLET (KEUKA LAKE) AT HAMMONDSPORT, NY (see station for daily mean elevation).
- 04233500 CAYUGA INLET (CAYUGA LAKE) AT ITHACA, NY (see station for daily mean elevation).
- 04234500 CANANDAIGUA LAKE AT CANANDAIGUA, NY (see station for daily mean elevation).
- 04235396 OWASCO LAKE NEAR AUBURN, NY (see station for daily elevation).
- 04236000 SKANEATELES LAKE AT SKANEATELES, NY (see station for daily elevation).
- 04238500 ONONDAGA RESERVOIR NEAR NEDROW, NY (see station for daily mean elevation, skeleton capacity table, monthly contents, and change in contents).
- 04240495 ONONDAGA LAKE AT LIVERPOOL, NY (see station for daily mean elevation).
- 04246000 ONEIDA LAKE AT BREWERTON, NY (see station for daily mean elevation).

04249010 LAKE ONTARIO AT OSWEGO, NY

LOCATION.--Lat 43°27'51", long 76°30'42" Oswego County, Hydrologic Unit 04150200, in southwest corner of Port of Oswego Authority building at mouth of Oswego River at Oswego.

DRAINAGE AREA.--295,800 mi².

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

GAGE.--Water-stage recorder. Elevations are in feet International Great Lakes Datum (1955). Prior to Jan. 1, 1933, nonrecording gages.

COOPERATION.--Records furnished by U.S. Department of Commerce, NOAA-NOS, Lake Survey Center, Detroit, Mich.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 248.96 ft June 6, 1952; minimum observed, 240.94 ft Dec. 23, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 247.23 ft July 4; minimum, 243.79 ft Nov. 3.

ELEVATION (FEET IGLD), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	244.61	243.98	244.54	245.15	245.38	245.53	246.19	246.62	246.59	246.72	246.51	246.08
2	244.63	243.91	245.10	245.06	245.55	245.47	246.27	246.73	246.61	246.76	246.50	246.05
3	244.54	243.88	244.91	245.12	245.45	245.45	246.25	246.65	246.54	246.81	246.52	245.99
4	244.47	244.04	244.73	245.05	245.37	245.44	246.28	246.54	246.51	246.74	246.52	245.85
5	244.54	244.19	244.70	245.23	245.52	245.45	246.21	246.51	246.55	246.73	246.49	245.97
6	244.62	244.30	244.78	245.38	245.46	245.49	246.21	246.51	246.55	246.71	246.48	245.99
7	244.51	244.29	244.78	245.23	245.32	245.83	246.35	246.54	246.50	246.73	246.46	245.96
8	244.38	244.34	244.81	245.24	245.46	245.50	246.41	246.53	246.57	246.72	246.50	245.90
9	244.42	244.25	244.75	245.24	245.47	245.40	246.49	246.51	246.57	246.73	246.56	245.84
10	244.49	244.42	244.72	245.22	245.54	245.42	246.53	246.47	246.52	246.69	246.48	245.78
11	244.43	244.39	244.76	245.10	245.51	245.65	246.46	246.45	246.58	246.61	246.63	245.90
12	244.29	244.36	244.80	245.13	245.57	245.51	246.50	246.42	246.53	246.59	246.52	246.08
13	244.36	244.49	244.81	245.20	245.62	245.52	246.48	246.36	246.64	246.60	246.48	246.06
14	244.34	244.46	244.96	245.14	245.43	245.62	246.44	246.30	246.63	246.71	246.39	245.97
15	244.36	244.52	244.87	245.13	245.51	245.68	246.40	246.31	246.64	246.70	246.41	245.94
16	244.41	244.36	244.89	245.05	245.43	245.74	246.52	246.31	246.67	246.65	246.42	245.99
17	244.30	244.59	244.92	245.08	245.35	245.75	246.61	246.35	246.76	246.62	246.42	245.87
18	244.24	244.51	245.05	245.09	245.39	245.73	246.61	246.32	246.74	246.61	246.44	245.78
19	244.39	244.51	244.87	245.11	245.43	245.85	246.59	246.41	246.69	246.63	246.32	245.76
20	244.29	244.65	244.79	245.35	245.40	246.01	246.58	246.48	246.77	246.63	246.24	245.75
21	244.22	244.68	244.91	245.38	245.52	245.97	246.65	246.48	246.73	246.60	246.26	245.75
22	244.20	244.57	244.81	245.43	245.44	245.94	246.69	246.52	246.70	246.56	246.23	245.68
23	244.15	244.68	244.88	245.42	245.54	245.97	246.71	246.52	246.78	246.54	246.20	245.83
24	244.15	244.76	244.93	245.34	245.53	246.06	246.66	246.54	246.84	246.52	246.41	245.86
25	244.36	244.70	245.00	245.24	245.58	245.98	246.65	246.54	246.83	246.51	246.26	245.86
26	244.28	244.62	245.02	245.43	245.53	246.01	246.66	246.54	246.73	246.54	246.21	245.87
27	244.34	244.70	245.04	245.56	245.55	246.13	246.64	246.54	246.72	246.52	246.40	245.83
28	244.28	244.60	245.08	245.66	245.54	246.10	246.59	246.56	246.76	246.51	246.35	245.81
29	244.18	244.68	245.07	245.48	---	246.10	246.60	246.56	246.81	246.52	246.29	245.81
30	244.12	244.59	245.06	245.51	---	246.13	246.58	246.55	246.78	246.54	246.19	245.98
31	244.05	---	245.04	245.56	---	246.18	---	246.55	---	246.51	246.14	---
MEAN	244.35	244.43	244.88	245.27	245.48	245.76	246.49	246.49	246.66	246.63	246.39	245.89
MAX	244.63	244.76	245.10	245.66	245.62	246.18	246.71	246.73	246.84	246.81	246.63	246.08
MIN	244.05	243.88	244.54	245.05	245.32	245.40	246.19	246.30	246.50	246.51	246.14	245.68

CAL YR 1985 MEAN 245.14 MAX 246.18 MIN 243.88
WTR YR 1986 MEAN 245.73 MAX 246.84 MIN 243.88

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in the following table of annual maximum stage and discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a second table.

Crest-stage partial-record stations

The following table contains annual maximum stage and discharge for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain, but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained, but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial-record stations during water year 1986

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis-charge (ft ³ /s)
		Susquehanna River basin					
01496370	Mink Creek at Richfield Springs, NY	Lat 42°50'55", long 75°00'10", Otsego County, Hydrologic Unit 02050101, at bridge on State Highway 28, 0.4 mi southwest of Richfield Springs and 1 mi up, stream from mouth.	10.4	1969-86	10-18-75R	3.54	257
					9-20-77	4.77	350R
					10-17-77	5.13	459R
					3-21-80	5.26	401R
					2-20-81	5.39	422R
					4-4-82	4.47	236R
					3-19-86	5.34	498
01497805	Little Elk Creek near Westford, NY	Lat 42°38'01", long 74°47'45", Otsego County, Hydrologic Unit 02050101, at culvert on Greenbush Road, 1.2 mi south of Westford, and 2.2 mi upstream from mouth.	3.73	1978-86	3-19-86	17.24	136
01501015	Mill Brook at New Berlin, NY	Lat 42°37'32", long 75°19'43", Chenango County, Hydrologic Unit 02050101, at bridge on Academy Street at New Berlin, and 80 ft upstream from mouth.	4.64	1975-80*, 1981-86	3-15-86	2.28	291
01501140	Wharton Creek tributary near Edmeston, NY	Lat 42°42'35", long 75°13'19", Otsego County, Hydrologic Unit 02050101, at culvert on town road, 1.1 mi upstream from mouth, and 1.4 mi northeast of Edmeston.	2.02	1976-86	3-15-86	3.28	117
01502701	Susquehanna River at Afton, NY	Lat 42°13'38", long 75°31'27", Chenango County, Hydrologic Unit 02050101, on right bank at downstream side of bridge on State Highway 41, 0.1 mi southeast of Afton and intersection of State Highways 7 and 41, and 0.2 mi downstream from Kelsey Brook.	1,716	1972,77, 1979-86	3-16-86	16.13	34,800
01502714	Ouaquaga Creek near Belden, NY	Lat 42°10'12", long 75°40'45", Broome County, Hydrologic Unit 02050101, at culvert on Kane Road, 2.3 mi south of Belden, 2.8 mi (4.5 km) west of Harpursville, and 4.5 mi upstream from mouth.	3.37	1975-86	8-2-86	5.17	496
01503960	Electric Light Stream near Morrisville, NY	Lat 42°52'51", long 75°38'37", Madison County, Hydrologic Unit 02050102, at bridge on Eaton-Morrisville Road, in Eagleville, 0.4 mi upstream from mouth, and 1.3 mi south of Morrisville.	7.21	1976-86	3-15-86	10.49	345

* Operated as a continuous-record gaging station.
R Revised.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage partial-record stations during water year 1986--Continued

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis- charge (ft ³ /s)
Susquehanna River basin--Continued							
01503980	Chenango River at Eaton, NY	Lat 42°51'02", long 75°36'21", Madison County, Hydrologic Unit 02050102, at bridge on Landon Road at Eaton, 0.1 mi upstream from Eaton Brook, and 0.1 mi down- stream from State Highway 26.	24.3	1964-65, 1967-86	3-15-86	7.84	1,650
01505017	Cold Brook near North Norwich, NY	Lat 42°36'30", long 75°32'16", Chenango County, Hydrologic Unit 02050102, at culvert on town road, 0.4 mi west of railroad tracks, 0.8 mi southwest of North Norwich, and 1.8 mi up- stream from mouth.	5.80	1980-86	3-15-86	22.39	222
01507000	Chenango River at Greene, NY	Lat 42°19'28", long 75°46'18", Chenango County, Hydrologic Unit 02050102, on left bank 1,700 ft downstream from bridge on State Highway 206 at Greene, and 0.6 mi downstream from Birdsall Creek.	593	1937-70*, 1971-86	3-15-86	15.02	13,000
01508946	Otter Creek tributary at State Highway 222 near Cortland, NY	Lat 42°35'22", long 76°14'01", Cortland County, Hydrologic Unit 02050102, at culvert on State Highway 222, 1.0 mi upstream from mouth, and 1.8 mi west of Cortland.	2.85	1976-86	3-15-86	11.36	56
01510610	Merrill Creek tributary near Texas Valley, NY	Lat 42°28'03", long 75°59'19", Cortland County, Hydrologic Unit 02050102, at bridge on town road, 0.3 mi upstream from mouth, and 1.4 mi southwest of Texas Valley.	5.32	1976-81, 1983-86	3-15-86	1.88	435
01511500	Tioughnioga River at Itaska, NY	Lat 42°17'53", long 75°54'33", Broome County, Hydrologic Unit 02050102, on right bank at Itaska, 3.8 mi downstream from Otselic River and village of Whitney Point, and 6 mi upstream from mouth.	730	1930-67*, 1968-86	3-15-86	8.29	11,300
01513500	Susquehanna River at Vestal, NY	Lat 42°05'27", long 76°03'23", Broome County, Hydrologic Unit 02050103, on left bank 400 ft downstream from highway bridge at Vestal, and 800 ft upstream from Chocanut Creek.	3,941	1936, 1937-67*, 1968-72, 1974-86	3-15-86	25.11	73,100
01513712	Nanticoke Creek tributary at Nanticoke, NY	Lat 42°16'40", long 76°02'51", Broome County, Hydrologic Unit 02050103, at culvert on Rabbit Road, 0.4 mi northeast of Nan- ticoke, and 0.6 mi upstream from mouth.	1.70	1975-86	3-15-86	5.35	275
01514000	Owego Creek near Owego, NY	Lat 42°07'45", long 76°16'15", Tioga County, Hydrologic Unit 02050103, on right bank of right channel 300 ft upstream from bridge on State Highway 96, 0.5 mi upstream from Catatunk Creek, and 1.5 mi north of Owego.	185	1930-78*, 1979-86	3-15-86	8.88	7,590
01521596	Big Creek near Howard, NY	Lat 42°22'01", long 77°34'33", Steuben County, Hydrologic Unit 02050104, at culvert on town road, 0.1 mi south of State Highway 70, 1.3 mi north of Butch Corner, 3.4 mi west of Howard, and 6.2 mi up- stream from mouth.	6.32	1977-86	1-20-86	14.38	118

* Operated as a continuous-record gaging station.

Annual maximum discharge at crest-stage partial-record stations during water year 1986--Continued

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis- charge (ft ³ /s)
Susquehanna River basin--Continued							
01525500	Canisteo River at West Cameron, NY	Lat 42°13'20", long 77°25'05", Steuben County, Hydrologic Unit 02050104, on right bank 250 ft downstream from bridge on County Highway 119, 0.3 mi southeast of West Cameron, and 1.7 mi north of Cameron.	340	1930-31#, 1937-70#, 1971-72, 1974-86	1-19-86 2-19-86	b14.24 11.42	- 6,100
01527000	Cohocton River at Cohocton, NY	Lat 42°30'00", long 77°30'02", Steuben County, Hydrologic Unit 02050105, on left bank 450 ft downstream from bridge on U.S. Highway 15 at Cohocton, 800 ft downstream from small tributary, and 1.4 mi upstream from Reynolds Creek.	52.2	1951-81#, 1982-86	3-14-86	5.50	518
01530301	Cuthrie Run near Big Flats, NY	Lat 42°10'43", long 75°55'32", Chemung County, Hydrologic Unit 02050105, at culvert on Breed Hollow Road, 0.9 mi north of intersection of Eacher Hollow Road and Breed Hollow Road, 2.3 mi north of State Highway 17, and 3.0 mi north of Big Flats.	5.39	1976, 1979-81, 1983-86	7-20-86	15.41	318
Allegheny River basin							
03010734	Ischua Creek tributary near Machias, NY	Lat 42°24'28", long 78°33'33", Cattaraugus County, Hydrologic Unit 05010001, at culvert on Very Road, 0.2 mi upstream from mouth, 0.7 mi north of State Highway 242, and 1.5 mi west of Machias.	5.12	1978-81, 1983-86	7-20-86	9.41	224
03010743	Johnson Creek near Franklinville, NY	Lat 42°22'37", long 78°26'37", Cattaraugus County, Hydrologic Unit 05010001, at culvert on Pigeon Hill Road, 0.2 mi north of State Highway 98, 1.7 mi up- stream from mouth, and 2.5 mi north of Franklinville.	5.25	1977-78, 1982-86	7-20-86	13.41	138
03010800	Olean Creek near Olean, NY	Lat 42°07'12", long 78°25'12", Cattaraugus County, Hydrologic Unit 05010001, on right bank at upstream side of highway bridge, 1,000 ft west of State Highway 16, 1.4 mi northeast of Olean, and 4.6 mi upstream from mouth.	198	1958-68#, 1969-86	3-15-86	d7.2	-
03011000	Great Valley Creek near Salamanca, NY	Lat 42°10'28", long 78°41'28", Cattaraugus County, Hydrologic Unit 05010001, at bridge on old State Highway 98, 275 ft upstream from bridge on U. S. Highway 219, 1.5 mi northeast of Salamanca, and 2.1 mi upstream from mouth.	137	1951-68#, 1972, 1977-86	1-20-86	13.17	3,140
03013110	Hatch Creek at Gerry, NY	Lat 42°11'42", long 79°15'03", Chautauqua County, Hydrologic Unit 05010002, at bridge on State Highway 60 in Gerry, and 1.2 mi upstream from mouth.	6.11	1979#, 1984#, 1986	7-19-86	28.20	2,200
03013800	Ball Creek at Stow, NY	Lat 42°09'13", long 79°24'27", Chautauqua County, Hydrologic Unit 05010002, on left bank 75 ft upstream from bridge on State Highway 394 at Stow, and 0.4 mi upstream from mouth.	9.06	1955-64\$, 1965, 1967-68#, 1974#, 1975-86	7-20-86	19.40	1,460

Operated as a continuous-record gaging station.

\$ Operated as a low-flow partial-record station.

Miscellaneous measurements made.

Ice jam.

d Backwater from Allegheny River.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage partial-record stations during water year 1986--Continued

					Annual maximum		
Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Date	Gage height (feet)	Dis-charge (ft ³ /s)
Streams tributary to Lake Erie							
04213399	Walnut Creek tributary near Forestville, NY	Lat 42°28'12", long 79°08'07", Chautauqua County, Hydrologic Unit 04120101, at culvert on Quarry Road, 1.6 mi east of Forestville and 2.3 mi upstream from mouth.	1.02	1979, 1981-86	8-1-86	17.45	480
04213490	South Branch Cattaraugus Creek near Otto, NY	Lat 42°21'54", long 78°48'04", Cattaraugus County, Hydrologic Unit 04120102, at highway bridge, 0.2 mi upstream from Mansfield Creek, and 1.7 mi northeast of Otto, and 5.5 mi upstream from mouth.	25.1	1963-86	8-1-86	8.32	3,420
0421402003	Cattaraugus Creek at Sunset Bay below Irving, NY	Lat 42°33'52", long 79°07'47", Cattaraugus County, Hydrologic Unit 04120102, on left bank at east end of Erie Street in Sunset Bay, at mouth of unnamed tributary, and 0.9 mi west of Irving.	557	1985-86	1-20-86	11.83	-
0421402004	Cattaraugus Creek at Sunset Bay near Silver Creek, NY	Lat 42°34'05", long 79°08'09", Cattaraugus County, Hydrologic Unit 04120102, on left bank at Sunset Bay, at north end of Allegany Road, and 1.9 mi northeast of Silver Creek.	558	1985-86	1-20-86	11.07	-
04214040	Delaware Creek near Angola, NY	Lat 42°37'46", long 79°03'15", Erie County, Hydrologic Unit 04120103, at bridge on State Highway 5, 1.5 mi southwest of Angola, and 1.6 mi upstream from mouth.	8.32	1963-86	9-14-79 12-25-79 1-20-86	5.91 5.55 4.25	e600 e360 444
04214410	Hunter Creek at Colegrave, NY	Lat 42°44'11", long 78°32'55", Erie County, Hydrologic Unit 04120103, at bridge on Center Line Road, 0.3 mi east of Colegrave, and 3.6 mi upstream from mouth.	14.0	1964-86	1-20-86	4.71	624
Streams tributary to Niagara River							
04216212	Delaware Park Lake at Buffalo, NY	Lat 42°56'03", long 78°52'28", Erie County, Hydrologic Unit 04120104, on north shore of Delaware Park Lake at downstream side of bridge on Scajquada Expressway (SH 198), and 1.7 mi upstream from mouth of Scajaquada Creek.	1.14	1985-86	12-2-85	8.55	-
04216214	Scajaquada Creek below Delaware Park Lake at Buffalo, NY	Lat 42°56'15", long 78°53'07", Erie County, Hydrologic Unit 04120104, on left bank, 400 ft east of Grant Street (North) exit from Scajaquada Expressway (SH 198), at Buffalo.	25.7	1985-85	12-2-85	8.54	-
04216400	Tonawanda Creek near Johnsonburg, NY	Lat 42°43'05" long 78°19'20", Wyoming County, Hydrologic Unit 04120104, on State Highway 98 near Johnsonburg, and 0.6 mi downstream from East Fork.	23.7	1962-86	11-13-85	7.17	739
04216875	Little Tonawanda Creek Tributary near Batavia, NY	Lat 43°56'33", long 78°09'46", Genesee County, Hydrologic Unit 04120104, at culvert on Francis Road, 1.6 mi upstream of mouth, and 2.9 mi south of the city limits of Batavia.	1.02	1976-86	3-11-86	11.37	56

e Estimated.

Annual maximum discharge at crest-stage partial-record stations during water year 1986--Continued

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis- charge (ft ³ /s)
Streams tributary to Niagara River--Continued							
04217700	Murder Creek at Pembroke, NY	Lat 42°59'37", long 78°26'08", Genesee County, Hydrologic Unit 04120104, at bridge on Lake Road, 0.3 mi south of Pembroke, and 12.5 mi west of Batavia.	43.6	1962-72, 1974-86	3-11-86	8.40	1,170
04219645	Fourmile Creek near Youngstown, NY	Lat 43°13'49", long 79°01'01", Niagara County, Hydrologic Unit 04120104, at culvert on Balmer Road, 200 ft east of State Highway 18, 1.5 mi southeast of Youngstown, and 3.4 mi above the mouth.	4.88	1970-73, 1976-80, 1982-86	4-2-70 3-15-71 6-23-72 12-6-72 3-5-76 4-23-77 4-5-78 3-5-79 12-25-79 3-14-82 5-4-83 2-14-84 3-11-86	e8.40 6.28 e8.15 9.19 7.85 6.25 7.80 8.57 8.07 6.70 8.07 8.75	220R e152R 43R e132R 220R 113R 42R 110R 162R 127R 57R 127R 180
Streams tributary to Lake Ontario							
04219738	Eighteenmile Creek tributary near Lockport, NY	Lat 43°12'20", long 78°46'47", Niagara County, Hydrologic Unit 04130001, at culvert on Budd Road, 3.3 mi northwest of Lockport and 4.1 mi upstream from mouth.	2.53	1977-86	8-24-77 10-5-77 3-11-86	11.22 13.00 13.41	e222 e140 239
04219900	Johnson Creek near Lyndonville, NY	Lat 43°20'21", long 78°20'55", Orleans County, Hydrologic Unit 04130001, at bridge on Woodworth Road, 3.3 mi downstream from dam at Lyndonville, and 4.4 mi up- stream from mouth.	87.7	1962-70, 1972-73, 1976-86	3-11-86	5.86	1,340
04219922	Oak Orchard Creek at Barrville Road near Elba, NY	Lat 43°05'42", long 78°08'43", Genesee County, Hydrologic Unit 04130001, at culvert on Barr- ville Road, 2.3 mi northeast of Elba, and 6.0 mi north of Batavia.	6.48	1976-86	3-11-86	8.86	142
04220245	West Creek near Hamlin, NY	Lat 43°17'42", long 77°53'32", Monroe County, Hydrologic Unit 04130001, at culvert on Hamlin Center Road, 1.5 mi east of State Highway 19, and 1.6 mi southeast of Hamlin.	4.56	1978-81, 1983-86	9-29-86	5.49	390
04221769	Black Creek at Hyder Flats Road at Black Creek, NY	Lat 42°16'03", long 78°13'38", Allegany County, Hydrologic Unit 04130002, at culvert on Hyder Flats Road, 0.6 mi south of Black Creek, and 11.3 mi upstream from mouth.	10.7	1978-86	6-8-86 6-12-86	4.17 d5.74	590 -
04222600	Wiscony Creek at Bliss, NY	Lat 42°34'59", long 78°14'17", Wyoming County, Hydrologic Unit 04130002, at bridge on county road, 0.1 mi north of State Highway 39, and 0.6 mi east of Bliss.	22.0	1962-65, 1967-86	11-13-85 3-10-86	2.43 2.43	440 440
04224700	Sugar Creek near Ossian, NY	Lat 42°30'52", long 77°48'14", Livingston County, Hydrologic Unit 04130002, on right bank 300 ft downstream from bridge on Linzy Road, 1.3 mi southwest of Ossian, and 5.6 mi upstream from mouth.	10.0	1964-86	3-5-64 2-8-65 2-11-66 9-28-67 10-19-67 1-31-69 4-2-70 3-15-71 5-17-74 1-29-75 2-17-76 4-26-83 2-21-86	6.45 4.96 5.04 5.92 4.68 4.52 4.36 4.88 - 3.89 - 3.92 4.72	1,170 608 622 948 524 480 440R 584 e260 250 e400 258R 517
04224807	Stony Brook tributary at South Dansville, NY	Lat 42°28'16", long 77°40'21", Steuben County, Hydrologic Unit 04130002, at culvert on Willey Road, 0.6 mi from mouth, and 0.9 mi west of South Dansville.	3.15	1977-82, 1984-86	1-20-86	<8.79	<61

< Less than.
d Backwater from unknown source.
e Estimated.
R Revised.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage partial-record stations during water year 1986--Continued

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis-charge (ft ³ /s)
Streams tributary to Lake Ontario--Continued							
04224900	Mill Creek at Patchinville, NY	Lat 42°31'13", long 77°35'06", Steuben County, Hydrologic Unit 04130002, at bridge on Ellinger Road, 0.1 mi east of State Highway 21, 0.8 mi south of Patchinville, 3.3 mi south of Wayland, and 9.3 mi upstream from mouth.	4.22	1964-86	1-20-86	2.17	173
04231040	Hotel Creek at Griffin Road near Churchville, NY	Lat 43°03'36", long 77°52'28", Monroe County, Hydrologic Unit 04130003, at bridge on Griffin Road, 3.0 mi upstream from mouth, and 3.1 mi southeast of Churchville.	4.57	1976-86	1-20-86	12.17	52
042320527	Mill Creek tributary near Webster, NY	Lat 43°14'45", long 77°26'43", Monroe County, Hydrologic Unit 04140101, at culvert on Woodboro Farms Road, 400 ft east of Holt Road, and 1.8 mi north of Webster.	1.95	1971-72, 1976-86	9-29-86	13.77	211
042320578	Bear Creek at Ontario, NY	Lat 43°13'30", long 77°17'00", Wayne County, Hydrologic Unit 04140101, at culvert on New Street in Ontario, 100 ft west of Furnaceville Road, and 4.0 mi upstream from mouth.	6.74	1971-73, 1975-86	4-17-86 9-29-86	11.73 12.88	82 50
04232071	Second Creek tributary at Alton, NY	Lat 43°12'36", long 76°59'32", Wayne County, Hydrologic Unit 04140101, at culvert on Bond Road, 200 ft south of U.S. Highway 104, 0.3 mi from mouth, and 0.6 mi west of Alton.	1.07	1970, 1973, 1976-86	9-19-86	14.28	57
04232087	Red Creek tributary No. 16 near Red Creek, NY	Lat 43°13'36", long 76°42'23", Cayuga County, Hydrologic Unit 04140101, at culvert on town road (Red Creek Road), 1.3 mi southeast of Red Creek.	2.90	1969, 1976-86	9-29-86	10.27	207
04232460	Sugar Creek at Guyanoga, NY	Lat 42°37'23", long 77°09'30", Yates County, Hydrologic Unit 04140201, at bridge on Sid White Road, 0.4 mi east of Guyanoga, and 2.3 mi upstream from mouth.	28.9	1966-86	1-20-86	4.74	459
04232630	Kendig Creek near MacDougall, NY	Lat 42°50'57", long 76°53'33", Seneca County, Hydrologic Unit 04140201, at downstream side of bridge on County Highway 120, 3.0 mi north of MacDougall, 3.5 mi southwest of Waterloo, and 4.6 mi upstream from mouth.	13.8	1965-68*, 1969-86	7-10-68 12-15-77 3-5-79 2-21-86	6.14 5.72 5.89 5.62	953R 734R 817R 688
04233255	Cayuga Inlet at Ithaca, NY	Lat 42°25'38", long 76°31'19", Tompkins County, Hydrologic Unit 04140201, on upstream abutment face of flood-control weir, at east end of Burt Place, south of Ithaca city line, 0.3 mi east of State Highway 13a, 0.9 mi downstream from Buttermilk Creek, and 2.4 mi upstream from mouth.	86.7	1971-72, 1975-86	3-15-86	8.97	2,920
04233310	Sixmile Creek near Ithaca, NY	Lat 42°24'33", long 76°27'14", Tompkins County, Hydrologic Unit 04140201, at bridge on Burns Road, 1.8 mi southeast of Ithaca, and 4.4 mi upstream from mouth.	42.0	1967-69, 1971-73, 1976-86	3-15-86	<3.61	<703
04233676	Virgil Creek at Mill Street, Dryden, NY	Lat 42°29'18", long 76°18'08", Tompkins County, Hydrologic Unit 04140201, at bridge on Mill Street at Dryden, and 0.1 mi upstream from Dryden Lake Outlet.	20.7	1966-70, 1972, 1975-86	3-15-86	3.86	892

* Operated as a continuous-record gaging station.

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DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

157

Annual maximum discharge at crest-stage partial-record stations during water year 1986--Continued

					Annual maximum		
Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Date	Gage height (feet)	Dis- charge (ft ³ /s)
Streams tributary to Lake Ontario--Continued							
04233700	Virgil Creek at Freeville, NY	Lat 42°30'18", long 76°21'01", Tompkins County, Hydrologic Unit 04140201, on left bank, 10 ft upstream from bridge on Johnson Street in Freeville, and 0.7 mi upstream from Fall Creek.	40.3	1974-75#, 1976-86	3-15-86	17.15	1,240
042340202	Cayuga Lake tributary No. 8 near Jacksonville, NY	Lat 42°32'24", long 76°35'35", Tompkins County, Hydrologic Unit 04140201, at culvert on State Highway 89 (Taughannock Boulevard), 0.1 mi upstream from mouth, and 2.4 mi northeast of Jacksonville.	1.36	1977-86	5-22-86	6.29	86
042340588	Yawger Creek tributary near Auburn, NY	Lat 42°54'41", long 76°39'46", Cayuga County, Hydrologic Unit 04140201, at culvert on Chamber- lain Road, 3.5 mi west of Auburn, and 4.3 mi upstream from mouth.	1.76	1976-86	1-20-86	10.18	28
04234138	Schaeffer Creek near Canandaigua NY	Lat 42°54'25", long 72°22'14", Ontario County, Hydrologic Unit 04140201, at culvert on McCann Road, 0.8 mi upstream from Mud Creek, 1.7 mi north of U.S. Highway 20, and 3.2 mi west of Canandaigua.	7.84	1980-86	1-20-86	12.51	303
04234200	Mud Creek at East Victor, NY	Lat 42°58'28", long 77°22'58", Ontario County, Hydrologic Unit 04140201, 25 ft downstream from bridge on State Highway 96 at East Victor, 0.3 mi upstream from Fish Creek, and 0.5 mi upstream from mouth.	64.2	1958-68#, 1972, 1976-86	1-20-86	7.04	1,530
04234363	Marbletown Creek tributary near Newark, NY	Lat 43°02'47", long 77°02'57", Wayne County, Hydrologic Unit 04140201, at culvert at inter- section of Brumm and Sutton Roads, and 1.2 mi east of Newark.	0.58	1976-86	1-20-86	5.07	27
04235255	Canandaigua Outlet tributary near Alloway, NY	Lat 43°00'21", long 77°00'54", Ontario County, Hydrologic Unit 04140201, at bridge on Pre- Emption Road, 0.5 mi south of Wayne-Ontario County line, 1.8 mi southwest of Alloway, and 2.9 mi upstream from mouth.	2.94	1978-86	1-20-86	7.22	165
04242795	Canada Creek tributary near Lee Center, NY	Lat 43°19'40", long 75°31'52", Oneida County, Hydrologic Unit 04140202, at culvert on Streum Road at Negro Road, 1.6 mi upstream from mouth, 1.7 mi northwest of Lee Center, and 7.6 mi northwest of Rome.	1.34	1977-86	12-14-83 9-28-85 8-1-86	3.43 2.94 8.29	67 43 158
04245840	Scriba Creek near Constantia, NY	Lat 43°15'35" long 76°00'11", Oswego County, Hydrologic Unit 04140202, on right bank, 8 ft upstream from road to Ingersol Road, and about 0.8 mi north of village of Constantia.	38.4	1966-68#, 1969, 1971-86	3-31-86	5.63	689
04249050	Catfish Creek at New Haven, NY	Lat 43°29'00", long 76°19'34", Oswego County, Hydrologic Unit 04140102, at bridge on State Highway 104B, at New Haven, and 1.4 mi upstream from mouth.	31.7	1962-66, 1968-86	3-31-86	5.91	684

* Operated as a continuous-record gaging station.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during water year 1986

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
Susquehanna River basin						
#01496370 Mink Creek	Canadarago Lake	Lat 42°50'55", long 75°00'10", Otsego County, Hydrologic Unit 02050101, at bridge on State Highway 28, 0.4 mi southwest of Richfield Springs and 1 mi upstream from mouth.	10.4	1977-78, 1980, 1983, 1985	5-22-86	101
#01502701 Susquehanna River	Atlantic Ocean	Lat 42°13'38", long 75°31'27", Chenango County, Hydrologic Unit 02050101, at bridge on State Highway 41 at Afton.	1,716	1972, 1977, 1979-80, 1982-83, 1985	3-16-86	33,000
#01507000 Chenango River	Susquehanna River	Lat 42°19'28", long 75°46'18", Chenango County, Hydrologic Unit 02050102, on left bank 1,700 ft downstream from bridge on State Highway 206 at Greene, and 0.6 mi downstream from Birdsall Creek.	593	1937-70 ^a /, 1971-79, 1982-83	3-16-86	12,700
#01511500 Tioughnioga River	Chenango River	Lat 42°17'53", long 75°54'33", Broome County, Hydrologic Unit 02050102, on right bank at Itaska, 3.8 mi downstream from Otselic River and village of Whitney Point, and 6 mi upstream from mouth.	730	1930-67 ^a /, 1968-79, 1982-84	3-15-86	10,700
#01513500 Susquehanna River	Atlantic Ocean	Lat 42°05'27", long 76°03'23", Broome County, Hydrologic Unit 02050103, on left bank 400 ft downstream from highway bridge at Vestal, and 800 ft upstream from Choconut Creek.	3,941	1937-67 ^a /, 1968-78, 1980, 1983	3-16-86	67,400
Allegheny River basin						
#03011000 Great Valley Creek	Allegheny River	Lat 42°10'28", long 78°41'28", Cattaraugus County, Hydrologic Unit 05010001, at bridge on old State Highway 98, 275 ft upstream from bridge on U.S. Highway 219, 1.5 mi northeast of Salamanca, and 2.1 mi upstream from mouth.	198	1968, 1973, 1975-76, 1983	6-12-86	1,190
03013111 Hatch Creek	Cassadaga Creek	Lat 42°11'39", long 79°15'09", Chautauqua County, Hydrologic Unit 0501002, at New York Central Railroad bridge 600 ft downstream from bridge on State Highway 60 in Gerry, and 1.0 mi upstream from mouth.	6.11	1979	6-18-84 7-19-86	1,190 2,200
Streams Tributary to Niagara River						
#04216400 Tonawanda Creek	Niagara River	Lat 42°43'05", long 78°19'20", Wyoming County, Hydrologic Unit 04120104, on State Highway 98 near Johnsonburg, and 0.6 mi downstream from East Fork.	23.6	1979	11-13-86	372
#04216875 Little Tonawanda Creek Tributary	Little Tonawanda Creek	Lat 43°56'33", long 78°09'46", Genesee County, Hydrologic Unit 04120104, at culvert on Francis Road, 1.6 mi upstream of mouth, and 2.9 mi south of the city limits of Batavia.	1.02	1983-84	11-13-85 4-16-86	12.8 7.55

* Also a crest-stage partial record station.

^a/ Operated as a continuous-record gaging station.

Discharge measurements made at miscellaneous sites during water year 1986--Continued

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements Date	Discharge (ft ³ /s)
Streams tributary to Lake Ontario						
#04219922 Oak Orchard Creek	Lake Ontario	Lat 43°05'42", long 78°08'43", Genesee County, Hydrologic Unit 04130001, at culvert on Barr- ville Road, 2.3 mi northeast of Elba, and 6.0 mi north of Batavia.	6.48	1979, 1985	3-19-86	26.3
#04231040 Hotel Creek	Black Creek	Lat 43°03'36", long 77°52'28", Monroe County, Hydrologic Unit 04130003, at bridge on Griffin Road, 3.0 mi upstream from mouth, and 3.1 mi southeast of Church- ville.	4.57	1978, 1985	3-19-86	14.7
#04232071 Second Creek Tributary	Second Creek	Lat 43°12'36", long 76°59'32", Wayne County, Hydrologic Unit 04140101, at culvert on Bond Road, 200 ft south of U.S. Highway 104, 0.3 mi from south, and 0.6 mi west of Alton.	1.07	1979	3-13-86	9.08
#04232630 Kendig Creek	Seneca River	Lat 42°50'57", long 76°53'33", Seneca County, Hydrologic Unit 04140201, at downstream side of bridge on County Highway 120, 3.0 mi north of MacDougall, 3.5 mi southwest of Waterloo, and 4.6 mi upstream from mouth.	13.8	1965-69, 1979	1-20-86 1-23-86 4-17-86	729 38.4 155
#04233676 Virgil Creek	Fall Creek	Lat 42°29'18", long 76°18'08", Tompkins County, Hydrologic Unit 04140201, at bridge on Mill Street at Dryden, and 0.1 mi upstream from Dryden Lake Outlet.	20.7	1963-64, 1966-67, 1970-72, 1974-75, 1979, 1982, 1984	2-21-86 3-5-86	172 313 23.9
#04233700 Virgil Creek	Fall Creek	Lat 42°30'18", long 76°21'01", Tompkins County, Hydrologic Unit 04140201, on left bank, 10 ft upstream from bridge on Johnson Street in Freeville, and 0.7 mi upstream from Fall Creek.	40.3	1958-63, 1966, 1973-76 ^a / 1979	2-21-86	412 563
#04234138 Schaeffer Creek	Mud Creek	Lat 42°54'25", long 72°22'14", Ontario County, Hydrologic Unit 04140201, at culvert on McCann Road, 0.8 mi upstream from Mud Creek, 1.7 mi north of U.S. Highway 20, and 3.2 mi west of Canandaigua.	7.84	1979, 1981	3-12-86	26.3
#04234363 Marbletown Creek Tributary	Marbletown Creek	Lat 43°02'47", long 77°02'57", Wayne County, Hydrologic Unit 04140201, at culvert at inter- section of Brumm and Sutton Roads, and 1.2 mi east of Newark.	0.58	1979	3-13-86	4.96
#04235255 Canandaigua Outlet Tributary	Canandaigua Outlet	Lat 43°00'21", long 77°00'54", Ontario County, Hydrologic Unit, 04140201, at bridge on Pre- Emption Road, 0.5 mi south of Wayne-Ontario County line, 1.8 mi southwest of Alloway, and 2.9 mi upstream from mouth.	2.94	1981	3-12-86	25.7

*Also a crest-stage partial-record station.

^a/ Operated as a continuous-record gaging station.

GROUND-WATER LEVELS

BROOME COUNTY

420646075531201. Local number, Bm 100.

LOCATION.--Lat 42°06'46", long 75°53'12", Hydrologic Unit 02050103, at Moeller and Frederick Streets, Binghamton.

Owner: U.S. Geological Survey.

AQUIFER.--Water-table aquifer in sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in, depth 52 ft, cased to 52 ft, slotted 40 ft to 45 ft.

INSTRUMENTATION.--Digital recorder--60-minute punch. (Removed Oct. 28, 1985). Monthly measurements made with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 851.05 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of shelter base, 2.86 ft above land-surface datum.

REMARKS.--Lowest water level recorded on June 25, 1985 due to water-level decline for several hours, possibly from nearby pumping.

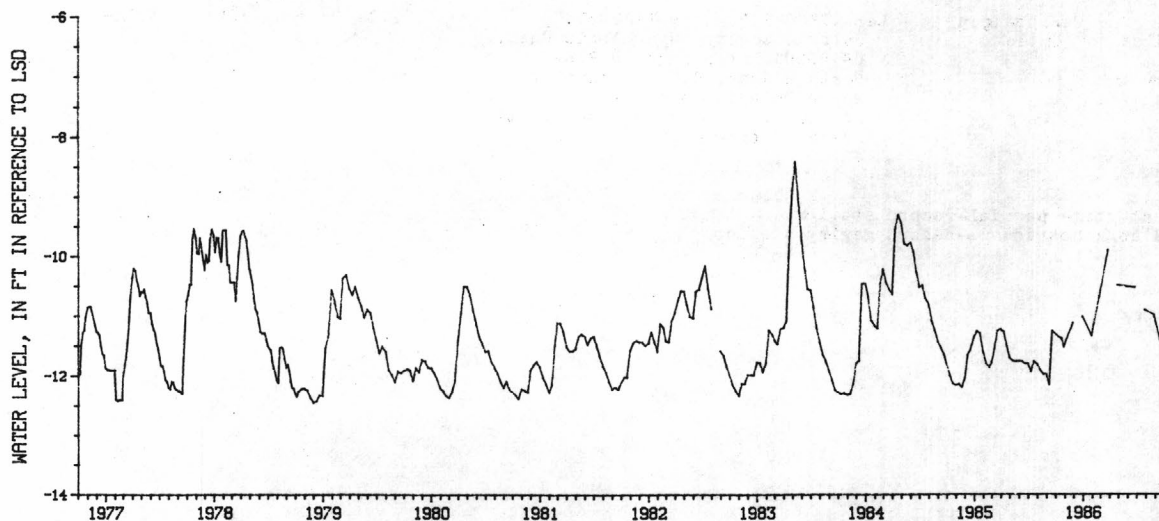
PERIOD OF RECORD.--October 1946 to July 1955, April 1966 to current year. Unpublished record for October 1946 to July 1955 (intermittent), April 1966 to April 1968 (intermittent) and May 1968 to September 1977 is available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.29 ft below land-surface datum, May 4, 1983; lowest measured 13.18 ft below land-surface datum, June 25, 1985.

EXTREMES FOR CURRENT YEAR.--Highest water level, 9.91 ft below land-surface datum, Mar. 27; lowest, 11.55 ft below land-surface datum, Sept 24.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1, 1985	11.26	OCT 28, 1985	11.53	FEB 25, 1986	10.68	JUN 25, 1986	10.54
OCT 7	11.28	NOV 27	11.13	MAR 27	9.91	JUL 29,	10.91
OCT 14	11.37	DEC 30	11.02	APR 28	10.50	AUG 28	11.00
OCT 21	11.40	JAN 29	11.35	MAY 28	10.52	SEP 24	11.55



GROUND-WATER LEVELS

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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.--Water-table aquifer in sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in, depth 53 ft, cased to 53 ft open end.

INSTRUMENTATION.--Digital recorder--60-minute punch. Prior to May 1950 taped by observer.

DATUM.--Elevation of land-surface datum is 833.62 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of shelter base, 3.42 ft above land-surface datum.

REMARKS.--Well cleaned from 46 ft, to original depth on Oct. 19, 1970. Water level affected by floods of Susquehanna River, and by pumping from municipal well field 1,100 ft south.

PERIOD OF RECORD.--March 1947 to current year.

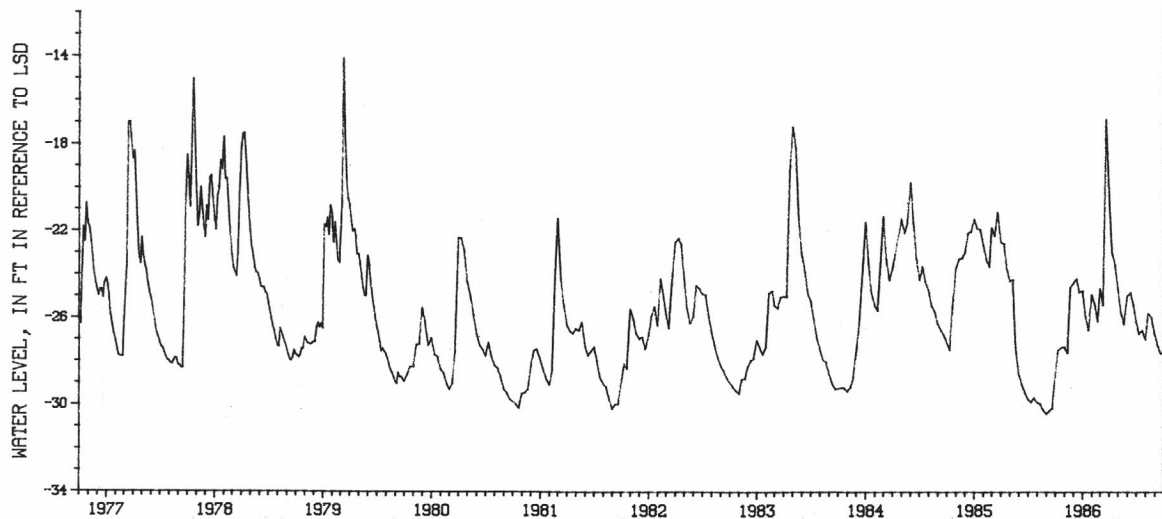
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.73 ft below land-surface datum, Apr. 8, 1956; lowest, 33.47 ft below land-surface datum, Sept. 23, 1965.

EXTREMES FOR CURRENT YEAR.--Highest water level, 15.94 ft below land-surface datum, Mar. 18; lowest 27.79 ft below land-surface datum, Sept. 24-26.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27.67	27.39	24.33	24.88	24.77	24.73	20.82	24.78	25.12	26.26	26.52	26.80
2	27.51	27.44	24.19	25.00	24.61	24.80	21.14	24.90	25.24	26.32	26.16	26.87
3	27.40	27.48	23.94	25.11	24.60	24.87	21.49	25.01	25.30	26.38	25.85	26.96
4	27.35	27.51	23.68	25.23	24.69	24.94	21.82	25.11	25.31	26.42	25.67	27.04
5	27.32	27.53	23.62	25.32	24.79	25.02	22.13	25.21	25.37	26.44	25.60	27.09
6	27.34	27.56	23.70	25.42	24.92	25.08	22.37	25.32	25.32	26.48	25.61	27.14
7	27.37	27.57	23.83	25.55	25.02	25.16	22.57	25.42	25.16	26.54	25.69	27.19
8	27.40	27.59	23.93	25.68	25.13	25.26	22.73	25.54	24.95	26.60	25.72	27.23
9	27.43	27.60	24.06	25.79	25.26	25.35	22.87	25.66	24.86	26.67	25.78	27.24
10	27.48	27.62	24.19	25.89	25.38	25.42	23.03	25.77	24.83	26.76	25.79	27.25
11	27.55	27.62	24.29	25.98	25.48	25.35	23.20	25.86	24.86	26.83	25.79	27.27
12	27.61	27.55	24.33	26.04	25.60	24.98	23.36	25.96	24.90	26.90	25.80	27.31
13	27.65	27.42	24.25	26.10	25.73	24.60	23.51	26.06	24.91	26.91	25.83	27.37
14	27.67	27.24	24.22	26.19	25.85	24.25	23.66	26.15	24.89	26.78	25.89	27.42
15	27.66	26.98	24.27	26.31	25.97	22.89	23.79	26.25	24.88	26.64	26.00	27.46
16	27.64	26.54	24.35	26.41	26.09	19.42	23.88	26.35	24.94	26.57	26.13	27.50
17	27.54	25.99	24.45	26.49	26.18	16.73	23.76	26.39	25.05	26.56	26.18	27.54
18	27.44	25.28	24.57	26.57	26.25	16.02	23.59	26.33	25.12	26.60	26.11	27.58
19	27.40	24.77	24.71	26.62	26.28	16.57	23.56	26.31	25.24	26.63	26.00	27.62
20	27.37	24.58	24.84	26.59	26.17	16.84	23.62	26.31	25.38	26.57	25.98	27.65
21	27.31	24.58	24.94	26.23	25.87	16.81	23.73	26.11	25.49	26.58	26.02	27.68
22	27.25	24.62	25.05	25.75	25.35	17.02	23.86	25.46	25.50	26.64	26.09	27.72
23	27.23	24.73	25.04	25.46	24.86	17.55	23.95	24.88	25.53	26.74	26.17	27.75
24	27.24	24.82	24.98	25.31	24.58	18.20	24.05	24.55	25.63	26.90	26.23	27.77
25	27.27	24.91	25.12	25.27	24.47	18.74	24.15	24.41	25.77	27.00	26.29	27.79
26	27.26	24.98	25.24	25.30	24.44	19.11	24.26	24.40	25.92	27.14	26.34	27.74
27	27.22	24.95	25.25	25.33	24.52	19.41	24.35	24.47	26.03	27.18	26.41	27.66
28	27.21	24.72	25.04	25.39	24.64	19.79	24.44	24.59	26.10	27.10	26.50	27.63
29	27.24	24.50	24.87	25.39	---	19.98	24.55	24.72	26.16	27.14	26.58	27.61
30	27.29	24.39	24.76	25.16	---	20.22	24.67	24.85	26.20	27.16	26.66	27.61
31	27.34	---	24.74	24.92	---	20.53	---	25.00	---	27.01	26.75	---
MEAN	27.4	26.2	24.5	25.7	25.3	21.5	23.3	25.4	25.3	26.7	26.1	27.4
LOW	27.67	27.62	25.25	26.62	26.28	25.42	24.67	26.39	26.20	27.18	26.75	27.79
HIGH	27.21	24.39	23.62	24.88	24.44	16.02	20.82	24.40	24.83	26.26	25.60	26.80

CAL YR 1985 TOTAL 9549.74 MEAN 26.2 HIGH 20.14 LOW 30.41
WTR YR 1986 TOTAL 9270.66 MEAN 25.4 HIGH 16.02 LOW 27.79



GROUND-WATER LEVELS

BROOME COUNTY

421138075511301. Local number, Bm 128.

LOCATION.--Lat 42°11'38", long 75°51'13", Hydrologic Unit 02050102, at end of Jeffery Drive on Chenango Forks School

District property at Kattelville. Owner: U.S. Geological Survey.

AQUIFER.--Water-table aquifer in sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in, depth 53 ft, cased to 48.5 ft, screened 48.5 to 53 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by observer and USGS personnel.

DATUM.--Elevation of land-surface datum is 908.58 ft above National Geodetic Vertical Datum of 1929. Measuring point: Double file mark on top of coupling, 3.20 ft above land-surface datum.

REMARKS.--Water level may be affected by pumping in nearby village and school wells.

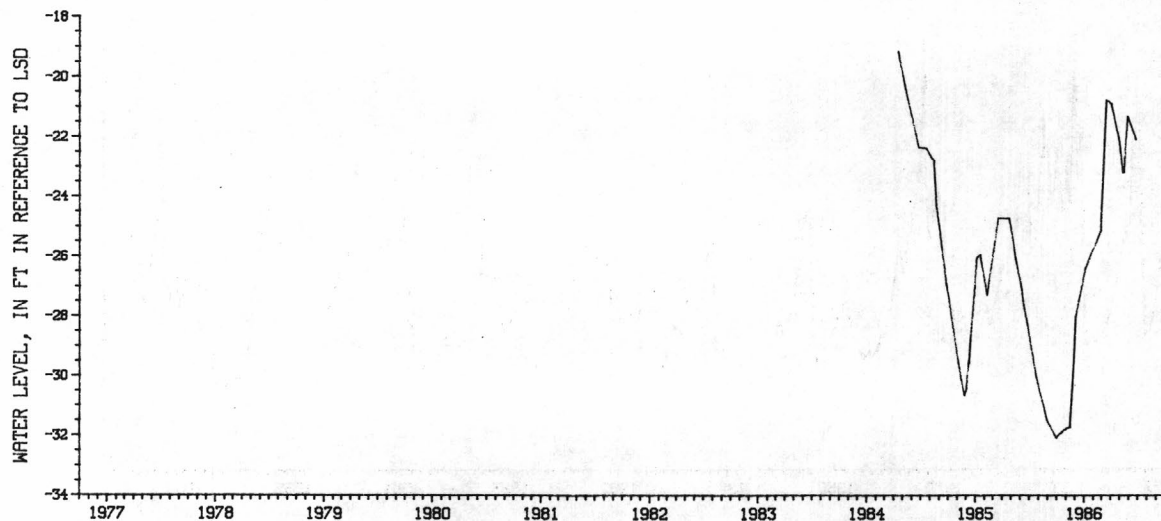
PERIOD OF RECORD.-- September 1980 to current year. Unpublished record for September 1980 to February 1982 is available in files of the U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.17 ft below land-surface datum, Apr. 16, 1984; lowest measured, 32.48 ft below land surface datum, Oct. 27, 1981.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 20.76 ft below land-surface datum, Mar. 19; lowest measured, 31.90 ft below land-surface datum, Oct. 18.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18, 1985	31.90	DEC 5, 1985	28.00	APR 24, 1986	21.80	MAY 14, 1986	23.22
30	31.80	JAN 6, 1986	26.42	30	22.05	17	23.18
NOV 15	31.72	FEB 27	25.15	MAY 5	22.40	30	21.32
20	30.94	MAR 19	20.76	13	23.12	JUN 26	22.09
30	29.30	APR 4	20.90				



BROOME COUNTY

421157075535401. Local number, Bm 129.

LOCATION.--Lat 42°11'57", long 75°53'54", Hydrologic Unit 02050102, near Castle Creek. Owner: New York State Department of Transportation.

AQUIFER.--Aquifer in shales of Middle to Upper Devonian age.

WELL CHARACTERISTICS.--Drilled water supply well, diameter 6 in, depth approximately 252 ft.

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

DATUM.--Elevation of land-surface datum is approximately 1,150 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of coupling, 2.00 ft above land-surface datum.

REMARKS.--Well drilled by New York State Department of Transportation, originally intended as water-supply well for proposed rest area on Interstate Highway I-81.

PERIOD-OF-RECORD.--November 1985 to September 1986.

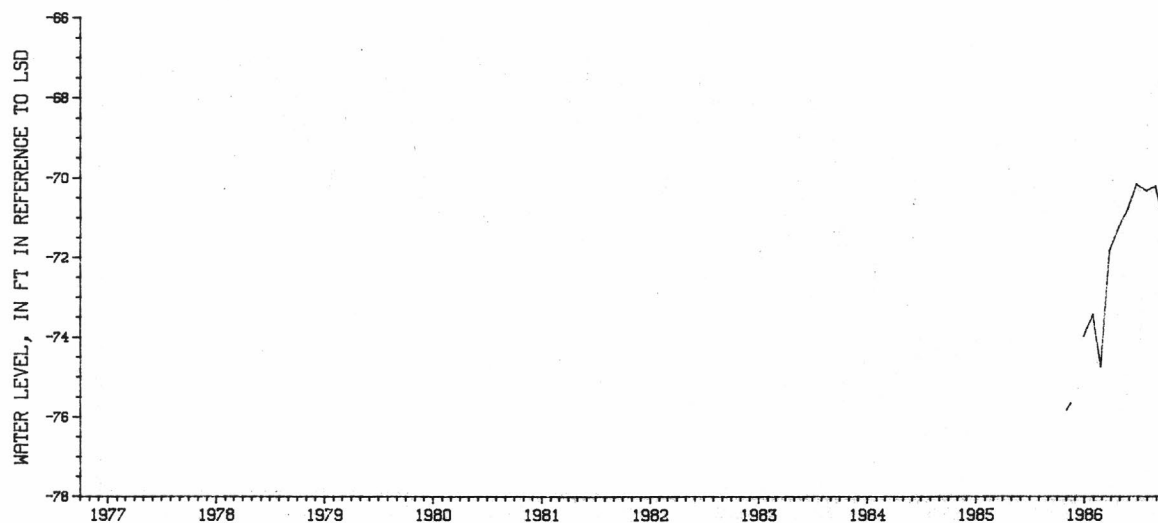
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 70.18 ft below land-surface datum, June 25, 1986;

lowest measured, 75.83 ft below land-surface datum, Nov. 1, 1985.

EXTREMES FOR CURRENT PERIOD NOVEMBER TO SEPTEMBER.--Highest water level measured, 70.18 ft below land-surface datum, June 25; lowest measured, 75.83 ft below land-surface datum, Nov. 1.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 1, 1985	75.83	JAN 29, 1986	73.44	APR 28, 1986	71.24	JUL 29, 1986	70.36
14	75.67	FEB 25	72.78	MAY 28	70.79	AUG 28	70.22
DEC 30	73.98	MAR 27	71.82	JUN 25	70.18	SEP 29	71.27



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.--Float tape read weekly by observer.

DATUM.--Elevation of land-surface datum is 1,467.08 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.30 ft above land-surface datum.

REMARKS.--Well is located in a New York State operated campgrounds area. A new central water system for the campgrounds, utilizing a well about 1.5 mi from the observation well put in operation in 1980, is reflected by higher ground water levels in summer and fall comparable to those experienced prior to 1969 when the lowest level measured was 13.23 ft below land-surface datum on Feb. 1, 1961. Extreme low levels occurred during late summer and early fall months from 1969 to 1979 due to the effect of pumping the old supply system from a nearby well.

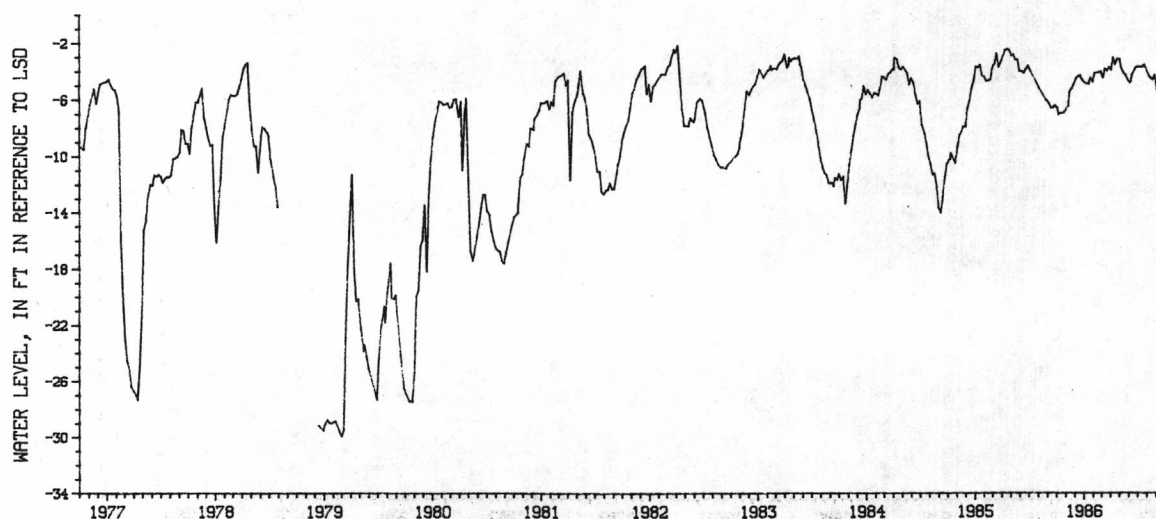
PERIOD OF RECORD.--September 1950 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured 2.12 ft below land-surface datum, Apr. 8, 1982; lowest measured 34.87 ft below land-surface datum, Nov. 21, 1972.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 3.02 ft below land-surface datum, Apr. 12; lowest measured, 7.08 ft below land-surface datum, Oct. 9.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05, 1985	6.58	JAN 04, 1986	4.78	APR 19, 1986	3.51	JUL 05, 1986	3.69
09	7.05	11	4.90	23	3.27	12	3.66
12	6.95	18	4.90	26	3.11	19	3.70
26	6.92	25	4.47	MAY 04	3.16	26	3.53
NOV 02	6.73	FEB 01	4.74	10	3.80	AUG 12	4.44
11	6.47	08	4.14	17	4.12	16	4.47
16	5.46	MAR 01	4.00	24	4.27	23	4.63
20	5.27	08	4.47	31	4.59	30	4.25
23	5.21	15	3.80	JUN 07	4.80	SEP 06	5.25
30	4.90	22	4.17	10	4.72	13	5.78
DEC 07	4.52	29	3.70	14	4.27	20	5.90
14	4.34	APR 05	3.92	25	3.80	16	5.97
21	4.26	12	2.99	30	3.67	27	6.40
28	4.61						



CAYUGA COUNTY

424158076251901. Local number, Cy 7.

LOCATION.--Lat 42°41'58", long 76°25'19", Hydrologic Unit 04140201, near Moravia.

Owner: Earl Van Pelt.

AQUIFER.--Water-table aquifer in clayey gravel of Pleistocene age.

WELL CHARACTERISTICS.--Bored observation well, diameter 2.5 in, depth 28 ft, cased to 26 ft 1.25-in well point (60-gauze screen 26 ft to 28 ft).

INSTRUMENTATION.--Weekly measurement with chalked tape by observer.

DATUM.--Elevation of land-surface datum is 760.70 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of shelter base, 3.08 ft above land-surface datum.

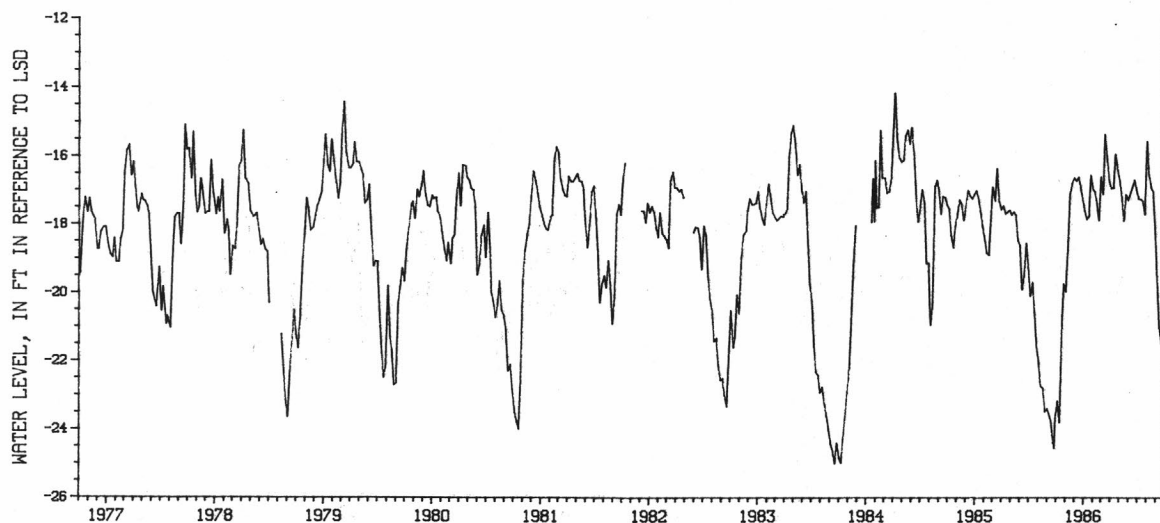
PERIOD OF RECORD.--December 1965 to current year. Unpublished record for December 1965 to September 1976 is available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.91 ft below land-surface datum, June 26, 1972; lowest measured, 25.00 ft below land-surface datum, Sept. 19, 1983.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 15.37 below land-surface datum, Mar. 17; lowest measured, 23.82 ft below land-surface datum, Oct. 14.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 07, 1985	23.18	JAN 13, 1986	17.87	APR 14, 1986	16.95	JUL 14, 1986	17.29
14	23.82	20	17.77	21	15.94	21	17.34
23	20.80	27	16.56	28	16.43	28	17.72
28	19.74	FEB 03	16.97	MAY 05	16.77	AUG 05	15.57
NOV 04	19.98	10	17.07	12	17.23	11	16.57
11	18.70	17	17.41	19	17.92	18	16.94
18	17.11	24	17.90	26	17.14	25	17.08
25	16.82	MAR 03	16.61	JUN 02	17.31	SEP 01	18.22
DEC 02	16.65	10	17.14	09	17.11	08	19.72
09	16.75	17	15.37	16	16.92	15	21.06
17	16.63	24	16.10	23	16.72	22	21.52
23	16.92	31	16.77	30	17.00	29	20.08
JAN 06, 1986	17.60	APR 07	16.97	JUL 07	17.27		



GROUND-WATER LEVELS

CHAUTAUQUA COUNTY

420326079295801. Local number, Cu 5.

LOCATION.--Lat 42°03'26", long 79°29'58", Hydrologic Unit 05010002, near Panama.

Owner: State Department of Environmental Conservation.

AQUIFER.--Water-table aquifer in till of Pleistocene age.

WELL CHARACTERISTICS.--Dug unused well, diameter 36 in, depth 33 ft, stone-lined.

INSTRUMENTATION.--Float tape read weekly by observer.

DATUM.--Elevation of land surface datum is 1,752.51 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 0.25-in steel-plate well cover, inside shelter door, 0.44 ft below land-surface datum.

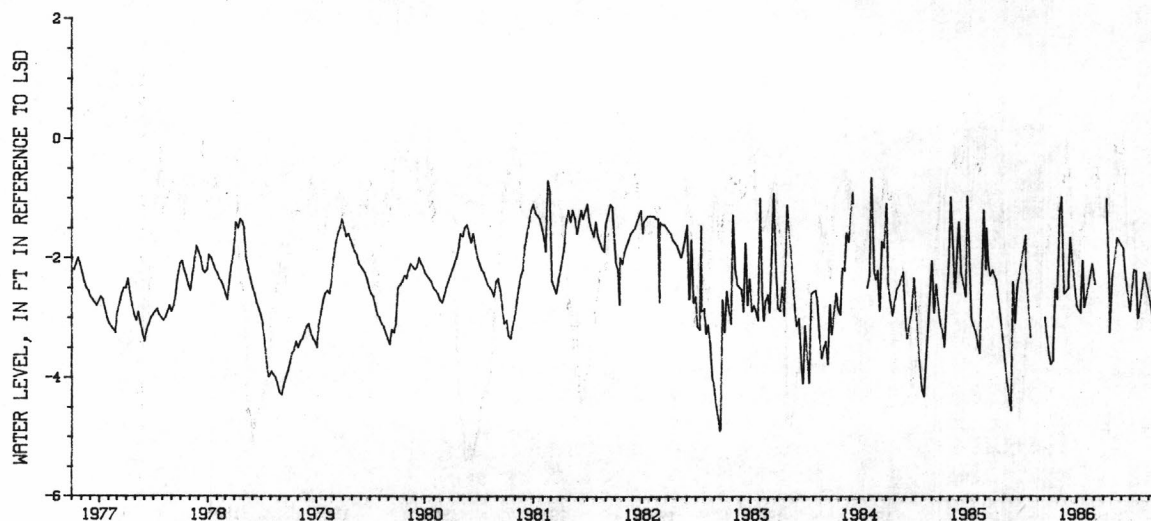
PERIOD OF RECORD.--May 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured 0.65 ft below land-surface datum, Feb. 13, 1984; lowest measured 9.41 ft below land-surface datum, May 24, 1949.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 0.99 ft below land-surface datum, Nov. 13; lowest measured, 3.78 ft below land-surface datum, Oct. 7.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02, 1985	3.64	NOV 21, 1985	2.62	MAR 05, 1986	2.46	JUN 18, 1986	2.39
07	3.78	DEC 05	2.52	APR 14	1.02	JUL 02	2.91
08	3.77	12	1.66	23	2.54	15	2.21
14	3.73	JAN 03, 1986	2.83	24	3.26	22	2.24
23	2.52	15	2.93	MAY 03	2.32	29	3.03
29	2.70	23	2.05	20	1.68	AUG 19	2.26
NOV 07	1.21	28	2.84	JUN 09	1.86	SEP 16	2.98
13	0.99	FEB 24	2.11				



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 in to 10 in, depth 232 ft, filled in from original depth of 240 ft, cased 12 in 0 ft to 130 ft, 10 in 130 ft to 240 ft, slotted 130 ft to 144 ft, open end.

INSTRUMENTATION.--Twice daily measurement with chalked tape by City of Jamestown employee, every fifth day published.

DATUM.--Elevation of land-surface datum is 1,252.52 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of shelter base, 5.44 ft above land-surface datum.

REMARKS.--Water level affected by pumping from municipal well field. Digital recorder installed Dec. 18, 1978, removed Sept. 16, 1982.

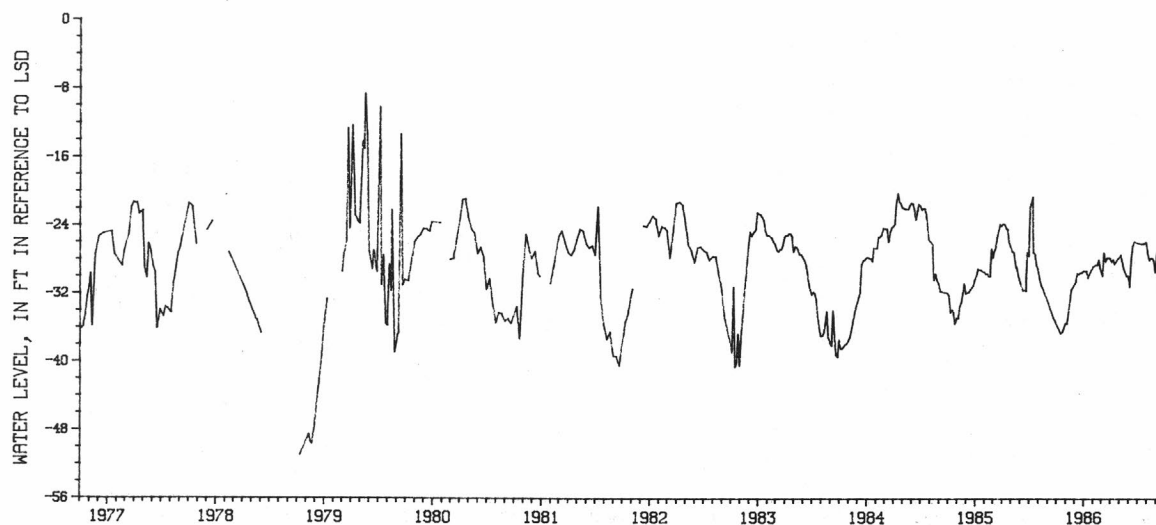
PERIOD OF RECORD.--November 1939 to September 1943, August 1946 to current year. Unpublished record for November 1939 to September 1943, August 1946 to September 1976 is available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.2 ft above land-surface datum, Mar. 14, 1942; lowest, 66.6 ft below land-surface datum, Nov. 3, 1971.

EXTREMES FOR CURRENT YEAR.--Highest water level, 26.08 ft below land-surface datum, July 20; lowest, 36.63 ft, Oct. 15.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15, 1985	36.63	JAN 15, 1986	30.11	APR 15, 1986	28.49	JUL 30, 1986	25.92
20	36.48	31	28.81	MAY 05	27.44	AUG 05	27.39
25	36.02	FEB 10	28.59	10	28.16	10	28.05
31	35.43	15	28.57	15	28.98	15	27.79
NOV 05	35.48	20	27.98	25	29.91	20	27.79
20	31.52	25	28.98	30	29.84	25	28.18
DEC 05	30.54	MAR 05	29.89	JUN 05	31.16	30	29.45
10	29.57	10	27.18	10	27.88	SEP 05	27.08
15	29.71	15	28.25	15	26.37	10	26.64
20	29.49	20	27.76	20	25.88	15	27.57
25	29.52	25	27.76	JUL 15	26.20	20	31.18
31	29.28	30	27.76	20	26.08	25	31.74
JAN 05, 1986	29.28	APR 05	28.25	25	26.12	30	31.46
10	29.28	10	27.96				



CHAUTAUQUA COUNTY

420748079062701. Local number, Cu 104.

LOCATION.--Lat 42°07'48", long 79°06'27", Hydrologic Unit 05010002, 59 ft west of Conewango Creek, 20 ft north of County Highway 325 and 1 mi southeast of Poland Center.

Owner: City of Jamestown.

AQUIFER.--Water-table aquifer in sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in, depth 79 ft, screened 69 ft to 79 ft.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 1,247.62 ft above National Geodetic Vertical Datum of 1929. Measuring point: Chisled marks at top of metal shelter base, 6.22 ft above land-surface datum.

REMARKS.--Well drilled by the U.S.G.S. The water level is affected by pumping from municipal well field and by river stages in Conewango Creek which is within 100 ft of the well.

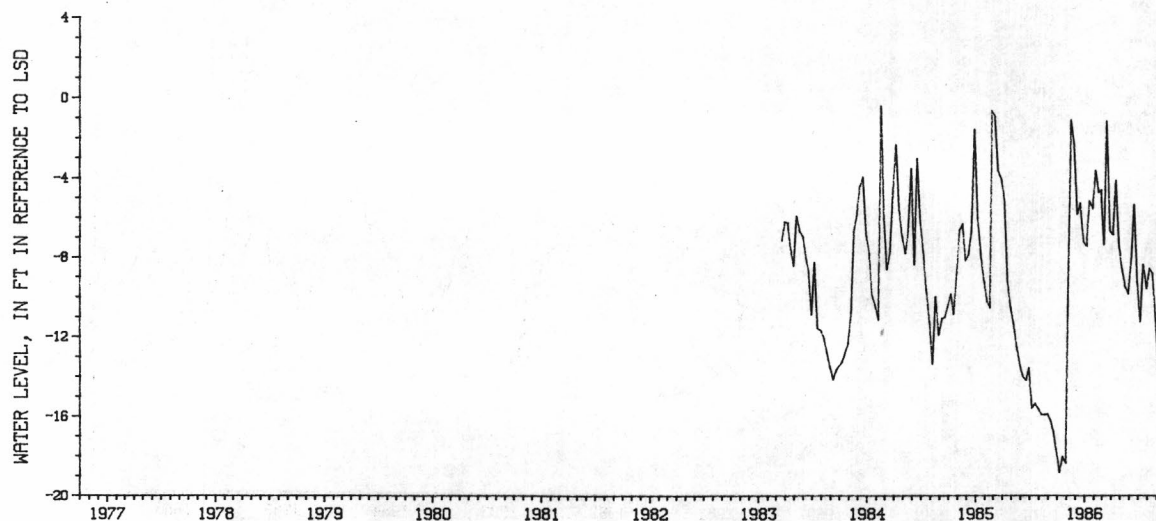
PERIOD OF RECORD.--March 1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.09 ft above land-surface datum, Feb. 20, 1984; lowest, 19.35 ft below land-surface datum, Oct. 16, 1985.

EXTREMES FOR CURRENT YEAR.--Highest water level, 0.70 ft above land-surface datum, Nov. 17; lowest, 19.35 ft, below land-surface datum, Oct. 16.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.10	18.19	2.20	6.21	5.53	5.44	6.61	8.31	10.02	10.19	10.63	11.71
2	17.08	18.92	2.76	7.98	5.54	6.05	7.20	8.77	10.18	10.62	9.36	11.29
3	17.11	18.89	3.19	6.62	5.69	6.97	7.20	8.63	10.37	10.99	9.06	12.05
4	17.16	18.51	3.08	9.19	4.84	6.52	7.34	8.05	10.48	10.40	8.35	12.58
5	17.29	17.90	3.80	6.57	4.83	7.09	7.73	8.79	10.45	9.35	8.54	13.54
6	16.92	16.80	4.59	7.70	3.62	7.33	6.83	9.11	9.41	9.96	8.48	12.45
7	17.56	15.27	4.58	6.85	3.81	7.27	7.18	9.13	9.67	10.70	8.96	12.59
8	18.16	13.30	5.33	7.31	3.30	7.57	7.35	9.06	9.12	11.70	9.59	12.89
9	18.55	10.32	6.16	7.45	2.88	7.22	6.71	9.11	8.47	11.77	8.82	12.96
10	18.83	8.67	5.90	7.48	3.67	7.43	6.90	8.60	8.13	11.30	8.60	13.80
11	18.73	6.27	5.20	6.47	4.00	6.61	6.46	9.17	7.67	11.17	7.70	13.81
12	18.93	4.92	5.36	6.75	5.16	5.81	6.42	9.09	5.99	10.74	7.90	14.18
13	18.32	3.68	4.54	7.56	5.78	4.86	8.07	9.48	4.41	9.98	7.98	13.01
14	18.52	2.48	3.95	7.86	6.46	2.93	7.57	9.64	4.34	9.98	8.12	11.87
15	18.68	1.92	4.22	7.73	5.65	2.37	6.92	9.79	3.45	9.96	8.37	11.46
16	19.09	.58	3.89	7.68	5.95	.71	6.57	9.49	3.33	9.83	9.68	13.00
17	18.89	-0.19	5.06	7.94	7.15	.64	6.15	9.70	3.69	9.57	8.12	13.85
18	18.92	.82	5.51	7.52	8.17	.85	5.54	9.26	3.80	9.67	8.77	14.04
19	18.78	.75	5.07	6.26	5.86	.74	5.00	9.46	4.22	8.28	9.29	13.04
20	18.03	1.12	5.31	5.20	4.78	1.19	4.16	9.51	5.36	8.37	8.86	13.63
21	18.29	1.17	5.83	3.93	5.29	.98	4.69	9.41	6.22	6.94	9.48	13.60
22	18.28	1.98	5.27	3.14	3.35	1.38	4.53	9.24	6.49	7.31	9.88	13.81
23	18.43	1.77	5.55	2.18	2.41	2.38	5.09	9.12	7.59	7.32	9.36	13.32
24	18.59	2.63	6.24	2.21	2.84	3.46	5.71	8.40	8.06	6.89	8.40	13.01
25	18.32	4.36	5.72	1.78	2.55	4.69	5.95	8.83	8.84	8.35	9.00	12.97
26	18.12	4.86	6.28	1.85	3.09	5.15	5.52	8.51	8.99	8.60	9.38	12.71
27	17.98	3.66	6.78	3.11	3.57	4.88	6.59	9.16	9.42	8.38	9.97	12.30
28	17.84	2.91	6.23	4.18	4.67	5.45	7.01	8.95	9.12	8.48	9.94	11.59
29	18.03	2.48	6.19	4.41	---	5.25	7.61	9.36	8.32	9.22	9.86	10.56
30	18.41	2.35	6.54	5.27	---	5.82	7.42	9.60	9.20	9.96	9.72	10.98
31	18.37	---	7.28	5.59	---	6.73	---	9.90	---	9.62	11.14	---
MEAN	18.17	6.91	5.08	5.87	4.66	4.57	6.47	9.12	7.49	9.54	9.07	12.75
LOW	19.09	18.92	7.28	9.19	8.17	7.57	8.07	9.90	10.48	11.77	11.14	14.18
HIGH	16.92	-0.19	2.20	1.78	2.41	.64	4.16	8.05	3.33	6.89	7.70	10.56
CAL YR 1985	MEAN	10.76	LOW	19.09	HIGH	-0.19						
WTR YR 1986	MEAN	8.34	LOW	19.09	HIGH	-0.19						



CHEMUNG COUNTY

420829076484801. Local number, Cm 46.

LOCATION.--Lat 42°08'29", long 76°48'48", Hydrologic Unit 02050105, near Horseheads.

Owner: Original owner deceased.

AQUIFER.--Water-table aquifer in sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled unused well, diameter 6 in, depth 34 ft, cased to 34 ft, open end.

INSTRUMENTATION.--Measurement made with chalked tape by observer and USGS personnel. Prior to April 1984 float tape read by observer or USGS personnel.

DATUM.--Elevation of land-surface datum is 885.69 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of pipe flange, 3.44 ft above land-surface datum.

REMARKS.--Water level affected by stage of Newtown Creek.

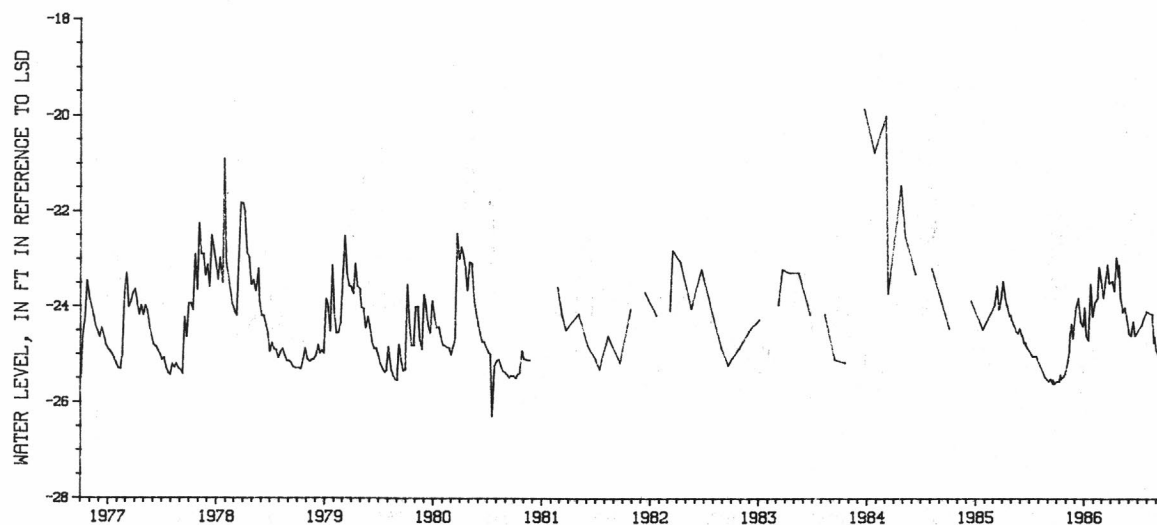
PERIOD OF RECORD.--October 1955 to current year. Unpublished record for October 1955 to September 1976 is available in files of the Geological Survey.

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

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 22.96 ft below land-surface datum, Apr. 20; lowest measured, 25.56 ft below land-surface datum, Oct. 3, 9.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1985	25.56	DEC 28, 1985	24.41	MAR 24, 1986	23.31	JUN 09, 1986	24.54
09	25.56	30	24.37	26	23.51	16	24.31
14	25.42	JAN 03, 1986	24.01	APR 06	23.46	22	24.61
16	25.51	09	24.61	13	23.66	JUL 14	24.37
24	25.46	16	24.71	20	22.96	30	24.09
29	25.41	23	23.51	27	23.36	AUG 18	24.16
NOV 07	25.16	30	24.21	29	23.11	25	24.76
13	24.90	FEB 06	23.91	MAY 04	23.81	27	24.63
15	24.56	15	23.81	11	24.11	SEP 01	24.91
20	24.36	20	23.16	18	24.01	08	25.01
25	24.66	26	23.41	25	24.26	15	25.06
DEC 05	24.01	MAR 07	23.81	JUN 01	24.56	22	25.16
13	23.81	13	23.51	08	24.61	29	25.16
21	24.31	21	23.11				



CHENANGO COUNTY

421556075281602. Local number, Cn 12.

LOCATION.--Lat 42°15'56", long 75°28'16", Hydrologic Unit 02050101, 400 ft south of intersection of County Highways 39 and 12, 0.5 mi east of Susquehanna River, and 2.0 mi south of Bainbridge.

Owner: Ilse Maehlman.

AQUIFER.--Water-table aquifer in gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in, depth 13 ft, cased to 13 ft gravel-packed, open end.

INSTRUMENTATION.--Digital recorder--60-minute punch. (Removed Oct. 16). Monthly measurements made with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 979.28 ft above National Geodetic Vertical Datum of 1929. Measuring point: File mark at top of shelter base, 1.37 ft above land-surface datum.

REMARKS.--This well drilled April 1974 as a replacement for 421556075281601 (local number Cn 11), located 90 ft north, which has a period of record from October 1965 to September 1972 (unpublished).

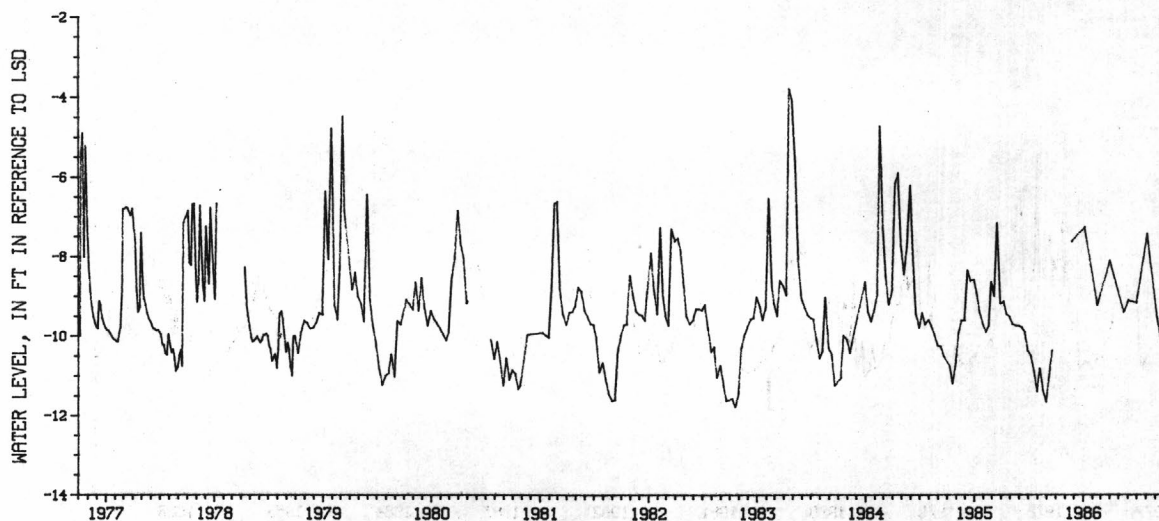
PERIOD OF RECORD.--April 1975 to current year. Unpublished record for April 1975 to September 1976 is available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.79 ft below land-surface datum, Mar. 7, 1979; lowest, 11.81 ft below land-surface datum, Sept. 26-29, 1982.

EXTREMES FOR CURRENT YEAR.--Highest water level, 7.15 ft below land-surface datum, Oct. 1; lowest, 10.25 ft below land-surface datum, Sept. 24.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

OCT 1, 1985	7.15	OCT 16, 1985	9.27	APR 3, 1986	8.10	AUG 7, 1986	7.43
3	7.39	NOV 25	7.63	MAY 20	9.43	SEP 9	9.55
7	8.36	JAN 7, 1986	7.27	JUN 4	9.11	24	10.25
14	9.21	FEB 19	9.24	JUL 1	9.19		



CHENANGO COUNTY

423849075315701. Local number, Cn 13.

LOCATION.--Lat 42°38'49", long 75°31'57", Hydrologic Unit 02050102, at junction of Chenango County Road 23 and Erie-Lackawanna Railroad tracks, 2.1 mi north of North Norwich and 2.7 mi south of NYS Rt. 80 near Sherburne.

Owner: U. S. Geological Survey.

AQUIFER.--Confined aquifer in sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in, depth 125 ft, cased to 123 ft, screened 123 ft to 125 ft.

INSTRUMENTATION.--Weekly measurement made with chalked tape by paid observer and USGS personnel.

DATUM.--Elevation of land-surface datum is 1065.77 ft above National Geodetic Vertical Datum of 1929. Measuring point: Double file mark on top of coupling, 4.00 ft above land-surface datum.

REMARKS.--Water level may be affected by pumping from nearby farm well.

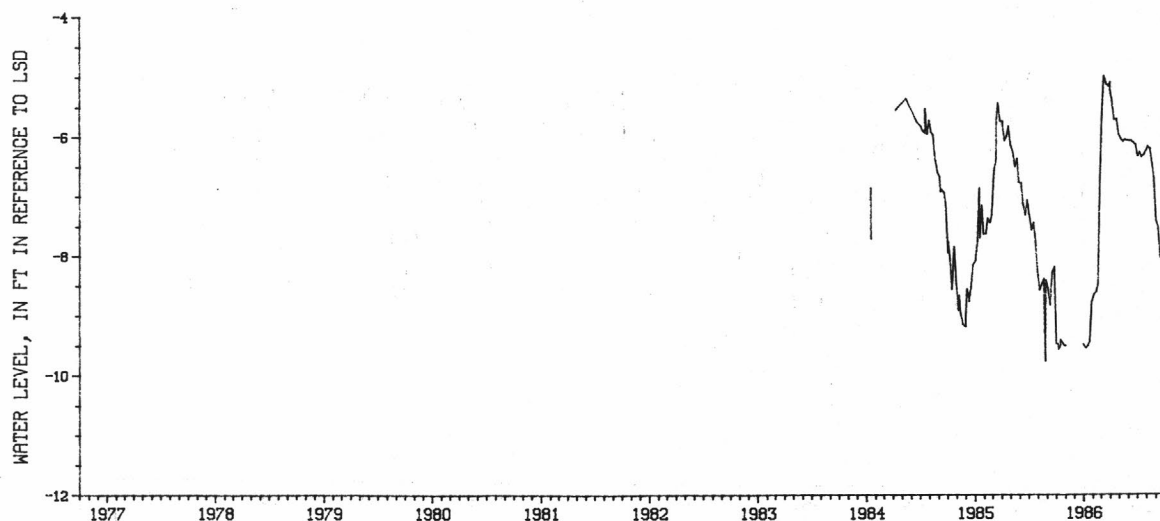
PERIOD OF RECORD.--April 1984 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.00 ft below land-surface datum, Mar. 12, 1986; lowest measured, 9.78 ft below land-surface datum, Aug. 26, 1985.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 5.00 ft below land-surface datum, Mar. 12; lowest measured, 9.58 ft below land-surface datum, Oct. 9.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02, 1985	9.49	FEB 05, 1986	8.66	APR 23, 1986	5.72	JUL 09, 1986	6.28
06	9.49	12	8.62	30	5.98	15	6.36
09	9.58	19	8.48	MAY 07	6.05	23	6.32
15	9.50	26	6.74	14	6.10	30	6.26
16	9.42	MAR 05	5.64	21	6.06	AUG 06	6.18
23	9.48	12	5.00	28	6.08	13	6.22
30	9.52	19	5.14	JUN 04	6.09	20	6.46
NOV 04	9.29	26	5.18	11	6.08	27	6.72
JAN 01, 1986	9.49	APR 01	5.11	18	6.12	SEP 03	7.44
08	9.56	02	5.25	25	6.15	10	7.56
15	9.52	09	5.46	JUL 01	6.30	17	8.04
22	9.44	16	5.74	03	6.35	24	8.10
29	8.78						



CORTLAND COUNTY

423541076114701. Local number, C 102.

LOCATION.--Lat 42°35'41", long 76°11'47", Hydrologic Unit 02050102, at Municipal Water Works, Cortland.

Owner: City of Cortland.

AQUIFER.--Water-table aquifer in gravel of Pleistocene age.

WELL CHARACTERISTICS.--Driven unused well, diameter 1.25 in, depth 45 ft, 1.25 in well point.

INSTRUMENTATION.--Weekly measurement with chalked tape by USGS and County Health Dept. personnel.

DATUM.--Elevation of land-surface datum is 1136.59 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of coupling, 2.0 ft above land-surface datum.

REMARKS.--Water level is affected by pumping from adjacent municipal supply wells. This well is a replacement for 423539076114801 (local number C 19), located 80 ft southwest, which has a period of record from February 1947 to May 1976.

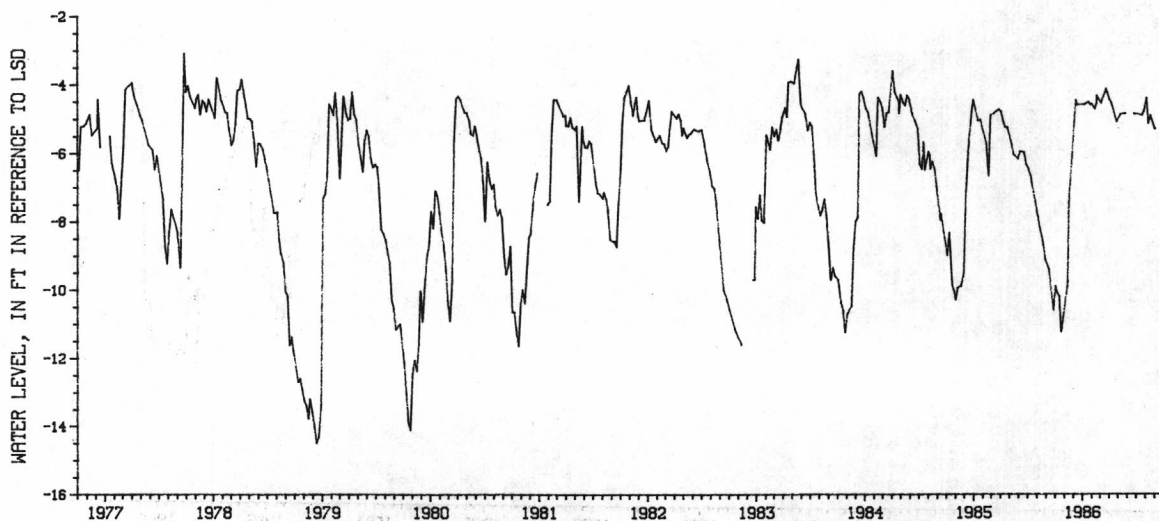
PERIOD OF RECORD.--October 1975 to current year. Unpublished record for October 1975 to September 1977 is available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.07 ft below land-surface datum, September 25, 1977; lowest measured, 14.50 ft below land-surface datum, Dec. 14, 1978.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 4.13 ft below land-surface datum, Mar. 25; lowest measured, 11.25 ft below land-surface datum, Oct. 23.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04, 1985	9.89	JAN 10, 1986	4.60	MAR 25, 1986	4.13	JUL 24, 1986	4.90
09	10.10	24	4.51	APR 04	4.44	30	4.76
16	10.19	30	4.60	11	4.54	AUG 08	4.40
23	11.25	FEB 04	4.57	29	5.10	14	5.15
NOV 14	9.80	14	4.72	MAY 12	4.88	21	4.90
18	7.43	20	4.55	27	4.85	SEP 04	5.30
DEC 13	4.45	21	4.32	JUN 27	4.85	05	5.30
16	4.60	MAR 07	4.55				



GENESEE COUNTY

425516078032001. Local number, Gs 2.

LOCATION.--Lat 42°55'16", long 78°03'20", Hydrologic Unit 04130003, near Pavilion.

Owner: Steven Rigoni.

AQUIFER.--Water-table aquifer in till of Pleistocene age.

WELL CHARACTERISTICS.--Dug unused well, diameter 36 in, depth 21 ft, stone-lined.

INSTRUMENTATION.--Float tape read weekly by observer.

DATUM.--Elevation of land-surface datum is 1,032.05 ft above National Geodetic Vertical Datum of 1929. Measuring point: Painted arrow on top edge of concrete well cover, inside shelter door, 1.12 ft above land-surface datum.

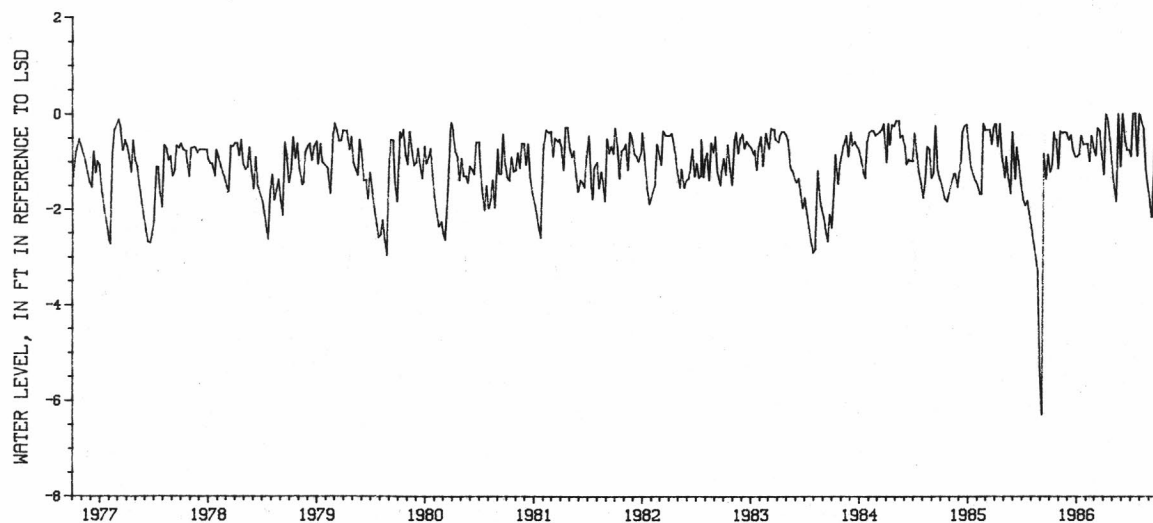
PERIOD OF RECORD.--September 1950 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured 0.10 ft below land-surface datum, May 14, 1960, Feb. 28, 1971, and Feb. 13, 1976; lowest measured 6.55 ft below land-surface datum, Feb. 11, 1961.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 0.00 ft below land-surface datum, Apr. 12; May 24, June 7, July 12, 19 and Aug. 2; lowest measured, 2.18 ft below land-surface datum, Sept. 11.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05, 1985	1.23	JAN 04, 1986	.90	APR 12, 1986	0.00	JUL 12, 1986	0.00
12	1.05	11	.85	19	.17	19	0.00
19	.38	18	.46	26	.55	26	.90
26	.55	25	.65	MAY 05	1.32	AUG 02	0.00
NOV 02	1.15	FEB 08	.63	10	1.57	09	.17
09	.36	15	1.00	16	1.85	16	.32
16	.41	22	.46	24	0.00	23	1.15
23	.38	MAR 01	.74	31	1.12	30	1.55
30	.41	08	.88	JUN 07	0.00	SEP 06	1.88
DEC 07	.55	15	.30	16	.60	13	2.17
14	.45	22	.37	21	.77	20	1.03
21	.75	29	.88	28	.76	27	.16
28	.90	APR 05	1.28	JUL 05	.90		



GROUND-WATER LEVELS

MADISON COUNTY

430056075354102. Local number, M 178.

LOCATION.--Lat 43°00'56", long 75°35'41", Hydrologic Unit 04140202, at Valley Mills.

Owner: Donald L. Greene.

AQUIFER.--Water-table aquifer in gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in, depth 15.3 ft, cased to 16 ft, open end.

INSTRUMENTATION.--Digital recorder--60-minute punch, Oct. 1 to May 5; recorder removed May 5, float tape read weekly by observer May 6 to Sept. 30.

DATUM.--Elevation of land-surface datum is 573.76 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of flange, 3.06 ft above land-surface datum.

REMARKS.--Well drilled April 1974 as a replacement for 430056075354101 (local number M 177), located 10 ft west; which has a period of record from October 1965 to September 1973 (unpublished).

PERIOD OF RECORD.--April 1975 to current year. Unpublished record for April 1975 to September 1976 is available in files of the Geological Survey.

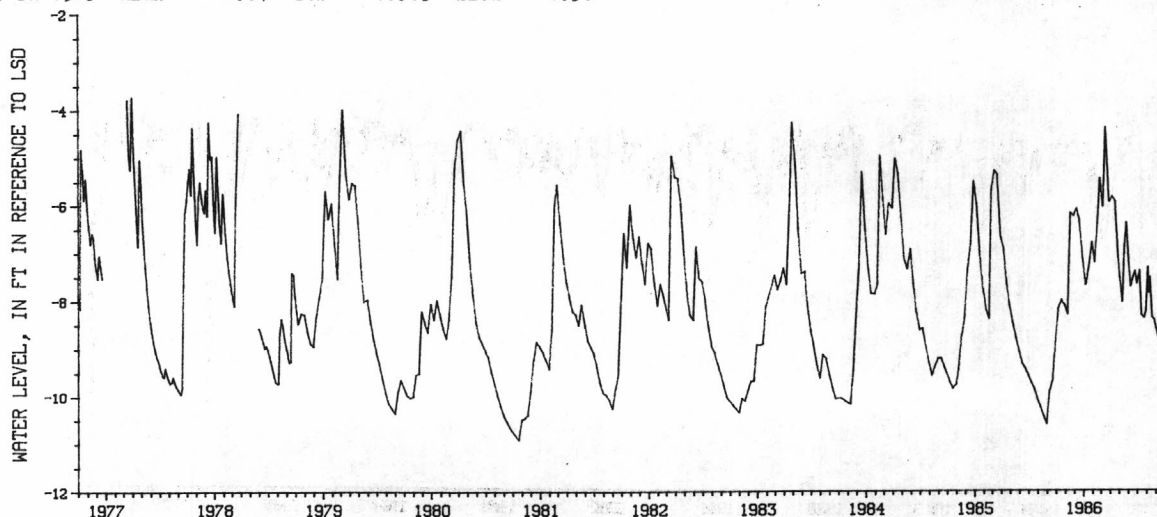
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.60 ft below land-surface datum, Mar. 5, 1979; lowest, 10.97 ft below land-surface datum, Oct. 24, 25, 1980.

EXTREMES FOR CURRENT YEAR.--Highest water level, 3.31 ft below land-surface datum, Mar. 15; lowest, 9.00 ft below land-surface datum, Sept. 18.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.05	8.15	6.08	7.21	6.90	5.67	6.11	7.18	---	---	8.23	---
2	8.01	8.19	5.60	7.29	6.94	5.93	6.24	7.28	---	7.67	---	---
3	7.99	8.23	5.47	7.34	7.02	6.02	6.38	7.37	---	---	---	---
4	7.97	8.26	5.52	7.41	7.08	6.00	6.49	7.45	7.20	---	---	---
5	7.99	8.27	5.59	7.44	7.07	5.99	6.60	7.50	---	---	---	---
6	8.03	8.28	5.68	7.50	7.04	5.96	6.47	---	---	---	---	---
7	8.07	8.28	5.81	7.57	7.05	5.97	6.08	---	---	---	---	---
8	8.12	8.31	5.90	7.64	7.12	6.12	5.92	---	---	---	7.32	---
9	8.15	8.33	6.01	7.66	7.18	6.22	5.87	---	---	---	---	---
10	8.18	8.31	6.10	7.70	7.23	6.07	5.85	---	---	---	---	---
11	8.22	8.21	6.13	7.75	7.29	5.08	5.81	---	7.73	7.39	7.87	---
12	8.27	8.08	5.96	7.78	7.35	5.04	5.88	---	---	---	---	---
13	8.29	7.97	5.80	7.83	7.41	4.90	5.98	---	---	---	---	---
14	8.29	7.82	5.81	7.87	7.47	4.49	6.09	8.05	---	---	---	---
15	8.26	7.36	5.89	7.93	7.51	3.59	6.20	---	---	---	7.54	---
16	8.16	6.99	5.96	7.97	7.55	3.63	6.18	---	7.58	---	---	---
17	8.11	6.58	6.04	8.00	7.62	3.87	5.90	---	---	8.33	---	---
18	8.06	6.25	6.06	7.97	7.63	4.09	5.81	---	7.54	---	---	9.00
19	8.05	6.15	6.16	7.75	7.39	4.19	5.87	---	---	---	---	---
20	8.01	6.18	6.34	7.33	6.35	4.39	5.96	---	---	---	---	---
21	7.95	6.28	6.39	6.74	5.35	4.63	6.06	6.90	---	---	---	---
22	7.92	6.34	6.50	6.40	4.95	4.82	6.21	---	---	---	8.38	---
23	7.93	6.39	6.58	6.25	5.00	4.96	6.34	---	---	---	---	---
24	7.94	6.45	6.66	6.23	5.13	5.13	6.47	---	---	---	---	8.39
25	7.96	6.54	6.73	6.27	5.22	5.30	6.57	---	7.41	8.38	---	---
26	7.98	6.59	6.79	6.32	5.33	5.44	6.69	---	---	---	---	---
27	7.98	6.41	6.85	6.38	5.45	5.56	6.80	---	---	---	---	---
28	8.03	6.28	6.93	6.50	5.46	5.62	6.90	6.40	---	---	8.42	---
29	8.06	6.27	7.00	6.62	---	5.71	7.00	---	---	---	---	---
30	8.08	6.26	7.07	6.72	---	5.83	7.10	---	---	---	---	---
31	8.12	---	7.14	6.81	---	5.98	---	---	---	---	---	---
MEAN	8.07	7.27	6.21	7.23	6.65	5.23	6.26	---	---	---	---	---
LOW	8.29	8.33	7.14	8.00	7.63	6.22	7.10	---	---	---	---	---
HIGH	7.92	6.15	5.47	6.23	4.95	3.59	5.81	---	---	---	---	---

CAL YR 1985 MEAN 8.07 LOW 10.65 HIGH 4.50



NIAGARA COUNTY

430655079022001. Local number, Ni 69.

LOCATION.--Lat 43°06'55", long 79°02'20", Hydrologic Unit 04120104, 20th Street and Beech Avenue, Niagara Falls.

Owner: City of Niagara Falls.

AQUIFER.--Confined and water-table aquifer in Lockport Dolomite of Middle Silurian age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 8 in to 6 in, depth 36 ft, cased 8 in 0 ft to 17 ft, open hole 6 in 17 ft to 36 ft.

INSTRUMENTATION.--Weekly measurement made with chalked tape by observer.

DATUM.--Elevation of land-surface datum is 596.21 ft U.S. Lake Survey datum (levels by Uhl, Hall, and Rich).

Measuring point: top of 2 in opening in 6 in plug of 8 in extended casing, 3.60 ft above land-surface datum.

PERIOD OF RECORD.--October 1958 to current year. Unpublished record for October 1958 to September 1976 is available in files of the Geological Survey.

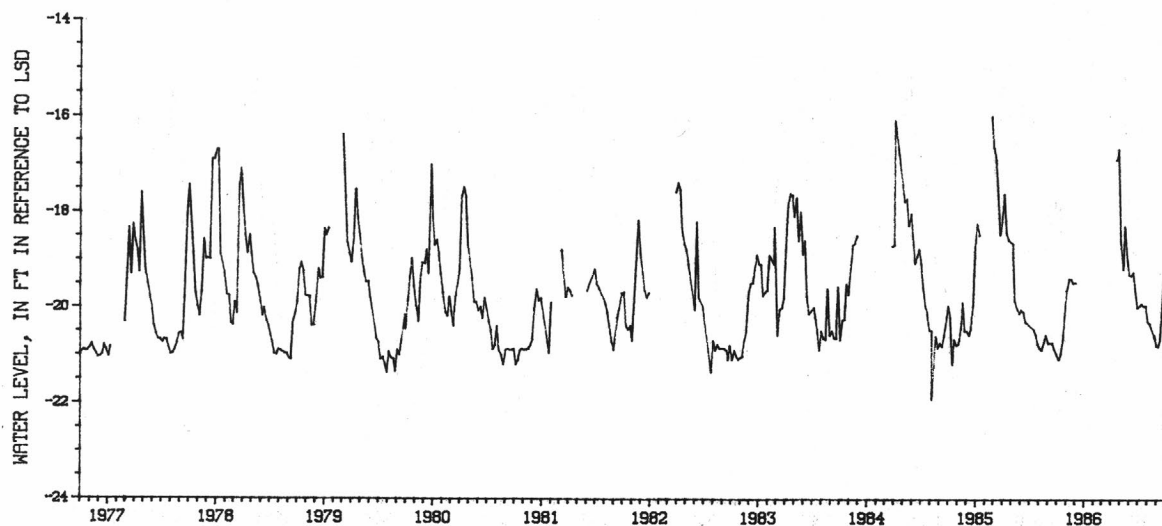
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.00 ft below land-surface datum, Feb. 25, 1985;

lowest measured, 22.21 ft below land-surface datum, Aug. 3, 1959.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 16.68 ft below land-surface datum, Apr. 28; lowest measured, 21.09 ft below land-surface datum, Oct. 9.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 07, 1985	21.08	DEC 02, 1985	19.47	JUN 03, 1986	19.32	JUL 28, 1986	19.95
09	21.09	APR 21, 1986	16.90	09	19.34	AUG 04	20.29
15	20.97	24	16.88	16	19.26	11	20.35
23	20.62	28	16.68	23	19.64	26	20.62
28	20.18	MAY 05	18.60	30	20.00	27	20.58
NOV 04	19.64	14	19.20	JUL 01	20.00	SEP 02	20.80
12	19.40	19	18.29	07	19.96	08	20.82
18	19.40	27	18.96	14	19.92	15	20.66
25	19.49	28	19.00	21	19.97	30	19.14



NIAGARA COUNTY

431308078544501. Local number, Ni 70.

LOCATION.--Lat 43°13'08", long 78°54'45", Hydrologic Unit 04130001, near Ransomville.

Owner: Calvin C. Schultz.

AQUIFER.--Water-table aquifer in sand of Pleistocene age.

WELL CHARACTERISTICS.--Dug unused well, diameter 4 ft to 5 ft (reported), stone-lined, depth 24 ft.

INSTRUMENTATION.--Float tape read weekly by observer.

DATUM.--Elevation of land-surface datum is 336.66 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 1 in hole in steel cover, at land-surface datum.

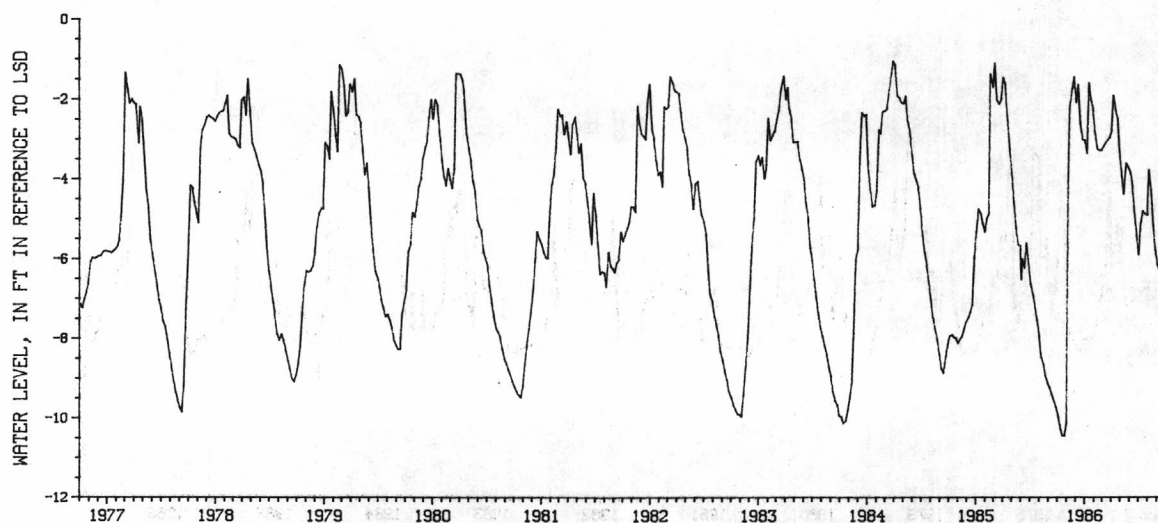
PERIOD OF RECORD.--August 1972 to current year. Unpublished record for August 1972 to September 1976 is available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.05 ft below land-surface datum, Mar. 31, 1984; lowest measured, 10.45 ft below land-surface datum, Oct. 19, 26, 1985.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 1.45 ft below land-surface datum, Nov. 30; lowest measured, 10.45 ft below land-surface datum, Oct. 19, 26.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05, 1985	9.95	JAN 04, 1986	3.05	APR 05, 1986	2.81	JUL 05, 1986	5.92
13	10.27	12	3.37	12	1.91	12	5.12
19	10.45	19	1.60	19	2.27	19	4.82
26	10.45	25	2.01	27	2.54	26	4.90
NOV 02	10.15	FEB 01	2.25	MAY 03	3.36	AUG 03	4.93
09	4.04	08	2.86	10	3.94	09	3.78
15	2.19	15	3.26	16	4.40	16	4.29
23	1.77	22	3.30	24	3.62	23	5.16
30	1.45	MAR 01	3.29	31	3.72	30	5.81
DEC 07	2.10	08	3.20	JUN 07	3.86	SEP 06	6.18
14	1.65	15	3.11	14	4.20	13	6.30
21	2.66	22	3.04	21	4.84	21	5.62
28	3.02	29	2.97	28	5.42	27	5.25



ONTARIO COUNTY

425840077133901. Local number, Ot 900.

LOCATION.--Lat 42°58'40", long 77°13'39", Hydrologic Unit 04140201, at New York State Thruway Interchange 43, near Manchester.

Owner: New York State Thruway Authority.

AQUIFER.--Confined aquifer in Camillus Shale of the Salina Group of Late Silurian age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in, depth 139 ft, cased to 11 ft, open hole.

INSTRUMENTATION.--Float tape read weekly by observer.

DATUM.--Elevation of land-surface datum is 556.70 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of instrument shelf, 11.63 ft above land-surface datum.

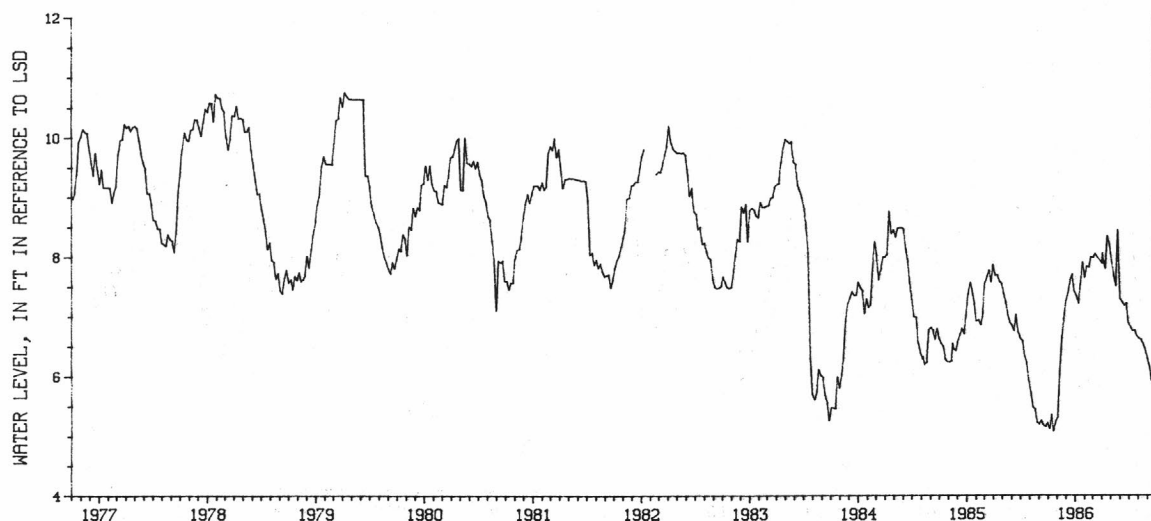
PERIOD OF RECORD.--May 1955 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured 11.14 ft above land-surface datum, Mar. 15, 1976; lowest measured 4.59 ft above land-surface datum, Nov. 11, 1957.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 8.44 ft above land-surface datum, May 26; lowest measured, 5.07 ft above land-surface datum, Oct. 21.

WATER LEVEL, IN FEET ABOVE LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 07, 1985	5.11	JAN 06, 1986	7.33	APR 14, 1986	7.79	JUL 14, 1986	6.74
14	5.35	13	7.21	21	8.34	21	6.76
21	5.07	20	7.52	28	8.17	28	6.66
28	5.24	27	7.90	MAY 12	7.67	AUG 04	6.62
NOV 04	5.31	FEB 03	7.64	19	7.50	11	6.60
11	6.04	10	7.83	26	8.44	18	6.53
18	6.61	17	7.81	JUN 02	7.28	25	6.44
25	6.95	24	7.99	09	7.23	SEP 01	6.29
DEC 02	7.26	MAR 03	7.97	16	7.17	08	6.16
09	7.39	10	8.04	23	7.21	15	5.92
16	7.60	APR 02	7.88	30	6.88	22	6.00
23	7.70	05	8.05	JUL 07	6.81	29	6.12
30	7.41	07	7.94				



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.--Water-table aquifer in till of Pleistocene age.

WELL CHARACTERISTICS.--Dug unused well, diameter 36 in, depth 15 ft, stone-lined.

INSTRUMENTATION.--Weekly measurement with chalked tape by observer.

DATUM.--Elevation of land-surface datum is 1,432.44 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top edge of hole drilled through concrete well cover, at land-surface datum.

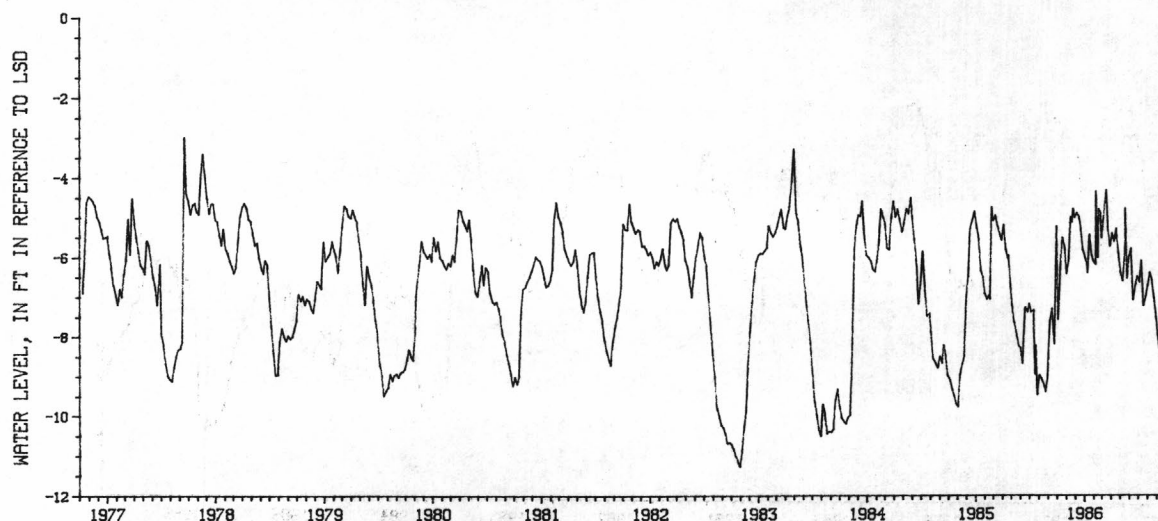
PERIOD OF RECORD.--May 1953 to current year. Unpublished record for May 1953 to September 1976 is available in files of the Geological Survey.

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

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 4.33 ft below land-surface datum, Mar. 18; lowest measured, 8.50 ft below land-surface datum, Sept. 15.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02, 1985	5.23	JAN 05, 1986	6.04	APR 07, 1986	5.42	JUL 02, 1986	6.56
06	7.60	12	6.20	14	5.63	07	6.65
14	6.27	14	6.41	21	5.30	14	6.10
21	5.52	20	5.45	28	5.90	21	7.25
28	5.78	27	5.97	MAY 05	6.40	28	7.00
NOV 04	6.44	FEB 02	6.12	12	6.62	AUG 04	6.72
11	6.06	09	6.20	20	5.92	11	6.40
18	5.00	11	4.36	21	4.79	18	6.60
22	5.14	17	6.04	27	6.56	25	7.02
26	4.80	20	4.81	JUN 02	6.00	SEP 01	7.52
DEC 01	5.03	26	4.92	09	5.80	07	7.98
08	4.91	MAR 02	5.55	16	7.10	15	8.50
15	5.00	18	4.33	23	6.72	22	7.10
22	5.30	24	5.34	30	6.50	29	6.43
29	5.84	31	5.75				



STEBEN COUNTY

422445077203301. Local number, Sb 472.

LOCATION.--Lat 42°24'45", long 77°20'33", Hydrologic Unit 02050105, near Kanona.

Owner: David Owens.

AQUIFER.--Water-table aquifer in gravel of Pleistocene age.

WELL CHARACTERISTICS.--Bored observation well, diameter 2.5 in, depth 17 ft, filled in from original depth of 18 ft, cased to 16 ft, 1.25 in well point (60-gauze screen 16 ft to 18 ft, damaged during well installation).

INSTRUMENTATION.--Weekly measurement with chalked tape by observer.

DATUM.--Elevation of land-surface datum is 1,209.78 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.00 ft above land-surface datum.

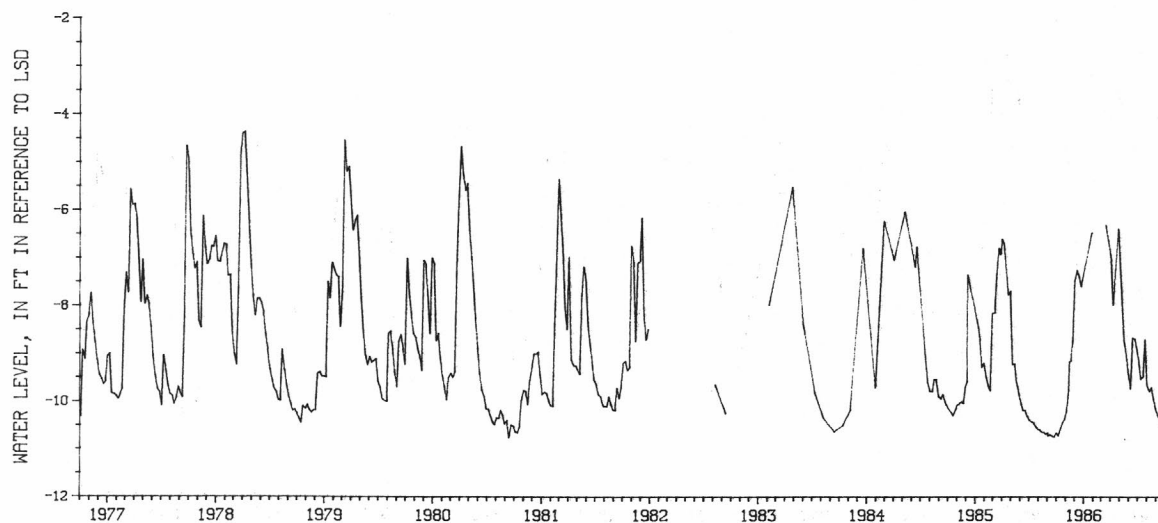
PERIOD OF RECORD.--November 1965 to current year. Unpublished record for November 1965 to September 1976 is available in files of the Geological Survey.

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

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 6.31 ft below land-surface datum, Mar. 17; lowest measured, 10.73 ft below land-surface datum, Oct. 8.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1985	10.67	DEC 10, 1985	7.26	JUN 01, 1986	9.44	AUG 03, 1986	9.69
02	10.67	17	7.40	08	9.74	10	9.79
08	10.73	20	7.49	15	8.66	12	9.78
22	10.45	24	7.60	22	8.70	17	9.71
29	10.37	JAN 28, 1986	6.48	29	8.91	24	9.96
NOV 05	10.20	MAR 17	6.31	JUL 06	9.19	31	10.16
12	9.78	APR 04	7.05	13	9.54	SEP 07	10.29
15	9.16	11	8.00	15	9.50	14	10.37
19	9.15	29	6.39	20	9.49	21	10.42
26	8.74	MAY 18	8.78	27	8.70	28	10.58
DEC 03, 1985	7.46	25	9.04				



GROUND-WATER LEVELS

WYOMING COUNTY

423739077595501. Local number, Wo 1.

LOCATION.--Lat 42°37'39", long 77°59'55", Hydrologic Unit 04130002, Letchworth State Park, near Castile.

Owner: New York State Department of Environmental Conservation.

AQUIFER.--Water-table aquifer in till of Pleistocene age.

WELL CHARACTERISTICS.--Driven unused well, diameter 2 in, depth 14 ft, well point (60-gauze screen 12 ft to 14 ft).

INSTRUMENTATION.--Monthly measurement with chalked tape by observer.

DATUM.--Elevation of land-surface datum is 1,045.44 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 2 in by 1 in reducing coupling, 3.33 ft above land-surface datum.

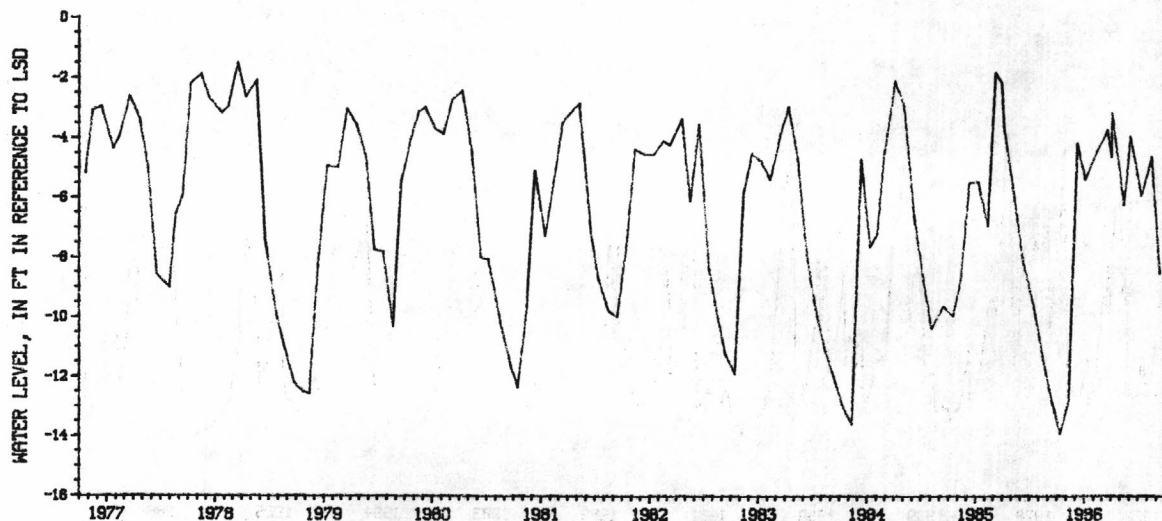
PERIOD OF RECORD.--November 1942 to current year.

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

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 3.16 ft below land-surface datum, Apr. 8; lowest measured, 13.93 ft below land-surface datum, Oct. 13.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 13, 1985	13.93	FEB 07, 1986	4.58	APR 08, 1986	3.16	JUL 14, 1986	5.95
NOV 11	12.79	MAR 22	3.74	MAY 17	6.26	AUG 19	4.64
DEC 11	4.17	APR 06	4.64	JUN 08	3.95	SEP 15	8.55
JAN 06, 1986	5.40						



WYOMING COUNTY

423743078070802. Local number, Wo 4.

LOCATION.--Lat 42°37'43", long 78°07'08", Hydrologic Unit 04130002, near Gainesville.

Owner: Letchworth Central School.

AQUIFER.--Water-table aquifer in sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in, depth 20 ft, cased to 20 ft, open end.

INSTRUMENTATION.--Digital recorder--60-minute punch. Recorder removed May 27, weekly readings obtained by paid observer.

DATUM.--Elevation of land-surface datum is 1,606.76 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing 2.60 ft above land-surface datum.

REMARKS.--Well drilled May 1974 as a replacement for 423743078070801 (local number Wo 2), located 25 ft southeast, which has a period of record from November 1965 to May 1974 (unpublished). Missing record from Feb. 7-19 due to dead batteries.

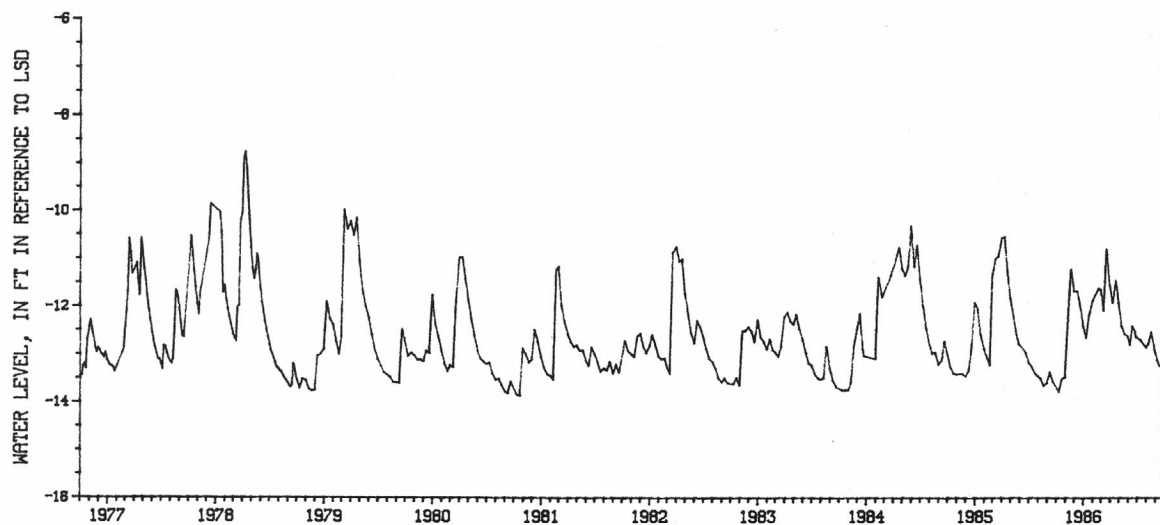
PERIOD OF RECORD.--May 1974 to current year. Unpublished record for May 1974 to September 1976 is available in files of the Geological Survey.

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

EXTREMES FOR CURRENT YEAR.--Highest observed water level, 10.60 ft below land-surface datum, Mar. 16; lowest, 13.80 ft below land-surface datum, Oct. 12.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.72	13.48	11.63	12.45	11.96	11.73	11.60	11.98	---	---	---	---
2	13.74	13.50	11.41	12.48	12.00	11.80	11.67	12.04	---	---	---	---
3	13.74	13.52	11.31	12.50	12.04	11.89	11.72	12.09	---	---	---	---
4	13.75	13.50	11.30	12.54	12.06	11.95	11.77	12.14	---	---	---	---
5	13.76	13.28	11.32	12.56	11.83	12.00	11.82	12.18	---	---	---	---
6	13.76	12.67	11.37	12.58	11.69	12.06	11.85	12.22	---	---	---	---
7	13.77	12.31	11.46	12.60	---	12.14	11.88	12.27	12.80	---	---	13.12
8	13.77	12.23	11.54	12.62	---	12.19	11.89	12.32	---	---	12.78	---
9	13.78	12.23	11.61	12.64	---	12.24	11.91	12.37	---	---	---	---
10	13.79	12.24	11.68	12.66	---	12.09	11.93	12.41	---	---	---	---
11	13.79	12.13	11.72	12.69	---	11.52	11.94	12.45	---	---	---	---
12	13.79	12.00	11.70	12.71	---	11.33	11.96	12.49	---	---	---	---
13	13.77	11.84	11.69	12.74	---	11.18	11.98	12.52	---	12.71	---	---
14	13.75	11.52	11.71	12.76	---	10.86	12.00	12.56	---	---	---	13.24
15	13.71	11.38	11.74	12.78	---	10.67	12.02	12.59	12.41	---	---	---
16	13.63	11.33	11.78	12.80	---	10.61	11.98	12.61	---	---	---	---
17	13.60	11.20	11.81	12.81	---	10.69	11.76	12.61	---	---	---	---
18	13.60	11.12	11.87	12.80	---	10.77	11.55	12.63	---	---	12.54	---
19	13.60	11.14	11.92	12.63	11.94	10.77	11.47	12.65	---	---	---	---
20	13.52	11.22	11.95	12.18	11.62	10.80	11.46	12.58	---	---	---	---
21	13.47	11.32	11.99	11.64	11.27	10.87	11.47	12.50	---	---	---	---
22	13.45	11.39	12.03	11.46	11.13	10.95	11.53	12.48	---	---	---	---
23	13.45	11.47	12.08	11.44	11.18	11.02	11.58	12.45	---	---	---	13.23
24	13.46	11.54	12.12	11.45	11.29	11.12	11.63	12.44	12.53	---	---	---
25	13.44	11.62	12.17	11.49	11.38	11.19	11.68	12.47	---	---	---	---
26	13.42	11.67	12.21	11.54	11.47	11.25	11.73	12.51	---	---	---	---
27	13.41	11.67	12.25	11.60	11.56	11.30	11.78	12.54	12.64	---	---	---
28	13.41	11.65	12.30	11.68	11.65	11.36	11.83	---	---	---	---	13.25
29	13.42	11.66	12.34	11.75	---	11.42	11.89	---	---	---	---	---
30	13.44	11.68	12.38	11.83	---	11.49	11.94	12.63	---	---	---	---
31	13.47	---	12.41	11.90	---	11.56	---	---	---	12.86	12.96	---
MEAN	13.62	11.98	11.83	12.27	---	11.38	11.77	---	---	---	---	---
LOW	13.79	13.52	12.41	12.81	---	12.24	12.02	---	---	---	---	---
HIGH	13.41	11.12	11.30	11.44	---	10.61	11.46	---	---	---	---	---



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FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound units	By	To obtain SI units
<i>Length</i>		
inches (in)	2.54×10^1	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^0	kilometers (km)
<i>Area</i>		
acres	4.047×10^3	square meters (m ²)
	4.047×10^{-1}	square hectometers (hm ²)
	4.047×10^{-3}	square kilometers (km ²)
square miles (mi ²)	2.590×10^0	square kilometers (km ²)
<i>Volume</i>		
gallons (gal)	3.785×10^0	liters (L)
	3.785×10^0	cubic decimeters (dm ³)
	3.785×10^{-3}	cubic meters (m ³)
million gallons	3.785×10^3	cubic meters (m ³)
	3.785×10^{-3}	cubic hectometers (hm ³)
cubic feet (ft ³)	2.832×10^1	cubic decimeters (dm ³)
	2.832×10^{-2}	cubic meters (m ³)
cfs-days	2.447×10^3	cubic meters (m ³)
	2.447×10^{-3}	cubic hectometers (hm ³)
acre-feet (acre-ft)	1.233×10^3	cubic meters (m ³)
	1.233×10^{-3}	cubic hectometers (hm ³)
	1.233×10^{-6}	cubic kilometers (km ³)
<i>Flow</i>		
cubic feet per second (ft ³ /s)	2.832×10^1	liters per second (L/s)
	2.832×10^1	cubic decimeters per second (dm ³ /s)
	2.832×10^{-2}	cubic meters per second (m ³ /s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm ³ /s)
	6.309×10^{-5}	cubic meters per second (m ³ /s)
million gallons per day	4.381×10^1	cubic decimeters per second (dm ³ /s)
	4.381×10^{-2}	cubic meters per second (m ³ /s)
<i>Mass</i>		
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons

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