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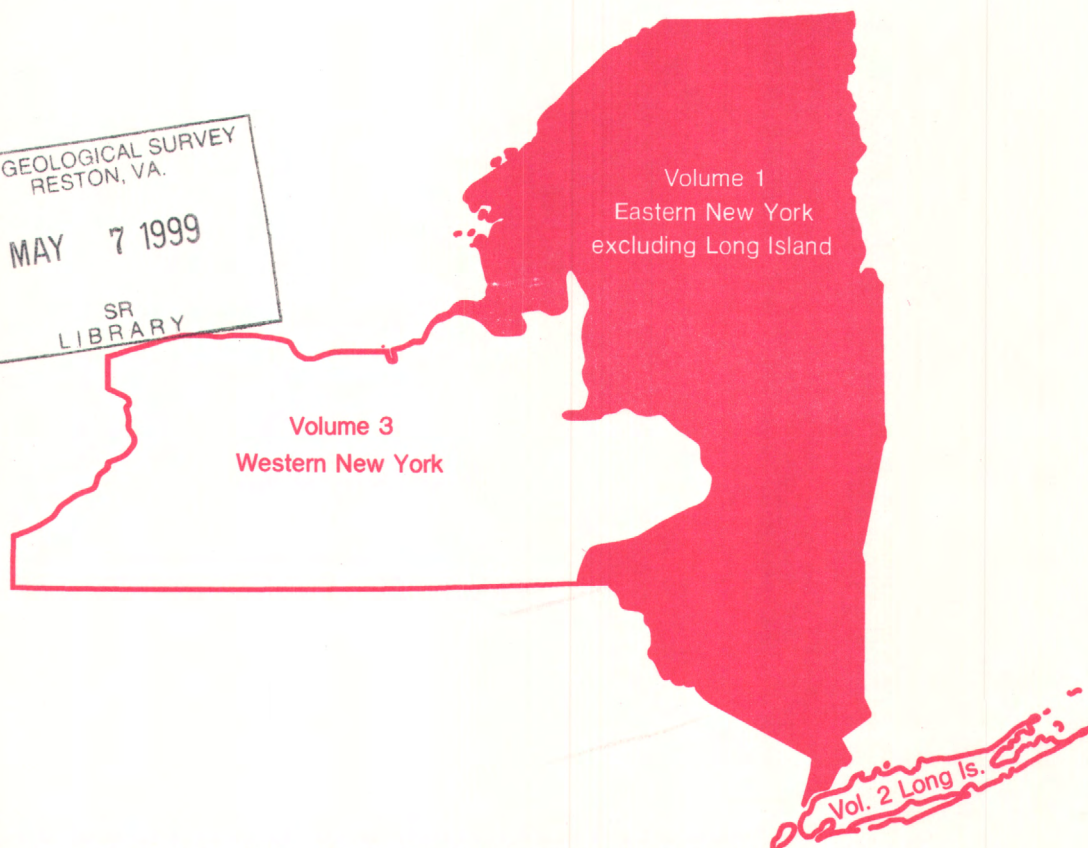
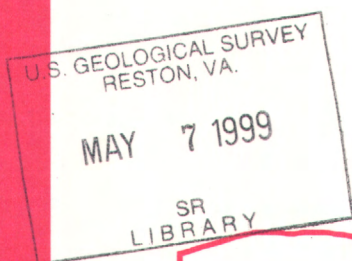


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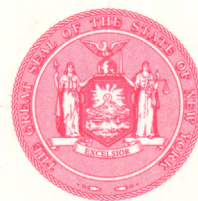
Water Resources Data New York Water Year 1997

Volume 1. Eastern New York excluding Long Island



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NY-97-1

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



DECEMBER

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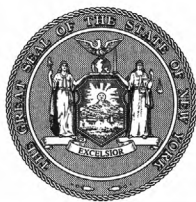
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Water Resources Data New York Water Year 1997

Volume 1. Eastern New York excluding Long Island

by G. K. Butch, R. Lumia, and P. M. Murray



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NY-97-1

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

U.S. DEPARTMENT OF THE INTERIOR

BRUCE BABBITT, Secretary

U.S. GEOLOGICAL SURVEY

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or <http://ny.usgs.gov>

1998

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PREFACE

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

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

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

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14. SUBJECT TERMS *New York, *Hydrologic, *Surface Water, *Ground Water, *Water Quality, *Stream-flow, Flow rates, Gaging stations, Lakes, Reservoirs, Chemical Analysis, Sediments, Water analysis, Water temperatures, Water levels, Water wells, Data Collection sites			15. NUMBER OF PAGES 350	
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(Letter after station name designates type of data: (d) discharge, (e) elevation, (g) gage height, (v) contents, (c) chemical, (b) biological, (s) sediment, (m) minor element, (p) pesticide, (n) nutrient, (o) organic, (r) radiochemical, (t) water temperature)

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* * * * *

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* * * * *

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

[Letters after station name designate type of data collected:
(d) discharge, (e) elevation, (g) gage height]

Station name	Station number	Drainage area (mi ²)	Period of record
Housatonic River Basin			
Tenmile River near Wassaic, NY (d)	01199420	120	1959-61
Swamp River near Dover Plains, NY (d)	01199490	46.6	1961-68
Tenmile River at Dover Plains, NY (d)	01199500	189	1901-04
Blind Brook Basin			
Blind Brook at Rye, NY (d)	01300000	9.20	1944-89
Beaver Swamp Brook Basin			
Beaver Swamp Brook at Mamaroneck, NY (d)	01300500	4.59	1944-89
Mamaroneck River Basin			
Mamaroneck River at Mamaroneck, NY (d)	01301000	23.1	1944-89
Hutchinson River Basin			
Hutchinson River at Pelham, NY (d)	01301500	5.76	1944-89
Bronx River Basin			
Bronx River at Bronxville, NY (d)	01302000	26.5	1944-89
Hudson River Basin			
Opalescent River near Tahawus, NY (d)	01311900	9.02	1921-23
Arbutus Pond Outlet near Newcomb, NY (d)	01311992*	1.22	1991-92
Hudson River near Newcomb, NY (d)	01312000*	192	1925-87
Cedar River near Indian Lake, NY (d)	01313000	85.3	1911-18
Cedar River below Chain Lakes near Indian Lake, NY (d)	01313500	160	1931-61
Hudson River at Gooley near Indian Lake, NY (d)	01314000	419	1916-68
North Creek at North Creek, NY (d)	01316000	21.9	1924-32
Schroon River at Riverbank, NY (d)	01317000*	527	1907-70
Schroon River at Warrensburg, NY (d)	01317500	567	1899-1902
Hudson River at Thurman, NY (d)	01318000	1,533	1907-20
East Branch Sacandaga River at Griffin, NY (d)	01319000	114	1933-78
Sacandaga River at Wells, NY (d)	01319500	260	1907-11
West Branch Sacandaga River near Wells, NY (d)	01320500	210	1911-16
West Stony Creek near Northville, NY (d)	01321500	88.0	1933-37
East Stony Creek near Northville, NY (d)	01322000	88.7	1933-37
Sacandaga River at Northville, NY (d)	01322500	712	1907-11
Kennyetto Creek near Broadalbin, NY (d)	01323000	28.3	1939-46
Hudson River at Corinth, NY (d)	01325420	2,755	1904-13
Hudson River at Spier Falls, NY (d)	01326500	2,779	1913-23
Glens Falls Feeder at Glens Falls, NY (d)	01327000		1927-64
Glens Falls Feeder at Dunham Basin, NY (d)	01327500		1945-80
Bond Creek at Dunham Basin, NY (d)	01328000	14.7	1947-82
Batten Kill at Battenville, NY (d)	01329500*	394	1923-68
Hudson River at Schuylerville, NY (d)	01329650	3,440	1977-79
Kayaderosseras Creek near West Milton, NY (d)	01330500	90.0	1927-95
Little Hoosic River at Petersburg, NY (d)	01333500*	56.1	1952-96
Hoosic River at Buskirk, NY (d)	01335000	577	1903-09
Hudson River at Mechanicville, NY (d)	01335500	4,500	1896-1956
Oriskany Creek at Colemans Mills, NY (g)	01337995	134	1904-06
Oriskany Creek near Oriskany, NY (d)	01338000	139	1901-05
Oriskany Creek at State Dam at Oriskany, NY (d)	01338500	140	1899-1901 1904-05
Sauquoit Creek at New York Mills, NY (d)	01339000	46.6	1898-1900
Mohawk River at Utica, NY (d)	01340000	514	1901-03
Reall Creek near Utica, NY (d)	01340500	5.68	1901-05
Johnston Brook near Utica, NY (d)	01341000	0.62	1903-05
Sylvan Glen Creek near New Hartford, NY (d)	01341500	1.10	1904-07
Graefenberg Creek near New Hartford, NY (d)	01342000	0.35	1903-07
Starch Factory Creek near New Hartford, NY (d)	01342500	3.66	1903-07

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

Station name	Station number	Drainage area (mi ²)	Period of record
Hudson River Basin--continued			
Steele Creek at Ilion, NY (d)	01342730	26.2	1967-68
West Canada Creek at Nobleboro, NY (d)	01342800*	193	1967-68
West Canada Creek near Hinckley, NY (d)	01343500	360	1900-10
West Canada Creek at Hinckley, NY (d)	01344000	375	1919-59
Ninemile Feeder near Holland Patent, NY (d)	01344500		1919-68
West Canada Creek at Poland, NY (d)	01345000	463	1913-14
West Canada Creek at Middleville, NY (d)	01345500	512	1899-1901
Mohawk River at Little Falls, NY (d)	01346500	1,290	1898-1910
			1912-13
East Canada Creek at Dolgeville, NY (d)	01347500	258	1898-1913
			1928-46
East Canada Creek at East Creek, NY (d)	01348000	289	1946-95
Otsquago Creek at Fort Plain, NY (d)	01349000	61.0	1950-89
Cayadutta Creek near Johnstown, NY (d)	01349500	38.4	1899-1900
Silver Lake Outlet at Hensonville, NY (d)	01349858	6.66	1976-77
West Kill at North Blenheim, NY (d)	01350200	44.6	1975-87
Schoharie Creek at Middleburg, NY (d)	01350500	532	1927-39
Fox Creek at West Berne, NY (d)	01351000	67.2	1924-32
			1962-68
Alplaus Kill near Charlton, NY (d)	01355000	23.7	1913-17
Mohawk River at Vischer Ferry Dam, NY (d)	01356000	3,380	1899-1910
			1913-19
Poesten Kill near Troy, NY (d)	01358500	89.4	1923-68
Mill Creek near East Greenbush, NY (d)	01359150	9.74	1975-77
Hunger Kill at Guilderland, NY (d)	01359513	8.16	1967-77
Normans Kill near Westmere, NY (d)	01359519	131	1968-79
Normans Kill at Albany, NY (d)	01359528*	168	1979-83
Moordener Kill at Castleton-on-Hudson, NY (d)	01359750	32.6	1958-95
Coeymans Creek near Selkirk, NY (d)	01359902	35.1	1967-77
Silver Creek at Dormansville, NY (d)	01359918	2.90	1978-81
Hannicrois Creek near New Baltimore, NY (d)	01359924	61.6	1968-77
Kinderhook Creek near Garfield, NY (d)	01360000	62.8	1893-1895
Kinderhook Creek at East Nassau, NY (d)	01360500	116	1892-1893
Kinderhook Creek at Rossman, NY (d)	01361000*	329	1906-14
			1928-68
Claverack Creek at Claverack, NY (d)	01361200	60.6	1960-68
			1993-95
Catskill Creek at Oak Hill, NY (d)	01361500*	98.0	1929-77
Tenmile Creek at Oak Hill, NY (d)	01361570	35.3	1969-78
Catskill Creek at South Cairo, NY (d)	01362000	270	1901-07
Roeliff Jansen Kill near Hillsdale, NY (d)	01362100*	27.5	1957-60
Esopus Creek at Shandaken, NY (d)	01362198	59.5	1964-88
Esopus Creek near Olivebridge, NY (d)	01363500	239	1903-04
			1907-14
Esopus Creek at Kingston, NY (d)	01364000	317	1901-09
Saw Kill at Red Hook, NY (d)	01364800	20.9	1959-66
Chestnut Creek above Red Brook at Grahamsville, NY (d)	01365450	12.2	1937-39
Chestnut Creek at Grahamsville, NY (d)	01365500	20.9	1939-87
Rondout Creek near Lackawack, NY (d)	01366500	100	1932-67
Sandburg Creek at Ellenville, NY (d)	01366650	56.7	1957-77
Wallkill River near Unionville, NY (d)	01368000	140	1937-81
Rutgers Creek at Gardnerville, NY (d)	01368500*	59.7	1943-68
Pochuck Creek near Pine Island, NY (d)	01369000	98.0	1937-77
Quaker Creek at Florida, NY (d)	01369500	9.69	1937-79
Wallkill River at Pellets Island, NY (d)	01370000	380	1920-68
Wallkill River near Phillipsburg, NY (d)	01370500	406	1937-59
Crystal Brook near Middletown, NY (d)	01370600	8.41	1964-68
Shawangunk Kill at Pine Bush, NY (d)	01371000	102	1924-32
			1957-71
			1989-93
Wallkill River at New Paltz, NY (d)	01372000	739	1901-04
Crum Elbow Creek at Hyde Park, NY (d)	01372040	17.3	1959-62
Fall Kill at Poughkeepsie, NY (d)	01372051	18.8	1993-95
Casper Creek near Wappingers Falls, NY (d)	01372065	10.1	1969-76
East Branch Wappinger Creek near Clinton Corners, NY (d)	01372100	33.6	1956-63
Wappinger Creek near Clinton Corners, NY (d)	01372200	92.4	1956-76
Little Wappinger Creek at Salt Point, NY (d)	01372300	32.9	1956-76
Great Spring Creek at Pleasant Valley, NY (d)	01372400	15.5	1960-66
Fishkill Creek at Hopewell Junction, NY (d)	01372800*	57.3	1958-76
Whortlekill Creek at Hopewell Junction, NY (d)	01372850	7.37	1959-68
Fishkill Creek at Beacon, NY (d)	01373500	190	1944-68
Seely Brook near Chester, NY (d)	01373600	12.8	1964-68
Woodbury Creek near Highland Mills, NY (d)	01373690	11.2	1966-68
Lake Tiorati Brook at Cedar Flats, NY (d)	01374420	10.6	1960-63

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

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Station name	Station number	Drainage area (mi ²)	Period of record
Hudson River Basin--continued			
Cedar Pond Brook at Stony Point, NY (d)	01374440	17.3	1960-62
Minisceongo Creek at Thiells, NY (d)	01374480	15.1	1960-63
Bird Brook near Croton, NY (d)	01375500	0.40	1933-38 1940-41
Sparkill Creek at Tappan, NY (d)	01376270	4.71	1960-63 1965-66
Sparkill Creek at Tappan Station, NY (d)	01376275	9.42	1965-66
Sparkill Creek at Sparkill, NY (d)	01376280	10.7	1959-68 1976-78
Saw Mill River at Yonkers, NY (d)	01376500	25.6	1944-89 1993-95
Hackensack River Basin			
Hackensack River at Brookside Park, NY (d)	01376600	13.2	1960-63
Naurauschaun Brook at Naurauschaun, NY (d)	01376850	5.89	1960-63
Hackensack River at Naurauschaun, NY (d)	01376900	44.6	1960-62
Pascack Brook Tributary at Spring Valley, NY (d)	01377200	4.19	1960-62
Pascack Brook at Pearl River, NY (d)	01377300	9.83	1959-63
Passaic River Basin			
Ramapo River at Sloatsburg, NY (d)	01387250	60.1	1959-63
Stony Brook at Sloatsburg, NY (d)	01387300	18.2	1960-62
Mahwah River near Suffern, NY (d)	01387450	12.3	1959-95
Mahwah River at Suffern, NY (d)	01387480	20.8	1959-62
Saddle River near Spring Valley, NY (d)	01390200	2.10	1960-63
Pine Brook near Spring Valley, NY (d)	01390300	2.28	1959-62
Delaware River Basin			
Terry Clove Kill near Pepacton, NY (d)	01415500	13.6	1937-62
Fall Clove Kill near Pepacton, NY (d)	01416000	11.3	1942-43
Coles Clove Kill near Pepacton, NY (d)	01416500	28.0	1945-53
Beaver Kill near Turnwood, NY (d)	01418000	40.8	1949-59
Beaver Kill at Craigie Clair, NY (d)	01418500	81.9	1937-70
Willowemoc Creek at DeBruce, NY (d)	01419000	41.2	1949-52
Willowemoc Creek near Livingston Manor, NY (d)	01419500	62.6	1937-70
Little Beaver Kill near Livingston Manor, NY (d)	01420000	20.1	1924-81
East Branch Delaware River at Hancock, NY (d)	01421500	839	1903-13
West Branch Delaware River at Delhi, NY (d)	01422000	142	1937-70
West Branch Delaware River near Hamden, NY (d)	01422700	256	1959-67
Dryden Brook near Granton, NY (d)	01423500	8.10	1952-67
Trout Creek near Rockroyal, NY (d)	01424000	20.0	1952-67
Trout Creek at Cannonsville, NY (d)	01424500	49.5	1940-63
Cold Spring Brook at China, NY (d)	01425500	1.49	1935-68
Butler Brook at Deposit, NY (d)	01425642	8.46	1976-77
Oquaga Creek near North Sanford, NY (d)	01425675	4.69	1970-81
Oquaga Creek at Deposit, NY (d)	01426000	67.6	1941-73
West Branch Delaware River at Hancock, NY (d)	01427000	650	1903-13
Delaware River near Callicoon, NY (d)	01427405	1,708	1967-75
Callicoon Creek at Callicoon, NY (d)	01427500*	110	1940-82
Tenmile River at Tusten, NY (d)	01428000	45.6	1946-73
Mongaup River near Rio, NY (d)	01433400	191	1909-13
Mongaup River near Mongaup, NY (d)	01433500	200	1940-95
East Branch Neversink River, east of Ladleton, NY (d)	01434013	18.6	1991-94
West Branch Neversink River at Branch near Frost Valley, NY (d)	0143402265	7.89	1991-94
South Shelter Creek south of Frost Valley, NY (d)	01434072	0.31	1993-94
North Shelter Creek near Frost Valley, NY (d)	01434073	0.24	1993-94
Shelter Creek south of Frost Valley, NY (d)	01434076	0.40	1994-95
Dry Creek above seep zone near Frost Valley, NY (d)	01434080	0.10	1993-95
West Dry Creek near Frost Valley, NY (d)	01434084	0.12	1994-95
Seep Brook near Frost Valley, NY (d)	01434087	0.13	1994-95
High Falls Brook at Frost Valley, NY (d)	01434105	2.74	1991-95
West Branch Neversink River near Claryville, NY (d)	01434176	25.3	1991-94
Neversink River at Claryville, NY (d)	01434500	62.0	1949-51
Neversink River at Halls Mills near Curry, NY (d)	01435500	68.7	1938-49
Neversink River at Woodbourne, NY (d)	01436500	113	1938-73 1978-93
Neversink River at Oakland Valley, NY (d)	01437000	223	1928-73

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

Station name	Station number	Drainage area (mi ²)	Period of record
Streams tributary to Lake Ontario			
Salmon River near Redfield, NY (d)	04249500	188	1911-14
Beaverdam Brook at Altmar, NY (d)	04249910	16.9	1974-76
Orwell Brook near Altmar, NY (d)	04250000	19.0	1911-16
Salmon River near Pulaski, NY (d)	04250500	260	1900-14
Sandy Creek near Adams, NY (d)	04250750*	128	1958-95
Forestport Feeder near Boonville, NY (d)	04251000		1916-34
Mill Creek Sluiceway at Boonville, NY (d)	04251500		1934-40
Black River Canal (flowing south) near Boonville, NY (d)	04252000		1915-80
Sugar River at Talcottville, NY (d)	04253000	43.1	1926-32 1967-68
Panther Lake Outlet near Old Forge, NY (d)	04253275	0.46	1978-82
Middle Branch Moose River at Old Forge, NY (d)	04253500	55.0	1912-73
Middle Branch Moose River near McKeever, NY (d)	04254000	151	1926-68
Moose River at McKeever, NY (d)	04254500*	363	1900-70
Otter Creek near Glenfield, NY (d)	04255000	64.5	1924-33
Independence River at Sperryville, NY (d)	04255500	81.8	1928-42
Cranberry Pond Outlet near Big Moose, NY (d)	04256460	0.58	1984-86
Woods Lake Tributary near Big Moose, NY (d)	04256480	0.13	1980-82 1984-86
Woods Lake near Big Moose, NY (g)	04256484	0.80	1979-82
Woods Lake Outlet near Big Moose, NY (d)	04256485	0.80	1978-82 1984-89 1991-92
Beaver River below Stillwater Dam near Beaver River, NY (d)	04257000	171	1924-87
Beaver River at Eagle Falls near Number Four, NY (d)	04257500	225	1921-25
Beaver River near Croghan, NY (d)	04257955	266	1901-03
Deer River at Copenhagen, NY (d)	04258500	86.6	1929-57
Deer River at Deer River, NY (d)	04258700*	94.8	1957-68
Black River at Black River, NY (d)	04259500	1,842	1897-1914 1917-20
St. Lawrence River Basin			
Oswegatchie River at Cranberry Lake, NY (d)	04261000	140	1923-82
Oswegatchie River at Newton Falls, NY (d)	04261500	170	1913-23
Oswegatchie River near Ogdensburg, NY (d)	04263500	1,562	1903-17
St. Lawrence River near Waddington, NY (e)	04264050	298,500	1976-86
Sucker Brook near Waddington, NY (d)	04264100	25.6	1961-64
Little Sucker Brook at Waddington, NY (d)	04264200	19.9	1959-61
Brandy Brook near Waddington, NY (d)	04264300	27.0	1959-63
Middle Branch Grass River near Clare, NY (d)	04264400	63.0	1959-61
North Branch Grass River near South Colton, NY (d)	04264500	28.1	1924-32
North Branch Grass River near Clare, NY (d)	04264700	46.3	1958-63
Plumb Brook at Russell, NY (d)	04264800	35.3	1958-60
Grass River at Pyrites, NY (d)	04265000	333	1924-77
Elm Creek near Hermon, NY (d)	04265100*	32.6	1958-68
Tanner Creek at Stellaville, NY (d)	04265200	30.3	1958-61
Little River near Canton, NY (d)	04265300	42.4	1959-61
Grannis Brook at Crary Mills, NY (d)	04265400	20.9	1959-61
Lost Brook near Raquette Lake, NY (d)	0426545290	17.0	1978-80
Sagamore Lake Outlet near Raquette Lake, NY (d)	0426545295	19.1	1978-82
Raquette River near Coreys, NY (d)	04265500	418	1908-13
Little Simon Pond Outlet near Tupper Lake, NY (d)	04265605	2.95	1984-88
Bog River at mouth near Tupper Lake, NY (d)	04266000	132	1908-12
Parkhurst Brook near Potsdam, NY (d)	04267700	16.8	1958-63
Trout Brook at Allen Corners, NY (d)	04267800	54.2	1958-63
Plum Brook near Grantville, NY (d)	04268200*	43.9	1958-63
Raquette River at Massena Springs, NY (d)	04268230	1,196	1904-17
Squeak Brook near Massena, NY (d)	04268300	39.1	1959-61
St. Regis River near Paul Smiths, NY (d)	04268390	22.0	1973-75
East Branch St. Regis River near Meacham Lake, NY (d)	04268600	52.2	1958-68
St. Regis River at St. Regis Falls, NY (d)	04268700	234	1958-68
Lake Ozonia Outlet near St. Regis Falls, NY (d)	04268710	28.3	1961-63
Trout Brook at Stockholm Center, NY (d)	04268900	42.4	1958-61
St. Regis River at Brasher Center, NY (d)	04269000*	612	1911-17 1919-96
Deer River at North Lawrence, NY (d)	04269043	78.0	1973-79
Allen Brook near Brasher Falls, NY (d)	04269050	16.0	1961-66
Lawrence Brook near Moira, NY (d)	04269100	25.7	1958-61
Deer River at Brasher Iron Works, NY (d)	04269500	182	1912-16 1958-68
East Branch Deer Creek at Fort Covington Center, NY (d)	04270150	23.9	1961-62
Farrington Brook near Moira, NY (d)	04270180	17.7	1961-66
Little Salmon River at Bombay, NY (d)	04270200	92.2	1958-95

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

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Station name	Station number	Drainage area (mi ²)	Period of record
St. Lawrence River Basin--continued			
Chateaugay River near Chateaugay, NY (d)	04270500	112	1908-09 1927-66
Chateaugay River below Chateaugay, NY (d)	04270510	151	1966-95
Little Trout River near Burke, NY (d)	04270600	27.6	1961-63
Trout River at Trout River, NY (d)	04270700*	107	1960-66
English River near Mooers Forks, NY (d)	04270800	40.8	1960-68
Saranac River at Saranac, NY (d)	04273000	521	1930-43
Lake Placid at Lake Placid, NY (e)	04273900	20.1	1960-82
West Branch Ausable River near Lake Placid, NY (d)	04274000*	116	1916-68
Black Brook at Black Brook, NY (d)	04274500	49.4	1924-61
East Branch Ausable River at Au Sable Forks, NY (d)	04275000*	198	1925-95
Highlands Forge Lake Outlet near Willsboro, NY (d)	04276069*	10.9	1990-96
Hoisington Brook at Westport, NY (d)	04276645*	6.47	1990-96
West Brook at Lake George, NY (d)	04276895	8.38	1980-83
English Brook at Lake George, NY (d)	04276920	7.84	1980-83
La Chute at Ticonderoga, NY (d)	04279000	234	1904-06 1943-79
Mill Brook at Putnam, NY (d)	04279040*	10.3	1990-96
Mount Hope Brook at South Bay near Whitehall, NY (d)	04279125*	11.6	1990-96

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DISCONTINUED SURFACE-WATER-QUALITY STATIONS

The following continuous-record surface-water-quality stations in eastern New York excluding Long Island have been discontinued. Daily records of suspended-sediment discharge, temperature, or specific conductance were collected and published for the period of record shown for each station. Those stations with an asterisk (*) after the station number are currently operated as a surface-water-quality station (intermittent record).

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

Station name	Station number	Drainage area (mi ²)	Type of record	Period of record
Hudson River Basin				
Hudson River at Glens Falls, NY	01327600	2,807	S.S.	1977
Hudson River at Rogers Island at Fort Edward, NY	01327755*	2,817	S.S.	1978-79
Hudson River at Schuylerville, NY	01329650	3,440	S.S.	1977-79
Glowegee Creek near West Milton, NY	01329995	21.5	Temp.	1967-73
			S.C.	1967-73
Glowegee Creek at West Milton, NY	01330000	26.0	Temp.	1954-73
			S.C.	1965-73
Kayaderosseras Creek near West Milton, NY	01330500	90.0	Temp.	1953-78
Hoosic River near Eagle Bridge, NY	01334500	510	Temp.	1993-95
Hudson River at Mechanicville, NY	01335500	4,500	Temp.	1960-61
Mohawk River below Delta Dam, near Rome, NY	01336000	152	Temp.	1967-72 1974-78
Schoharie Creek at North Blenheim, NY	01350180	358	Temp.	1972-85
Schoharie Creek at Breakabeen, NY	01350355	444	Temp.	1976
Mohawk River at Cohoes, NY	01357500*	3,450	Temp.	1956-59
			S.S.	1954-59 1977-79
Hudson River at Green Island, NY	01358000	8,090 (about)	Temp.	1955-81
Mill Creek near East Greenbush, NY	01359150	9.74	S.S.	1975-76
Claverack Creek at Claverack, NY	01361200	60.6	Temp.	1993-95
Esopus Creek at Allaben, NY	01362200	63.7	Temp.	1964-68 1970-95
Crystal Brook near Middletown, NY	01370600	8.41	Temp.	1966-68
Wallkill River at Gardiner, NY	01371500*	695	Temp.	1958 1993-95
Fall Kill at Poughkeepsie, NY	01372051	18.8	Temp.	1993-95
Hudson River at Poughkeepsie, NY	01372055	1,732	Temp.	1967-69
			S.C.	1967-69

DISCONTINUED SURFACE-WATER-QUALITY STATIONS
(continued)

Station name	Station number	Drainage area (mi ²)	Period of record
Hudson River Basin--Continued			
Hudson River near Beacon, NY	01372560		Temp. 1966-68 S.C. 1966-68
Fishkill Creek at Hopewell Junction, NY	01372800	57.3	Temp. 1964-75
Whortlekill Creek at Hopewell Junction, NY	01372850	7.37	Temp. 1963-68
Seely Brook near Chester, NY	01373600	12.8	Temp. 1964-69
Hudson River at West Point, NY	01374020		Temp. 1969 S.C. 1969
Hudson River at Peekskill, NY	01374310		Temp. 1968-69 S.C. 1968-69
Saw Mill River at Yonkers, NY	01376500	25.6	Temp. 1993-95
Delaware River Basin			
Oquaga Creek near North Sanford, NY	01425675	4.69	Temp. 1971-81
Delaware River at Lordville, NY	01427207	1,590	Temp. 1968-71 1973-96
Delaware River near Callicoon, NY	01427405	1,708	Temp. 1968-75
Delaware River at Skinners Falls, NY	01427705	1,897	Temp. 1968-71 1974-79
Delaware River at Port Jervis, NY	01434000*	3,070	Temp. 1957-60 1973-94 S.C. 1973 S.S. 1960
Neversink River at Woodbourne, NY	01436500	113	Temp. 1970-76 1978-93
Streams tributary to Lake Ontario			
Sandy Creek near Adams, NY	04250750	128	Temp. 1981-84 S.C. 1981-84
Independence River at Donnattsburg, NY	04256000	88.7	Temp. 1960-61 1964-78
Black River at Watertown, NY	04260500	1,864	Temp. 1956-59 1962-69
St. Lawrence River Basin			
St. Lawrence River at Cornwall, Ontario-- near Massena, NY	04264331	298,800	Temp. 1966-86 S.C. 1976-86
West Brook at Lake George, NY	04276895	8.38	S.S. 1981
English Brook at Lake George, NY	04276920	7.84	S.S. 1981

* * * * *

WATER RESOURCES DATA FOR NEW YORK, 1997
Volume 1.--Eastern New York excluding Long Island

INTRODUCTION

Water-resources data for the 1997 water year for New York consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; ground-water levels and water quality; and precipitation quality. This volume contains records for water discharge at 117 gaging stations; stage only at 9 gaging stations; stage and contents at 4 gaging stations, and 18 other lakes and reservoirs; water quality at 35 gaging stations and 1 precipitation-quality station; and water levels at 5 observation wells. Also included are data for 38 crest-stage partial-record stations. Additional water data were collected at various sites not involved in the systematic data-collection program, and are published as miscellaneous measurements and analyses in this volume. These data, together with the data in Volumes 2 and 3, represent that part of the National Water Data System operated by the U.S. Geological Survey in cooperation with State, Municipal, and Federal agencies in New York.

Records of discharge and stage of streams, and contents and 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 water 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 and universities in the United States or may be purchased from the U.S. Geological Survey, Branch of Distribution, 604 South Pickett Street, Alexandria, VA 22304.

Since the 1961 water year, streamflow data and since the 1964 water year, water-quality data have been released by the Geological Survey in annual reports on a State-boundary basis. These reports provided rapid release of water data in each state shortly after the end of the water year. Through 1970 the data were also released in the water-supply paper series mentioned above.

Streamflow and water-quality data beginning with the 1971 water year, and ground-water data beginning with the 1975 water year are published only in reports on a State-boundary basis. Beginning with the 1975 water year, these Survey reports carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report NY-97-1." 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 Office at the address given on the back of the title page or by telephone (518)285-5600.

COOPERATION

The U.S. Geological Survey and organizations of the State of New York and other agencies have had cooperative agreements for the systematic collection of water records since 1900. Organizations that assisted in collecting data included in Volume 1, water year 1997, through cooperative agreement with the Survey are:

Board of Hudson River-Black River Regulating District
City of New York, Department of Environmental Protection
County of Ulster, County Legislature
New York Power Authority
New York State Department of Environmental Conservation
New York State Department of Transportation
Village of Nyack

Assistance in the form of funds for collecting records at gaging stations published in this report was also given by the following:

U. S. Army Corps of Engineers
U. S. Department of Energy

The following municipalities, organizations, and agencies aided in collecting records:

Consolidated Hydro, Inc.
National Weather Service
Niagara Mohawk Power Corp.
Orange and Rockland Utilities, Inc.
Oswegatchie River-Cranberry Reservoir Commission
Plattsburgh
United Water New York
Utica Board of Water Supply

Organizations that supplied data are acknowledged in station descriptions.

SUMMARY OF HYDROLOGIC CONDITIONS

Surface Water

Streamflows in eastern New York during water year 1997 were generally above normal. Runoff for 1997 is shown in figure 1 (next page) as a percentage of the average runoff for 1960-89. The highest 1997 runoffs (greater than 130 percent of average) occurred in the Catskill Mountain region and in extreme northeastern New York. Several large storms during the fall resulted in above average annual flows at many gaging stations throughout eastern New York.

The large runoffs from October to December 1996 kept reservoir levels in the above-normal to near-normal range throughout much of the water year. Long-term average month-end reservoir contents and 1997 month-end contents of the New York City reservoir system are shown in figure 2A; 1997 month-end contents in Great Sacandaga Lake at Conklingville (in the upper Hudson River basin) are shown in figure 2B along with average month-end contents for the period of record (1931-96). Contents of the New York City reservoir system declined to below normal during the spring and summer, whereas Great Sacandaga Lake levels remained near normal during the same period.

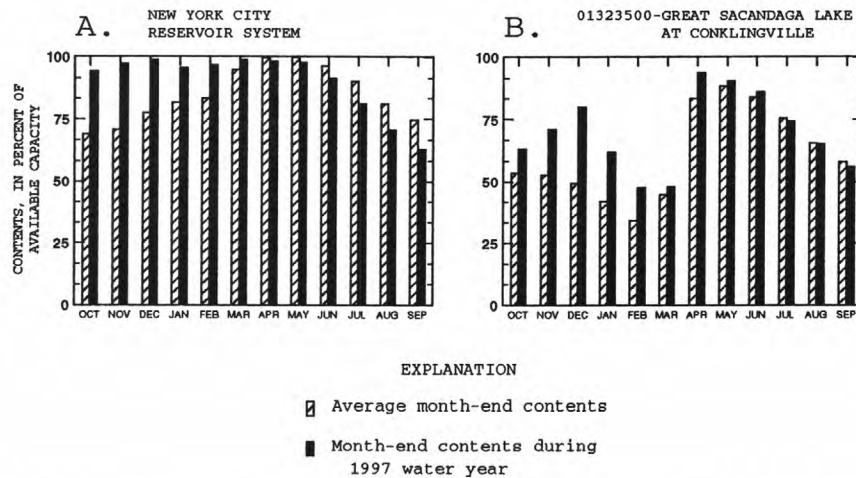


Figure 2.--Comparison of average month-end reservoir contents and month-end contents during 1997 water year for two selected reservoir systems in eastern New York.

The 1997 monthly runoff values for selected streamflow-gaging stations in eastern New York are plotted with each site's 1960-89 average monthly runoff in figure 3. Most sites show relatively high runoff values during the early part of the water year. A large, slow moving, upper level low-pressure system that moved into New York on October 19-20 caused heavy rainfall in some areas of southeastern New York, and monthly rainfall in many areas was 3 to 5 inches above normal, primarily as a result of this storm. Slide Mountain (in the Catskill Mountains) received 5.68 inches of rain on October 20, and 9.71 inches for the month (the greatest October 1996 total in New York). Streamflows at some gaging stations in southeastern New York were 700 to 800 percent above normal for October and caused minor flooding in Ulster and Greene Counties. The Wallkill River at Gardiner gaging station (station 01371500) recorded its third highest October flow in 72 years of record. October streamflows in extreme northeastern New York were in the normal range, and reservoir levels in eastern New York were above normal at the end of the month.

Above-normal rainfall and cooler than normal temperatures continued into November, except in extreme southeastern New York, where below normal rainfall was recorded. A strong cold front that stalled over New York State on November 8-9 allowed significant moisture to move north ahead of it with some embedded thunderstorms. Heavy rain fell over much of eastern New York November 8-9 and 4 to 6 inches of rain was recorded over areas draining east to Lake Champlain; 2 to 5 inches of rain also was recorded at many locations in southeastern New York during the 2-day storm (4.65 inches at Stamford in the Catskill Mountain region). Ellenburg Depot, in extreme northeastern New York, received 4.86 inches of rain on November 9. Most major tributaries to Lake Champlain reached record peak stages and discharges on November 9. The following table shows peak discharges for the November 9 flood at selected gaging stations in northeastern New York (period of record is to 1997 unless noted otherwise).

Station number and name	Period of record	Previous maximum of record		Flood of November 9, 1996	
		Discharge (ft ³ /s)	Water year	Peak discharge (ft ³ /s)	Recurrence interval (years)
04270510-Chateaugay R below Chateaugay	1966-95	5,200	1974	5,370	25
04271500-Great Chazy R at Perry Mills	1928-68,1986-	6,000	1937	9,700	>100
04273500-Saranac R at Plattsburgh	1903-30,1943-	11,500	1928	14,400	>100
04273700-Salmon R at South Plattsburgh	1959-86,1990-	2,220	1992	4,200	>100
04274000-W Br Ausable R nr Lake Placid	1920-68,1983-	10,800	1938	10,600	>100
04275000-E Br Ausable R at Au Sable Forks	1925-	20,100	1938	23,900	>100
04275500-Ausable R nr Au Sable Forks	1910-68,1990-	24,200	1938	37,400	>100
04276500-Bouquet R at Willsboro	1923-68,1986-	11,800	1924	12,300	70

WATER RESOURCES DATA FOR NEW YORK, 1997
SUMMARY OF HYDROLOGIC CONDITIONS--Continued

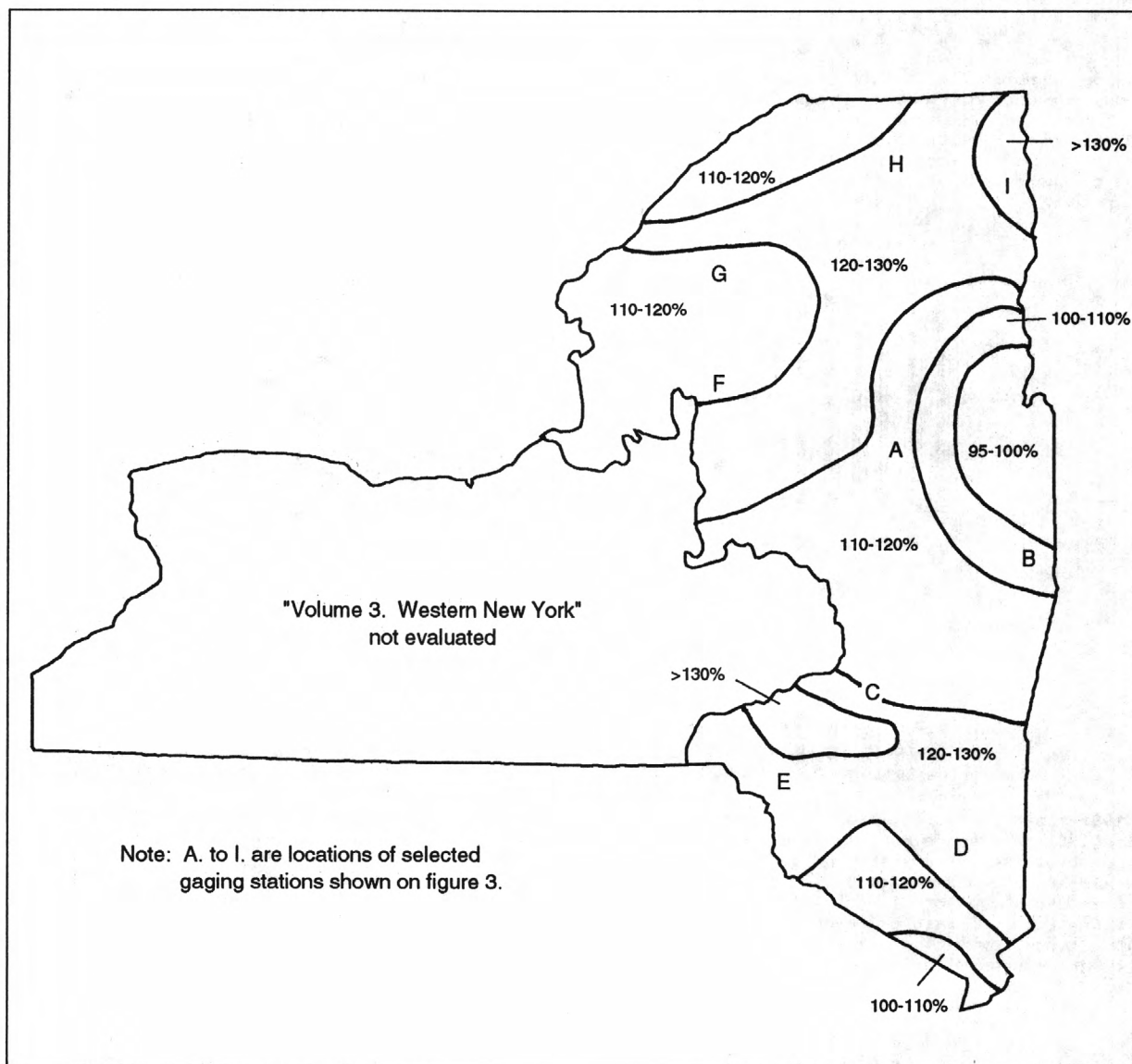


Figure 1.--1997 water year runoff as a percentage of the average annual runoff for 1960-89 for eastern New York excluding Long Island.

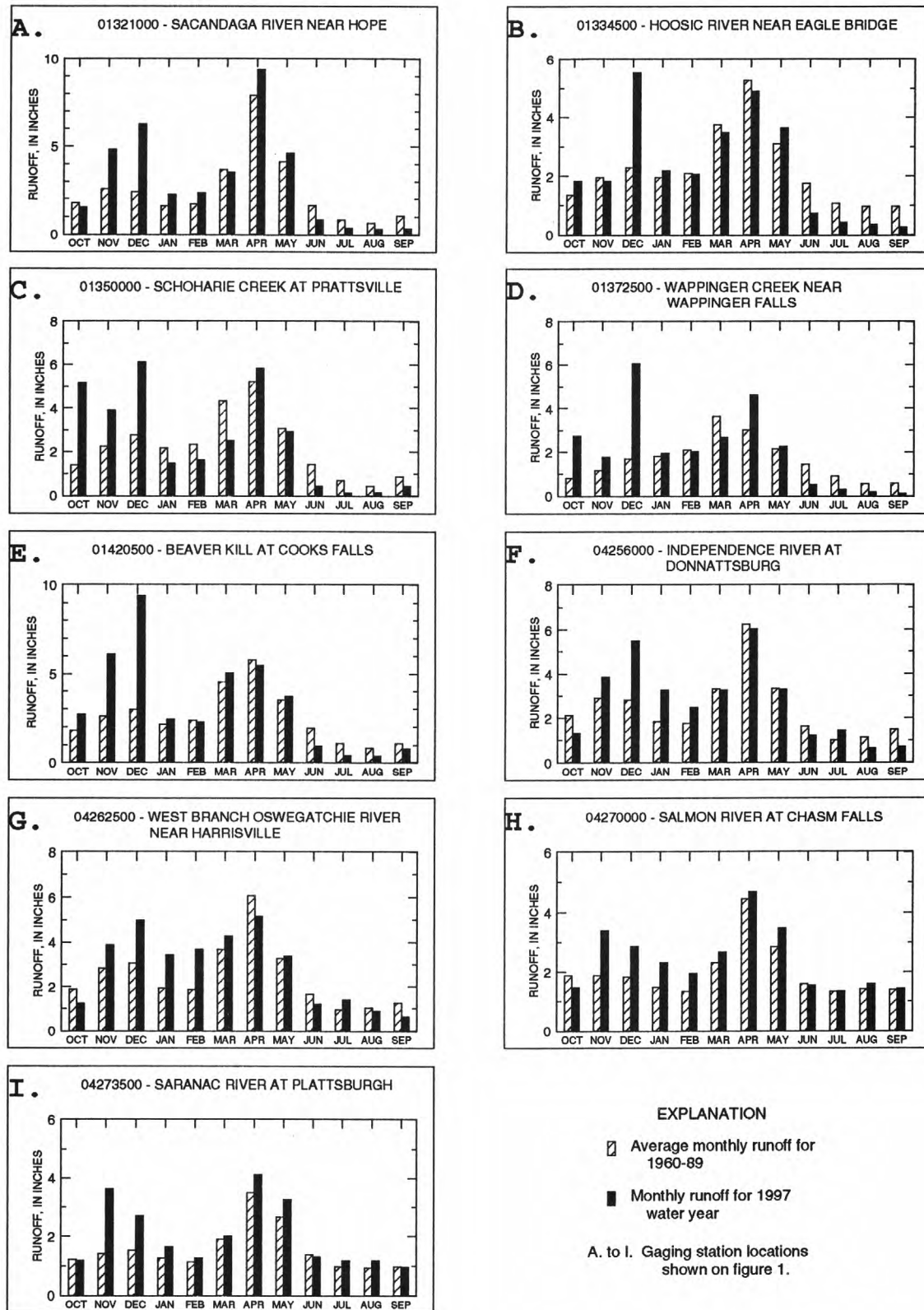


Figure 3.--Comparison of monthly runoff for 1997 water year and average monthly runoff for 1960-89 for selected gaging stations in eastern New York (site locations are shown on figure 1).

SUMMARY OF HYDROLOGIC CONDITIONS--Continued

Flows were generally receding during the second half of November, but reservoir contents remained above normal at the end of the month. Lake Champlain water level was 1.6 ft above normal on November 30.

Wet conditions continued throughout eastern New York in December 1996. Precipitation ranged from 150 to 200 percent of normal for the month. Lake-effect snow accumulated to as much as 64 inches at Hooker in the western Adirondack Mountains, east of Lake Ontario. The greatest monthly precipitation in New York (11.46 inches) was recorded at Slide Mountain in the Catskill Mountains (6.35 inches greater than normal). Much of that total (4.76 inches) was recorded during a storm on December 2, which dropped 2 to 4 inches of rain in many areas. Some streamflow-gaging stations in southeastern New York recorded the highest December flows in 70 to 80 years (300 to 400 percent of normal). The variability of daily streamflows throughout the year at two representative gaging stations is shown in figures 4 and 5; all daily discharges at Wappinger Creek in Dutchess County (fig. 5) during December were far greater than daily flows that were historically exceeded only 20 percent of the time. Nearly one-half of the December 1996 daily discharges at Wappinger Creek are the highest recorded since at least 1942. Reservoir contents remained much above normal during December and Lake Champlain levels rose to 2.2 ft above normal by the end of the month. The New York City reservoir system in southeastern New York was at 98.9 percent of available capacity by December 31. (Normal at this time is 77.6 percent.) Precipitation for New York averaged 10 inches above normal during the 1996 calendar year, making it the wettest year on record (over 100 years).

January precipitation remained above normal throughout northern New York but was near normal elsewhere. Three locations in the Tug Hill Plateau (east of Lake Ontario) received more than 90 inches of lake-effect snow during January 10-14. A weather station at Montague (Lewis County) recorded the greatest 24-hour snowfall (77 inches) ever documented in the United States (the previous record was 76 inches at Silver Lake, Colorado in April, 1921). Montague received 95 inches of snow for the entire event and 191 inches for the month. Despite slightly warmer than normal temperatures during the month (although three sites in northern New York recorded -34°F on January 19), streamflows were normal in eastern New York except in northeast New York where they were slightly above normal. Reservoir levels remained above normal.

February precipitation was below normal in most areas and much below normal in extreme southeastern New York. Only 0.66 inches of precipitation fell at Lake Placid (eastern Adirondack Mountains) during the month; this was the lowest February total in New York. February streamflows remained normal in southeastern New York and slightly above normal in northern areas. Unseasonably warm temperatures at the end of the month resulted in ice jamming in some areas, and flooding was reported on East Canada Creek at Dolgeville (southern Adirondack Mountains) on February 28.

March was cooler and slightly wetter than normal over eastern New York. A few storms during the month (including a storm on March 31 that dumped 37 inches of snow at East Jewett in the Catskill Mountains) kept streamflows normal except in some parts of southeastern New York, where they decreased to below normal. The March 31 storm generally increased daily flows throughout eastern New York to much above normal by the end of the month. Reservoir contents remained above normal for the sixth straight month of the water year.

Precipitation during April and May 1997 was slightly below normal in northern New York and normal in parts of southeastern New York, and air temperatures throughout eastern New York were cooler than normal. Several small storms during these months kept streamflows in the normal range, although a general recession occurred in the last week of May. Reservoir levels were declining to near normal or slightly below normal conditions by the end of May.

June was fairly dry throughout eastern New York; some southeastern areas received less than 50 percent of their normal rainfall. In the Catskill Mountain region, only 0.64 inches of rain was recorded at Prattsville, and 1.04 inches was recorded at Slide Mountain (4.06 inches less than normal). Despite several localized thunderstorms during the month, the Capital District region (near Albany) experienced its second-driest June on record (more than 100 years). As a result, streamflows ranged from normal in northern areas to much below normal in southeastern New York for the month. Flows of several streams in the southeast were 50 to 70 percent of normal, and daily discharges at Wappinger Creek near Wappingers Falls remained below normal for the entire month and into early July (fig. 5).

Dry conditions in southeastern New York continued during July whereas northern areas received enough rainfall to keep streams at normal to slightly above normal levels. Although several thunderstorms and the remnants of Hurricane Danny dumped heavy amounts of rain locally on July 24, July streamflows in southeastern New York were only 40 to 60 percent of normal. Storage in the New York City Reservoir system fell to 81 percent of available capacity by the end of July. (Normal at this time is 90 percent.)

Fairly cool summer temperatures continued through August, and rainfall was from 110 to 150 percent of normal throughout eastern New York. Rainfall was again localized and sporadic; the numerous thunderstorms during the month increased streamflows to slightly above normal in northern areas, but they remained much below normal in the southeast (50 to 60 percent of normal).

September was slightly cooler and drier than normal in eastern New York, particularly throughout the northern part. Above normal flows were recorded on some streams in southeastern areas as a result of storms on September 11-12 and 28-29. Middletown (Orange County) received 6.43 inches of rain for the month (2.92 inches above normal); 2.78 inches of this amount was recorded during the storm of September 11-12. Orange County also reported wind damage during the storm. September flows at the Mohawk River at Cohoes gaging station were much above normal for the fourth month in a row. Reservoir and lake contents in northern New York remained near normal through the end of the month, while the New York City Reservoir system ended the 1997 water year at 63 percent of available capacity. (Normal is 75 percent.)

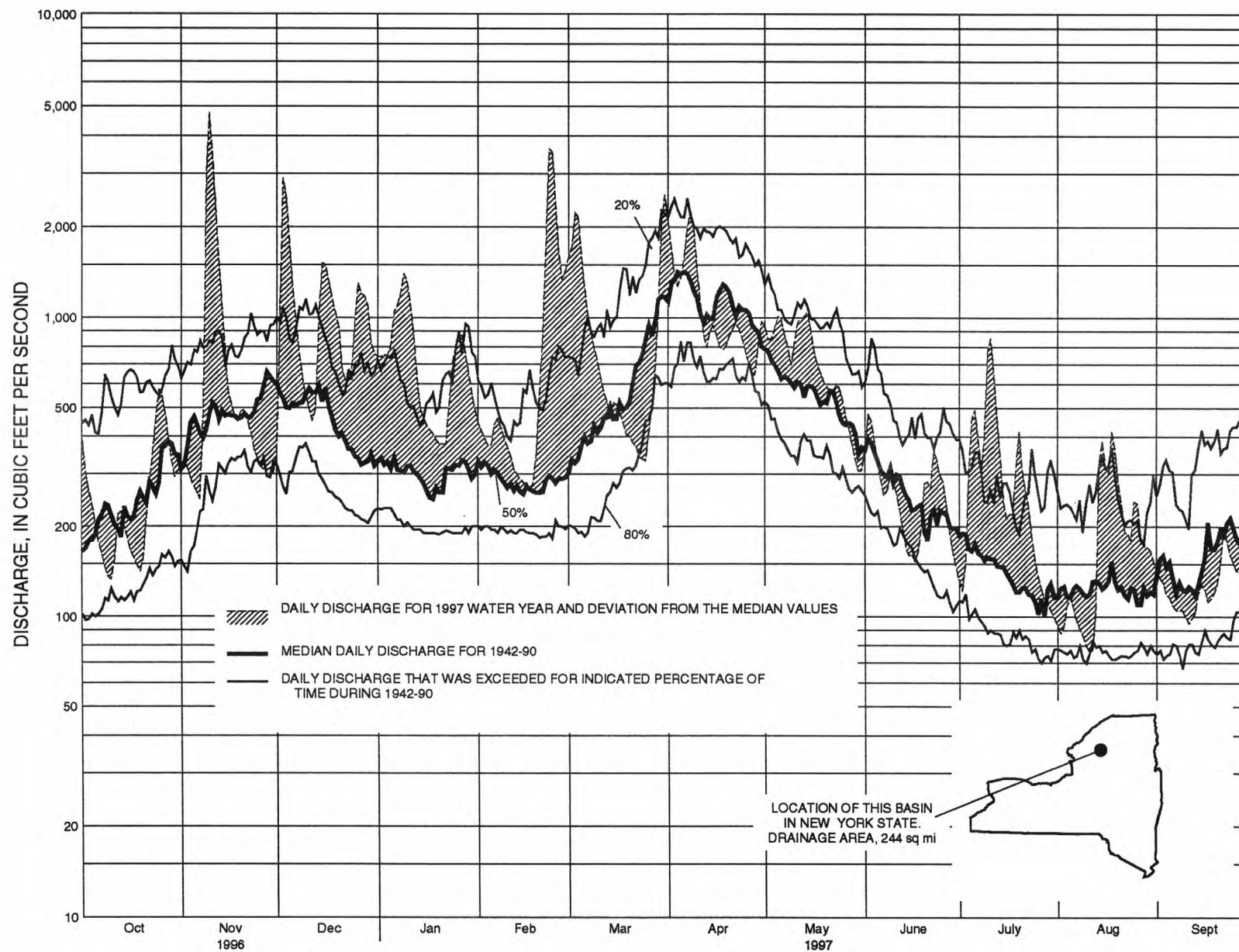


FIGURE 4.--HYDROGRAPHIC COMPARISONS, WEST BRANCH OSWEGATCHIE RIVER NEAR HARRISVILLE, NY

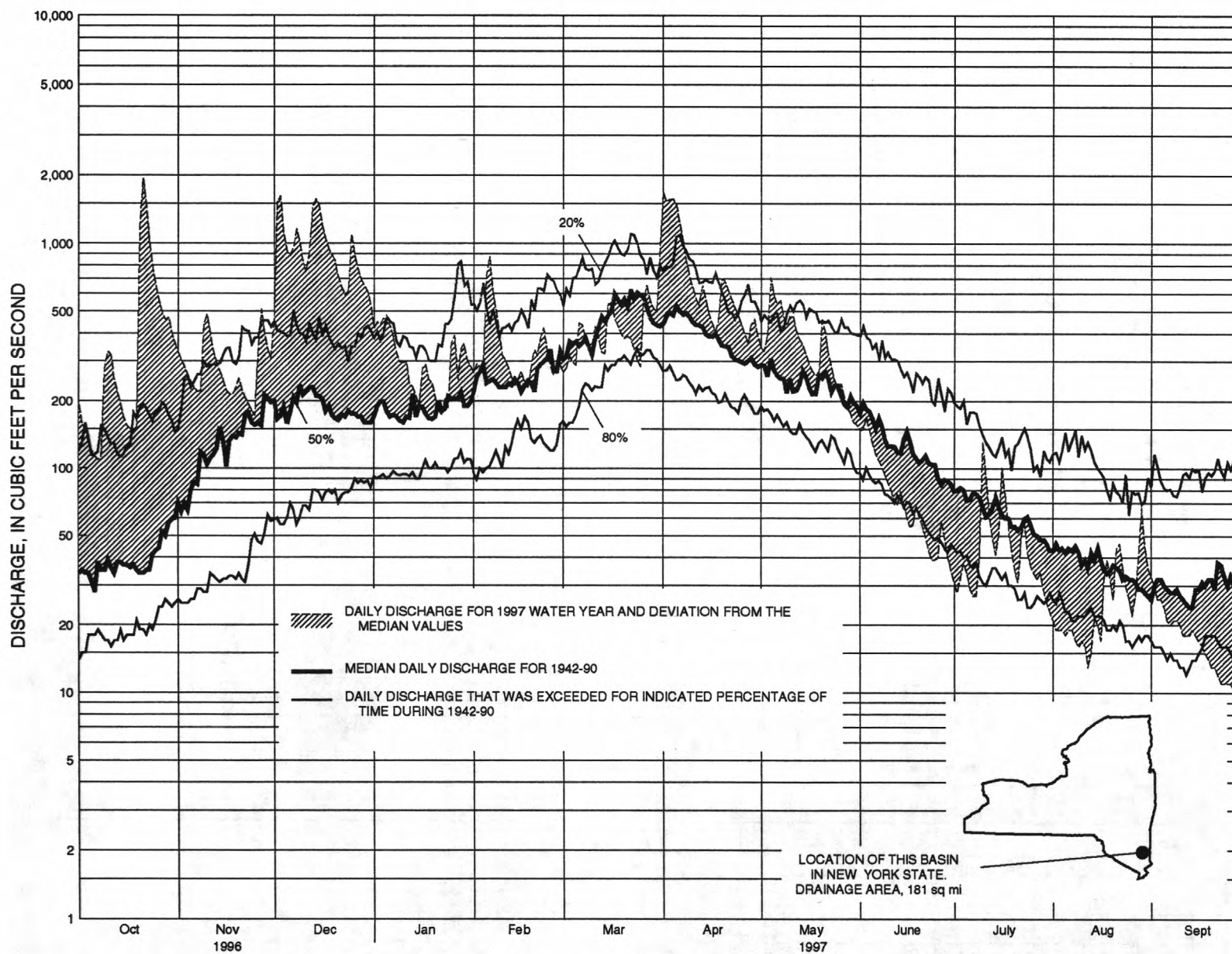


FIGURE 5.--HYDROGRAPHIC COMPARISONS, WAPPINGER CREEK NEAR WAPPINGERS FALLS, NY

SUMMARY OF HYDROLOGIC CONDITIONS--Continued

Surface-Water Quality

Water-quality data presented in this report provide information on water temperature, specific conductance, nutrients, major ions, pesticides, PCBs, sediment, and other constituents. Additional water-quality data are periodically collected for other programs or projects and are generally published in separate project reports.

Water-surface elevation, specific conductance, and water-temperature data from five sites were collected for the Hudson River Salt-Front study. The data were analyzed to locate the saltwater/freshwater interface (salt front, defined as 500 microSiemens per centimeter at 25.0°C) in the Hudson River estuary. Measurements were within the range reported for the period of record. The salt front in the Hudson River in 1997 ranged from less than 10 miles to about 71 miles upstream from the Battery in New York City, about the same range observed during 1996. This range was last exceeded during 1995 when the salt front was as much as 82 miles upstream from the Battery in New York City.

Surface-water-temperature data are collected to monitor aquatic community stress. This report presents daily minimum, maximum, and mean water temperature from 4 sites in the Hudson River basin and 12 sites in the Delaware River basin. Values were within the range reported for the period of record for each site except for minor changes in maximum and minimum temperatures from 3 sites with less than 2 years of record.

Water samples were collected to monitor the movement of PCBs and sediment concentrations in the upper Hudson River. Periodic PCB data from 3 sites and daily sediment data from 2 sites are presented. All PCB concentrations measured and sediment data were within the range reported for the period of record.

Data collected for the Hydrologic Benchmark program describes the physical properties, nutrients, and major ions at Biscuit Brook above Pigeon Brook at Frost Valley (site 01434025 - location shown in fig. 8). Analyses of 3 samples are reported and the data are representative of undeveloped watersheds in New York. The chemical quality of precipitation is also presented for this site for the National Trends Network. Data collected for the NAWQA program describes the physical properties, nutrients, and major ions in surface water and ground water of the Hudson River basin. Data from 4 surface-water sites and 6 ground-water sites are presented. The State-wide Pesticide-Monitoring program presents data from 64 surface-water sites around the state, including 17 sites in eastern New York. Water samples from 33 surface-water sites and 7 ground-water sites were collected for the Croton Watershed study.

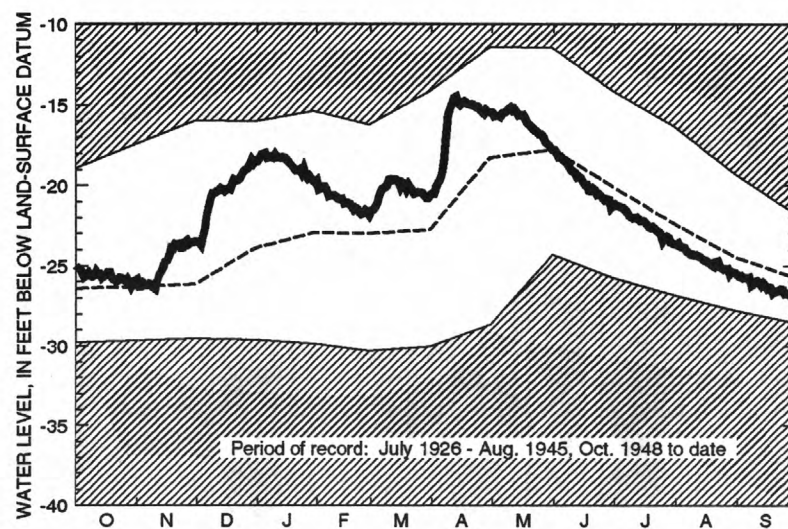
Ground Water

Ground-water levels in shallow, unconfined aquifers in eastern New York typically show a seasonal pattern of change during the water year. Water levels rise in response to aquifer recharge from precipitation. Aquifer recharge varies locally throughout the year and is affected by many factors, including the timing and amount of precipitation, the rate of evapotranspiration, soil-moisture content, and amount of local runoff. Evapotranspiration includes physical evaporation, transpiration by vegetation, and ground-water evapotranspiration. Recharge is typically greatest during the late fall and from early to mid-spring, when transpiration is minimal, and the ground is not frozen. Water levels rise during the spring and generally exceed those that occur in the fall, primarily due to additional recharge from melting snowpack. Water levels decline during the late spring and summer, when plant growth and water temperatures increase the rate of evapotranspiration and thereby reduce the rate of recharge. Storms, if of sufficient intensity and duration, can provide minor recharge to shallow aquifers during summer. Precipitation in New York is (on the average) fairly evenly distributed by month; thus, the annual summer decline in ground-water levels is due primarily to the decrease in recharge that results from increased evapotranspiration.

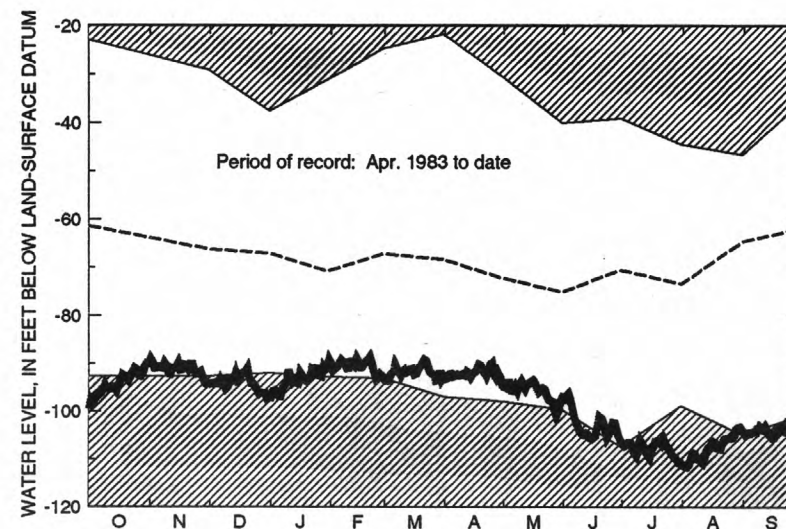
Confined aquifers are typically less responsive to individual recharge events than unconfined aquifers. Water levels in confined aquifers generally show a subdued and delayed water-level response to individual recharge events because their hydraulic connection to the overlying unconfined aquifers is indirect. Atmospheric pressure changes can cause transient, but significant, water-level changes in wells that tap confined aquifers.

The hydrographs in figure 6 show the minimum, maximum, and median long-term monthly water levels and the water levels at three observation wells during the 1997 water year. The hydrograph for well Oe-151 in Oneida County (northern New York) illustrates typical seasonal water-level fluctuations under natural (nonpumping) conditions in a shallow, unconfined sand aquifer. Water levels for well Oe-151 were at or near median height during the first month of the year, above the median for the next 7 months, and below the median thereafter. The hydrograph for well Sa-1100 in Saratoga County (east-central New York) illustrates pumpage-affected water-level fluctuations in a confined sand and gravel aquifer. Water levels remained at or near record minimums at well Sa-1100 throughout water year 1997. The natural fluctuations are masked because of pumping-induced drawdown. Increases in nearby pumping over the last several years have led to the decline of water levels to record minimums at this well. The hydrograph for well Du-321 in Dutchess County (southern New York) illustrates water-level fluctuations under natural conditions in a confined shale aquifer. Water levels for the 1997 water year at well Du-321 rose to new monthly maximums for October through January, were at near-maximum levels by mid-year, and remained above the median height for the remainder of the water year.

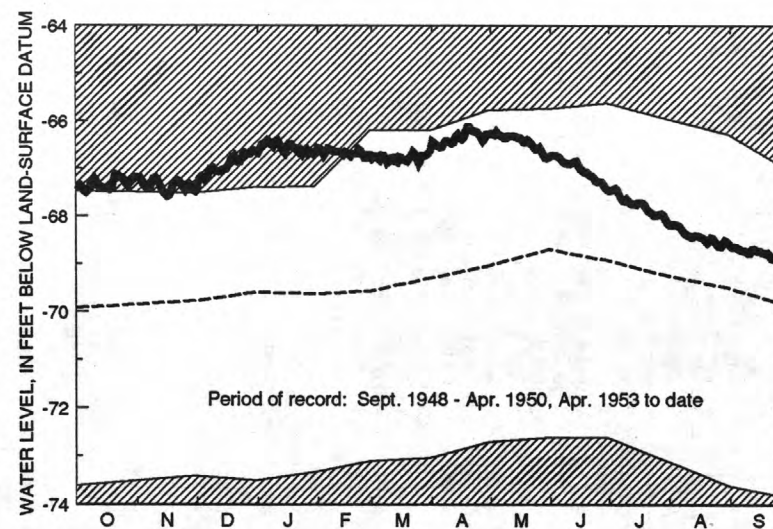
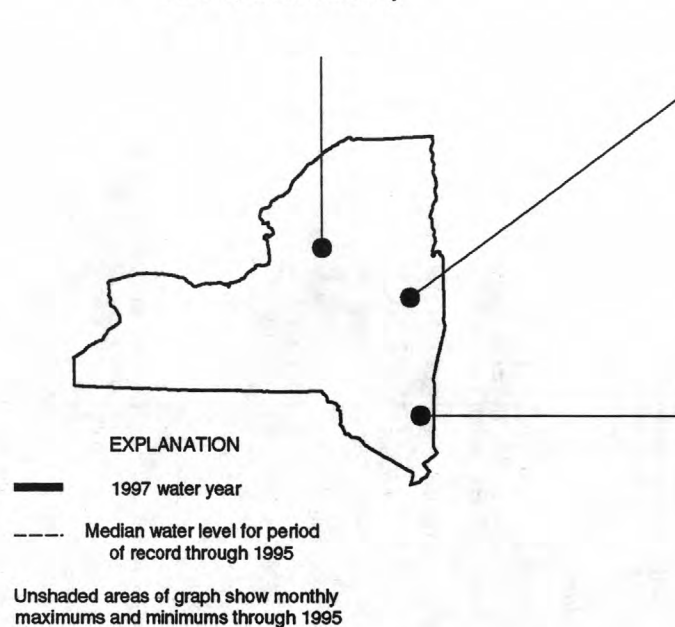
The remaining two wells (one each in Albany and St. Lawrence Counties) were monitored from January through September 1997. Water-level conditions were above the period-of-record median for all months during that time.



Oe-151, Oneida County



Sa-1100, Saratoga County



Du-321, Dutchess County

Figure 6.--Ground-water levels at selected observation wells in New York.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Benchmark Network is a network of 50 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by human activities.

National Stream-Quality Accounting Network (NASQAN) monitors the water quality of large rivers within four of the Nation's largest river basins--the Mississippi, Columbia, Colorado, and Rio Grande. The network consists of 39 stations. Samples are collected with sufficient frequency that the flux of a wide range of constituents can be estimated. The objective of NASQAN is to characterize the water quality of these large rivers by measuring concentration and mass transport of a wide range of dissolved and suspended constituents, including nutrients, major ions, dissolved and sediment-bound heavy metals, common pesticides, and inorganic and organic forms of carbon. This information will be used (1) to describe the long-term trends and changes in concentration and transport of these constituents; (2) to test findings of the National Water-Quality Assessment Program (NAWQA); (3) to characterize processes unique to large-river systems such as storage and re-mobilization of sediments and associated contaminants; and (4) to refine existing estimates of off-continent transport of water, sediment, and chemicals for assessing human effects on the world's oceans and for determining global cycles of carbon, nutrients, and other chemicals.

The National Atmospheric Deposition Program/National Trends Network (NADP/NTN) provides continuous measurement and assessment of the chemical climate of precipitation throughout the United States. As the lead federal agency, the USGS works together with over 100 organizations to accomplish the following objectives; (1) provide a long-term, spatial and temporal record of atmospheric deposition generated from a network of 191 precipitation chemistry monitoring sites; (2) provide the mechanism to evaluate the effectiveness of the significant reduction in SO₂ emissions that began in 1995 as implementation of the Clean Air Act Amendments (CAAA) occurred; (3) provide the scientific basis and nationwide evaluation mechanism for implementation of the Phase II CAAA emission reductions for SO₂ and NO_x scheduled to begin in 2000.

Data from the network, as well as information about individual sites, are available through the world wide web at:

<http://nadp.sws.uiuc.edu>

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

Assessment activities are being conducted in 53 study units (major watersheds and aquifer systems) that represent a wide range of environmental settings nationwide and that account for a large percentage of the Nation's water use. A wide array of chemical constituents are measured in ground water, surface water, streambed sediments, and fish tissues. The coordinated application of comparative hydrologic studies at a wide range of spatial and temporal scales will provide information for decision making by water-resources managers and a foundation for aggregation and comparison of findings to address water-quality issues of regional and national interest.

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

Additional information about the NAWQA Program is available through the world wide web at:

http://wwwrvares.er.usgs.gov/nawqa/nawqa_home.html

EXPLANATION OF THE RECORDS

The surface-water and ground-water records published in this report are for the 1997 water year that began October 1, 1996, and ended September 30, 1997. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, water-quality data, and ground-water level data. The locations of the stations and wells where the data were collected are shown in figure 8. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

Each data station, whether streamsite or well, in this report is assigned a unique identification number. This number is unique in that it applies specifically to a given station and to no other. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic location. The "down-stream order" system is used for regular 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 in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary with respect to the stream to which it is immediately tributary is indicated by an indentation in the "List of Stations" in the front of this 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 01300500, includes the 2-digit part number "01" plus the 6-digit downstream-order number "300500". The Part number designates the major 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 for identification.

Latitude-Longitude System

The identification numbers for wells are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, the next 7 digits denote degrees, minutes, and seconds of longitude, and the last 2 digits (assigned sequentially) identify the wells within a 1-second grid. In the rare instance where the initial determination of latitude and longitude are found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description. (See figure 7 below.)

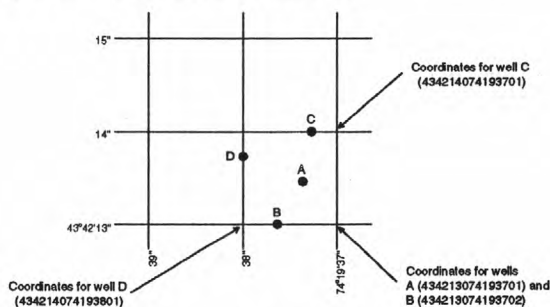


Figure 7. System for numbering wells (latitude and longitude)

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 gaging stations and observation wells in this report are shown in figure 8.

Data Collection and Computation

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from 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.

In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves are then constructed. For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, they are made 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. The daily mean discharge is computed from gage heights and rating tables, then the 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 by hydrographers and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method. For some stations, formation of ice in the winter may so obscure the stage-discharge relations that daily mean discharges must be estimated from other information such as temperature and precipitation records, notes of observations, and records for other stations in the same or nearby basins for comparable periods.

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.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed. If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys the computed contents may be increasingly in error due to the gradual accumulation of sediment. Discharges over lake or reservoir spillways are computed from stage-discharge relationships much as other stream discharges are computed.

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 the recorded range in stage, prior and subsequent record, discharge measurements, weather records, and comparison with records for other stations in the same or nearby basins. Likewise, daily contents may be estimated from operator's log, prior and subsequent records, inflow-outflow studies, and other information. Information explaining how estimated daily-discharge values are identified in station records is included in the next two sections, "Data Presentation" (REMARKS paragraph) and "Identifying Estimated Daily Discharge."

Data Presentation

Streamflow data in this report are presented in a new format that is considerably different from the format in data reports prior to the 1993 water year. The major changes are that statistical characteristics of discharge now appear in tabular summaries following the water-year data table. This change represents the results of a pilot program to reformat the annual water-data report to meet current user needs and data preferences.

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

Station manuscript

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

LOCATION.--Information on locations is obtained from the most accurate maps available. The location of the gaging station with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given. River mileages, given for some stations, were 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 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.--Because of new information, published records occasionally are found to be incorrect, and revisions are printed in later reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years to which the revisions apply. If a revision did not include daily, monthly, or annual figures of discharge, that fact is noted after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the most recently revised figure was first published is given.

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

REMARKS.--All periods of estimated daily discharge 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 paragraph is used to identify estimated record, the paragraph will begin with this information presented as the first entry. The paragraph is also used to present information relative to the accuracy of the records, to special methods of computation, and to conditions that affect natural flow at the station. In addition, information may be presented pertaining to average discharge data for the period of record; to extremes data for the period of record and the current year; and, possibly, to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir.

COOPERATION.--Records provided by a cooperating organization or obtained for the U.S. 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. 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.

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

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 the peak discharge listing may include secondary peaks. For stations meeting certain criteria, all peak discharges and stages occurring during the water year and greater than a selected base discharge are presented under this heading. The peaks greater than the base discharge, excluding the highest one, are referred to as secondary peaks. Peak discharges are not published for canals, ditches, drains, or streams for which the peaks are subject to substantial control by man. The time of occurrence for peaks is expressed in 24-hour local standard time. For example, 12:30 a.m. is 0030, and 1:30 p.m. is 1330. The minimum for the current water year appears below the table of peak data.

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

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

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

Data table of daily mean values

The daily table for stream-gaging stations gives the mean discharge for each day of the water year. In the monthly summary for the table, the line headed "TOTAL" gives the sum of the daily figures for each month; the line headed "MEAN" gives the average flow in cubic feet per second for the month; and the lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for each month. Discharge for the month also is usually expressed in cubic feet per second per square mile (line headed

"CFSM"); or in inches (line headed "IN."); or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches or in acre-feet may be omitted if there is extensive regulation or diversion or if the drainage area includes large noncontributing areas. At some stations monthly and/or yearly observed discharges are adjusted for reservoir storage or diversion, or diversion data or reservoir contents are given. These figures are identified by a symbol and corresponding footnote.

Statistics of monthly mean data

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

Summary statistics

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in two tables. The first 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. 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. 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 data depends primarily on: (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements; and (2) the accuracy of observations of stage, measurements of discharge, and interpretation of records.

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

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 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 figure. The same rounding rules apply to discharge figures listed for partial-record stations and miscellaneous sites.

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

Other Records Available

Information of a more detailed nature than that published for most of the gaging stations such as observations of water temperatures, discharge-measurement notes, gage-height records, and rating tables is on file in the district office. Also, most gaging-station records are available in computer-usable form and many statistical analyses have been made. Information on the availability of unpublished data or statistical analyses of the published records 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.

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

Classification of Records

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

A careful distinction needs to be made between "continuing records" as used in this report and "continuous recordings," which refers to a continuous graph or a series of discrete values recorded at short intervals. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently.

Arrangement of Records

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

On-site Measurements and Sample Collection

In obtaining water-quality data, a major concern needs to be assuring 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 collecting the samples, treating the samples to prevent changes in quality pending analysis, and 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; Book 9, Chap. A7 and A8. 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 definitions) 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.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon measurements recorded hourly or more frequently. More detailed records (hourly values) may be obtained from the District office.

Water Temperature

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

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

Sediment

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

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

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. 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 the quantities of suspended sediment, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included.

Laboratory Measurements

Samples for indicator bacteria and daily samples for specific conductance are analyzed locally. Sediment samples are analyzed in the Geological Survey laboratory in Louisville, KY. All other samples are analyzed in the Geological Survey laboratory in Arvada, Colo. 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 is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily. Tables of chemical, physical, biological, radiochemical data, and so forth, obtained at a frequency less than daily are presented first. Tables of "daily values" of specific conductance, pH, water temperature, dissolved oxygen, and suspended sediment then follow in sequence.

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

LOCATION.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

DRAINAGE AREA.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

PERIOD OF RECORD.--This indicates the periods 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 record, sediment pumping sampler, or other sampling device is in operation at a station.

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

COOPERATION.--Records provided by a cooperating organization or obtained for the 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 maximums or minimums may not have been sampled. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.--If errors in published water-quality records are discovered after publication, appropriate updates are made to the Water-Quality File in the U.S. Geological Survey's computerized data 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.

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

Categories of Water-Quality Data

There is a broad range of water-quality parameters available for most stations whose record exceeds more than a few years operation. Sampling schedules are often intermittent for certain types of data, with analyses available for some but not all years within a station's period of record. An accurate description of the variety of data available is shown by grouping similar parameters into a few general categories, which are listed in the "PERIOD OF RECORD" paragraph. Each category of data is followed by a notation of the water year(s) for which data is available and a letter code describing the frequency of sampling (see following section, "Frequency-of-Sampling Notation"). Thus, "CHEMICAL DATA: 1972-74(c), 1977-81(a).", shows there are at least six analyses each year for the first three years of record, no data for this category in 1975 and 1976, and 1 or 2 samples for each year, 1977-81.

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

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

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

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

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

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

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

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

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

Frequency-of-Sampling Notation

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

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

Remarks Codes

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

<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).
L	Biological organism count less than 0.5 percent (organism may be observed rather than counted).
D	Biological organism count equal to or greater than 15 percent (dominant).
&	Biological organism estimated as dominant.
v	Analyte was detected in both the environmental sample and the associated blanks.

Dissolved Trace-Element Concentrations

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

Change in National Trends Network Procedures

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

Records of Ground-Water Levels

Ground-water level data consist of water-level measurements made in observation wells. Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude and (2) a local number that is provided for local needs. (See figure 7.)

Data Collection and Computation

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

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; National Geodetic Vertical Datum of 1929 is the datum plane on which the national network of precise levels is based. If known, the elevation of the land-surface datum above National Geodetic Vertical Datum of 1929 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, and the extremes are instantaneous values selected from the digital record. Water levels in wells not equipped with recording gages are read periodically or measured periodically with a weighted tape by U.S. Geological Survey personnel and/or an observer.

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

Data Presentation

Each well record consists of three parts, the station description, the data table of water levels observed during the water year, and the 10-year hydrograph. The description of the well is presented first through use of descriptive headings preceding the tabular data. The comments to follow clarify information presented under the various headings.

LOCATION.--This paragraph follows the well-identification number and reports the latitude and longitude (given in degrees, minutes, and seconds); a landline location designation; the hydrologic unit number; the distance and direction from a geographic point of reference; and the owner's name.

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

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

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

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

REMARKS.--This entry 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.--This entry indicates the period for which there are published records for the well. It reports the month and year of the start of publication of water-level records by the U.S. Geological Survey and the words "to current year" if the records are to be continued into the following year. Periods for which water-level records are available, but are not published by the Geological Survey, may be noted.

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

A table of water levels follows the station description for each well. Water levels are reported in feet below land-surface datum and all taped measurements of water level are listed for wells without recorders. The highest and lowest water levels of the water year and their dates of occurrence are shown on a line below the table for wells with recorders. Because all values are not published for wells with recorders, the extremes may be values that are not listed in the table. Missing records are indicated by dashes in place of the water level.

A hydrograph of water levels follows the data table for each well. The current year and the previous 9 years of record are plotted in feet below land-surface datum. If the period of record is less than 10 years, the water levels for the entire record are plotted.

Records of Ground-Water Quality

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

Data Collection and Computation

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

Most methods for collecting and analyzing water samples are described in the "U.S. Geological Survey Techniques of Water-Resources Investigations" manuals listed on a following page. The values reported in this report represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. All samples were obtained by trained personnel. The wells sampled were pumped long enough to assure that the water collected came directly from the aquifer and had not stood for a long time in the well casing where it would have been exposed to the atmosphere and to the material, possibly metal, comprising the casings.

Data Presentation

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

ACCESS TO USGS WATER DATA

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

<http://water.usgs.gov>

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

DEFINITION OF TERMS

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

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

Algae are mostly aquatic single-celled, colonial, or multicelled 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 thread-like in shape, often clumped into colonies. Some bacteria cause disease, others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

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

Fecal coliform bacteria are bacteria that are present in the intestines or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C \pm 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

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

Fecal streptococcal bacteria are bacteria found also in intestines of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brainheart 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 105°C for zooplankton and 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, or about 646,000 gallons.

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

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

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

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

Confined aquifer is a term used to describe an aquifer containing water between two relatively impermeable boundaries. The water level in a well tapping a confined aquifer stands above the top of the confined aquifer and can be higher or lower than the water table (it can also be above ground level). Formerly called artesian aquifer.

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

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.

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

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

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

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

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.

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

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

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

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

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

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

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

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).

High tide is the maximum tidal peak reached each day.

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

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

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

Low tide is the minimum tidal trough reached each day.

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

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

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

Micrograms per gram (UG/G, $\mu\text{g/g}$) is a unit expressing the concentration of a chemical constituent as the mass of the constituent (micrograms) per unit mass (gram) of medium (e.g. sediment, biological tissue). One microgram per gram is equivalent to one part per million.

Micrograms per kilogram (UG/KG) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the constituent per unit mass (kilogram) of medium. One microgram per kilogram is equivalent to one part per billion.

Micrograms per liter (UG/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 organic matter present in aqueous solution, suspension, or bottom sediments. May be reported as dissolved organic carbon (DOC), suspended organic carbon (SOC), total organic carbon (TOC).

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 (m²), 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.

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

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

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

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

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

<u>Classification</u>	<u>Size (mm)</u>	<u>Method of analysis</u>
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 (PCI, 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.

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

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 [mg C/(m².time)] for periphyton and macrophytes and [mg C/(m³.time)] for phytoplankton are units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon 14). The carbon 14 method is of greater sensitivity than the oxygen light and dark bottle method, and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [mg O₂/(m².time)] for periphyton and macrophytes and [mg O₂/(m³.time)] for phytoplankton are 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.

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

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

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

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

Sodium-adsorption-ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which are generally unsatisfactory for irrigation.

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

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter ($\mu\text{S}/\text{cm}$) 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. 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, 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 of 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 as 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 tables of chemical analyses) refers to the amount (concentration) of undissolved material in a water-sediment mixture. It is associated with the material retained on a 0.45-micrometer filter.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative 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 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 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.

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

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

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

Total (as used in tables of chemical analyses):

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

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

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

Water-table aquifer is an unconfined aquifer whose upper boundary is the water table.

Water year in Geological Survey reports dealing with surface-water supply is the 12-month period, October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1980, is called the "1980 water year".

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

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

Wet weight refers to the weight of a substance including its contained water.

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

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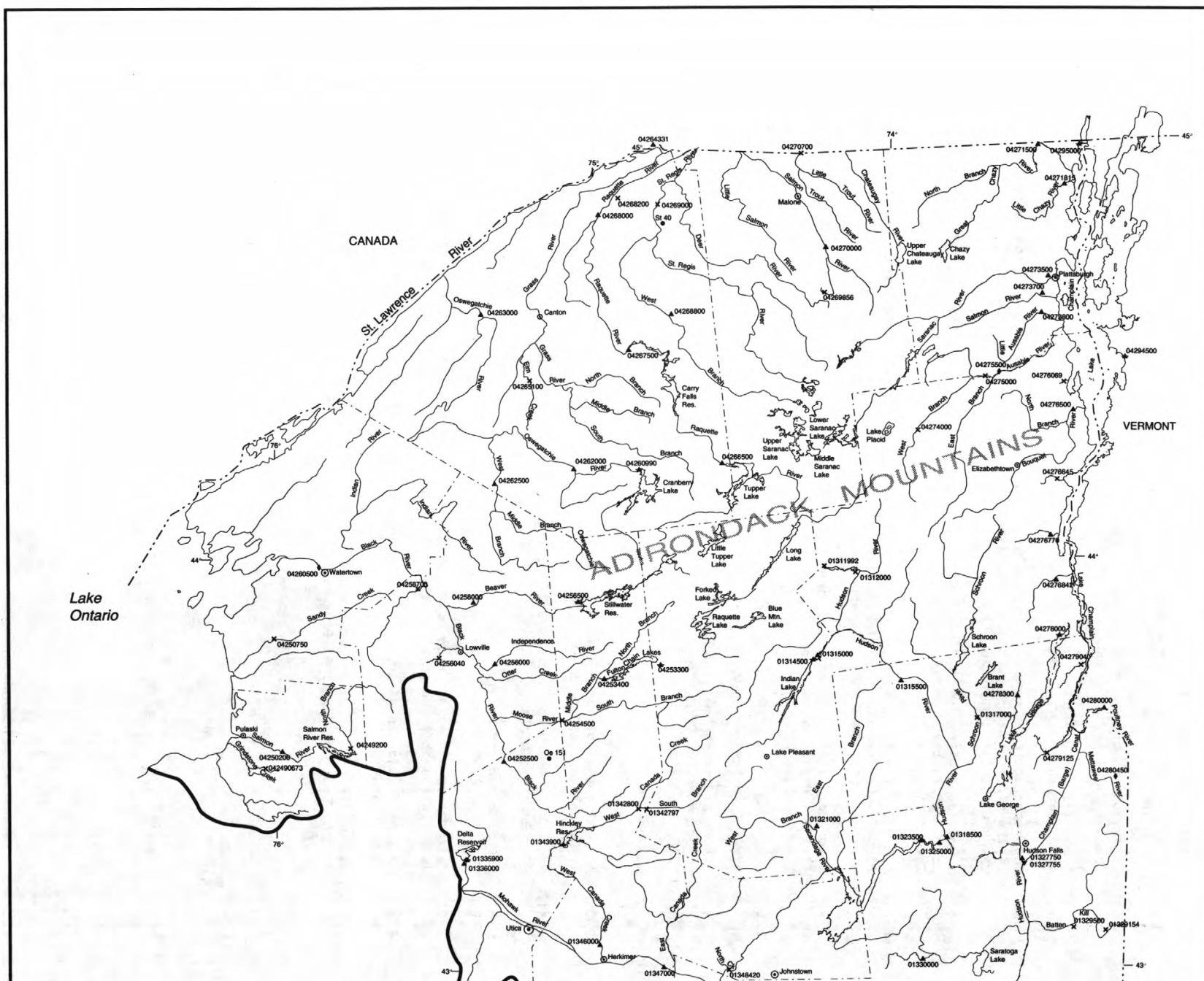
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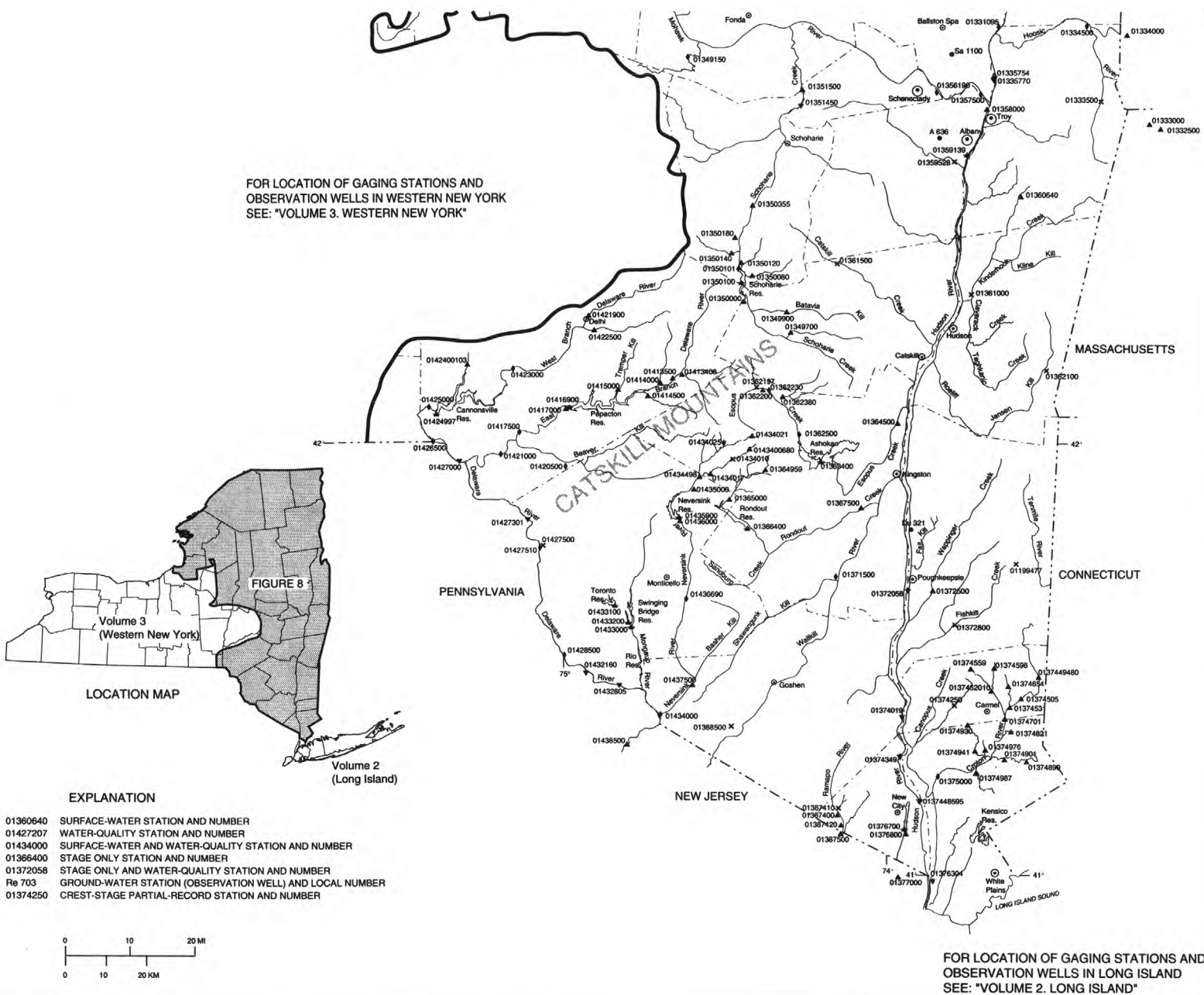


FIGURE 8.-- LOCATION OF GAGING STATIONS AND OBSERVATION WELLS

HUDSON RIVER BASIN

01314500 INDIAN LAKE NEAR INDIAN LAKE, NY

LOCATION.--Lat 43°45'20", long 74°16'35", Hamilton County, Hydrologic Unit 02020001, at Indian Lake Dam on Indian River, and 2.0 mi south of village of Indian Lake.

DRAINAGE AREA.--131 mi².

PERIOD OF RECORD.--July 1900 to current year. Prior to October 1956, published as "Indian Lake Reservoir near Indian Lake."

REVISED RECORDS.--WDR NY-94-1: 1993 (change in contents).

GAGE.--Nonrecording gage read once daily. Datum of gage is sea level.

REMARKS.--Reservoir is formed by masonry dam, completed in 1898. Usable capacity, about 4.668 bil ft³ at elevation, 1,651.29 ft (crest of spillway). Sills of double sluice gates at lowest outlet at elevation 1,615.50 ft. Dead storage unknown. Water is used for power development, for improvement of navigation in lower Hudson River, and to compensate for flow diverted from Hudson River at Glens Falls into Champlain (Barge) Canal.

COOPERATION.--Gage-height record provided by Hudson River-Black River Regulating District.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 1,656.71 ft, Mar. 28, 1913, contents, 5.781 bil ft³; minimum observed, 1,616.8 ft, estimated, Feb. 13, 1948, contents, 0.20 bil ft³.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 1,651.51 ft, May 8, 11, contents, 4.712 bil ft³; minimum observed, 1,641.21 ft, Mar. 29, contents, 2.929 bil ft³.

Capacity table
(elevation, in feet and capacity, in billions of cubic feet)

1,635.0	1.958	1,648.0	4.068
1,636.0	2.110	1,653.0	5.007
1,638.0	2.417	1,655.0	5.419
1,643.0	3.221	1,657.0	5.844

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY OBSERVATION AT 08:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1644.51	1644.04	1647.69	1649.31	1645.76	1643.33	1641.96	1649.51	1649.81	1649.81	1648.16	1646.09
2	1644.51	1644.06	1648.61	1649.27	1645.51	1643.41	1642.11	1649.96	1649.81	1649.76	1648.09	1646.03
3	1644.45	1643.96	1650.01	1649.08	1645.36	1643.66	1642.17	1650.36	1649.81	1649.76	1647.97	1645.97
4	1644.45	1643.95	1650.56	1648.97	1645.22	1643.81	1642.26	1650.86	1649.76	1649.78	1647.93	1645.87
5	1644.41	1643.91	1650.71	1648.81	1645.15	1643.99	1642.51	1651.21	1649.76	1649.78	1647.81	1645.77
6	1644.37	1643.84	1650.75	1648.78	1645.00	1643.96	1642.86	1651.36	1649.76	1649.66	1647.69	1645.69
7	1644.31	1643.76	1650.70	1648.81	1644.81	1644.02	1643.46	1651.41	1649.71	1649.61	1647.60	1645.57
8	1644.25	1643.74	1650.60	1648.80	1644.61	1643.95	1644.41	1651.51	1649.66	1649.56	1647.50	1645.52
9	1644.29	1645.16	1650.51	1648.81	1644.47	1643.86	1644.86	1651.46	1649.66	1649.53	1647.42	1645.45
10	1644.21	1647.16	1650.41	1648.81	1644.26	1643.76	1645.11	1651.46	1649.65	1649.53	1647.35	1645.37
11	1644.17	1647.76	1650.31	1648.41	1644.09	1643.60	1645.16	1651.51	1649.62	1649.49	1647.26	1645.27
12	1644.20	1648.11	1650.14	1648.36	1643.89	1643.52	1645.18	1651.46	1649.57	1649.46	1647.15	1645.19
13	1644.16	1648.26	1649.96	1648.17	1643.89	1643.36	1645.23	1651.41	1649.55	1649.37	1647.05	1645.21
14	1644.16	1648.36	1650.00	1648.05	1643.61	1643.16	1645.31	1651.36	1649.51	1649.33	1647.21	1645.11
15	1644.09	1648.34	1649.96	1647.87	1643.46	1643.07	1645.31	1651.26	1649.51	1649.30	1647.15	1645.06
16	1644.05	1648.34	1649.91	1647.73	1643.29	1643.00	1645.41	1651.16	1649.51	1649.31	1647.11	1644.95
17	1643.96	1648.34	1649.80	1647.59	1643.16	1642.85	1645.56	1651.08	1649.47	1649.29	1647.03	1644.90
18	1643.93	1648.27	1649.81	1647.51	1642.92	1642.69	1645.81	1651.01	1649.52	1649.24	1646.96	1644.77
19	1643.93	1648.31	1649.86	1647.21	1642.77	1642.54	1646.16	1650.91	1649.61	1649.25	1646.89	1644.69
20	1643.81	1648.36	1649.84	1647.16	1642.71	1642.36	1646.36	1650.85	1649.66	1649.17	1646.77	1644.66
21	1643.87	1648.36	1649.80	1646.81	1642.66	1642.19	1646.46	1650.71	1649.67	1649.10	1646.69	1644.60
22	1643.96	1648.46	1649.72	1646.67	1642.61	1642.07	1646.71	1650.71	1649.76	1649.03	1646.67	1644.46
23	1644.10	1648.47	1649.60	1646.61	1642.86	1641.91	1646.89	1650.61	1649.73	1648.96	1646.75	1644.36
24	1644.12	1648.35	1649.51	1646.47	1642.96	1641.76	1647.12	1650.56	1649.73	1648.86	1646.67	1644.26
25	1644.16	1648.26	1649.61	1646.45	1643.02	1641.60	1647.36	1650.46	1649.81	1648.76	1646.60	1644.20
26	1644.17	1648.16	1649.70	1646.41	1643.01	1641.50	1647.61	1650.36	1649.81	1648.66	1646.55	1644.12
27	1644.15	1648.11	1649.71	1646.39	1642.91	1641.40	1647.78	1650.26	1649.81	1648.59	1646.47	1644.01
28	1644.16	1648.00	1649.67	1646.36	1643.11	1641.26	1648.01	1650.11	1649.81	1648.51	1646.41	1643.96
29	1644.06	1647.90	1649.55	1646.31	---	1641.21	1648.01	1649.96	1649.81	1648.51	1646.33	1643.88
30	1644.09	1647.81	1649.48	1646.16	---	1641.36	1649.19	1649.86	1649.81	1648.31	1646.25	1643.86
31	1644.04	---	1649.41	1646.05	---	1641.66	---	1649.76	---	1648.22	1646.19	---
MEAN	1644.16	1646.93	1649.87	1647.68	1643.82	1642.77	1645.41	1650.79	1649.69	1649.21	1647.09	1644.96
MAX	1644.51	1648.47	1650.75	1649.31	1645.76	1644.02	1649.19	1651.51	1649.81	1649.81	1648.16	1646.09
MIN	1643.81	1643.74	1647.69	1646.05	1642.61	1641.21	1641.96	1649.51	1649.47	1648.22	1646.19	1643.86
#	3.395	4.022	4.302	4.044	3.264	3.034	4.313	4.381	4.385	4.100	3.746	3.353
##	-27.6	+242	+104	-96.3	-322	-85.9	+493	+25.4	+1.54	-106	-132	-152
CAL YR 1996	MEAN 1646.40	MAX 1652.88	MIN 1639.81	## +29.2								
WTR YR 1997	MEAN 1646.89	MAX 1651.51	MIN 1641.21	## - 3.68								

Contents, in billions of cubic feet, at 2400 hours on last day of month, by interpolation.

Change in contents, equivalent in cubic feet per second.

NOTE: Elevation at 0800 hours for Jan. 16 and Mar. 26 computed based on observation at 0800 hours on adjacent days.

HUDSON RIVER BASIN

37

01315000 INDIAN RIVER NEAR INDIAN LAKE, NY

LOCATION.--Lat 43°45'30", long 74°16'05", Hamilton County, Hydrologic Unit 02020001, on right bank 0.8 mi downstream from Indian Lake Dam, 1.0 mi upstream from Big Brook, and 2.0 mi south of village of Indian Lake.

DRAINAGE AREA.--132 mi².

PERIOD OF RECORD.--July 1912 to June 1914, June 1915 to September 1915 (monthly discharges only, published in WSP 1302), October 1915 to current year.

REVISED RECORDS.--WDR NY-94-1: 1993.

GAGE.--Water-stage recorder. Datum of gage is 1,604.23 ft above sea level. Prior to Aug. 30, 1916, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Indian Lake (see station 01314500).

AVERAGE DISCHARGE.--83 years (water years 1913, 1916-97), 297 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,460 ft³/s, Mar. 28, 1913, gage height, 7.8 ft; minimum, has been less than 1.0 ft³/s, when entire flow of river is stored in Indian Lake.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 637 ft³/s, May 9, 10, gage height, 3.19 ft; minimum, 46 ft³/s, June 23, 24, 25, 26-30, July 1, gage height, 0.99 ft; minimum daily, 46 ft³/s, June 26-30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	141	202	403	551	508	489	468	549	233	63	204	199
2	141	202	429	550	508	495	469	544	231	150	204	199
3	141	202	416	548	505	496	471	548	230	153	204	198
4	141	201	418	548	502	497	476	548	230	153	204	197
5	141	200	486	550	501	500	479	565	214	151	204	197
6	141	199	545	548	497	501	487	616	155	151	204	197
7	141	199	545	545	496	498	494	627	155	151	204	197
8	141	206	543	541	495	494	497	629	154	151	204	201
9	141	236	543	540	492	489	499	630	153	153	204	202
10	142	216	541	541	490	488	497	631	153	152	204	201
11	141	214	540	537	491	487	500	629	153	152	204	200
12	141	214	540	535	489	487	500	622	140	151	204	200
13	141	214	541	533	486	485	501	613	88	151	207	199
14	141	214	541	531	485	485	502	605	87	151	204	198
15	141	214	539	529	481	486	503	599	87	164	204	197
16	166	214	538	528	480	483	504	596	87	215	204	197
17	204	214	538	526	478	481	507	590	77	214	204	197
18	204	215	538	526	474	479	509	588	48	215	204	197
19	204	217	540	522	476	475	513	565	48	214	204	197
20	205	214	545	512	475	475	516	543	48	214	204	196
21	206	214	547	509	476	473	517	542	47	214	204	194
22	206	248	550	515	482	472	519	542	47	214	204	194
23	204	398	550	521	483	471	522	540	47	214	204	194
24	206	398	556	520	482	469	524	539	47	214	204	194
25	204	398	554	520	485	467	526	538	47	214	204	194
26	204	398	553	516	484	465	528	538	46	211	203	194
27	204	398	553	513	487	461	530	538	46	207	202	194
28	203	398	552	513	488	460	536	504	46	206	202	194
29	202	398	551	515	---	461	541	425	46	204	200	193
30	203	398	550	512	---	463	546	390	46	204	199	192
31	202	---	550	507	---	467	---	233	---	204	199	---
TOTAL	5343	7853	16335	16402	13676	14899	15181	17166	3236	5575	6308	5903
MEAN	172	262	527	529	488	481	506	554	108	180	203	197
MAX	206	398	556	551	508	501	546	631	233	215	207	202
MIN	141	199	403	507	474	460	468	233	46	63	199	192

ADJUSTED FOR CHANGE IN CONTENTS OF INDIAN LAKE

MEAN	144	504	632	433	166	395	999	579	110	73.6	70.8	45.4
CFSM	1.09	3.82	4.78	3.28	1.25	2.99	7.57	4.39	0.83	0.56	0.54	0.34
IN	1.26	4.26	5.52	3.78	1.31	3.45	8.45	5.06	0.93	0.64	0.62	0.38

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 1997, BY WATER YEAR (WY)

MEAN	270	222	263	366	416	281	185	311	255	274	361	351
MAX	808	649	777	944	980	745	774	799	907	644	700	862
(WY)	1978	1977	1973	1933	1932	1913	1913	1996	1947	1939	1930	1935
MIN	2.31	1.20	.74	3.13	36.7	5.69	2.51	2.42	3.30	4.43	47.7	24.9
(WY)	1919	1914	1931	1924	1945	1925	1927	1958	1958	1931	1975	1965

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1912 - 1997

ANNUAL TOTAL	131026	127877	
ANNUAL MEAN	358	350	297
ANNUAL MEAN (ADJUSTED)	387	346	
HIGHEST ANNUAL MEAN			457
LOWEST ANNUAL MEAN			106
HIGHEST DAILY MEAN	1290	May 13	3460
LOWEST DAILY MEAN	95	Apr 12	.50
ANNUAL SEVEN-DAY MINIMUM	103	Apr 12	.50
ANNUAL RUNOFF (CFSM, ADJUSTED)	2.93	2.62	
ANNUAL RUNOFF (INCHES, ADJUSTED)	39.82	35.61	
10 PERCENT EXCEEDS	580	545	635
50 PERCENT EXCEEDS	234	398	256
90 PERCENT EXCEEDS	142	151	8.0

HUDSON RIVER BASIN

01315500 HUDSON RIVER AT NORTH CREEK, NY

LOCATION.--Lat 43°42'03", long 73°59'02", Warren County, Hydrologic Unit 02020001, on left bank 125 ft upstream from bridge on State Highway 28N in village of North Creek, 500 ft upstream from North Creek, and 26 mi downstream from Indian Lake.

DRAINAGE AREA.--792 mi².

PERIOD OF RECORD.--September 1907 to current year.

REVISED RECORDS.--WSP 621: Drainage area. WSP 1432: 1908-18, 1920, 1922. WDR NY-78-1: 1977.

GAGE.--Water-stage recorder. Datum of gage is 987.51 ft above sea level. Prior to Oct. 15, 1930, nonrecording gages at sites 80 ft and 125 ft downstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Appreciable regulation by Indian Lake (see station 01314500) and other reservoirs upstream from station. Telephone gage-height telemeter at station.

AVERAGE DISCHARGE.--90 years, 1,578 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,900 ft³/s, Dec. 31, 1948, gage height, 12.14 ft; minimum, 112 ft³/s, July 26, 1934, gage height, 1.96 ft; minimum daily, 114 ft³/s, July 26, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 17,300 ft³/s, Nov. 10, gage height, 9.73 ft; minimum, 264 ft³/s, Aug. 4, gage height, 2.45 ft; minimum daily, 291 ft³/s, Aug. 11.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	729	1030	1420	e2000	e1200	3070	4010	5560	1730	367	415	519
2	626	995	8730	e1900	e1100	2920	3410	6480	1950	317	460	498
3	544	910	8650	e1900	e1100	3380	3100	6030	1930	349	384	548
4	463	855	5880	1920	e1100	3240	3430	5860	1720	497	292	564
5	516	793	4290	1890	e1100	2780	4150	5200	1460	757	426	545
6	424	744	3410	2190	e1000	2500	5480	4470	1320	828	333	584
7	400	714	2890	2260	e1000	2270	8250	3930	1140	683	441	567
8	343	804	2570	e1900	e1000	e2000	8420	3430	1060	641	372	948
9	390	12500	2280	e1700	e1000	e1800	6050	3080	914	558	433	592
10	420	14800	2080	e1600	e1000	e1700	4540	3400	936	1020	357	599
11	477	8320	1870	e1500	e980	e1600	3770	3560	801	1180	291	611
12	592	5160	1720	e1400	e980	e1500	3200	3310	853	939	399	744
13	524	3630	1720	e1400	e960	e1400	2990	3320	765	758	396	839
14	485	2740	2110	e1300	e960	e1400	3050	3240	648	602	995	756
15	429	2190	2180	e1300	e940	e1400	2910	2950	578	691	1040	653
16	437	1810	2070	e1200	e900	e1400	3060	2740	520	1150	1000	695
17	493	1620	2040	e1100	e900	1350	3470	2620	490	1580	901	675
18	559	1470	2550	e1000	e940	1310	4150	2530	723	1320	705	623
19	511	1560	3000	e1000	1060	1280	4150	2420	1060	1200	719	571
20	571	2040	2750	e1100	1330	e1200	4100	2480	1210	1070	540	671
21	962	1900	2400	e1100	1600	1200	4140	2590	1130	855	638	713
22	1520	1680	2170	e1200	2280	1200	4180	2580	945	828	659	380
23	1710	1640	1990	e1300	3620	e1100	4270	2640	816	622	851	473
24	1760	1540	2100	e1400	3820	e1000	4330	2410	768	681	810	517
25	1680	1410	3000	e1500	3210	e1000	4230	2230	653	573	704	515
26	1410	e1300	2990	e1400	2660	1170	4150	2180	628	593	742	506
27	1250	e1200	2660	e1400	2500	1280	4130	2100	512	494	608	584
28	1100	e1200	2350	e1400	3080	1450	5040	1840	499	429	689	460
29	961	e1200	2200	e1300	---	1980	6660	1690	440	520	543	460
30	892	1160	e2300	e1300	---	3150	6010	1730	372	381	612	555
31	996	---	e2100	e1200	---	3910	---	1440	---	546	551	---
TOTAL	24174	78915	90470	46060	43320	57940	132830	100040	28571	23029	18306	17965
MEAN	780	2631	2918	1486	1547	1869	4428	3227	952	743	591	599
MAX	1760	14800	8730	2260	3820	3910	8420	6480	1950	1580	1040	948
MIN	343	714	1420	1000	900	1000	2910	1440	372	317	291	380

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1907 - 1997, BY WATER YEAR (WY)

	MEAN	1179	1497	1341	1163	1107	1834	4224	2841	1265	832	785	882
MAX	3923	3089	3277	2801	3846	5643	7258	6671	4768	2252	1701	2455	
(WY)	1978	1989	1984	1949	1981	1921	1993	1971	1947	1947	1986	1938	
MIN	409	427	299	189	223	257	1335	772	353	161	257	365	
(WY)	1964	1924	1931	1931	1940	1940	1995	1987	1988	1934	1985	1983	

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1907 - 1997

ANNUAL TOTAL	792940	661620	
ANNUAL MEAN	2167	1813	1578
HIGHEST ANNUAL MEAN			2449
LOWEST ANNUAL MEAN			862
HIGHEST DAILY MEAN	14800	Nov 10	23900
LOWEST DAILY MEAN	266	Sep 20	114
ANNUAL SEVEN-DAY MINIMUM	348	Sep 20	120
10 PERCENT EXCEEDS	4940		3340
50 PERCENT EXCEEDS	1460		990
90 PERCENT EXCEEDS	461		460

e Estimated

HUDSON RIVER BASIN

39

01318500 HUDSON RIVER AT HADLEY, NY

LOCATION.--Lat 43°19'08", long 73°50'41", Saratoga County, Hydrologic Unit 02020001, on right bank at Hadley, 400 ft downstream from outlet of Lake Luzerne, and 0.3 mi upstream from Sacandaga River.

DRAINAGE AREA.--1,664 mi².

PERIOD OF RECORD.--July 1921 to current year.

REVISED RECORDS.--WSP 561: 1921-22. WSP 756: Drainage area. WSP 1432: 1931 (m).

GAGE.--Water-stage recorder. Datum of gage is 563.99 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Some diurnal fluctuation caused by powerplant on Schroon River. Flow regulated by Indian Lake (see station 01314500) and other reservoirs upstream from station. Telephone and satellite gage-height telemeters at station.

AVERAGE DISCHARGE.--76 years, 2,932 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42,700 ft³/s, Jan. 1, 1949, gage height, 21.21 ft; minimum, 261 ft³/s, July 7, 1995; minimum gage height, 0.94 ft, Sept. 3, 1934, July 7, 1995; minimum daily discharge, 282 ft³/s, Sept. 11, 1991.

EXTREMES OUTSIDE PERIOD OF RECORD.--Discharge for the flood of March 27, 1913, was about 49,000 ft³/s, based on peak runoff comparison with a station 12.7 mi upstream (drainage area 1,533 mi²).

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)
Nov. 10	0015	*20,800	*12.30	Apr. 8	0415	15,500	10.07
Dec. 2	2100	18,600	11.37				

Minimum discharge, 353 ft³/s, Aug. 12, gage height, 1.35 ft; minimum daily, 389 ft³/s, Aug. 12.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1110	1700	2860	e3400	e2000	5870	7700	9210	2690	629	652	833
2	1060	1680	14400	e3300	e1900	5460	7080	9970	3040	612	530	796
3	937	1600	15500	3620	e1900	5960	6440	10100	3080	620	552	836
4	840	1500	11500	3660	e1800	5850	7190	10500	2860	725	502	821
5	755	1420	9260	3500	e1800	5240	8360	9520	2580	869	475	774
6	772	1350	8000	3850	e1800	4850	9950	8450	2300	1090	547	740
7	675	1290	6870	4000	e1800	4630	13500	7910	2100	1070	468	767
8	645	1280	6230	3840	e1700	4270	14900	7040	1950	910	521	852
9	673	11000	5590	e3000	e1600	3840	12200	6320	1820	878	474	1170
10	736	19800	5050	e2900	e1500	3610	9980	6500	1640	924	489	795
11	878	13800	4650	e2800	e1600	3510	8490	6620	1580	1480	452	846
12	785	9800	4240	e2600	e1500	e3300	7500	6230	1430	1310	389	1340
13	851	7620	4050	e2400	e1500	e3100	7120	5930	1410	1150	503	1270
14	839	6160	4430	e2300	e1400	e2900	7060	5780	1280	930	656	1210
15	753	5150	4630	e2200	e1500	e2500	6570	5400	1130	845	1210	1090
16	754	4430	4430	e2100	e1500	e2700	6380	5070	1020	1290	1200	956
17	827	3930	4340	2050	e1500	e2700	6560	4870	951	1710	1170	975
18	880	3640	4910	1740	e1500	e2600	7350	4630	1020	1830	1040	904
19	902	3570	5560	1770	e1600	e2500	7800	4480	1390	1580	850	771
20	987	4260	5330	e1800	2080	e2400	7930	4490	1700	1500	833	780
21	1340	4080	4700	e1900	2360	e2300	7810	4490	1710	1330	779	935
22	1930	3690	4460	e2000	2940	e2300	7780	4450	1570	1150	1070	846
23	2380	3290	4020	e2200	4810	e2200	7730	4420	1400	1050	1050	577
24	2540	3180	4130	2250	5520	e2100	7710	4240	1240	877	1160	652
25	2570	2890	5430	2240	5190	e2000	7500	3900	1200	893	1100	675
26	2300	2870	5450	2560	4690	e2100	7270	3760	1080	760	983	669
27	2080	2780	5130	2380	4460	e2300	7010	3580	996	759	991	642
28	1920	2470	4530	e2300	5600	2840	8190	3250	847	669	1060	699
29	1740	2430	4220	e2200	---	3710	10700	2800	808	601	1080	709
30	1610	2330	e4100	e2000	---	5940	10200	2910	718	647	910	775
31	1630	---	e3900	e1800	---	7670	---	2540	---	529	907	---
TOTAL	38699	134990	181900	80660	69050	113250	251960	179360	48540	31217	24603	25705
MEAN	1248	4500	5868	2602	2466	3653	8399	5786	1618	1007	794	857
MAX	2570	19800	15500	4000	5600	7670	14900	10500	3080	1830	1210	1340
MIN	645	1280	2860	1740	1400	2000	6380	2540	718	529	389	577

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1997, BY WATER YEAR (WY)

	1946	2697	2592	2201	2020	3642	8378	5345	2400	1439	1194	1349
MEAN	7087	5657	6925	6548	6948	11670	14230	11820	9497	4201	2717	4135
MAX (WY)	1978	1960	1984	1949	1981	1936	1993	1972	1947	1935	1986	1938
MIN	575	681	551	397	384	451	2531	1576	737	392	396	590
(WY)	1965	1931	1931	1931	1940	1940	1995	1987	1988	1934	1985	1995

e Estimated.

HUDSON RIVER BASIN

01318500 HUDSON RIVER AT HADLEY, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1922 - 1997	
ANNUAL TOTAL	1465539		1179934		2932	
ANNUAL MEAN	4004		3233		4574	1976
HIGHEST ANNUAL MEAN					1408	1965
LOWEST ANNUAL MEAN					38100	Jan 1 1949
HIGHEST DAILY MEAN	19800	Nov 10	19800	Nov 10	282	Sep 11 1991
LOWEST DAILY MEAN	489	Sep 21	389	Aug 12	299	Jul 20 1934
ANNUAL SEVEN-DAY MINIMUM	571	Sep 3	471	Aug 7	6520	
10 PERCENT EXCEEDS	9630		7500		1800	
50 PERCENT EXCEEDS	2840		2100		783	
90 PERCENT EXCEEDS	743		754			

HUDSON RIVER BASIN

41

01321000 SACANDAGA RIVER NEAR HOPE, NY

LOCATION.--Lat 43°21'10", long 74°16'15", Hamilton County, Hydrologic Unit 02020002, on left bank 1.5 mi downstream from West Branch Sacandaga River, on State Highway 30, and 4.5 mi upstream from Hope.

DRAINAGE AREA.--491 mi².

PERIOD OF RECORD.--September 1911 to current year.

GAGE.--Water-stage recorder. Datum of gage is 881.31 ft above sea level. Prior to July 24, 1929, nonrecording gage at site 300 ft upstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Some seasonal regulation on West Branch Sacandaga River at Piseco Lake Outlet, about 17 mi upstream, and, since 1959, diurnal fluctuation caused by powerplant 4 mi upstream from station at Lake Algonquin. Minor fluctuations caused by mill upstream. Satellite gage-height telemeter at station.

AVERAGE DISCHARGE.--86 years, 1,107 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,000 ft³/s, Mar. 27, 1913, gage height, 11.0 ft, from floodmarks at site then in use; maximum gage height, 13.32 ft, Mar. 1, 1955 (ice jam); minimum discharge, about 16 ft³/s, Sept. 30, 1913, gage height, 1.17 ft; minimum gage height, 1.14 ft, Aug. 11, 12, 13, 1997; minimum daily discharge, 18 ft³/s, Sept. 20, 1913.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 9,100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 9	0645	*21,600	*9.16	Apr. 7	2245	9,180	6.54
Dec. 2	0415	20,500	8.97				

Minimum discharge, 40 ft³/s, Aug. 11, 12, 13, gage height, 1.14 ft; minimum daily, 41 ft³/s, Aug. 12.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	719	776	2580	e900	e800	2920	3760	4210	748	170	59	190
2	664	693	15000	e1000	e780	2730	3030	4110	879	161	55	122
3	569	625	6950	e1100	e760	3140	2930	3980	755	178	53	158
4	471	566	4840	e1200	e740	2580	3890	5370	577	188	51	148
5	436	532	3450	1280	e720	2200	4650	3880	499	208	57	107
6	361	495	2870	1880	e720	2010	6040	3480	449	196	72	95
7	296	468	2470	1670	e700	1750	8170	3130	406	143	63	92
8	261	812	2100	1290	e700	1490	6930	2650	380	160	57	172
9	278	15400	1770	e1100	e680	e1300	4740	2420	391	176	52	82
10	356	7780	1520	e1000	e680	e1200	3640	2530	255	233	46	115
11	390	5320	1320	e920	e660	e1100	3070	2270	294	226	42	86
12	310	3800	1200	e840	e660	e980	2700	2000	275	171	41	214
13	334	3000	1500	e780	e660	e840	3230	1800	212	120	133	240
14	262	2430	2090	e700	e640	e760	3530	1620	231	156	182	171
15	237	2030	1790	e640	e640	e740	3230	1410	174	148	97	126
16	214	1650	1810	e580	e640	e740	3410	1330	171	196	134	118
17	334	1450	1740	e540	e640	e740	4050	1250	289	200	143	131
18	307	1300	2390	e540	e720	e720	4190	1150	368	152	86	95
19	279	1620	2240	e600	e800	e720	3600	1100	511	154	115	72
20	662	1770	2010	e660	e1200	717	3650	1340	410	147	82	127
21	1420	1560	1650	e700	e1400	718	3650	1220	330	143	153	88
22	1590	1350	1480	e800	1930	708	3660	1220	255	144	350	85
23	1540	1180	1370	e1000	2200	670	3650	1140	268	87	297	112
24	1460	1040	2120	e1000	2000	651	3740	1030	211	96	205	77
25	1350	972	3710	e1100	1540	646	3480	936	317	95	184	182
26	1100	e1100	2660	e1100	1460	854	3330	850	331	89	162	195
27	958	e1100	2270	e1000	1920	996	3240	822	234	84	150	176
28	841	e960	1910	e980	3720	1320	5780	684	232	82	237	161
29	709	e940	e1600	e940	---	2210	5920	657	192	78	251	200
30	635	967	e1300	e900	---	4010	4830	613	156	68	238	229
31	860	---	e1000	e840	---	4460	---	636	---	63	166	---
TOTAL	20203	63686	82710	29580	30710	46620	123720	60838	10800	4512	4013	4166
MEAN	652	2123	2668	954	1097	1504	4124	1963	360	146	129	139
MAX	1590	15400	15000	1880	3720	4460	8170	5370	879	233	350	240
MIN	214	468	1000	540	640	646	2700	613	156	63	41	72

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1997, BY WATER YEAR (WY)

	735	1129	1050	853	716	1636	3592	1777	729	425	270	382
MEAN	735	1129	1050	853	716	1636	3592	1777	729	425	270	382
MAX	2677	2727	2988	2607	3197	5315	6143	4342	2752	2221	1225	1604
(WY)	1946	1960	1928	1937	1981	1936	1922	1972	1947	1935	1915	1987
MIN	53.4	205	235	188	172	207	1096	425	133	72.3	52.9	79.4
(WY)	1965	1965	1918	1931	1920	1940	1995	1941	1949	1949	1934	1939

e Estimated

HUDSON RIVER BASIN

01321000 SACANDAGA RIVER NEAR HOPE, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1911 - 1997	
ANNUAL TOTAL	550587		481558		1107	
ANNUAL MEAN	1504		1319		1706	1976
HIGHEST ANNUAL MEAN					611	1965
LOWEST ANNUAL MEAN					23500	Mar 27 1913
HIGHEST DAILY MEAN	15400	Nov 9	15400	Nov 9	18	Sep 20 1913
LOWEST DAILY MEAN	57	Sep 7	41	Aug 12	26	Sep 10 1913
ANNUAL SEVEN-DAY MINIMUM	101	Sep 3	53	Aug 6	2700	
10 PERCENT EXCEEDS	3410		3500		569	
50 PERCENT EXCEEDS	922		740		137	
90 PERCENT EXCEEDS	180		115			

HUDSON RIVER BASIN

43

01323500 GREAT SACANDAGA LAKE AT CONKLINGVILLE, NY

LOCATION.--Lat 43°18'57", long 73°55'39", Saratoga County, Hydrologic Unit 02020002, 800 ft upstream from right end of Conklingville Dam on Sacandaga River at Conklingville.

DRAINAGE AREA.--1,044 mi².

PERIOD OF RECORD.--January 1930 to current year. Prior to October 1969, published as "Sacandaga Reservoir at Conklingville."

GAGE.--Water-stage recorder. Datum of gage is sea level, adjustment of 1912. Prior to Apr. 23, 1930, nonrecording gage at same datum in outlet channel 800 ft downstream.

REMARKS.--Reservoir is formed by earth and concrete dam; storage began in March 1930; dam completed in 1930. Usable capacity for stream regulation, 29.670 bil ft³ between elevations 735.0 ft and 768.0 ft. Between elevations 768.0 ft and 771.0 ft (spillway crest) an additional 3.450 bil ft³ is available exclusively for flood storage. Elevation of inverts of three Dow valves is 699.0 ft. Capacity of 4.600 bil ft³ below elevation 735.0 ft is considered dead storage, except for extraordinary emergencies or for necessary inspection of structures. Purpose of reservoir is to provide flood control and low-water stream regulation for sanitary improvement, navigation, and power, as required by the public welfare, including public health and safety. Area of water surface of reservoir filled to capacity, elevation, 771.0 ft, is 41.7 mi². Discharge over spillway May 1-10, 1983, May 18-25, 1990, Apr. 25-28, 1993 (only spillage since dam completion in 1930). Satellite gage-height telemeter at station.

COOPERATION.--Supplemental records provided by Board of Hudson River-Black River Regulating District.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 773.29 ft, May 4, 1983, contents, 40.418 bil ft³; minimum since first filling, 729.55 ft, Mar. 30, 1940, contents, 2.100 bil ft³.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 770.17 ft, May 6, contents, 36.757 bil ft³; minimum, 750.14 ft, Mar. 27, contents, 16.066 bil ft³.

Capacity table (including dead storage)
(elevation, in feet, and contents, in billions of cubic feet)

738	6.43	760	25.61
740	7.80	764	29.85
745	11.64	768	34.27
750	15.94	771	37.72
755	20.61	774	41.26

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	760.13	758.24	761.20	764.28	757.64	752.39	752.77	769.08	768.00	766.40	762.27	758.86
2	760.04	758.19	763.04	764.06	757.39	752.64	753.48	769.27	768.08	766.27	762.10	758.79
3	759.99	758.17	764.79	763.86	757.11	752.88	754.05	769.32	768.13	766.20	761.90	758.68
4	759.82	758.10	765.55	763.70	756.85	753.10	754.70	769.83	768.12	766.15	761.73	758.55
5	759.69	758.00	765.75	763.53	756.69	753.21	755.57	770.02	768.11	765.96	761.58	758.46
6	759.57	757.94	765.77	763.49	756.45	753.37	756.53	769.94	768.07	765.78	761.46	758.30
7	759.44	757.90	765.73	763.40	756.17	753.42	757.85	769.80	768.05	765.63	761.31	758.15
8	759.29	757.90	765.67	763.20	755.88	753.31	759.22	769.56	768.00	765.44	761.13	758.02
9	759.21	759.36	765.62	762.95	755.63	753.17	760.08	769.31	767.98	765.32	760.97	757.91
10	759.11	761.21	765.80	762.77	755.35	753.05	760.65	769.27	768.00	765.21	760.81	757.77
11	758.99	762.05	765.94	762.55	755.05	752.89	761.09	769.23	767.98	765.08	760.68	757.68
12	758.86	762.55	765.81	762.32	754.76	752.71	761.46	769.09	767.95	764.95	760.50	757.72
13	758.72	762.88	765.68	762.03	754.46	752.48	761.98	768.95	767.91	764.82	760.38	757.65
14	758.60	763.12	765.69	761.75	754.16	752.29	762.58	768.78	767.86	764.67	760.28	757.56
15	758.42	763.07	765.69	761.47	753.88	752.14	763.08	768.56	767.76	764.52	760.14	757.47
16	758.24	762.92	765.60	761.23	753.56	751.92	763.55	768.43	767.67	764.43	760.09	757.34
17	758.05	762.74	765.49	760.98	753.26	751.67	764.07	768.24	767.59	764.31	759.99	757.21
18	757.91	762.58	765.47	760.72	752.95	751.41	764.62	768.05	767.54	764.22	759.86	757.10
19	757.70	762.53	765.50	760.46	752.64	751.19	765.05	767.90	767.54	764.08	759.73	756.96
20	757.63	762.51	765.54	760.20	752.35	751.05	765.43	768.15	767.49	763.95	759.59	756.86
21	757.79	762.45	765.31	759.95	752.11	750.91	765.74	768.16	767.44	763.81	759.53	756.71
22	757.95	762.34	765.10	759.69	751.96	750.80	766.05	768.15	767.40	763.71	759.54	756.60
23	758.04	762.20	764.90	759.47	751.88	750.66	766.35	768.12	767.22	763.57	759.51	756.42
24	758.19	761.96	764.80	759.26	751.87	750.50	766.63	768.10	767.13	763.46	759.38	756.27
25	758.26	761.80	764.97	759.11	751.84	750.32	766.90	768.08	767.10	763.31	759.28	756.12
26	758.25	761.72	764.96	758.91	751.78	750.30	767.08	768.05	767.00	763.18	759.17	755.98
27	758.26	761.75	764.88	758.68	751.80	750.26	767.21	768.03	766.87	763.03	759.09	755.82
28	758.32	761.63	764.74	758.57	752.06	750.29	767.61	768.05	766.80	762.92	759.14	755.69
29	758.23	761.44	764.62	758.35	---	750.50	768.45	768.02	766.66	762.73	759.10	755.65
30	758.23	761.24	764.61	758.09	---	751.04	768.86	767.96	766.53	762.57	759.05	755.58
31	758.29	---	764.46	757.86	---	751.84	---	767.98	---	762.41	758.95	---
MEAN	758.68	761.02	765.12	761.19	754.20	751.86	762.29	768.69	767.60	764.45	760.27	757.26
MAX	760.13	763.12	765.94	764.28	757.64	753.42	768.86	770.02	768.13	766.40	762.27	758.86
MIN	757.63	757.90	761.20	757.86	751.78	750.26	752.77	767.90	766.53	762.41	758.95	755.58
†	23.75	26.78	30.25	23.32	17.99	18.05	35.39	34.21	32.52	28.04	24.54	21.15
††	-724	+1,169	+1,296	-2,587	-2,203	+22	+6,690	-441	-652	-1,673	-1,307	-1,308

CAL YR 1996 MEAN 762.28 MAX 770.23 MIN 751.08 †† +340

WTR YR 1997 MEAN 761.10 MAX 770.02 MIN 750.26 †† -144

† Contents, in billions of cubic feet, at 2400 hours on last day of month.

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

HUDSON RIVER BASIN

01325000 SACANDAGA RIVER AT STEWARTS BRIDGE, NEAR HADLEY, NY

LOCATION.--Lat 43°18'41", long 73°52'04", Saratoga County, Hydrologic Unit 02020002, on left bank 1.0 mi downstream from Stewarts Bridge, 1.1 mi west of Hadley, 1.4 mi upstream from mouth, and 1.5 mi downstream from Stewarts Bridge hydroelectric plant.

DRAINAGE AREA.--1,055 mi².

PERIOD OF RECORD.--September 1907 to current year. Published as "near Hadley" 1907-1910, "at Hadley" 1911-32 and "at Conklingville" 1932-52. Records published for both sites October 1951 to September 1952.

REVISED RECORDS.--WSP 1302: 1908. WSP 1432: 1910-12, 1916-21, WDR NY-83-1: 1968(M), 1971-72(M), 1976-77(M), 1979(M).

GAGE.--Water-stage recorder. Datum of gage is 582.00 ft above sea level. Prior to Jan. 1, 1911, nonrecording gage at site about 1 mi upstream at different datum. Jan. 1, 1911 to Sept. 30, 1932, water-stage recorder at site 0.8 mi downstream at datum 8.82 ft lower than present datum. Oct. 1, 1932 to Sept. 30, 1952, water-stage recorder at site 3.6 mi upstream at datum 85.47 ft higher than present datum.

REMARKS.--No estimated daily discharges. Records good except those below about 50 ft³/s, which are fair. Flow regulated by Great Sacandaga Lake since Mar. 27, 1930 (see station 01323500); discharge over spillway May 1-10, 1983, May 18-25, 1990, Apr. 25-28, 1993 (only spillage since completion of Conklingville Dam in 1930). Extensive diurnal fluctuation caused by release of water from Great Sacandaga Lake, through Elmer J. West hydroelectric station directed by Board of Hudson River-Black River Regulating District and through Stewarts Bridge hydroelectric station. Satellite gage-height telemeter at station.

COOPERATION.--From Oct. 1, 1932, to Dec. 4, 1979, discharge computed by Board of Hudson River-Black River Regulating District from rating developed by Geological Survey. Since Dec. 4, 1979, discharge computed by U.S. Geological Survey.

AVERAGE DISCHARGE.--90 years, 2,155 ft³/s, 27.74 in/yr, adjusted for storage since 1930.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 35,500 ft³/s, Mar. 28, 1913, gage height, 12.36 ft, site and datum then in use; minimum, 4.2 ft³/s, May 4, 1985, Mar. 30, 31, Apr. 1-10, 11, 13, 14, 15, 1992; minimum daily, 4.2 ft³/s, Mar. 31, Apr. 1-10, 14, 1992. Maximum discharge since construction of Conklingville Dam in 1930, 13,300 ft³/s, May 4, 1983, gage height, 9.68 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,450 ft³/s, May 5, gage height, 7.69 ft; minimum, 8.3 ft³/s, Oct. 4; minimum daily, 37 ft³/s, June 10.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1960	1540	4330	4670	4250	3160	108	4180	1050	1710	2030	1370
2	2130	1520	1480	4830	4180	3140	97	4690	1070	1790	2020	1360
3	1970	1540	63	4830	4260	3240	99	5230	1020	2370	2030	1530
4	2140	1510	2250	4380	4130	3190	79	4840	1050	2810	2020	1520
5	2040	1520	5070	4880	4150	3230	82	6710	1050	3010	2000	1530
6	2050	1530	5210	4990	4200	3240	161	7860	1040	2820	2030	1530
7	2040	1700	5220	4970	4250	3120	217	7740	1030	2860	2030	1570
8	2310	1620	5190	4890	4240	4020	51	7820	1030	2680	2030	1530
9	2270	564	1730	4980	4060	4040	228	6780	1020	2050	2030	1700
10	2240	81	44	4990	4180	4090	41	5230	37	2070	2030	1710
11	2210	51	1340	4850	4250	4090	40	5110	1030	2080	2030	1700
12	2230	51	5120	4970	4340	4070	41	5230	1030	1910	2030	1690
13	2210	50	4990	5040	4350	4140	42	5170	1010	1880	1700	1560
14	2270	994	5000	4880	4320	3990	42	5140	1150	1870	1690	1530
15	2430	4330	5210	4630	4350	4070	40	5150	1010	2040	1690	1530
16	2470	4300	5070	4930	4290	4010	40	4540	1540	2040	1570	1530
17	2330	4280	4970	4470	4300	4060	40	4060	1540	1630	1570	1710
18	2240	3660	4750	4110	4410	4130	1100	4060	1540	1560	1530	1710
19	2220	3600	4860	4080	4390	3170	2170	2270	1570	1560	1520	1700
20	2220	3470	5260	4100	4380	3050	2220	2030	1840	1570	1530	1700
21	2200	3490	5200	4270	4440	3030	2190	2040	1540	1570	1540	1700
22	1710	3450	5160	4170	4400	3050	2140	2030	1540	1530	1370	1700
23	1570	4150	5170	4130	4360	3120	2140	2040	1540	1710	1850	1700
24	1540	4250	5060	4100	4470	3060	2140	1580	1540	1710	1370	1690
25	1540	3560	5210	4060	3220	3040	2660	1560	1530	1870	1530	1690
26	1550	3520	5220	4100	3340	3020	3110	1550	1860	1870	1380	1720
27	1540	3470	5180	4090	3200	3110	3130	1410	1700	1860	1390	1700
28	1540	4150	5190	4110	3230	3040	3150	1120	1710	1860	1360	1740
29	1540	4170	5160	4190	---	3080	3590	1490	1700	1860	1360	1710
30	1550	4220	2200	4100	---	3100	4110	1040	1700	2040	1390	1690
31	1530	---	4750	4100	---	3080	---	1040	---	2060	1380	---
TOTAL	61790	76341	130657	139890	115940	106980	35298	120740	39017	62250	53030	48750
MEAN	1993	2545	4215	4513	4141	3451	1177	3895	1301	2008	1711	1625
MAX	2470	4330	5260	5040	4470	4140	4110	7860	1860	3010	2030	1740
MIN	1530	50	44	4060	3200	3020	40	1040	37	1530	1360	1360

Adjusted for change in contents in Great Sacandaga Lake and Stewarts Bridge Pool

	MEAN	1269	3716	5507	1928	1936	3473	7869	3453	649	335	406	315
CFSM	1.20	3.52	5.22	1.83	1.84	3.29	7.46	3.27	0.62	0.32	0.38	0.30	
IN.	1.39	3.93	6.02	2.11	1.91	3.80	8.32	3.77	0.69	0.37	0.44	0.33	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1997, BY WATER YEAR (WY)

	MEAN	1972	2242	2530	2765	2755	1972	1201	2431	2004	1941	1910	1843
MAX	5149	5177	4935	5026	4910	3921	5691	7035	5203	4589	3013	2846	
(WY)	1946	1976	1960	1978	1973	1972	1979	1983	1947	1935	1935	1994	
MIN	508	1224	1117	1210	1144	89.0	5.85	40.5	712	927	872	963	
(WY)	1996	1994	1965	1965	1931	1954	1985	1931	1987	1941	1995	1941	

HUDSON RIVER BASIN

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01325000 SACANDAGA RIVER AT STEWARTS BRIDGE, NEAR HADLEY, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1931 - 1997	
ANNUAL TOTAL	913612		990683			
ANNUAL MEAN	2496		2714		2129	
ANNUAL MEAN (ADJUSTED)*	2837		2570		2155	
HIGHEST ANNUAL MEAN					3452	1976
LOWEST ANNUAL MEAN					1122	1965
HIGHEST DAILY MEAN	7950	May 3	7860	May 6	12800	May 4 1983
LOWEST DAILY MEAN	40	Apr 11	37	Jun 10	4.2	Mar 31 1992
ANNUAL SEVEN-DAY MINIMUM	41	Apr 6	41	Apr 11	4.2	Mar 31 1992
ANNUAL RUNOFF (CFSM, ADJUSTED)*	2.69		2.44		2.04	
ANNUAL RUNOFF (INCHES, ADJUSTED)*	36.50		33.07		27.74	
10 PERCENT EXCEEDS	5070		4970		4040	
50 PERCENT EXCEEDS	2200		2140		2090	
90 PERCENT EXCEEDS	135		1040		30	

* Water years 1908 to current, adjusted for storage since 1930.

HUDSON RIVER BASIN

01327750 HUDSON RIVER AT FORT EDWARD, NY

LOCATION.--Lat 43°16'10", long 73°35'47", Washington County, Hydrologic Unit 02020003, on left bank 40 ft upstream from Scott Paper Mill, 150 ft south of River Street in Fort Edward, and 0.4 mi upstream from bridge on State Highway 197.

DRAINAGE AREA.--2,817 mi².

PERIOD OF RECORD.--January 1899 to December 1908, December 1976 to current year.

GAGE.--Water-stage recorder. Datum of gage is 100.00 ft above sea level. Prior to December 1976, nonrecording gage at different site and datum.

REMARKS.--Records poor. Flow regulated appreciably by Great Sacandaga Lake since March 1930 (see station 01323500) and Indian Lake since 1898 (see station 01314500). Diurnal fluctuation caused by powerplants upstream from station. Water is diverted into St. Lawrence River basin through Glens Falls feeder, Bond Creek, and Champlain (Barge) Canal, and occasionally may be received from that basin through summit level of Champlain (Barge) Canal at Dunham Basin. Telephone gage-height telemeter at station.

AVERAGE DISCHARGE.--20 years (1978-97), 5,225 ft³/s.

EXTREMES FOR PERIOD OF RECORD (December 1976 to current year).--Maximum discharge, 35,200 ft³/s, May 3, 1983, gage height, 28.34 ft; maximum gage height, 28.71 ft, Jan. 11, 1978 (ice jam); minimum discharge, 234 ft³/s, July 25, 1983; minimum gage height, 19.33 ft, Sept. 4, 1978; minimum daily discharge, 652 ft³/s, Sept. 4, 1978.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 89,100 ft³/s, Mar. 28, 1913, at site about 14 mi upstream (drainage area, 2,779 mi²).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 24,700 ft³/s, Nov. 10, gage height, 26.08 ft; minimum, 238 ft³/s, July 3, gage height, 19.44 ft; minimum daily discharge, 1,680 ft³/s, Aug. 7.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2720	3980	6790	8070	6200	9530	10600	13800	3740	2500	2550	2230
2	3390	2640	16400	7780	e6400	8640	7570	14500	3550	2540	2660	2050
3	3270	3200	18700	8380	6170	9020	7120	16000	3960	1860	2530	2460
4	3000	3340	13900	8170	6060	9220	7060	16500	4490	3500	3460	2730
5	3170	2980	15200	8160	6150	8700	8470	16200	3370	2640	2500	2380
6	2650	3020	14000	8480	6060	8500	9930	17100	3340	3560	2630	2280
7	2940	3020	12500	9090	6260	7870	13800	16100	3420	4860	1680	2460
8	2890	2760	11700	8200	6170	8070	16700	15300	3460	3300	2560	2340
9	2840	7290	9590	7940	5800	7840	14000	14500	2910	3210	2200	2810
10	3180	21400	5680	7930	5560	7510	10800	11600	2140	2960	2840	2770
11	3080	16200	4950	7560	5900	7660	9100	12000	2400	3300	2430	2550
12	3200	11000	8330	7670	5890	7350	8060	11700	2570	3120	2630	3150
13	3190	8420	8840	7570	5870	7220	7440	11100	2820	3280	2320	3180
14	2930	6360	8940	7510	5920	6460	7340	10900	2570	3080	2170	2980
15	3390	8790	9930	7280	5700	6540	7080	10700	2410	2680	2880	2500
16	3100	8680	9610	7190	5740	6970	6520	10200	2090	3790	2910	2620
17	3350	8090	9120	e6800	5940	6580	6680	9100	2850	2640	2350	2900
18	2810	7550	9800	e6200	5800	6670	7550	8560	3020	2780	3220	2810
19	3460	7180	9920	e6000	6010	6490	10100	7960	3070	3390	2500	2910
20	3210	7330	10700	e6400	6320	5630	10200	5670	3950	2990	2060	2510
21	3110	7590	10200	6330	6530	5330	10300	6970	2690	3070	2880	2470
22	3700	7350	9280	6310	6950	5540	10100	6470	3180	2860	2560	2740
23	3930	7110	9230	6590	8360	5300	9940	6490	3280	2920	2950	2780
24	4210	7130	8890	e6600	9790	5240	9880	6330	2810	2580	2630	2390
25	4460	6640	10500	6500	8510	5230	9930	5730	2760	3300	2510	2400
26	3930	6470	10500	6330	7830	5270	10300	5540	2950	2910	2600	2430
27	3880	6370	10300	e6800	7610	5600	10300	5120	3000	2670	2520	2580
28	3930	6540	9910	e6800	8260	5880	11200	4340	2820	2630	3000	2520
29	2860	6580	9390	e6800	---	6720	14400	4300	2630	2500	2740	2180
30	2790	6330	7050	e6600	---	8710	15200	3970	2560	2720	2590	3090
31	3350	---	8360	6290	---	11500	---	4260	---	2840	2540	---
TOTAL	101920	211340	318210	224330	183760	222790	297670	309010	90810	92980	80600	78200
MEAN	3288	7045	10260	7236	6563	7187	9922	9968	3027	2999	2600	2607
MAX	4460	21400	18700	9090	9790	11500	16700	17100	4490	4860	3460	3180
MIN	2650	2640	4950	6000	5560	5230	6520	3970	2090	1860	1680	2050

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1997, BY WATER YEAR (WY)

	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
MEAN	4392	5790	5858	5290	5190	5960	10030	7688	3933	2809	2868	3141									
MAX	9773	9326	10260	9907	8616	10950	16790	16670	6345	4237	4586	4478									
(WY)	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	
MIN	2707	2963	2957	2714	2697	3387	3177	2231	1922	1786	1962	2361									
(WY)	1981	1979	1979	1989	1989	1989	1995	1995	1995	1995	1995	1995	1995	1995	1995	1995	1995	1995	1995	1995	

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1977 - 1997
ANNUAL TOTAL	2474610	2211620	
ANNUAL MEAN	6761	6059	5225
HIGHEST ANNUAL MEAN			6768
LOWEST ANNUAL MEAN			3569
HIGHEST DAILY MEAN	26000	May 13	34100
LOWEST DAILY MEAN	2030	Sep 14	652
ANNUAL SEVEN-DAY MINIMUM	2710	Sep 13	1270
10 PERCENT EXCEEDS	13900		9260
50 PERCENT EXCEEDS	5350		4020
90 PERCENT EXCEEDS	2970		2380

e Estimated

01327755 HUDSON RIVER AT ROGERS ISLAND AT FORT EDWARD, NY

LOCATION.--Lat 43°15'52", long 73°35'28", Saratoga-Washington Counties, Hydrologic Unit 02020003, at bridges on State Highway 197 over Rogers Island in Fort Edward, 0.4 mi downstream from discharge station (01327750, Hudson River at Fort Edward), and 0.6 mi upstream from Champlain Canal.

DRAINAGE AREA.--2,817 mi², at gage.

PERIOD OF RECORD.--Water years 1975 to current year.

CHEMICAL DATA: 1975-76 (a), 1980 (b), 1981 (d), 1982-84 (e), 1985 (d), 1986-87 (e), 1988, 1996 (a).

MINOR ELEMENT DATA: 1975 (b), 1976-77 (a), 1978-79 (e), 1980 (d), 1986 (b), 1987 (e), 1988 (a).

PESTICIDE DATA: 1975, 1977 (a), 1978-79 (e), 1980, 1996 (a).

ORGANIC DATA: OC--1975 (a).

PCB--1975, 1977 (a), 1978-84 (e), 1985 (d), 1986 (e), 1987 (d), 1988-89 (e), 1991-92 (d), 1993-97 (e).

PCN--1977 (a), 1978-79 (e), 1980 (a).

NUTRIENT DATA: 1975-77 (a), 1978 (e).

SEDIMENT DATA: 1975 (b), 1980-84 (e), 1985 (d), 1986-89, 1991 (e), 1992 (d), 1993-97 (e).

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: March 1978 to September 1979.

REMARKS.--Water-discharge data are for Hudson River at Fort Edward (station 01327750). Samples for PCB analysis are collected from both the navigation canal (east channel) and river (west channel).

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

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	AROCLO 1254 PCB TOTAL (UG/L) (39504)	AROCLO 1242 PCB TOTAL (UG/L) (39496)
OCT						
11...	1045	3740	2	21	<.010	.021
22...	1047	2950	2	12	<.010	.022
NOV						
08...	1016	8140	3	56	<.010	.023
20...	1007	7620	2	43	<.010	.022
DEC						
03...	0954	19900	16	876	<.010	<.020
04...	0957	14100	5	183	<.010	<.020
JAN						
07...	1030	9450	1	26	<.010	<.020
MAR						
03...	1017	9120	2	53	<.010	<.020
APR						
02...	1125	7210	2	41	<.010	<.020
07...	1105	14300	5	201	<.010	<.020
08...	1145	19200	14	746	.029	.025
09...	1205	14000	4	147	<.010	<.020
11...	1041	9080	2	47	<.010	<.020
18...	1053	6920	2	34	<.010	<.020
22...	1009	10100	2	42	<.010	.022
MAY						
02...	1115	14000	1	53	<.010	<.020
08...	1115	15400	2	77	<.010	<.020
22...	1056	5880	2	29	<.010	<.020
29...	1035	3590	1	12	<.010	.021
JUN						
09...	1102	2420	4	24	<.010	.022
26...	1057	2920	1	8.7	<.010	.021
JUL						
09...	1044	3590	2	19	.011	.023
AUG						
07...	1059	1300	1	3.5	<.010	<.020
SEP						
04...	1109	3530	2	16	.011	.022
15...	1116	2950	2	19	<.02	<.020

HUDSON RIVER BASIN

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01331095 HUDSON RIVER AT STILLWATER, NY

LOCATION.--Lat 42°56'08", long 73°39'08", Rensselaer County, Hydrologic Unit 02020003, on left bank at dam, 0.15 mi downstream from bridge on State Highway 67 in Stillwater, and 0.75 mi upstream from Hoosic River. Water-quality sampling site at bridge on State Highway 67, 0.15 mi upstream from discharge station.

DRAINAGE AREA.--3,773 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--1932-33 and 1966-67 (discharge measurements only), March 1977 to current year. Daily discharge records prior to October 1981 are published with suspended-sediment data.

GAGE.--There is no gage due to construction of powerplant at station. Discharge is estimated based on records for Hudson River at Fort Edward (01327750) and Batten Kill at Battenville (01329500). Prior to October 1992, water-stage recorder and crest-stage gage at datum of 78.99 ft above sea level. Prior to January 1978, nonrecording gages in upper pool of Champlain (Barge) Canal lock 4, at Barge Canal datum.

REMARKS.--Records poor. Flow regulated appreciably by Great Sacandaga Lake (see station 01323500) and Indian Lake (see station 01314500). Diurnal fluctuation caused by powerplants upstream from station. Water is diverted into St. Lawrence River basin through Glens Falls feeder, Bond Creek, and Champlain (Barge) Canal, and occasionally may be received from that basin through summit level of Champlain (Barge) Canal at Dunham Basin.

AVERAGE DISCHARGE.--20 years, 6,617 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 44,600 ft³/s, May 4, 1983, gage height, 8.69 ft; minimum daily, 900 ft³/s, July 25, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, about 27,100 ft³/s, Dec. 3; minimum daily, about 2,100 ft³/s, Aug. 7.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e3500	e5000	e9200	e10800	e7600	e12900	e15000	e17800	e4800	e3100	e3000	e2700
2	e4200	e3400	e23900	e10300	e7800	e11700	e10800	e19000	e4600	e3100	e3100	e2500
3	e4000	e4100	e27100	e11100	e7600	e12400	e10100	e20600	e5100	e2400	e3000	e3000
4	e3700	e4200	e19600	e11000	e7500	e12400	e9900	e22200	e5600	e4400	e4000	e3300
5	e3900	e3800	e20400	e10900	e7700	e11500	e11700	e21500	e4300	e3400	e3000	e2900
6	e3300	e3800	e18500	e11500	e7700	e11600	e13600	e22100	e4300	e4400	e3100	e2800
7	e3600	e3800	e16400	e12100	e7800	e10700	e18700	e21400	e4300	e5700	e2100	e2900
8	e3500	e3500	e15300	e10800	e7700	e10800	e22400	e20000	e4400	e4000	e3000	e2800
9	e3600	e8900	e12700	e10300	e7200	e10300	e18600	e18700	e3700	e3900	e2600	e3300
10	e4200	e25200	e7700	e10200	e6800	e9900	e14300	e15400	e2800	e3700	e3300	e3300
11	e4100	e18800	e6800	e9800	e7200	e10100	e12000	e15800	e3100	e4100	e2900	e3000
12	e4200	e13000	e10900	e9800	e7200	e9600	e10700	e15300	e3300	e3800	e3100	e3700
13	e4100	e10100	e11600	e9600	e7100	e9300	e10200	e14500	e3600	e4000	e2800	e3900
14	e3800	e7700	e11700	e9500	e7200	e8300	e10000	e14100	e3300	e3700	e2700	e3600
15	e4300	e10300	e12900	e9200	e6900	e8600	e9500	e13800	e3100	e3300	e3500	e3100
16	e3900	e10200	e12500	e8800	e7000	e9000	e8800	e13100	e2700	e4700	e3500	e3200
17	e4200	e9500	e11900	e8600	e7200	e8500	e9000	e11800	e3600	e3400	e2900	e3400
18	e3600	e8900	e12900	e7900	e7100	e8500	e10100	e11100	e3800	e3500	e3800	e3300
19	e4300	e8600	e13100	e7500	e7500	e8300	e13300	e10300	e3900	e4200	e3000	e3400
20	e4100	e8800	e13900	e8000	e8200	e7200	e13200	e7600	e4900	e3700	e2500	e3000
21	e4500	e9000	e13100	e7900	e8500	e6900	e13400	e9100	e3400	e3700	e3400	e3000
22	e5200	e8800	e11900	e7900	e9900	e7200	e13200	e8500	e4000	e3500	e3100	e3300
23	e5300	e8500	e11800	e8000	e11800	e6900	e13000	e8400	e4100	e3600	e3600	e3300
24	e5500	e8500	e11700	e8000	e13200	e6800	e12900	e8100	e3500	e3200	e3200	e2900
25	e5800	e7900	e15000	e8000	e11200	e6700	e12900	e7300	e3400	e3900	e3000	e2900
26	e5100	e8100	e14700	e8000	e10300	e7400	e13200	e7100	e3600	e3500	e3100	e2900
27	e5000	e8500	e13900	e8500	e10400	e7900	e13200	e6500	e3700	e3200	e3000	e3100
28	e5000	e8400	e13200	e8400	e11600	e8300	e14700	e5600	e3500	e3200	e3500	e3000
29	e3800	e8300	e12600	e8500	---	e9700	e19000	e5500	e3200	e3000	e3400	e2600
30	e3600	e7900	e10000	e8200	---	e12600	e19700	e5100	e3200	e3200	e3200	e3800
31	e4300	---	e11400	e7800	---	e16300	---	e5400	---	e3400	e3100	---
TOTAL	131200	255500	428300	286900	234900	298300	397100	402700	114800	113900	96500	93900
MEAN	4232	8517	13820	9255	8389	9623	13240	12990	3827	3674	3113	3130
MAX	5800	25200	27100	12100	13200	16300	22400	22200	5600	5700	4000	3900
MIN	3300	3400	6800	7500	6800	6700	8800	5100	2700	2400	2100	2500

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1997, BY WATER YEAR (WY)

	MEAN	5471	7257	7378	6648	6623	8402	12800	9558	5002	3490	3813
MAX	12060	11880	13820	11300	11760	14610	21760	19960	8385	5716	5915	6311
(WY)	1978	1996	1997	1978	1981	1979	1993	1983	1984	1996	1986	1987
MIN	2975	3640	3945	3041	2751	4735	3987	2790	2380	2042	2245	2523
(WY)	1981	1981	1981	1981	1980	1989	1995	1995	1995	1995	1995	1995

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1977 - 1997
ANNUAL TOTAL	3271900	2854000	
ANNUAL MEAN	8940	7819	6617
HIGHEST ANNUAL MEAN			8808
LOWEST ANNUAL MEAN			4344
HIGHEST DAILY MEAN	35000	May 13	27100
LOWEST DAILY MEAN	2800	Sep 14	2100
ANNUAL SEVEN-DAY MINIMUM	3440	Sep 13	2830
10 PERCENT EXCEEDS	18700		13800
50 PERCENT EXCEEDS	7000		7200
90 PERCENT EXCEEDS	3800		3100

e Estimated

HUDSON RIVER BASIN

01331095 HUDSON RIVER AT STILLWATER, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969 to 1975, 1977 to current year.

CHEMICAL DATA: 1969 (c), 1970-74 (d), 1975 (c), 1980 (b), 1981 (c), 1982-85 (e), 1986-88 (d), 1996 (a).

MINOR ELEMENTS DATA: 1972 (b), 1973-75 (a), 1977-79 (e), 1980 (c).

PESTICIDE DATA: 1977-79 (e), 1980, 1996 (a).

ORGANIC DATA: OC--1974 (a), 1975 (c).

PCB--1977-85 (e), 1986-88 (d), 1989 (e), 1991 (d), 1992-94 (e), 1995 (d), 1996-97 (e).

PCN--1977-79 (e), 1980 (a).

NUTRIENT DATA: 1969 (c), 1970-74 (d), 1975 (c), 1977-78 (e).

SEDIMENT DATA: 1977 (d), 1978 (a), 1981-97 (e).

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: March 1977 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD (Water years 1977-97).--

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean, 280 mg/L, Mar. 30, 1993; minimum daily mean, <1 mg/L on several days during the 1991 water year, Oct. 31, 1991, Aug. 26, 1993, Aug. 11, 1994, July 22, Aug. 22, 1995, July 25, Aug. 11, 1997.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, about 17,400 tons, Mar. 30, 1993; minimum daily, 3.5 tons, Aug. 24, Sept. 2, 1995.

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

DATE	TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	AROCFLOR 1254 PCB TOTAL (UG/L) (39504)	AROCFLOR 1242 PCB TOTAL (UG/L) (39496)
OCT						
11...	1205	e4100	5	55	.010	.026
22...	1205	e5200	3	45	<.010	<.030
NOV						
08...	1158	e3500	3	32	<.010	.038
20...	1146	e8800	5	112	<.010	<.030
DEC						
03...	1149	e27100	96	7020	.018	.034
04...	1128	e19600	23	1220	.010	.021
JAN						
07...	1217	e12100	3	100	<.010	<.020
MAR						
03...	1130	e12400	12	393	<.010	<.020
28...	1034	e8300	46	1020	<.010	.025
APR						
02...	1300	e10800	12	353	<.010	<.020
07...	1220	e18700	10	495	<.010	.023
08...	1255	e22400	21	1280	.029	.025
09...	1320	e18600	11	532	.010	.023
11...	1222	e12000	4	123	<.010	.023
18...	1236	e10100	3	76	<.010	.023
22...	1248	e13200	3	109	<.010	.020
MAY						
02...	1215	e19000	7	364	<.010	.030
08...	1304	e20000	4	238	<.010	.024
22...	1220	e8500	3	64	<.010	.025
29...	1206	e5500	4	58	.012	.024
JUN						
26...	1240	e3600	6	54	.014	.034
JUL						
09...	1215	e3900	3	32	.011	.035
AUG						
07...	1241	e2100	2	12	<.010	.028
SEP						
04...	1246	e3300	2	14	<.010	.020
15...	1315	e3100	2	17	.012	.021

e Estimated daily.

HUDSON RIVER BASIN

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01331095 HUDSON RIVER AT STILLWATER, NY--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)
OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8	76	5	68	30	745	2	58	4	82	14	488
2	4	45	6	55	235	15200	2	56	1	21	8	253
3	5	54	2	22	147	10800	1	30	3	62	22	737
4	3	30	1	11	48	2540	2	59	2	41	13	435
5	3	32	3	31	15	826	2	59	4	83	9	279
6	2	18	2	21	10	500	3	93	4	83	31	971
7	3	29	2	21	7	310	3	98	3	63	13	376
8	2	19	7	66	8	330	1	29	3	62	4	117
9	2	19	16	384	4	137	2	56	2	39	10	278
10	3	34	160	10900	4	83	1	28	2	37	5	134
11	3	33	72	3650	2	37	1	26	2	39	4	109
12	2	23	7	246	6	177	2	53	3	58	3	78
13	2	22	2	55	6	188	5	130	1	19	6	151
14	3	31	3	62	9	284	4	103	2	39	3	67
15	3	35	3	83	10	348	5	124	2	37	2	46
16	5	53	3	83	8	270	1	24	1	19	3	73
17	2	23	6	154	5	161	2	46	1	19	4	92
18	2	19	1	24	5	174	4	85	1	19	3	69
19	2	23	2	46	8	283	4	81	4	81	3	67
20	3	33	4	95	7	263	8	173	6	133	3	58
21	2	24	4	97	6	212	4	85	6	138	4	75
22	3	42	3	71	7	225	5	107	27	722	8	156
23	2	29	2	46	3	96	5	108	35	1120	9	168
24	2	30	1	23	2	63	9	194	17	606	5	92
25	3	47	1	21	4	162	6	130	9	272	6	109
26	3	41	1	22	4	159	6	130	4	111	29	579
27	2	27	1	23	5	188	6	138	21	590	32	683
28	2	27	2	45	4	143	6	136	36	1130	35	784
29	2	21	5	112	4	136	2	46	---	---	38	995
30	2	19	4	85	3	81	3	66	---	---	52	1770
31	2	23	---	---	3	92	2	42	---	---	60	2640

DAY	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	31	1260	9	433	4	52	4	33	1	8.1	2	15
2	16	467	7	359	3	37	3	25	2	17	2	14
3	15	409	14	779	4	55	4	26	1	8.1	2	16
4	11	294	34	2040	3	45	4	48	1	11	2	18
5	10	316	15	871	2	23	5	46	1	8.1	2	16
6	15	551	12	716	3	35	4	48	1	8.4	2	15
7	12	606	13	751	4	46	4	62	1	5.7	1	7.8
8	19	1150	8	432	5	59	2	22	1	8.1	1	7.6
9	14	703	6	303	5	50	3	32	1	7.0	1	8.9
10	7	270	14	582	3	23	4	40	1	8.9	2	18
11	4	130	9	384	6	50	2	22	<1	7.8	2	16
12	3	87	5	207	4	36	2	21	1	8.4	2	20
13	7	193	4	157	4	39	3	32	2	15	2	21
14	3	81	3	114	5	45	2	20	2	15	2	19
15	5	128	4	149	5	42	2	18	2	19	2	17
16	3	71	4	141	5	36	2	25	2	19	1	8.6
17	1	24	4	127	4	39	2	18	2	16	2	18
18	9	245	4	120	4	41	2	19	2	21	2	18
19	2	72	4	111	4	42	2	23	2	16	2	18
20	10	356	4	82	6	79	2	20	2	14	2	16
21	5	181	4	98	4	37	1	10	2	18	2	16
22	4	143	3	69	2	22	1	9.4	2	17	2	18
23	3	105	3	68	4	44	1	9.7	2	19	1	8.9
24	3	104	3	66	6	57	1	8.6	2	17	1	7.8
25	2	70	3	59	4	37	<1	11	1	8.1	2	16
26	3	107	3	58	4	39	1	9.4	1	8.4	2	16
27	4	143	2	35	4	40	1	8.6	3	24	3	25
28	24	953	2	30	3	28	1	8.6	2	19	3	24
29	29	1490	3	45	4	35	1	8.1	2	18	2	14
30	13	691	3	41	4	35	1	8.6	2	17	2	21
31	---	---	3	44	---	---	1	9.2	2	17	---	---

< Actual value is known to be less than the value shown.

LOCATION.--Lat 42°42'01", long 73°09'34", Berkshire County, Hydrologic Unit 02020003, on left bank 0.3 mi downstream from Sherman Brook, 2.7 mi east of junction of U.S. Highway 7 and State Highway 2, in Williamstown.

PERIOD OF RECORD.--Discharge: July 1940 to current year.

Water-quality records: Water years 1953-54, 1957-58, 1967-69.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 616.11 ft above sea level (U.S. Army Corps of Engineers benchmark). Prior to June 6, 1979, at site 1.2 mi downstream at different datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Prior to 1966, slight diurnal fluctuation at low flow caused by mills upstream. Some regulation by Cheshire Reservoir 16 mi upstream. Satellite gage-height telemeter at station.

AVERAGE DISCHARGE.--57 years, 273 ft³/s, 29.48 in/vr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,000 ft³/s, Dec. 31, 1948, gage height, 14.85 ft, former site and datum, from rating curve extended above 4,300 ft³/s on basis of contracted-opening measurement of peak flow; minimum discharge, 5.8 ft³/s, Aug. 30, 31, Oct. 26, 1940; minimum daily, 24 ft³/s, Sept. 9, 1980.

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)
Dec. 2	0700	*4,080	*9.25	No other peak greater than base discharge.			

Minimum discharge, 45 ft³/s, Aug. 2, 3; minimum daily, 47 ft³/s, Aug. 2.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	148	183	653	303	151	472	785	439	183	64	50	62
2	128	173	2710	346	147	581	612	622	176	61	47	59
3	119	164	1030	379	143	575	576	767	167	123	48	61
4	109	155	634	383	139	412	818	1140	155	264	69	60
5	103	148	464	370	241	367	932	651	144	115	96	54
6	100	143	397	491	247	571	1090	811	136	92	97	51
7	99	144	361	368	180	388	1500	839	116	85	66	51
8	100	196	357	259	157	310	1100	572	113	102	59	60
9	310	958	316	238	146	284	686	471	106	221	55	57
10	361	573	291	255	141	291	521	521	104	247	52	51
11	405	344	281	233	137	271	459	514	95	117	51	54
12	251	265	366	207	135	245	461	408	89	93	56	83
13	202	231	507	207	130	218	997	386	88	83	208	67
14	181	208	421	197	129	205	693	375	92	76	261	59
15	163	185	386	193	133	270	554	342	85	74	102	58
16	153	170	396	239	126	220	492	280	82	82	86	55
17	145	175	533	195	123	206	503	262	83	72	92	54
18	136	176	783	161	127	203	665	248	91	72	83	68
19	126	219	706	e155	160	197	582	263	106	65	74	57
20	1430	234	539	e150	276	196	561	919	87	60	66	61
21	1300	200	386	e160	345	192	601	465	79	60	95	68
22	592	183	330	e170	1060	274	602	396	74	61	111	61
23	404	173	316	e180	637	230	584	369	71	59	100	56
24	390	166	601	158	390	197	560	317	70	55	82	55
25	312	165	1220	202	275	189	489	299	81	56	75	56
26	267	455	564	213	280	971	437	278	89	54	73	54
27	233	404	447	160	701	597	372	247	92	54	68	53
28	229	259	389	179	786	680	675	229	79	56	76	52
29	218	242	481	168	---	836	607	212	70	54	78	80
30	203	224	626	153	---	1130	442	200	66	51	74	93
31	200	---	400	148	---	1100	---	196	---	50	66	---
TOTAL	9117	7515	17891	7220	7642	12878	19956	14038	3069	2778	2616	1810
MEAN	294	251	577	233	273	415	665	453	102	89.6	84.4	60.3
MAX	1430	958	2710	491	1060	1130	1500	1140	183	264	261	93
MIN	99	143	281	148	123	189	372	196	66	50	47	51
CFSM	2.33	1.99	4.58	1.85	2.17	3.30	5.28	3.59	.81	.71	.67	.48
IN.	2.69	2.22	5.28	2.13	2.26	3.80	5.89	4.14	.91	.82	.77	.53

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

MEAN	175	260	276	245	243	444	683	376	211	133	116	121
MAX	618	544	714	591	765	1038	1178	872	636	393	416	454
(WY)	1978	1956	1974	1949	1981	1979	1969	1943	1972	1945	1976	1960
MIN	41.0	46.5	118	60.8	75.3	139	253	144	81.0	60.4	48.2	34.5
(WY)	1965	1965	1962	1981	1980	1965	1995	1987	1965	1962	1980	

e Estimated

HUDSON RIVER BASIN

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01332500 HOOSIC RIVER NEAR WILLIAMSTOWN, MA--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1940 - 1997	
ANNUAL TOTAL	141052		106530			
ANNUAL MEAN	385		292		273	
HIGHEST ANNUAL MEAN					368	1975
LOWEST ANNUAL MEAN					135	1965
HIGHEST DAILY MEAN	2710	Dec 2	2710	Dec 2	10400	Dec 31 1948
LOWEST DAILY MEAN	55	Sep 7	47	Aug 2	24	Sep 9 1980
ANNUAL SEVEN-DAY MINIMUM	58	Sep 2	51	Jul 28	25	Sep 9 1980
INSTANTANEOUS PEAK FLOW			4080	Dec 2	13000	Dec 31 1948
INSTANTANEOUS PEAK STAGE			9.25	Dec 2	14.85	Dec 31 1948
INSTANTANEOUS LOW FLOW			45	Aug 2	5.8	Aug 30 1940
ANNUAL RUNOFF (CFSM)	3.06		2.32		2.17	
ANNUAL RUNOFF (INCHES)	41.64		31.45		29.48	
10 PERCENT EXCEEDS	925		629		583	
50 PERCENT EXCEEDS	231		197		165	
90 PERCENT EXCEEDS	93		60		67	

HUDSON RIVER BASIN

01333000 GREEN RIVER AT WILLIAMSTOWN, MA

LOCATION.--Lat 42°42'32", long 73°11'50", Berkshire County, Hydrologic Unit 02020003, on left bank 0.1 mi upstream from bridge on State Highway 2, at Williamstown, and 0.8 mi upstream from mouth.

DRAINAGE AREA.--42.6 mi².

PERIOD OF RECORD.--Discharge: September 1949 to current year.

Water-quality records: Water years 1967-69.

REVISED RECORDS.--WDR MA-RI-84-1: 1977-78(P), 1979, 1980-83(P).

GAGE.--Water-stage recorder. Elevation of gage is 615 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Slight diurnal fluctuation at times caused by mill upstream.

AVERAGE DISCHARGE.--48 years, 82.7 ft³/s, 26.37 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,060 ft³/s, Dec. 21, 1973, gage height, 5.68 ft in gage well, from rating curve extended above 750 ft³/s on basis of slope-area measurement at gage height 4.94 ft; maximum gage height, 6.35 ft, Mar. 13, 1977, from floodmarks, gage height in well unknown; minimum discharge, 3.1 ft³/s, Sept. 20, 22, 24, 25, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 31, 1948, reached a stage of about 7.5 ft, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 850 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 2	0700	*1,530	*4.46	Mar. 26	0630	867	3.68

Minimum discharge, 6.8 ft³/s, Sept. 28, 29.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	57	168	135	e50	164	304	167	60	14	8.3	11
2	44	53	812	159	47	212	255	205	57	13	8.0	10
3	40	50	384	149	45	187	257	251	51	42	8.5	12
4	35	48	278	141	42	154	317	302	48	43	22	10
5	33	45	223	139	e84	140	308	229	44	20	24	9.3
6	31	43	199	141	e70	232	324	287	41	17	15	8.9
7	29	43	175	121	57	158	337	258	39	16	12	9.0
8	29	49	165	102	52	132	264	212	37	15	11	8.9
9	88	266	138	103	e49	119	213	195	34	53	10	8.6
10	91	165	125	108	e45	121	180	190	32	49	9.2	8.2
11	107	129	120	89	e44	111	155	166	29	25	8.9	8.3
12	81	112	186	81	e42	97	151	146	28	20	8.9	12
13	70	99	211	80	e41	84	200	132	27	17	57	9.4
14	62	87	187	74	e39	79	154	124	27	16	52	8.7
15	53	78	167	70	e37	97	134	118	24	15	20	8.3
16	50	70	151	94	e36	74	124	107	23	21	17	8.0
17	47	67	182	61	e34	73	126	99	22	16	15	7.6
18	44	66	235	48	e35	69	157	89	24	15	15	11
19	41	84	228	e45	105	67	152	90	25	14	13	8.3
20	275	78	192	e52	122	66	162	292	22	13	12	9.8
21	204	68	160	e60	157	63	174	173	21	12	19	12
22	154	63	141	e62	319	115	189	154	19	13	17	9.0
23	126	59	127	e58	218	77	209	138	17	12	16	8.4
24	118	56	261	e54	158	68	205	124	18	11	14	8.2
25	101	56	362	e73	114	65	184	118	19	11	13	7.7
26	86	157	235	e64	117	411	166	106	18	10	14	7.6
27	79	127	205	e56	233	220	149	93	17	10	13	7.4
28	77	108	183	e60	212	242	208	83	16	10	13	7.0
29	70	100	207	e56	---	312	180	76	15	9.7	13	16
30	66	92	205	e54	---	344	154	70	14	8.8	13	15
31	61	---	161	e52	---	385	---	65	---	8.6	11	---
TOTAL	2444	2575	6773	2641	2604	4738	6092	4859	868	570.1	502.8	285.6
MEAN	78.8	85.8	218	85.2	93.0	153	203	157	28.9	18.4	16.2	9.52
MAX	275	266	812	159	319	411	337	302	60	53	57	16
MIN	29	43	120	45	34	63	124	65	14	8.6	8.0	7.0
CFSM	1.85	2.01	5.13	2.00	2.18	3.59	4.77	3.68	.68	.43	.38	.22
IN.	2.13	2.25	5.91	2.31	2.27	4.14	5.32	4.24	.76	.50	.44	.25

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1997, BY WATER YEAR (WY)

	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960
MEAN	46.2	78.4	94.8	80.2	81.8	144	208	113	60.7	31.8	26.6	27.9
MAX	222	171	259	219	239	376	390	251	256	124	147	158
(WY)	1978	1956	1974	1979	1984	1979	1969	1984	1972	1996	1975	1960
MIN	5.33	6.71	24.8	11.0	14.6	33.6	70.5	32.4	18.2	8.30	5.61	4.09
(WY)	1965	1965	1965	1981	1980	1965	1995	1987	1965	1993	1964	1964

e Estimated

HUDSON RIVER BASIN

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01333000 GREEN RIVER AT WILLIAMSTOWN, MA--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1949 - 1997	
ANNUAL TOTAL	46434		34952.5		82.7	
ANNUAL MEAN	127		95.8		126	1975
HIGHEST ANNUAL MEAN					31.7	1965
LOWEST ANNUAL MEAN					2200	Dec 21 1973
HIGHEST DAILY MEAN	812	Dec 2	812	Dec 2	3.2	Sep 20 1964
LOWEST DAILY MEAN	11	Sep 13	7.0	Sep 28	3.4	Sep 19 1964
ANNUAL SEVEN-DAY MINIMUM	12	Sep 1	7.9	Sep 22	4060	Dec 21 1973
INSTANTANEOUS PEAK FLOW			1530	Dec 2	6.35	Mar 13 1977
INSTANTANEOUS PEAK STAGE			4.46	Dec 2	3.1	Sep 20 1964
INSTANTANEOUS LOW FLOW			6.8	Sep 28	1.94	
ANNUAL RUNOFF (CFSM)	2.98		2.25		26.37	
ANNUAL RUNOFF (INCHES)	40.55		30.52		186	
10 PERCENT EXCEEDS	301		212		48	
50 PERCENT EXCEEDS	81		66		11	
90 PERCENT EXCEEDS	24		11			

LOCATION.--Lat 42°54'47", long 73°15'25", Bennington County, Hydrologic Unit 02020003, on left bank 0.6 mi downstream from Paran Creek and 1.4 mi south of North Bennington.

PERIOD OF RECORD.--Discharge: June 1931 to current year.

Water-quality records: Water years 1953-54.

REVISID RECORDS.--WSP 781: 1933 (M) .

GAGE.--Water-stage recorder. Elevation of gage is 525 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Occasional diurnal fluctuation at low flow caused by mills upstream; diurnal fluctuation greater prior to 1960.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

Minimum discharge, 27 ft³/s, Aug. 11.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	103	141	838	e260	132	350	536	361	147	45	32	51
2	84	130	3000	291	126	441	435	454	144	45	31	46
3	75	121	899	329	120	468	405	488	133	46	32	62
4	69	119	533	329	115	337	449	676	121	54	32	54
5	67	117	409	326	197	295	498	424	114	55	42	44
6	65	111	356	420	190	426	650	488	106	49	37	40
7	63	110	317	309	147	325	1040	561	102	47	33	39
8	63	119	307	e233	131	e256	710	403	100	59	32	39
9	214	534	271	220	117	e236	445	364	93	129	31	40
10	221	353	245	241	e114	e244	357	423	85	133	29	36
11	253	236	231	219	e110	235	321	431	82	77	32	35
12	161	192	285	e191	108	216	316	355	80	61	38	64
13	125	169	361	190	e99	e189	522	318	115	52	69	56
14	120	154	301	187	e96	e175	416	291	99	46	79	48
15	111	139	272	181	103	e214	354	272	80	53	49	45
16	102	131	249	223	99	e190	340	258	71	80	50	41
17	103	129	283	e172	96	e180	359	253	73	56	99	37
18	96	128	402	e155	102	179	430	246	82	62	55	43
19	87	154	380	e136	180	173	405	242	91	51	43	41
20	597	165	326	e134	271	174	382	446	79	46	38	49
21	547	146	268	e143	271	169	404	313	71	46	52	74
22	337	132	243	e154	603	210	416	285	65	46	64	52
23	255	124	233	175	424	190	401	258	59	41	52	46
24	296	118	431	e137	289	165	382	232	60	38	47	54
25	239	116	790	180	e205	159	343	218	68	38	40	46
26	198	361	401	189	222	479	324	206	69	35	37	41
27	176	329	332	e134	462	352	314	190	67	35	35	40
28	174	214	301	e167	544	337	493	178	60	36	36	38
29	168	192	388	e138	---	464	476	166	54	36	49	96
30	153	175	519	e130	---	663	371	158	49	35	52	128
31	156	---	334	126	---	676	---	157	---	34	42	---
TOTAL	5478	5359	14505	6419	5673	9167	13294	10115	2619	1666	1389	1525
MEAN	177	179	468	207	203	296	443	326	87.3	53.7	44.8	50.8
MAX	597	534	3000	420	603	676	1040	676	147	133	99	128
MIN	63	110	231	126	96	159	314	157	49	34	29	35

MEAN	150	211	215	192	181	320	540	327	175	121	103	115
MAX	418	413	471	425	575	958	1008	742	414	311	481	585
(WY)	1976	1960	1974	1937	1981	1936	1969	1943	1972	1935	1976	1938
MIN	30.9	39.6	94.6	61.6	54.2	68.0	215	116	53.1	39.8	41.2	25.6
(WY)	1965	1965	1948	1965	1980	1965	1946	1987	1964	1964	1964	1964

e Estimated

HUDSON RIVER BASIN

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01334000 WALLOOMSAC RIVER NEAR NORTH BENNINGTON, VT--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1931 - 1997	
ANNUAL TOTAL	113399		77209			
ANNUAL MEAN	310		212		221	
HIGHEST ANNUAL MEAN					362	1976
LOWEST ANNUAL MEAN					98.9	1965
HIGHEST DAILY MEAN	3000	Dec 2	3000	Dec 2	6350	Dec 31 1948
LOWEST DAILY MEAN	43	Sep 4	29	Aug 10	a 21	Sep 22 1964
ANNUAL SEVEN-DAY MINIMUM	44	Sep 2	33	Jul 29	22	Sep 20 1964
INSTANTANEOUS PEAK FLOW			5290	Dec 2	b 8450	Sep 21 1938
INSTANTANEOUS PEAK STAGE			9.24	Dec 2	12.04	Sep 21 1938
INSTANTANEOUS LOW FLOW			27	Aug 11	4.0	Sep 27 1932
10 PERCENT EXCEEDS	651		431		459	
50 PERCENT EXCEEDS	193		155		141	
90 PERCENT EXCEEDS	66		41		57	

a Also occurred on Sept. 23, 1964 and July 12, 1965.

b From rating curve extended above 2,800 ft³/s on basis of contracted-opening measurements at gage heights 10.13 ft, 10.49 ft, 11.50 ft, and 12.04 ft and slope area measurement and computation of flow over dam at gage height 12.04 ft.

LOCATION.--Lat 42°56'19", long 73°22'39", Rensselaer County, Hydrologic Unit 02020003, on right bank 0.5 mi upstream from Case Brook, 1.2 mi downstream from Walloomsac River, and 1.2 mi southeast of Eagle Bridge.

PERIOD OF RECORD.--August 1910 to March 1922, July 1923 to current year.

REVISED RECORDS.--WSP 741: Drainage area. WSP 756: 1913(M). WSP 1302: 1922(M). WSP 1432: 1913 (minimum gage height). WSP 1502: 1911-12, 1914, 1920-21, 1928(M), 1936(M).

GAGE. ---Water-stage recorder. Datum of gage is 355.41 ft above sea level. Prior to March 1922, nonrecording gage and July 24, 1923 to July 18, 1936, water-stage recorder, at site 0.2 mi upstream at different datums.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Diurnal fluctuation at medium and low flow caused by powerplants upstream from station. Telephone gage-height telemeter at station.

AVERAGE DISCHARGE.--85 years (water years 1911-21, 1924-97), 952 ft³/s, 25.37 in./yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 55,400 ft³/s, Dec. 31, 1948, gage height, 21.15 ft, from floodmark in gage house, from rating curve extended above 30,000 ft³/s on basis of peak flow over downstream dams and contracted-opening measurements at gage heights 17.8 ft and 21.15 ft; minimum discharge, 24 ft³/s, Sept. 14, 1913; minimum daily, 30 ft³/s, Sept. 14, 1913.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 2	1345	*14.400	*12.62	No other peak greater than base discharge.			

Minimum discharge, 49 ft³/s, Sept. 20, but may have been less during period of estimated record Aug. 22 to Sept. 18; minimum daily discharge, 88 ft³/s, Aug. 2-3.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	527	622	2500	1320	e540	1850	3270	1510	661	153	92	e110
2	417	578	10200	1560	e520	1940	2600	2100	623	147	88	e100
3	363	540	5310	1630	e500	2190	2480	2030	582	149	88	e110
4	323	508	3340	1670	510	1650	2800	3700	528	424	95	e100
5	294	485	2520	1570	949	1450	3090	2450	490	288	160	e96
6	278	460	2110	1860	1070	2410	3270	2410	454	202	162	e90
7	269	447	1870	1530	746	1780	3970	3080	419	180	135	e94
8	258	475	1820	1150	638	1400	3590	2220	399	178	100	e110
9	696	1880	1590	1050	547	1250	2400	1920	370	291	105	e100
10	809	1870	1410	1140	e520	1280	1910	2020	344	682	91	e92
11	1200	1210	1320	1040	e500	1210	1690	1990	323	344	89	e100
12	836	960	1600	891	e460	1080	1560	1700	299	237	106	e150
13	660	836	2440	893	e440	916	2560	1540	333	185	125	e120
14	580	749	2020	846	436	850	2130	1450	338	179	649	e110
15	527	668	1860	801	e430	1070	1750	1330	285	166	268	e100
16	479	603	1720	e900	440	912	1600	1230	255	199	188	e98
17	459	593	1750	e800	422	824	1570	1130	250	198	229	e96
18	420	589	2420	625	429	809	1900	1090	263	176	182	e130
19	394	689	2420	554	720	787	1940	1030	316	158	151	112
20	1980	850	2150	e580	1360	805	1880	2350	288	142	130	115
21	3110	727	1690	e600	1240	764	2090	1700	246	135	148	166
22	1780	644	1470	643	3330	1020	2130	1440	224	139	e180	145
23	1300	601	1380	e740	2540	940	2080	1340	204	130	e170	130
24	1260	567	1830	703	1660	773	1990	1190	197	112	e150	122
25	1110	554	4380	787	1150	751	1790	1090	224	119	e130	115
26	934	1390	2470	977	1140	2800	1630	1040	232	109	e130	107
27	823	1730	2020	591	12290	2110	1480	930	230	106	e120	101
28	781	1140	1780	e630	2760	2110	1940	853	207	109	e130	96
29	776	1020	1930	e660	---	2670	2180	782	184	107	e140	132
30	696	943	2550	585	---	3430	1690	726	167	100	e130	297
31	685	---	1800	e560	---	3840	---	708	---	97	e120	---
TOTAL	25024	24928	75670	29886	28287	47671	66960	50079	9935	5941	4781	3544
MEAN	807	831	2441	964	1010	1538	2232	1615	331	192	154	118
MAX	3110	1880	10200	1860	3330	3840	3970	3700	661	682	649	297
MIN	258	447	1320	554	422	751	1480	708	167	97	88	90
CFSM	1.58	1.63	4.79	1.89	1.98	3.02	4.38	3.17	.65	.38	.30	.23
IN.	1.83	1.82</										

MEAN	528	895	990	940	923	1681	2339	1296	679	432	345	386
MAX	2238	3394	2449	3002	2546	4595	4247	3094	2362	1349	1893	2668
(WY)	1978	1928	1974	1979	1984	1936	1993	1984	1972	1915	1976	1938
MIN	83.7	111	149	135	233	406	875	358	195	142	113	95.7
(WY)	1965	1965	1915	1931	1931	1965	1946	1987	1964	1962	1913	1964

e Estimated

HUDSON RIVER BASIN

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01334500 HOOSIC RIVER NEAR EAGLE BRIDGE, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1910 - 1997	
ANNUAL TOTAL	531327		372706			
ANNUAL MEAN	1452		1021		952	
HIGHEST ANNUAL MEAN					1611	1976
LOWEST ANNUAL MEAN					378	1965
HIGHEST DAILY MEAN	13300	Jan 20	10200	Dec 2	39000	Dec 31 1948
LOWEST DAILY MEAN	121	Sep 7	88	Aug 2	30	Sep 14 1913
ANNUAL SEVEN-DAY MINIMUM	128	Sep 2	95	Jul 29	77	Oct 7 1964
ANNUAL RUNOFF (CFSM)	2.85		2.00		1.87	
ANNUAL RUNOFF (INCHES)	38.76		27.19		25.37	
10 PERCENT EXCEEDS	3350		2250		2130	
50 PERCENT EXCEEDS	851		703		560	
90 PERCENT EXCEEDS	256		115		174	

HUDSON RIVER BASIN

01335754 HUDSON RIVER ABOVE LOCK 1 NEAR WATERFORD, NY

LOCATION.--Lat 42°49'45", long 73°40'00", Saratoga County, Hydrologic Unit 02020003, 0.4 mi upstream from dam at Lock 1c, 2.8 mi northeast of Waterford, and 3.4 mi downstream from dam at Lock 2c Champlain (Barge) Canal.

DRAINAGE AREA.--4,611 mi².

PERIOD OF RECORD.--October 1976 to current year. Daily discharge records prior to October 1981 are published with suspended-sediment data as 01335770 Hudson River at Waterford, NY.

GAGE.--Water-stage recorder. Datum of gage is sea level. Prior to February 1978, nonrecording gage 200 ft downstream.

REMARKS.--Records poor. Flow regulated appreciably by Great Sacandaga Lake (see station 01323500) and Indian Lake (see station 01314500). Diurnal fluctuation caused by powerplants upstream from station. Water is diverted into St. Lawrence River basin through Glens Falls feeder, Bond Creek, and Champlain (Barge) Canal, and occasionally may be received from that basin through summit level of Champlain (Barge) Canal at Dunham Basin. Water-discharge data for July 1992 through May 1994 based on records for Hudson River at Stillwater (01331095) and Hoosic River near Eagle Bridge (01334500) due to reconstruction of dam at Lock 1c. Telephone gage-height telemeter at station.

AVERAGE DISCHARGE.--21 years, 8,232 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 71,800 ft³/s, Mar. 15, 1977; maximum gage height, 36.38 ft, May 30, 31, 1984; minimum daily discharge, 1,170 ft³/s, July 25, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, about 50,000 ft³/s, Dec. 2 at 2315 hours, maximum gage height, 34.15 ft, Dec. 2 at 0830 hours (gates at dam at Lock 1c opened prior to peak discharge); minimum daily discharge, about 2,700 ft³/s, Aug. 20, Sept. 2.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4640	5580	13100	12200	8610	17600	e25000	e20000	e5800	e3300	e3100	e2900
2	5000	5120	e45000	12200	8440	15800	e22000	e22000	e5600	e3300	e3200	e2700
3	4750	4620	e37000	13500	8110	16800	e17000	e24000	e6000	2820	e3100	e3200
4	4270	4800	e29000	13700	7780	16000	e15000	e28000	e6400	e5100	e4100	e3500
5	4670	4530	27200	13400	8580	13900	e16000	e25000	e5000	4060	e3300	e3100
6	3850	4380	23500	15000	9280	18100	20100	e26000	e5000	e4700	e3400	e2900
7	4150	4810	21800	14900	8850	15900	24000	e26000	e4900	e6000	2770	e3100
8	4010	4490	19600	12600	8730	13800	e28000	e23000	e5000	e4300	e3200	e3000
9	4370	e12000	18400	11900	8380	12500	e22000	e22000	e4300	e4300	e2800	e3500
10	5310	e28000	12000	11000	7590	12000	e17000	e18000	e3300	e4700	e3400	3550
11	5820	e21000	9350	11600	7700	11900	e15000	e19000	e3600	e4600	e3100	e3200
12	5730	e15000	11400	10700	7450	11400	e13000	e18000	e3800	e4200	e3300	e3900
13	5310	e12000	16600	10900	7420	10600	14100	e17000	e4100	e4300	e3000	e4100
14	4710	e8800	18200	10800	7550	9900	e13000	e16000	e3800	e4000	e3700	e3800
15	4870	e12000	18100	10000	7190	9330	e12000	e16000	e3500	e3600	e3900	e3300
16	4480	11000	17600	9680	7240	9960	e11000	e15000	e3100	e5000	e3800	e3400
17	e4800	10400	15200	9240	7170	9400	e12000	e14000	e4000	e3700	e3200	e3500
18	4190	10100	16900	9500	7500	9580	e13000	e13000	e4200	e3800	e4100	3490
19	e5000	9760	17400	9210	7560	9150	e16000	e12000	e4400	e4400	3220	3450
20	e7000	10400	17900	10500	9670	8510	e16000	e11000	e5300	e3900	e2700	e3200
21	e9200	10400	16100	9870	10500	8180	e17000	e12000	e3800	e3900	e3600	e3300
22	8200	10000	14400	9040	18100	8320	e16000	e11000	e4300	e3700	e3400	e3500
23	7450	9470	13800	8690	20000	8640	e16000	e11000	e4400	e3800	e3900	e3500
24	6800	9400	14100	10000	17000	8000	e16000	e9900	e3800	e3400	e3400	e3100
25	7560	9420	22100	9320	13900	7680	e16000	e8900	e3700	e4100	e3200	e3100
26	6410	9840	20900	9230	11600	10300	e16000	e8700	e4000	e3700	e3300	e3100
27	5890	11800	18200	9930	13800	13500	e15000	e7900	e4100	e3400	e3200	e3300
28	6520	10200	16400	9080	18800	13900	e18000	e6900	e3800	e3400	3660	3140
29	4870	10100	16000	9350	---	15900	e22000	e6700	e3500	e3200	3560	2990
30	4720	9460	17000	10100	---	20700	e22000	e6200	e3500	e3400	3340	e4200
31	5040	---	13500	9290	---	25600	---	e6500	---	e3600	e3200	---
TOTAL	169590	298880	587750	336430	284500	392850	515200	480700	130000	123680	104150	100020
MEAN	5471	9963	18960	10850	10160	12670	17170	15510	4333	3990	3360	3334
MAX	9200	28000	45000	15000	20000	25600	28000	28000	6400	6000	4100	4200
MIN	3850	4380	9350	8690	7170	7680	11000	6200	3100	2820	2700	2700

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1997, BY WATER YEAR (WY)

	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
MEAN	6790	8934	9154	8184	8280	11470	16460	11650	5906	3975	3881	4189									
MAX	16560	14490	18960	15880	16250	20240	29480	24610	10290	7855	7282	7009									
(WY)	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	
MIN	3054	4188	4945	3157	3973	5845	5508	3635	2718	2291	2481	2654									
(WY)	1981	1979	1983	1981	1980	1989	1995	1995	1988	1995	1985	1980									

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1977 - 1997

ANNUAL TOTAL	4202750	3523750	
ANNUAL MEAN	11480	9654	8232
HIGHEST ANNUAL MEAN			11050
LOWEST ANNUAL MEAN			5334
HIGHEST DAILY MEAN	54000	May 13	45000
LOWEST DAILY MEAN	3100	Sep 14	2700
ANNUAL SEVEN-DAY MINIMUM	3780	Sep 2	3060
10 PERCENT EXCEEDS	24000		18100
50 PERCENT EXCEEDS	8190		8440
90 PERCENT EXCEEDS	4390		3300
			16000
			6160
			3040

e Estimated

HUDSON RIVER BASIN

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01335770 HUDSON RIVER AT WATERFORD, NY
(National water-quality assessment program station)

LOCATION.--Lat 42°47'19", long 73°40'28", at Saratoga-Rensselaer County line, Hydrologic Unit 02020003, at bridge on U.S. Highway 4 in Waterford, 0.4 mi upstream from first branch of Mohawk River, and 2.8 mi downstream from dam at lock 1 of the Champlain (Barge) Canal.

DRAINAGE AREA.--4,620 mi².

PERIOD OF RECORD.--Water years 1970 to current year.

CHEMICAL DATA: 1970-71 (e), 1972-76 (d), 1978 (e), 1979 (d), 1980-82 (e), 1987 (b), 1988-89 (c), 1990-91 (b), 1992 (a), 1993 (c), 1994 (d), 1995 (c), 1996-97 (a).

MINOR ELEMENTS DATA: 1970-71 (e), 1972-76 (d), 1977-79 (e), 1980-81 (d), 1982 (a), 1983, 1987 (b), 1988-89 (c), 1990-91 (b), 1992-93 (a).

PESTICIDE DATA: 1975 (b), 1976 (d), 1977-79 (e), 1982, 1993-94, 1996 (a).

ORGANIC DATA: OC--1974 (c), 1975 (d), 1976 (c), 1978-79 (d), 1993 (c), 1994 (d), 1995 (c), 1996 (a), 1997 (b).

PCB--1975 (b), 1976 (d), 1977-84 (e), 1985 (c), 1986-87 (e), 1988 (d), 1989 (e), 1991 (d),

1992-94 (e), 1995 (d), 1996-97 (e).

PCN--1977-79 (e), 1982, 1993 (a).

NUTRIENT DATA: 1970-71 (e), 1972-75 (d), 1976 (c), 1977-78 (e), 1979-81 (d), 1993 (c), 1994 (d), 1995 (c), 1996 (a).

BIOLOGICAL DATA:

Bacteria--1978 (e), 1979-81 (d), 1993 (a).

Phytoplankton--1974 (a), 1975 (b), 1976 (c), 1979 (d), 1993 (a).

SEDIMENT DATA: 1975 (b), 1976-97 (e).

PERIOD OF DAILY RECORD.--SUSPENDED-SEDIMENT DISCHARGE: October 1976 to current year.

REMARKS.--Water discharge data based on records obtained above Lock 1 near Waterford (station 01335754), 3.2 mi upstream.

A complete list of compounds included when pesticides analysis was performed on samples follows the Introduction to the Hudson NAWQA section near the end of this report. Only those compounds detected at or above the method detection limit (MDL) were included in the tables.

EXTREMES FOR PERIOD OF DAILY RECORD (water years 1977-97).--

SUSPENDED-SEDIMENT CONCENTRATION: Maximum daily mean, 810 mg/L, March 14, 1977; minimum daily mean, <1 mg/L, July 28, Aug. 2, 1991, several days in September 1993, Oct. 4, 21, 23-25, 1993, Jan. 5, May 2, 20, Sept. 20, 1995, Jan. 2, 1997.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 119,000 tons, March 14, 1977; minimum daily, 3.9 tons, Sept. 7, 1981.

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

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SOLVED SATUR- ATION) (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SOLVED SATUR- ATION) (MG/L) (00301)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C) (00689)
DEC											
16...	1130	17200	--	--	--	--	--	--	--	3.6	0.50
26...	1100	20800	105	7.6	-2.0	1.5	769	15.8	111	4.0	0.90
FEB											
24...	1250	16500	210	6.3	2.0	0.5	768	16.2	100	--	--
APR											
01...	1000	e25000	--	--	--	--	--	--	--	3.0	1.4

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SED- MENT, SUS- PENDE (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV				
09...	1315	e12000	5	90
DEC				
16...	1130	17200	9	89
26...	1100	20800	20	84
FEB				
21...	1145	10300	12	--
23...	0715	21300	74	--
24...	1250	16500	20	--
26...	1220	11900	5	--
28...	1055	20000	37	96
MAR				
02...	1320	16100	9	--
03...	1255	16000	12	--
06...	1300	19900	75	--
27...	1000	14000	38	94
28...	1120	14300	28	--
30...	0915	21400	35	--
31...	2230	28100	135	--
APR				
01...	0130	e25000	122	--
01...	0600	e25000	76	--
01...	1000	e25000	73	--
10...	1445	e17000	7	--
11...	1145	e15000	1	--
MAY				
05...	1200	e25000	19	--

e Estimated daily.

HUDSON RIVER BASIN

01335770 HUDSON RIVER AT WATERFORD, NY--Continued

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

DATE	TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	AROCLOR 1254 PCB TOTAL (UG/L) (39504)	AROCLOR 1242 PCB TOTAL (UG/L) (39496)
OCT						
11...	1320	5230	4	59	<.010	.022
22...	1344	8390	13	299	<.010	.022
NOV						
08...	1336	4670	4	46	<.010	.024
20...	1318	10200	3	94	<.010	.025
DEC						
03...	1329	e37000	129	12800	.018	.037
04...	1312	e29000	88	6870	.010	.021
JAN						
07...	1401	14600	8	300	<.010	.021
MAR						
03...	1342	14300	12	456	<.010	.022
28...	1235	14200	26	1000	<.010	.023
APR						
02...	1415	e22000	19	1130	<.010	.023
07...	1325	24100	15	947	<.010	<.020
08...	1355	e28000	28	2110	.012	.025
09...	1420	e22000	17	1010	.012	.030
11...	1331	e15000	2	93	.010	.030
18...	1415	e13000	3	121	<.010	.026
22...	1341	e16000	5	229	.011	.026
MAY						
02...	1350	e22000	8	475	.012	.024
08...	1453	e23000	9	587	.012	.029
22...	1411	e11000	6	168	.011	.027
29...	1355	e6700	4	63	.011	.024
JUN						
09...	1350	e4300	4	49	.014	.030
26...	1436	e4000	7	72	.016	.031
JUL						
09...	1410	e4300	3	29	<.010	.032
AUG						
07...	1442	2350	2	9.5	<.010	.027
SEP						
04...	1436	e3500	1	8.5	<.010	.033
15...	1506	e3300	4	39	.012	.031

e Estimated daily.

HUDSON RIVER BASIN

63

01335770 HUDSON RIVER AT WATERFORD, NY--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)
OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7	88	e5	75	3	106	e2	66	e5	116	e20	950
2	18	243	e6	83	148	18000	<1	33	e3	68	e15	640
3	14	180	8	100	145	14500	3	109	e3	66	12	544
4	13	150	9	117	27	2110	3	111	e3	63	e10	432
5	14	177	e8	98	9	661	4	145	e3	69	e8	300
6	10	104	e7	83	1	63	3	122	e3	75	e40	1950
7	8	90	6	78	1	59	2	80	e3	72	e20	859
8	7	76	4	48	1	53	2	68	e3	71	e10	373
9	6	71	e15	486	2	99	1	32	e3	68	e10	338
10	68	975	e200	15100	1	32	1	30	e3	61	e8	259
11	8	126	e80	4540	1	25	1	31	e3	62	e4	129
12	4	62	e20	810	4	123	1	29	e3	60	e4	123
13	4	57	e5	162	3	134	e6	177	e3	60	e4	114
14	4	51	e4	95	2	98	e6	175	e3	61	e4	107
15	4	53	e3	97	2	98	e6	162	e3	58	e4	101
16	10	121	1	30	1	48	e2	52	e3	59	e4	108
17	12	156	1	28	4	164	e3	75	e3	58	e4	102
18	19	215	2	55	3	137	e5	128	e3	61	e4	103
19	16	216	2	53	8	376	e5	124	8	163	e4	99
20	20	378	2	56	4	193	e10	284	30	783	e4	92
21	56	1390	3	84	2	87	e6	160	16	454	e4	88
22	18	399	3	81	e3	117	e6	146	57	2790	e10	225
23	48	966	2	51	e3	112	e6	141	82	4430	e10	233
24	20	367	1	25	e3	114	e10	270	22	1010	e8	173
25	6	122	2	51	e3	179	e8	201	11	413	e8	166
26	e5	87	2	53	3	169	e8	199	5	157	e30	834
27	e5	80	3	96	3	147	e8	214	e25	932	e40	1460
28	e5	88	3	83	4	177	e8	196	e45	2280	e45	1690
29	e4	53	3	82	9	389	e6	151	---	---	e45	1930
30	e4	51	3	77	e5	230	e3	82	---	---	e60	3350
31	e4	54	---	---	e3	109	e3	75	---	---	e70	4840
DAY	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	e45	3040	12	648	4	63	3	27	1	8.4	3	23
2	21	1250	9	535	3	45	4	36	2	17	2	15
3	15	689	12	778	4	65	5	38	1	8.4	3	26
4	13	527	40	3020	2	35	4	55	2	22	2	19
5	4	173	19	1280	3	41	4	44	2	18	3	25
6	11	597	19	1330	3	41	2	25	2	18	2	16
7	16	1040	17	1190	4	53	3	49	2	15	2	17
8	29	2190	11	683	5	68	2	23	1	8.6	2	16
9	18	1070	10	594	5	58	2	23	1	7.6	3	28
10	9	413	23	1120	2	18	2	25	2	18	3	29
11	4	162	16	821	4	39	3	37	1	8.4	3	26
12	5	176	10	486	4	41	3	34	4	36	5	53
13	8	305	6	275	3	33	2	23	2	16	4	44
14	6	211	6	259	3	31	2	22	2	20	4	41
15	11	356	5	216	4	38	2	19	2	21	4	36
16	6	178	4	162	5	42	2	27	3	31	3	28
17	4	130	4	151	5	54	2	20	3	26	2	19
18	4	140	5	176	5	57	2	21	3	33	2	19
19	10	432	3	97	4	48	2	24	3	26	3	28
20	18	778	5	149	5	72	3	32	3	22	4	35
21	9	413	8	259	4	41	2	21	2	19	5	45
22	5	216	6	178	4	46	2	20	3	28	4	38
23	5	216	5	149	4	48	2	21	3	32	4	38
24	6	259	4	107	3	31	2	18	4	37	4	33
25	4	173	4	96	3	30	2	22	2	17	2	17
26	4	173	4	94	3	32	2	20	3	27	2	17
27	4	162	3	64	4	44	3	28	2	17	2	18
28	9	437	3	56	3	31	2	18	3	30	3	25
29	30	1780	3	54	3	28	1	8.6	3	29	3	24
30	13	772	4	67	4	38	2	18	3	27	3	34
31	---	---	4	70	---	---	2	19	4	35	---	---

e Estimated daily.

< Actual value is known to be less than the value shown.

HUDSON RIVER BASIN

01336000 MOHAWK RIVER BELOW DELTA DAM, NEAR ROME, NY

LOCATION.--Lat 43°15'52", long 75°26'12", Oneida County, Hydrologic Unit 02020004, on right bank at Rome Fish Hatchery, 1.0 mi downstream from Delta Dam, and 4.0 mi north of Rome.

DRAINAGE AREA.--152 mi².

PERIOD OF RECORD.--July 1921 to September 1927 (monthly discharges only, published in WSP 1302), October 1927 to current year.

REVISED RECORDS.--WDR NY-85-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 472.85 ft above sea level. Prior to Jan. 24, 1937, nonrecording gage at site 200 ft downstream at same datum.

REMARKS.--No estimated daily discharges. Records good. During canal navigation season, water is diverted from Black River through Forestport feeder and Black River Canal (flowing south) into basin above Delta Reservoir. Flow regulated by Delta Reservoir (usable capacity, 2,800 mil ft³). Small quantity of water diverted from Delta Reservoir for fish hatchery use and later returned to river, part upstream and part downstream from station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--70 years (water years 1928-97), 370 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,560 ft³/s, Oct. 2, 1945, gage height, 11.18 ft, from rating curve extended above 5,200 ft³/s on basis of flow-over-dam measurement of peak flow; minimum discharge, 18 ft³/s, July 21, 27, Oct. 24, 25, 1983, minimum gage height, 0.63 ft, Oct. 24, 25, 1983; minimum daily discharge, 45 ft³/s, Jan. 17, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,700 ft³/s, Apr. 29, gage height, 5.00 ft; minimum, 165 ft³/s, part or all of each day June 9-17, 22-24, gage height, 1.67 ft; minimum daily discharge, 165 ft³/s, June 12, 15-16.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	241	181	563	648	178	588	1190	680	233	170	232	175
2	240	178	658	221	178	664	1180	598	260	170	231	175
3	240	346	523	227	414	909	1190	732	248	170	231	175
4	453	580	510	231	572	1170	1210	1320	220	170	230	174
5	578	579	506	239	572	1160	1200	938	197	170	232	173
6	575	575	842	237	576	1210	1220	675	180	170	231	173
7	573	573	1010	705	345	1170	560	587	171	170	231	173
8	572	693	1000	936	193	1150	790	457	169	170	231	173
9	570	702	997	931	191	1150	864	446	169	173	230	173
10	574	620	991	926	191	1140	733	507	167	172	228	173
11	574	610	987	924	191	1140	629	419	166	396	228	173
12	362	979	984	919	191	1130	584	380	165	369	228	173
13	179	1160	1040	454	189	485	852	412	166	236	231	173
14	180	1150	1030	180	188	246	899	359	166	237	229	173
15	178	1150	1010	178	188	246	772	323	165	237	228	173
16	178	1140	1010	177	188	245	725	334	165	237	202	173
17	178	1130	1000	178	188	243	789	341	175	236	183	171
18	178	1130	995	177	188	242	759	340	175	236	180	170
19	178	1130	991	175	416	242	672	362	182	236	179	170
20	179	1120	988	175	592	240	645	617	178	237	178	171
21	180	512	984	175	603	448	559	536	175	236	178	171
22	184	253	979	176	664	542	521	451	174	235	177	170
23	184	413	976	185	626	544	498	370	168	235	175	170
24	198	484	1060	184	570	314	478	394	166	236	177	172
25	185	481	1010	183	559	223	441	349	172	235	175	171
26	182	532	989	182	558	237	404	294	171	234	175	170
27	180	498	983	180	645	865	367	242	171	234	176	170
28	178	489	977	178	633	1210	943	215	170	234	175	170
29	178	486	984	178	---	1240	1500	199	170	234	175	172
30	183	482	982	178	---	1220	979	195	170	234	175	174
31	190	---	974	177	---	1210	---	214	---	234	175	---
TOTAL	9002	20356	28533	10814	10787	22823	24153	14286	5424	6943	6306	5167
MEAN	290	679	920	349	385	736	805	461	181	224	203	172
MAX	578	1160	1060	936	664	1240	1500	1320	260	396	232	175
MIN	178	178	506	175	178	223	367	195	165	170	175	170

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1997, BY WATER YEAR (WY)

MEAN	308	367	409	467	386	437	670	384	274	252	233	250
MAX	1199	784	920	1152	917	1038	1319	929	755	518	423	651
(WY)	1946	1960	1997	1930	1932	1943	1993	1972	1972	1935	1986	1945
MIN	105	144	102	85.5	98.4	92.9	185	152	147	147	143	92.6
(WY)	1935	1962	1961	1961	1961	1931	1946	1995	1988	1941	1941	1934

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1928 - 1997
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ANNUAL TOTAL	183939		164594				
ANNUAL MEAN	503		451		370		
HIGHEST ANNUAL MEAN					601		1947
LOWEST ANNUAL MEAN					219		1965
HIGHEST DAILY MEAN	3120	Apr 16	1500	Apr 29	7270	Oct 2	1945
LOWEST DAILY MEAN	151	Jan 1	165	Jun 12	45	Jan 17	1931
ANNUAL SEVEN-DAY MINIMUM	152	Jan 1	166	Jun 10	55	Feb 28	1931
10 PERCENT EXCEEDS	1050		1000		726		
50 PERCENT EXCEEDS	283		240		253		
90 PERCENT EXCEEDS	202		172		169		

01346000 WEST CANADA CREEK AT KAST BRIDGE, NY

LOCATION.--Lat 43°04'08", long 74°59'19", Herkimer County, Hydrologic Unit 02020004, on right bank 600 ft downstream from bridge on old State Highway 28 at Kast Bridge, 1.2 mi downstream from North Creek, 2.2 mi north of Herkimer, and 4.0 mi upstream from mouth. Prior to Oct. 23, 1985, at site on left bank.

DRAINAGE AREA.--560 mi².

PERIOD OF RECORD.--January 1907, April to December 1907, March 1908 to December 1909, April 1910 to December 1911 (monthly discharges only, published in WSP 1302), January 1912 to December 1913, April 1914 to June 1918 (monthly discharges only, published in WSP 1302), October 1920 to current year.

REVISED RECORDS.--WDR NY-85-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 438.99 ft above sea level. Prior to Sept. 18, 1920, nonrecording gage at former highway bridge 500 ft upstream at different datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Since March 1914, flow regulated by Hinckley Reservoir, 31 mi upstream from station (usable capacity, 3,320 mil ft³). Diurnal fluctuation at low and medium flow caused by powerplants upstream from station. Diversion at Trenton Falls, 26 mi upstream from station, by Ninemile feeder since 1915 during canal navigation season. Diversion from Hinckley Reservoir for Utica water supply returned to Mohawk River.

AVERAGE DISCHARGE.--77 years (water years 1921-97), 1,329 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,300 ft³/s, Mar. 26, 1913, from reports of State Engineer and Surveyor; maximum gage height, 10.47 ft, probably Feb. 17, 1943, from floodmark in gage well (ice jam); minimum discharge, 20 ft³/s, Sept. 3, 1929, gage height, 0.90 ft; minimum daily, 59 ft³/s, Sept. 2, 1929.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,700 ft³/s, Dec. 2, gage height, 6.64 ft; minimum, 243 ft³/s, Aug. 27, gage height, 2.03 ft; minimum daily, 440 ft³/s, Aug. 14.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	956	1110	2660	1610	e1400	2840	2990	4300	1350	572	466	459
2	898	1070	8090	1800	e1400	4330	2920	4740	1200	687	484	449
3	895	1060	8190	1540	e1200	3410	3050	4840	1050	708	475	508
4	876	1100	5670	1740	e1300	2710	3510	4930	1010	732	466	471
5	871	1160	3520	1960	e1500	2530	3360	4450	961	728	483	460
6	854	1100	2950	2440	1720	3730	3630	3360	869	635	469	472
7	837	1130	2390	2370	1660	2550	3770	3190	804	617	470	456
8	832	2820	2310	2110	e1500	2350	3060	2670	807	613	464	468
9	842	6340	1980	1730	e1400	2220	2460	2710	793	829	459	502
10	945	3370	1290	1210	e1300	2220	2340	2720	776	780	457	491
11	961	1900	1160	1800	1090	2240	2300	2460	741	636	466	495
12	895	1570	1770	1780	1060	2160	2350	2190	730	604	470	531
13	878	2410	3310	1100	1120	2110	2740	2260	667	601	510	516
14	751	2220	3790	773	e1300	2130	2400	2160	604	605	440	517
15	759	2230	2910	817	e1500	2330	2280	2150	603	846	512	501
16	778	1770	2170	830	e1400	2200	2310	2190	601	784	519	495
17	926	1700	2400	1170	e1300	2180	2230	1490	918	609	495	476
18	956	1750	2170	1450	e1400	2030	2230	1350	788	639	504	499
19	756	2110	1950	e1300	1610	2000	2300	1450	815	583	473	503
20	1020	1860	1840	e1200	2070	2070	2360	1920	685	563	505	524
21	1010	1720	1790	e1300	2380	1370	2240	1530	647	586	539	541
22	1160	1660	1760	e1400	4870	1250	2170	1260	676	584	450	510
23	962	1410	1130	1960	2700	1100	2150	1330	611	584	483	501
24	1100	1320	2350	1460	2060	877	2100	1230	671	542	474	517
25	1030	1300	3570	1830	1820	919	2000	1210	719	571	470	518
26	942	2190	3480	e1600	1850	1960	2000	1190	720	488	463	505
27	904	1640	2850	e1400	4620	2040	2100	1170	569	480	530	490
28	919	1370	2520	e1300	3950	2900	3950	1160	571	479	497	506
29	921	1270	2240	e1500	---	3410	6310	1140	593	475	469	528
30	1020	1210	2000	e1400	---	2970	5510	1050	592	471	484	606
31	1250	---	1690	e1300	---	3710	---	1050	---	470	445	---
TOTAL	28704	54870	87900	47180	52480	72846	85120	70850	23141	19101	14891	15015
MEAN	926	1829	2835	1522	1874	2350	2837	2285	771	616	480	501
MAX	1250	6340	8190	2440	4870	4330	6310	4930	1350	846	539	606
MIN	751	1060	1130	773	1060	877	2000	1050	569	470	440	449

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 1997, BY WATER YEAR (WY)

	MEAN	950	1345	1410	1319	1235	1887	2921	1882	976	745	595	698
MAX	3131	2984	2835	3044	2704	3725	5623	4667	3875	2075	1481	1831	
(WY)	1946	1960	1997	1930	1981	1945	1993	1972	1972	1935	1986	1977	
MIN	338	335	621	453	316	681	1056	594	359	283	227	284	
(WY)	1965	1965	1931	1931	1931	1940	1995	1987	1941	1941	1934	1934	

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1921 - 1997

ANNUAL TOTAL	582511	572098	
ANNUAL MEAN	1592	1567	1329
HIGHEST ANNUAL MEAN			1872
LOWEST ANNUAL MEAN			829
HIGHEST DAILY MEAN	8190	8190	16100
LOWEST DAILY MEAN	456	440	59
ANNUAL SEVEN-DAY MINIMUM	561	465	211
10 PERCENT EXCEEDS	2900	2960	2600
50 PERCENT EXCEEDS	1350	1230	1000
90 PERCENT EXCEEDS	635	489	454

e Estimated

HUDSON RIVER BASIN

01347000 MOHAWK RIVER NEAR LITTLE FALLS, NY

LOCATION.--Lat 43°00'53", long 74°46'47", Herkimer County, Hydrologic Unit 02020004, on left bank 1,800 ft downstream from Fivemile Dam, 2.0 mi upstream from East Canada Creek, and 4.5 mi southeast of city of Little Falls.

DRAINAGE AREA.--1,342 mi².

PERIOD OF RECORD.--October 1927 to current year.

REVISED RECORDS.--WSP 741: 1929(M). WSP 1302: 1932(M). WSP 1432: 1928-30. WDR NY-85-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 308.84 ft above sea level (levels by Corps of Engineers).

REMARKS.--Records good except those for estimated daily discharges, which are poor. Records of daily discharge include diversion at Fivemile Dam into Erie (Barge) Canal for lockages at lock 16, near St. Johnsville. During canal navigation season, water is received from Black River basin through Black River Canal flowing south, and from Chenango River basin through Oriskany Creek feeder. Water is diverted into (or may occasionally be received from) Oswego River basin through summit level of Erie (Barge) Canal between New London and Utica. Diurnal fluctuation caused by powerplants and locks and dams on Erie (Barge) Canal. Regulation by Delta and Hinckley Reservoirs (combined usable capacity, 6,120 mil ft³) (see Reservoirs in Hudson River Basin). Telephone gage-height telemeter at station.

COOPERATION.--Figures of diversions at Fivemile Dam into Erie (Barge) Canal provided by New York State Department of Transportation.

AVERAGE DISCHARGE.--70 years, 2,838 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge (river channel only), 33,100 ft³/s, Mar. 14, 1977, gage height, 19.17 ft, from floodmark in gage house; minimum daily discharge, probably not less than 463 ft³/s, Sept. 2, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge (river channel only), 22,600 ft³/s, Dec. 2, gage height, 15.85 ft; minimum daily discharge, 793 ft³/s, Aug. 11.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2050	2130	5010	e3300	e2000	9270	8510	6990	2650	949	885	811
2	1600	1860	17800	e2700	e1900	10100	7800	6780	2800	1100	880	804
3	1560	1750	16200	e3000	e2000	9030	7820	6890	2380	1210	883	828
4	1480	1870	13600	e3800	e2100	7550	8310	8050	1970	1300	866	955
5	1550	2210	8740	4550	e2400	6500	7870	7670	1790	1340	842	851
6	1670	2160	6140	5570	e2700	8760	7740	5690	1620	1190	910	857
7	1630	2120	5380	5090	e2400	7520	7770	5770	1470	1050	916	796
8	1650	3830	5270	4250	e2100	6810	6240	4830	1430	1020	857	841
9	1690	16600	4920	e3700	e1800	5800	5110	4340	1470	1440	876	805
10	1840	10800	3810	e3100	e1800	5330	4640	4790	1400	2110	823	836
11	2000	8520	3570	e2600	e1900	5180	4400	4490	1310	1510	793	805
12	1860	6060	3860	e2200	e1800	5120	4210	3910	1280	1310	853	929
13	1620	5330	6020	e2300	e1700	4730	4800	3760	1210	1290	949	935
14	1380	4660	8720	e2300	e1600	4020	4740	3680	1130	1120	1110	881
15	1330	4480	7800	e2000	e1700	e3600	4450	3470	1110	1110	945	864
16	1310	4000	7110	e1700	e1800	e3700	4190	3490	1060	2220	971	826
17	1350	3800	6790	e1500	e1800	3690	3910	3010	1520	1360	1010	815
18	1570	3870	6310	e1300	e1900	3490	3920	2710	1870	1550	969	830
19	1150	5250	5470	e1200	e2300	e3300	4110	2700	1780	1230	812	857
20	1530	5340	4860	e1500	e4300	e3100	4470	4700	1500	1080	846	869
21	1690	4820	4450	e1400	e5600	2970	3810	4190	1320	1080	891	851
22	1880	3680	4170	e1700	12400	3570	3650	3150	1240	1100	898	875
23	1810	2930	3600	e2300	9820	3830	3680	2470	1110	1060	913	813
24	1960	2770	5170	e2500	8760	3130	3540	2400	1140	1020	896	869
25	2050	2740	8270	e2400	6640	2650	3320	2300	1420	1020	868	892
26	1760	4950	7770	e2200	5030	4940	3200	2220	1320	954	815	829
27	1610	6140	6250	e2000	9300	6500	3200	2170	1170	919	919	862
28	1590	4210	5310	e1900	10500	8110	5160	2120	1090	849	1230	836
29	1620	3150	4890	e1800	---	9320	9920	1720	1050	843	1060	833
30	1660	2980	5110	e2000	---	9210	8930	1690	1000	874	900	964
31	2240	---	4480	e1900	---	9640	---	1790	---	880	873	---
TOTAL	51690	135010	206850	79760	110050	180470	163420	123940	44610	37088	28259	25619
MEAN	1667	4500	6673	2573	3930	5822	5447	3998	1487	1196	912	854
MAX	2240	16600	17800	5570	12400	10100	9920	8050	2800	2220	1230	964
MIN	1150	1750	3570	1200	1600	2650	3200	1690	1000	843	793	796

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1997, BY WATER YEAR (WY)

	1922	2862	3162	3023	2929	4792	6087	3365	1881	1478	1180	1408
MEAN	1922	2862	3162	3023	2929	4792	6087	3365	1881	1478	1180	1408
MAX	6529	5873	6673	6742	6759	9558	13160	7879	6306	3771	2912	4361
(WY)	1946	1960	1997	1930	1976	1945	1993	1943	1972	1935	1986	1977
MIN	719	750	1061	820	679	1693	2289	1334	903	685	642	684
(WY)	1965	1931	1931	1931	1931	1940	1995	1995	1941	1934	1934	1939

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1928 - 1997
ANNUAL TOTAL	1305737	1186766	
ANNUAL MEAN	3568	3251	2838
HIGHEST ANNUAL MEAN			4208
LOWEST ANNUAL MEAN			1684
HIGHEST DAILY MEAN	17800	17800	29900
LOWEST DAILY MEAN	881	793	463
ANNUAL SEVEN-DAY MINIMUM	963	827	529
10 PERCENT EXCEEDS	7070	7530	5950
50 PERCENT EXCEEDS	2630	2120	1950
90 PERCENT EXCEEDS	1150	874	902

e Estimated

HUDSON RIVER BASIN

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01349150 CANAJOHARIE CREEK NEAR CANAJOHARIE, NY
(National water-quality assessment program station)

LOCATION.--Lat 42°52'34", long 74°36'12", Montgomery County, Hydrologic Unit 02020004, on right bank 10 ft upstream from bridge on McEwan Road, and 2.3 mi southwest of Canajoharie. Water-quality sampling site at discharge station.

DRAINAGE AREA.--59.7 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1993 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 640 ft above sea level, from topographic map.

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

AVERAGE DISCHARGE.--4 years, 79.5 ft³/s, 18.09 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,630 ft³/s, Nov. 9, 1996, gage height, 8.88 ft; minimum, 0.23 ft³/s, Aug. 27, 28, 29, 1995, gage height, 1.26 ft.

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. 9	0700	*3,630	*8.88	Feb. 22	0245	1,590	6.48
Dec. 2	0815	3,070	8.32	Feb. 27	1345	1,600	6.49
Dec. 13	1930	1,820	6.81	Mar. 6	0715	1,600	6.49
Feb. 19	2215	3,340	8.60	Mar. 26	0830	1,310	6.04

Minimum discharge, 1.8 ft³/s, Aug. 11, gage height, 1.39 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.1	24	470	e94	e28	139	273	67	34	3.4	2.1	3.0
2	7.6	19	1810	e110	e30	344	298	56	24	3.6	2.1	2.9
3	7.0	17	348	e160	e32	189	496	145	15	4.4	2.4	2.9
4	7.1	17	196	189	e35	118	606	299	12	4.1	2.6	2.8
5	6.2	16	141	256	222	106	271	102	11	3.8	2.7	3.1
6	6.2	16	125	325	385	701	240	97	9.5	3.6	2.5	2.9
7	6.1	15	e110	e100	215	e150	177	106	8.5	3.2	2.4	2.8
8	6.2	203	e100	e74	e120	e94	118	71	8.1	3.1	2.3	2.9
9	9.9	2310	e90	e100	e80	e90	91	67	7.3	3.4	2.2	2.9
10	13	403	85	e80	e66	e92	70	86	6.6	4.6	2.0	2.8
11	12	213	80	e60	e54	e110	61	60	5.8	4.0	2.0	2.9
12	8.7	157	260	e50	e47	e70	57	48	5.4	3.2	2.1	4.4
13	8.5	121	1130	e43	e44	e58	126	43	5.4	2.9	2.4	4.7
14	8.2	92	539	e38	e41	e60	80	37	6.5	2.7	3.4	3.5
15	8.1	e60	321	e35	e38	e100	55	33	5.1	2.9	3.2	3.0
16	7.8	e52	351	e33	e36	e60	47	28	4.7	4.9	2.8	2.9
17	7.6	e47	406	e32	e37	e50	43	26	4.7	3.7	2.8	2.7
18	7.8	61	369	e31	e45	e54	46	24	5.6	3.3	2.7	2.6
19	7.8	417	e220	e30	e800	e90	158	35	9.3	3.4	2.4	2.5
20	69	184	e140	e31	e640	e80	260	128	6.2	2.9	2.2	2.8
21	67	115	e110	e33	e400	e66	141	55	5.4	2.7	2.8	2.7
22	100	85	e94	e38	1120	461	96	43	4.7	3.1	6.0	2.8
23	66	68	e80	277	e250	111	76	35	4.3	3.3	3.7	2.7
24	51	59	e340	e100	e120	e60	62	28	4.2	2.8	3.0	2.6
25	34	52	386	e50	e80	e45	52	26	12	2.6	2.7	2.6
26	24	370	e120	e27	e90	567	43	24	7.9	2.5	2.7	2.5
27	19	e170	102	e25	787	297	36	20	5.5	2.4	2.9	2.6
28	18	e100	88	e24	301	293	257	18	4.5	2.5	4.9	2.6
29	18	74	169	e24	---	344	152	16	4.0	2.7	6.0	2.7
30	18	65	203	e25	---	314	85	15	3.7	2.5	4.5	2.6
31	40	---	e80	e27	---	400	---	15	---	2.2	3.3	---
TOTAL	678.9	5602	9063	2521	6143	5713	4573	1853	250.9	100.4	91.8	87.4
MEAN	21.9	187	292	81.3	219	184	152	59.8	8.36	3.24	2.96	2.91
MAX	100	2310	1810	325	1120	701	606	299	34	4.9	6.0	4.7
MIN	6.1	15	80	24	28	45	36	15	3.7	2.2	2.0	2.5
CFSM	.37	3.13	4.90	1.36	3.67	3.09	2.55	1.00	.14	.05	.05	.05
IN.	.42	3.49	5.65	1.57	3.83	3.56	2.85	1.15	.16	.06	.06	.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1997, BY WATER YEAR (WY)

	1993	1994	1995	1996	1997
MEAN	18.1	93.2	118	103	98.3
MAX	39.5	187	292	207	219
(WY)	1996	1997	1997	1996	1997
MIN	4.99	8.38	47.6	20.1	24.3
(WY)	1995	1995	1996	1994	1995

e Estimated

HUDSON RIVER BASIN

01349150 CANAJOHARIE CREEK NEAR CANAJOHARIE, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1993 - 1997	
ANNUAL TOTAL	42546.8		36677.4		79.5	
ANNUAL MEAN	116		100		100	
HIGHEST ANNUAL MEAN					1997	
LOWEST ANNUAL MEAN					38.0	
HIGHEST DAILY MEAN	2310	Nov 9	2310	Nov 9	2600	Mar 30 1993
LOWEST DAILY MEAN	4.1	Sep 4	2.0	Aug 10	.27	Aug 27 1995
ANNUAL SEVEN-DAY MINIMUM	4.5	Aug 31	2.2	Aug 7	.37	Aug 23 1995
ANNUAL RUNOFF (CFSM)	1.95		1.68		1.33	
ANNUAL RUNOFF (INCHES)	26.51		22.85		18.09	
10 PERCENT EXCEEDS	297		283		220	
50 PERCENT EXCEEDS	33		35		20	
90 PERCENT EXCEEDS	6.7		2.7		2.8	

HUDSON RIVER BASIN

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01349150 CANAJOHARIE CREEK NEAR CANAJOHARIE, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1993 to current year.

CHEMICAL DATA: 1993 (c), 1994-96 (e), 1997 (d).

PESTICIDE DATA: 1993 (a), 1994 (d), 1995-97 (e).

ORGANIC DATA: OC--1993 (c), 1994-95 (e), 1996 (c), 1997 (b).

PCB--1993 (a).

PCN--1993 (a).

NUTRIENT DATA: 1993 (c), 1994-95 (e), 1996-97 (c).

BIOLOGICAL DATA:

Bacteria--1993 (a).

Phytoplankton--1993 (a).

SEDIMENT DATA: 1993 (c), 1994-95 (e), 1996-97 (c).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: March 1993 to current year.

INSTRUMENTATION.--Water-temperature recorder provides 15-minute-interval readings.

REMARKS.--Temperature probe may be influenced by solar radiation during periods of low flow. A complete list of compounds included when pesticides analysis was performed on samples follows the Introduction to the Hudson NAWQA section near the end of this report. Only those compounds detected at or above the method detection limit (MDL) were included in the tables.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 37.0°C, July 15, 1995; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 31.5°C, July 14, 16; minimum, 0.0°C on many days during winter period.

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

DATE	TIME	DIS- CHARGE, CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED SATUR- ATION (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
OCT												
08...	1600	6.0	--	--	--	--	--	--	--	--	--	--
DEC												
02...	1145	2720	210	7.5	4.0	5.0	738	13.3	107	--	--	--
FEB												
27...	1250	1580	150	6.7	5.0	1.0	731	14.2	104	--	--	--
APR												
24...	1320	62	431	7.6	--	12.5	--	14.6	--	--	--	--
MAY												
16...	1150	28	535	--	9.5	--	--	--	--	240	78	12
22...	0830	43	--	--	--	9.5	--	--	--	--	--	--
28...	0850	18	578	7.5	11.5	14.5	754	7.3	73	--	--	--
JUN												
04...	1940	12	622	8.1	26.0	22.5	743	9.9	118	280	90	14
*04...	1946	12	--	--	--	--	--	--	--	--	--	--
11...	0840	5.8	779	7.4	19.0	21.5	--	4.6	--	--	--	--
18...	1250	5.3	898	7.4	--	20.5	742	7.6	87	--	--	--
19...	0850	12	830	7.5	21.0	20.0	741	7.0	79	--	--	--
25...	1130	15	--	--	--	--	--	--	--	--	--	--
25...	2000	15	--	--	--	--	--	--	--	--	--	--
26...	0810	8.0	--	--	--	--	--	--	--	--	--	--
JUL												
01...	1550	3.5	840	8.0	37.0	29.5	742	11.5	156	400	130	20
09...	0950	3.2	--	--	22.5	--	--	--	--	--	--	--
16...	1040	5.6	1020	7.5	--	--	--	--	--	--	--	--
24...	0810	2.9	--	--	--	22.5	--	--	--	--	--	--
AUG												
06...	1240	2.7	1270	7.7	23.5	24.5	748	--	--	640	200	32
*06...	1248	2.7	--	--	--	--	--	--	--	--	--	--
13...	1820	2.6	--	--	--	--	--	--	--	--	--	--
14...	0840	3.3	--	--	--	21.5	--	--	--	--	--	--
19...	1120	2.3	1310	7.5	--	--	--	--	--	--	--	--
21...	1120	2.7	1280	7.6	--	18.5	--	--	--	--	--	--
21...	1440	2.9	--	--	--	--	--	--	--	--	--	--
SEP												
03...	1020	3.3	1140	7.5	14.0	21.5	760	8.9	102	600	190	30
18...	1200	2.6	1350	7.7	--	23.0	--	--	--	--	--	--

* Replicate sample.

HUDSON RIVER BASIN

01349150 CANAJOHARIE CREEK NEAR CANAJOHARIE, NY--Continued

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

DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
OCT												
08...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
02...	--	--	--	--	--	--	--	--	--	--	.02	.88
FEB												
27...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
24...	--	--	--	--	--	--	--	--	--	--	<.01	.61
MAY												
16...	13	.4	1.5	106	130	26	.1	.50	341	326	<.01	.42
22...	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
04...	15	.4	1.9	119	130	28	.2	.15	423	355	.02	.28
*04...	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
01...	19	.4	2.9	108	260	33	.2	4.3	612	533	<.01	<.05
09...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
06...	23	.4	3.4	107	540	35	.3	2.9	1000	901	<.01	<.05
*06...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
03...	22	.4	3.1	121	470	33	.3	1.6	904	824	<.01	<.05
18...	--	--	--	--	--	--	--	--	--	--	--	--

* Replicate sample.

HUDSON RIVER BASIN

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01349150 CANAJOHARIE CREEK NEAR CANAJOHARIE, NY--Continued

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

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C) (00689)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)
OCT												
08...	--	--	--	--	--	--	--	--	--	--	<.002	.027
DEC												
02...	.05	1.3	.4	.44	.05	.06	--	--	6.6	3.9	E.002	.040
FEB												
27...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
24...	.06	<.2	<.2	<.01	<.01	<.01	--	--	2.7	.5	<.002	.0160
MAY												
16...	<.02	.2	<.2	<.01	<.01	<.01	19	28	--	--	<.002	.0196
22...	--	--	--	--	--	--	--	--	--	--	<.002	.0277
28...	--	--	--	--	--	--	--	--	--	--	<.002	.0200
JUN												
04...	.02	.3	<.2	<.01	<.01	<.01	7	21	--	--	<.002	.0274
*04...	--	--	--	--	--	--	--	--	--	--	<.002	.0313
11...	--	--	--	--	--	--	--	--	--	--	<.002	.0316
18...	--	--	--	--	--	--	--	--	--	--	E.0025	.0436
19...	--	--	--	--	--	--	--	--	--	--	.0048	.0404
25...	--	--	--	--	--	--	--	--	--	--	.0040	.219
25...	--	--	--	--	--	--	--	--	--	--	E.0037	.117
26...	--	--	--	--	--	--	--	--	--	--	.0053	.0824
JUL												
01...	<.02	.6	.3	.04	<.01	<.01	14	110	3.9	--	<.002	.114
09...	--	--	--	--	--	--	--	--	--	--	<.002	.0478
16...	--	--	--	--	--	--	--	--	--	--	<.002	.123
24...	--	--	--	--	--	--	--	--	--	--	<.002	.138
AUG												
06...	.02	.7	.3	.02	<.01	<.01	10	76	--	--	<.002	.0378
*06...	--	--	--	--	--	--	--	--	--	--	<.002	.0388
13...	--	--	--	--	--	--	--	--	--	--	<.002	.0326
14...	--	--	--	--	--	--	--	--	--	--	<.002	.0308
19...	--	--	--	--	--	--	--	--	--	--	<.002	.0265
21...	--	--	--	--	--	--	--	--	--	--	<.002	.0256
21...	--	--	--	--	--	--	--	--	--	--	<.002	.0249
SEP												
03...	<.02	.5	<.2	.04	<.01	<.01	13	75	--	--	<.002	.0894
18...	--	--	--	--	--	--	--	--	--	--	<.002	.0263

E Estimate.

* Replicate sample.

HUDSON RIVER BASIN

01349150 CANAJOHARIE CREEK NEAR CANAJOHARIE, NY--Continued

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

DATE	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)
OCT												
08...	<.002	<.003	<.003	.010	<.002	E.009	<.002	.005	<.004	<.013	<.005	<.002
DEC												
02...	<.002	<.003	<.003	.0071	<.002	E.012	<.002	.031	<.004	<.013	<.005	<.002
FEB												
27...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
24...	<.002	<.003	<.003	<.004	<.002	E.0160	<.002	.0100	<.004	<.013	<.005	<.002
MAY												
16...	<.002	<.003	<.003	<.004	E.0025	E.0216	<.002	.0236	<.004	<.013	<.005	<.002
22...	<.002	<.003	<.003	.0152	<.002	E.0206	<.002	.0221	<.004	<.013	<.005	<.002
28...	.0055	<.003	<.003	E.0034	<.002	E.0150	<.002	.0109	<.004	.0186	<.005	.0053
JUN												
04...	<.002	<.003	<.003	<.004	<.002	E.0071	<.002	.0183	<.004	<.013	<.005	<.002
*04...	<.002	<.003	<.003	.0080	<.002	E.0129	<.002	.0193	<.004	<.013	<.005	<.002
11...	<.002	<.003	<.003	.0108	<.002	E.0096	<.002	.0265	<.004	<.013	<.005	<.002
18...	<.002	<.003	<.003	.0251	<.002	E.0202	<.002	.0267	<.004	<.013	<.005	<.002
19...	<.002	<.003	<.003	.0117	<.002	E.0104	<.002	.0421	<.004	<.013	<.005	<.002
25...	<.002	<.003	<.003	.0137	<.002	E.0151	<.002	.118	<.004	<.013	.0067	E.0020
25...	<.002	<.003	<.003	.0093	<.002	E.0145	<.002	.0330	<.004	<.013	<.005	<.002
26...	<.002	<.003	E.0037	.0108	<.002	E.0151	<.002	.0358	<.004	<.013	.0096	<.002
JUL												
01...	<.002	<.003	<.003	.0304	<.002	E.0234	.697	.150	<.004	<.013	.0056	<.002
09...	<.002	E.0132	<.003	.0339	<.002	E.0132	.0059	.0412	<.004	<.013	.0053	<.002
16...	<.002	<.003	<.003	.157	<.002	E.0138	.0461	.296	.0075	<.025	<.005	<.002
24...	<.002	<.003	<.003	.0085	<.002	E.0110	<.002	.0790	<.004	<.013	<.005	<.002
AUG												
06...	.0047	<.003	<.003	.0151	<.002	E.0125	<.002	.0354	<.004	<.013	<.005	<.002
*06...	<.002	<.003	<.003	.0155	<.002	E.0114	<.002	.0360	<.004	<.013	<.005	E.0039
13...	<.002	E.0075	<.003	.0107	<.002	E.0114	<.002	.0195	<.004	<.013	<.005	<.002
14...	<.002	E.0134	<.003	.0087	<.002	E.0085	<.002	.0198	<.004	<.013	<.005	<.002
19...	<.002	E.0053	<.003	.0092	<.002	E.0095	<.002	.0139	<.004	<.013	<.005	<.002
21...	<.002	E.0084	<.003	.0116	<.002	E.0128	<.002	.0213	<.004	<.013	<.005	<.002
21...	<.002	E.0085	<.003	.0085	<.002	E.0127	<.002	.0186	<.004	<.013	<.005	<.002
SEP												
03...	.0061	<.003	<.003	<.004	<.002	E.0180	<.002	.0132	<.004	<.013	<.005	<.002
18...	<.002	<.003	<.003	.0115	<.002	E.0137	<.002	.0186	<.004	<.013	<.005	<.002

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
DEC				
02...	1145	2720	124	82
FEB				
27...	1250	1580	571	84
APR				
24...	1320	62	5	66
MAY				
16...	1150	28	43	74
JUN				
04...	1940	12	32	69
25...	1130	15	25	90
JUL				
01...	1550	3.5	37	69
SEP				
03...	1020	3.3	37	90

E Estimate.

* Replicate sample.

01349150 CANAJOHARIE CREEK NEAR CANAJOHARIE, NY--Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	17.0	12.5	15.0	7.5	5.5	6.5	3.5	1.0	2.0	.0	.0	.0
2	16.5	14.5	15.0	5.5	4.0	5.0	5.5	3.5	4.5	.0	.0	.0
3	15.5	12.0	14.0	4.5	2.5	3.5	4.5	3.5	4.0	.0	.0	.0
4	12.0	9.0	10.5	5.5	3.0	4.0	4.5	3.5	4.0	1.0	.0	.0
5	11.0	8.5	9.5	6.5	4.0	5.0	3.5	3.0	3.0	3.0	1.0	2.0
6	11.0	8.0	9.5	7.5	5.5	6.5	3.5	2.0	2.5	3.0	1.0	2.0
7	11.5	9.0	10.5	9.5	6.5	8.0	2.5	2.0	2.5	1.0	.0	.0
8	11.0	10.0	10.5	12.5	9.5	11.0	3.0	2.0	2.5	.0	.0	.0
9	12.0	10.0	11.0	11.0	8.0	9.5	2.5	2.0	2.0	.0	.0	.0
10	11.5	10.0	11.0	8.0	7.0	7.5	2.5	2.0	2.5	.0	.0	.0
11	10.0	7.5	9.0	7.0	4.5	5.5	3.0	2.5	2.5	.0	.0	.0
12	9.5	6.0	8.0	4.5	4.0	4.0	3.0	2.0	2.5	.0	.0	.0
13	12.0	9.0	10.5	4.0	2.5	3.0	3.0	1.5	2.5	.0	.0	.0
14	14.0	12.0	12.5	2.5	1.0	1.5	2.5	1.5	1.5	.0	.0	.0
15	12.0	8.0	9.0	2.0	.5	1.0	3.5	2.5	3.0	.0	.0	.0
16	10.5	8.0	9.0	1.0	.0	.5	3.5	3.0	3.0	.0	.0	.0
17	12.5	10.5	11.5	1.5	.0	.5	4.0	3.0	3.0	.0	.0	.0
18	12.5	10.5	11.5	2.5	1.0	2.0	4.0	3.5	4.0	.0	.0	.0
19	11.5	9.5	10.0	3.5	2.0	3.0	4.0	2.0	3.0	.0	.0	.0
20	10.5	9.0	9.5	4.0	3.0	3.5	2.0	.0	.5	.0	.0	.0
21	10.0	9.5	9.5	3.5	2.5	3.0	.0	.0	.0	.0	.0	.0
22	10.0	9.0	9.5	2.5	2.0	2.0	.0	.0	.0	.0	.0	.0
23	10.5	8.5	9.5	2.5	1.5	2.0	.5	.0	.0	.0	.0	.0
24	11.5	10.0	10.5	2.5	1.5	2.0	2.0	.5	1.5	.0	.0	.0
25	12.0	9.5	10.5	2.0	1.0	1.0	2.0	.5	1.0	.0	.0	.0
26	11.0	7.5	9.0	1.5	1.0	1.5	.5	.0	.0	.0	.0	.0
27	11.0	7.5	9.0	1.0	.0	.5	1.5	.5	1.0	.0	.0	.0
28	11.5	9.0	10.5	.0	.0	.0	2.0	1.5	1.5	.0	.0	.0
29	10.0	8.0	9.0	.5	.0	.0	2.5	2.0	2.0	.0	.0	.0
30	8.5	7.5	8.0	1.0	.0	.5	2.0	1.0	1.5	.0	.0	.0
31	9.0	7.0	8.0	---	---	---	1.0	.0	.0	.0	.0	.0
MONTH	17.0	6.0	10.5	12.5	.0	3.5	5.5	.0	2.0	3.0	.0	.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	.0	.0	.0	2.0	1.0	1.5	4.0	.0	2.0	14.5	12.5	14.0
2	.0	.0	.0	3.5	2.0	2.5	5.5	1.0	3.0	14.5	9.5	12.0
3	.0	.0	.0	2.5	1.0	2.0	7.0	1.0	3.5	12.0	8.5	10.0
4	.0	.0	.0	2.0	1.5	2.0	8.5	3.5	5.5	10.5	7.5	9.0
5	.0	.0	.0	3.0	2.0	2.5	9.5	4.5	7.0	13.0	8.5	10.5
6	.0	.0	.0	3.0	1.0	1.5	10.0	7.0	8.5	12.5	9.0	11.5
7	.0	.0	.0	1.5	.0	1.0	11.5	8.5	10.0	9.0	7.0	7.5
8	.0	.0	.0	1.0	.0	.5	9.5	4.5	6.5	11.5	6.0	8.5
9	.0	.0	.0	.5	.0	.0	5.0	2.0	3.5	14.0	10.5	12.0
10	.0	.0	.0	3.0	.0	1.5	5.5	1.0	3.0	12.5	9.5	11.0
11	.0	.0	.0	2.0	.5	1.0	7.5	2.5	5.0	14.5	8.5	11.0
12	.0	.0	.0	1.5	.0	.5	7.0	5.0	6.0	14.5	12.0	13.0
13	.0	.0	.0	1.5	.0	.5	5.5	5.0	5.5	14.5	12.0	13.0
14	.0	.0	.0	.0	.0	.0	8.5	4.0	6.0	14.5	10.5	12.5
15	.0	.0	.0	.0	.0	.0	10.0	4.5	7.0	16.0	11.5	13.5
16	.0	.0	.0	.0	.0	.0	12.0	6.0	8.5	14.0	10.0	12.0
17	.0	.0	.0	.0	.0	.0	10.5	8.5	9.5	10.5	8.5	9.5
18	.0	.0	.0	1.0	.0	.5	8.5	3.5	6.5	15.0	7.5	11.0
19	.0	.0	.0	2.0	.0	1.0	4.5	1.5	3.0	14.0	12.0	13.0
20	.5	.0	.0	2.0	.0	1.0	8.0	3.5	5.0	13.5	11.5	12.5
21	1.0	.0	.5	3.5	1.0	2.0	9.5	5.5	7.5	12.5	9.5	11.0
22	3.0	.5	1.5	2.5	.5	1.0	10.5	7.0	9.0	12.0	9.0	10.5
23	1.5	.0	1.0	2.0	.0	.5	13.0	8.5	10.5	16.5	9.0	12.5
24	1.5	.0	1.0	3.0	.0	1.0	12.5	10.0	11.0	19.0	12.0	15.0
25	.0	.0	.0	1.5	.5	1.0	12.5	9.5	11.0	17.0	15.5	16.0
26	1.0	.0	.5	1.5	.5	1.0	15.0	9.5	12.0	20.0	13.0	16.0
27	2.0	.5	1.0	5.5	1.0	3.0	14.5	9.5	12.0	21.0	13.5	17.0
28	2.0	1.5	2.0	8.0	2.0	4.5	12.5	8.5	10.0	22.0	14.0	18.0
29	---	---	---	7.5	4.5	5.5	12.5	7.0	9.5	20.0	16.0	18.5
30	---	---	---	5.5	5.0	5.0	15.5	10.5	13.0	19.0	16.5	17.0
31	---	---	---	5.0	.0	2.5	---	---	---	21.0	15.5	18.0
MONTH	3.0	.0	.5	8.0	.0	1.5	15.5	.0	7.5	22.0	6.0	13.0

HUDSON RIVER BASIN

01349150 CANAJOHARIE CREEK NEAR CANAJOHARIE, NY--Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	20.5	17.0	18.0	30.5	24.5	27.0	26.5	21.0	23.5	28.0	21.5	23.5
2	18.5	16.0	17.0	27.0	24.5	25.5	27.5	22.0	24.0	26.5	21.5	24.0
3	20.5	15.0	17.5	26.5	23.5	25.0	26.5	23.0	24.0	24.0	19.5	21.5
4	22.5	16.0	19.0	25.5	21.0	23.0	29.0	22.0	24.5	21.5	17.0	18.5
5	24.0	17.0	20.5	25.5	19.5	22.0	26.0	22.0	23.5	21.5	16.0	18.0
6	24.0	18.5	21.5	28.0	20.0	23.5	27.0	20.0	22.5	19.0	16.5	18.0
7	23.5	19.5	21.0	27.5	22.0	24.0	27.0	19.0	22.0	21.5	17.0	19.0
8	24.0	18.5	21.0	27.0	21.5	24.0	26.0	19.0	22.5	24.5	18.5	20.5
9	26.0	18.5	22.5	24.0	21.5	23.0	29.5	20.5	24.0	24.5	18.5	20.5
10	26.5	21.0	24.0	26.5	20.0	23.0	29.5	21.0	25.0	22.0	18.0	19.5
11	27.5	21.5	24.5	28.0	21.5	24.0	27.0	23.0	25.0	19.0	18.5	19.0
12	27.0	22.5	25.0	28.5	22.0	25.0	29.5	22.0	25.0	24.0	18.0	20.5
13	25.5	23.0	24.0	29.5	23.0	26.0	26.0	23.0	23.5	20.5	19.0	19.5
14	24.5	20.5	22.5	31.5	24.0	27.5	26.5	21.5	23.5	24.0	18.0	20.0
15	25.0	18.5	22.0	31.0	26.5	28.5	23.0	20.5	22.0	24.0	18.0	20.5
16	25.0	20.5	23.0	31.5	26.5	28.5	27.5	21.0	24.0	24.5	19.5	21.5
17	24.0	21.0	22.0	31.0	26.0	28.0	25.0	23.0	24.5	24.5	19.5	21.0
18	22.0	20.5	21.0	29.5	25.5	27.0	27.0	21.5	23.5	27.0	20.5	23.0
19	25.5	20.0	22.5	26.0	21.5	23.5	27.0	20.0	22.5	23.0	18.5	20.5
20	24.5	20.5	22.5	25.5	19.0	21.5	23.0	19.5	21.0	21.0	18.0	20.0
21	29.0	22.5	25.5	22.0	20.5	21.0	20.0	17.5	18.5	19.5	15.0	17.0
22	28.0	25.0	26.5	28.5	19.5	23.0	20.5	17.0	18.5	18.0	13.0	15.0
23	27.0	22.5	24.5	28.0	21.5	24.0	20.0	18.5	19.0	15.5	14.0	14.5
24	24.0	21.0	22.0	25.0	22.0	23.5	24.5	17.5	20.5	17.5	12.0	14.0
25	26.5	20.5	23.5	29.5	20.0	23.5	25.0	19.0	21.5	18.5	12.0	14.5
26	26.0	23.5	24.5	29.0	21.0	24.5	24.0	20.5	22.0	16.5	14.5	15.0
27	27.5	21.5	24.5	28.0	22.5	25.0	24.0	20.0	21.5	19.0	13.5	15.0
28	29.5	22.5	25.5	28.0	24.0	25.0	23.5	20.0	21.5	17.5	12.0	14.5
29	30.0	23.5	26.5	27.5	22.0	24.0	23.5	20.0	21.5	16.5	14.5	15.0
30	31.0	24.0	27.0	27.5	20.0	23.0	25.5	20.5	22.0	16.5	14.0	15.0
31	---	---	---	28.0	20.0	23.5	25.0	20.0	22.0	---	---	---
MONTH	31.0	15.0	22.5	31.5	19.0	24.5	29.5	17.0	22.5	28.0	12.0	18.5

HUDSON RIVER BASIN

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01349700 EAST KILL NEAR JEWETT CENTER, NY

LOCATION.--Lat 42°14'57", long 74°18'11", Greene County, Hydrologic Unit 02020005, on right bank 6 ft downstream from bridge on Mill Hollow Road, and 1.3 mi northeast of Jewett Center.

DRAINAGE AREA.--35.6 mi².

PERIOD OF RECORD.--Occasional low-flow and/or miscellaneous discharge measurements, water years 1951, 1955-61, 1964, 1987, and annual maximum, water years 1965-74, 1987, 1996. December 1996 to September 1997.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,460 ft above sea level, from topographic map. Prior to December 1996, crest-stage gage at same site at different datum.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 15,000 ft³/s, Jan. 19, 1996, gage height, about 12.5 ft, datum then in use; minimum discharge (since Dec. 1996), 0.84 ft³/s, Aug. 13, 1997, gage height, 4.43 ft.

EXTREMES FOR CURRENT YEAR.--December 1996 to September 1997: Peak discharges greater than base discharge of 660 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 4	1900	676	7.03	Apr. 6	1915	*1,560	*7.94

Minimum discharge, 0.84 ft³/s, Aug. 13, gage height, 4.43 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	89	e22	104	184	103	30	4.5	1.2	8.1
2	---	---	---	e86	e21	156	137	120	29	4.4	1.1	6.5
3	---	---	---	107	e20	139	138	155	26	4.4	1.1	5.4
4	---	---	---	100	e20	98	373	219	23	4.3	1.5	4.4
5	---	---	---	92	51	88	546	134	21	3.4	1.7	3.7
6	---	---	---	94	60	136	966	113	18	3.0	1.2	3.1
7	---	---	---	74	e35	e84	964	99	17	2.7	1.1	2.7
8	---	---	---	e47	e30	e62	403	80	16	2.6	1.0	2.5
9	---	---	---	e45	e28	e58	225	78	15	2.5	1.0	2.1
10	---	---	---	e43	e26	e54	146	126	13	2.7	.96	1.9
11	---	---	---	e40	e22	e49	e120	88	12	2.2	.91	9.3
12	---	---	---	e37	e20	e44	e110	69	10	2.0	.94	128
13	---	---	---	e35	e19	e40	e150	63	10	1.9	1.4	42
14	---	---	---	e33	e19	e39	e110	58	10	1.8	1.6	19
15	---	---	---	e31	e19	e38	e84	52	9.0	2.1	1.1	12
16	---	---	---	e29	e21	e36	73	47	7.7	5.3	1.1	8.3
17	---	---	---	e27	e21	e35	72	43	7.6	4.6	.99	6.2
18	---	---	---	e26	e22	e34	83	40	8.2	3.7	1.2	5.7
19	---	---	---	e25	66	e34	91	51	8.5	2.9	1.0	5.8
20	---	---	---	e24	138	e33	113	274	7.4	2.5	.95	5.1
21	---	---	---	e23	e160	33	182	106	6.7	2.6	4.7	4.4
22	---	---	---	e24	e500	44	220	79	5.7	3.9	5.4	3.5
23	---	---	---	e26	229	e32	250	66	5.1	2.9	5.2	3.0
24	---	---	---	e28	125	e29	217	57	4.8	2.2	4.1	2.7
25	---	---	---	e28	e70	e26	163	61	5.1	2.0	4.0	2.4
26	---	---	---	e28	e68	57	128	62	7.8	1.8	3.8	2.2
27	---	---	---	e28	173	55	107	49	9.2	1.8	3.4	2.0
28	---	---	---	103	e27	168	77	190	43	6.9	1.8	1.8
29	---	---	---	143	e27	---	100	162	38	6.0	1.5	9.1
30	---	---	---	185	e25	---	114	115	34	5.2	1.3	13
31	---	---	---	123	e22	---	197	---	33	---	1.2	10
TOTAL	---	---	---	1370	2173	2125	6822	2640	360.9	86.5	92.35	321.3
MEAN	---	---	---	44.2	77.6	68.5	227	85.2	12.0	2.79	2.98	10.7
MAX	---	---	---	107	500	197	966	274	30	5.3	13	128
MIN	---	---	---	22	19	26	72	33	4.8	1.2	.91	1.8
CFSM	---	---	---	1.24	2.18	1.93	6.39	2.39	.34	.08	.08	.30
IN.	---	---	---	1.43	2.27	2.22	7.13	2.76	.38	.09	.10	.34

e Estimated

HUDSON RIVER BASIN

01349900 BATAVIA KILL NEAR ASHLAND, NY

LOCATION.--Lat 42°17'36", long 74°18'22", Greene County, Hydrologic Unit 02020005, on right bank 40 ft upstream from bridge on County Route 17, 0.2 mi south of State Highway 23, and 1.6 mi southeast of Ashland.

DRAINAGE AREA.--51.2 mi².

PERIOD OF RECORD.--Occasional low-flow and/or miscellaneous discharge measurements, water years 1955-61, 1964, 1987. August 1991 to current year.

REVISED RECORDS.--WDR NY-93-1: 1992.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,440 ft above sea level, from topographic map.

REMARKS.--Records poor. Flow regulated to some extent at high flows by three flood-retardation reservoirs, combined drainage area of 19.2 mi². Seasonal diversion for snowmaking by Ski Windham ski area at Windham.

AVERAGE DISCHARGE.--6 years, 91.9 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 14,300 ft³/s, Jan. 19, 1996, gage height, about 15.5 ft, from rating curve extended above 2,200 ft³/s on basis of contracted-opening and flow-over-road measurement of peak flow at gage height 14.82 ft, and by runoff comparison of peak discharge from step-backwater analysis at site 6.6 mi downstream; minimum daily discharge, about 0.80 ft³/s, Aug. 31, 1995.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 11,500 ft³/s, revised, Apr. 4, 1987, gage height, 14.82 ft, from floodmarks, from rating curve extended above 2,200 ft³/s on basis of contracted-opening and flow-over-road measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, about 6,300 ft³/s, Oct. 20, gage height, about 13.1 ft, from rating curve extended as explained above; minimum daily discharge, 2.2 ft³/s, Aug. 11.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	97	91	107	125	e24	113	189	119	45	5.4	2.6	e5.4
2	79	82	738	122	e23	152	165	138	44	5.2	2.8	e4.6
3	68	69	338	143	e22	140	172	150	40	5.1	2.7	3.9
4	57	67	237	138	e21	110	380	194	34	4.9	2.9	3.6
5	50	63	195	124	57	102	511	141	30	4.6	3.3	3.4
6	45	58	180	120	56	161	811	127	26	4.2	2.8	3.2
7	42	55	162	95	38	109	847	121	23	3.8	2.8	3.1
8	40	86	153	84	e28	e80	398	104	22	3.7	2.5	3.0
9	181	1210	134	68	e25	e74	250	98	20	3.7	2.4	2.8
10	119	394	118	e62	e22	84	185	139	17	3.7	2.3	2.7
11	94	246	113	e56	e19	82	156	112	15	3.4	2.2	5.7
12	75	189	133	e50	e18	70	145	94	13	3.1	2.3	e90
13	67	155	245	e45	e18	62	199	86	13	3.0	2.7	e30
14	62	131	250	e42	e17	52	150	82	14	2.9	2.9	e16
15	55	111	194	e40	e17	69	122	74	12	4.6	2.6	e11
16	50	97	184	e37	e17	e58	110	66	11	14	2.5	e9.0
17	47	95	344	e35	e18	54	108	61	10	8.8	2.4	e7.4
18	44	94	431	e33	e20	48	117	57	11	6.7	2.8	e6.4
19	90	150	311	e31	82	45	122	66	11	5.5	3.8	e5.4
20	e3700	142	229	e30	147	46	147	291	9.8	4.9	4.2	5.1
21	1600	108	176	e30	133	43	210	139	9.3	4.4	7.7	4.9
22	e900	92	158	e32	262	66	215	116	8.5	4.7	7.2	4.6
23	e560	85	148	e45	147	55	210	99	7.6	4.1	6.3	4.1
24	e300	81	209	e35	e100	44	189	86	7.2	3.6	5.2	3.8
25	214	76	260	e45	e70	39	162	88	7.0	3.6	4.8	3.5
26	172	123	165	e35	e66	83	142	87	7.3	3.3	4.3	3.2
27	148	118	149	e30	179	77	126	71	8.9	2.9	4.4	3.2
28	151	85	137	e32	162	95	161	62	7.2	3.0	4.9	3.0
29	142	79	166	e37	---	117	149	55	6.4	2.9	e9.0	4.0
30	118	77	196	e22	---	141	125	51	5.8	2.8	e10	3.8
31	105	---	140	e21	---	216	---	49	---	2.7	e6.4	---
TOTAL	9472	4509	6700	1844	1808	2687	6973	3223	496.0	139.2	125.7	259.8
MEAN	306	150	216	59.5	64.6	86.7	232	104	16.5	4.49	4.05	8.66
MAX	3700	1210	738	143	262	216	847	291	45	14	10	90
MIN	40	55	107	21	17	39	108	49	5.8	2.7	2.2	2.7

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1997, BY WATER YEAR (WY)

	1991	1992	1993	1994	1995	1996	1997
MEAN	87.7	113	113	151	54.7	139	244
MAX	306	243	216	355	90.0	202	483
(WY)	1997	1996	1997	1996	1996	1994	1993
MIN	4.43	31.8	56.1	59.5	23.3	86.7	64.5
(WY)	1994	1995	1996	1997	1993	1995	1995

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1991 - 1997
ANNUAL TOTAL	60121.3	38236.7	
ANNUAL MEAN	164	105	91.9
HIGHEST ANNUAL MEAN			147
LOWEST ANNUAL MEAN			53.3
HIGHEST DAILY MEAN	5000	3700	5000
LOWEST DAILY MEAN	5.4	2.2	.80
ANNUAL SEVEN-DAY MINIMUM	6.0	2.5	.99
10 PERCENT EXCEEDS	274	194	197
50 PERCENT EXCEEDS	86	57	35
90 PERCENT EXCEEDS	19	3.4	3.1

e Estimated

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e Estimated

HUDSON RIVER BASIN

01350000 SCHOHARIE CREEK AT PRATTSVILLE, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1903 - 1997	
ANNUAL TOTAL	307450		195549		463	
ANNUAL MEAN	840		536		873	1978
HIGHEST ANNUAL MEAN					202	1985
LOWEST ANNUAL MEAN						
HIGHEST DAILY MEAN	22000	Jan 19	10700	Oct 20	26200	Oct 16 1955
LOWEST DAILY MEAN	33	Sep 4	10	Aug 10	4.8	Sep 22 1964
ANNUAL SEVEN-DAY MINIMUM	36	Sep 1	14	Aug 6	5.3	Sep 18 1964
ANNUAL RUNOFF (CFSM)	3.54		2.26		1.95	
ANNUAL RUNOFF (INCHES)	48.26		30.69		26.56	
10 PERCENT EXCEEDS	1630		1060		1040	
50 PERCENT EXCEEDS	403		289		220	
90 PERCENT EXCEEDS	91		24		31	

HUDSON RIVER BASIN

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01350080 MANOR KILL AT WEST CONESVILLE NEAR GILBOA, NY

LOCATION.--Lat 42°22'37", long 74°24'48", Schoharie County, Hydrologic Unit 02020005, on right bank 50 ft south of County Highway 3, 0.5 mi east of West Conesville, 1.2 mi upstream from mouth, and 2.2 mi southeast of Gilboa.

DRAINAGE AREA.--32.4 mi².

PERIOD OF RECORD.--July 1986 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,255.95 ft above sea level.

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

AVERAGE DISCHARGE.--11 years, 48.7 ft³/s, 20.41 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,050 ft³/s, Jan. 19, 1996, gage height, 10.20 ft in gage well, outside gage height was 10.8 ft, from floodmarks, from rating curve extended above 970 ft³/s on basis of slope-area measurement of peak flow at gage height 9.76 ft; maximum outside gage height, 10.9 ft from floodmarks, Apr. 4, 1987; minimum discharge, 1.0 ft³/s, Aug. 28, 29, 30, 31, Sept. 1, 2, 1993, Sept. 6, 7, 8, 1995; minimum gage height, 0.37 ft, Aug. 10, 13, 1997.

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)
Oct. 20	0600	a1,950	5.90	Nov. 9	0630	a*1,970	*5.94

a From rating curve extended as explained above.

Minimum discharge, 1.7 ft³/s, Aug. 10, 13, gage height, 0.37 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	48	117	e72	e13	102	179	83	25	5.3	2.3	2.6
2	24	43	464	70	e12	150	157	97	25	5.3	2.3	2.4
3	22	38	237	96	e11	124	159	132	22	5.3	2.4	2.5
4	20	35	183	83	e11	97	305	152	19	5.1	2.5	2.3
5	18	32	153	70	e29	91	377	111	17	4.8	2.6	2.2
6	18	29	139	62	e24	162	551	104	15	4.5	2.3	2.2
7	17	29	122	47	e18	102	482	99	14	4.3	2.2	2.2
8	16	44	115	42	e15	e70	278	80	14	4.3	2.1	2.4
9	74	875	96	e40	e13	e54	198	78	13	4.4	2.1	2.2
10	47	294	80	e37	e12	e50	157	108	11	4.7	1.9	2.1
11	37	207	72	e30	e12	e48	137	78	10	4.2	1.9	10
12	31	164	99	e28	e11	e40	128	60	9.8	3.9	2.0	19
13	28	139	199	e27	e11	e35	151	54	11	3.8	2.3	6.7
14	26	118	201	e26	e11	e30	116	49	11	3.6	2.5	4.9
15	24	97	153	e25	e11	e27	92	42	9.2	4.3	2.2	4.2
16	23	77	153	e23	e10	e26	81	38	8.3	7.1	2.1	3.9
17	22	70	236	e21	e10	e27	81	37	8.1	4.1	2.0	3.7
18	20	69	253	e20	e12	e28	86	33	8.4	3.6	2.2	3.6
19	30	147	202	e19	e80	e29	89	45	8.2	3.3	2.0	3.5
20	1390	126	161	e18	123	32	116	204	7.5	3.1	1.9	3.5
21	655	93	e130	e18	123	30	162	98	7.3	3.3	3.9	3.3
22	311	78	114	e19	219	e44	159	80	6.7	3.8	3.8	3.1
23	200	65	105	e20	e110	e33	147	64	6.3	3.4	3.5	2.9
24	189	58	169	e21	e84	e23	131	52	6.4	3.2	2.9	2.9
25	147	56	169	e21	e48	e22	117	54	6.3	3.0	2.8	2.7
26	125	130	115	e21	e68	86	103	48	7.0	2.9	2.8	2.7
27	109	108	103	e20	176	71	89	39	7.3	3.0	2.5	2.6
28	105	77	95	e19	143	93	130	34	6.1	3.2	3.0	2.5
29	91	66	111	e30	---	119	105	31	5.7	2.7	2.9	2.9
30	73	59	110	e14	---	133	82	29	5.4	2.5	2.7	2.7
31	58	---	75	e13	---	196	---	27	---	2.4	2.5	---
TOTAL	3978	3471	4731	1072	1420	2174	5145	2240	331.0	122.4	77.1	114.4
MEAN	128	116	153	34.6	50.7	70.1	172	72.3	11.0	3.95	2.49	3.81
MAX	1390	875	464	96	219	196	551	204	25	7.1	3.9	19
MIN	16	29	72	13	10	22	81	27	5.4	2.4	1.9	2.1
CFSM	3.96	3.57	4.71	1.07	1.57	2.16	5.29	2.23	.34	.12	.08	.12
IN.	4.57	3.99	5.43	1.23	1.63	2.50	5.91	2.57	.38	.14	.09	.13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 1997, BY WATER YEAR (WY)

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
MEAN	34.4	55.2	52.1	53.1	40.7	82.3	141	69.4	22.7	16.0	7.08	10.3
MAX	128	116	153	165	116	140	297	152	70.7	80.5	15.2	46.2
(WY)	1997	1997	1997	1996	1990	1987	1993	1989	1989	1996	1996	1987
MIN	3.25	8.92	14.3	16.0	12.8	38.4	46.0	20.2	5.80	2.75	1.66	1.60
(WY)	1994	1995	1990	1989	1993	1989	1995	1995	1991	1993	1993	1995

e Estimated

HUDSON RIVER BASIN

01350080 MANOR KILL AT WEST CONESVILLE NEAR GILBOA, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1986 - 1997	
ANNUAL TOTAL	33711.5		24875.9			
ANNUAL MEAN	92.1		68.2		48.7	
HIGHEST ANNUAL MEAN					73.2	1996
LOWEST ANNUAL MEAN					28.0	1995
HIGHEST DAILY MEAN	1800	Jan 19	1390	Oct 20	1800	Jan 19 1996
LOWEST DAILY MEAN	6.2	Sep 6	1.9	Aug 10	1.1	Aug 30 1993
ANNUAL SEVEN-DAY MINIMUM	6.5	Sep 1	2.1	Aug 6	1.2	Aug 27 1993
ANNUAL RUNOFF (CFSM)	2.84		2.10		1.50	
ANNUAL RUNOFF (INCHES)	38.71		28.56		20.41	
10 PERCENT EXCEEDS	185		157		115	
50 PERCENT EXCEEDS	51		29		22	
90 PERCENT EXCEEDS	13		2.7		3.4	

HUDSON RIVER BASIN

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01350100 SCHOHARIE RESERVOIR NEAR GRAND GORGE, NY

LOCATION.--Lat 42°21'21", long 74°26'42", Schoharie County, Hydrologic Unit 02020005, in Shandaken Tunnel intake house on Intake Road, 1.6 mi north of junction of Intake Road and State Highway 23, 2.5 mi upstream from Gilboa Dam, and 2.6 mi east of Grand Gorge.

DRAINAGE AREA.--315 mi².

PERIOD OF RECORD.--January 1973 to current year. Monthly contents only published as "at Gilboa" for September 1928 to December 1972.

REVISED RECORDS.--WDR NY-86-1: 1956 (maximum elevation). WDR NY-90-1: Drainage area.

GAGE.--Water-stage recorder. Supplementary nonrecording gage used for periods when reservoir elevation is below 1,072.50 ft. Datum of gage is sea level (levels by Board of Water Supply, City of New York).

REMARKS.--Reservoir is formed by masonry and earth dam. Storage began July 24, 1926. Usable capacity 19,583 mil gal between minimum operating level, elevation, 1,050.00 ft, and crest of spillway, elevation, 1,130.00 ft. Dead storage below elevation 1,050.00, 1,968 mil gal. Figures given herein represent usable contents. Reservoir impounds water except for periods of spilling, for diversion through Shandaken Tunnel into Esopus Creek to Ashokan Reservoir, for New York City water supply.

COOPERATION.--Capacity table and once-daily nonrecording gage readings provided by Department of Environmental Protection, City of New York.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 1,136.68 ft, Jan. 19, 1996, contents, 22,235 mil gal; minimum observed (after initial filling), 1,062.00 ft, Aug. 20, 1970, contents, 1,520 mil gal.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,132.86 ft, Nov. 9, contents, 20,694 mil gal; minimum elevation, 1,092.74 ft, Sept. 30, contents, 8,124 mil gal.

Capacity table (elevation, in feet, and usable contents in million gallons)

1,063.0	1,670	1,120.0	16,100
1,080.0	4,970	1,133.0	20,700

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1130.19	1130.41	1130.37	1130.43	1130.11	1130.51	1130.76	1130.58	1130.17	1121.77	1106.41	1098.58
2	1130.13	1130.37	1131.71	1130.46	1130.10	1130.58	1130.65	1130.66	1130.15	1121.17	1106.10	1098.36
3	1130.09	1130.34	1130.92	1130.51	1130.09	1130.61	1130.63	1130.68	1130.13	1120.58	1105.79	1098.11
4	1129.99	1130.30	1130.67	1130.51	1130.08	1130.50	1130.98	1130.95	1130.10	1119.97	1105.50	1097.84
5	1129.43	1130.23	1130.55	1130.46	1130.22	1130.45	1131.22	1130.74	1130.06	1119.33	1105.21	1097.55
6	1128.72	1130.21	1130.53	1130.47	1130.29	1130.60	1131.53	1130.65	1129.93	1118.70	1104.91	1097.26
7	1128.07	1130.19	1130.48	1130.42	1130.20	1130.50	1131.64	1130.65	1129.21	1118.05	1104.60	1096.98
8	1128.01	1130.24	1130.46	1130.34	1130.14	1130.41	1131.15	1130.57	1128.37	1117.40	1104.29	1096.71
9	1128.89	1131.99	1130.41	1130.30	1130.11	1130.37	1130.82	1130.53	1127.59	1116.75	1103.98	1096.42
10	1129.92	1130.97	1130.37	1130.35	1130.09	1130.37	1130.64	1130.65	1127.37	1116.11	1103.67	1096.13
11	1130.15	1130.67	1130.35	1130.31	1130.10	1130.37	1130.55	1130.59	1127.34	1115.33	1103.35	1095.91
12	1130.10	1130.52	1130.40	1130.23	1130.09	1130.32	1130.51	1130.52	1127.26	1113.91	1103.04	1097.36
13	1130.07	1130.43	1130.66	1130.23	1130.08	1130.26	1130.63	1130.48	1127.18	1112.37	1102.74	1098.49
14	1130.06	1130.37	1130.74	1130.24	1130.07	1130.27	1130.55	1130.46	1127.10	1110.94	1102.47	1098.77
15	1130.03	1130.33	1130.59	1130.21	1130.10	1130.31	1130.46	1130.43	1126.96	1110.15	1102.17	1098.81
16	1130.01	1130.29	1130.56	1130.29	1130.10	1130.24	1130.42	1130.41	1126.80	1110.02	1101.88	1098.76
17	1130.00	1130.28	1130.73	1130.25	1130.09	1130.22	1130.41	1130.38	1126.63	1109.86	1101.56	1098.63
18	1129.95	1130.30	1131.03	1130.16	1130.10	1130.23	1130.44	1130.36	1126.47	1109.71	1101.26	1098.48
19	1129.93	1130.45	1130.83	1130.14	1130.28	1130.21	1130.48	1130.36	1126.31	1109.53	1100.94	1098.16
20	1131.97	1130.44	1130.67	1130.14	1130.56	1130.22	1130.51	1130.90	1126.06	1109.33	1100.62	1096.93
21	1131.37	1130.36	1130.54	1130.16	1130.49	1130.21	1130.65	1130.66	1125.80	1109.13	1100.41	1095.59
22	1131.00	1130.32	1130.51	1130.16	1130.95	1130.29	1130.70	1130.58	1125.51	1108.96	1100.32	1094.92
23	1130.86	1130.30	1130.49	1130.20	1130.74	1130.25	1130.73	1130.53	1125.20	1108.78	1100.23	1094.64
24	1130.81	1130.30	1130.59	1130.15	1130.54	1130.20	1130.73	1130.47	1124.88	1108.58	1100.08	1094.39
25	1130.61	1130.29	1130.81	1130.20	1130.40	1130.19	1130.68	1130.46	1124.57	1108.38	1099.87	1094.12
26	1130.52	1130.42	1130.59	1130.25	1130.37	1130.35	1130.62	1130.47	1124.26	1108.13	1099.64	1093.85
27	1130.50	1130.43	1130.53	1130.17	1130.59	1130.34	1130.57	1130.39	1123.98	1107.90	1099.37	1093.57
28	1130.53	1130.34	1130.49	1130.20	1130.66	1130.38	1130.70	1130.32	1123.52	1107.68	1099.13	1093.28
29	1130.53	1130.32	1130.53	1130.17	---	1130.46	1130.78	1130.26	1122.95	1107.38	1098.93	1093.04
30	1130.47	1130.27	1130.67	1130.15	---	1130.58	1130.64	1130.20	1122.37	1107.06	1098.87	1092.84
31	1130.46	---	1130.55	1130.14	---	1130.80	---	1130.19	---	1106.73	1098.75	---
MEAN	1130.11	1130.42	1130.62	1130.27	1130.28	1130.37	1130.73	1130.52	1126.81	1112.57	1102.13	1096.48
MAX	1131.97	1131.99	1131.71	1130.51	1130.95	1130.80	1131.64	1130.95	1130.17	1121.77	1106.41	1098.81
MIN	1128.01	1130.19	1130.35	1130.14	1130.07	1130.19	1130.41	1130.19	1122.37	1106.73	1098.75	1092.84
#	19754	19680	19778	19630	19805	19929	19812	19653	16796	11956	9714	8147
##	+3.49	-3.82	+4.89	-7.39	+9.67	+6.19	-6.03	-7.94	-147	-242	-112	-80.8
CAL YR 1996	MEAN 1129.62	MAX 1133.35	MIN 1115.60	## +1.04								
WTR YR 1997	MEAN 1123.41	MAX 1131.99	MIN 1092.84	## -48.9								

Contents, in million gallons, at 2400 hours on last day of month.

Change in contents, equivalent in cubic feet per second.

HUDSON RIVER BASIN

01350101 SCHOHARIE CREEK AT GILBOA, NY

LOCATION.--Lat 42°23'50", long 74°27'03", Schoharie County, Hydrologic Unit 02020005, on left bank, 200 ft upstream from bridge on County Highway 322, 0.2 mi west of village of Gilboa, 0.4 mi downstream from dam on Schoharie Reservoir, and 0.8 mi upstream from the Platter Kill.

DRAINAGE AREA.--316 mi².

PERIOD OF RECORD.--October 1975 to current year (since October 1983, discharges only for days of Schoharie Reservoir spill and since October 1989, discharges only for days of mean flow exceeding 10 ft³/s).

REVISED RECORDS.--WDR NY-90-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 939.56 ft above sea level.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Entire flow, runoff from 315 mi², except for periods of spill, diverted from Schoharie Reservoir through Shandaken Tunnel into Esopus Creek upstream from Ashokan Reservoir for water supply of city of New York.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 70,800 ft³/s, Jan. 19, 1996, gage height, 30.60 ft, outside gage height, 32.2 ft, from floodmark, from rating curve extended above 14,000 ft³/s on basis of flow-over-dam measurement of peak flow; minimum daily discharge, 0.04 ft³/s on many days, June to October 1976, and Sept. 11-13, 1980, but may have been lower since October 1983 (see PERIOD OF RECORD).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, about 65,000 ft³/s, Oct. 16, 1955, by computation of flow over dam; flood of Mar. 18, 1936, reached a discharge of 32,000 ft³/s, from information furnished by Bureau of Water Resources Development, City of New York.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 15,100 ft³/s, Oct. 20, gage height, 19.63 ft, outside gage height, 21.37 ft, from crest-stage gage.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	524	662	925	930	219	1220	1880	1070	261	---	---	---
2	354	575	7670	992	195	1410	1570	1220	246	---	---	---
3	245	525	3410	1100	184	1530	1510	1290	220	---	---	---
4	128	465	2110	1090	172	1200	2770	1940	181	---	---	---
5	---	331	1640	958	431	1060	3680	1440	134	---	---	---
6	---	292	1500	966	579	1490	5020	1210	67	---	---	---
7	---	265	1310	854	402	1180	5660	1180	---	---	---	---
8	---	350	1220	692	289	929	3370	1000	---	---	---	---
9	---	9430	1050	599	e200	e780	2100	917	---	---	---	---
10	95	3900	929	e540	e180	e700	1570	1160	---	---	---	---
11	343	2230	864	e480	e170	e640	1310	1020	---	---	---	---
12	249	1630	998	450	e160	e600	1160	881	---	---	---	---
13	180	1310	1840	454	e150	561	1450	812	---	---	---	---
14	141	1090	2120	470	e140	e540	1230	762	---	---	---	---
15	104	928	1610	e400	196	e500	1000	694	---	---	---	---
16	76	797	1490	e370	e180	e480	899	646	---	---	---	---
17	53	740	2130	e350	173	e470	857	603	---	---	---	---
18	57	722	3400	e330	181	e460	914	565	---	---	---	---
19	24	1130	2450	e320	548	e450	997	563	---	---	---	---
20	10300	1100	1840	e300	1270	e450	1060	1730	---	---	---	---
21	6830	849	1390	e290	1070	e450	1450	1170	---	---	---	---
22	3850	738	1230	e300	e2500	666	1530	989	---	---	---	---
23	2650	674	1140	401	1940	572	1560	883	---	---	---	---
24	2190	643	1410	e310	1320	467	1520	784	---	---	---	---
25	1550	640	2110	404	909	463	1370	750	---	---	---	---
26	1230	995	1420	503	818	773	1210	758	---	---	---	---
27	1010	1030	1220	354	1420	756	1070	636	---	---	---	---
28	972	770	1110	403	1650	812	1350	508	---	---	---	---
29	967	697	1180	361	---	993	e2100	432	---	---	---	---
30	816	612	1560	e290	---	1310	e1500	327	---	---	---	---
31	740	---	1230	e240	---	2030	---	291	---	---	---	---
TOTAL	---	36120	55506	16501	17646	25942	54667	28231	---	---	---	---
MEAN	---	1204	1791	532	630	837	1822	911	---	---	---	---
MAX	---	9430	7670	1100	2500	2030	5660	1940	---	---	---	---
MIN	---	265	864	240	140	450	857	291	---	---	---	---

e Estimated

HUDSON RIVER BASIN

83

01350120 PLATTER KILL AT GILBOA, NY

LOCATION.--Lat 42°24'22", long 74°26'51", Schoharie County, Hydrologic Unit 02020005, on right bank, 0.2 mi downstream from County Highway 17, and 0.6 mi northwest of Gilboa.

DRAINAGE AREA.--10.9 mi².

PERIOD OF RECORD.--January 1975 to current year. Occasional discharge measurements, water years 1969-73.

REVISED RECORDS.--WDR NY-90-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 1,080 ft above sea level, from topographic map. Prior to October 1, 1990, at site 0.2 mi upstream at datum about 30 ft higher.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--22 years, 14.0 ft³/s, 17.41 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,370 ft³/s, Jan. 19, 1996, gage height, about 6.7 ft, from outside floodmark, from rating curve extended above 280 ft³/s on basis of flow-through-culvert measurement of peak flow; minimum discharge, 0.32 ft³/s, Nov. 18, 1980 (result of freezeup).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 9	0515	*187	*3.54	No other peak greater than base discharge.			

Minimum discharge not determined; minimum daily discharge, about 1.3 ft³/s, Sept. 26-28.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	13	19	e16	e7.2	12	e20	16	11	2.8	1.7	1.9
2	3.9	14	67	20	e7.2	17	e27	15	11	2.7	1.6	1.6
3	3.9	14	42	14	e7.0	15	25	17	10	2.6	1.7	1.6
4	4.1	13	34	13	e6.8	12	46	18	9.2	2.4	2.1	1.5
5	4.0	11	26	12	e10	13	60	13	7.9	2.4	2.0	1.6
6	3.8	10	23	14	e9.0	19	78	13	6.2	2.3	1.7	1.5
7	3.7	9.9	20	14	e8.0	15	68	14	5.6	2.3	1.6	1.5
8	3.8	13	19	14	e7.0	14	53	16	5.3	2.3	1.6	1.8
9	11	113	17	14	e6.4	e14	39	15	4.5	2.5	1.6	1.5
10	11	48	13	14	e5.6	15	29	13	4.4	2.6	1.5	e1.4
11	7.5	36	12	13	e5.4	16	22	16	4.2	2.3	e1.4	6.6
12	4.5	27	16	e11	e5.0	15	19	16	4.1	2.2	1.5	5.3
13	4.4	21	25	e10	e5.0	e14	22	16	6.2	2.1	2.5	2.3
14	4.4	18	31	e9.4	e5.0	e14	14	15	5.4	2.0	1.9	1.9
15	4.3	14	23	e9.0	e5.2	15	12	14	4.1	4.0	1.6	1.7
16	4.4	12	22	e8.4	e5.6	e15	11	13	4.1	4.3	1.7	1.6
17	4.6	14	30	e7.8	e5.8	e15	12	12	4.5	2.6	1.6	1.5
18	3.9	14	38	e7.2	e6.6	15	12	11	4.6	2.4	1.7	1.6
19	5.6	20	32	e6.6	e8.0	e13	13	14	4.7	2.2	1.5	1.5
20	70	17	24	e6.4	e12	14	17	20	4.5	2.1	e1.4	1.7
21	55	12	20	e6.6	17	12	21	15	4.3	2.2	3.9	1.6
22	40	13	19	e6.8	30	16	20	14	4.1	2.5	2.4	1.5
23	26	15	18	e7.0	17	14	15	14	3.8	2.1	1.8	1.5
24	24	15	25	e7.2	13	14	13	13	3.9	2.0	1.6	e1.4
25	16	15	25	e7.6	e23	12	13	13	3.8	1.9	1.7	e1.4
26	13	18	19	e7.6	e20	15	14	13	4.1	1.9	1.7	e1.3
27	11	15	17	e6.8	25	16	15	11	4.3	1.9	1.6	e1.3
28	11	15	15	e8.0	19	16	15	11	4.1	1.9	2.6	e1.3
29	12	15	17	e7.8	---	16	14	10	3.7	1.7	1.9	1.8
30	13	15	17	e7.6	---	15	16	10	3.2	1.7	1.7	1.6
31	13	---	e13	e7.4	---	e17	---	10	---	1.7	1.6	---
TOTAL	400.8	599.9	738	314.2	301.8	455	755	431	160.8	72.6	56.4	56.3
MEAN	12.9	20.0	23.8	10.1	10.8	14.7	25.2	13.9	5.36	2.34	1.82	1.88
MAX	70	113	67	20	30	19	78	20	11	4.3	3.9	6.6
MIN	3.7	9.9	12	6.4	5.0	12	11	10	3.2	1.7	1.4	1.3
CFSM	1.19	1.83	2.18	.93	.99	1.35	2.31	1.28	.49	.21	.17	.17
IN.	1.37	2.05	2.52	1.07	1.03	1.55	2.58	1.47	.55	.25	.19	.19

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

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
MEAN	9.62	11.4	12.9	13.6	16.9	29.7	34.1	19.0	9.59	4.74	3.25	4.19											
MAX	53.0	36.0	28.2	48.4	46.4	75.5	96.8	40.6	23.6	12.5	8.66	26.0											
(WY)	1978	1978	1984	1978	1976	1979	1987	1984	1986	1996	1978	1977											
MIN	1.47	2.20	2.31	1.84	2.18	8.67	11.6	6.05	2.66	1.70	1.35	1.22											
(WY)	1984	1985	1983	1981	1980	1989	1985	1985	1995	1993	1993	1980											

e Estimated

HUDSON RIVER BASIN

01350120 PLATTER KILL AT GILBOA, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1975 - 1997	
ANNUAL TOTAL	6266.7		4341.8			
ANNUAL MEAN	17.1		11.9		14.0	
HIGHEST ANNUAL MEAN					26.6 1978	
LOWEST ANNUAL MEAN					5.43 1985	
HIGHEST DAILY MEAN	230	Jan 19	113	Nov 9	467	Mar 15 1986
LOWEST DAILY MEAN	2.1	Sep 6	1.3	Sep 26	.89	Sep 12 1980
ANNUAL SEVEN-DAY MINIMUM	2.3	Sep 1	1.4	Sep 22	.95	Aug 24 1980
ANNUAL RUNOFF (CFSM)	1.57		1.09		1.28	
ANNUAL RUNOFF (INCHES)	21.39		14.82		17.41	
10 PERCENT EXCEEDS	33		22		32	
50 PERCENT EXCEEDS	14		11		7.9	
90 PERCENT EXCEEDS	3.8		1.7		1.7	

HUDSON RIVER BASIN

85

01350140 MINE KILL NEAR NORTH BLENHEIM, NY

LOCATION.--Lat 42°25'44", long 74°28'24", Schoharie County, Hydrologic Unit 02020005, on left bank 200 ft upstream from bridge on State Highway 30, 0.6 mi upstream from mouth, and 3.0 mi southwest of North Blenheim.

DRAINAGE AREA.--16.2 mi².

PERIOD OF RECORD.--December 1974 to current year. Occasional discharge measurements, water years 1969-74.

REVISED RECORDS.--WDR NY-90-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Concrete control since Sept. 23, 1975. Elevation of gage is 1,060 ft above sea level, from topographic map.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--22 years (water years 1976-97), 24.2 ft³/s, 20.31 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,550 ft³/s, Jan. 19, 1996, gage height, 5.20 ft, from floodmarks, from rating curve extended above 560 ft³/s on basis of step-backwater analysis of peak flow; minimum discharge, 0.10 ft³/s, Aug. 27, 28, 29, 30, 1980; minimum gage height, 0.46 ft, Aug. 11, 12, 13, 1997.

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)
Nov. 9	Unknown	a*1,430	b*4.26	No other peak greater than base discharge.			

a From rating curve extended as explained above.

b From crest-stage gage.

Minimum discharge, 0.45 ft³/s, Aug. 11, 12, 13, gage height, 0.46 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.9	18	53	e28	e12	47	70	25	14	1.4	.78	3.0
2	8.5	17	e120	e34	e12	62	64	24	14	1.7	.77	2.7
3	8.8	16	77	55	e12	51	71	41	12	2.0	.73	3.6
4	7.5	16	64	43	e12	43	115	47	10	2.0	.75	2.3
5	6.9	15	55	39	e45	42	102	34	9.1	1.4	.89	1.9
6	7.1	14	52	e35	36	68	102	35	8.2	1.3	1.1	1.7
7	6.7	14	47	e25	23	e41	81	34	7.4	1.1	.84	1.8
8	6.3	e50	44	e23	e18	e37	64	27	7.2	1.9	.64	2.3
9	26	e280	39	e21	e17	e35	52	33	6.4	2.8	.57	1.6
10	20	78	34	e20	e16	e31	43	46	5.7	4.1	.53	1.3
11	15	61	33	e19	e15	e27	39	34	5.1	2.1	.48	14
12	12	48	43	e18	e14	e25	38	29	4.7	1.5	.47	17
13	11	42	71	e17	e13	e24	47	27	7.1	1.3	3.7	7.3
14	11	36	67	e16	e13	e24	36	25	7.7	1.5	5.4	5.0
15	9.6	31	57	e15	e13	e23	30	23	5.1	6.3	2.0	3.5
16	9.4	e25	56	e14	e12	e23	27	22	4.2	20	1.5	2.6
17	9.3	e24	78	e13	e12	e22	27	22	3.8	6.5	1.3	1.9
18	8.7	29	77	e12	e14	e21	28	20	4.5	4.4	1.4	1.8
19	11	56	66	e11	e76	e21	33	26	4.8	2.4	1.2	1.6
20	99	42	e52	e10	94	e20	49	59	3.5	1.7	.89	1.6
21	77	34	e45	e10	75	e19	46	30	3.3	1.6	6.5	1.8
22	54	29	e42	e13	94	e20	37	28	2.7	3.1	7.1	1.4
23	41	27	42	e16	e54	e21	34	24	2.3	2.1	3.1	1.1
24	39	25	78	e16	e45	e23	30	23	2.1	1.5	2.1	1.1
25	31	26	69	e15	e40	e24	29	23	2.7	1.3	1.6	.99
26	26	60	e50	e15	e35	63	26	21	4.4	1.1	1.5	.88
27	25	41	47	e14	78	46	25	18	5.2	1.1	1.3	.71
28	27	e32	44	e13	59	48	42	17	2.8	1.5	4.4	.60
29	24	e29	53	e13	---	53	33	16	2.2	1.4	3.3	1.1
30	21	28	50	e13	---	54	26	15	1.7	1.0	2.3	1.7
31	20	---	35	e13	---	80	---	15	---	.85	1.9	---
TOTAL	688.7	1243	1740	619	959	1138	1446	863	173.9	83.95	61.04	89.88
MEAN	22.2	41.4	56.1	20.0	34.3	36.7	48.2	27.8	5.80	2.71	1.97	3.00
MAX	99	280	120	55	94	80	115	59	14	20	7.1	17
MIN	6.3	14	33	10	12	19	25	15	1.7	.85	.47	.60
CFM	1.37	2.56	3.46	1.23	2.11	2.27	2.98	1.72	.36	.17	.12	.18
IN.	1.58	2.85	4.00	1.42	2.20	2.61	3.32	1.98	.40	.19	.14	.21

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

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
MEAN	14.6	23.1	26.0	24.6	29.7	54.5	60.0	30.9	13.0	5.70	3.55	6.02											
MAX	67.3	48.6	59.7	74.3	86.5	126	242	76.9	36.0	31.6	12.1	42.3											
(WY)	1978	1978	1978	1979	1981	1977	1993	1984	1986	1996	1994	1977											
MIN	.36	3.62	5.79	1.77	1.25	20.8	19.9	7.19	.93	.53	.43	.26											
(WY)	1983	1983	1983	1981	1980	1989	1995	1995	1991	1993	1981	1982											

e Estimated

HUDSON RIVER BASIN

01350140 MINE KILL NEAR NORTH BLENHEIM, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1975 - 1997	
ANNUAL TOTAL	13386.9		9105.47			
ANNUAL MEAN	36.6		24.9		24.2	
HIGHEST ANNUAL MEAN					40.9	1993
LOWEST ANNUAL MEAN					12.7	1985
HIGHEST DAILY MEAN	700	Jan 19	280	Nov 9	1030	Mar 30 1993
LOWEST DAILY MEAN	1.4	Sep 3	.47	Aug 12	.10	Aug 28 1980
ANNUAL SEVEN-DAY MINIMUM	1.5	Aug 31	.66	Aug 6	.11	Aug 24 1980
ANNUAL RUNOFF (CFSM)	2.26		1.54		1.50	
ANNUAL RUNOFF (INCHES)	30.74		20.91		20.31	
10 PERCENT EXCEEDS	77		56		56	
50 PERCENT EXCEEDS	25		18		12	
90 PERCENT EXCEEDS	6.2		1.4		.98	

01350180 SCHOHARIE CREEK AT NORTH BLENHEIM, NY

LOCATION.--Lat 42°27'57", long 74°27'45", Schoharie County, Hydrologic Unit 02020005, on left bank 2,300 ft upstream from West Kill, and 1.2 mi upstream from bridge on State Highway 30 in North Blenheim.

DRAINAGE AREA.--358 mi².

PERIOD OF RECORD.--October 1970 to current year (January 20 to September 30, 1996, discharges only for days of mean flow less than or equal to 400 ft³/s). Occasional measurements, water years 1969-70.

REVISED RECORDS.--WDR NY-87-1: 1984(M). WDR NY-90-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 800 ft above sea level, from topographic map. Prior to Oct. 1, 1971, at datum 1.00 ft higher.

REMARKS.--Records poor. Regulation of flow by Blenheim-Gilboa Pumped Storage Project immediately upstream from gage. Entire flow, runoff from 315 mi², except for periods of spill, diverted from Schoharie Reservoir through Shandaken Tunnel into Esopus Creek upstream from Ashokan Reservoir for water supply of City of New York. For periods of spill see station 01350101. Since the flood of January 19, 1996, undetermined amounts of flow greater than about 400 ft³/s bypass the gage and therefore records of flows greater than 400 ft³/s are furnished by the New York Power Authority.

COOPERATION.--Records of flow greater than 400 ft³/s provided by the New York Power Authority.

AVERAGE DISCHARGE.--26 years (water years 1971-1995, 1997), 401 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 75,600 ft³/s, Jan. 19, 1996, gage height, 17.16 ft, outside gage height was 17.61 ft, from floodmark, from rating curve extended above 12,000 ft³/s on basis of computation of peak flow through radial gates at gage heights 13.34 ft, 14.72 ft, and 16.70 ft from floodmarks; minimum discharge, no flow, Oct. 12, 15, Oct. 16 to Nov. 1, Nov. 2, 1972, Sept. 12, 13, 14, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 19,400 ft³/s, Nov. 9, from New York Power Authority, gage height, 10.59 ft, outside gage height was 11.14 ft, from crest-stage gage; minimum discharge, 4.5 ft³/s, June 29, 30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	486	559	867	760	202	1120	1990	1020	152	6.4	7.5	7.2
2	182	369	7720	971	176	1400	1530	1180	195	6.8	7.7	7.8
3	181	291	4540	999	137	1550	1560	1950	197	7.0	7.2	7.8
4	120	372	2280	1130	210	1170	2920	1160	148	7.3	7.3	7.7
5	22	219	1710	895	358	937	3810	1410	110	6.9	7.1	7.8
6	9.8	242	1520	1020	587	1530	4980	1310	57	6.6	7.0	7.9
7	7.1	132	1130	822	296	1060	6120	1210	17	7.5	7.1	7.6
8	6.4	283	1110	634	270	859	3430	1060	8.1	7.3	7.2	7.6
9	24	11700	1060	493	197	734	2210	965	7.5	7.4	7.4	7.5
10	60	4610	842	683	152	877	1550	1200	7.2	7.3	7.0	6.8
11	251	3110	783	437	165	726	1260	1090	7.2	7.2	7.3	8.7
12	178	2010	907	362	175	606	1030	927	7.3	7.4	7.3	7.2
13	117	1330	1890	364	111	438	1400	815	7.7	6.9	8.1	6.5
14	115	977	2170	417	165	497	1320	790	7.8	6.7	7.9	5.9
15	103	855	1430	355	148	559	883	614	7.1	7.4	8.0	6.1
16	62	702	1520	497	212	474	847	592	6.8	8.7	8.1	6.4
17	10	645	2080	538	172	421	755	378	7.4	8.0	7.6	6.4
18	7.9	758	3590	213	148	488	866	488	11	7.9	7.4	6.3
19	65	1130	2420	208	537	400	915	653	21	7.9	6.8	6.2
20	11700	1110	1790	272	1450	417	993	1960	17	7.4	6.8	6.6
21	8050	683	1120	322	1060	412	1550	1110	9.4	7.4	7.9	5.9
22	3030	713	1180	272	2750	591	1570	971	8.9	6.1	7.4	6.3
23	2030	612	1150	322	1980	359	1620	846	7.3	5.8	7.4	6.0
24	2250	541	1410	295	1390	e500	1580	644	5.8	5.8	7.0	6.0
25	1480	597	2190	285	818	358	1460	708	5.2	5.9	7.3	6.1
26	983	937	1370	516	824	781	1100	646	7.5	6.2	7.5	6.3
27	841	1020	1130	274	1410	700	1040	670	5.5	5.8	6.8	6.6
28	933	603	1010	351	1780	857	1340	339	5.1	6.5	6.9	6.1
29	890	704	1030	327	---	926	1570	292	4.8	7.2	6.8	6.6
30	706	501	1600	245	---	1270	986	225	5.9	7.2	6.9	6.2
31	621	---	1130	247	---	e2300	---	171	---	7.2	6.7	---
TOTAL	35521.2	38315	55679	15526	17880	25317	54185	27394	1064.5	217.1	226.4	204.1
MEAN	1146	1277	1796	501	639	817	1806	884	35.5	7.00	7.30	6.80
MAX	11700	11700	7720	1130	2750	2300	6120	1960	197	8.7	8.1	8.7
MIN	6.4	132	783	208	111	358	755	171	4.8	5.8	6.7	5.9

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1997, BY WATER YEAR (WY)

MEAN	191	306	413	335	354	836	1383	711	241	56.2	11.4	19.8
MAX	1474	1511	1796	1610	1468	2532	3685	1599	1561	452	31.4	140
(WY)	1978	1978	1997	1979	1976	1979	1987	1984	1972	1973	1996	1977
MIN	.15	4.56	4.88	6.17	15.5	47.6	42.9	16.8	8.37	6.83	1.53	.25
(WY)	1973	1983	1983	1983	1987	1989	1981	1995	1991	1977	1973	1973

SUMMARY STATISTICS

FOR 1997 WATER YEAR

WATER YEARS 1971 - 1997

ANNUAL TOTAL	271529.3		
ANNUAL MEAN	744		401
HIGHEST ANNUAL MEAN			834
LOWEST ANNUAL MEAN			21.7
HIGHEST DAILY MEAN	11700	Oct 20	29900
LOWEST DAILY MEAN	4.8	Jun 29	.00
ANNUAL SEVEN-DAY MINIMUM	5.7	Jun 24	.00
10 PERCENT EXCEEDS	1570		1110
50 PERCENT EXCEEDS	362		28
90 PERCENT EXCEEDS	6.8		5.0

e Estimated

HUDSON RIVER BASIN

01350355 SCHOHARIE CREEK AT BREAKABEEN, NY

LOCATION.--Lat 42°32'13", long 74°24'39", Schoharie County, Hydrologic Unit 02020005, on left bank 100 ft downstream from bridge on State Highway 30, 0.9 mi north of Breakabeen, and 1.1 mi downstream from Keyser Kill.

DRAINAGE AREA.--444 mi².

PERIOD OF RECORD.--July 1975 to current year.

REVISED RECORDS.--WDR NY-81-1: 1980(M). WDR NY-90-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 686.79 ft above sea level (Soil Conservation Service Benchmark).

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Regulation of flow by Blenheim-Gilboa Pumped Storage Project. Entire flow, runoff from 315 mi², except for periods of spill, diverted from Schoharie Reservoir through Shandaken Tunnel into Esopus Creek upstream from Ashokan Reservoir for water supply of City of New York. For periods of spill see station 01350101.

AVERAGE DISCHARGE.--22 years, 545 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 80,200 ft³/s, Jan. 19, 1996, gage height, 20.51 ft, outside gage height was 20.96 ft, from floodmarks, from rating curve extended above 20,000 ft³/s on basis of contracted-opening and flow-over-road measurement of peak flow at gage height about 19.5 ft; minimum discharge, 1.7 ft³/s, Oct. 14, 1980; minimum gage height, 0.25 ft, Sept. 26, 1985; minimum daily discharge, 5.8 ft³/s, Sept. 13, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 23,000 ft³/s, Nov. 9, gage height, 11.56 ft; minimum, 6.3 ft³/s, Aug. 7, gage height, 1.62 ft; minimum daily discharge, 7.6 ft³/s, Aug. 7.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	602	810	1340	1190	e240	1760	2780	1360	219	17	9.8	21
2	308	642	9010	1400	e200	2030	2290	1510	269	18	8.5	24
3	219	483	5550	1540	e170	2210	2300	1600	278	19	9.0	22
4	196	632	3100	1640	e210	1720	3800	2520	218	20	8.3	20
5	73	352	2400	1320	e520	1450	4860	1860	169	19	8.7	19
6	54	367	2200	1430	e800	2320	6120	1630	114	17	7.7	18
7	45	261	1830	1190	e430	1720	6900	1560	75	16	7.6	18
8	41	400	1700	932	e300	1370	4310	1330	51	17	8.0	18
9	114	14400	1570	760	e230	1130	2920	1170	43	21	9.0	17
10	140	5810	1300	e700	e200	1260	2200	1460	39	30	9.2	16
11	306	3250	1210	e600	e180	1130	1830	1360	36	23	8.3	28
12	282	2510	1380	e540	e160	924	1520	1140	33	20	9.2	70
13	172	2000	2610	e500	e140	e680	1940	969	35	18	13	35
14	163	1540	3090	e470	e140	e660	1820	960	40	16	23	25
15	156	1310	2230	e430	e150	e640	1270	816	34	17	18	19
16	119	1100	2240	e410	e160	e600	1190	759	30	50	16	17
17	66	946	2730	e390	e170	e580	1070	618	28	32	15	15
18	51	1100	4430	e370	e180	e560	1200	626	30	24	14	15
19	83	1700	3310	e340	e520	548	1320	731	40	20	12	14
20	11700	1750	2670	e520	2040	578	1420	2230	41	17	11	14
21	8970	1160	1830	e500	1510	571	2000	1490	30	15	17	15
22	5090	1090	1720	431	3670	902	2010	1260	26	16	32	13
23	3300	947	1710	e410	e2400	583	1920	1080	24	14	22	13
24	3010	815	2060	e380	e1500	717	1920	860	21	12	17	13
25	2210	847	3040	e330	e1100	484	1820	900	22	12	15	12
26	1550	1580	2090	e330	e1000	1190	1460	841	26	10	15	12
27	1250	1640	1770	e330	e1900	1100	1310	852	35	9.8	19	12
28	1370	1010	1600	e340	2530	1300	1740	530	24	12	20	11
29	1300	e900	1610	e350	---	1430	2070	429	20	12	20	12
30	1060	824	2260	e320	---	1860	1410	347	18	11	17	14
31	891	---	1710	e280	---	2960	---	263	---	10	17	---
TOTAL	44891	52176	77300	20673	22750	36967	70720	35061	2068	564.8	436.3	572
MEAN	1448	1739	2494	667	813	1192	2387	1131	68.9	18.2	14.1	19.1
MAX	11700	14400	9010	1640	3670	2960	6900	2520	278	50	32	70
MIN	41	261	1210	280	140	484	1070	263	18	9.8	7.6	11

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

	MEAN	337	500	484	514	480	1146	1752	884	279	100	28.7	50.1
MAX	1973	1909	2494	3311	1698	3354	4522	2206	1255	1145	91.8	341	
(WY)	1978	1978	1997	1996	1976	1979	1987	1996	1982	1996	1996	1977	
MIN	10.8	20.9	31.7	18.8	59.1	164	141	63.6	18.6	14.0	9.83	9.69	
(WY)	1983	1983	1983	1981	1992	1989	1981	1995	1991	1993	1980	1982	

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1975 - 1997	
ANNUAL TOTAL	522667		364179.1		545	
ANNUAL MEAN	1428		998		1152	
HIGHEST ANNUAL MEAN					89.9	
LOWEST ANNUAL MEAN					1996	
HIGHEST DAILY MEAN	31600	Jan 19	14400	Nov 9	31600	Jan 19 1996
LOWEST DAILY MEAN	20	Sep 12	7.6	Aug 7	5.8	Sep 13 1980
ANNUAL SEVEN-DAY MINIMUM	22	Sep 7	8.3	Aug 2	6.3	Sep 11 1980
10 PERCENT EXCEEDS	3090		2250		1460	
50 PERCENT EXCEEDS	700		500		93	
90 PERCENT EXCEEDS	41		15		15	

e Estimated

HUDSON RIVER BASIN

89

01351450 SCHOHARIE CREEK AT ESPERANCE, NY

LOCATION.--Lat 42°45'39", long 74°15'21", Schoharie County, Hydrologic Unit 02020005, just downstream from bridge on U.S. Highway 20 at Esperance.

DRAINAGE AREA.--875 mi².

PERIOD OF RECORD.--Water years 1993 to current year.

CHEMICAL DATA: 1993 (c), 1994 (d), 1995 (c), 1996 (b).

MINOR ELEMENTS DATA: 1993 (a).

PESTICIDE DATA: 1993-94, 1996-97 (a).

ORGANIC DATA: OC--1993 (c), 1994 (d), 1995 (c), 1996 (b).

PCB--1993 (a).

PCN--1993 (a).

NUTRIENT DATA: 1993 (c), 1994 (d), 1995 (c), 1996 (b).

BIOLOGICAL DATA:

Bacteria--1993 (a).

Phytoplankton--1993 (a).

SEDIMENT DATA: 1993 (b), 1994 (d), 1995 (c), 1996 (b).

REMARKS.--Water-discharge data based on records obtained for Schoharie Creek at Burtonsville (station 01351500). A complete list of compounds included when pesticides analysis was performed on samples follows the Introduction to the Hudson NAWQA section near the end of this report. Only those compounds detected at or above the method detection limit (MDL) were included in the tables.

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

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRA- ZINE, WATER, DISS, REC, (UG/L) (39632)	DEETHYL ATRA- ZINE, WATER, DISS, REC, (UG/L) (04040)	METHO- LACHLOR WATER DISSOLV (UG/L) (39415)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)
JUN 11...	1010	138	E0.004	0.019	E0.005	0.018	0.005

E Estimate.

HUDSON RIVER BASIN

01351500 SCHOHARIE CREEK AT BURTONSVILLE, NY

LOCATION.--Lat 42°48'00", long 74°15'48", Schenectady County, Hydrologic Unit 02020005, on right bank 0.4 mi south of Burtonsville, 2.7 mi north of Esperance, and 14.9 mi upstream from mouth.

DRAINAGE AREA.--886 mi².

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

REVISED RECORDS.--WDR NY-82-1: 1981(average discharge). WDR NY-90-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 507.98 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Regulation of flow by Blenheim-Gilboa Pumped Storage Project. Entire flow, runoff from 315 mi², except for periods of spill, diverted from Schoharie Reservoir through Shandaken Tunnel into Esopus Creek upstream from Ashokan Reservoir for water supply of City of New York. For periods of spill see station 01350101. Telephone gage-height telemeter at station.

AVERAGE DISCHARGE.--58 years, 1,035 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 81,600 ft³/s, Jan. 20, 1996, gage height, 12.88 ft; minimum, 2.4 ft³/s, Sept. 24, 25, 1964, gage height, 0.30 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of March 1936 and September 1938 reached stages of 10.5 and 10.2 ft, respectively, from information provided by local resident. However, flood of October 1903 is known to have reached a higher stage than the 1936 or 1938 flood.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 35,100 ft³/s, Nov. 9, gage height, 7.85 ft; minimum, 20 ft³/s, Aug. 11, 12, 13, gage height, 0.60 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	963	1300	2580	2270	e650	3200	5650	2060	554	74	30	75
2	692	1080	16800	2160	e590	3250	4620	2090	573	65	28	75
3	393	940	12200	2820	e540	3760	4730	2350	577	61	27	69
4	384	861	5810	3250	531	2880	8620	4130	494	69	27	60
5	310	878	4230	2650	1650	2530	10800	3150	385	81	29	51
6	205	708	3700	2900	e2500	4690	10800	2540	320	69	28	46
7	180	694	3330	2300	1760	3660	11500	2760	253	61	25	44
8	164	642	3070	1720	1130	2470	7730	2260	211	55	24	44
9	357	25600	2780	1500	945	1970	4910	1920	177	58	23	51
10	536	14100	2410	e1400	734	2070	3600	2220	158	67	21	46
11	477	6340	2130	e1250	e600	2140	2980	2200	139	76	22	52
12	622	4530	2730	e1100	624	1670	2570	1660	126	70	21	237
13	425	3400	5710	e950	565	1360	2900	1540	118	58	27	275
14	365	2890	8180	e900	e560	1180	2840	1430	114	49	59	173
15	340	2300	5150	e850	e580	1390	2120	1300	113	47	70	131
16	314	1890	4590	e820	e560	1330	1910	1160	104	140	55	109
17	264	1520	4870	e780	e570	1110	1710	1180	100	189	47	91
18	207	1530	7740	e740	e560	1190	1700	1000	98	129	40	84
19	189	3010	6040	721	e2100	1100	2380	1010	102	94	34	74
20	10400	3380	4710	e750	5100	1130	3010	2730	111	73	32	69
21	15800	2440	3490	e900	3410	1070	3880	2550	116	62	39	62
22	8720	1870	2870	e1050	6960	1930	3520	1790	101	60	74	58
23	4960	1670	2730	e1150	5450	1580	3190	1570	82	57	91	55
24	4310	1470	3400	e1000	3400	1190	3020	1410	73	51	77	50
25	3270	1330	5960	e920	2260	1000	2770	1220	192	45	59	46
26	2480	2470	3740	e900	1820	2300	2420	1240	226	41	55	45
27	1980	3220	3060	e870	4160	2540	1960	1130	151	38	64	42
28	1710	2070	2720	e820	5050	2700	2740	1050	131	36	74	40
29	1830	1690	3190	e780	---	3070	3440	859	106	34	126	44
30	1670	1600	4330	e740	---	3650	2630	754	87	32	105	45
31	1510	---	3090	e700	---	4980	---	594	---	31	87	---
TOTAL	66027	97423	147340	41661	55359	70090	126650	54857	6092	2072	1520	2343
MEAN	2130	3247	4753	1344	1977	2261	4222	1770	203	66.8	49.0	78.1
MAX	15800	25600	16800	3250	6960	4980	11500	4130	577	189	126	275
MIN	164	642	2130	700	531	1000	1700	594	73	31	21	40

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

	MEAN	434	782	1019	985	1055	2337	3129	1581	618	229	114	153
	MAX	5181	3414	4753	5089	4069	6627	8446	4045	3384	2312	1159	2330
	(WY)	1956	1978	1997	1996	1976	1979	1993	1984	1972	1996	1955	1960
	MIN	4.07	40.3	68.5	71.3	108	525	356	140	48.8	19.4	8.26	4.90
	(WY)	1965	1942	1965	1981	1940	1981	1946	1941	1964	1959	1965	1964

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1940 - 1997
ANNUAL TOTAL	925005	671434	
ANNUAL MEAN	2527	1840	1035
HIGHEST ANNUAL MEAN			2014
LOWEST ANNUAL MEAN			320
HIGHEST DAILY MEAN	48800	Jan 20	54100
LOWEST DAILY MEAN	65	Sep 7	2.4
ANNUAL SEVEN-DAY MINIMUM	71	Sep 4	2.6
10 PERCENT EXCEEDS	5840		2690
50 PERCENT EXCEEDS	1200		315
90 PERCENT EXCEEDS	181		31

e Estimated

HUDSON RIVER BASIN

91

01356190 LISHA KILL NORTHWEST OF NISKAYUNA, NY

LOCATION.--Lat 42°47'00", long 73°51'27", Schenectady County, Hydrologic Unit 02020004, on left bank 20 ft downstream from culvert on U.S. Route 7, 1.0 mi upstream from mouth, and 5.6 mi east of Schenectady. Water-quality sampling site at discharge station.

DRAINAGE AREA.--15.6 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1993 to September 1997 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 250 ft above sea level, from topographic map.

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

AVERAGE DISCHARGE.--4 years, 16.4 ft³/s, 14.29 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 662 ft³/s, Jan. 19, 1996; maximum gage height, 6.36 ft, Jan. 19, 1996 (ice jam); minimum discharge, 0.17 ft³/s, Aug. 28, 31, 1995, gage height, 0.05 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 230 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 2	0915	*266	*3.22	No other peak greater than base discharge.			

Minimum discharge, 0.43 ft³/s, Aug. 1, 2, gage height, 0.12 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.1	7.3	39	29	36	24	95	20	7.3	1.5	.62	6.2
2	7.1	6.7	163	25	e25	29	96	17	7.3	1.4	.56	2.5
3	6.2	6.2	49	26	e20	25	77	37	6.5	1.5	.68	2.3
4	5.5	5.9	30	34	e17	20	60	43	5.8	1.7	2.5	1.7
5	4.9	5.8	26	27	119	20	40	24	5.3	1.5	6.3	1.6
6	4.6	5.7	32	26	93	81	35	25	4.9	1.2	3.0	1.5
7	4.4	5.9	38	e15	54	35	30	23	4.7	1.1	1.2	2.2
8	5.5	11	e36	e13	e30	22	24	17	4.5	1.6	1.0	1.4
9	19	104	e30	e11	e20	23	21	23	4.2	8.7	.78	1.3
10	15	32	27	e10	e10	e21	19	29	3.9	5.2	.66	1.2
11	13	19	25	e9.0	e10	e19	18	19	3.8	2.4	.85	12
12	8.1	14	53	e9.0	e10	e17	20	16	3.5	1.7	2.4	42
13	6.8	12	66	e10	e9.0	e16	38	15	4.3	1.3	22	9.9
14	6.4	11	83	e10	e10	e15	23	14	3.5	1.2	16	4.9
15	5.9	9.9	62	e11	e12	e14	18	13	3.0	5.5	3.6	3.2
16	5.4	9.0	41	e15	e11	17	16	12	2.7	8.3	2.9	2.7
17	4.9	8.8	35	e11	e13	e15	16	12	3.3	3.8	2.3	2.3
18	4.6	9.6	30	e10	e25	e15	48	11	3.9	6.2	1.6	7.1
19	4.4	25	e28	e10	e35	e14	91	17	4.1	2.0	1.3	2.8
20	40	21	e24	e10	e100	e15	48	42	3.0	1.5	1.2	3.3
21	23	14	e21	e15	e60	19	30	18	2.8	1.3	24	3.2
22	17	12	19	e19	e40	38	25	14	2.3	2.2	11	2.2
23	13	11	19	33	e30	24	21	11	2.1	1.3	4.2	2.0
24	13	9.8	25	e15	21	17	19	10	2.2	1.2	2.8	1.7
25	10	9.9	30	e12	19	15	17	10	3.0	.96	2.2	1.6
26	8.9	42	19	e11	19	32	16	9.8	2.7	.94	1.8	1.6
27	8.2	31	17	e13	67	27	15	8.6	2.5	1.7	2.2	1.5
28	8.1	19	17	e15	42	27	62	8.0	2.0	3.0	5.2	1.3
29	7.7	15	31	e11	---	32	38	7.5	1.9	1.1	3.1	22
30	7.3	14	e25	e13	---	33	24	7.9	1.7	.98	3.7	7.3
31	8.4	---	e17	e20	---	83	---	8.0	---	.71	2.6	---
TOTAL	305.4	507.5	1157	498.0	957.0	804	1100	541.8	112.7	74.69	134.25	156.5
MEAN	9.85	16.9	37.3	16.1	34.2	25.9	36.7	17.5	3.76	2.41	4.33	5.22
MAX	40	104	163	34	119	83	96	43	7.3	8.7	24	42
MIN	4.4	5.7	17	9.0	9.0	14	15	7.5	1.7	.71	.56	1.2
CFSM	.63	1.08	2.39	1.03	2.19	1.66	2.35	1.12	.24	.15	.28	.33
IN.	.73	1.21	2.76	1.19	2.28	1.92	2.62	1.29	.27	.18	.32	.37

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1997, BY WATER YEAR (WY)

	1993	1994	1995	1996	1997
MEAN	9.44	14.7	18.7	22.8	19.6
MAX	21.0	22.9	37.3	44.1	34.2
(WY)	1996	1996	1997	1996	1997
MIN	3.05	4.05	8.96	13.8	7.03
(WY)	1995	1995	1995	1994	1995

e Estimated

HUDSON RIVER BASIN

01356190 LISHA KILL NORTHWEST OF NISKAYUNA, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1993 - 1997	
ANNUAL TOTAL	8796.4		6348.84			
ANNUAL MEAN	24.0		17.4		16.4	
HIGHEST ANNUAL MEAN					23.1 1996	
LOWEST ANNUAL MEAN					7.74 1995	
HIGHEST DAILY MEAN	350	Jan 19	163	Dec 2	350	Jan 19 1996
LOWEST DAILY MEAN	1.8	Sep 3	.56	Aug 2	.17	Aug 28 1995
ANNUAL SEVEN-DAY MINIMUM	2.1	Sep 1	1.0	Jul 29	.18	Aug 24 1995
ANNUAL RUNOFF (CFSM)	1.54		1.12		1.05	
ANNUAL RUNOFF (INCHES)	20.98		15.14		14.29	
10 PERCENT EXCEEDS	51		38		37	
50 PERCENT EXCEEDS	14		11		8.4	
90 PERCENT EXCEEDS	5.2		1.6		1.6	

01356190 LISHA KILL NORTHWEST OF NISKAYUNA, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1993 to September 1997 (discontinued).

CHEMICAL DATA: 1993 (c), 1994-95 (e).

MINOR ELEMENTS DATA: 1993 (a).

PESTICIDE DATA: 1993 (a), 1994 (d), 1995 (e).

ORGANIC DATA: OC--1993 (c), 1994-95 (e).

PCB--1993 (a).

PCN--1993 (a).

NUTRIENT DATA: 1993 (c), 1994-95 (e).

BIOLOGICAL DATA:

Bacteria--1993 (a).

Phytoplankton--1993 (a).

SEDIMENT DATA: 1993 (c), 1994-95 (e).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: August 1993 to September 1997 (discontinued).

INSTRUMENTATION.--Water-temperature recorder provides 15-minute-interval readings.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded (water years 1994-97), 28.5°C, July 14, 15, Aug. 1, 1995; minimum (water years 1994-97), 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 28.0°C, July 15; minimum, 0.0°C on many days during winter period.

NOTE.--Eastern Standard Time in effect the entire water year.

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

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

HUDSON RIVER BASIN

01356190 LISHA KILL NORTHWEST OF NISKAYUNA, NY--Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	.0	.0	.0	2.5	1.0	1.5	4.5	.0	2.0	15.0	12.5	13.5
2	.0	.0	.0	4.0	2.5	3.0	7.5	1.0	4.0	14.5	10.0	12.5
3	.0	.0	.0	2.5	1.5	2.0	9.0	2.5	5.5	12.5	9.5	10.5
4	.0	.0	.0	2.5	1.0	2.0	11.0	6.5	8.5	12.0	9.0	10.5
5	.0	.0	.0	4.0	2.0	3.0	11.0	6.5	9.0	13.5	8.5	11.5
6	.0	.0	.0	3.5	1.5	2.5	11.5	8.5	10.0	14.5	11.0	12.5
7	.0	.0	.0	2.5	.0	1.5	13.0	10.0	11.5	11.0	8.5	9.5
8	.0	.0	.0	1.0	.0	.0	10.5	6.5	8.0	13.0	7.5	10.5
9	.0	.0	.0	1.0	.0	.5	6.5	3.5	5.0	14.0	11.5	12.5
10	.0	.0	.0	3.0	.0	1.5	6.0	2.0	4.5	13.0	9.5	11.0
11	.0	.0	.0	2.5	1.0	2.0	7.5	3.5	5.5	14.0	8.5	11.5
12	.0	.0	.0	2.5	.0	1.5	7.5	6.0	7.0	15.5	12.0	13.5
13	.0	.0	.0	1.5	.0	.5	8.5	6.5	7.5	14.0	12.0	13.0
14	.0	.0	.0	.5	.0	.0	9.5	6.0	8.0	14.0	10.5	12.5
15	.0	.0	.0	1.5	.0	.5	9.5	5.5	8.0	16.0	12.5	14.0
16	.0	.0	.0	1.0	.0	.5	11.0	7.0	9.0	14.5	11.5	13.0
17	.0	.0	.0	1.5	.0	.5	10.5	8.5	9.5	11.5	9.5	10.5
18	.0	.0	.0	4.5	1.0	2.5	8.5	3.0	6.0	14.0	8.5	11.5
19	.0	.0	.0	3.5	.5	2.5	5.5	2.5	3.5	13.5	13.0	13.5
20	.0	.0	.0	3.0	1.5	2.5	10.0	4.0	7.0	14.5	12.5	13.5
21	.0	.0	.0	3.5	1.0	2.5	11.0	7.0	9.0	14.0	11.0	12.5
22	3.0	.0	1.5	3.5	.5	2.0	12.0	8.0	10.5	13.0	11.0	12.0
23	1.5	.0	.5	2.0	.0	1.0	13.0	9.5	11.5	16.0	10.5	13.5
24	1.5	.0	1.0	3.0	.0	1.5	12.0	10.5	11.5	17.5	13.0	15.0
25	.0	.0	.0	2.0	1.0	1.5	12.0	9.5	11.0	16.0	15.0	15.5
26	1.0	.0	.5	4.0	2.0	3.0	13.0	10.0	11.5	17.0	13.0	15.0
27	2.0	1.0	1.5	7.0	2.0	4.5	13.5	9.5	12.0	16.5	12.0	14.5
28	3.0	1.0	2.0	8.5	3.5	6.5	12.0	8.5	10.0	18.0	12.0	15.5
29	---	---	---	9.0	7.0	8.0	14.5	8.0	11.0	18.5	14.0	16.5
30	---	---	---	10.0	7.0	8.5	16.0	11.0	14.0	16.5	14.5	15.5
31	---	---	---	9.5	.0	4.5	---	---	---	18.0	14.5	16.0
MONTH	3.0	.0	.0	10.0	.0	2.5	16.0	.0	8.5	18.5	7.5	13.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	17.5	16.0	17.0	26.5	19.5	22.5	26.0	17.5	21.0	21.0	20.0	20.5
2	16.5	15.0	16.0	24.5	21.5	22.5	25.5	19.0	22.0	22.5	19.0	20.5
3	18.0	14.0	16.0	25.5	21.0	22.5	24.0	19.5	21.5	21.0	16.5	19.0
4	19.0	14.5	17.0	21.5	18.5	20.5	23.0	18.5	20.5	18.5	14.5	16.0
5	19.5	15.0	17.5	24.0	17.5	20.0	21.5	18.5	19.5	19.5	13.5	16.0
6	19.5	16.0	18.0	24.5	16.0	19.5	21.5	17.0	19.0	17.0	14.0	15.5
7	18.5	17.0	17.5	24.0	17.5	20.0	22.5	15.5	18.5	19.5	15.5	17.0
8	20.5	16.0	18.0	23.5	17.5	20.0	23.0	15.5	19.0	20.5	16.5	17.5
9	21.0	16.0	19.0	21.0	19.5	20.0	25.5	17.5	21.0	20.5	15.0	17.0
10	22.5	18.0	20.0	21.5	18.0	19.5	26.5	18.0	21.5	18.5	14.5	16.5
11	24.0	19.0	21.5	23.5	17.0	20.0	25.5	20.0	22.0	18.5	17.0	17.5
12	24.0	20.0	21.5	25.0	18.0	21.0	24.0	19.5	21.0	20.0	18.0	19.0
13	22.5	20.5	21.0	26.0	19.0	22.0	21.5	20.0	20.5	19.0	18.0	18.5
14	22.5	18.0	20.0	27.5	20.5	23.5	21.5	19.5	20.5	20.0	18.0	19.0
15	21.0	15.5	18.0	28.0	22.0	24.5	20.0	18.0	19.5	20.0	17.0	18.5
16	22.0	17.0	19.0	26.0	23.5	24.5	24.0	19.5	21.5	20.0	17.0	18.5
17	18.0	17.0	17.5	26.0	22.0	24.0	24.0	21.0	22.5	18.5	15.0	17.0
18	18.5	17.5	17.5	25.5	22.0	23.5	23.5	18.0	20.5	---	---	---
19	22.0	17.5	19.5	22.5	18.0	20.5	22.5	16.0	19.0	---	---	---
20	21.0	18.0	19.5	22.5	16.5	19.0	21.0	16.0	18.0	---	---	---
21	24.5	19.5	22.0	19.0	18.0	18.5	18.0	16.5	17.0	---	---	---
22	25.5	21.0	23.0	22.5	17.0	19.5	18.5	16.5	17.5	---	---	---
23	24.0	19.5	21.5	23.5	17.0	20.0	19.0	17.0	18.0	---	---	---
24	20.5	19.0	19.5	20.0	17.5	19.0	20.0	16.5	18.0	---	---	---
25	23.0	19.0	21.5	24.0	15.5	19.0	21.0	17.0	18.5	---	---	---
26	23.5	20.5	22.0	25.0	16.0	20.0	21.5	17.0	19.0	---	---	---
27	24.0	19.0	21.0	25.5	18.5	21.0	21.0	18.0	19.5	---	---	---
28	25.0	18.0	21.0	23.5	21.0	22.0	21.5	19.0	20.0	---	---	---
29	25.5	19.0	22.0	24.5	18.0	20.5	21.5	19.0	20.0	---	---	---
30	26.5	19.5	22.5	23.5	15.5	19.0	21.5	18.5	20.0	---	---	---
31	---	---	---	26.5	16.5	20.5	21.0	18.0	19.5	---	---	---
MONTH	26.5	14.0	19.5	28.0	15.5	21.0	26.5	15.5	20.0	---	---	---

HUDSON RIVER BASIN

95

01357500 MOHAWK RIVER AT COHOES, NY
(National water-quality assessment program station)

LOCATION.--Lat 42°47'07", long 73°42'29", Albany County, Hydrologic Unit 02020004, on right bank at Niagara Mohawk Power Corp. School Street powerplant in Cohoes, and 2.0 mi upstream from mouth. Water-quality sampling site at bridge on State Highway 32, 0.75 mi below gage.

DRAINAGE AREA.--3,450 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1917 to current year. Prior to July 17, 1925, published as "at Crescent Dam".

REVISED RECORDS.--WSP 1302: 1919-23 (M). WDR NY-90-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 49.13 ft above sea level. Dec. 1, 1917, to July 16, 1925, water-stage recorder at site 1.7 mi upstream at Crescent Dam at datum 130.87 ft higher. July 17 to Oct. 19, 1925, powerplant gage at present site.

REMARKS.--Records fair except those below 1,000 ft³/s and those for estimated daily discharges, which are poor. Total flow of Mohawk river equals flow published at Cohoes which includes small diversion for Cohoes water supply, plus flow diverted at Crescent Dam to Barge Canal through Lock 6 (see 01357499 Diversion from Mohawk River at Crescent Dam). Prior to 1926 records published as total flow. See Diversions in Hudson River Basin for regulation and diversions upstream from this station. Telephone gage-height telemeter at station.

COOPERATION.--Diversions through Barge Canal at Lock 6 provided by New York State Department of Transportation.

AVERAGE DISCHARGE.--7 years (water years 1919-25), 5,820 ft³/s, includes diversion at Lock 6; 72 years (water years 1926-97), 5,680 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 143,000 ft³/s, Mar. 6, 1964, result of release from ice jam, gage height, 23.15 ft, from rating curve extended above 110,000 ft³/s; minimum discharge (water years 1918-90), 6 ft³/s, Sept. 18, 1941, gage height, 3.40 ft; minimum daily discharge, 23 ft³/s, Aug. 24, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--An extreme flood occurred sometime from 1860-65 with a depth of 12 ft on the Cohoes dam and a peak discharge estimated to be at least 200,000 ft³/s (from New York State Museum Bulletin 85).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 41,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 10	0545	*79,700	*19.95	Dec. 3	0200	70,600	19.34

Minimum discharge not determined; minimum gage height, 4.72 ft, Sept. 30; minimum daily discharge, 550 ft³/s, July 29.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4940	4970	6580	8050	3810	19000	25400	12200	2470	1230	604	1610
2	2940	4310	39600	6220	3620	16800	21400	9940	4900	1130	858	823
3	3250	3920	53900	7200	3730	20300	19300	10800	4060	863	715	1260
4	2240	2770	31500	9010	3620	16100	21600	16700	2670	1030	673	895
5	1460	2090	21800	10000	4230	13200	26500	15400	2560	1340	855	832
6	2510	3240	16200	12500	5870	17800	24100	9680	2270	1260	787	883
7	2150	3300	12900	12000	7110	19300	25900	10200	2460	1220	832	692
8	1740	3420	11500	7740	6110	13400	24100	10100	1590	1110	680	925
9	2820	50600	10800	7040	4810	11100	17500	7510	1600	1140	655	808
10	2570	63600	9550	6790	4360	9680	12900	9290	2710	1680	629	1030
11	3310	26000	7970	6180	3830	9470	10200	9160	1000	2720	630	770
12	3240	16200	7700	e4600	3370	8960	9240	7000	1760	1420	848	1840
13	2910	12000	12300	e4800	3300	7950	9430	6670	1620	1220	833	1060
14	2830	10700	27700	5100	2910	6850	10400	6340	1470	1290	726	1470
15	1580	8450	22800	4360	3160	6030	9910	6130	1490	1310	748	1020
16	1720	7220	18100	4060	3310	6530	8630	5240	1410	1090	1260	1240
17	1830	7080	17300	3220	3410	6000	7920	4390	1590	2460	1190	910
18	2730	6950	18200	2820	3140	5900	8020	4070	1500	1600	972	1030
19	2070	7850	17400	2440	3750	5740	9800	4310	2250	1690	981	775
20	6280	13300	14300	3090	7280	5820	11800	7240	1620	1690	893	1250
21	22700	11300	11400	3060	12800	5710	12100	9070	1740	715	1200	911
22	15000	10400	9310	3230	20700	6220	10300	5690	1950	1230	1240	839
23	9410	7330	8650	4290	28700	8530	9010	4480	1190	1090	1450	976
24	7820	6660	8160	4360	18300	6980	6850	4650	1340	1130	1150	951
25	6530	6030	16300	4980	13400	5560	4080	3840	970	1020	1240	864
26	4850	9680	16700	5070	10100	6720	3370	3800	1690	881	1070	806
27	4700	13300	13400	5000	12100	12600	5430	2930	1460	954	808	670
28	3900	11300	11000	3820	25600	15600	7400	3760	1360	1180	800	832
29	3180	7710	9870	3420	---	17900	18500	3230	1390	550	1500	1470
30	4110	6400	12400	3860	---	21100	16700	2260	872	965	1730	1230
31	4740	---	11200	3520	---	21800	---	2860	---	882	1220	---
TOTAL	142060	348080	506490	171830	226430	354650	407790	218940	56962	39090	29777	30672
MEAN	4583	11600	16340	5543	8087	11440	13590	7063	1899	1261	961	1022
MAX	22700	63600	53900	12500	28700	21800	26500	16700	4900	2720	1730	1840
MIN	1460	2090	6580	2440	2910	5560	3370	2260	872	550	604	670

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

	3384	5551	6394	5626	5708	11070	13880	6851	3455	2337	1711	2275
MEAN	3384	5551	6394	5626	5708	11070	13880	6851	3455	2337	1711	2275
MAX	13950	14090	16340	13460	15810	28580	32280	17320	14290	8779	4089	9345
(WY)	1978	1928	1997	1937	1976	1936	1993	1943	1972	1935	1986	1938
MIN	731	842	1841	1017	1314	3723	3530	1835	1121	671	605	740
(WY)	1965	1931	1931	1931	1931	1940	1995	1995	1941	1941	1941	1995

e Estimated

HUDSON RIVER BASIN

01357500 MOHAWK RIVER AT COHOES, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1926 - 1997	
ANNUAL TOTAL	2953936		2532771		5680	
ANNUAL MEAN	8071		6939		8270	1972
HIGHEST ANNUAL MEAN					3017	1965
LOWEST ANNUAL MEAN					112000	Mar 19 1936
HIGHEST DAILY MEAN	92600	Jan 20	63600	Nov 10	23	Aug 24 1941
LOWEST DAILY MEAN	756	Sep 6	550	Jul 29	458	Aug 24 1995
ANNUAL SEVEN-DAY MINIMUM	1160	Sep 2	714	Aug 8	13100	
10 PERCENT EXCEEDS	17300		16700		3330	
50 PERCENT EXCEEDS	5090		4230		1140	
90 PERCENT EXCEEDS	1670		894			

HUDSON RIVER BASIN

97

01357500 MOHAWK RIVER AT COHOES, NY--Continued

(01357499) Diversion, in cubic feet per second, from Mohawk River at Crescent Dam through Barge Canal at lock 6

REVISED RECORDS.--WDR NY-96-1: 1995.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	103	85	3.0	3.0	3.0	3.0	3.0	91	127	133	115	169
2	115	73	3.0	3.0	3.0	3.0	3.0	79	109	151	145	139
3	115	73	3.0	3.0	3.0	3.0	3.0	79	97	121	145	145
4	115	85	3.0	3.0	3.0	3.0	3.0	103	127	145	133	103
5	103	79	3.0	3.0	3.0	3.0	3.0	121	139	175	151	127
6	121	97	3.0	3.0	3.0	3.0	3.0	127	127	151	121	133
7	139	85	3.0	3.0	3.0	3.0	3.0	103	115	139	133	145
8	103	73	3.0	3.0	3.0	3.0	3.0	85	127	127	145	109
9	103	73	3.0	3.0	3.0	3.0	3.0	97	115	121	151	127
10	109	73	3.0	3.0	3.0	3.0	3.0	97	115	139	169	109
11	97	73	3.0	3.0	3.0	3.0	3.0	103	151	145	109	103
12	121	85	3.0	3.0	3.0	3.0	3.0	91	127	133	115	109
13	127	79	3.0	3.0	3.0	3.0	3.0	121	115	127	109	139
14	97	85	3.0	3.0	3.0	3.0	3.0	115	127	145	133	133
15	121	91	3.0	3.0	3.0	3.0	3.0	109	139	121	151	109
16	97	73	3.0	3.0	3.0	3.0	79	103	127	139	139	109
17	103	73	3.0	3.0	3.0	3.0	73	115	139	145	169	103
18	85	73	3.0	3.0	3.0	3.0	79	133	157	133	115	115
19	103	85	3.0	3.0	3.0	3.0	73	115	115	133	139	139
20	109	73	3.0	3.0	3.0	3.0	73	127	127	151	109	121
21	85	73	3.0	3.0	3.0	3.0	73	103	127	121	127	133
22	85	79	3.0	3.0	3.0	3.0	85	121	127	133	139	103
23	91	73	3.0	3.0	3.0	3.0	79	151	121	115	127	121
24	91	73	3.0	3.0	3.0	3.0	73	121	127	127	139	127
25	97	73	3.0	3.0	3.0	3.0	73	109	121	139	133	115
26	91	73	3.0	3.0	3.0	3.0	73	139	145	139	115	127
27	91	79	3.0	3.0	3.0	3.0	73	121	139	139	115	127
28	79	73	3.0	3.0	3.0	3.0	79	103	145	121	121	139
29	85	73	3.0	3.0	---	3.0	73	109	115	109	151	103
30	91	73	3.0	3.0	---	3.0	79	91	127	121	139	109
31	85	---	3.0	3.0	---	3.0	---	121	---	133	157	---
TOTAL	3157	2328	93.0	93.0	84.0	93.0	1182.0	3403	3816	4171	4159	3690
MEAN	102	77.6	3.00	3.00	3.00	3.00	39.4	110	127	135	134	123
MAX	139	97	3.0	3.0	3.0	3.0	85	151	157	175	169	169
MIN	79	73	3.0	3.0	3.0	3.0	3.0	79	97	109	109	103

CAL YR 1996 TOTAL 25696.0 MEAN 70.2 MAX 169 MIN 3.0
WTR YR 1997 TOTAL 26269.0 MEAN 72.0 MAX 175 MIN 3.0

01357500 MOHAWK RIVER AT COHOES, NY

REGULATION
(see Reservoirs in Hudson River Basin)

Delta Dam.
Hinckley Reservoir.
Schoharie Reservoir.

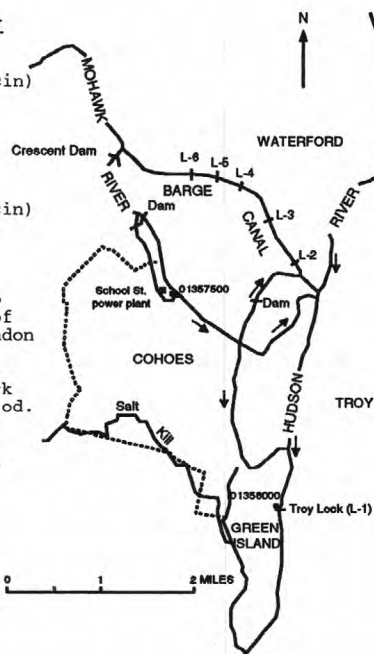
DIVERSIONS
(see Reservoirs in Hudson River Basin)

From Chenango River basin through
Oriskany Creek Feeder.

From (and occasionally into) Oswego
River basin through summit level of
Erie (Barge) Canal between New London
and Utica.

From Black River basin through Black
River Canal during navigation period.

Into Esopus Creek from Schoharie
Reservoir through Shandaken Tunnel
for New York City water supply.



01358000 HUDSON RIVER AT GREEN ISLAND, NY

REGULATION

Great Sacandaga Lake at Conklingville
(see station 01323500)
Indian Lake near Indian Lake (see
station 01314500).
Mohawk River regulation listed
under Mohawk River at Cohoes.

DIVERSIONS

Mohawk River diversions listed
under Mohawk River at Cohoes.

Into St. Lawrence River basin through:
Glens Falls feeder at Dunham Basin.
Bond Creek at Dunham Basin.
Champlain (Barge) Canal.

From St. Lawrence River basin through
summit level of Champlain (Barge)
Canal at Dunham Basin.

Figure 9.--Gaging stations and diversions near mouth of Mohawk River.

HUDSON RIVER BASIN

01357500 MOHAWK RIVER AT COHOES, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1954-59, 1970, 1976-79, June 1988 to current year.

CHEMICAL DATA: 1955, 1957 (a), 1958-59 (b), 1970 (a), 1977 (c), 1978-79 (d), 1988 (a), 1989 (c), 1990 (d), 1991 (c), 1992 (a), 1993 (c), 1994 (d), 1995 (e), 1996 (d), 1997 (e).

MINOR ELEMENTS DATA: 1958-59 (b), 1976 (a), 1977 (c), 1978 (d), 1979 (e), 1988 (a), 1989 (c), 1990 (d), 1991 (c), 1992 (a).

PESTICIDE DATA: 1976 (a), 1977 (c), 1979 (d), 1993 (a), 1994 (d), 1995 (e), 1996 (d), 1997 (e).

ORGANIC DATA: OC--1976 (a), 1977 (c), 1978-79 (d), 1993 (c), 1994 (d), 1995 (e), 1996-97 (d).

PCB--1976 (a), 1977 (c), 1979 (d), 1993 (a).

PCN--1976 (a), 1979 (d), 1993 (a).

NUTRIENT DATA: 1955, 1957 (a), 1958-59 (b), 1970, 1976 (a), 1977 (c), 1978-79 (d), 1993 (c), 1994 (d), 1995 (e), 1996-97 (d).

BIOLOGICAL DATA:

Bacteria--1977 (c), 1978-79 (d), 1993 (a).

Phytoplankton--1979 (d), 1993 (a).

SEDIMENT DATA: 1954-58, 1976-79 (e), 1988 (a), 1989 (c), 1990 (d), 1991 (c), 1992 (a), 1993 (c), 1994 (d), 1995 (e), 1996 (d), 1997 (e).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: May 1956 to June 1959.

SUSPENDED-SEDIMENT DISCHARGE: January 1954 to June 1959, August 1976 to September 1979.

REMARKS.--A complete list of compounds included when pesticides analysis was performed on samples follows the Introduction to the Hudson NAWQA section near the end of this report. Only those compounds detected at or above the method detection limit (MDL) were included in the tables.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE (water years 1956-59): Maximum daily, 28.0°C, July 21, 1957; minimum daily, 0.0°C on many days during winter periods.

SUSPENDED-SEDIMENT CONCENTRATION (water years 1954-59, 1976-79): Maximum daily mean, 1,230 mg/L, Oct. 17, 1955; minimum daily mean, 1 mg/L, Jan. 6, 1956, Jan. 6, 7, Feb. 21, 22, 25, 1977.

SUSPENDED-SEDIMENT DISCHARGE (water years 1954-59, 1976-79): Maximum daily, 300,000 tons, Oct. 17, 1955; minimum daily, 0.8 ton, Aug. 7, 1955.

NOTE.--The following samples were collected using a D-77 sampler. The D-77 sampler was developed to collect large-volume depth-integrated samples. Samples were collected at equal width increments across the river unless footnoted (#).

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

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED OXYGEN, OF (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)
OCT										
21...	1500	23600	249	7.6	--	11.0	759	11.8	108	96
NOV										
09...	1210	60200	250	6.4	12.0	10.0	749	14.8	133	99
09...	1540	69600	238	6.8	12.0	9.5	749	15.6	139	--
DEC										
02...	1700	60400	253	7.3	2.0	4.0	738	17.7	139	99
12...	1430	7670	254	7.5	4.0	3.0	768	15.7	116	--
16...	1030	17500	237	7.7	7.0	3.0	767	17.6	130	--
16...	1035	17500	--	--	--	--	--	--	--	--
30...	1430	13200	231	7.4	--	--	--	--	--	--
FEB										
24...	1120	18200	210	6.3	2.0	0.5	768	16.2	100	--
APR										
24...	0940	6500	214	7.3	12.5	9.5	750	11.5	102	--
MAY										
16...	0840	4380	211	7.4	15.0	13.0	--	10.4	--	84
22...	1340	5940	224	7.4	--	12.5	--	10.3	--	--
28...	1050	--	247	7.7	20.0	15.0	--	--	--	--
JUN										
04...	1020	3150	252	7.5	21.0	17.5	760	9.8	103	95
*04...	1026	3150	--	--	--	--	--	--	--	--
19...	1540	2680	--	--	--	--	--	--	--	--
#25...	1530	155	--	--	--	--	--	--	--	--
JUL										
02...	1150	1400	318	7.2	--	26.0	--	6.1	--	110
10...	1500	2000	325	--	--	--	--	--	--	--
17...	0940	3380	317	7.3	--	--	--	--	--	--
24...	1100	1290	--	--	--	--	--	--	--	--
AUG										
20...	1320	897	319	6.9	25.0	24.5	--	--	--	--
SEP										
03...	1340	1690	318	7.5	21.0	24.0	760	8.8	105	110
18...	1120	1490	329	--	23.0	22.0	762	8.2	93	--

* Replicate sample.

Single vertical at mid-channel.

01357500 MOHAWK RIVER AT COHOES, NY--Continued

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

DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)
OCT										
21...	30	5.3	10	19	.5	1.5	82	19	16	<.1
NOV										
09...	31	5.3	10	18	.4	1.2	83	15	16	<.1
09...	--	--	--	--	--	--	--	--	--	--
DEC										
02...	31	5.4	9.5	17	.4	1.7	88	15	16	<.1
12...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--
FEB										
24...	--	--	--	--	--	--	--	--	--	--
APR										
24...	--	--	--	--	--	--	--	--	--	--
MAY										
16...	26	4.4	8.8	19	.4	.8	69	17	16	<.1
22...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
JUN										
04...	30	5.1	11	20	.5	.9	79	12	14	<.1
*04...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
#25...	--	--	--	--	--	--	--	--	--	--
JUL										
02...	33	6.5	16	24	.7	1.3	88	24	26	<.1
10...	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--
AUG										
20...	--	--	--	--	--	--	--	--	--	--
SEP										
03...	33	6.8	19	28	.8	1.6	84	28	30	.1
18...	--	--	--	--	--	--	--	--	--	--
DATE	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)
OCT										
21...	4.2	149	138	.02	.51	.04	.5	.2	.14	.04
NOV										
09...	4.8	141	135	.02	.56	.07	1.2	.3	.52	.03
09...	--	--	--	.03	.56	.06	1.7	.3	.63	.03
DEC										
02...	4.6	145	138	.02	.66	.07	1.9	.3	.63	.07
12...	--	--	--	.01	.78	.09	.3	<.2	.02	<.01
16...	--	--	--	<.01	.63	.05	.4	<.2	.04	<.01
16...	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	<.01	.65	.07	.3	<.2	<.01	<.01
FEB										
24...	--	--	--	--	--	--	--	--	--	--
APR										
24...	--	--	--	<.01	.61	.10	.2	<.2	.04	.02
MAY										
16...	3.4	124	121	.01	.55	.09	.2	.3	.02	.02
22...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
JUN										
04...	3.0	141	126	.02	.58	.15	.3	.2	.02	.02
*04...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
#25...	--	--	--	--	--	--	--	--	--	--
JUL										
02...	1.4	173	163	.04	.50	.13	.4	.3	.02	<.01
10...	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--
AUG										
20...	--	--	--	--	--	--	--	--	--	--
SEP										
03...	2.6	188	175	.03	.67	.06	.4	.3	.04	.03
18...	--	--	--	--	--	--	--	--	--	--

* Replicate sample.

Single vertical at mid-channel.

HUDSON RIVER BASIN

01357500 MOHAWK RIVER AT COHOES, NY--Continued

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

DATE	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C) (00689)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRA- ZINE, WATER, DISS, REC, (UG/L) (39632)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)
OCT										
21...	.03	8	1	4.6	1.2	<.002	.018	<.002	E.0054	<.003
NOV										
09...	.03	100	17	3.8	>5.0	<.002	.010	<.002	<.003	<.003
09...	.03	--	--	4.2	>10	<.002	.015	<.002	<.003	<.003
DEC										
02...	.07	40	12	4.1	6.9	<.002	.026	<.002	<.003	<.003
12...	.02	--	--	3.6	.40	<.002	.011	<.002	<.003	<.003
16...	.01	--	--	4.0	.70	<.002	.014	<.002	<.003	<.003
16...	--	--	--	--	--	--	--	--	--	--
30...	.01	--	--	3.3	.40	--	--	--	--	--
FEB										
24...	--	--	--	--	--	--	--	--	--	--
APR										
24...	.01	--	--	8.7	.4	<.002	.0070	<.002	<.003	<.003
MAY										
16...	.02	.52	36	--	--	<.002	.0114	<.002	<.003	<.003
22...	--	--	--	--	--	<.002	.0167	<.002	<.003	<.008
28...	--	--	--	--	--	E.0025	.0228	E.0026	<.003	<.003
JUN										
04...	.01	31	33	--	--	<.002	.0172	<.002	<.003	<.003
*04...	--	--	--	--	--	E.0023	.0143	<.002	<.003	<.003
19...	--	--	--	--	--	.0048	.0239	.0076	<.003	<.003
#25...	--	--	--	--	--	E.0034	.0287	<.002	<.003	<.003
JUL										
02...	.02	28	44	3.5	.1	E.0038	.0309	<.002	<.003	<.003
10...	--	--	--	--	--	.0064	.0307	<.002	<.003	<.003
17...	--	--	--	--	--	.0048	.0592	<.002	<.003	<.003
24...	--	--	--	--	--	.0050	.0534	<.002	<.003	<.003
AUG										
20...	--	--	--	--	--	<.002	.0462	<.002	<.003	<.003
SEP										
03...	.03	25	14	--	--	<.002	.0192	<.002	<.003	<.003
18...	--	--	--	--	--	<.002	.0183	<.002	E.0335	<.003

DATE	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)
OCT									
21...	<.004	<.002	E.020	<.010	<.0020	.014	<.004	<.005	<.002
NOV									
09...	<.004	<.002	E.0088	.006	<.0020	.006	<.004	<.005	<.002
09...	.0066	<.002	E.012	<.002	<.0020	.016	<.004	<.005	<.002
DEC									
02...	.0045	<.002	E.020	<.002	<.0020	.023	.006	<.005	<.002
12...	<.004	<.002	E.013	<.002	<.0020	.009	<.004	<.005	<.002
16...	<.004	<.002	E.0060	<.002	<.0020	.012	<.004	<.005	<.002
16...	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--
FEB									
24...	--	--	--	--	--	--	--	--	--
APR									
24...	<.004	<.002	E.0070	<.002	<.002	.0050	<.004	<.005	<.002
MAY									
16...	<.004	E.0027	E.0093	<.002	<.002	.0196	<.004	.0060	<.002
22...	<.004	<.002	E.0093	E.0026	<.002	.0167	<.004	.0086	<.002
28...	.0047	<.002	E.0053	<.002	.0117	.0108	<.004	<.005	<.002
JUN									
04...	<.004	<.002	E.0054	.0080	<.002	.0119	<.004	<.005	<.002
*04...	<.004	<.002	E.0032	.0070	<.002	.0102	<.004	<.005	<.002
19...	.0071	<.002	E.0085	.0080	<.002	.0233	<.004	<.005	.006
#25...	.0067	<.002	E.0089	.0070	<.002	.0244	<.004	<.005	<.002
JUL									
02...	.0074	<.002	E.0052	E.0025	<.002	.0237	<.004	<.005	<.002
10...	.0124	<.002	E.0095	<.002	<.002	.0223	<.004	.0059	<.002
17...	.0117	<.002	E.0068	E.0033	<.002	.0375	<.004	.0066	<.002
24...	.0119	<.002	E.0108	<.002	<.002	.0337	<.004	.0050	E.0039
AUG									
20...	<.01	<.002	E.0095	.0140	<.002	.0284	<.004	<.005	<.002
SEP									
03...	<.004	<.002	E.0092	.0084	<.002	.0117	<.004	<.005	<.002
18...	<.004	<.002	E.0085	.0362	<.002	.0112	<.004	<.005	<.002

E Estimate.

* Replicate sample.

Single vertical at mid-channel.

HUDSON RIVER BASIN

101

01357500 MOHAWK RIVER AT COHOES, NY--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SED. SUSP. SIEVE DIAM. & FINER THAN .062 MM (70331)
OCT				
21...	1500	23600	65	97
NOV				
09...	1210	60200	265	98
09...	1540	69600	514	98
DEC				
02...	1700	60400	381	97
12...	1430	7670	3	78
16...	1030	17500	19	89
#16...	1035	17500	11	71
30...	1430	13200	3	88
FEB				
24...	1120	18200	79	95
APR				
24...	0940	6500	16	78
MAY				
16...	0840	4380	9	98
JUN				
04...	1020	3150	5	88
SEP				
03...	1340	1690	2	85

NOTE.--The following samples were collected using a D-74 sampler. The D-74 sampler was developed to collect depth-integrated sediment samples. Samples were collected at equal width increments across the river unless footnoted (#).

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

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C) (00689)
FEB											
21...	1100	13000	308	7.4	7.5	0.5	758	17.3	120	--	--
28...	0940	28300	248	7.3	8.5	1.0	765	15.9	112	--	--
MAR											
01...	1300	18800	237	--	--	--	--	--	--	--	--
#01...	1306	18800	237	--	--	--	--	--	--	--	--
03...	1210	21100	220	--	--	2.0	766	15.6	112	--	--
#03...	1216	21100	220	--	--	2.0	766	15.6	112	--	--
06...	1210	17700	222	7.4	2.5	2.5	--	15.1	--	--	--
#06...	1216	17700	222	7.4	2.5	2.5	--	15.1	--	--	--
06...	1630	20900	226	7.6	--	2.5	--	15.4	--	--	--
#06...	1636	20900	226	7.6	--	2.5	--	15.4	--	--	--
26...	1730	7600	339	6.7	7.0	2.5	754	14.2	106	--	--
#26...	1736	7600	339	6.7	7.0	2.5	754	14.2	106	--	--
28...	1030	16400	280	7.3	16.0	3.5	--	12.3	--	--	--
#28...	1036	16400	280	7.3	16.0	3.5	--	12.3	--	--	--
30...	1030	21700	236	7.5	--	5.5	754	13.1	104	--	--
#30...	1036	21700	236	7.5	--	5.5	754	13.1	104	--	--
30...	1310	22300	237	7.8	--	5.5	--	13.2	--	--	--
#30...	1316	22300	237	7.8	--	5.5	--	13.2	--	--	--
30...	1540	21800	231	7.8	--	6.0	--	12.9	--	--	--
#30...	1546	21800	231	7.8	--	6.0	--	12.9	--	--	--
31...	1130	20700	209	5.8	--	5.5	--	13.9	--	2.8	0.90
#31...	1146	20700	209	5.8	--	5.5	--	13.9	--	--	--
31...	1330	21700	209	--	--	5.0	--	--	--	--	--
#31...	1336	21700	209	--	--	5.0	--	--	--	--	--
31...	1550	22400	213	--	--	4.0	--	--	--	2.7	1.4
#31...	1556	22400	213	--	--	4.0	--	--	--	--	--
APR											
01...	0930	26400	222	--	--	--	--	--	--	2.6	--
#01...	0936	26400	222	--	--	--	--	--	--	--	--
02...	1130	21500	229	--	--	--	--	--	--	2.5	0.70
#02...	1136	21500	229	--	--	--	--	--	--	--	--
03...	1240	19400	229	6.1	--	4.5	--	--	--	--	--
#03...	1246	19400	229	6.1	--	4.5	--	--	--	--	--
04...	1026	22100	244	7.0	--	5.5	760	13.5	107	--	--
07...	1220	25900	191	--	--	--	--	--	--	--	--
#07...	1226	25900	191	--	--	--	--	--	--	--	--
08...	1120	25100	165	7.0	--	--	758	13.2	--	--	--
#08...	1126	25100	165	7.0	--	--	758	13.2	--	--	--
10...	1350	12700	156	5.8	--	5.0	--	13.7	--	--	--
#10...	1356	12700	156	5.8	--	5.0	--	13.7	--	--	--
MAY											
04...	1250	18000	178	7.5	--	11.0	--	12.1	--	--	--
#04...	1256	18000	178	7.5	--	11.0	--	12.1	--	--	--

Single vertical at mid-channel.

HUDSON RIVER BASIN

01357500 MOHAWK RIVER AT COHOES, NY--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
FEB				
21...	1100	13000	19	96
28...	0940	28300	105	98
MAR				
01...	1300	18800	84	86
#01...	1306	18800	98	84
03...	1210	21100	40	82
#03...	1216	21100	42	94
06...	1210	17700	25	95
#06...	1216	17700	25	97
06...	1630	20900	30	91
#06...	1636	20900	31	92
26...	1730	7600	9	68
#26...	1736	7600	8	80
27...	0850	13600	4	84
#27...	0856	13600	19	88
28...	1030	16400	37	96
#28...	1036	16400	86	98
*28...	1038	16400	23	90
30...	1030	21700	42	95
#30...	1036	21700	75	97
30...	1310	22300	47	92
#30...	1316	22300	46	94
30...	1540	21800	49	95
#30...	1546	21800	55	94
*30...	1548	21800	53	95
31...	1130	20700	50	92
#31...	1146	20800	55	92
31...	1330	21700	54	96
#31...	1336	21700	52	97
31...	1550	22400	53	98
#31...	1556	22400	59	98
APR				
01...	0930	26400	73	96
#01...	0936	26400	82	92
02...	1130	21500	36	93
#02...	1136	21500	31	94
03...	1240	19400	19	93
#03...	1246	19400	17	87
#04...	1026	22100	22	86
07...	1220	25900	51	95
#07...	1226	25900	62	98
08...	1120	25100	66	93
#08...	1126	25100	68	96
10...	1350	12700	16	86
#10...	1356	12700	19	86
MAY				
04...	1250	18000	27	86
#04...	1256	18000	22	82

Single vertical at mid-channel.
 * Replicate sample.

HUDSON RIVER BASIN

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01357500 MOHAWK RIVER AT COHOES, NY--Continued

NOTE.--The following samples were collected using a weighted-bottle sampler. Grab samples were collected at mid-channel unless footnoted (@).

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

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)
DEC									
26...	1030	16900	235	7.5	-2.0	1.5	769	19.1	135
FEB									
21...	1107	13000	308	7.4	7.5	0.5	758	17.3	120
22...	0630	13200	241	--	--	--	--	--	--
24...	1127	18200	210	6.3	2.0	0.5	768	16.2	100
26...	1157	9820	236	6.8	8.5	1.0	760	15.2	106
MAR									
01...	1307	18800	237	--	--	--	--	--	--
02...	1317	16500	229	--	--	--	--	--	--
03...	1217	21100	220	--	--	2.0	766	15.6	112
06...	1217	17700	222	7.4	2.5	2.5	--	15.1	--
06...	1637	20900	226	7.6	--	2.5	--	15.4	--
26...	1737	7600	339	6.7	7.0	2.5	754	14.2	106
28...	1037	16400	280	7.3	16.0	3.5	--	12.3	--
30...	1037	21700	236	7.5	--	5.5	754	13.1	104
30...	1317	22300	237	7.8	--	5.5	--	13.2	--
30...	1547	21800	231	7.8	--	6.0	--	12.9	--
31...	1147	20800	209	5.8	--	5.5	--	13.9	--
31...	1337	21700	209	--	--	5.0	--	--	--
31...	1557	22400	213	--	--	4.0	--	--	--
31...	1837	23900	221	6.7	--	4.5	--	14.2	--
31...	1947	24400	221	--	--	--	--	--	--
31...	2207	25300	222	--	--	--	--	--	--
APR									
01...	0107	26200	225	--	--	--	--	--	--
01...	0537	27000	224	--	--	--	--	--	--
01...	0937	26400	222	--	--	--	--	--	--
03...	1247	19400	229	6.1	--	4.5	--	--	--
04...	1027	22100	244	7.0	--	5.5	760	13.5	107
05...	0847	27600	234	7.4	--	--	--	--	--
06...	1237	25500	203	7.4	--	--	--	--	--
07...	1227	25900	191	--	--	--	--	--	--
10...	1357	12700	156	5.8	--	5.0	--	13.7	--
24...	0947	6500	212	7.0	--	9.5	--	11.5	--
MAY									
04...	1257	18000	178	7.5	--	11.0	--	12.1	--
JUN									
@04...	1100	3240	253	--	--	--	--	--	--

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS TOTAL (MG/L AS CaCO3) (00900)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)
JUN								
@11...	1400	155	--	--	--	--	E0.003	0.017
18...	1907	1440	--	--	--	--	0.005	0.024
AUG								
06...	1340	788	22.0	24.5	5.8	110	<0.002	0.056
*06...	1348	788	--	--	--	--	<0.002	0.057

DATE	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ZINE, WATER, DISS, REC (UG/L) (04040)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)
JUN								
@11...	<0.002	<0.003	<0.004	E0.005	0.006	0.015	<0.005	E0.003
18...	E0.004	<0.003	0.006	E0.005	0.006	0.023	<0.005	E0.002
AUG								
06...	<0.002	<0.003	0.009	E0.010	<0.002	0.040	0.005	<0.002
*06...	<0.002	E0.013	0.008	E0.011	<0.002	0.037	<0.005	<0.002

@ Collected in tailrace of dam.

E Estimate.

* Replicate sample.

HUDSON RIVER BASIN

01357500 MOHAWK RIVER AT COHOES, NY--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
DEC				
26...	1030	16900	24	98
FEB				
21...	1107	13000	17	55
22...	0630	13200	44	82
23...	0707	32700	203	92
24...	1127	18200	88	90
26...	1157	9820	16	85
MAR				
01...	1307	18800	71	90
02...	1317	16500	36	93
03...	1217	21100	44	92
06...	1217	17700	13	84
06...	1637	20900	34	84
26...	1737	7600	9	93
27...	0857	13600	8	80
28...	1037	16400	37	96
29...	0637	17100	31	96
30...	0807	21400	31	95
30...	1037	21700	41	94
30...	1317	21700	46	95
30...	1547	21800	54	94
31...	1147	20800	51	96
31...	1337	21700	56	98
31...	1557	22400	54	96
*31...	1558	22400	58	98
31...	1837	23900	53	95
31...	1947	24400	52	95
31...	2107	25100	60	97
*31...	2108	25100	61	96
31...	2207	25300	62	92
31...	2307	25900	66	96
APR				
01...	0007	26000	65	95
*01...	0008	26000	65	95
01...	0107	26200	64	96
01...	0207	26200	64	93
*01...	0208	26200	66	92
01...	0337	26700	60	88
01...	0537	27000	77	95
01...	0937	26400	77	93
03...	1247	19400	17	95
04...	1027	22100	23	91
05...	0847	27600	54	95
06...	1237	25500	71	96
07...	1227	25900	64	94
09...	1637	16300	26	93
10...	1357	12700	15	69
11...	1037	10500	12	84
19...	1037	9620	15	82
21...	1147	12300	11	78
24...	0947	6500	12	87
MAY				
04...	1257	18000	26	91
05...	1157	14900	19	78
JUN				
@04...	1100	3240	4	97

* Replicate sample.

@ Collected in tailrace of dam.

HUDSON RIVER BASIN

105

01358000 HUDSON RIVER AT GREEN ISLAND, NY

LOCATION.--Lat 42°45'08", long 73°41'22", Albany County, Hydrologic Unit 02020006, on right bank at Green Island, just upstream from Troy lock and dam, and 0.5 mi downstream from 5th branch Mohawk River.

DRAINAGE AREA.--8,090 mi², approximately (including that above site of former auxiliary gage).

PERIOD OF RECORD.--February 1946 to current year.

GAUGE.--Water-stage recorder. Datum of gage is 0.31 ft below sea level (Corps of Engineers benchmark). From July 1, 1946 to Mar. 12, 1962 auxiliary water-stage recorder on bypass channel at datum 10.59 ft higher. Totalizing flowmeter on each turbine in powerplant.

REMARKS.--Records fair. Records include flow over spillway, flow through lock, and flow through powerplant. Powerplant, located on the right bank just downstream from gage, was inoperative from Nov. 20, 1960 to Feb. 23, 1971. An inflatable rubber dam was installed on the spillway during August 1991. Since August 1991, estimated water-discharge data based on records for Hudson River above Lock 1 near Waterford (01335754) and Mohawk River at Cohoes (01357500) due to inflatable rubber dam. See Diversions in Hudson River Basin for regulation and diversions upstream from this station. Satellite gage-height and flowmeter telemeter readings at station.

COOPERATION.--Turbine flowmeter readings provided by Niagara Mohawk Power Corporation.

AVERAGE DISCHARGE.--51 years, 13,800 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 181,000 ft³/s, Dec. 31, 1948, gage height, 27.05 ft, from high-water mark in gage well; maximum daily discharge, 152,000 ft³/s, Mar. 14, 1977; minimum daily, 882 ft³/s, Sept. 2, 1968; minimum gage height, 13.68 ft, July 6, 1981, when pool was lowered for inspection of flashboards.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 19, 1936, reached a stage of 29.48 ft at gage on opposite bank, from information by Corps of Engineers (discharge, 215,000 ft³/s). Flood of Mar. 28, 1913, prior to construction of Sacandaga Reservoir and Troy lock and dam, reached a stage about 0.2 ft higher upstream from former dam near same site. Downstream from dams, flood in 1913 was about 3.3 ft higher than flood in 1936, from information by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, about 114,000 ft³/s, Dec. 2, gage height, 23.31 ft; minimum daily, about 3,400 ft³/s, Aug. 7; minimum gage height, 13.87 ft, June 15.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e10300	e10900	e19200	e20500	e12400	e36800	e50600	e32400	e8300	e4900	e3500	e4500
2	e7800	e9700	e77900	e18400	e12100	e32600	e43600	e32000	e10400	e4600	e4300	e3900
3	e8400	e8600	e89600	e20600	e11900	e37100	e36400	e34700	e10500	e4000	e4000	e4400
4	e6700	e7800	e56900	e22700	e11400	e32300	e36500	e44600	e8800	e6100	e5000	e4600
5	e6100	e6500	e49200	e23400	e12700	e27200	e42500	e40700	e7800	e5400	e4600	e4000
6	e6400	e7700	e39900	e27400	e15100	e35500	e44100	e36000	e7400	e6200	e4700	e3800
7	e6500	e8200	e34800	e27000	e16000	e35500	e49800	e36200	e7500	e7400	e3400	e4000
8	e5800	e7800	e31100	e20600	e14900	e27300	e52200	e33300	e7500	e5400	e3500	e4100
9	e7100	e60700	e29300	e18800	e13300	e23700	e39800	e29800	e5900	e6000	e3600	e4500
10	e7900	e92100	e21800	e17800	e12100	e21700	e30100	e27300	e5900	e6200	e4200	e4600
11	e9200	e47700	e17400	e17800	e11500	e21400	e25300	e28500	e5000	e7500	e4100	e4100
12	e9200	e31600	e18900	e15300	e10800	e20500	e22300	e25000	e5300	e6200	e4200	e5800
13	e8400	e24300	e28600	e15600	e10800	e18700	e23400	e24000	e6000	e5300	e4300	e5400
14	e7700	e19800	e45700	e16000	e10500	e16900	e23500	e22400	e5800	e5900	e4300	e5400
15	e6800	e20500	e41100	e14500	e10300	e15400	e22000	e22300	e4800	e4800	e4700	e4500
16	e6500	e18200	e35800	e13800	e10600	e16500	e19800	e20300	e4900	e5900	e5200	e4600
17	e6600	e17700	e32600	e12600	e10600	e15500	e20000	e18600	e5400	e6400	e4700	e4600
18	e7200	e17100	e35000	e12300	e10600	e15500	e21000	e17200	e5700	e5500	e5000	e4700
19	e6900	e17500	e34900	e11800	e11100	e14900	e25700	e16400	e6600	e6100	e4600	e4400
20	e12600	e23900	e32300	e13500	e16700	e14300	e27900	e18200	e6900	e5800	e3500	e4500
21	e32000	e21600	e27600	e12900	e23300	e13900	e29200	e21400	e5800	e4800	e5000	e4300
22	e23400	e20700	e23800	e12300	e38100	e14400	e26500	e16900	e6200	e5000	e4800	e5000
23	e17400	e16900	e22500	e13000	e49000	e17200	e25200	e15600	e6400	e5000	e5400	e4300
24	e14600	e16100	e22200	e14300	e35500	e15100	e23000	e14900	e4800	e4900	e5000	e4400
25	e14400	e15300	e37900	e14400	e27500	e13300	e20500	e12900	e4700	e5100	e4200	e3700
26	e11200	e19600	e37800	e14300	e21800	e16600	e19200	e12700	e6100	e4700	e4400	e4000
27	e11000	e25100	e31700	e15000	e25500	e26100	e20500	e11000	e5900	e4500	e4100	e4100
28	e10400	e21800	e27500	e12900	e44400	e29400	e25200	e10900	e4800	e4600	e4600	e4000
29	e8200	e18000	e25900	e12900	---	e33700	e40300	e10200	e5200	e3600	e5200	e4800
30	e8800	e16000	e29400	e13900	---	e41600	e39000	e8500	e4200	e4900	e5200	e5300
31	e9700	---	e24800	e12900	---	e47100	---	e9500	---	e4600	e4900	---
TOTAL	315200	649400	1083100	509200	510500	747700	925100	704400	190500	167300	138200	134300
MEAN	10170	21650	34940	16430	18230	24120	30840	22720	6350	5397	4458	4477
MAX	32000	92100	89600	27400	49000	47100	52200	44600	10500	7500	5400	5800
MIN	5800	6500	17400	11800	10300	13300	19200	8500	4200	3600	3400	3700

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 1997, BY WATER YEAR (WY)

	MEAN	9020	13130	15070	13550	14110	22100	30790	19090	10050	6733	5823	6462
MAX	30140	26150	34940	33970	31260	44240	61820	40520	29630	18380	14630	17030	
(WY)	1978	1973	1997	1949	1976	1979	1993	1972	1972	1972	1976	1975	
MIN	2967	3270	6096	4187	4527	9123	9073	5505	3573	3082	2912	2875	
(WY)	1965	1965	1965	1961	1980	1965	1995	1987	1965	1965	1965	1964	

e Estimated

HUDSON RIVER BASIN

01358000 HUDSON RIVER AT GREEN ISLAND, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1946 - 1997	
ANNUAL TOTAL	7256240		6074900		13820	
ANNUAL MEAN	19830		16640		22100	1976
HIGHEST ANNUAL MEAN					6386	1965
LOWEST ANNUAL MEAN					152000	Mar 14 1977
HIGHEST DAILY MEAN	137000	Jan 20	92100	Nov 10	882	Sep 2 1968
LOWEST DAILY MEAN	4500	Sep 7	3400	Aug 7	2110	Aug 23 1995
ANNUAL SEVEN-DAY MINIMUM	5070	Sep 2	3900	Aug 7	29000	
10 PERCENT EXCEEDS	43100		35500		9400	
50 PERCENT EXCEEDS	13800		12900		4290	
90 PERCENT EXCEEDS	6270		4500			

HUDSON RIVER BASIN

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01359139 HUDSON RIVER AT ALBANY, NY

LOCATION.--Lat 42°38'53", long 73°44'50", Albany County, Hydrologic Unit 02020006, on right bank 0.3 mi upstream from bridge on U.S. Highways 9 and 20 in Albany, and 0.5 mi downstream from the Conrail railroad bridge.

DRAINAGE AREA.--8,288 mi².

PERIOD OF RECORD.--October 1972 to September 1976, April 1981 to current year.

REVISED RECORDS.--WDR NY-90-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 10.00 ft below sea level (levels by Corps of Engineers). Gage-height record converted to elevation above or below (-) mean sea level for publication.

REMARKS.--Telephone gage-height telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 28, 1913, reached a stage of 21.45 ft, discharge, 240,000 ft³/s (estimated, tide affected) from information provided by Board of Hudson River-Black River Regulating District.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation recorded, 15.49 ft, Jan. 20, 1996; minimum recorded, -4.50 ft, Mar. 8, 1986.

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
<u>Maximum high tide</u>												
Elevation	6.45	8.21	8.58	6.34	6.08	6.31	7.22	6.64	5.81	5.16	5.30	5.19
Date	19	9	2	10	22	6	7	4	6	4	21	11
<u>Minimum low tide</u>												
Elevation	-2.21	-1.81	-0.96	-2.74	-1.85	-1.65	-0.92	-1.95	-2.07	-2.49	-2.25	-2.58
Date	15	5	21	8	13	18	14	22	24	19	12	21
<u>Mean</u>												
Mean high tide	4.92	5.09	5.97	4.21	4.51	4.88	5.59	5.03	4.87	4.51	4.55	4.42
Mean water level	2.06	2.42	3.53	1.88	2.13	2.35	3.12	2.37	1.76	1.42	1.54	1.51
Mean low tide	-0.97	-0.36	0.96	-0.60	-0.39	-0.36	0.58	-0.56	-1.47	-1.81	-1.59	-1.59

HUDSON RIVER BASIN

01360640 VALATIE KILL NEAR NASSAU, NY

LOCATION.--Lat 42°33'07", long 73°35'31", Rensselaer County, Hydrologic Unit 02020006, on left bank about 200 ft upstream from bridge on Hoags Corners Road, and 2.7 mi northeast of Nassau.

DRAINAGE AREA.--9.48 mi².

PERIOD OF RECORD.--October 1990 to current year.

GAGE.--Water-stage recorder, concrete control, and crest-stage gage. Elevation of gage is 450 ft above sea level, from topographic map.

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

AVERAGE DISCHARGE.--7 years, 12.7 ft³/s, 18.14 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 738 ft³/s, Jan. 19, 1996, gage height, 5.85 ft; minimum discharge, 0.08 ft³/s, Aug. 31, Sept. 6, 7, 8, 1995, gage height, 0.76 ft; minimum daily, 0.10 ft³/s, Aug. 2, 1991, Sept. 8, 1995.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 130 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 2	0745	*301	*4.23	No other peak greater than base discharge.			
Minimum discharge, 0.21 ft ³ /s, Aug. 11, 12, 13, Sept. 10, 11; minimum gage height, 0.85 ft, Aug. 11, 12, 13; minimum daily discharge, 0.30 ft ³ /s, Sept. 10.							

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	4.4	25	17	e4.0	20	e54	17	4.8	.65	.37	.55
2	11	4.1	177	17	e4.0	29	57	33	4.5	.62	.35	.48
3	7.8	3.8	83	19	e4.0	27	62	38	3.9	.81	.44	1.3
4	5.6	3.6	49	24	e5.0	19	70	57	3.4	1.1	.69	1.4
5	4.4	3.5	36	23	e9.0	18	53	31	3.1	.82	1.1	.77
6	3.8	3.4	30	20	e17	60	41	26	2.7	.68	1.3	.54
7	3.4	3.3	29	e15	e10	33	33	25	2.4	.59	1.0	.47
8	3.4	3.4	33	e13	e8.0	e21	24	19	2.3	.65	.67	.43
9	17	17	29	11	e7.0	e19	19	18	2.1	11	.50	.37
10	18	16	24	9.9	e6.0	17	16	21	1.9	21	.40	.30
11	17	12	21	9.6	4.9	e15	14	17	1.7	6.9	.33	.31
12	12	9.2	39	e9.0	4.4	e14	14	14	1.5	3.3	.32	3.8
13	9.6	7.6	73	8.1	4.3	e12	24	13	2.7	2.2	1.4	2.0
14	8.1	6.3	67	7.6	3.9	e10	18	11	3.7	1.6	4.6	1.2
15	6.8	5.4	57	7.3	4.2	e13	14	10	2.1	1.3	2.6	.79
16	5.8	4.7	44	10	e4.0	e10	12	9.4	1.7	11	1.8	.58
17	5.3	4.4	37	e9.0	3.8	e9.0	12	8.7	1.5	5.2	1.3	.47
18	4.7	4.6	32	6.8	4.5	8.2	18	8.0	1.8	3.1	1.1	.61
19	4.0	12	33	5.6	9.1	e8.0	29	9.5	2.0	2.1	.81	.62
20	11	16	30	4.7	19	8.6	53	66	1.5	1.7	.65	.85
21	12	12	e25	4.2	22	9.3	50	30	1.3	1.4	1.0	2.2
22	8.9	10	19	4.1	56	e12	33	19	1.1	1.5	1.3	1.5
23	7.5	8.7	17	e6.0	32	e10	25	15	.91	1.2	1.2	1.0
24	9.4	7.8	24	e5.0	21	e9.0	20	12	.88	.92	.91	.80
25	9.6	7.3	43	e6.0	e16	9.5	16	11	1.7	.76	.69	.65
26	7.8	33	27	e5.0	12	18	14	10	1.7	.63	.61	.57
27	6.5	35	21	4.6	42	18	12	8.1	1.4	.64	2.6	.51
28	6.0	e25	19	4.3	35	19	20	7.0	1.1	1.5	1.8	.45
29	6.0	18	24	4.1	---	22	21	6.0	.88	.84	1.4	.67
30	5.3	14	29	3.9	---	25	15	5.4	.79	.56	.92	1.1
31	4.8	---	19	e4.0	---	60	---	5.4	---	.44	.65	---
TOTAL	259.5	315.5	1215	297.8	372.1	582.6	863	580.5	63.06	86.71	34.81	27.29
MEAN	8.37	10.5	39.2	9.61	13.3	18.8	28.8	18.7	2.10	2.80	1.12	.91
MAX	18	35	177	24	56	60	70	66	4.8	21	4.6	3.8
MIN	3.4	3.3	17	3.9	3.8	8.0	12	5.4	.79	.44	.32	.30
CFSM	.88	1.11	4.13	1.01	1.40	1.98	3.03	1.98	.22	.30	.12	.10
IN.	1.02	1.24	4.77	1.17	1.46	2.29	3.39	2.28	.25	.34	.14	.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1997, BY WATER YEAR (WY)

	1991	1992	1993	1994	1995	1996	1997
MEAN	7.32	15.1	18.3	14.9	9.29	26.8	32.4
MAX	16.6	26.5	39.2	40.1	13.9	44.0	52.7
(WY)	1992	1992	1997	1996	1996	1994	1993
MIN	1.73	1.75	5.55	4.88	3.44	13.1	12.6
(WY)	1993	1995	1996	1994	1993	1992	1995

e Estimated

HUDSON RIVER BASIN

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01360640 VALATIE KILL NEAR NASSAU, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1991 - 1997
ANNUAL TOTAL	7939.36	4697.87	
ANNUAL MEAN	21.7	12.9	12.7
HIGHEST ANNUAL MEAN			19.9 1996
LOWEST ANNUAL MEAN			7.45 1995
HIGHEST DAILY MEAN	312 Jan 19	177 Dec 2	344 Mar 30 1993
LOWEST DAILY MEAN	.52 Sep 4	.30 Sep 10	.10 Aug 2 1991
ANNUAL SEVEN-DAY MINIMUM	.55 Sep 1	.46 Sep 5	.13 Sep 2 1995
ANNUAL RUNOFF (CFSM)	2.29	1.36	1.34
ANNUAL RUNOFF (INCHES)	31.15	18.43	18.14
10 PERCENT EXCEEDS	57	32	31
50 PERCENT EXCEEDS	9.0	7.6	5.4
90 PERCENT EXCEEDS	1.8	.68	.54

HUDSON RIVER BASIN

01362200 ESOPUS CREEK AT ALLABEN, NY

LOCATION.--Lat 42°07'01", long 74°22'50", Ulster County, Hydrologic Unit 02020006, on right bank, 20 ft downstream from bridge on Fox Hollow Road, 200 ft downstream from Fox Hollow Creek, 600 ft upstream from Peck Hollow Creek, and 0.5 mi west of Allaben.

DRAINAGE AREA.--63.7 mi².

PERIOD OF RECORD.--October 1963 to current year. Prior to October 1988, published as "at Shandaken" (01362198).

GAGE.--Water-stage recorder. Datum of gage is 998.04 ft above sea level. Prior to November 22, 1988, at site 0.5 mi upstream at datum 19.23 ft higher.

REMARKS.--Records good except those above 3,000 ft³/s, which are fair, and those for estimated daily discharges, which are poor. Occasional slight regulation when filling or draining swimming pools or small ponds upstream from station. Satellite gage-height telemeter at station.

AVERAGE DISCHARGE.--34 years, 141 ft³/s, 30.03 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,100 ft³/s, Apr. 4, 1987, gage height, 13.70 ft, from floodmarks, site and datum then in use, from rating curve extended above 3,000 ft³/s, on basis of slope-area measurement at gage height 13.70 ft, at site 0.5 mi upstream, includes undetermined amount of flow bypassing gage; minimum discharge, 2.1 ft³/s, Sept. 16, 1983 (result of slight regulation upstream from station).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 30, 1951 reached a stage of about 15.1 ft, at previous site and datum, from information supplied by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 20	0530	*4,680	*9.50	Dec. 2	0330	4,500	9.36
Nov. 9	0600	3,530	8.53				

Minimum discharge, 7.9 ft³/s, Aug. 12, 13.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	139	145	578	319	88	324	418	227	110	20	10	24
2	127	136	2700	302	79	382	377	221	108	20	9.6	21
3	114	125	1030	297	75	388	371	285	98	20	9.9	19
4	100	115	626	275	71	351	481	357	88	19	10	17
5	89	107	472	258	108	318	620	341	80	18	11	16
6	81	101	413	257	100	336	743	336	75	17	11	15
7	74	96	366	235	89	284	853	305	70	16	9.6	15
8	69	132	329	212	85	258	627	264	65	16	9.3	14
9	115	2040	283	200	e78	231	458	253	60	15	9.2	13
10	102	930	248	200	e76	221	367	255	56	16	8.6	12
11	98	576	230	176	e74	198	315	226	52	15	8.3	52
12	94	414	260	e160	e72	174	279	208	49	14	8.3	174
13	92	337	316	e140	e70	153	288	198	46	13	11	96
14	88	289	354	e120	94	148	250	181	44	13	10	73
15	84	244	342	e110	82	e140	218	164	40	20	9.1	57
16	81	210	333	e105	e66	e130	199	150	38	70	9.5	48
17	77	189	386	e96	e64	e125	189	139	37	31	9.3	41
18	72	170	574	e90	e68	123	186	128	38	24	12	36
19	171	200	572	e86	103	117	180	156	36	20	9.5	32
20	2920	173	477	e84	155	114	174	294	33	18	9.5	30
21	1430	152	403	e82	187	108	173	267	31	17	21	27
22	792	140	364	e82	563	e105	168	267	31	19	24	24
23	539	135	327	e82	596	e103	174	248	29	16	23	23
24	437	129	368	e80	448	101	184	225	27	15	18	22
25	345	125	468	e90	359	95	186	213	26	14	15	20
26	289	171	421	e86	313	144	180	190	29	14	15	19
27	252	165	389	e100	337	136	171	166	29	13	19	18
28	235	161	355	e110	345	162	248	147	25	13	17	17
29	206	163	355	e100	---	231	248	134	23	12	43	22
30	185	162	368	e96	---	333	228	127	21	11	32	22
31	163	---	351	e90	---	442	---	120	---	11	26	---
TOTAL	9660	8232	15058	4720	4845	6475	9553	6792	1494	570	447.7	1019
MEAN	312	274	486	152	173	209	318	219	49.8	18.4	14.4	34.0
MAX	2920	2040	2700	319	596	442	853	357	110	70	43	174
MIN	69	96	230	80	64	95	168	120	21	11	8.3	12
CFSM	4.89	4.31	7.63	2.39	2.72	3.28	5.00	3.44	.78	.29	.23	.53
IN.	5.64	4.81	8.79	2.76	2.83	3.78	5.58	3.97	.87	.33	.26	.60

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

MEAN	87.5	145	170	147	142	245	335	197	97.1	54.7	30.5	40.7
MAX	370	346	496	557	385	553	827	511	363	212	86.3	213
(WY)	1978	1973	1974	1996	1981	1977	1993	1989	1973	1996	1969	1987
MIN	4.16	5.58	49.4	19.4	29.6	69.9	123	67.3	19.4	8.94	6.30	4.23
(WY)	1965	1965	1965	1981	1987	1970	1995	1987	1965	1965	1964	1964

e Estimated

HUDSON RIVER BASIN

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01362200 ESOPUS CREEK AT ALLABEN, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1964 - 1997	
ANNUAL TOTAL	95523		68865.7		141	
ANNUAL MEAN	261		189		224	1996
HIGHEST ANNUAL MEAN					59.8	1965
LOWEST ANNUAL MEAN					5000	Apr 4 1987
HIGHEST DAILY MEAN	5000	Jan 19	2920	Oct 20	5000	Apr 4 1987
LOWEST DAILY MEAN	19	Sep 6	8.3	Aug 11	3.3	Sep 24 1964
ANNUAL SEVEN-DAY MINIMUM	22	Aug 31	9.2	Aug 6	3.5	Sep 22 1964
ANNUAL RUNOFF (CFSM)	4.10		2.96		2.21	
ANNUAL RUNOFF (INCHES)	55.78		40.22		30.03	
10 PERCENT EXCEEDS	499		379		310	
50 PERCENT EXCEEDS	154		115		78	
90 PERCENT EXCEEDS	41		15		13	

HUDSON RIVER BASIN

01362230 DIVERSION FROM SCHOHARIE RESERVOIR, NY

LOCATION.--Lat 42°06'52", long 74°21'51", Ulster County, Hydrologic Unit 02020006, on left bank at outlet of Shandaken tunnel on Esopus Creek, 70 ft upstream from State Route 28 bridge, and 3.3 mi northwest of Phoenicia. Water-quality sampling site at discharge station.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1996 to September 1997.

GAGE.--Water-stage recorder. Elevation of gage is 800 ft above sea level, from topographic map.

REMARKS.--Records poor. Entire flow regulated by Schoharie Reservoir. Telephone gage-height and temperature telemeter at station.

EXTREMES FOR CURRENT YEAR.--December 1996 to September 1997: Maximum discharge, 748 ft³/s, July 13, gage height, 3.02 ft; minimum daily, 0.22 ft³/s, Jan. 3, 5, 15.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	.23	75	.88	e1.4	.50	112	354	132	151
2	---	---	---	.23	78	.88	e1.5	.57	113	350	132	150
3	---	---	---	.22	76	.88	1.6	.81	112	351	131	149
4	---	---	---	.23	77	.87	1.9	.68	112	351	129	147
5	---	---	---	.22	76	.87	1.9	.67	125	350	130	146
6	---	---	---	.23	76	.75	1.7	.66	295	343	131	145
7	---	---	---	.23	76	.64	1.5	.56	610	345	130	144
8	---	---	---	.23	75	.69	1.1	.51	604	e345	129	144
9	---	---	---	.23	75	.70	.84	.57	462	344	130	143
10	---	---	---	.23	75	.86	.88	.65	185	346	127	145
11	---	---	---	.23	75	.88	.88	.58	144	484	128	148
12	---	---	---	.23	76	.87	.94	.57	163	710	128	151
13	---	---	---	.23	76	.87	.99	.50	168	709	128	e155
14	---	---	---	.23	75	.88	.93	.52	174	570	138	e155
15	---	---	---	.22	76	.88	.96	.51	175	294	140	154
16	---	---	---	.23	76	.88	.87	.51	176	141	137	e155
17	---	---	---	.23	76	.88	.88	.53	176	126	139	153
18	---	---	.88	.23	76	.87	.87	.60	177	98	142	e155
19	---	---	.80	.23	76	.88	.76	26	198	98	143	328
20	---	---	.67	.23	65	.88	.67	82	229	98	144	636
21	---	---	.67	.23	15	.88	.74	65	229	98	144	e520
22	---	---	.66	19	1.4	1.0	.87	1.2	230	97	144	e250
23	---	---	.67	55	1.1	.91	.88	.86	230	98	143	e140
24	---	---	.65	47	1.1	.74	.79	.88	228	98	142	140
25	---	---	.51	.90	.92	.65	.67	.88	232	101	142	140
26	---	---	.50	.45	.88	.70	.54	.88	237	113	146	138
27	---	---	.50	.35	.91	.67	.50	21	235	112	149	138
28	---	---	.50	.34	.88	.79	.54	56	354	114	148	137
29	---	---	.53	.34	---	1.1	.46	75	351	141	147	136
30	---	---	.29	.35	---	1.1	.49	110	350	138	151	135
31	---	---	.23	16	---	1.4	---	112	---	135	150	---
TOTAL	---	---	---	144.53	1528.19	26.73	29.55	562.20	7186	8052	4274	5528
MEAN	---	---	---	4.66	54.6	.86	.98	18.1	240	260	138	184
MAX	---	---	---	55	78	1.4	1.9	112	610	710	151	636
MIN	---	---	---	.22	.88	.64	.46	.50	112	97	127	135

e Estimated

HUDSON RIVER BASIN

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01362230 DIVERSION FROM SCHOHARIE RESERVOIR, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: July to September 1997.

INSTRUMENTATION.--Water-temperature recorder provides 15-minute-interval readings.

REMARKS.--Interruptions of record were due to malfunction of recording instrument.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: July to September 1997: Maximum, 21.5°C, Sept. 3, 4.

WATER TEMPERATURE, DEGREES CELSIUS, JULY TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	---	---	---	16.0	11.5	13.0	20.0	19.0	19.5
2	---	---	---	---	---	---	15.0	12.0	13.0	20.0	17.5	18.5
3	---	---	---	---	---	---	15.0	12.0	13.5	21.5	19.5	20.0
4	---	---	---	---	---	---	15.0	12.0	13.5	21.5	18.5	20.0
5	---	---	---	---	---	---	15.0	12.0	13.5	21.0	19.0	19.5
6	---	---	---	---	---	---	17.0	12.0	14.0	20.0	18.0	19.0
7	---	---	---	---	---	---	17.0	12.5	14.0	19.5	19.0	19.0
8	---	---	---	---	---	---	16.0	13.0	14.5	19.5	18.5	19.5
9	---	---	---	14.0	11.5	12.0	16.0	13.0	14.5	19.5	18.0	19.0
10	---	---	---	13.0	11.0	12.0	16.0	14.0	14.5	19.5	17.5	---
11	---	---	---	17.5	12.0	13.5	17.0	14.5	15.5	19.0	17.5	18.5
12	---	---	---	18.0	15.0	16.5	17.0	13.0	15.5	19.0	17.5	18.5
13	---	---	---	18.5	16.0	17.0	19.0	14.5	16.0	---	17.5	---
14	---	---	---	17.0	14.5	16.0	19.0	14.0	16.0	19.0	---	---
15	---	---	---	14.5	12.0	13.0	18.5	15.5	16.5	19.0	17.5	---
16	---	---	---	12.5	11.0	12.0	19.0	14.0	16.5	---	---	---
17	---	---	---	12.5	10.5	11.5	18.5	15.0	17.0	19.0	17.0	---
18	---	---	---	12.0	10.0	11.0	19.5	15.5	17.5	---	17.5	---
19	---	---	---	12.5	11.0	11.5	19.5	13.5	17.0	19.0	17.0	18.5
20	---	---	---	13.0	10.0	11.0	19.0	16.5	17.5	19.5	19.0	19.0
21	---	---	---	12.5	10.5	11.0	19.5	14.5	18.0	---	---	---
22	---	---	---	12.0	11.0	11.5	19.0	17.5	18.0	---	---	---
23	---	---	---	12.0	10.5	11.5	19.5	17.0	18.5	---	---	---
24	---	---	---	11.5	10.5	11.0	20.0	18.0	19.0	17.5	17.0	17.0
25	---	---	---	12.5	11.0	11.5	20.0	17.5	18.5	17.0	14.5	16.5
26	---	---	---	13.0	10.0	11.5	19.5	17.5	18.5	17.0	14.5	16.0
27	---	---	---	12.5	10.5	11.5	19.5	17.0	18.5	17.0	16.5	16.5
28	---	---	---	13.0	11.5	12.0	20.0	18.0	19.0	17.0	15.0	16.0
29	---	---	---	15.0	12.0	13.0	20.0	17.0	18.5	16.0	13.5	15.5
30	---	---	---	15.5	10.5	12.5	19.5	18.0	19.0	16.0	14.5	15.5
31	---	---	---	16.0	11.0	13.0	19.5	18.0	19.0	---	---	---
MONTH	---	---	---	---	---	---	20.0	11.5	16.5	---	---	---

HUDSON RIVER BASIN

01362380 STONY CLOVE CREEK NEAR PHOENICIA, NY

LOCATION.--Lat 42°05'53", long 74°19'03", Ulster County, Hydrologic Unit 02020006, on left bank 0.5 mi south of Chichester on State Highway 214, and 1.3 mi upstream from mouth.

DRAINAGE AREA.--31.5 mi².

PERIOD OF RECORD.--December 1996 to January 1997 (annual maximum only), February to September 1997.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 900 ft above sea level, from topographic map.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 7,600 ft³/s, Apr. 4, 1987, by computation of slope-area measurement at site 0.5 mi upstream (drainage area, 26.9 mi²). Discharges for other floods by computation of slope-area measurements at site 1.3 mi downstream (drainage area, 33.3 mi²), are as follows: 6,560 ft³/s, Nov. 25, 1950, and 4,460 ft³/s, Apr. 5, 1952.

EXTREMES FOR CURRENT YEAR.--December 1996 to September 1997: 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)
Dec. 2	unknown	a*2,530	*7.36	No other peak greater than base discharge.			

a From rating curve extended above 200 ft³/s on basis of runoff comparison with nearby station.

Minimum discharge, 4.5 ft³/s, Aug. 10, 11, 12, 13, gage height, 2.07 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	e32	132	e200	137	47	10	5.3	9.4
2	---	---	---	---	e30	151	e190	133	46	11	5.2	8.4
3	---	---	---	---	e29	152	e180	152	43	11	5.2	7.8
4	---	---	---	---	28	134	e230	180	40	11	5.7	7.2
5	---	---	---	---	44	122	e250	157	37	9.7	6.0	6.9
6	---	---	---	---	38	126	e290	146	35	9.2	5.5	6.6
7	---	---	---	---	33	106	e350	127	33	8.9	5.2	6.6
8	---	---	---	---	31	97	e250	113	31	8.7	5.0	6.5
9	---	---	---	---	31	88	e190	105	29	9.2	5.0	6.2
10	---	---	---	---	e30	85	169	101	27	10	4.8	6.1
11	---	---	---	---	e29	79	141	92	25	8.5	4.8	82
12	---	---	---	---	e28	72	127	87	24	8.1	4.7	164
13	---	---	---	---	e27	66	130	82	23	7.8	6.5	77
14	---	---	---	---	e38	63	116	77	22	7.5	6.8	53
15	---	---	---	---	32	71	105	73	20	8.4	5.5	40
16	---	---	---	---	27	63	96	68	19	9.0	5.3	32
17	---	---	---	---	27	67	90	64	19	7.6	5.0	27
18	---	---	---	---	27	54	93	59	19	7.3	6.3	23
19	---	---	---	---	45	53	99	71	18	6.8	5.3	20
20	---	---	---	---	70	52	99	115	17	6.6	5.4	19
21	---	---	---	---	69	49	101	97	16	6.8	25	17
22	---	---	---	---	215	56	100	92	15	8.1	14	16
23	---	---	---	---	196	52	102	86	14	6.8	12	15
24	---	---	---	---	149	49	108	80	13	6.6	9.9	15
25	---	---	---	---	123	44	107	79	13	6.4	8.4	14
26	---	---	---	---	109	55	102	73	15	6.2	7.9	13
27	---	---	---	---	129	56	99	66	14	6.1	9.2	12
28	---	---	---	---	147	67	156	60	12	6.2	9.6	12
29	---	---	---	---	---	88	157	55	12	5.8	12	22
30	---	---	---	---	---	131	141	54	11	5.5	12	18
31	---	---	---	---	---	e190	---	51	---	5.4	11	---
TOTAL	---	---	---	---	1813	2670	4568	2932	709	246.2	239.5	762.7
MEAN	---	---	---	---	64.8	86.1	152	94.6	23.6	7.94	7.73	25.4
MAX	---	---	---	---	215	190	350	180	47	11	25	164
MIN	---	---	---	---	27	44	90	51	11	5.4	4.7	6.1
CFSM	---	---	---	---	2.06	2.73	4.83	3.00	.75	.25	.25	.81
IN.	---	---	---	---	2.14	3.15	5.39	3.46	.84	.29	.28	.90

e Estimated

01362500 ESOPUS CREEK AT COLDBROOK, NY

LOCATION.--Lat 42°00'51", long 74°16'16", Ulster County, Hydrologic Unit 02020006, on left bank at downstream side of bridge on Coldbrook Road in Coldbrook, 0.3 mi downstream from Little Beaver Kill, 1.5 mi upstream from Ashokan Reservoir, and 2.5 mi south of Mount Tremper. Water-quality sampling site at discharge station.

DRAINAGE AREA.--192 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1914 to September 1925 (monthly discharge only, furnished by State engineer and surveyor of New York, published in WSP 1302), October 1925 to September 1931 (monthly discharge only, furnished by Board of Water Supply, City of New York, published in WSP 1302), October 1931 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 621.54 ft above sea level. Prior to June 15, 1916, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Since 1924, water diverted from Schoharie Reservoir through Shandaken Tunnel (see station 01362230) enters Esopus Creek 10.5 mi upstream from station and is included in records of daily discharge. Slight diversion from Beaver Kill into Cooper Lake for water supply of Kingston. Telephone and satellite gage-height and temperature telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 65,300 ft³/s, Mar. 21, 1980, gage height 21.94 ft, from rating curve extended above 13,000 ft³/s, on basis of slope-area measurements at gage heights 12.39 ft, 15.15 ft, and 20.70 ft; minimum daily, 9.3 ft³/s, Aug. 27, 1949.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 17,100 ft³/s, Dec. 2, gage height, 13.38 ft; minimum, 138 ft³/s, July 28, gage height, 3.88 ft; minimum daily, 147 ft³/s, July 25.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	778	397	2060	e580	e200	801	1470	704	401	388	176	224
2	688	388	9570	e580	e200	970	1170	705	394	388	174	209
3	626	360	2810	604	e210	994	1140	1000	377	394	174	201
4	659	340	1690	569	e280	840	1560	1250	350	393	176	192
5	933	419	1210	540	453	741	1780	1010	342	387	177	188
6	901	404	1090	541	406	e840	1930	935	434	379	174	185
7	769	407	915	503	345	704	2180	810	761	379	170	183
8	468	630	814	e430	324	625	1630	695	751	383	169	180
9	445	5480	682	e410	e290	e540	1190	642	649	385	167	178
10	504	2230	595	e390	e280	e520	934	652	350	389	166	176
11	548	1400	550	e350	e270	e470	768	571	278	466	166	764
12	529	1030	764	e320	e260	e420	695	521	293	726	170	1430
13	516	814	1190	e300	e250	e380	788	490	291	723	181	617
14	503	684	1390	e290	e270	394	647	459	290	623	180	462
15	487	582	1120	e270	310	491	574	432	281	389	172	385
16	477	502	1020	e250	e270	e380	531	399	275	278	171	337
17	467	457	1260	e210	e260	361	510	376	275	213	169	306
18	457	423	1830	e180	277	352	522	348	276	169	177	285
19	641	489	1650	e190	396	336	553	411	283	160	169	357
20	6460	441	1280	e200	606	331	536	914	309	155	169	696
21	3420	392	997	e220	568	313	527	691	306	154	281	618
22	1960	360	839	e250	1910	360	507	582	300	161	239	330
23	1340	335	733	e280	1680	e300	507	537	294	153	222	232
24	1160	317	825	e270	1180	e280	517	494	290	149	196	225
25	890	307	1090	e260	883	280	513	475	291	147	186	218
26	734	438	894	e230	742	397	493	442	302	160	186	214
27	636	426	798	e210	848	382	470	406	302	158	203	207
28	596	384	715	e200	947	445	947	424	381	154	232	203
29	524	394	711	e190	---	556	847	407	394	179	346	256
30	478	449	757	e180	---	774	728	437	390	179	259	234
31	439	---	e680	e190	---	1570	---	422	---	177	230	---
TOTAL	30033	21679	42529	10187	14915	17147	27164	18641	10910	9538	6027	10292
MEAN	969	723	1372	329	533	553	905	601	364	308	194	343
MAX	6460	5480	9570	604	1910	1570	2180	1250	761	726	346	1430
MIN	439	307	550	180	200	280	470	348	275	147	166	176

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1997, BY WATER YEAR (WY)

	471	784	887	817	784	1169	1386	881	592	493	389	387
MEAN	471	784	887	817	784	1169	1386	881	592	493	389	387
MAX	2509	1699	2083	2123	2756	2810	3309	2320	1216	1364	1460	1194
(WY)	1956	1943	1974	1996	1981	1936	1940	1989	1972	1945	1933	1937
MIN	22.3	43.6	178	145	137	406	552	410	233	52.0	44.9	27.3
(WY)	1942	1965	1965	1981	1980	1960	1985	1993	1933	1965	1962	1962

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1932 - 1997
ANNUAL TOTAL	330320	219062	
ANNUAL MEAN	903	600	753
HIGHEST ANNUAL MEAN			1035
LOWEST ANNUAL MEAN			419
HIGHEST DAILY MEAN	21800	9570	24400
LOWEST DAILY MEAN	260	147	9.3
ANNUAL SEVEN-DAY MINIMUM	308	154	16
10 PERCENT EXCEEDS	1440	1090	1470
50 PERCENT EXCEEDS	535	419	539
90 PERCENT EXCEEDS	356	180	166

e Estimated

HUDSON RIVER BASIN

01362500 ESOPUS CREEK AT COLDBROOK, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: June 1996 to current year.

INSTRUMENTATION.--Water-temperature satellite and telephone telemeter provides 15-minute-interval readings.

REMARKS.--Interruptions of record were due to malfunction of recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 22.5°C, Aug. 16, Sept. 1, 2, 1997; minimum (water year 1997), 0.0°C on many days during winter period.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 22.5°C, Aug. 16, Sept. 1, 2; minimum, 0.0°C on many days during winter period.

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

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

HUDSON RIVER BASIN

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01362500 ESOPUS CREEK AT COLDBROOK, NY--Continued

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

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

HUDSON RIVER BASIN

01364500 ESOPUS CREEK AT MOUNT MARION, NY

LOCATION.--Lat 42°02'16", long 73°58'21", Ulster County, Hydrologic Unit 02020006, on left bank at downstream side of bridge on Glasco Turnpike, 0.8 mi east of Mount Marion, 1.6 mi downstream from Plattekill Creek, and 4.5 mi upstream from mouth.

DRAINAGE AREA.--419 mi².

PERIOD OF RECORD.--April 1907 to December 1913, January 1914 to March 1918 (monthly discharges only, published in WSP 1302), March 1970 to current year. Occasional miscellaneous measurements, 1902, 1951, 1956, 1966, 1967, 1969.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 40.16 ft above sea level. Prior to Aug. 12, 1970, nonrecording gage at same site (at different datum April 1907 to March 1918, and at present datum June 9, 1966 to Aug. 12, 1970).

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Flow from 256 mi² of drainage area regulated by Ashokan Reservoir since Sept. 9, 1913. Water diverted from Schoharie Creek through Shandaken Tunnel (see station 01362230) since Feb. 3, 1924, enters Esopus Creek about 12.2 mi upstream from Ashokan Reservoir. Diversion from Plattekill Creek for water supply of village of Saugerties. Slight diversion at headwaters into Cooper Lake for water supply of Kingston. Diversions upstream during summer months for irrigation purposes. Diversions for water supply of city of New York made from Ashokan Reservoir (see Reservoirs in Hudson River Basin). Discharge records for this station now represent the natural flow from 112 mi², together with spillage during high stages from the upstream reservoirs.

AVERAGE DISCHARGE.--27 years (water years 1971-97), 476 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 28,000 ft³/s, Apr. 26, 1910, gage height, 25.10 ft, datum then in use; maximum discharge since March 1970, 22,500 ft³/s, Apr. 5, 1987, gage height, 24.78 ft; minimum discharge, 7.9 ft³/s, July 17, 18, 1993, gage height, 11.64 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,600 ft³/s, Dec. 2, gage height, 22.06 ft, from crest-stage gage; minimum discharge, 13 ft³/s, Aug. 13, gage height, 11.84 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	524	344	1120	e1000	184	1540	4610	1040	153	30	17	90
2	369	272	e10000	1090	174	1580	4140	1090	146	28	17	80
3	294	237	e9400	1070	169	1680	3130	1200	143	28	18	65
4	235	222	e6000	1140	166	1640	2630	2220	130	30	19	53
5	197	192	e3700	1130	391	1520	2620	2080	117	29	18	45
6	174	177	2980	1070	653	1850	2840	1770	107	27	26	39
7	158	168	2880	929	569	1830	3060	1660	97	25	24	36
8	151	172	2770	797	e470	1510	3040	1310	93	24	19	33
9	302	619	2170	e640	e420	1300	2540	1010	85	32	17	31
10	310	2890	1580	e600	e360	1170	1890	1080	79	88	16	29
11	268	3210	1210	e620	e320	1170	1410	932	73	50	15	278
12	221	2070	1350	e540	300	1040	1150	749	78	36	14	2330
13	197	1340	1990	e470	256	908	1270	613	71	31	19	931
14	182	929	2790	e420	246	770	1210	523	65	28	25	478
15	160	697	3270	e310	281	1040	975	439	59	38	22	297
16	147	528	3000	e240	260	1040	784	389	54	69	19	210
17	139	406	2670	e220	234	857	696	359	53	46	17	163
18	127	331	2730	e200	225	733	696	269	55	36	21	134
19	150	321	3120	e180	254	664	768	262	59	31	23	113
20	3790	338	3130	e160	406	664	660	807	54	26	20	99
21	3310	300	2460	e150	561	649	587	756	50	25	60	88
22	2780	269	1960	e140	1550	653	695	746	44	28	99	76
23	3210	239	1650	e150	2720	659	758	648	39	29	88	69
24	2560	210	1530	176	2870	626	562	498	36	27	60	65
25	1890	180	1940	256	2310	493	441	404	36	25	44	61
26	1350	276	1840	394	1800	617	373	375	38	24	39	57
27	984	432	1670	338	1600	724	347	328	56	22	40	53
28	772	382	1510	e300	1640	637	709	257	43	23	38	50
29	652	324	e1300	e250	---	658	1240	208	37	22	213	107
30	501	287	e1200	e210	---	771	1200	182	33	19	128	110
31	412	---	e1100	203	---	1960	---	167	---	18	97	---
TOTAL	26516	18362	86020	15393	21389	32953	47031	24371	2183	994	1292	6270
MEAN	855	612	2775	497	764	1063	1568	786	72.8	32.1	41.7	209
MAX	3790	3210	10000	1140	2870	1960	4610	2220	153	88	213	2330
MIN	127	168	1100	140	166	493	347	167	33	18	14	29

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

MEAN	243	443	544	487	507	803	1282	723	346	187	93.7	128
MAX	855	1978	2775	1887	1745	2049	3306	1664	1773	1163	426	609
(WY)	1997	1914	1997	1978	1976	1977	1987	1978	1972	1996	1990	1987
MIN	21.0	28.3	88.4	31.6	59.4	167	136	97.9	37.5	14.4	12.4	13.6
(WY)	1981	1985	1981	1981	1980	1981	1985	1995	1991	1993	1993	1980

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1914 - 1997

ANNUAL TOTAL	383311	282774	
ANNUAL MEAN	1047	775	
HIGHEST ANNUAL MEAN			476
LOWEST ANNUAL MEAN			908
HIGHEST DAILY MEAN	10000	Dec 2	17800
LOWEST DAILY MEAN	34	Sep 6	8.1
ANNUAL SEVEN-DAY MINIMUM	37	Sep 1	8.5
10 PERCENT EXCEEDS	2860		1250
50 PERCENT EXCEEDS	539		172
90 PERCENT EXCEEDS	88		32

e Estimated

01364959 RONDOUT CREEK ABOVE RED BROOK AT PEEKAMOOSSE, NY

LOCATION.--Lat 41°56'13", long 74°22'30", Ulster County, Hydrologic Unit 02020007, 500 ft upstream from mouth of Red Brook, 0.8 mi upstream from outlet of Peekamoose Lake, and 0.8 mi north of Peekamoose.

DRAINAGE AREA.--5.36 mi².

PERIOD OF RECORD.--May 1996 to current year. Occasional discharge measurements, water years 1984-86, 1988-94.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,740 ft above sea level, from topographic map.

REMARKS.--Records fair except those above 400 ft³/s and those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--1 year, 19.0 ft³/s, 48.05 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 803 ft³/s, Oct. 20, 1996, gage height, 4.13 ft; minimum, 1.6 ft³/s, Aug. 10, 11, 12, 13, 1997; minimum gage height, 0.38 ft, Aug. 11, 1997.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 20	0230	*803	*4.13	Dec. 2	0130	552	a3.64
Nov. 9	0400	431	3.35	Sept. 11	2345	182	2.51

a Recorded; outside gage height was 3.98 ft, from crest-stage gage.

Minimum discharge, 1.6 ft³/s, Aug. 10, 11, 12, 13; minimum gage height, 0.38 ft, Aug. 11.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	17	158	25	7.1	22	44	27	12	3.0	1.9	4.1
2	21	16	231	24	6.8	60	34	27	12	3.1	1.8	3.2
3	19	15	57	27	7.0	39	36	55	11	3.6	1.8	2.9
4	15	14	39	24	6.6	29	55	48	10	3.1	1.9	2.8
5	13	13	31	25	12	26	50	32	9.9	2.9	2.0	2.7
6	13	12	29	26	8.4	33	53	31	9.4	2.7	1.9	2.6
7	12	12	26	22	7.4	24	71	28	9.0	2.7	1.8	2.6
8	15	35	24	20	7.1	22	45	25	8.5	2.7	1.8	2.6
9	22	168	21	19	7.0	20	34	25	8.0	4.5	1.7	2.6
10	18	46	20	19	7.5	19	29	24	7.5	3.8	1.7	2.6
11	14	33	19	17	e6.6	18	26	21	7.1	2.7	1.7	4.9
12	13	27	28	e16	6.5	16	27	20	6.7	2.5	1.7	58
13	13	24	34	15	e6.3	e15	38	19	6.7	2.4	4.2	19
14	14	22	31	14	7.1	18	28	18	6.4	2.3	2.2	14
15	11	20	26	13	6.8	19	24	18	6.0	10	1.8	12
16	12	19	24	e12	6.3	15	23	16	5.8	7.7	1.8	10
17	12	18	49	e12	6.2	e14	22	16	5.6	3.1	1.7	9.5
18	11	17	53	e11	6.4	13	21	15	5.3	2.7	2.6	8.6
19	66	18	41	e11	8.2	13	21	19	4.9	2.5	1.8	7.8
20	355	16	32	e10	9.2	13	21	25	4.5	2.4	1.9	7.6
21	132	15	28	9.8	10	12	19	18	4.3	2.5	17	7.1
22	60	14	25	9.5	42	e12	18	17	4.1	2.9	5.1	6.6
23	43	13	23	10	27	e11	17	16	3.8	2.4	2.9	6.4
24	39	12	46	8.6	20	e10	16	16	3.9	2.4	2.5	6.2
25	31	12	46	12	e17	e10	15	16	3.7	2.3	2.3	6.0
26	26	22	30	8.9	16	20	15	15	4.5	2.2	2.5	5.7
27	25	15	27	e8.5	26	17	15	14	3.8	2.2	2.9	5.4
28	23	13	25	e8.0	28	23	48	14	3.4	2.2	5.0	5.4
29	20	13	33	7.7	---	31	30	13	3.2	2.0	5.3	10
30	20	13	34	7.4	---	46	25	13	3.1	2.0	3.3	7.9
31	18	---	27	7.3	---	72	---	13	---	1.9	2.9	---
TOTAL	1128	704	1317	459.7	332.5	712	920	674	194.1	95.4	91.4	290.9
MEAN	36.4	23.5	42.5	14.8	11.9	23.0	30.7	21.7	6.47	3.08	2.95	9.70
MAX	355	168	231	27	42	72	71	55	12	10	17	58
MIN	11	12	19	7.3	6.2	10	15	13	3.1	1.9	1.7	2.6
CFSM	6.79	4.38	7.93	2.77	2.22	4.29	5.72	4.06	1.21	.57	.55	1.81
IN.	7.83	4.89	9.14	3.19	2.31	4.94	6.39	4.68	1.35	.66	.63	2.02

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

	1996	1997	1996	1997	1996	1997	1996	1997	1996	1997	1996	1997
MEAN	36.4	23.5	42.5	14.8	11.9	23.0	30.7	24.3	12.6	16.0	5.45	14.9
MAX	36.4	23.5	42.5	14.8	11.9	23.0	30.7	26.8	18.7	29.0	7.96	20.1
(WY)	1997	1997	1997	1997	1997	1997	1997	1996	1996	1996	1996	1996
MIN	36.4	23.5	42.5	14.8	11.9	23.0	30.7	21.7	6.47	3.08	2.95	9.70
(WY)	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997

SUMMARY STATISTICS

	FOR 1997 WATER YEAR	WATER YEARS 1996 - 1997
ANNUAL TOTAL	6919.0	
ANNUAL MEAN	19.0	19.0
HIGHEST ANNUAL MEAN		19.0
LOWEST ANNUAL MEAN		19.0
HIGHEST DAILY MEAN	355	355
LOWEST DAILY MEAN	1.7	1.7
ANNUAL SEVEN-DAY MINIMUM	1.8	1.8
ANNUAL RUNOFF (CFSM)	3.54	3.54
ANNUAL RUNOFF (INCHES)	48.02	48.05
10 PERCENT EXCEEDS	34	37
50 PERCENT EXCEEDS	13	14
90 PERCENT EXCEEDS	2.6	2.9

e Estimated

HUDSON RIVER BASIN

01365000 RONDOUT CREEK NEAR LOWES CORNERS, NY

LOCATION.--Lat 41°52'00", long 74°29'12", Sullivan County, Hydrologic Unit 02020007, on left bank 100 ft downstream from small tributary, 350 ft upstream from bridge on county road, 1.1 mi upstream from Sugarloaf Brook, 1.1 mi east of Lowes Corners, and 1.5 mi southwest of Sundown.

DRAINAGE AREA.--38.3 mi².

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

REVISED RECORDS.--WSP 1702: 1952. WDR NY-90-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 874.44 ft above sea level. Prior to Oct. 4, 1938, nonrecording gage at highway bridge 350 ft downstream at datum 847.00 ft above sea level (levels by Board of Water Supply, City of New York). Oct. 4, 1938 to July 5, 1951, water-stage recorder at site 1.2 mi downstream; Oct. 4, 1938 to July 3, 1949, datum 847.00 ft above sea level and July 4, 1949 to July 5, 1951, datum 846.00 ft above sea level (levels by Board of Water Supply, City of New York).

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

AVERAGE DISCHARGE.--60 years, 98.6 ft³/s, 34.98 in./yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 7,600 ft³/s, July 22, 1938, from rating curve extended above 2,600 ft³/s; maximum gage height, 10.6 ft, Apr. 4, 1987, from floodmarks; minimum discharge, 3.3 ft³/s, Sept. 16, 17, Oct. 17, 18, 1980.

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)
Oct. 20	0430	2,850	6.96	Dec. 2	0300	*3,590	*7.55
Nov. 9	0530	2,820	6.94				

Minimum discharge, 6.6 ft³/s, Aug. 12, 13.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	128	93	870	125	47	165	346	139	70	15	8.2	26
2	113	85	1760	127	44	282	274	139	71	16	7.9	21
3	105	78	446	136	44	258	266	241	67	18	7.7	18
4	87	72	295	127	43	212	314	280	59	17	7.9	16
5	78	67	227	125	87	191	291	215	55	14	11	15
6	71	64	211	126	68	253	275	202	51	13	13	15
7	66	62	183	116	57	188	286	177	48	13	9.1	14
8	72	117	167	106	54	167	237	156	46	12	8.1	14
9	135	1300	146	104	52	148	197	154	43	16	7.9	14
10	109	475	132	104	e47	146	170	150	40	25	7.5	14
11	91	300	126	95	e45	134	152	133	37	14	7.1	153
12	83	219	193	86	e44	120	151	122	34	13	6.8	283
13	79	176	243	84	e43	e100	189	116	34	12	24	125
14	75	148	294	78	e46	e110	150	108	35	11	18	93
15	70	127	234	e70	51	e125	135	108	30	33	10	74
16	67	112	203	e62	47	e100	127	100	28	61	8.4	62
17	62	103	253	e56	46	e98	124	95	29	20	7.7	53
18	59	97	296	e50	46	97	121	90	30	15	12	47
19	178	112	265	e49	54	93	118	119	29	13	9.8	41
20	1740	94	216	e52	72	91	114	181	26	12	8.6	38
21	893	82	179	e54	72	87	107	128	25	12	76	35
22	488	74	160	57	221	98	101	123	23	19	39	32
23	324	67	147	64	206	e80	95	116	21	13	19	30
24	270	62	200	52	167	e74	91	109	20	12	14	29
25	203	62	225	69	144	76	87	108	20	11	12	27
26	167	132	172	e54	135	137	82	101	24	10	20	26
27	146	100	160	e45	165	123	79	92	24	10	37	24
28	132	82	149	e50	188	157	195	86	18	11	45	23
29	116	80	156	e44	---	198	149	81	17	10	69	36
30	112	77	160	46	---	257	134	78	16	9.1	31	33
31	105	---	141	48	---	469	---	76	---	8.6	23	---
TOTAL	6424	4719	8609	2461	2335	4834	5157	4123	1070	488.7	585.7	1431
MEAN	207	157	278	79.4	83.4	156	172	133	35.7	15.8	18.9	47.7
MAX	1740	1300	1760	136	221	469	346	280	71	61	76	283
MIN	59	62	126	44	43	74	79	76	16	8.6	6.8	14
CFSM	5.41	4.11	7.25	2.07	2.18	4.07	4.49	3.47	.93	.41	.49	1.25
IN.	6.24	4.58	8.36	2.39	2.27	4.70	5.01	4.00	1.04	.47	.57	1.39

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

	65.9	102	117	94.0	94.2	161	221	136	71.1	48.4	34.2	37.7
MEAN	65.9	102	117	94.0	94.2	161	221	136	71.1	48.4	34.2	37.7
MAX	403	295	338	293	299	379	447	382	299	264	226	185
(WY)	1956	1973	1974	1996	1981	1977	1940	1989	1972	1938	1938	1987
MIN	4.92	5.88	29.8	18.2	21.0	60.5	64.8	41.3	18.7	9.18	7.19	5.95
(WY)	1965	1965	1947	1981	1980	1970	1946	1941	1962	1962	1962	1964

e Estimated

HUDSON RIVER BASIN

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01365000 RONDOUT CREEK NEAR LOWES CORNERS, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1937 - 1997	
ANNUAL TOTAL	62728		42237.4		98.6	
ANNUAL MEAN	171		116		152	
HIGHEST ANNUAL MEAN					1996	
LOWEST ANNUAL MEAN					49.1	
HIGHEST DAILY MEAN	2040	Jan 19	1760	Dec 2	3500	Oct 15 1955
LOWEST DAILY MEAN	17	Sep 4	6.8	Aug 12	3.6	Sep 16 1980
ANNUAL SEVEN-DAY MINIMUM	19	Aug 31	8.5	Jul 29	4.1	Oct 13 1980
ANNUAL RUNOFF (CFSM)	4.47		3.02		2.57	
ANNUAL RUNOFF (INCHES)	60.93		41.02		34.98	
10 PERCENT EXCEEDS	327		223		212	
50 PERCENT EXCEEDS	111		80		58	
90 PERCENT EXCEEDS	35		13		14	

HUDSON RIVER BASIN

01367500 RONDOUT CREEK AT ROSENDALE, NY

LOCATION.--Lat 41°50'35", long 74°05'11", Ulster County, Hydrologic Unit 02020007, on left bank 30 ft upstream from bridge on James Street in Rosendale, and 3 mi upstream from Wallkill River.

DRAINAGE AREA.--383 mi².

PERIOD OF RECORD.--July 1901 to November 1903, October 1905 to December 1906 (monthly discharges only, published in WSP 1302), January 1907 to December 1913, January 1914 to January 1919 (monthly discharges only, published in WSP 1302), August 1926 to current year.

REVISED RECORDS.--WSP 756: 1933. WDR NY-90-1: Drainage Area. WDR NY-92-1: 1903.

GAGE.--Water-stage recorder. Datum of gage is 32.83 ft above sea level. Prior to January 1919, nonrecording gage at site 150 ft downstream at datum 6.00 ft higher. Aug. 3, 1926 to Sept. 10, 1969, at present site at datum 10.00 ft higher. Sept. 11, 1969 to Feb. 3, 1970, water-stage recorder, and June 9, 1970 to Jan. 18, 1971, nonrecording gage at site 0.2 mi upstream at datum 11.20 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Occasional regulation from hydroelectric plant upstream from station. Diversion upstream from station during navigation season for Delaware and Hudson Canal, 1901-19. Diversion from Rondout Creek through the emergency connection to the Delaware Aqueduct at Lackawack for New York City water supply during April 1944 to May 1951. Since October 1950, flow regulated by Rondout Reservoir (see Reservoirs in Hudson River Basin). Subsequent to May 1951, entire flow except for period of spilling, diverted from Rondout Reservoir for New York City water supply. Discharge records for this station now represent the natural flow from 288 mi² together with spillage during high flow from Rondout Reservoir. Telephone gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35,800 ft³/s, Oct. 16, 1955, gage height, 36.8 ft, present datum, from floodmarks, from rating curve extended above 17,500 ft³/s, on basis of contracted-opening measurement at gage height 33.93 ft, present datum; minimum discharge, 2.2 ft³/s, July 16, 1965; minimum daily, 3.0 ft³/s, July 16, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,300 ft³/s, Oct. 20, gage height, 18.18 ft; minimum, 49 ft³/s, Aug. 12, 13, gage height, 8.78 ft; minimum daily, 50 ft³/s, Aug. 12.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	895	471	1690	e600	e740	834	4890	607	238	75	54	150
2	651	434	7860	718	e640	1040	2490	597	235	73	52	172
3	593	401	3750	679	e500	1270	1990	721	290	75	53	141
4	490	378	2080	738	e480	1020	1940	1650	261	73	54	118
5	407	360	1520	671	e900	916	1850	1110	228	69	57	106
6	368	343	1800	691	1240	1790	1490	898	205	65	61	95
7	343	343	1790	594	e880	1460	1260	848	193	63	62	87
8	332	346	1640	513	e640	1120	1020	644	181	60	56	84
9	1120	2410	1410	e470	e540	967	852	572	171	73	53	80
10	996	2080	1130	e470	e470	822	672	644	159	151	52	78
11	832	1280	1010	e460	e430	873	601	585	146	121	51	528
12	640	922	1800	e390	e400	757	579	512	132	86	50	3140
13	558	749	2760	e420	e370	624	942	468	133	74	53	947
14	505	654	3440	e420	e350	692	725	430	131	69	57	572
15	448	594	2800	e400	e360	1140	614	404	124	74	65	368
16	411	534	2140	e390	e380	983	556	383	115	148	60	265
17	390	507	2040	e370	e350	761	525	349	111	112	57	217
18	350	465	2400	e370	331	707	589	358	123	79	63	182
19	566	506	2110	e450	400	666	562	355	131	68	68	164
20	10100	531	1840	e600	784	634	470	796	123	60	61	147
21	5700	461	1340	e900	833	598	429	637	122	59	238	132
22	3030	421	1120	e800	2140	648	396	447	134	87	401	118
23	1900	427	1010	e600	2050	691	378	397	110	81	189	112
24	1490	410	1150	e600	1350	563	357	353	95	70	125	108
25	1180	395	2000	e640	1000	554	336	336	92	66	100	101
26	949	785	1300	e680	860	1190	317	386	99	63	88	97
27	822	1030	1060	e560	871	1110	294	321	138	62	98	97
28	747	680	852	e600	1020	1010	1130	283	108	85	163	91
29	688	601	829	e700	---	979	1170	258	89	74	260	149
30	582	573	e800	e800	---	970	789	243	81	62	236	171
31	516	---	e700	e900	---	3440	---	244	---	57	160	---
TOTAL	38599	20091	59171	18194	21309	30829	30213	16836	4498	2434	3197	8817
MEAN	1245	670	1909	587	761	994	1007	543	150	78.5	103	294
MAX	10100	2410	7860	900	2140	3440	4890	1650	290	151	401	3140
MIN	332	343	700	370	331	554	294	243	81	57	50	78

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 1997, BY WATER YEAR (WY)

	350	563	706	634	715	1154	1181	724	412	217	188	222
MEAN	350	563	706	634	715	1154	1181	724	412	217	188	222
MAX	2473	1456	2101	2043	2057	2379	2524	2302	2180	867	1220	1175
(WY)	1956	1973	1974	1979	1981	1977	1983	1989	1972	1996	1955	1987
MIN	22.0	34.8	147	75.0	126	316	313	201	68.0	29.0	24.1	16.8
(WY)	1965	1965	1965	1981	1980	1981	1985	1965	1965	1965	1964	1964

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1952 - 1997	
ANNUAL TOTAL	348924		254188			
ANNUAL MEAN	953		696		589	
HIGHEST ANNUAL MEAN					892	
LOWEST ANNUAL MEAN					255	
HIGHEST DAILY MEAN	10100	Oct 20	10100	Oct 20	23500	Oct 16 1955
LOWEST DAILY MEAN	85	Sep 4	50	Aug 12	3.0	Jul 16 1965
ANNUAL SEVEN-DAY MINIMUM	94	Aug 31	53	Aug 8	15	Sep 21 1964
10 PERCENT EXCEEDS	2010		1490		1360	
50 PERCENT EXCEEDS	561		470		302	
90 PERCENT EXCEEDS	203		73		65	

e Estimated

HUDSON RIVER BASIN

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01371500 WALLKILL RIVER AT GARDINER, NY
(National water-quality assessment program station)

LOCATION.--Lat 41°41'10", long 74°09'56", Ulster County, Hydrologic Unit 02020007, on left bank 400 ft upstream from bridge on U.S. Highway 44, 500 ft downstream from Shawangunk Kill, and 0.7 mi northwest of Gardiner. Water-quality sampling site at discharge station.
DRAINAGE AREA.--695 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1924 to current year.

REVISED RECORDS.--WSP 756: Drainage area. WDR NY-90-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 185.70 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Regulation at low flows by dams upstream and some diversions for municipalities and irrigational purposes. Telephone gage-height telemeter at station.

AVERAGE DISCHARGE.--73 years, 1,075 ft³/s, 21.01 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,800 ft³/s, Oct. 16, 1955, gage height, 19.81 ft; minimum, 9.5 ft³/s, Sept. 28, 1964; minimum gage height, 1.59 ft, Aug. 14, 15, 16, 19, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 20	1015	*11,300	10.27	Feb. 5	2330	ice jam	*10.73
Dec. 2	1445	7,700	8.25	Apr. 1	0145	10,200	9.67
Dec. 14	1515	6,990	7.80				

Minimum discharge, 62 ft³/s, Aug. 12, gage height, 1.96 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1090	972	1910	1300	e1300	1110	9160	1160	369	81	81	197
2	798	865	6180	1150	e1400	1120	6930	1040	370	75	79	136
3	751	809	5380	1190	e1500	1270	5750	1410	426	82	78	107
4	664	749	4320	1470	e2100	1180	5090	2820	572	83	75	153
5	542	687	3780	1440	e3500	1200	4480	2040	552	84	76	118
6	494	673	4520	1420	e4000	2590	3920	1610	404	136	76	116
7	448	632	5090	1220	e2500	2170	3490	1460	355	91	71	106
8	477	646	5460	985	e1800	1580	2990	1200	332	76	67	75
9	1790	1690	4950	795	e1100	1260	2450	1110	294	126	75	108
10	2190	2770	3960	807	e960	1260	2010	1260	246	314	75	75
11	1860	2360	3300	e680	e860	1620	1690	1120	247	397	71	402
12	1320	1890	4340	e560	e760	1430	1520	925	221	308	65	4040
13	1010	1500	5500	e540	e700	1120	2140	804	206	216	78	1930
14	862	1190	6510	e520	e640	1020	1960	811	195	172	80	1190
15	762	971	6050	e500	e800	2110	1610	733	195	92	75	858
16	669	858	5090	e640	e980	2540	1360	685	164	115	75	642
17	620	757	4480	e2000	965	1880	1180	596	196	99	87	477
18	591	744	4120	e1800	865	1570	1270	586	161	93	380	361
19	875	837	3710	e1500	969	1400	1860	624	184	86	619	284
20	9680	893	3460	e1300	1460	1250	1670	1020	189	83	398	241
21	7860	836	2640	e1100	1550	1210	1410	880	250	80	399	213
22	5910	748	2150	e1000	2230	1230	1210	718	200	88	684	188
23	4850	677	1890	e1100	2310	1180	1090	566	169	88	554	165
24	4030	634	2140	e1300	1600	975	992	501	145	95	408	145
25	3130	611	3730	e2000	1160	881	921	475	134	99	260	169
26	2290	1600	2780	e2100	970	1580	869	519	137	104	203	144
27	1730	2940	2300	e1900	976	1570	804	610	144	144	199	85
28	1450	2080	2010	e2000	1170	1270	1870	507	123	236	202	126
29	1310	1650	1830	e2200	---	1090	2100	433	114	185	209	201
30	1190	1360	e1700	e1700	---	1060	1470	392	133	103	174	243
31	1070	---	1670	e1400	---	4130	---	385	---	94	201	---
TOTAL	62313	35629	116950	39617	41125	46856	75266	29000	7427	4125	6174	13295
MEAN	2010	1188	3773	1278	1469	1511	2509	935	248	133	199	443
MAX	9680	2940	6510	2200	4000	4130	9160	2820	572	397	684	4040
MIN	448	611	1670	500	640	881	804	385	114	75	65	75
CFSM	2.89	1.71	5.43	1.84	2.11	2.17	3.61	1.35	.36	.19	.29	.64
IN.	3.34	1.91	6.26	2.12	2.20	2.51	4.03	1.55	.40	.22	.33	.71

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1997, BY WATER YEAR (WY)

	543	1001	1213	1220	1428	2314	1932	1151	711	480	448	480
MEAN	543	1001	1213	1220	1428	2314	1932	1151	711	480	448	480
MAX	4217	3407	3773	4054	3084	5947	5466	4087	3688	2735	3333	2664
(WY)	1956	1928	1997	1996	1984	1936	1983	1989	1972	1928	1955	1938
MIN	58.2	76.1	157	102	241	669	463	239	98.2	33.6	21.6	18.9
(WY)	1965	1965	1947	1925	1980	1981	1946	1941	1965	1966	1966	1964

e Estimated

HUDSON RIVER BASIN

01371500 WALLKILL RIVER AT GARDINER, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1925 - 1997	
ANNUAL TOTAL	717894		477777		1075	
ANNUAL MEAN	1961		1309		1900	1928
HIGHEST ANNUAL MEAN					390	1965
LOWEST ANNUAL MEAN					25200	Aug 19 1955
HIGHEST DAILY MEAN	15000	Jan 28	9680	Oct 20	10	Sep 28 1964
LOWEST DAILY MEAN	127	Sep 6	65	Aug 12	13	Sep 17 1964
ANNUAL SEVEN-DAY MINIMUM	145	Aug 31	71	Aug 6	1.55	
ANNUAL RUNOFF (CFSM)	2.82		1.88		21.01	
ANNUAL RUNOFF (INCHES)	38.43		25.57		2680	
10 PERCENT EXCEEDS	4970		3200		569	
50 PERCENT EXCEEDS	1190		881		110	
90 PERCENT EXCEEDS	377		97			

HUDSON RIVER BASIN

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01371500 WALLKILL RIVER AT GARDINER, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1958, 1971, April 1993 to current year.

CHEMICAL DATA: 1958 (e), 1971 (a), 1993 (c), 1994 (d), 1995 (c), 1996-97 (a).

PESTICIDE DATA: 1993-94, 1996-97 (a).

ORGANIC DATA: OC--1993 (c), 1994 (d), 1995 (c), 1997 (a).

PCB--1993 (a).

PCN--1993 (a).

NUTRIENT DATA: 1958 (e), 1971 (a), 1993 (c), 1994 (d), 1995 (c), 1996-97 (a).

BIOLOGICAL DATA:

Bacteria--1993 (a).

Phytoplankton--1993 (a).

SEDIMENT DATA: 1993 (c), 1994 (d), 1995 (c), 1996 (a).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1957 to September 1958, June 1993 to September 1995.

REMARKS.--A complete list of compounds included when pesticides analysis was performed on samples follows the Introduction to the Hudson NAWQA section near the end of this report. Only those compounds detected at or above the method detection limit (MDL) were included in the tables.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 33.0°C, July 9, 1993; minimum daily (water years 1958, 1994-95), 0.0°C on many days during winter periods.

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

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AMMONIA + ORGANIC DIS-SOLVED (MG/L AS N) (00623)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)
OCT 09...	1145	2170	289	7.4	12.5	<.01	.51	.02	.7	.4	.20	.11
JUN 16...	1030	195	441	7.6	--	--	--	--	--	--	--	--
*16...	1039	195	441	7.6	--	--	--	--	--	--	--	--

DATE	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	ALA-CHLOR, WATER, DISS, REC (UG/L) (46342)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	BEN-FLUR-ALIN, WAT FLD 0.7 U GF, REC (UG/L) (82673)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	METO-LACHLOR, WATER, DISS, DISSOLV (UG/L) (39415)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	TRI-FLUR-ALIN, WAT FLT 0.7 U GF, REC (UG/L) (82661)
OCT 09...	.10	7.5	1.6	<.002	.012	<.002	<.009	<.004	E.0057	.055	<.005	<.002
JUN 16...	--	--	--	.0065	.0944	.0051	.0195	.0171	E.0039	.215	.0117	E.0031
*16...	--	--	--	E.0038	.0918	<.002	.0098	.0156	E.0038	.210	.0114	<.002

* Replicate sample.

E Estimate.

HUDSON RIVER BASIN

01372058 HUDSON RIVER BELOW POUGHKEEPSIE, NY

LOCATION.--Lat 41°39'03", long 73°56'42", Dutchess County, Hydrologic Unit 02020008, on left bank at IBM pumping station, 2.3 mi south of Poughkeepsie, and 3.5 mi south of the Mid-Hudson bridge. Water-quality sampling site at stage station.

DRAINAGE AREA.--11,861 mi².

ELEVATION RECORDS

PERIOD OF RECORD.--May 1992 to current year.

GAGE.--Water-stage recorder. Datum of gage is 10.00 ft below sea level. Gage-height record converted to elevation above or below(-) mean sea level for publication.

REMARKS.--Telephone gage-height, temperature, and specific conductance telemeter at station. Interruptions of record were due to equipment calibration. All data are collected, stored, and reported in Eastern Standard Time.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 6.82 ft, Dec. 11, 1992; minimum, -4.38 ft, Mar. 14, 15, 1993.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 6.04 ft, Oct. 19; minimum, -2.67 ft, Mar. 7.

REVISIONS.--The minimum elevation for water year 1996 has been revised to -3.55 ft, Mar. 4, 1996. Daily and monthly elevations for January to September 1996 have been revised and are available in files of the U.S. Geological Survey. These figures supersede those published in WDR NY Vol. 1, 1996.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	3.14	-.67	1.26	3.23	.13	1.59	3.92	.56	2.13	2.17	-.77	.80
2	3.27	-.21	1.47	2.97	.01	1.47	4.70	.29	2.40	2.78	-.20	1.37
3	2.81	-.90	.98	2.09	-.49	.90	3.32	.07	1.92	3.04	-.48	1.60
4	3.04	-.90	1.28	1.88	-.81	.60	2.89	.66	1.77	3.34	-.07	1.78
5	2.56	.05	1.28	2.08	-.84	.65	2.82	.21	1.66	3.97	.22	2.13
6	2.74	-.06	1.32	2.68	-.72	1.14	4.94	.50	2.45	3.82	-.28	1.55
7	3.07	.16	1.56	3.15	-.24	1.48	4.17	.74	2.49	2.96	-1.26	.59
8	3.49	.27	1.81	4.49	.43	2.54	4.34	.63	2.31	1.58	-2.39	---
9	3.61	.25	1.92	4.71	.87	2.80	4.52	-.01	2.16	3.53	-1.74	.93
10	3.62	.04	1.71	4.21	.24	2.10	4.06	-.09	1.76	4.46	-.18	2.08
11	2.93	-.96	.95	3.82	-.13	1.59	4.12	-.25	1.81	2.88	-1.24	.90
12	3.25	-.41	1.43	3.01	-.86	.89	4.14	-.42	1.80	2.04	-2.08	-.01
13	3.21	-.55	1.39	3.12	-1.14	.88	5.20	.60	2.66	2.08	-2.12	.02
14	3.35	-.64	1.33	3.15	-.94	.96	4.62	.44	2.42	2.50	-1.17	.68
15	2.86	-1.06	.83	3.03	-.80	.98	4.58	.70	2.52	2.56	-1.04	.91
16	3.09	-.68	1.15	3.24	-.45	1.31	4.11	.27	2.26	3.08	-.72	1.36
17	3.29	-.65	1.25	3.90	-.23	1.84	3.77	.27	2.12	1.04	-2.44	-.53
18	4.22	.21	2.09	3.83	.23	2.01	3.64	.46	2.03	1.76	-2.05	-.13
19	6.04	1.08	3.50	3.82	.43	2.11	3.51	.10	1.87	2.35	-1.94	.43
20	4.56	1.33	3.07	3.44	-.31	1.60	2.03	-1.48	.32	2.56	-1.46	.49
21	4.42	.87	2.63	3.36	-.64	---	2.06	-2.02	.24	2.16	-2.08	-.04
22	4.04	.60	2.36	3.27	-.74	1.13	2.94	-.97	.87	3.16	-.98	.98
23	4.18	.34	2.22	3.46	-.94	1.33	3.37	-.79	1.25	2.91	-1.51	.70
24	3.95	.13	2.04	3.07	-.90	1.07	3.82	-.36	1.69	3.54	-1.82	1.10
25	3.87	-.12	1.79	3.47	-.76	1.26	3.28	-1.14	.67	4.21	-.07	2.22
26	3.66	-.52	1.51	3.93	-.41	1.45	3.03	-.98	.92	1.79	-2.46	-.26
27	3.62	-.58	1.52	2.22	-1.70	.18	3.34	-.39	1.29	2.71	-1.54	.52
28	3.92	-.26	1.66	3.66	-.31	1.43	3.38	-.11	1.48	3.05	-1.64	1.03
29	3.19	-.88	1.11	2.88	-.60	1.03	3.31	.00	1.61	1.74	-1.78	-.01
30	4.72	.12	2.24	3.26	.04	1.46	2.41	-.80	.88	2.17	-1.21	.45
31	3.13	.01	1.60	---	---	---	2.32	-.82	.90	2.87	-.38	1.38
MONTH	6.04	-1.06	1.69	4.71	-1.70	---	5.20	-2.02	1.70	4.46	-2.46	---

HUDSON RIVER BASIN

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01372058 HUDSON RIVER BELOW POUGHKEEPSIE, NY--Continued

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	3.37	-.29	1.40	2.94	.25	1.59	3.44	-.20	1.64	3.51	.15	1.94
2	2.87	-.68	1.02	3.18	-.84	1.35	4.36	.76	2.17	2.65	-1.36	.73
3	3.17	-.74	1.11	2.28	-.93	.92	3.95	.01	2.08	4.27	-.66	1.79
4	3.22	-1.40	1.18	4.02	.74	2.26	3.90	-.02	2.02	3.51	-.84	1.45
5	4.35	-.41	1.79	3.14	-.47	1.45	4.24	.10	2.09	4.05	-.41	1.62
6	3.08	-1.28	.94	4.01	-1.13	1.07	4.54	.22	2.21	3.86	-.38	1.75
7	3.33	-1.15	1.07	1.97	-2.67	-.54	4.52	.19	2.25	3.78	-1.66	.80
8	3.47	-1.03	1.19	3.17	-1.63	.85	4.21	-.37	1.66	2.88	-.92	.95
9	3.97	-.72	1.57	3.79	-1.44	1.06	3.46	-1.18	.99	3.53	-.27	1.57
10	3.54	-.95	1.33	4.02	-.62	1.71	2.68	-.97	.81	3.73	-.28	1.49
11	3.23	-1.00	1.24	3.80	-.44	1.65	3.17	-.43	1.29	3.23	-.55	1.18
12	3.68	-.43	1.73	3.24	-1.11	1.04	3.15	-.42	1.33	2.90	-.24	1.45
13	2.57	-1.51	.55	2.47	-1.32	.52	3.56	-.11	1.60	2.60	-.49	1.13
14	3.34	-.92	1.62	3.13	-.63	1.41	2.37	-.92	.74	2.68	-.11	1.44
15	3.22	-.57	1.04	3.43	-1.24	.98	2.07	-.46	.90	2.64	-.15	1.39
16	2.00	-1.31	.46	1.88	-1.24	.25	2.35	-.75	.81	---	-1.18	---
17	2.17	-1.47	.58	2.19	-1.22	.83	2.54	-.45	1.14	2.43	-.56	.91
18	2.93	-.96	.92	1.59	-1.27	.39	2.28	-.54	.95	2.84	-.79	.74
19	2.01	-1.56	.25	2.53	-.32	1.14	4.36	-.39	1.50	3.39	-.50	1.21
20	2.40	-1.38	.36	3.00	-.16	1.39	4.00	.26	2.23	3.09	-.73	1.19
21	3.32	-.36	1.42	3.25	-.39	1.39	3.63	-.16	1.67	2.88	-1.19	.79
22	3.20	-.40	1.23	3.40	-.57	1.42	3.86	-.13	1.68	2.86	-1.80	.41
23	2.25	-1.55	.55	2.76	-.98	.94	3.87	.04	1.86	2.92	-1.18	.69
24	2.51	-1.23	.60	2.78	-1.21	.67	4.18	.24	2.24	3.34	-.81	1.17
25	2.09	-1.76	.30	3.01	-1.33	.79	4.72	-.06	2.09	3.64	-.55	1.37
26	2.85	-1.01	.93	3.44	-1.57	.87	3.57	-.56	1.31	3.50	-.80	1.17
27	2.44	-.52	1.02	2.59	-1.12	.82	3.13	-.56	1.30	3.01	-.92	1.16
28	2.26	-.79	.93	2.93	-.44	1.36	3.86	.08	2.04	3.07	-1.20	.98
29	---	---	---	3.54	.18	1.78	3.23	-.56	1.41	2.62	-1.18	.93
30	---	---	---	3.33	-.37	1.31	3.32	-.29	1.65	2.79	-1.12	1.00
31	---	---	---	---	---	---	---	---	---	3.01	-1.07	1.09
MONTH	4.35	-1.76	1.01	---	---	---	4.72	-1.18	1.59	---	-1.80	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	3.18	-1.08	1.13	3.56	-.58	1.33	3.03	-.80	.98	3.40	-.38	1.42
2	4.05	-.35	1.63	3.57	-.49	1.42	3.16	-.60	1.13	3.17	-.45	1.39
3	3.99	-.54	1.69	3.87	-.11	1.73	3.25	-.54	1.21	3.13	-1.08	.92
4	4.25	-.28	1.74	3.77	-.47	1.43	3.30	-.40	1.46	2.77	-.60	1.08
5	4.24	-.26	1.82	3.43	-.70	1.17	3.48	-.15	1.67	2.79	-.49	1.18
6	4.27	-.21	1.81	3.14	-.80	1.09	3.32	-.31	1.44	2.72	-.65	1.16
7	3.86	-.39	1.52	3.21	-.62	1.22	3.01	-.62	1.22	2.88	-.42	1.28
8	3.45	-.41	1.50	3.03	-.78	1.13	2.74	---	---	2.78	-.56	1.19
9	3.41	-.47	1.39	3.06	-.40	1.36	2.56	-.56	1.20	3.25	.01	1.59
10	3.07	-.54	1.18	2.49	-.91	.93	2.57	-.49	1.23	3.43	.13	1.69
11	2.55	-.73	1.06	2.41	-.76	1.04	2.92	-.65	1.09	3.71	.59	2.03
12	2.89	-.22	1.52	2.32	-.81	.95	2.90	-.93	1.01	3.38	-.14	1.60
13	3.04	-.12	1.65	2.85	-.47	1.18	3.46	.15	1.65	3.28	-.56	1.35
14	2.73	-.22	1.44	2.84	-.46	1.22	3.34	-.56	1.30	3.38	-.77	1.25
15	3.17	-.25	1.34	3.21	-.35	1.24	3.73	-.43	1.42	3.51	-.70	1.35
16	3.52	-.26	1.53	3.20	-.41	1.27	3.46	-.55	1.49	3.47	-.87	1.29
17	3.48	-.25	1.55	3.62	-.51	1.30	3.50	-.90	1.24	3.72	-.83	1.55
18	3.71	-.36	1.47	3.44	-.89	1.23	3.62	-.77	1.32	3.90	-.61	1.63
19	3.47	-.67	1.39	3.18	-1.35	.96	3.64	-.84	1.33	3.59	-.72	1.52
20	3.70	-.78	1.23	3.40	-.88	1.12	3.53	-.70	1.53	3.62	-.48	1.56
21	3.73	-.47	1.51	3.49	-.88	1.18	4.27	.10	2.25	2.65	-1.15	.68
22	3.83	-.79	1.37	3.32	-.98	1.18	3.92	-.25	1.92	3.02	-.71	1.17
23	3.40	-1.03	1.07	3.42	-.81	1.32	3.44	-.40	1.57	2.37	-.87	.90
24	3.36	-.80	1.28	3.54	-.50	1.70	2.93	-.79	1.21	2.71	-.98	.77
25	3.50	-.60	1.53	3.50	-.53	1.65	2.98	-.72	1.17	3.33	-.23	1.49
26	3.53	-.46	1.56	3.24	-.95	1.36	3.19	-.44	1.32	2.66	-.43	1.29
27	3.47	-.60	1.47	3.49	-.33	1.70	3.40	-.24	1.52	2.99	-.62	1.08
28	3.26	-.79	1.44	3.29	-.51	1.47	3.37	-.09	1.61	3.64	-.34	1.54
29	3.29	-.69	1.43	2.79	-.96	1.05	3.44	-.20	1.54	3.91	-.20	2.04
30	3.12	-.94	1.19	3.01	-.81	.99	3.48	-.12	1.57	3.00	-.42	1.35
31	---	---	---	3.07	-.77	1.02	3.46	-.23	1.51	---	---	---
MONTH	4.27	-1.08	1.45	3.87	-1.35	1.26	4.27	---	---	3.91	-1.15	1.34

HUDSON RIVER BASIN

01372058 HUDSON RIVER BELOW Poughkeepsie, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD---

SPECIFIC CONDUCTANCE: May 1992 to current year.

WATER TEMPERATURE: May 1992 to current year.

INSTRUMENTATION.--Water-quality monitor provides 15-minute-interval readings.

REMARKS.--Telephone temperature and specific conductance telemeter at station. Interruptions of record were due to equipment calibration. All data are collected, stored, and reported in Eastern Standard Time.

EXTREMES FOR PERIOD OF DAILY RECORD---

SPECIFIC CONDUCTANCE: Maximum, 2,800 μ S/cm, Sept. 26, 1995; minimum, 96 μ S/cm, Jan. 30, 1995.

WATER TEMPERATURE: Maximum, 28.0°C, Aug. 4, 5, 1995; minimum (water years 1993-97), 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR---

SPECIFIC CONDUCTANCE: Maximum, 769 μ S/cm, Apr. 1; minimum, 102 μ S/cm, May 20.

WATER TEMPERATURE: Maximum, 27.0°C, July 18; minimum, 0.0°C on many days during winter period.

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	280	249	259	228	190	207	200	167	180	238	158	180
2	265	239	254	235	190	207	293	164	202	228	156	173
3	277	250	260	247	184	210	284	177	215	245	158	176
4	273	245	255	246	198	215	319	185	213	232	160	175
5	269	239	251	245	200	216	276	173	202	217	159	174
6	269	240	249	257	203	220	545	173	235	224	153	170
7	278	242	253	253	204	221	420	161	224	216	147	170
8	253	245	248	252	204	220	444	152	226	200	148	171
9	285	236	257	261	203	219	331	142	192	200	118	168
10	279	245	254	262	199	223	276	137	181	274	167	194
11	274	234	253	235	196	212	320	139	176	241	171	195
12	264	231	246	236	196	213	343	141	208	252	173	196
13	258	231	237	247	202	218	275	145	190	252	176	205
14	260	231	240	250	203	221	317	149	201	255	177	204
15	261	223	240	269	210	232	285	155	194	274	179	205
16	271	223	240	263	209	230	264	165	196	480	182	234
17	265	212	242	262	206	226	332	172	202	295	188	216
18	256	223	235	255	204	220	272	175	205	281	190	215
19	259	158	223	255	199	217	328	180	218	241	190	209
20	294	181	238	243	186	207	277	180	215	216	190	202
21	303	228	248	244	177	196	281	181	217	242	193	210
22	337	219	255	231	166	193	285	175	210	237	193	206
23	339	214	252	236	160	191	274	170	203	254	195	215
24	315	209	241	225	157	185	477	167	208	254	200	219
25	276	202	231	215	154	176	261	168	200	563	200	240
26	270	201	234	228	149	171	272	172	194	280	197	225
27	279	198	231	237	156	185	273	172	201	267	203	216
28	278	193	223	222	159	182	269	168	190	281	204	226
29	262	194	219	228	159	187	228	165	184	275	194	226
30	269	195	217	218	164	184	271	160	185	239	195	218
31	243	195	215	---	---	---	267	145	196	231	206	214
MONTH	339	158	242	269	149	207	545	137	202	563	118	202

HUDSON RIVER BASIN

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01372058 HUDSON RIVER BELOW POUGHKEEPSIE, NY--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	294	189	221	254	215	228	769	219	361	301	174	203
2	319	197	225	267	201	220	421	223	282	289	162	202
3	270	209	224	274	196	219	432	209	271	232	162	181
4	277	210	225	269	194	211	389	187	255	264	151	191
5	510	216	252	263	182	203	311	174	227	277	145	186
6	322	222	257	255	178	204	350	171	226	260	137	179
7	302	222	249	281	194	220	299	176	214	248	143	180
8	305	222	250	284	196	223	277	177	211	219	140	175
9	289	225	251	300	190	227	271	176	218	206	137	165
10	288	223	253	421	183	231	327	173	216	206	136	160
11	292	216	251	265	183	214	272	160	214	210	135	164
12	276	217	245	271	181	212	269	172	204	229	134	164
13	294	234	254	308	179	215	330	170	210	192	132	152
14	321	237	254	331	179	207	296	161	199	230	136	160
15	350	236	256	302	165	218	300	151	193	303	131	162
16	322	232	253	278	175	211	297	127	180	197	108	141
17	325	232	256	259	178	199	254	143	174	151	105	121
18	305	228	251	305	169	216	238	138	166	233	103	137
19	289	223	244	283	179	209	264	130	181	207	105	134
20	319	222	249	297	191	208	319	134	184	228	102	146
21	289	221	244	248	191	212	244	139	173	201	105	133
22	338	222	248	284	194	221	274	143	187	209	105	136
23	304	230	264	275	192	222	266	147	186	189	108	145
24	297	223	264	249	192	219	259	152	184	186	116	142
25	286	214	248	282	197	220	250	155	193	160	117	135
26	287	209	238	278	187	222	266	168	207	234	114	155
27	243	208	222	297	201	234	286	161	206	228	113	146
28	264	209	231	275	200	230	248	157	191	234	117	152
29	---	---	---	278	200	222	320	172	212	222	125	151
30	---	---	---	293	186	234	310	172	206	202	130	148
31	---	---	---	---	201	---	---	---	---	236	125	154
MONTH	510	189	246	---	165	---	769	127	211	303	102	158
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	226	127	153	237	179	196	295	231	261	346	265	306
2	228	131	150	212	179	192	391	241	272	335	267	303
3	196	129	149	230	184	196	355	239	279	321	256	294
4	205	127	155	228	184	202	294	245	274	315	258	287
5	198	123	153	227	186	205	306	255	281	466	263	300
6	183	128	150	230	186	206	315	260	291	306	265	287
7	166	130	145	228	187	205	415	263	312	313	260	289
8	179	112	151	230	189	208	311	248	286	299	267	285
9	190	112	151	228	169	200	416	239	291	303	265	285
10	215	128	152	255	176	208	381	243	290	311	265	286
11	214	128	151	276	176	209	309	241	274	313	269	287
12	219	125	150	244	188	207	314	245	274	310	259	282
13	195	130	147	254	193	208	324	232	279	300	253	272
14	232	129	154	256	194	210	341	250	289	300	245	270
15	240	128	154	265	195	210	415	253	300	295	250	271
16	209	125	150	250	195	211	409	259	333	295	250	271
17	178	129	142	250	200	214	405	254	317	298	251	271
18	182	130	140	254	201	217	364	252	314	297	248	274
19	199	129	150	260	201	219	381	265	327	297	250	272
20	214	131	155	280	204	225	372	278	330	291	250	273
21	204	131	156	238	205	217	418	286	355	288	246	264
22	222	133	166	247	207	222	426	294	364	292	245	264
23	231	137	184	248	207	227	393	276	338	272	246	257
24	191	137	153	241	210	227	383	265	318	312	241	261
25	189	134	156	284	216	242	352	270	309	288	244	261
26	214	135	157	302	216	241	354	274	307	303	244	263
27	221	137	160	299	216	248	349	274	310	291	239	262
28	272	137	167	281	228	252	360	274	316	282	244	259
29	230	137	161	294	224	253	352	267	314	301	198	257
30	244	137	178	316	228	254	421	272	315	290	241	257
31	---	---	---	331	229	258	348	270	307	---	---	---
MONTH	272	112	155	331	169	219	426	231	304	466	198	276

HUDSON RIVER BASIN

01372058 HUDSON RIVER BELOW POUGHKEEPSIE, NY--Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	19.5	19.0	19.0	12.5	11.5	12.0	4.5	3.5	4.0	1.5	1.0	1.0
2	19.0	18.5	19.0	12.0	11.5	12.0	5.0	3.0	4.0	1.0	1.0	1.0
3	19.0	18.0	18.5	12.0	11.5	11.5	3.5	3.0	3.0	1.5	1.0	1.0
4	18.5	17.5	18.0	12.0	11.0	11.5	4.5	3.5	3.5	1.5	1.0	1.0
5	18.0	17.5	18.0	11.5	11.0	11.5	4.5	3.5	4.0	1.5	1.0	1.0
6	18.0	17.5	17.5	11.5	11.0	11.5	4.5	4.0	4.0	1.0	.5	1.0
7	18.0	17.5	17.5	11.5	11.5	11.5	4.5	4.0	4.5	1.0	.5	.5
8	17.5	16.5	17.5	12.0	11.5	12.0	4.5	4.0	4.5	.5	.0	---
9	17.5	16.0	17.0	12.5	11.5	12.0	4.5	4.0	4.0	.5	.0	.5
10	17.5	16.5	17.0	11.5	10.5	11.0	4.5	3.5	4.0	.5	.0	.5
11	17.0	16.0	16.5	10.5	10.0	10.5	4.0	3.5	3.5	.5	.0	.5
12	17.0	16.0	16.5	10.5	10.0	10.0	4.0	3.5	3.5	.0	.0	.0
13	16.5	16.0	16.0	10.0	9.5	10.0	4.0	3.0	3.5	.0	.0	.0
14	16.5	16.0	16.0	9.5	9.0	9.5	4.0	3.0	3.5	.0	.0	.0
15	16.0	15.5	15.5	9.5	8.5	9.0	3.5	2.5	3.0	.0	.0	.0
16	16.0	15.5	15.5	9.0	8.0	8.5	3.5	2.5	3.0	.0	.0	.0
17	16.0	15.5	15.5	8.5	8.0	8.0	4.0	3.0	3.0	.0	.0	.0
18	15.5	15.5	15.5	8.5	8.0	8.0	4.0	3.0	3.5	.0	.0	.0
19	15.5	13.5	15.0	8.0	7.5	8.0	4.5	3.5	3.5	.0	.0	.0
20	15.0	13.5	15.0	7.5	7.0	7.5	4.0	3.0	3.5	.0	.0	.0
21	14.5	13.5	14.0	7.0	6.5	7.0	3.5	3.0	3.5	.0	.0	.0
22	13.5	13.0	13.5	7.0	6.0	6.5	3.5	3.0	3.5	.0	.0	.0
23	13.0	12.5	13.0	6.5	6.0	6.5	4.0	3.0	3.5	.0	.0	.0
24	13.0	12.5	13.0	6.5	5.5	6.0	4.5	3.0	3.5	.0	.0	.0
25	13.0	12.5	12.5	6.0	5.5	5.5	3.5	2.5	3.0	.0	.0	.0
26	13.0	12.0	12.5	6.0	5.0	5.5	2.5	2.5	2.5	.0	.0	.0
27	13.0	12.0	12.5	5.0	4.0	4.5	3.0	2.0	2.5	.0	.0	.0
28	13.0	12.5	12.5	4.5	4.0	4.0	2.5	2.0	2.5	.0	.0	.0
29	12.5	12.0	12.5	4.0	3.5	4.0	2.5	2.0	2.0	.0	.0	.0
30	12.5	12.0	12.5	4.0	3.5	3.5	2.5	1.5	2.0	.0	.0	.0
31	13.0	12.0	12.5	---	---	---	2.0	1.0	1.5	.0	.0	.0
MONTH	19.5	12.0	15.5	12.5	3.5	8.5	5.0	1.0	3.5	1.5	.0	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	.0	.0	.0	2.0	2.0	2.0	6.0	4.0	4.5	11.5	10.0	10.5
2	.0	.0	.0	2.5	2.0	2.0	6.5	4.5	5.0	12.0	10.5	11.5
3	.0	.0	.0	2.0	2.0	2.0	7.0	4.5	5.5	11.5	11.0	11.5
4	.0	.0	.0	2.0	1.5	2.0	7.5	5.0	6.0	12.5	11.5	12.0
5	.5	.0	.0	3.0	2.0	2.0	7.0	5.5	6.0	13.0	11.5	12.5
6	.5	.0	.0	3.0	2.0	2.0	7.0	5.5	6.0	13.0	12.0	12.5
7	.0	.0	.0	3.0	2.0	2.0	7.5	6.0	6.5	13.0	12.0	12.5
8	.0	.0	.0	3.0	2.0	2.5	7.5	6.0	7.0	13.0	12.0	12.5
9	.0	.0	.0	3.0	2.0	2.5	8.0	6.5	7.0	12.5	12.0	12.5
10	.5	.0	.0	3.5	2.0	2.5	8.5	7.0	7.5	12.5	12.0	12.0
11	.0	.0	.0	3.0	2.5	2.5	8.5	7.5	8.0	13.0	12.0	12.0
12	.0	.0	.0	3.0	2.5	2.5	8.0	7.5	8.0	13.0	12.0	12.5
13	.0	.0	.0	3.0	2.0	2.5	9.0	8.0	8.0	12.5	12.0	12.0
14	.0	.0	.0	2.5	2.0	2.5	9.0	7.5	8.0	12.5	12.0	12.5
15	.5	.0	.0	3.0	2.0	2.5	9.0	7.5	8.0	13.0	12.0	12.5
16	.0	.0	.0	2.5	1.5	2.0	9.5	8.0	8.5	13.0	12.5	12.5
17	.0	.0	.0	2.5	1.5	2.0	8.5	8.0	8.0	12.5	12.0	12.5
18	.0	.0	.0	3.0	2.0	2.0	8.0	7.0	7.5	13.5	12.0	12.5
19	.0	.0	.0	3.0	2.0	2.0	8.0	7.0	7.5	13.5	12.5	13.0
20	.5	.0	.0	2.5	2.0	2.0	9.0	7.5	8.0	14.0	13.0	13.0
21	.5	.0	.0	2.5	2.0	2.0	8.5	7.5	7.5	13.5	12.5	13.0
22	.5	.0	.0	3.0	2.0	2.5	9.0	7.5	8.0	14.0	13.0	13.5
23	.5	.0	.0	3.0	2.0	2.0	8.5	7.5	8.0	14.5	13.0	13.5
24	.5	.0	.0	3.5	2.0	2.5	8.5	8.0	8.0	14.5	13.5	14.0
25	1.0	.0	.5	2.5	2.0	2.5	9.0	8.0	8.5	14.5	14.0	14.0
26	1.5	.0	1.0	4.5	2.5	3.0	9.5	8.0	9.0	15.0	13.5	14.0
27	2.0	1.0	1.5	4.0	2.5	3.0	9.5	8.5	9.0	15.0	14.0	14.5
28	2.5	1.5	2.0	4.0	3.0	3.5	9.5	9.0	9.5	15.5	14.0	15.0
29	---	---	---	4.0	3.5	3.5	10.5	9.0	9.5	15.5	14.5	15.0
30	---	---	---	5.0	3.5	4.0	11.0	10.0	10.5	15.5	15.0	15.0
31	---	---	---	---	3.5	---	---	---	---	16.0	15.0	15.5
MONTH	2.5	.0	.0	---	1.5	---	11.0	4.0	7.5	16.0	10.0	13.0

HUDSON RIVER BASIN

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01372058 HUDSON RIVER BELOW POUGHKEEPSIE, NY--Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	16.0	15.5	16.0	24.5	23.0	23.5	26.0	25.0	25.5	25.0	24.0	24.5
2	16.0	15.5	16.0	24.0	23.0	23.5	26.0	25.5	25.5	25.0	24.0	24.5
3	16.0	15.5	16.0	24.0	23.5	23.5	26.0	25.5	25.5	24.5	24.0	24.0
4	17.0	15.5	16.0	24.0	23.5	23.5	26.0	25.5	25.5	24.0	23.5	24.0
5	17.5	16.0	16.5	24.0	23.0	23.5	26.0	25.5	25.5	24.0	23.5	23.5
6	17.5	16.0	16.5	24.5	23.5	24.0	25.5	25.0	25.5	24.0	23.5	23.5
7	17.0	16.5	16.5	24.5	23.5	24.0	26.0	25.0	25.5	23.5	22.5	23.5
8	17.5	16.5	17.0	24.5	23.5	24.0	25.5	25.0	25.5	23.5	23.0	23.5
9	18.0	16.5	17.0	24.5	23.5	24.0	26.0	25.0	25.5	23.5	23.0	23.5
10	18.0	17.0	17.5	24.5	24.0	24.0	26.0	25.5	25.5	23.5	23.0	23.0
11	18.5	17.5	18.0	25.0	24.0	24.5	26.0	25.5	25.5	23.0	22.5	23.0
12	19.0	18.0	18.5	25.0	24.0	24.5	26.0	25.5	25.5	23.5	23.0	23.0
13	19.0	18.5	18.5	25.5	24.5	25.0	26.0	25.0	25.5	23.0	23.0	23.0
14	19.5	18.5	19.0	25.5	24.5	25.0	26.0	25.5	25.5	23.5	22.5	23.0
15	20.0	18.5	19.0	26.0	25.0	25.5	26.0	25.5	25.5	23.5	22.5	23.0
16	20.0	19.0	19.5	26.5	25.0	25.5	26.5	25.5	26.0	24.0	22.5	23.0
17	19.5	19.0	19.5	26.5	25.0	25.5	26.5	25.0	25.5	23.5	22.5	23.0
18	20.0	19.5	19.5	27.0	25.5	26.0	26.0	24.0	25.5	23.5	22.5	23.0
19	20.5	19.5	20.0	26.5	25.5	26.0	26.0	25.0	25.5	23.0	22.5	23.0
20	21.0	19.5	20.0	26.5	25.0	25.5	25.5	25.0	25.5	23.0	22.0	23.0
21	21.5	20.0	20.5	26.0	25.0	25.5	25.0	24.5	25.0	22.5	22.0	22.5
22	22.0	20.5	21.0	26.0	25.0	25.5	25.0	24.5	24.5	22.5	22.0	22.0
23	22.0	21.0	21.0	26.0	25.0	25.5	24.5	24.0	24.5	22.0	21.5	21.5
24	22.0	21.0	21.5	25.5	25.0	25.5	24.5	24.0	24.5	21.5	21.0	21.5
25	22.5	21.5	22.0	25.5	25.0	25.0	24.5	24.0	24.5	21.5	21.0	21.0
26	22.5	21.5	22.0	25.5	25.0	25.0	25.0	24.0	24.5	21.5	21.0	21.0
27	22.5	22.0	22.0	25.5	25.0	25.5	24.5	24.5	24.5	21.0	20.5	21.0
28	23.0	22.0	22.5	26.0	25.0	25.5	24.5	24.0	24.5	21.0	20.5	20.5
29	23.5	22.5	23.0	26.0	25.0	25.5	24.5	24.0	24.0	21.0	18.5	20.5
30	23.5	22.5	23.0	26.0	25.0	25.5	25.0	24.0	24.0	20.5	20.0	20.5
31	---	---	---	26.0	25.0	25.5	24.5	24.0	24.5	---	---	---
MONTH	23.5	15.5	19.0	27.0	23.0	25.0	26.5	24.0	25.0	25.0	18.5	22.5

HUDSON RIVER BASIN

01372500 WAPPINGER CREEK NEAR WAPPINGERS FALLS, NY

LOCATION.--Lat 41°39'11", long 73°52'23", Dutchess County, Hydrologic Unit 02020008, on left bank 700 ft downstream from Red Oak Mill dam, and 4.5 mi northeast of village of Wappingers Falls.

DRAINAGE AREA.--181 mi².

PERIOD OF RECORD.--May 1903 to June 1905 (monthly discharges and daily gage heights only, published in WSP 97, 125, 166, and 202), August 1928 to current year.

REVISED RECORDS.--WSP 741: 1932. WSP 1902: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 114.37 ft above sea level (levels by Corps of Engineers). May 1903 to June 1905 staff gage at site 2.5 mi downstream at different datum. Aug. 7, 1928 to Sept. 25, 1931, water-stage recorder at site 2 mi downstream at different datum.

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

AVERAGE DISCHARGE.--69 years (water years 1929-97), 258 ft³/s, 19.33 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,600 ft³/s, Aug. 19, 1955, gage height, 19.60 ft, from floodmarks in gage shelter, from rating curve extended above 6,000 ft³/s on basis of flow-over-dam and contracted-opening measurement at gage height 18.02 ft and contracted-opening and flow-over-road measurement at gage height 19.60 ft; minimum discharge, 0.90 ft³/s, Sept. 20, 21, 1964.

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)
Oct. 21	0400	*2,080	*6.71	Dec. 14	2145	1,610	6.04
Dec. 2	2115	1,980	6.58	Apr. 1	0115	1,730	6.22

Minimum discharge, 10 ft³/s, Sept. 23, 24, 27, 28, 29.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	192	330	469	421	265	267	1690	344	148	31	21	33
2	160	305	1520	448	293	279	1540	333	149	28	19	30
3	149	284	1620	438	283	315	1560	393	171	32	19	26
4	130	263	1130	466	278	297	1570	711	149	38	19	26
5	119	243	916	447	722	289	1500	587	130	34	18	24
6	113	228	883	436	872	443	1240	538	117	29	19	21
7	109	220	968	385	616	435	1030	560	108	27	19	20
8	111	222	1160	329	506	380	848	475	102	27	17	21
9	291	439	1010	298	404	353	731	434	94	40	16	21
10	331	485	831	296	e320	360	640	477	87	131	17	20
11	320	397	749	298	305	429	572	474	80	93	16	18
12	250	335	930	e240	279	384	535	413	72	63	13	18
13	220	295	1460	e230	254	330	653	373	69	49	15	18
14	196	271	1570	e210	235	325	571	356	79	41	22	19
15	170	247	1470	e190	249	541	488	324	69	52	20	18
16	155	223	1210	279	271	546	443	291	61	101	17	17
17	150	214	1050	e290	239	460	407	271	55	74	32	16
18	146	214	942	e250	230	433	454	262	56	54	39	15
19	153	231	886	e240	283	398	701	263	68	43	32	14
20	1210	252	839	e210	336	379	686	460	61	35	26	13
21	1950	224	711	182	318	386	622	403	55	31	44	13
22	1490	208	634	174	382	377	569	329	50	50	46	12
23	1020	193	591	205	423	343	520	283	43	57	36	11
24	805	183	612	187	343	305	483	248	39	42	30	11
25	655	172	1100	e360	285	284	439	229	39	37	26	11
26	562	332	883	e390	262	563	401	238	40	34	22	11
27	492	511	770	e250	270	651	361	208	58	32	27	10
28	457	404	695	e340	289	566	434	188	49	34	41	10
29	469	338	651	e360	---	513	463	175	40	28	67	19
30	401	309	613	e300	---	497	388	161	35	25	45	19
31	363	---	539	283	---	900	---	157	---	23	36	---
TOTAL	13339	8572	29412	9432	9812	13028	22539	10958	2373	1415	836	535
MEAN	430	286	949	304	350	420	751	353	79.1	45.6	27.0	17.8
MAX	1950	511	1620	466	872	900	1690	711	171	131	67	33
MIN	109	172	469	174	230	267	361	157	35	23	13	10
CFSM	2.38	1.58	5.24	1.68	1.94	2.32	4.15	1.95	.44	.25	.15	.10
IN.	2.74	1.76	6.04	1.94	2.02	2.68	4.63	2.25	.49	.29	.17	.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1997, BY WATER YEAR (WY)

	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939
MEAN	121	198	273	304	337	569	505	310	187	118	84.4	94.3
MAX	882	696	949	932	786	1195	1112	1204	813	884	845	890
(WY)	1956	1956	1997	1979	1976	1936	1983	1989	1972	1975	1955	1938
MIN	7.42	10.5	23.5	24.0	72.2	168	140	82.2	30.7	10.8	7.82	4.29
(WY)	1965	1965	1965	1981	1940	1965	1985	1941	1965	1965	1966	1964

e Estimated

HUDSON RIVER BASIN

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01372500 WAPPINGER CREEK NEAR WAPPINGERS FALLS, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1928 - 1997	
ANNUAL TOTAL	167772		122251			
ANNUAL MEAN	458		335		258	
HIGHEST ANNUAL MEAN					438	1973
LOWEST ANNUAL MEAN					65.7	1965
HIGHEST DAILY MEAN	4660	Jan 20	1950	Oct 21	10500	Aug 19 1955
LOWEST DAILY MEAN	52	Sep 13	10	Sep 27	1.2	Sep 20 1964
ANNUAL SEVEN-DAY MINIMUM	62	Sep 7	11	Sep 22	2.4	Sep 24 1964
ANNUAL RUNOFF (CFSM)	2.53		1.85		1.42	
ANNUAL RUNOFF (INCHES)	34.48		25.13		19.33	
10 PERCENT EXCEEDS	987		757		609	
50 PERCENT EXCEEDS	313		265		150	
90 PERCENT EXCEEDS	100		21		23	

HUDSON RIVER BASIN

01374019 HUDSON RIVER AT SOUTH DOCK AT WEST POINT, NY

LOCATION.--Lat 41°23'10", long 73°57'20", Orange County, Hydrologic Unit 02020008, on right bank at South Dock at West Point. Water-quality sampling site at stage station.

DRAINAGE AREA.--12,598 mi².

ELEVATION RECORDS

PERIOD OF RECORD.--October 1991 to current year. Records for June 1989 to September 1991 are unpublished and available in files of the Geological Survey.

GAGE.--Water-stage recorder. Datum of gage is mean sea level.

REMARKS.--Telephone gage-height, temperature, and specific conductance telemeter at station. Interruptions of record were due to malfunction of recording instrument and downtime during instrument service. All data are collected, stored, and reported in Eastern Standard Time.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 6.79 ft, Dec. 11, 1992; minimum, -4.26 ft, Mar. 14, 1993.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 5.63 ft, Oct. 19; minimum, -2.71 ft, Mar. 7.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	2.62	-.96	.89	2.81	-.18	1.29	3.40	.20	1.85	2.05	-.49	.72
2	2.79	-.55	1.11	2.70	-.23	1.22	4.44	-.14	2.02	2.56	-.61	1.19
3	2.38	-1.12	.68	1.91	-.95	.66	2.92	-.18	1.61	2.76	-.61	1.46
4	2.70	-.78	1.04	1.56	-.96	.36	2.65	.25	1.55	3.06	-.26	1.65
5	2.21	-.15	1.03	1.79	-1.00	.44	2.57	.14	1.46	3.62	-.02	1.94
6	2.40	-.22	1.05	2.35	-.91	.94	4.68	.28	2.30	3.57	-.43	1.36
7	2.67	-.15	1.25	2.77	-.48	1.24	3.99	.48	2.32	2.74	-1.42	.41
8	3.32	-.08	1.60	3.98	.04	2.19	4.06	.37	2.08	1.33	-2.46	-.60
9	3.25	.05	1.61	4.32	.61	2.37	4.13	-.22	1.97	3.46	-1.92	.84
10	3.13	-.34	1.34	3.65	.07	1.72	3.73	-.23	1.59	4.28	-.37	1.85
11	2.48	-1.23	.67	3.41	-.32	1.28	3.80	-.45	1.61	2.76	-1.35	.67
12	2.76	-.69	1.10	2.70	-1.11	.62	3.83	-.55	1.61	1.78	-2.22	-.24
13	2.64	-.82	1.02	2.70	-1.37	.63	4.87	.30	2.43	1.79	-2.17	-.15
14	2.85	-.76	.97	2.77	-1.15	.72	4.31	.26	2.19	2.30	-1.32	.49
15	---	---	---	2.83	-1.08	.77	4.29	.53	2.28	2.36	-1.02	.74
16	2.55	-1.04	.75	2.95	-.67	1.11	3.90	.10	2.00	2.81	-1.41	1.18
17	2.74	-.92	.92	3.60	-.09	1.66	3.51	.26	1.90	.95	-2.33	-.48
18	3.69	-.12	1.77	3.54	.04	1.84	3.42	.02	1.80	1.65	-1.87	-.01
19	5.63	1.54	3.30	3.61	-.21	1.93	3.28	-.09	1.70	2.41	-1.79	.58
20	4.30	.62	2.72	3.09	-.51	1.41	1.80	-1.56	.07	2.54	-1.21	.56
21	3.99	.55	2.28	3.03	-.81	---	1.82	-2.19	.07	2.06	-1.93	.08
22	3.61	.22	2.02	2.99	-.91	1.00	2.62	-1.21	.68	2.94	-.84	.97
23	3.74	.01	1.90	3.10	-1.07	1.18	3.02	-1.02	1.06	2.59	-1.36	.52
24	3.59	-.19	1.73	2.90	-1.01	.92	3.41	-.70	1.45	3.70	-1.72	1.06
25	3.44	-.42	1.47	3.14	-.89	1.11	2.59	-1.32	.43	3.89	-.18	1.97
26	3.21	-.74	1.22	3.61	-.60	1.23	2.65	-1.17	.69	1.68	-2.42	-.41
27	3.16	-.82	1.22	1.94	-1.80	.08	3.02	-.57	1.08	2.35	-1.62	.42
28	3.50	-.56	1.35	3.34	-.56	1.24	3.06	-.39	1.27	2.64	-1.67	.86
29	2.75	-1.12	.85	2.56	-.76	.86	3.00	-.21	1.37	1.51	-1.73	-.08
30	4.19	-.24	1.91	2.96	-.19	1.28	2.16	-.93	.68	2.02	-1.14	.51
31	2.87	-.25	1.29	---	---	---	2.23	-.76	.81	2.80	.05	1.39
MONTH	---	---	---	4.32	-1.80	---	4.87	-2.19	1.48	4.28	-2.46	.69

HUDSON RIVER BASIN

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01374019 HUDSON RIVER AT SOUTH DOCK AT WEST POINT, NY--Continued

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	3.20	-.44	1.39	2.60	-.04	1.33	3.31	-.15	1.58	3.26	-.14	1.69
2	2.66	-.48	.98	2.92	-1.06	1.09	4.08	.07	1.93	2.28	-1.47	.57
3	2.71	-.73	.93	2.07	-.99	.79	3.63	-.25	1.84	3.96	-.89	1.58
4	2.81	-1.38	1.07	3.80	.39	2.06	3.62	-.26	1.76	3.12	-.97	1.26
5	4.05	-.34	1.59	2.89	-.76	1.23	3.81	-.22	1.79	3.61	-.67	1.40
6	2.69	-1.19	.76	3.69	-1.17	.79	---	---	---	3.51	-.56	1.49
7	3.01	-1.25	.89	1.62	-2.71	-.67	---	---	---	3.26	-1.74	.60
8	3.24	-1.11	1.07	2.84	-1.89	.66	3.73	-.54	1.36	3.04	-1.10	.73
9	3.78	-.73	1.44	3.66	-1.60	.88	3.22	-1.27	.75	3.31	-.48	1.35
10	3.36	-1.00	1.14	3.65	-.78	1.45	2.36	-1.18	.60	3.47	-.48	1.27
11	3.05	-1.07	1.07	3.48	-.63	1.41	2.80	-.66	1.03	2.91	-.69	.99
12	3.40	-.68	1.43	3.05	-1.23	.81	2.87	-.61	1.10	2.58	-.44	1.19
13	2.36	-1.54	.39	2.24	-1.46	.33	3.33	-.34	1.36	2.49	-.62	.98
14	3.11	-.36	1.44	2.88	-.82	1.24	2.19	-1.06	.57	2.53	-.26	1.27
15	2.93	-1.14	.84	3.43	-1.43	.78	1.90	-.68	.72	---	---	---
16	1.74	-1.34	.35	1.61	-1.39	.10	1.98	-.96	.64	---	---	---
17	2.14	-1.56	.50	2.01	-1.38	.66	2.29	-.66	.99	---	---	---
18	2.63	-1.14	.66	1.42	-1.40	.27	2.24	-.66	.86	---	---	---
19	1.66	-1.78	.05	2.28	-.60	1.01	4.02	-.60	1.45	---	---	---
20	2.09	-1.53	---	2.79	-.28	1.22	3.46	.04	2.02	---	---	---
21	2.99	-.68	1.16	2.99	-.63	1.24	3.37	-.42	1.48	---	---	---
22	2.72	-.61	.88	3.33	-.76	1.26	3.61	-.32	1.50	---	---	---
23	2.24	-1.67	.33	2.59	-1.19	.80	3.77	-.22	1.65	---	---	---
24	2.24	-1.37	.35	2.40	-1.45	.46	4.42	.08	2.08	3.16	-.90	.98
25	2.31	-1.92	.14	3.06	-1.53	.57	4.48	-.28	1.86	3.29	-.76	1.16
26	2.53	-1.28	.65	3.08	-1.70	.65	3.32	-.74	1.11	3.24	-.85	1.01
27	2.26	-.80	.75	2.23	-1.39	.57	2.86	-.68	1.07	---	---	---
28	1.90	-.98	.68	2.57	-.74	1.09	3.51	-.14	1.78	---	---	---
29	---	---	---	3.18	-.12	1.48	2.95	-.65	1.18	---	---	---
30	---	---	---	3.14	-.51	1.06	3.05	-.47	1.39	---	---	---
31	---	---	---	3.04	.30	1.62	---	---	---	---	---	---
MONTH	4.05	-1.92	---	3.80	-2.71	.91	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	---	---	---	3.03	-.86	1.08	2.54	-1.07	.71	2.72	-.59	1.16
2	---	---	---	3.10	-.74	1.19	2.70	-.83	.85	2.73	-.61	1.11
3	3.65	-.72	1.54	3.45	-.35	1.45	2.83	-.68	.94	2.65	-1.17	.69
4	3.93	-.51	1.60	2.99	-.69	1.18	3.06	-.53	1.20	2.45	-.79	.87
5	3.88	-.47	1.62	2.88	-.89	.92	3.06	-.35	1.39	2.41	-.69	.91
6	3.85	-.45	1.59	2.76	-.87	.83	2.99	-.51	1.15	2.30	-.82	.89
7	3.53	-.57	1.32	2.77	-.71	.92	2.59	-.74	.91	2.47	-.62	1.01
8	3.18	-.50	1.29	2.62	-.86	.86	2.36	-.83	.79	2.41	-.70	.96
9	3.11	-.54	1.16	2.64	-.57	1.04	2.23	-.72	.90	2.83	-.18	1.33
10	2.80	-.65	.93	2.22	-1.04	.70	2.23	-.72	.87	3.03	-.11	1.46
11	2.26	-.85	.83	2.14	-.91	.77	2.36	-.98	.77	3.36	.42	1.78
12	2.63	-.36	1.29	1.91	-1.01	.69	2.33	-1.11	.77	2.97	-.45	1.34
13	2.68	-.32	1.43	2.43	-.70	.93	3.01	-.21	1.34	2.84	-.76	1.11
14	2.46	-.34	1.27	2.44	-.78	.96	2.81	-.85	1.06	2.91	-.93	1.02
15	2.82	-.46	1.16	2.85	-.73	1.00	3.14	-.70	1.16	3.04	-.88	1.11
16	3.06	-.56	1.30	2.80	-.75	1.02	2.91	-.87	1.17	2.99	-.99	1.04
17	3.13	-.47	1.35	3.10	-.92	1.03	2.97	-1.06	.97	3.40	-.91	1.28
18	3.26	-.62	1.25	3.03	-1.13	.95	3.14	-.94	1.08	3.39	-.75	1.34
19	3.05	-.94	1.17	2.65	-1.41	.74	3.04	-1.02	1.05	3.11	-.85	1.22
20	3.22	-1.00	1.00	2.97	-1.10	.84	3.52	-.84	1.25	3.15	-.60	1.22
21	3.34	-.77	1.22	2.91	-1.04	.90	3.85	-.05	1.99	2.35	-1.30	.47
22	3.34	-.92	1.09	2.92	-1.08	.88	3.53	-.38	1.60	2.56	-.89	.90
23	2.99	-1.19	.81	2.96	-.92	.99	3.11	-.58	1.24	2.09	-1.03	.64
24	2.89	-.92	1.00	3.06	-.61	1.40	2.50	-.95	.91	2.26	-1.07	.59
25	3.09	-.73	1.22	3.25	-.64	1.35	2.52	-.89	.91	2.89	-.35	1.26
26	3.16	-.62	1.26	2.69	-1.12	1.06	2.70	-.69	1.08	2.30	-.60	1.09
27	3.07	-.70	1.21	3.04	-.59	1.39	2.90	-.58	1.25	2.61	-.71	.90
28	2.80	-.90	1.21	2.80	-.77	1.18	2.95	-.36	1.36	3.27	-.46	1.38
29	2.82	-.94	1.18	2.38	-1.15	.82	2.99	-.41	1.33	3.72	-.35	1.80
30	2.65	-1.14	.96	2.49	-1.06	.75	3.05	-.37	1.35	---	---	---
31	---	---	---	2.57	-1.08	.76	2.98	-.52	1.25	---	---	---
MONTH	---	---	---	3.45	-1.41	.99	3.85	-1.11	1.12	---	---	---

HUDSON RIVER BASIN

01374019 HUDSON RIVER AT SOUTH DOCK AT WEST POINT, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1991 to current year. Records for February 1990 to September 1991 are unpublished and available in files of the Geological Survey.

WATER TEMPERATURE: October 1991 to current year. Records for February 1990 to September 1991 are unpublished and available in files of the Geological Survey.

INSTRUMENTATION.--Water-quality monitor provides 15-minute-interval readings.

REMARKS.--Telephone temperature and specific conductance telemeter at station. Interruptions of record were due to malfunction of recording instrument. All data are collected, stored, and reported in Eastern Standard Time.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 12,600 μ S/cm, Sept. 23, 1995; minimum, 102 μ S/cm, May 30, 1996.

WATER TEMPERATURE: Maximum, 28.0°C, July 31, Aug. 3, 4, 5, 6, 7, 18, 1995; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 6,830 μ S/cm, Aug. 15; minimum recorded, 161 μ S/cm, May 24, but may have been less during period of instrument malfunction.

WATER TEMPERATURE: Maximum, 26.5°C, on several days during July and Aug.; minimum, 0.0°C on many days during winter period.

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	366	278	303	235	230	232	183	174	177	204	199	201
2	336	275	295	232	227	230	180	172	175	202	197	200
3	303	262	277	229	224	227	199	179	188	206	195	197
4	315	260	276	230	223	225	199	194	197	200	193	194
5	296	264	273	226	222	224	197	193	194	260	192	199
6	377	263	277	228	221	224	201	195	198	271	191	194
7	1260	200	481	310	221	230	204	196	198	197	192	193
8	2170	530	1170	1740	293	734	207	192	195	197	193	195
9	4030	1280	2360	1760	294	810	205	192	193	202	194	196
10	4180	1250	2440	224	213	216	196	186	190	221	196	200
11	3040	746	1940	221	214	218	194	181	186	199	192	195
12	3610	1110	2270	221	212	216	185	177	181	195	189	192
13	3090	995	2000	215	209	212	181	172	177	192	187	190
14	2670	910	1620	211	207	209	174	165	169	192	188	190
15	---	---	---	209	206	208	175	165	167	191	187	189
16	1840	764	1240	210	207	208	172	168	169	198	188	190
17	1940	740	1120	210	208	208	179	170	173	199	189	190
18	2640	782	1390	210	209	209	185	177	180	199	190	191
19	3370	1030	2010	212	209	210	191	184	188	195	191	193
20	1770	637	1210	215	211	213	200	191	196	197	192	194
21	559	268	346	223	---	---	205	198	202	201	195	199
22	292	241	250	221	217	219	207	201	205	203	196	199
23	254	237	240	222	217	219	208	204	206	204	199	201
24	242	236	238	221	215	218	211	206	208	205	200	202
25	245	237	238	219	212	215	217	208	209	213	200	203
26	242	237	239	216	207	212	210	202	207	211	205	207
27	242	236	238	209	188	196	204	198	201	211	206	208
28	240	235	237	199	187	192	201	197	199	220	207	212
29	238	233	235	189	178	184	198	196	197	220	215	217
30	242	234	236	186	175	180	202	196	198	220	216	217
31	237	232	234	---	---	---	204	199	201	219	215	217
MONTH	---	---	---	1760	---	---	217	165	191	271	187	199

HUDSON RIVER BASIN

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01374019 HUDSON RIVER AT SOUTH DOCK AT WEST POINT, NY--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	225	216	220	248	236	244	232	221	224	211	189	194
2	225	220	223	241	229	234	226	222	224	230	193	208
3	669	225	308	230	229	230	232	224	229	261	203	228
4	1110	197	481	233	229	231	240	230	234	259	203	228
5	1470	276	613	234	227	230	237	229	233	254	195	229
6	477	229	274	237	220	226	---	---	---	252	200	221
7	260	229	239	222	204	211	---	---	---	224	177	197
8	272	229	236	215	203	207	210	190	195	209	170	181
9	298	230	237	208	199	203	194	190	192	189	169	173
10	245	231	235	207	199	202	197	193	195	185	169	172
11	240	230	233	207	200	201	204	195	197	186	170	172
12	247	232	236	211	202	205	200	197	198	179	168	171
13	237	233	234	212	208	210	202	198	199	188	163	167
14	246	234	237	228	209	211	208	201	203	173	162	164
15	239	235	237	212	206	209	206	203	205	---	---	---
16	242	236	237	211	206	208	207	200	203	---	---	---
17	245	237	239	208	205	207	206	199	201	---	---	---
18	242	237	239	207	200	204	201	197	199	---	---	---
19	245	240	243	207	202	203	---	193	---	---	---	---
20	248	242	245	206	203	204	---	188	---	---	---	---
21	249	245	247	210	203	205	---	180	---	---	---	---
22	253	247	250	234	203	206	468	174	206	---	---	---
23	252	244	247	227	204	205	263	168	181	---	---	---
24	247	241	243	214	204	206	192	167	172	213	161	166
25	246	242	244	217	205	207	219	164	170	199	163	167
26	250	243	246	305	205	220	168	164	166	196	163	166
27	254	246	249	217	207	209	170	166	167	---	---	---
28	251	244	249	211	208	210	176	167	169	---	---	---
29	---	---	---	215	210	212	185	172	178	---	---	---
30	---	---	---	221	213	217	194	182	187	---	---	---
31	---	---	---	225	218	220	---	---	---	---	---	---
MONTH	1470	197	265	305	199	213	---	---	---	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	---	---	---	2850	1310	1900	5450	2670	3850	4860	2500	3630
2	---	---	---	2990	1360	1970	5520	2900	4040	4460	2630	3630
3	192	173	176	3090	1440	2070	5410	2910	4060	4530	2420	3350
4	191	173	176	3090	1310	1910	5360	3280	4250	4380	2560	3470
5	211	176	179	2720	1150	1710	5310	3330	4360	4250	2650	3500
6	247	177	184	2390	1200	1630	5220	3130	4190	4130	2550	3370
7	231	178	184	2410	1210	1640	4820	2910	3980	4470	2640	3450
8	207	179	185	2220	1070	1500	4670	3040	3970	4500	2520	3390
9	224	180	187	2340	1140	1580	4790	3170	4060	4890	2660	3700
10	203	181	185	1740	934	1270	5480	3150	4300	5660	2960	3930
11	195	181	185	1780	898	1260	6050	3360	4530	5780	3570	4390
12	217	183	193	1690	763	1170	5960	3050	4460	5120	2530	3890
13	408	184	212	2640	809	1380	5870	3930	4860	5170	2370	3680
14	713	188	279	3350	921	1760	6340	3320	4760	5620	2400	3740
15	2050	218	656	4350	874	2360	6830	3470	4800	5820	2540	4010
16	3260	578	1310	5540	1610	3150	6580	3490	5010	5500	2640	3990
17	3370	1080	2000	5750	2390	3740	6250	3340	4730	5370	2710	4020
18	4340	1210	2360	6580	2860	4360	6050	3430	4630	5440	2760	4020
19	4390	1140	2520	6310	2950	4370	6090	3440	4570	4850	2690	3690
20	4400	1300	2480	5800	3070	4480	5700	3480	4520	4870	2690	3730
21	4420	1440	2720	6100	3280	4470	6220	3910	4960	4000	2280	3000
22	4400	1350	2640	5830	3140	4300	5590	3580	4540	4530	2410	3310
23	3540	1290	2270	5650	3220	4280	4960	3250	4100	3710	2340	3030
24	3430	1450	2330	5530	3350	4420	4770	2950	3750	4370	2050	2980
25	3430	1570	2450	5320	3300	4260	4980	2670	3680	4620	2430	3420
26	3410	1510	2360	5070	2730	4000	4920	2640	3700	4550	2350	3240
27	3070	1370	2180	5540	2970	4130	5230	3060	3840	3990	2150	3150
28	2880	1350	2080	5160	2590	3900	5100	2920	4010	4480	2420	3410
29	2910	1280	2030	5010	2470	3660	5110	2790	3830	4840	3000	3970
30	2690	1140	1880	5050	2660	3700	4990	2680	3730	---	---	---
31	---	---	---	5130	2520	3780	4860	2560	3640	---	---	---
MONTH	---	---	---	6580	763	2910	6830	2560	4250	---	---	---

HUDSON RIVER BASIN

01374019 HUDSON RIVER AT SOUTH DOCK AT WEST POINT, NY--Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	20.5	20.0	20.0	12.5	12.0	12.5	5.5	5.0	5.0	2.0	1.5	2.0
2	20.0	20.0	20.0	12.0	11.5	12.0	5.5	4.5	5.0	2.0	1.5	1.5
3	20.0	19.0	19.5	11.5	11.5	11.5	4.5	3.0	4.0	1.5	1.5	1.5
4	19.5	19.0	19.0	11.5	11.0	11.0	3.5	3.0	3.5	1.5	1.5	1.5
5	19.0	18.5	19.0	11.5	11.0	11.0	3.5	3.5	3.5	1.5	1.5	1.5
6	19.0	18.5	18.5	11.5	11.0	11.0	3.5	3.5	3.5	2.0	1.5	2.0
7	18.5	18.0	18.5	11.5	11.0	11.0	4.0	3.5	3.5	2.0	1.5	1.5
8	18.5	17.5	18.0	12.5	11.0	11.5	4.0	3.5	4.0	1.5	1.0	1.0
9	18.5	17.5	18.0	12.5	11.5	12.0	4.0	4.0	4.0	1.5	1.0	1.0
10	18.0	17.0	17.5	12.0	11.5	12.0	4.0	4.0	4.0	1.5	1.0	1.0
11	17.5	17.0	17.0	11.5	10.5	11.0	4.0	4.0	4.0	1.0	.5	.5
12	17.5	16.5	17.0	10.5	10.0	10.5	4.0	4.0	4.0	.5	.5	.5
13	17.0	16.5	17.0	10.0	9.5	10.0	4.0	4.0	4.0	.5	.0	.0
14	17.0	16.5	17.0	9.5	9.0	9.5	4.0	3.5	4.0	.0	.0	.0
15	---	---	---	9.0	8.5	9.0	4.0	3.5	3.5	.0	.0	.0
16	16.5	16.0	16.5	9.0	8.5	8.5	3.5	3.0	3.5	.0	.0	.0
17	16.5	16.0	16.0	8.5	8.5	8.5	3.5	3.0	3.0	.0	.0	.0
18	17.0	16.0	16.5	8.5	8.0	8.5	3.5	3.0	3.5	.0	.0	.0
19	17.5	16.0	16.5	8.5	8.0	8.0	3.5	3.5	3.5	.0	.0	.0
20	16.0	15.0	15.5	8.0	8.0	8.0	3.5	3.0	3.5	.0	.0	.0
21	15.0	15.0	15.0	8.0	8.0	---	3.5	3.0	3.0	.0	.0	.0
22	15.0	14.5	15.0	8.0	7.5	8.0	3.0	3.0	3.0	.0	.0	.0
23	15.0	14.5	14.5	8.0	7.5	7.5	3.0	3.0	3.0	.0	.0	.0
24	15.0	14.0	14.5	7.5	7.0	7.5	3.0	3.0	3.0	.0	.0	.0
25	14.5	14.0	14.0	7.5	7.0	7.5	3.5	3.0	3.5	.0	.0	.0
26	14.0	13.5	14.0	7.5	7.0	7.0	3.5	3.0	3.0	.0	.0	.0
27	14.0	13.5	13.5	7.0	6.0	6.5	3.5	3.0	3.0	.0	.0	.0
28	14.0	13.0	13.5	6.0	5.5	6.0	3.0	3.0	3.0	.0	.0	.0
29	13.5	13.0	13.0	5.5	5.0	5.5	3.0	3.0	3.0	.0	.0	.0
30	14.0	13.0	13.0	5.5	5.0	5.0	3.0	2.5	3.0	.0	.0	.0
31	13.0	12.5	12.5	---	---	---	3.0	2.0	2.5	.0	.0	.0
MONTH	---	---	---	12.5	5.0	---	5.5	2.0	3.5	2.0	.0	.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	.0	.0	.0	2.0	1.5	1.5	4.5	3.5	4.0	10.5	10.0	10.0
2	.0	.0	.0	2.5	1.5	2.0	5.0	4.0	4.5	11.0	10.0	10.5
3	.0	.0	.0	2.5	2.0	2.5	5.5	4.5	5.0	11.0	10.5	10.5
4	.0	.0	.0	2.5	2.0	2.5	6.0	5.0	5.5	11.5	10.5	11.0
5	.5	.0	.0	2.5	2.5	2.5	6.5	5.5	6.0	12.0	11.0	11.5
6	.0	.0	.0	3.0	2.5	2.5	---	---	---	12.0	11.5	12.0
7	.5	.0	.0	2.5	2.0	2.5	---	---	---	12.5	11.5	12.0
8	.5	.0	.0	2.5	2.0	2.5	7.0	6.5	7.0	12.5	12.0	12.0
9	.5	.0	.0	2.5	2.0	2.5	7.0	6.5	6.5	12.5	12.0	12.0
10	.0	.0	.0	2.5	2.0	2.5	7.0	6.0	6.5	12.5	12.0	12.5
11	.0	.0	.0	2.5	2.5	2.5	7.0	6.5	6.5	13.0	12.0	12.5
12	.0	.0	.0	3.0	2.5	2.5	7.0	6.5	7.0	13.0	12.5	12.5
13	.0	.0	.0	3.0	2.5	2.5	8.0	7.0	7.5	13.0	12.5	13.0
14	.0	.0	.0	2.5	2.5	2.5	8.5	7.5	8.0	13.5	12.5	13.0
15	.5	.0	.0	3.0	2.5	2.5	8.5	8.0	8.0	---	---	---
16	.5	.0	.0	3.0	2.5	2.5	9.0	8.0	8.5	---	---	---
17	.5	.0	.0	3.0	2.5	2.5	9.0	8.5	8.5	---	---	---
18	.5	.0	.5	3.0	2.5	3.0	9.0	8.5	8.5	---	---	---
19	.5	.5	.5	3.0	2.5	3.0	8.5	8.5	8.5	---	---	---
20	1.0	.5	.5	3.0	3.0	3.0	9.0	8.5	8.5	---	---	---
21	1.0	.5	1.0	3.0	3.0	3.0	9.0	8.5	8.5	---	---	---
22	1.5	1.0	1.0	3.5	3.0	3.0	9.0	8.5	8.5	---	---	---
23	1.5	1.0	1.0	3.5	3.0	3.5	8.5	8.5	8.5	14.5	---	---
24	1.5	1.0	1.0	3.5	3.0	3.0	9.0	8.5	8.5	14.5	13.5	14.0
25	1.0	.5	.5	3.0	3.0	3.0	9.0	8.5	8.5	14.0	14.0	14.0
26	1.0	.5	.5	3.5	3.0	3.0	9.5	8.5	9.0	15.0	14.0	14.5
27	1.0	.5	1.0	3.5	3.0	3.0	9.0	9.0	9.0	---	14.0	---
28	1.5	1.0	1.5	4.0	3.0	3.5	9.0	9.0	9.0	---	---	---
29	---	---	---	4.0	3.5	3.5	9.5	9.0	9.0	---	---	---
30	---	---	---	5.0	3.5	4.0	10.0	9.5	9.5	---	---	---
31	---	---	---	4.5	4.0	4.0	---	---	---	---	---	---
MONTH	1.5	.0	.5	5.0	1.5	3.0	---	---	---	---	---	---

HUDSON RIVER BASIN

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01374019 HUDSON RIVER AT SOUTH DOCK AT WEST POINT, NY--Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	23.5	23.0	23.5	26.5	25.5	25.5	25.0	24.5	24.5
2	16.0	---	---	23.5	23.0	23.5	26.0	25.5	26.0	25.0	24.5	24.5
3	16.5	15.5	16.0	23.5	23.5	23.5	26.5	25.5	26.0	25.0	24.5	24.5
4	17.0	16.0	16.0	24.0	23.5	23.5	26.0	25.5	26.0	24.5	24.0	24.5
5	17.5	16.0	16.5	24.0	23.0	23.5	26.0	25.5	26.0	24.5	24.0	24.0
6	17.0	16.5	16.5	24.5	23.5	23.5	26.0	25.5	25.5	24.0	23.5	24.0
7	17.0	16.5	17.0	24.0	23.5	24.0	26.0	25.5	25.5	24.0	23.5	24.0
8	17.5	16.5	17.0	24.0	23.5	24.0	25.5	25.5	25.5	24.0	23.5	23.5
9	17.5	17.0	17.5	24.5	23.5	24.0	26.0	25.0	25.5	24.0	23.5	23.5
10	18.0	17.0	17.5	24.0	23.5	24.0	26.0	25.5	25.5	23.5	23.0	23.5
11	18.5	17.5	18.0	24.5	23.5	24.0	26.0	25.0	25.5	23.5	23.0	23.0
12	18.5	18.0	18.0	25.0	24.0	24.0	26.0	25.0	25.5	23.5	23.0	23.0
13	19.0	18.5	18.5	25.0	24.0	24.5	26.0	25.0	25.5	23.5	23.0	23.0
14	19.5	18.5	19.0	25.5	24.5	25.0	26.0	25.5	25.5	23.5	23.0	23.0
15	20.0	18.5	19.0	26.0	25.0	25.5	26.0	25.5	25.5	23.5	23.0	23.0
16	19.5	19.0	19.0	26.5	25.0	25.5	26.0	25.5	26.0	23.5	23.0	23.5
17	19.5	19.0	19.0	26.5	25.5	26.0	26.5	25.5	26.0	23.5	23.0	23.5
18	19.5	19.0	19.5	26.5	25.5	26.0	26.0	25.5	26.0	23.5	23.0	23.5
19	20.0	19.0	19.5	26.5	26.0	26.0	26.0	25.5	26.0	23.5	23.0	23.5
20	20.5	19.5	20.0	26.5	25.5	26.0	26.0	25.5	25.5	23.5	23.0	23.5
21	21.5	20.0	20.5	26.0	25.5	26.0	25.5	25.0	25.5	23.0	22.5	23.0
22	21.5	20.0	21.0	26.0	25.5	25.5	25.5	25.0	25.0	23.0	22.5	22.5
23	22.0	20.5	21.0	26.0	25.5	25.5	25.0	24.5	25.0	22.5	22.0	22.5
24	22.0	21.0	21.5	26.0	25.5	25.5	25.0	24.5	24.5	22.5	21.5	22.0
25	22.5	21.0	21.5	25.5	25.0	25.5	25.0	24.5	24.5	22.5	21.5	22.0
26	22.5	21.5	22.0	25.5	25.0	25.5	25.0	24.5	24.5	22.0	21.5	21.5
27	23.0	22.0	22.0	25.5	25.0	25.5	25.0	24.5	24.5	22.0	21.0	21.5
28	23.5	22.0	22.5	26.0	25.5	25.5	24.5	24.5	24.5	21.5	21.0	21.0
29	23.5	22.5	23.0	25.5	25.5	25.5	24.5	24.0	24.5	21.5	21.0	21.0
30	23.5	22.5	23.0	26.0	25.0	25.5	24.5	24.0	24.5	---	---	---
31	---	---	---	26.0	25.5	25.5	24.5	24.5	24.5	---	---	---
MONTH	---	---	---	26.5	23.0	25.0	26.5	24.0	25.5	---	---	---

HUDSON RIVER BASIN

01374349 HUDSON RIVER AT TOMKINS COVE, NY

LOCATION.--Lat 41°15'31", long 73°58'41", Rockland County, Hydrologic Unit 02030101, on right bank at power plant at Tomkins Cove. Water-quality sampling site at stage station.

DRAINAGE AREA.--12,731 mi².

ELEVATION RECORDS

PERIOD OF RECORD.--December 1996 to September 1997.

GAGE.--Water-stage recorder. Datum of gage is 10.00 ft below sea level. Gage-height record converted to elevation above or below(-) mean sea level for publication.

REMARKS.--Satellite gage-height, temperature, and specific conductance telemeter at station. Interruptions of record were due to malfunction of recording instruments. All data are collected, stored, and reported in Eastern Standard Time.

EXTREMES FOR CURRENT YEAR.--December 1996 to September 1997: Maximum elevation, 5.30 ft, Dec. 13; minimum, -2.16 ft, Jan. 8.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	---	---	---	---	---	---	2.46	-.24	1.03
2	---	---	---	---	---	---	---	---	---	2.96	-.35	1.46
3	---	---	---	---	---	---	---	---	---	3.18	-.22	1.75
4	---	---	---	---	---	---	---	---	---	3.45	.01	1.92
5	---	---	---	---	---	---	---	---	---	3.99	.15	2.19
6	---	---	---	---	---	---	---	---	---	3.99	-.31	1.61
7	---	---	---	---	---	---	---	---	---	3.16	-1.19	.68
8	---	---	---	---	---	---	---	---	---	1.81	-2.16	-.27
9	---	---	---	---	---	---	---	---	---	3.99	-1.66	1.19
10	---	---	---	---	---	---	---	---	---	4.72	-.19	2.11
11	---	---	---	---	---	---	4.21	-.21	1.91	3.15	-1.17	.93
12	---	---	---	---	---	---	4.29	-.26	1.90	2.22	-1.94	.04
13	---	---	---	---	---	---	5.30	.52	2.69	2.22	-1.87	.14
14	---	---	---	---	---	---	4.68	.51	2.46	2.70	-1.06	.78
15	---	---	---	---	---	---	4.68	.75	2.54	2.79	-.72	1.03
16	---	---	---	---	---	---	4.31	.34	2.25	3.20	-1.31	1.45
17	---	---	---	---	---	---	3.91	.46	2.16	1.25	-2.06	-.17
18	---	---	---	---	---	---	3.84	.14	2.07	1.90	-1.57	.30
19	---	---	---	---	---	---	3.73	.14	1.99	2.64	-1.41	.90
20	---	---	---	---	---	---	2.21	-1.47	.33	2.89	-.84	.84
21	---	---	---	---	---	---	2.27	-1.96	.37	2.35	-1.51	.42
22	---	---	---	---	---	---	2.97	-1.00	.97	3.24	-.53	1.28
23	---	---	---	---	---	---	3.42	-.78	1.36	2.91	-1.00	.82
24	---	---	---	---	---	---	3.78	-.44	1.74	4.10	-1.36	1.42
25	---	---	---	---	---	---	2.59	-1.09	.70	4.18	.10	2.23
26	---	---	---	---	---	---	3.01	-.94	.96	2.09	-2.07	-.10
27	---	---	---	---	---	---	3.46	-.34	1.35	2.64	-1.30	.75
28	---	---	---	---	---	---	3.47	-.18	1.54	2.93	-1.22	1.13
29	---	---	---	---	---	---	3.35	-.02	1.63	1.79	-1.36	.22
30	---	---	---	---	---	---	2.54	-.68	.95	2.31	-.81	.83
31	---	---	---	---	---	---	2.57	-.46	1.10	3.12	.42	1.70
MONTH	---	---	---	---	---	---	---	---	---	4.72	-2.16	.99

HUDSON RIVER BASIN

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01374349 HUDSON RIVER AT TOMKINS COVE, NY--Continued

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	3.51	-.06	1.68	---	---	---	---	---	---	3.69	.06	2.01
2	2.97	-.25	1.27	---	---	---	---	---	---	2.66	-1.11	.91
3	2.89	-.47	1.22	---	---	---	---	---	---	4.52	-.62	1.92
4	3.03	-1.05	1.40	---	---	---	---	---	---	3.64	-.68	1.60
5	4.39	-.05	1.87	---	---	---	---	---	---	4.05	-.38	1.74
6	2.96	-.84	1.08	---	---	---	---	---	---	3.98	-.22	1.83
7	3.35	-.93	1.22	---	---	---	4.47	.12	2.24	3.18	-1.36	.93
8	3.68	-.80	1.41	---	---	---	3.77	-.27	1.67	3.57	-.81	1.06
9	4.21	-.42	1.77	---	---	---	3.52	-.90	1.06	3.94	-.26	1.67
10	3.80	-.68	1.45	---	---	---	3.06	-.88	.92	3.97	-.17	1.57
11	3.45	-.70	1.40	---	---	---	3.23	-.40	1.34	3.31	-.39	1.30
12	3.86	-.41	1.72	---	---	---	3.34	-.36	1.42	3.02	-.18	1.49
13	2.81	-1.14	.72	---	---	---	3.84	-.05	1.66	---	---	---
14	3.54	-.02	1.75	---	---	---	2.65	-.74	.90	2.94	-.04	1.54
15	3.31	-.99	1.15	---	---	---	2.32	-.41	1.05	2.86	-.15	1.49
16	2.13	-1.01	.70	---	---	---	2.42	-.66	.98	2.46	-1.19	.85
17	2.56	-1.19	.87	---	---	---	2.72	-.36	1.33	2.69	-.67	1.06
18	2.96	-.92	.94	---	---	---	2.67	-.30	1.22	2.92	-.86	.92
19	2.05	-1.46	.38	---	---	---	4.43	-.36	1.81	3.41	-.46	1.36
20	---	---	---	---	---	---	3.91	.22	2.28	3.25	-.62	1.33
21	---	---	---	---	---	---	3.84	-.22	1.77	3.05	-1.08	.93
22	---	---	---	---	---	---	4.04	-.12	1.80	2.72	-1.55	.59
23	---	---	---	---	---	---	4.15	.01	1.96	3.44	-1.07	.87
24	---	---	---	---	---	---	4.92	.25	2.41	3.71	-.68	1.27
25	---	---	---	---	---	---	4.90	.02	2.16	3.71	-.47	1.44
26	---	---	---	---	---	---	3.80	-.42	1.43	3.66	-.54	1.30
27	---	---	---	---	---	---	3.30	-.42	1.39	3.19	-.73	1.26
28	---	---	---	---	---	---	3.90	.14	2.08	3.35	-.91	1.04
29	---	---	---	---	---	---	3.40	-.40	1.49	2.82	-1.05	.99
30	---	---	---	---	---	---	3.47	-.21	1.68	2.87	-1.02	1.13
31	---	---	---	---	---	---	---	---	---	3.12	-.95	1.25
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	3.28	-.82	1.36	3.40	-.63	1.37	3.01	-.86	1.01	3.12	-.41	1.39
2	4.17	-.23	1.89	3.53	-.52	1.49	3.15	-.61	1.14	3.14	-.45	1.33
3	4.12	-.41	1.87	3.89	-.13	1.73	3.26	-.49	1.23	2.72	-.95	.90
4	4.36	-.22	1.93	3.43	-.46	1.47	3.51	-.33	1.49	2.84	-.65	1.09
5	4.27	-.18	1.92	3.23	-.69	1.20	3.48	-.15	1.68	2.77	-.57	1.09
6	3.98	-.19	1.87	3.20	-.68	1.11	3.39	-.32	1.42	2.61	-.72	1.06
7	3.89	-.32	1.61	3.15	-.53	1.18	3.02	-.53	1.19	2.81	-.48	1.19
8	3.63	-.28	1.57	3.05	-.66	1.13	2.73	-.64	1.05	2.74	-.57	1.14
9	3.52	-.33	1.44	3.05	-.39	1.29	2.63	-.52	1.16	3.15	-.07	1.50
10	3.20	-.41	1.21	2.68	-.82	.99	2.62	-.53	1.11	3.31	-.02	1.62
11	2.68	-.59	1.12	2.51	-.68	1.03	2.80	-.74	1.05	3.71	.38	1.95
12	3.01	-.11	1.56	2.32	-.75	.96	2.77	-.80	1.07	3.32	-.26	1.55
13	3.11	-.11	1.69	2.84	-.50	1.20	3.44	-.01	1.61	3.19	-.62	1.31
14	2.85	-.15	1.54	2.87	-.56	1.23	3.25	-.58	1.37	3.30	-.76	1.24
15	3.27	-.23	1.43	3.19	-.54	1.29	3.59	-.47	1.46	3.43	-.76	1.33
16	3.42	-.36	1.56	3.25	-.54	1.29	3.34	-.61	1.47	3.39	-.88	1.26
17	3.52	-.26	1.62	3.56	-.71	1.32	3.41	-.82	1.28	3.80	-.76	1.49
18	3.69	-.44	1.53	3.57	-.91	1.24	3.66	-.74	1.39	3.72	-.63	1.53
19	3.52	-.70	1.45	3.15	-1.20	1.03	3.54	-.78	1.34	3.51	-.68	1.41
20	3.65	-.78	1.28	3.44	-.91	1.13	4.16	-.65	1.54	3.52	-.46	1.36
21	3.76	-.55	1.48	3.34	-.76	1.17	4.33	.10	2.24	2.75	-1.12	.67
22	3.55	-.71	1.35	3.38	-.86	1.17	3.97	-.21	1.84	2.88	-.78	1.07
23	3.43	-.98	1.06	3.39	-.71	1.26	3.56	-.39	1.46	2.43	-.89	.81
24	3.34	-.72	1.26	3.55	-.40	1.66	2.94	-.77	1.14	2.57	-.93	.80
25	3.54	-.54	1.40	3.69	-.39	1.62	2.92	-.66	1.17	3.19	-.20	1.47
26	3.61	-.44	---	3.10	-.90	1.33	3.10	-.46	1.33	2.70	-.44	1.30
27	3.51	-.51	1.48	3.42	-.37	1.67	3.24	-.39	1.50	2.94	-.57	1.13
28	---	-.68	---	3.26	-.54	1.48	3.27	-.14	1.60	3.63	-.33	1.61
29	---	-.68	---	2.83	-.89	1.12	3.46	-.21	1.59	4.08	-.22	1.98
30	---	-.91	---	2.93	-.81	1.06	3.46	-.19	1.60	2.88	-.51	1.24
31	---	---	---	3.00	-.82	1.06	3.35	-.34	1.49	---	---	---
MONTH	---	-.98	---	3.89	-1.20	1.27	4.33	-.86	1.39	4.08	-1.12	1.29

HUDSON RIVER BASIN

01374349 HUDSON RIVER AT TOMKINS COVE, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: December 1996 to September 1997.

WATER TEMPERATURE: December 1996 to September 1997.

INSTRUMENTATION.--Water-quality monitor provides 15-minute-interval readings.

REMARKS.--Satellite temperature and specific conductance telemeter at station. Interruptions of record were due to malfunction of recording instruments. All data are collected, stored, and reported in Eastern Standard Time.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: December 1996 to September 1997: Maximum, 11,600 $\mu\text{S}/\text{cm}$ on several days during July and Aug.; minimum recorded, 163 $\mu\text{S}/\text{cm}$, Dec. 15, 16, but may have been less during period of instrument malfunction.

WATER TEMPERATURE: December 1996 to September 1997: Maximum, 29.0°C, July 18; minimum, 0.0°C on many days during winter period.

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

[illegible]

HUDSON RIVER BASIN

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SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	1680	219	717	---	---	---	---	---	---	276	198	234
2	2980	526	1590	---	---	---	---	---	---	292	200	231
3	3420	1210	2360	---	---	---	---	---	---	262	195	219
4	4610	1760	3170	---	---	---	---	---	---	252	195	214
5	5240	2540	3790	---	---	---	---	---	---	277	200	229
6	4440	1210	2640	---	---	---	---	---	---	289	207	232
7	3490	841	1890	---	---	---	266	231	240	284	219	255
8	2740	577	1340	---	---	---	250	205	219	322	213	250
9	2100	536	1090	---	---	---	232	194	206	316	193	245
10	1680	399	820	---	---	---	282	192	205	301	207	260
11	1040	367	568	---	---	---	211	194	196	308	209	244
12	1190	359	605	---	---	---	216	195	199	250	186	216
13	490	290	347	---	---	---	216	198	205	---	174	---
14	589	290	369	---	---	---	226	200	208	200	176	179
15	444	270	310	---	---	---	267	200	213	198	173	177
16	293	247	270	---	---	---	261	204	224	545	171	225
17	1090	243	361	---	---	---	435	208	248	1280	182	543
18	1560	384	810	---	---	---	2280	309	717	1800	313	917
19	1310	293	632	---	---	---	4350	856	2170	2730	691	1380
20	---	---	---	---	---	---	5610	2380	3740	2720	494	1400
21	---	---	---	---	---	---	5880	2130	3840	2880	451	1280
22	---	---	---	---	---	---	5500	1730	3340	2770	391	1140
23	---	---	---	---	---	---	5200	1210	2860	2650	354	1030
24	---	---	---	---	---	---	4500	1050	2240	2380	399	1090
25	---	---	---	---	---	---	3990	480	1640	2180	375	934
26	---	---	---	---	---	---	2140	327	850	1660	280	613
27	---	---	---	---	---	---	1190	255	465	1020	266	430
28	---	---	---	---	---	---	880	244	403	698	241	352
29	---	---	---	---	---	---	295	202	243	433	212	282
30	---	---	---	---	---	---	293	194	235	418	214	263
31	---	---	---	---	---	---	---	---	---	405	199	248
MONTH	---	---	---	---	---	---	---	---	---	---	171	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	745	210	291	7650	4440	5670	10300	6870	8620	9940	6670	8310
2	1580	210	384	7920	4480	5850	10200	7320	8780	9920	6920	8440
3	2070	226	523	7780	4780	6110	10400	7340	8850	9590	6110	7790
4	2340	262	836	7830	4460	5960	10700	7460	9140	9080	6660	7820
5	2600	368	1310	7680	4080	5710	10800	7140	9180	9180	6760	7850
6	2810	516	1410	7510	4200	5610	10600	7270	8960	9100	6420	7790
7	2930	504	1290	7330	4180	5610	10500	7230	8700	9120	6130	7640
8	2780	459	1280	7180	3790	5350	10300	7250	8690	8810	5990	7490
9	2550	471	1290	6730	4120	5410	10200	6880	8630	9290	6440	7840
10	2290	457	1180	6100	3410	4760	9900	7080	8490	9560	6650	8020
11	2060	586	1080	6310	3350	4850	10100	6820	8590	9960	7330	8470
12	2420	641	1620	6100	3000	4710	10100	7190	8660	10100	7320	8720
13	3140	1090	1900	6590	3510	4940	10400	7920	9230	10400	6660	8780
14	4090	1700	2600	7580	4160	5770	10700	7440	9100	11000	7190	9060
15	5580	2100	3410	8200	5220	6580	11100	6990	9050	11200	7510	9230
16	6380	3640	4530	9120	6270	7700	11500	7370	9570	11000	7710	9230
17	7000	4600	5550	10000	7060	8530	11600	7940	9780	10900	7620	9360
18	7980	5020	6280	11100	7430	9370	11600	7830	9650	11200	7430	9200
19	8670	5010	6830	11200	7420	9530	11300	7670	9580	10500	7300	8890
20	9090	5290	7190	11600	7800	9660	11600	7890	9630	10400	6700	8860
21	9160	5680	7570	11600	7900	9630	11600	8400	9980	9150	5660	7420
22	9020	5060	7180	11100	7720	9410	11300	7280	9380	9700	6340	7890
23	8870	4770	6650	11200	7580	9240	10700	7240	8870	8920	5920	7600
24	8250	5140	6680	11000	7800	9470	10100	6580	8390	8860	5770	7190
25	8350	5320	6730	10800	7390	9140	9940	6400	8180	9000	6440	7660
26	8120	5110	6560	10500	6780	8760	9870	5990	8080	8810	6220	7670
27	7770	4980	6210	10600	7260	9010	9620	6290	8090	9130	6320	7570
28	7520	4530	6000	10900	6800	8700	9800	6810	8260	9590	6820	8110
29	7260	4480	5930	9950	6480	8400	9680	6530	8070	10300	7300	8800
30	7400	3710	5530	10500	6670	8440	10200	6100	8060	10300	7340	8860
31	---	---	---	10500	6710	8510	10100	6460	8360	---	---	---
MONTH	9160	210	3860	11600	3000	7300	11600	5990	8860	11200	5660	8250

HUDSON RIVER BASIN

01374349 HUDSON RIVER AT TOMKINS COVE, NY--Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	---	---	---	---	---	---	---	---	---	6.0	2.5	3.0
2	---	---	---	---	---	---	---	---	---	6.0	3.0	3.5
3	---	---	---	---	---	---	---	---	---	6.0	2.5	3.5
4	---	---	---	---	---	---	---	---	---	6.0	2.5	3.0
5	---	---	---	---	---	---	---	---	---	5.5	2.0	3.0
6	---	---	---	---	---	---	---	---	---	4.5	2.0	3.0
7	---	---	---	---	---	---	---	---	---	4.5	2.0	2.5
8	---	---	---	---	---	---	---	---	---	6.0	1.5	2.0
9	---	---	---	---	---	---	---	---	---	4.5	1.5	2.0
10	---	---	---	---	---	---	---	---	---	5.0	1.5	2.5
11	---	---	---	---	---	---	6.0	4.0	5.0	3.0	1.0	2.0
12	---	---	---	---	---	---	6.0	4.5	5.0	2.5	1.0	1.5
13	---	---	---	---	---	---	7.0	4.5	5.0	1.5	1.0	1.0
14	---	---	---	---	---	---	6.0	4.0	5.0	2.5	1.0	1.5
15	---	---	---	---	---	---	5.5	4.0	4.5	2.5	1.0	1.5
16	---	---	---	---	---	---	6.5	4.0	4.5	3.0	1.0	1.5
17	---	---	---	---	---	---	6.0	3.5	4.5	2.0	.5	.5
18	---	---	---	---	---	---	6.0	3.5	4.5	1.0	.5	.5
19	---	---	---	---	---	---	6.0	3.5	4.5	1.0	.0	.5
20	---	---	---	---	---	---	6.5	3.5	4.0	1.0	.0	.5
21	---	---	---	---	---	---	6.5	3.0	3.5	2.5	.0	.5
22	---	---	---	---	---	---	6.0	3.5	4.0	2.5	.5	.5
23	---	---	---	---	---	---	6.0	3.5	4.0	2.5	.0	.5
24	---	---	---	---	---	---	6.0	3.5	4.0	3.0	.0	.5
25	---	---	---	---	---	---	5.0	3.0	4.0	2.0	.0	1.0
26	---	---	---	---	---	---	6.0	3.0	4.0	2.0	.0	.5
27	---	---	---	---	---	---	5.0	3.5	4.0	2.0	.0	.5
28	---	---	---	---	---	---	4.5	3.5	4.0	2.5	.0	.5
29	---	---	---	---	---	---	5.5	3.5	4.0	1.0	.0	.0
30	---	---	---	---	---	---	5.5	3.5	4.0	1.5	.0	.5
31	---	---	---	---	---	---	5.5	3.0	4.0	1.5	.0	.5
MONTH	---	---	---	---	---	---	---	---	---	6.0	.0	1.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	3.0	.0	.5	---	---	---	---	---	---	12.0	10.0	11.0
2	5.5	.0	.5	---	---	---	---	---	---	12.0	10.0	11.0
3	2.5	.0	.5	---	---	---	---	---	---	12.5	11.0	11.5
4	3.0	.0	.5	---	---	---	---	---	---	12.5	11.0	11.5
5	3.0	.5	.5	---	---	---	---	---	---	13.0	11.0	12.0
6	2.5	.0	.5	---	---	---	---	---	---	13.0	11.5	12.0
7	2.0	.0	.5	---	---	---	8.5	6.5	7.0	13.5	12.0	12.5
8	2.0	.0	.5	---	---	---	8.5	7.0	7.5	13.5	12.0	12.5
9	2.5	.0	.5	---	---	---	8.5	6.5	7.0	13.0	12.5	12.5
10	2.5	.0	.5	---	---	---	9.0	6.5	7.0	13.0	12.5	12.5
11	3.0	.0	.5	---	---	---	9.0	7.0	7.5	13.0	12.5	13.0
12	2.0	.0	.5	---	---	---	8.5	7.0	7.5	14.5	13.0	13.5
13	1.5	.0	.5	---	---	---	9.0	7.5	8.0	14.5	13.0	---
14	3.0	.0	.5	---	---	---	9.5	7.5	8.0	15.5	13.5	14.0
15	2.5	.0	.5	---	---	---	10.5	8.0	9.0	15.0	13.5	14.0
16	2.5	.0	.5	---	---	---	10.5	8.5	9.5	15.0	13.5	14.0
17	4.5	.0	.5	---	---	---	11.5	9.0	10.0	15.0	13.5	14.0
18	3.5	.5	.5	---	---	---	10.5	9.0	9.5	17.0	13.0	14.0
19	4.0	.5	1.0	---	---	---	11.5	8.5	9.5	15.0	13.5	14.0
20	---	.5	---	---	---	---	11.0	8.5	9.5	15.0	13.5	14.0
21	---	---	---	---	---	---	11.0	7.0	9.5	15.5	13.5	14.0
22	---	---	---	---	---	---	11.0	9.0	9.5	15.5	13.5	14.0
23	---	---	---	---	---	---	12.0	9.0	10.0	15.5	13.5	14.5
24	---	---	---	---	---	---	11.0	9.0	10.0	16.0	14.0	14.5
25	---	---	---	---	---	---	11.0	9.5	10.0	16.0	14.5	15.0
26	---	---	---	---	---	---	11.0	9.5	10.0	16.0	14.5	15.0
27	---	---	---	---	---	---	12.0	9.5	10.5	16.0	14.5	15.0
28	---	---	---	---	---	---	11.5	10.0	11.0	17.5	14.5	15.5
29	---	---	---	---	---	---	12.0	10.0	10.5	16.0	15.0	15.5
30	---	---	---	---	---	---	12.5	10.0	11.0	16.5	15.0	15.5
31	---	---	---	---	---	---	---	---	---	17.5	15.5	16.0
MONTH	---	---	---	---	---	---	---	---	---	17.5	10.0	---

HUDSON RIVER BASIN

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	17.5	16.0	16.5	26.0	23.5	24.5	28.0	26.0	26.5	27.0	25.0	25.5
2	17.5	16.0	16.5	26.0	24.0	24.5	28.0	26.0	26.5	27.0	25.0	26.0
3	17.5	16.0	16.5	26.0	24.0	24.5	28.0	26.0	27.0	26.5	25.0	25.5
4	18.5	16.0	16.5	25.5	24.0	24.5	28.0	26.5	27.0	26.0	24.5	25.0
5	19.0	16.0	17.0	26.0	24.0	24.5	28.0	26.5	27.0	25.5	24.0	24.5
6	19.0	16.5	17.0	26.0	24.0	25.0	28.0	26.0	26.5	25.5	24.0	24.5
7	18.5	16.5	17.5	26.0	24.5	25.0	28.0	26.0	26.5	25.5	24.0	24.5
8	18.5	17.0	17.5	27.0	24.5	25.0	26.5	25.5	26.0	25.0	24.0	24.5
9	19.5	17.0	18.0	26.0	24.5	25.0	27.0	25.5	26.0	25.0	23.5	24.0
10	19.0	17.5	18.0	26.5	24.5	25.0	27.5	26.0	26.5	25.5	23.5	24.0
11	20.0	18.0	18.5	27.0	24.5	25.5	28.0	26.0	26.5	24.5	23.5	24.0
12	20.5	18.5	19.5	26.5	24.5	25.5	27.5	26.0	26.5	25.5	23.5	24.0
13	20.5	19.0	19.5	27.0	25.0	25.5	28.0	26.0	26.5	25.5	23.5	24.0
14	20.5	19.0	19.5	27.5	25.0	26.0	28.0	26.0	26.5	25.0	23.5	24.0
15	20.5	19.0	19.5	27.5	25.5	26.5	28.0	26.0	26.5	25.0	23.5	24.0
16	20.5	19.0	20.0	28.0	25.5	26.5	28.0	26.0	26.5	25.5	23.5	24.0
17	21.0	19.0	20.0	28.5	26.0	27.0	28.5	26.0	26.5	25.5	24.0	24.5
18	20.5	19.5	19.5	29.0	26.0	27.0	27.5	26.0	26.5	25.5	23.5	24.5
19	22.0	19.5	20.0	28.0	26.0	26.5	28.0	26.0	26.5	25.0	24.0	24.5
20	22.0	19.5	20.5	27.5	26.0	26.5	27.5	25.5	26.0	25.5	24.0	24.5
21	22.5	20.0	21.0	28.0	26.0	26.5	27.0	25.0	25.5	25.0	23.5	24.0
22	23.0	21.0	21.5	28.5	26.0	26.5	26.5	25.0	25.5	25.5	23.0	24.0
23	23.5	21.0	22.0	27.5	26.0	26.5	26.5	25.0	25.5	24.5	23.0	23.5
24	24.0	21.5	22.0	27.0	25.5	26.5	26.5	25.0	25.5	24.5	22.5	23.5
25	24.5	21.5	22.5	27.0	25.5	26.0	26.0	25.0	25.5	25.0	21.5	23.0
26	24.5	22.5	23.0	27.0	25.5	26.0	27.0	25.0	25.5	24.5	22.0	23.0
27	24.5	22.0	23.5	27.0	25.5	26.5	27.0	25.0	25.5	24.0	21.5	22.5
28	25.0	22.5	23.5	27.5	26.0	26.5	26.5	25.0	25.5	23.0	21.5	22.0
29	25.0	23.0	24.0	27.5	26.0	26.5	26.5	25.0	25.5	23.0	21.5	22.0
30	26.0	23.0	24.5	27.5	25.5	26.0	27.0	25.0	25.5	23.0	21.0	22.0
31	---	---	---	28.5	25.5	26.5	27.0	25.0	25.5	---	---	---
MONTH	26.0	16.0	20.0	29.0	23.5	26.0	28.5	25.0	26.0	27.0	21.0	24.0

HUDSON RIVER BASIN

0137448595 HUDSON RIVER NEAR CONGERS, NY

LOCATION.--Lat 41°09'46", long 73°55'17", Rockland County, Hydrologic Unit 02030101, on right bank across from Tellers Point and 1.5 mi northeast of Congers. Water-quality sampling site at stage station.

DRAINAGE AREA.--12,805 mi².

GAGE-HEIGHT RECORDS

PERIOD OF RECORD.--April to September 1997.

GAGE.--Water-stage recorder. Datum of gage is about 10.00 ft below sea level, from barometer.

REMARKS.--Satellite gage-height, temperature, and specific conductance telemeter at station. All data are collected, stored, and reported in Eastern Standard Time.

EXTREMES FOR CURRENT YEAR.--April to September 1997: Maximum gage height, 14.28 ft, Apr. 24; minimum, 7.74 ft, May 22.

GAGE HEIGHT (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	---	---	---	13.03	9.29	11.28
2	---	---	---	---	---	---	---	---	---	12.03	8.15	10.22
3	---	---	---	---	---	---	---	---	---	13.88	8.56	11.20
4	---	---	---	---	---	---	---	---	---	13.04	8.60	10.89
5	---	---	---	---	---	---	---	---	---	13.41	8.77	11.00
6	---	---	---	---	---	---	---	---	---	13.43	8.98	11.08
7	---	---	---	---	---	---	---	---	---	12.28	7.92	10.21
8	---	---	---	---	---	---	13.28	9.00	11.00	12.90	8.35	10.32
9	---	---	---	---	---	---	12.95	8.56	10.52	13.29	8.86	10.89
10	---	---	---	---	---	---	12.62	8.46	10.38	13.29	8.99	10.82
11	---	---	---	---	---	---	12.76	8.97	10.76	12.68	8.79	10.55
12	---	---	---	---	---	---	12.84	9.07	10.85	12.33	9.01	10.70
13	---	---	---	---	---	---	13.30	9.30	11.08	12.20	8.91	10.54
14	---	---	---	---	---	---	12.15	8.69	10.34	12.25	9.19	10.79
15	---	---	---	---	---	---	11.79	9.03	10.46	12.16	9.10	10.75
16	---	---	---	---	---	---	11.84	8.70	10.39	11.77	8.09	10.14
17	---	---	---	---	---	---	12.19	9.00	10.72	12.03	8.55	10.33
18	---	---	---	---	---	---	12.23	9.04	10.65	12.21	8.38	10.19
19	---	---	---	---	---	---	13.84	8.93	11.22	12.73	8.78	10.62
20	---	---	---	---	---	---	13.35	9.49	11.61	12.58	8.61	10.59
21	---	---	---	---	---	---	13.23	9.07	11.10	12.35	8.18	10.21
22	---	---	---	---	---	---	13.43	9.16	11.12	12.04	7.74	9.88
23	---	---	---	---	---	---	13.52	9.27	11.27	12.74	8.15	10.14
24	---	---	---	---	---	---	14.28	9.54	11.73	13.03	8.55	10.52
25	---	---	---	---	---	---	14.22	9.33	11.47	13.03	8.75	10.69
26	---	---	---	---	---	---	13.19	8.84	10.75	12.98	8.64	10.57
27	---	---	---	---	---	---	12.68	8.97	10.70	12.51	8.56	10.52
28	---	---	---	---	---	---	13.20	9.39	11.38	12.69	8.41	10.30
29	---	---	---	---	---	---	12.78	8.89	10.79	12.15	8.21	10.24
30	---	---	---	---	---	---	12.83	9.04	10.96	12.19	8.23	10.39
31	---	---	---	---	---	---	---	---	---	12.44	8.29	10.52
MONTH	---	---	---	---	---	---	---	---	---	13.88	7.74	10.55

HUDSON RIVER BASIN

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0137448595 HUDSON RIVER NEAR CONGERS, NY--Continued

GAGE HEIGHT (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	12.62	8.43	10.63	12.72	8.56	10.65	12.35	8.40	10.32	12.48	8.83	10.69
2	13.50	8.97	11.17	12.87	8.69	10.78	12.52	8.61	10.43	12.50	8.84	10.63
3	13.38	8.81	11.12	13.22	9.03	10.98	12.62	8.80	10.53	11.91	8.36	10.23
4	13.63	8.97	11.18	12.76	8.78	10.75	12.86	8.96	10.79	12.21	8.63	10.41
5	13.52	8.99	11.16	12.58	8.56	10.48	12.87	9.14	10.97	12.15	8.75	10.43
6	13.29	9.00	11.10	12.55	8.56	10.38	12.70	8.92	10.72	11.99	8.64	10.39
7	13.12	8.90	10.85	12.44	8.69	10.46	12.41	8.78	10.47	12.18	8.83	10.52
8	12.95	8.96	10.81	12.40	8.64	10.40	12.12	8.65	10.36	12.12	8.77	10.49
9	12.83	9.03	10.68	12.39	8.85	10.56	12.01	8.78	10.46	12.54	9.21	10.83
10	12.49	8.90	10.46	12.04	8.47	10.29	11.99	8.75	10.38	12.70	9.29	10.96
11	11.99	8.70	10.38	11.86	8.62	10.32	12.06	8.53	10.32	13.07	9.50	11.24
12	12.31	9.17	10.80	11.67	8.55	10.26	12.06	8.52	10.36	12.69	8.97	10.85
13	12.41	9.09	10.94	12.17	8.78	10.50	12.73	9.24	10.88	12.58	8.65	10.63
14	12.23	9.13	10.84	12.21	8.69	10.53	12.59	8.67	10.66	12.68	8.43	10.54
15	12.58	8.99	10.73	12.56	8.70	10.59	12.87	8.74	10.74	12.83	8.50	10.64
16	12.74	8.84	10.84	12.59	8.70	10.58	12.67	8.61	10.73	12.79	8.41	10.58
17	12.86	8.97	10.91	12.89	8.54	10.62	12.77	8.40	10.55	13.22	8.52	10.79
18	13.01	8.74	10.80	12.89	8.36	10.53	13.02	8.50	10.68	13.07	8.69	10.83
19	12.85	8.51	10.72	12.56	8.09	10.36	12.92	8.46	10.63	12.89	8.59	10.71
20	12.94	8.44	10.56	12.80	8.30	10.41	13.54	8.63	10.82	12.92	8.79	10.64
21	13.10	8.62	10.75	12.76	8.50	10.45	13.73	9.40	11.54	12.09	8.14	9.98
22	12.82	8.54	10.61	12.78	8.42	10.46	13.38	9.08	11.10	12.24	8.49	10.36
23	12.74	8.26	10.36	12.80	8.56	10.53	12.93	8.86	10.74	11.78	8.40	10.09
24	12.70	8.59	10.54	12.93	8.84	10.95	12.28	8.54	10.43	11.91	8.37	10.11
25	12.90	8.74	10.75	13.07	8.87	10.91	12.26	8.57	10.46	12.53	9.03	10.76
26	12.95	8.84	10.78	12.46	8.38	10.61	12.43	8.81	10.64	12.04	8.82	10.59
27	12.86	8.82	10.76	12.73	8.88	10.94	12.57	8.88	10.80	12.29	8.67	10.42
28	12.58	8.59	10.76	12.62	8.74	10.77	12.61	9.13	10.90	12.94	8.92	10.91
29	12.61	8.57	10.75	12.18	8.41	10.43	12.75	9.05	10.90	13.42	9.02	11.25
30	12.43	8.34	10.53	12.28	8.41	10.37	12.83	9.05	10.91	12.22	8.74	10.51
31	---	---	---	12.34	8.42	10.37	12.70	8.89	10.79	---	---	---
MONTH	13.63	8.26	10.78	13.22	8.09	10.56	13.73	8.40	10.68	13.42	8.14	10.60

HUDSON RIVER BASIN

0137448595 HUDSON RIVER NEAR CONGERS, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April to September 1997.

WATER TEMPERATURE: April to September 1997.

INSTRUMENTATION.--Water-quality monitor provides 15-minute-interval readings.

REMARKS.--Satellite temperature and specific conductance telemeter at station. All data are collected, stored, and reported in Eastern Standard Time.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: April to September 1997: Maximum, 15,200 $\mu\text{S}/\text{cm}$, Aug. 17; minimum, 182 $\mu\text{S}/\text{cm}$, May 13.

WATER TEMPERATURE: April to September 1997: Maximum, 28.0°C, July 15, 17; minimum, 6.0°C, Apr. 10.

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	---	---	---	1010	330	576
2	---	---	---	---	---	---	---	---	---	340	256	296
3	---	---	---	---	---	---	---	---	---	331	236	263
4	---	---	---	---	---	---	---	---	---	255	223	241
5	---	---	---	---	---	---	---	---	---	227	214	220
6	---	---	---	---	---	---	---	---	---	216	209	212
7	---	---	---	---	---	---	---	---	---	214	205	210
8	---	---	---	---	---	---	---	---	---	212	205	208
9	---	---	---	---	---	---	257	225	243	211	203	207
10	---	---	---	---	---	---	236	215	226	210	199	203
11	---	---	---	---	---	---	226	213	220	207	188	199
12	---	---	---	---	---	---	226	212	218	204	187	196
13	---	---	---	---	---	---	221	206	216	199	182	190
14	---	---	---	---	---	---	221	207	213	285	184	206
15	---	---	---	---	---	---	213	203	208	707	189	298
16	---	---	---	---	---	---	952	204	273	975	281	569
17	---	---	---	---	---	---	695	269	448	1620	769	1200
18	---	---	---	---	---	---	1850	273	871	2850	872	1630
19	---	---	---	---	---	---	4030	1430	2400	3310	1810	2390
20	---	---	---	---	---	---	6140	3350	4360	4200	2530	2980
21	---	---	---	---	---	---	6190	4490	5070	5720	2950	3730
22	---	---	---	---	---	---	6300	4050	5020	4970	2990	3840
23	---	---	---	---	---	---	6840	3750	4940	5210	2210	3580
24	---	---	---	---	---	---	6750	3220	4500	5330	2180	3410
25	---	---	---	---	---	---	6280	2360	3870	5300	1740	3210
26	---	---	---	---	---	---	4510	1530	2590	4490	1480	2460
27	---	---	---	---	---	---	3400	1240	2150	3400	1360	2220
28	---	---	---	---	---	---	4010	901	1910	4230	1030	2040
29	---	---	---	---	---	---	1730	419	949	3620	958	1980
30	---	---	---	---	---	---	1180	372	646	4040	842	2050
31	---	---	---	---	---	---	---	---	---	4220	908	1940
MONTH	---	---	---	---	---	---	---	---	---	5720	182	1390

HUDSON RIVER BASIN

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0137448595 HUDSON RIVER NEAR CONGERS, NY--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	4080	921	1930	11400	7370	8750	13000	9400	10600	12400	9400	10500
2	4560	1150	2330	10900	7240	8680	12900	9790	10900	12400	9490	10600
3	4600	1390	2500	11900	7600	9400	13000	9640	11000	12600	9600	10700
4	5440	2030	3130	11200	7290	8960	13100	10100	11000	11800	9840	10800
5	8230	2420	3980	10800	7050	8410	12400	10100	10900	11700	9320	10500
6	7200	2860	4500	10700	7060	8460	11900	10000	10700	12100	8950	10300
7	6940	2500	3940	11100	7230	8540	12300	10000	10800	12100	8570	10000
8	5740	2540	3810	9920	6860	8070	12500	9820	10800	10300	8470	9130
9	6280	2430	3740	10300	6800	8510	12300	9680	10700	11700	8590	9480
10	5790	2120	3390	8060	6240	7100	12500	9350	10900	12400	8700	9660
11	4830	1950	3030	8250	5730	6890	13200	9630	10900	12400	9020	10400
12	5430	2250	3560	8740	5510	6390	12800	9630	10700	11200	8480	9950
13	5410	2560	3570	8830	5710	6750	13300	11200	12100	11900	9390	10300
14	5640	2960	3620	10100	6350	7320	13200	9870	11000	12500	9730	10800
15	6590	3590	4590	9280	7210	7990	14300	10400	11700	13700	9810	11600
16	7770	4890	5970	10500	8130	9130	15000	11300	12600	13500	10300	11900
17	8040	5800	6500	11600	9050	9780	15200	11000	12500	13300	10800	12000
18	9070	6950	7550	12500	10100	10900	13800	10400	12000	13100	8690	11300
19	9780	7480	8140	13400	11100	11800	13400	10300	12000	12700	10400	11500
20	12100	8140	9260	13600	11000	12300	13700	10600	12300	12800	10100	11300
21	11800	8790	10000	13700	11200	12300	14400	11200	12600	11900	8960	10700
22	12300	8690	10000	13300	10300	11700	13700	10900	12200	12400	8830	10600
23	11300	8210	9540	13700	10500	11800	13400	10100	11600	11300	8290	9820
24	10900	8010	9440	13300	10600	11800	13100	9540	11000	11600	8750	9750
25	11100	8240	9410	12600	10100	11300	12300	8910	10400	12200	8490	10100
26	11100	7750	9130	12900	9350	11000	12700	9080	10400	10900	8260	9430
27	10600	7740	8900	14200	9390	11300	13500	9200	10700	11200	7870	9130
28	11000	7370	8800	12000	8960	10400	12000	9570	10600	10900	---	---
29	11000	7450	8700	12200	9670	10700	11300	9120	9950	13400	9170	10600
30	10800	7070	8450	12600	9390	10700	11900	9070	9910	11400	9430	10300
31	---	---	---	12600	9620	10700	12200	9300	10400	---	---	---
MONTH	12300	921	6050	14200	5510	9610	15200	8910	11200	13700	---	---

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	---	---	---	13.0	12.0	12.5
2	---	---	---	---	---	---	---	---	---	12.5	11.5	12.0
3	---	---	---	---	---	---	---	---	---	12.0	11.5	11.5
4	---	---	---	---	---	---	---	---	---	12.5	11.5	12.0
5	---	---	---	---	---	---	---	---	---	13.0	11.5	12.0
6	---	---	---	---	---	---	---	---	---	12.5	12.0	12.0
7	---	---	---	---	---	---	---	---	---	12.5	11.5	12.0
8	---	---	---	---	---	---	8.5	7.5	8.0	13.0	11.0	12.0
9	---	---	---	---	---	---	8.0	6.5	7.0	12.5	12.0	12.0
10	---	---	---	---	---	---	7.5	6.0	6.5	13.0	12.0	12.5
11	---	---	---	---	---	---	8.0	6.5	7.0	14.0	12.0	13.0
12	---	---	---	---	---	---	8.0	7.0	7.5	14.5	12.5	13.5
13	---	---	---	---	---	---	9.0	7.5	8.0	14.0	13.5	14.0
14	---	---	---	---	---	---	9.0	8.0	8.5	14.5	13.5	14.0
15	---	---	---	---	---	---	9.0	8.0	8.5	15.0	14.0	14.5
16	---	---	---	---	---	---	10.5	8.5	9.0	14.5	14.0	14.0
17	---	---	---	---	---	---	10.0	9.0	9.5	14.0	13.5	13.5
18	---	---	---	---	---	---	9.5	8.5	9.0	15.0	13.0	14.0
19	---	---	---	---	---	---	9.5	8.5	8.5	15.0	13.5	14.0
20	---	---	---	---	---	---	10.5	8.5	9.5	15.5	14.5	14.5
21	---	---	---	---	---	---	10.5	9.0	9.5	14.5	14.0	14.0
22	---	---	---	---	---	---	11.0	9.0	10.0	14.5	13.5	14.0
23	---	---	---	---	---	---	10.5	9.5	10.0	15.0	13.5	14.0
24	---	---	---	---	---	---	10.5	9.5	10.0	16.0	14.0	14.5
25	---	---	---	---	---	---	11.5	10.0	10.5	15.0	15.0	15.0
26	---	---	---	---	---	---	11.5	10.0	11.0	16.5	14.5	15.0
27	---	---	---	---	---	---	11.5	10.5	11.0	16.0	15.0	15.5
28	---	---	---	---	---	---	12.0	10.5	11.0	17.0	15.0	15.5
29	---	---	---	---	---	---	12.0	10.5	11.5	17.0	15.5	16.0
30	---	---	---	---	---	---	13.0	11.0	12.0	17.0	15.5	16.0
31	---	---	---	---	---	---	---	---	---	18.0	16.0	17.0
MONTH	---	---	---	---	---	---	---	---	---	18.0	11.0	13.5

HUDSON RIVER BASIN

0137448595 HUDSON RIVER NEAR CONGERS, NY--Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	18.0	17.0	17.0	26.0	24.5	25.0	27.0	26.0	26.0	26.0	24.5	25.0
2	17.5	16.5	17.0	25.0	24.5	25.0	26.5	25.5	26.0	25.5	25.0	25.5
3	17.5	16.0	16.5	25.0	24.5	24.5	27.0	26.0	26.5	25.5	24.0	25.0
4	18.0	16.0	17.0	25.0	24.5	25.0	26.5	26.0	26.0	24.0	23.0	23.5
5	18.0	16.5	17.0	25.5	24.0	24.5	26.5	25.5	26.0	24.0	23.0	23.5
6	18.0	17.0	17.0	25.0	24.0	24.5	26.5	25.5	26.0	23.5	23.0	23.5
7	17.5	17.0	17.0	25.5	24.5	25.0	26.5	25.5	26.0	24.5	23.0	23.5
8	18.0	17.0	17.5	26.0	24.5	25.0	26.0	25.5	25.5	24.0	23.0	23.5
9	19.0	17.0	17.5	25.5	24.5	25.0	26.5	25.5	26.0	23.5	23.0	23.5
10	19.5	17.5	18.5	25.5	24.5	25.0	27.0	25.5	26.0	23.5	22.5	23.0
11	21.0	18.5	19.5	26.5	24.5	25.5	26.5	25.5	26.0	23.0	22.0	22.5
12	21.0	19.0	20.0	27.0	25.0	25.5	27.0	26.0	26.5	24.5	22.5	23.5
13	20.5	19.5	20.0	27.0	25.5	26.0	26.0	25.5	25.5	24.0	23.0	23.5
14	21.0	19.5	20.0	27.5	25.5	26.5	27.0	25.5	26.0	24.5	23.0	23.5
15	21.0	19.5	20.0	28.0	26.0	26.5	26.5	25.5	26.0	24.5	23.0	23.5
16	20.5	19.5	20.0	27.5	26.5	27.0	27.0	25.5	26.0	24.5	23.0	23.5
17	20.5	19.5	20.0	28.0	26.5	27.0	27.0	26.0	26.5	24.0	23.0	23.5
18	20.0	20.0	20.0	27.5	26.5	27.0	26.5	25.5	26.0	24.0	23.5	23.5
19	21.5	19.5	20.5	27.0	25.5	26.5	26.5	25.5	25.5	24.0	23.5	23.5
20	22.0	20.0	21.0	26.5	25.0	26.0	25.5	24.5	25.0	24.0	23.0	23.5
21	22.5	21.0	21.5	26.0	25.5	25.5	24.5	24.0	24.5	23.5	22.0	22.5
22	22.5	20.5	22.0	26.5	25.0	25.5	25.0	23.5	24.5	23.0	21.5	22.0
23	23.0	21.5	22.0	26.0	25.5	25.5	25.5	24.0	24.5	22.5	21.0	22.0
24	23.0	22.0	22.5	25.5	24.5	25.0	25.5	24.0	24.5	22.0	20.5	21.5
25	23.5	22.5	23.0	25.5	24.0	24.5	26.0	24.0	25.0	21.5	20.0	21.0
26	24.5	23.0	23.5	26.5	24.5	25.5	25.5	24.5	25.0	22.0	20.5	21.0
27	24.5	23.5	24.0	26.5	25.0	25.5	25.5	24.0	24.5	22.0	20.5	21.0
28	25.5	23.5	24.0	27.0	25.5	26.5	25.0	24.0	24.5	21.5	20.0	21.0
29	26.0	24.0	24.5	26.5	25.5	26.0	25.5	24.5	24.5	21.5	20.0	20.5
30	26.0	24.0	25.0	26.5	25.0	25.5	26.0	24.5	25.0	21.0	20.0	20.5
31	---	---	---	27.5	25.5	26.0	25.5	24.5	25.0	---	---	---
MONTH	26.0	16.0	20.0	28.0	24.0	25.5	27.0	23.5	25.5	26.0	20.0	23.0

0137449480 EAST BRANCH CROTON RIVER NEAR PUTNAM LAKE, NY

LOCATION.--Lat 41°26'49", long 73°33'23", Putnam County, Hydrologic Unit 02030101, on left bank at downstream side of bridge on County Route 65, 1.3 mi southwest of Putnam Lake.

DRAINAGE AREA.--62.1 mi².

PERIOD OF RECORD.--October 1995 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 430 ft above sea level, from topographic map.

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

AVERAGE DISCHARGE.--2 years, 162 ft³/s, 35.39 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,420 ft³/s, Jan. 28, 1996, gage height, 9.82 ft; minimum, 3.1 ft³/s, Aug. 12, 13, 1997, gage height, 2.44 ft.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 21	0930	*1,130	*9.10	Dec. 15	1800	570	7.30
Dec. 3	0630	1,050	8.89	Apr. 2	2000	557	7.25
Dec. 8	1215	600	7.42				

Minimum discharge, 3.1 ft³/s, Aug. 12, 13, gage height, 2.44 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	103	183	265	e190	149	98	398	184	44	8.2	6.6	20
2	94	166	620	165	146	102	538	165	40	7.5	5.9	16
3	82	156	1010	156	147	112	544	190	48	17	5.5	14
4	68	145	809	162	144	123	541	332	53	33	6.6	12
5	57	128	634	174	204	123	552	407	47	32	8.6	10
6	46	117	565	178	324	137	527	391	36	19	8.3	9.3
7	41	111	563	166	353	152	463	359	30	14	6.6	8.9
8	42	128	597	145	278	153	392	317	27	14	5.7	9.5
9	126	237	571	132	e190	141	326	278	25	29	5.9	10
10	227	376	502	115	e150	133	271	242	23	122	5.1	11
11	282	403	430	e100	e120	e130	228	208	24	174	4.1	11
12	264	339	409	e90	e110	e125	204	190	21	177	3.4	14
13	217	271	446	e80	e100	e120	248	172	19	137	4.3	14
14	173	219	509	e75	e98	130	283	154	18	78	7.3	15
15	138	183	559	e70	e100	184	273	140	16	32	7.3	13
16	113	159	545	99	e105	236	231	129	15	23	11	11
17	95	144	498	142	e105	230	193	116	14	18	13	11
18	83	135	e450	155	110	198	196	108	18	15	38	9.5
19	110	132	e400	122	113	170	265	115	32	13	50	7.4
20	661	131	e380	83	130	154	318	142	32	11	46	6.7
21	1100	128	375	64	137	144	333	153	25	9.0	47	6.9
22	950	122	320	59	139	143	307	159	20	11	46	7.9
23	742	114	280	69	142	145	267	142	16	14	39	8.7
24	596	106	264	82	135	139	230	117	14	13	28	8.9
25	487	100	e290	169	117	128	203	98	14	16	20	9.5
26	399	191	e300	258	98	134	181	99	18	17	16	10
27	329	355	e280	283	94	154	162	93	14	14	13	10
28	282	409	263	241	97	167	165	86	13	12	16	9.9
29	248	344	236	e220	---	157	187	72	11	11	27	15
30	223	273	e220	e200	---	144	198	61	9.4	9.0	32	21
31	204	---	e200	186	---	191	---	53	---	7.6	26	---
TOTAL	8582	6005	13790	4430	4135	4597	9224	5472	736.4	1107.3	559.2	341.1
MEAN	277	200	445	143	148	148	307	177	24.5	35.7	18.0	11.4
MAX	1100	409	1010	283	353	236	552	407	53	177	50	21
MIN	41	100	200	59	94	98	162	53	9.4	7.5	3.4	6.7
CFSM	4.46	3.22	7.16	2.30	2.38	2.39	4.95	2.84	.40	.58	.29	.18
IN.	5.14	3.60	8.26	2.65	2.48	2.75	5.53	3.28	.44	.66	.33	.20

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

	1996	1997	1996	1997	1996	1997	1996	1997	1996	1997	1996	1997
MEAN	182	224	253	246	203	166	287	173	46.4	97.8	28.5	36.1
MAX	277	248	445	349	256	184	307	177	68.3	160	39.0	60.9
(WY)	1997	1996	1997	1996	1996	1996	1997	1997	1996	1996	1996	1996
MIN	88.1	200	60.6	143	148	148	266	169	24.5	35.7	18.0	11.4
(WY)	1996	1997	1996	1997	1997	1997	1996	1996	1997	1997	1997	1997

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1996 - 1997

ANNUAL TOTAL	75593	58979.0	
ANNUAL MEAN	207	162	162
HIGHEST ANNUAL MEAN			162
LOWEST ANNUAL MEAN			162
HIGHEST DAILY MEAN	1320	Jan 28	1100
LOWEST DAILY MEAN	14	Sep 6	3.4
ANNUAL SEVEN-DAY MINIMUM	17	Sep 1	5.0
ANNUAL RUNOFF (CFSM)	3.33		2.60
ANNUAL RUNOFF (INCHES)	45.28		35.33
10 PERCENT EXCEEDS	483		391
50 PERCENT EXCEEDS	150		128
90 PERCENT EXCEEDS	33		10

e Estimated

HUDSON RIVER BASIN

01374505 EAST BRANCH CROTON RIVER AT BREWSTER, NY

LOCATION.--Lat 41°23'40", long 73°36'27", Putnam County, Hydrologic Unit 02030101, on right bank 50 ft downstream from bridge on U.S. Highway 6 in Brewster, 0.9 mi upstream from bridge at diverting reservoir, and 1.6 mi downstream from East Branch Reservoir dam.

DRAINAGE AREA.--81.2 mi².

PERIOD OF RECORD.--March 1994 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 330 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by East Branch Reservoir. Telephone gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,320 ft³/s, Jan. 29, 1996, gage height, 6.21 ft; minimum daily, 63 ft³/s, Sept. 19, 1997.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,050 ft³/s, Dec. 3, gage height, 5.78 ft; minimum daily, 63 ft³/s, Sept. 19.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	129	226	364	228	226	136	435	193	85	72	69	69
2	129	209	689	216	205	146	508	183	82	72	69	69
3	129	193	965	211	196	151	569	272	85	74	70	69
4	129	183	944	213	191	161	561	382	82	72	69	69
5	129	171	733	218	306	170	540	371	81	72	69	69
6	128	160	691	220	327	194	527	406	80	72	69	69
7	128	156	665	210	352	186	482	389	79	73	69	69
8	137	193	697	186	337	186	412	342	79	72	69	69
9	143	305	631	172	276	182	350	314	79	82	69	69
10	137	333	562	167	221	187	295	285	79	77	69	69
11	133	381	500	155	193	187	255	252	79	73	69	70
12	133	367	496	130	175	182	244	227	78	73	69	69
13	132	322	501	124	160	174	298	208	79	75	70	68
14	132	278	548	117	157	189	280	194	78	75	66	68
15	130	239	578	109	162	257	276	179	78	75	66	68
16	130	210	571	165	163	255	252	163	77	75	70	68
17	129	192	549	175	163	261	226	150	77	73	70	68
18	130	180	509	158	156	248	255	140	82	73	85	70
19	161	176	493	151	157	226	309	151	83	73	69	63
20	182	171	468	129	166	211	306	191	78	73	69	64
21	159	164	418	109	174	199	313	181	76	73	72	64
22	655	158	374	100	185	197	307	176	76	73	69	65
23	619	152	338	106	183	187	280	169	76	72	68	65
24	480	146	327	104	176	178	250	153	75	72	68	65
25	402	143	367	270	162	171	223	145	75	71	68	65
26	358	304	342	264	146	194	202	145	75	69	68	65
27	333	338	336	266	142	193	185	128	74	71	68	65
28	318	379	316	350	139	198	200	118	73	71	70	65
29	292	374	298	300	---	199	197	108	73	69	69	65
30	268	330	284	263	---	192	196	97	72	68	69	65
31	246	---	265	247	---	301	---	90	---	69	69	---
TOTAL	6840	7133	15819	5833	5596	6098	9733	6502	2345	2254	2152	2015
MEAN	221	238	510	188	200	197	324	210	78.2	72.7	69.4	67.2
MAX	655	381	965	350	352	301	569	406	85	82	85	70
MIN	128	143	265	100	139	136	185	90	72	68	66	63

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1997, BY WATER YEAR (WY)

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
MEAN	128	138	281	227	202	209	276	165	94.8	105	101	93.1
MAX	221	238	510	264	281	251	366	218	128	154	130	126
(WY)	1997	1997	1997	1995	1996	1996	1994	1996	1996	1996	1996	1996
MIN	77.6	71.8	109	188	123	178	113	88.2	78.2	72.7	69.4	67.2
(WY)	1995	1995	1996	1997	1995	1995	1995	1995	1997	1997	1997	1997

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1994 - 1997

ANNUAL TOTAL	84975	72320	
ANNUAL MEAN	232	198	166
HIGHEST ANNUAL MEAN			198
LOWEST ANNUAL MEAN			124
HIGHEST DAILY MEAN	1120	Jan 29	1120
LOWEST DAILY MEAN	104	Jan 21	63
ANNUAL SEVEN-DAY MINIMUM	105	Jan 11	64
10 PERCENT EXCEEDS	417		301
50 PERCENT EXCEEDS	175		124
90 PERCENT EXCEEDS	122		73

HUDSON RIVER BASIN

153

01374531 EAST BRANCH CROTON RIVER NEAR CROTON FALLS, NY

LOCATION.--Lat 41°22'27", long 73°38'18", Putnam County, Hydrologic Unit 02030101, on right bank 200 ft downstream from dam on Diverting Reservoir, just downstream from Lower Mine Road, 2.6 mi northeast of Croton Falls, and 2.7 mi upstream from the confluence with West Branch Croton River.

DRAINAGE AREA.--86.4 mi².

PERIOD OF RECORD.--June 1994 to current year.

GAGE.--Water-stage recorder. Supplementary water-stage recorder and concrete control 90 ft downstream from release structure outlet. Elevation of gage is 280 ft above sea level, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges and those greater than 300 ft³/s, which are poor. Records include flow over spillway equal to or greater than 10 ft³/s and flow through release structure. Telephone gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 3,000 ft³/s, Jan. 27, 1996, gage height, 6.17 ft, from rating curve extended above 380 ft³/s; minimum daily discharge, 63 ft³/s, Jan. 24, 1997.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, about 1,360 ft³/s, Dec. 2, gage height, 5.13 ft, from rating curve extended as explained above; minimum daily discharge, 63 ft³/s, Jan. 24.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e110	159	e320	138	144	138	359	152	70	72	71	e70
2	e120	136	e990	145	129	151	421	145	68	72	71	e70
3	e100	118	e1100	145	125	149	500	277	68	72	71	e70
4	e100	110	e1100	146	122	157	488	382	69	72	71	e70
5	e88	105	e710	149	266	159	482	322	68	72	71	e70
6	e90	99	e740	150	268	185	479	369	68	72	71	e70
7	e90	97	e830	141	258	155	454	336	70	72	71	e70
8	e120	133	e1100	115	240	154	386	279	70	72	70	e70
9	e140	290	e860	109	189	137	286	262	69	73	69	e70
10	e150	281	e590	117	150	164	220	232	71	74	70	e70
11	e120	283	496	109	127	159	201	197	71	74	70	e70
12	e110	253	508	96	116	149	209	178	71	76	70	e70
13	e110	207	507	89	109	125	288	164	71	73	70	e70
14	e100	176	e580	86	111	168	223	150	76	72	e70	e70
15	e110	147	e580	83	118	239	220	143	79	72	e70	e70
16	e100	133	e500	133	114	202	204	129	80	73	e70	e70
17	e110	128	485	117	113	196	188	115	79	72	e70	e70
18	e100	123	443	98	108	184	215	110	80	71	e70	e70
19	e270	124	430	94	110	170	252	123	e98	71	e70	e70
20	e570	121	401	82	116	169	268	162	77	71	e70	e70
21	e420	116	344	64	116	160	267	139	73	71	e70	e70
22	e370	106	305	64	126	155	255	124	72	71	e70	e70
23	e660	101	279	64	118	139	230	114	74	72	e70	e70
24	e490	102	289	63	115	135	198	112	73	72	e70	e70
25	e390	102	350	229	100	135	168	119	72	72	e70	e70
26	e330	e330	293	182	100	172	153	115	72	73	e70	e70
27	308	e280	276	156	116	158	138	97	73	73	e70	e70
28	296	e280	239	261	123	155	174	94	72	72	e70	e70
29	250	e270	217	207	---	156	154	90	72	71	e70	e70
30	222	e220	197	159	---	157	150	85	72	71	e70	e70
31	191	---	173	147	---	320	---	85	---	71	e70	---
TOTAL	6735	5130	16232	3938	3947	5152	8230	5401	2198	2237	2176	2100
MEAN	217	171	524	127	141	166	274	174	73.3	72.2	70.2	70.0
MAX	660	330	1100	261	268	320	500	382	98	76	71	70
MIN	88	97	173	63	100	125	138	85	68	71	69	70

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1997, BY WATER YEAR (WY)

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
MEAN	120	109	279	257	160	153	189	136	93.3	106	111	87.6
MAX	217	171	524	327	235	166	274	174	121	156	203	128
(WY)	1997	1997	1997	1996	1996	1997	1997	1997	1996	1996	1994	1996
MIN	69.1	68.5	67.2	127	101	143	95.7	78.5	73.3	72.2	70.2	70.0
(WY)	1996	1996	1996	1997	1995	1995	1995	1995	1997	1997	1997	1997

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1994 - 1997
ANNUAL TOTAL	75749	63476	
ANNUAL MEAN	207	174	147
HIGHEST ANNUAL MEAN			174
LOWEST ANNUAL MEAN			120
HIGHEST DAILY MEAN	1900	1100	1900
LOWEST DAILY MEAN	67	63	63
ANNUAL SEVEN-DAY MINIMUM	67	69	67
10 PERCENT EXCEEDS	393	346	280
50 PERCENT EXCEEDS	137	117	100
90 PERCENT EXCEEDS	90	70	70

e Estimated

HUDSON RIVER BASIN

01374559 WEST BRANCH CROTON RIVER AT RICHARDSVILLE, NY

LOCATION.--Lat 41°28'14", long 73°45'38", Putnam County, Hydrologic Unit 02030101, on right bank 200 ft downstream from State Highway 301, and 0.9 mi northeast of Richardsville.

DRAINAGE AREA.--11.0 mi².

PERIOD OF RECORD.--October 1995 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 590 ft above sea level, from topographic map.

REMARKS.--Records fair except those below 1.0 ft³/s, those above 100 ft³/s, and those for estimated daily discharges, which are poor. Telephone gage-height telemeter at station.

AVERAGE DISCHARGE.--2 years, 26.9 ft³/s, 33.17 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 512 ft³/s, Jan. 28, 1996, gage height, 3.68 ft; minimum, 0.01 ft³/s, part of each day Aug. 11-12, Sept. 19-29, 1997; minimum gage height, 0.23 ft, Aug. 10, 11, 12, 1997.

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)
Oct. 21	0800	164	2.68	Apr. 1	1615	127	2.51
Dec. 2	1715	*287	*3.07	Apr. 5	0445	136	2.53

Minimum discharge, 0.01 ft³/s, part of each day Aug. 11-12, Sept. 19-29; minimum gage height, 0.23 ft, Aug. 10, 11, 12.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	24	40	27	17	17	88	27	5.6	.37	.09	1.4
2	16	21	205	24	18	19	84	26	6.8	.39	.06	.99
3	14	19	181	24	e19	21	78	32	9.7	1.0	.07	.78
4	12	17	103	26	e18	21	89	49	8.6	.92	.13	.51
5	10	16	74	26	e17	20	117	44	6.4	.54	.15	.32
6	9.0	15	73	25	e21	25	89	40	4.8	.32	.12	.19
7	8.7	15	75	23	e32	26	72	39	4.0	1.3	.07	.13
8	17	19	77	19	e27	23	59	34	3.6	1.7	.04	.11
9	63	56	65	17	e23	21	48	30	3.0	2.7	.03	.09
10	62	69	53	16	e21	22	41	29	2.5	12	.02	.07
11	49	54	45	16	e20	25	35	27	2.1	8.5	.02	.15
12	38	43	48	14	e18	24	33	24	1.7	4.1	.02	.21
13	31	36	57	12	e17	21	41	21	1.5	2.1	.06	.14
14	26	31	72	11	e16	22	39	20	1.4	1.1	.05	.09
15	22	28	82	10	e20	33	32	18	1.0	.67	.03	.06
16	20	28	73	16	e23	33	27	16	.80	.43	.24	.05
17	18	23	67	20	e20	29	24	7.9	.64	.30	.71	.03
18	16	21	64	16	e18	26	32	7.1	1.1	.22	4.5	.02
19	23	21	62	12	17	24	54	8.3	3.7	.15	3.5	.02
20	105	21	60	e9.0	19	23	60	13	3.1	.10	2.1	.02
21	152	19	49	e7.2	19	24	57	12	2.3	.06	5.0	.02
22	108	18	42	8.2	21	25	52	12	1.6	.41	5.4	.01
23	76	16	38	9.5	22	24	46	11	.99	.30	5.1	.02
24	64	15	40	9.8	19	21	41	9.9	.62	.45	3.0	.02
25	55	14	54	25	17	19	36	11	.52	.61	1.7	.01
26	46	34	49	28	15	24	32	14	.97	.33	1.1	.02
27	39	53	41	21	16	26	29	11	2.4	.29	.77	.01
28	35	43	36	23	18	24	33	8.8	1.5	.63	3.4	.02
29	33	35	35	24	---	22	36	7.2	.84	.36	4.7	.19
30	30	30	35	20	---	22	32	6.2	.52	.22	3.3	.14
31	26	---	32	17	---	41	---	5.9	---	.13	2.1	---
TOTAL	1244.7	854	2027	555.7	548	747	1536	621.3	84.30	42.70	47.58	5.84
MEAN	40.2	28.5	65.4	17.9	19.6	24.1	51.2	20.0	2.81	1.38	1.53	.19
MAX	152	69	205	28	32	41	117	49	9.7	12	5.4	1.4
MIN	8.7	14	32	7.2	15	17	24	5.9	.52	.06	.02	.01
CFSM	3.65	2.59	5.94	1.63	1.78	2.19	4.65	1.82	.26	.13	.14	.02
IN.	4.21	2.89	6.85	1.88	1.85	2.53	5.19	2.10	.29	.14	.16	.02

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

	1996	1997	1996	1997	1996	1997	1996	1997	1996	1997	1996	1997
MEAN	36.5	40.8	40.0	40.2	30.4	29.6	48.2	23.2	7.63	14.8	3.41	7.75
MAX	40.2	53.2	65.4	62.5	40.8	35.1	51.2	26.4	12.4	28.2	5.28	15.3
(WY)	1997	1996	1997	1996	1996	1996	1997	1996	1996	1996	1996	1996
MIN	32.8	28.5	14.6	17.9	19.6	24.1	45.1	20.0	2.81	1.38	1.53	.19
(WY)	1996	1997	1996	1997	1997	1997	1996	1997	1997	1997	1997	1997

e Estimated

HUDSON RIVER BASIN

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01374559 WEST BRANCH CROTON RIVER AT RICHARDSVILLE, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1996 - 1997	
ANNUAL TOTAL	12376.49		8314.12			
ANNUAL MEAN	33.8		22.8		26.9	
HIGHEST ANNUAL MEAN					30.9 1996	
LOWEST ANNUAL MEAN					22.8 1997	
HIGHEST DAILY MEAN	381	Jan 28	205	Dec 2	381	Jan 28 1996
LOWEST DAILY MEAN	.44	Sep 6	.01	Sep 22	.01	Sep 22 1997
ANNUAL SEVEN-DAY MINIMUM	.68	Aug 31	.02	Sep 21	.02	Sep 21 1997
ANNUAL RUNOFF (CFSM)	3.07		2.07		2.44	
ANNUAL RUNOFF (INCHES)	41.86		28.12		33.17	
10 PERCENT EXCEEDS	68		54		57	
50 PERCENT EXCEEDS	26		18		19	
90 PERCENT EXCEEDS	4.7		.14		.62	

HUDSON RIVER BASIN

01374598 HORSE POUND BROOK NEAR LAKE CARMEL, NY

LOCATION.--Lat 41°28'32", long 73°41'23", Putnam County, Hydrologic Unit 02030101, on left bank 100 ft downstream from Whangtown Road, and 1.8 mi northwest of Lake Carmel.

DRAINAGE AREA.--4.94 mi².

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

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 560 ft above sea level, from topographic map.

REMARKS.--Records fair except those below 1.0 ft³/s, those above 40 ft³/s, and those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--1 year, 9.22 ft³/s, 25.35 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 103 ft³/s, Dec. 2, 1996, gage height, 2.67 ft; minimum daily, about 0.08 ft³/s, Aug. 12, 1997.

EXTREMES FOR CURRENT PERIOD.--August to September 1996: Maximum discharge, 28 ft³/s, Sept. 18, gage height, 1.80 ft; minimum, 0.57 ft³/s, Sept. 6, gage height, 0.37 ft.

Water year 1997: Peak discharges greater than base discharge of 45 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 20	0300	93	2.58	Dec. 2	0530	*103	*2.67
Nov. 26	0915	47	2.09				

Minimum daily discharge, about 0.08 ft³/s, Aug. 12.

DISCHARGE, CUBIC FEET PER SECOND, AUGUST TO SEPTEMBER 1996
DAILY MEAN VALUES

[illegible]

HUDSON RIVER BASIN

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01374598 HORSE POUND BROOK NEAR LAKE CARMEL, NY--Continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.1	9.9	29	e9.0	e7.6	5.5	34	9.4	3.0	.47	.22	.92
2	8.9	9.1	76	e10	e8.0	9.0	33	9.6	3.4	.68	.16	.83
3	8.8	8.5	48	e11	e8.4	7.6	34	22	4.1	2.5	.27	.72
4	7.7	8.0	38	e10	e8.0	7.5	34	23	3.2	1.3	.51	.48
5	7.4	7.7	29	e9.5	e7.6	8.1	31	18	2.8	.87	.36	.40
6	7.3	7.2	32	e8.5	e11	13	27	20	2.6	.71	.23	.40
7	7.1	7.3	30	e7.0	e10	10	24	17	2.4	.90	.14	.46
8	11	13	30	e6.6	e9.0	9.9	19	14	2.3	.90	.11	.48
9	23	27	24	e6.4	e8.0	10	16	13	2.1	2.8	e.10	.42
10	16	18	21	e6.0	e11	13	14	12	1.9	4.7	e.09	.36
11	13	16	20	e5.0	e8.0	13	13	11	1.6	1.9	e.09	.57
12	12	15	24	e4.5	e4.6	11	14	9.1	1.3	1.2	e.08	.70
13	11	13	25	e4.0	e8.0	10	20	8.2	1.4	1.0	e.25	.48
14	11	12	30	e4.5	4.9	13	13	7.6	1.4	.86	.34	.39
15	9.8	11	27	e5.0	6.3	21	11	6.8	1.2	.78	.15	.27
16	9.4	10	25	e7.0	4.7	15	10	6.2	1.1	.73	.61	.24
17	8.9	10	24	e10	e4.6	14	9.8	5.6	1.1	.63	1.0	.22
18	8.3	9.8	21	e5.0	4.4	14	16	5.3	1.7	.53	4.3	.20
19	20	10	21	e3.5	5.2	13	24	6.5	2.7	.42	1.4	.15
20	64	9.2	19	e3.0	5.9	13	20	11	1.6	.27	.92	.20
21	45	8.4	16	e3.3	5.0	12	18	6.3	1.2	.27	2.7	.19
22	36	7.9	15	e3.6	8.4	13	17	5.3	1.0	1.0	1.6	e.15
23	28	7.4	15	e4.5	6.6	10	15	4.6	.82	.58	1.1	e.13
24	24	6.9	17	e6.0	5.6	9.2	14	4.1	.72	.88	.84	e.12
25	20	6.6	21	e10	e5.5	8.9	13	4.8	.70	1.1	.67	e.11
26	17	29	15	e9.0	5.0	15	11	5.2	1.1	.61	.60	e.10
27	16	19	14	e9.5	6.8	11	9.7	3.9	1.3	.59	.56	e.09
28	15	15	13	e11	6.3	10	15	3.5	.84	.71	2.3	e.09
29	14	15	14	e10	---	11	11	3.3	.61	.47	2.0	.75
30	12	14	e12	e9.0	---	10	9.6	3.2	.50	.31	1.6	.61
31	11	---	e10	e7.2	---	30	---	3.2	---	.27	1.1	---
TOTAL	511.7	360.9	755	218.6	194.4	370.7	550.1	282.7	51.69	30.94	26.40	11.23
MEAN	16.5	12.0	24.4	7.05	6.94	12.0	18.3	9.12	1.72	1.00	.85	.37
MAX	64	29	76	11	11	30	34	23	4.1	4.7	4.3	.92
MIN	7.1	6.6	10	3.0	4.4	5.5	9.6	3.2	.50	.27	.08	.09
CFSM	3.34	2.44	4.93	1.43	1.41	2.42	3.71	1.85	.35	.20	.17	.08
IN.	3.85	2.72	5.69	1.65	1.46	2.79	4.14	2.13	.39	.23	.20	.08

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

MEAN	16.5	12.0	24.4	7.05	6.94	12.0	18.3	9.12	1.72	1.00	.85	3.37
MAX	16.5	12.0	24.4	7.05	6.94	12.0	18.3	9.12	1.72	1.00	.85	6.36
(WY)	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1996
MIN	16.5	12.0	24.4	7.05	6.94	12.0	18.3	9.12	1.72	1.00	.85	.37
(WY)	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997

SUMMARY STATISTICS

FOR 1997 WATER YEAR

WATER YEARS 1996 - 1997

ANNUAL TOTAL	3364.36		
ANNUAL MEAN	9.22		9.22
HIGHEST ANNUAL MEAN			9.22
LOWEST ANNUAL MEAN			9.22
HIGHEST DAILY MEAN	76	Dec 2	76
LOWEST DAILY MEAN	.08	Aug 12	.08
ANNUAL SEVEN-DAY MINIMUM	.11	Sep 22	.11
ANNUAL RUNOFF (CFSM)	1.87		1.87
ANNUAL RUNOFF (INCHES)	25.33		25.35
10 PERCENT EXCEEDS	21		20
50 PERCENT EXCEEDS	7.6		7.1
90 PERCENT EXCEEDS	.41		.47

e Estimated

HUDSON RIVER BASIN

0137462010 WEST BRANCH CROTON RIVER NEAR CARMEL, NY

LOCATION.--Lat 41°24'42", long 73°41'39", Putnam County, Hydrologic Unit 02030101, on right bank 300 ft upstream from U.S. Highway 6, 500 ft downstream from dam on West Branch Reservoir, and 1.4 mi southwest of Carmel.

DRAINAGE AREA.--42.9 mi².

PERIOD OF RECORD.--March 1994 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 440 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records good except those above 100 ft³/s, which are fair. Flow regulated by West Branch Reservoir. Telephone gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 251 ft³/s, Dec. 8, 1996, gage height, 3.15 ft; minimum daily, 1.1 ft³/s, May 23, 1995.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 251 ft³/s, Dec. 8, gage height, 3.15 ft; minimum daily, 11 ft³/s, Sept. 7-11.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	27	30	25	24	26	27	32	27	29	31	17
2	30	27	32	25	25	26	27	30	27	29	31	17
3	30	27	34	25	25	26	28	29	27	30	31	15
4	30	28	36	25	25	25	29	29	27	29	31	13
5	30	28	36	25	25	25	32	28	27	28	31	12
6	30	28	77	25	25	26	35	27	27	28	31	12
7	30	28	166	25	25	26	50	27	27	29	32	11
8	30	28	242	25	25	26	49	26	27	30	31	11
9	29	28	217	24	25	26	36	26	27	31	31	11
10	29	28	134	24	25	26	28	26	27	32	30	11
11	30	28	94	24	25	26	25	26	27	32	29	11
12	31	28	93	24	25	26	26	26	27	33	26	24
13	31	28	98	24	25	26	27	25	28	33	18	31
14	31	28	121	24	25	26	28	25	28	33	17	31
15	31	28	100	24	25	26	29	25	28	32	17	30
16	28	28	31	24	25	26	31	25	28	32	18	30
17	27	28	30	24	25	26	32	25	26	31	17	30
18	27	28	28	24	26	26	33	25	25	31	18	29
19	26	28	27	23	26	26	29	25	25	30	18	29
20	27	29	26	23	26	26	26	25	25	29	17	29
21	28	29	25	23	26	26	26	25	26	29	16	29
22	28	29	25	23	26	26	27	25	27	31	15	29
23	28	28	25	24	26	26	27	25	27	31	15	29
24	28	28	25	24	26	26	28	25	27	30	14	29
25	28	29	25	24	26	26	27	25	28	29	14	29
26	27	30	25	24	26	26	27	25	28	28	16	30
27	27	31	25	24	26	26	27	25	29	29	14	30
28	27	31	25	24	26	26	26	25	29	30	13	30
29	27	31	25	24	---	26	28	26	29	30	14	30
30	27	30	25	24	---	26	31	27	29	30	15	31
31	27	---	25	24	---	26	---	27	---	31	15	---
TOTAL	889	854	1927	748	710	804	901	812	816	939	666	700
MEAN	28.7	28.5	62.2	24.1	25.4	25.9	30.0	26.2	27.2	30.3	21.5	23.3
MAX	31	31	242	25	26	26	50	32	29	33	32	31
MIN	26	27	25	23	24	25	25	25	25	28	13	11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1997, BY WATER YEAR (WY)

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
MEAN	29.2	32.2	48.8	37.8	33.2	33.5	39.8	34.3	30.3	32.3	28.3	27.3
MAX	43.3	44.2	62.2	55.5	48.6	48.5	54.0	47.3	52.4	55.2	51.2	46.5
(WY)	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
MIN	15.7	24.1	31.5	24.1	25.4	25.9	22.5	26.2	13.2	13.0	11.9	15.0
(WY)	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1994 - 1997

ANNUAL TOTAL	11207	10766	
ANNUAL MEAN	30.6	29.5	30.8
HIGHEST ANNUAL MEAN			36.2
LOWEST ANNUAL MEAN			26.6
HIGHEST DAILY MEAN	242	242	242
LOWEST DAILY MEAN	21	11	1.1
ANNUAL SEVEN-DAY MINIMUM	21	11	8.2
10 PERCENT EXCEEDS	32	31	54
50 PERCENT EXCEEDS	28	27	29
90 PERCENT EXCEEDS	23	24	15

HUDSON RIVER BASIN

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01374654 MIDDLE BRANCH CROTON RIVER NEAR CARMEL, NY

LOCATION.--Lat 41°25'56", long 73°39'07", Putnam County, Hydrologic Unit 02030101, on right bank 0.2 mi downstream from Fair Street bridge, 1.5 mi east of Carmel, and 1.8 mi downstream from dam on Lake Carmel.

DRAINAGE AREA.--13.7 mi².

PERIOD OF RECORD.--December 1995 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 490 ft above sea level, from topographic map.

REMARKS.--Records poor. Flow regulated by Lake Carmel. Telephone gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 428 ft³/s, Jan. 28, 1996, gage height, 5.19 ft; maximum gage height, 5.58 ft, Nov. 9, 1996 (backwater from debris); minimum daily discharge, 1.8 ft³/s, Sept. 1, 1996.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, about 220 ft³/s, Nov. 9, gage height, 5.58 ft (backwater from debris); minimum daily discharge, 1.9 ft³/s, Aug. 14, 15.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	e20	38	43	18	63	11	36	11	2.6	2.5	5.2
2	24	e5.6	110	29	23	63	11	36	12	2.9	2.4	6.3
3	24	e5.4	133	29	25	62	29	57	14	10	2.6	7.6
4	24	e5.4	104	29	25	52	103	82	12	7.5	2.4	2.9
5	24	e5.4	94	29	55	47	113	64	11	5.4	2.4	2.3
6	24	e5.4	99	29	58	43	98	59	9.5	4.0	2.3	2.0
7	24	e5.6	103	29	45	34	89	57	8.4	4.0	2.3	2.0
8	16	e80	112	42	36	34	57	48	8.0	4.1	2.3	4.3
9	9.2	e200	57	47	31	35	37	44	7.4	6.9	2.1	5.6
10	16	e90	95	29	27	35	46	40	6.9	15	2.1	5.5
11	29	e20	102	29	24	35	44	37	6.1	11	2.1	4.8
12	29	e50	102	71	23	34	45	33	5.2	8.5	2.1	2.4
13	29	e100	101	27	22	34	63	30	5.0	6.6	2.7	2.1
14	28	e29	104	27	23	37	55	27	4.3	4.3	1.9	5.5
15	28	29	101	13	26	37	44	25	3.4	3.5	1.9	5.3
16	28	29	101	5.5	25	36	38	23	3.0	3.2	5.2	3.7
17	28	29	101	e4.8	24	36	36	20	3.0	2.8	5.1	2.3
18	29	29	101	e4.7	22	e36	47	19	5.2	2.3	10	2.2
19	e70	29	103	e4.4	22	e35	66	21	7.5	2.0	5.7	2.3
20	e180	25	101	e4.3	25	e34	66	33	6.3	2.0	3.5	2.4
21	e140	17	98	e4.2	23	33	59	28	5.3	2.0	8.5	2.6
22	e120	17	97	e4.1	26	33	52	23	4.8	2.5	8.0	2.6
23	e110	17	96	e4.0	26	32	48	19	3.8	2.1	5.6	2.7
24	e120	17	96	e3.4	24	32	44	17	3.2	2.5	4.6	2.6
25	e120	9.5	93	13	22	33	42	17	2.9	2.3	6.3	2.6
26	e110	70	89	e4.0	52	34	39	18	2.9	e2.2	6.1	2.7
27	e100	91	57	e5.6	66	33	35	16	3.1	e3.0	5.5	2.7
28	e100	30	29	e8.0	64	33	44	14	2.7	e2.7	9.1	2.7
29	e74	30	30	e6.4	---	33	47	13	2.5	e2.5	8.9	3.3
30	e44	30	30	e5.8	---	32	41	12	2.6	2.5	7.7	2.8
31	e34	---	29	5.7	---	22	---	12	---	2.5	6.1	---
TOTAL	1759.2	1120.3	2706	589.9	882	1172	1549	980	183.0	135.4	140.0	104.0
MEAN	56.7	37.3	87.3	19.0	31.5	37.8	51.6	31.6	6.10	4.37	4.52	3.47
MAX	180	200	133	71	66	63	113	82	14	15	10	7.6
MIN	9.2	5.4	29	3.4	18	22	11	12	2.5	2.0	1.9	2.0

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

	1996	1997	1996	1997	1996	1997	1996	1997	1996	1997	1996	1997
MEAN	56.7	37.3	87.3	48.4	40.7	39.2	55.0	34.2	12.2	21.3	8.45	14.0
MAX	56.7	37.3	87.3	77.8	49.7	40.6	58.4	36.8	18.3	38.3	12.4	24.5
(WY)	1997	1997	1997	1996	1996	1996	1996	1996	1996	1996	1996	1996
MIN	56.7	37.3	87.3	19.0	31.5	37.8	51.6	31.6	6.10	4.37	4.52	3.47
(WY)	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997

SUMMARY STATISTICS FOR 1996 CALENDAR YEAR FOR 1997 WATER YEAR WATER YEARS 1996 - 1997

	1996	1997	1996	1997	1996	1997	1996	1997	1996	1997	1996	1997
ANNUAL TOTAL	16444.4	11320.8										
ANNUAL MEAN	44.9	31.0										
HIGHEST ANNUAL MEAN												
LOWEST ANNUAL MEAN												
HIGHEST DAILY MEAN	345	Jan 28	200	Nov 9	345	Jan 28	1996					
LOWEST DAILY MEAN	1.8	Sep 1	1.9	Aug 14	1.8	Sep 1	1996					
ANNUAL SEVEN-DAY MINIMUM	5.7	Aug 28	2.1	Aug 9	2.1	Aug 9	1997					
10 PERCENT EXCEEDS	101		93		83							
50 PERCENT EXCEEDS	33		24		25							
90 PERCENT EXCEEDS	9.4		2.6		3.3							

e Estimated

HUDSON RIVER BASIN

01374701 WEST BRANCH CROTON RIVER NEAR CROTON FALLS, NY

LOCATION.--Lat 41°21'28", long 73°40'07", Putnam County, Hydrologic Unit 02030101, on right bank 500 ft downstream from dam on Croton Falls Reservoir, 0.7 mi north of Croton Falls, 1.0 mi upstream from mouth, and 4.0 mi southwest of Brewster.

DRAINAGE AREA.--80.4 mi².

PERIOD OF RECORD.--January 1994 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 210 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by Croton Falls Reservoir. Telephone gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,160 ft³/s, Jan. 27, 1996, gage height, 3.79 ft, from rating curve extended above 580 ft³/s; minimum daily discharge, 15 ft³/s, Sept. 19-21, 1995.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 868 ft³/s, Dec. 8, gage height, 3.37 ft; minimum daily, 39 ft³/s, June 24-25, June 28 to July 5.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	87	184	344	191	179	145	511	202	76	39	42	42
2	90	168	693	187	167	166	373	199	80	39	41	42
3	134	146	679	185	162	164	401	294	82	39	41	43
4	81	135	676	188	160	169	407	369	74	39	41	42
5	78	130	558	188	281	172	409	306	64	39	41	42
6	83	124	613	183	281	213	412	338	58	40	41	43
7	86	123	680	175	269	167	401	318	57	40	41	43
8	136	180	812	165	256	182	365	265	54	41	41	43
9	179	309	722	147	219	148	334	252	51	45	42	42
10	139	291	560	149	184	175	273	234	50	96	42	42
11	125	280	480	140	163	176	237	207	48	64	42	42
12	106	256	492	122	150	177	247	184	45	58	42	42
13	107	235	493	115	137	161	306	174	46	51	43	42
14	112	218	554	113	143	178	286	158	58	47	42	42
15	104	205	550	103	150	257	254	149	44	48	42	42
16	96	175	462	169	145	216	240	135	43	44	42	42
17	101	167	451	166	143	208	229	122	42	45	42	42
18	99	162	419	122	135	207	337	118	52	44	43	42
19	180	164	416	116	136	191	364	133	112	52	43	42
20	394	155	388	110	141	188	293	179	66	43	43	42
21	313	145	350	93	146	179	286	154	53	43	43	40
22	460	165	320	83	159	205	280	155	48	42	42	40
23	488	116	298	87	155	175	265	136	48	42	42	41
24	396	124	304	84	160	161	249	118	39	42	42	41
25	336	120	348	262	134	152	225	126	39	43	42	41
26	300	359	305	213	127	197	209	146	42	42	42	42
27	281	348	292	192	142	175	189	100	45	41	42	42
28	274	294	267	272	148	173	229	95	39	41	42	42
29	254	286	250	236	---	174	220	87	39	43	42	41
30	236	257	245	195	---	175	201	81	39	42	42	40
31	207	---	243	182	---	342	---	77	---	42	42	---
TOTAL	6062	6021	14264	4933	4772	5768	9032	5611	1633	1416	1300	1254
MEAN	196	201	460	159	170	186	301	181	54.4	45.7	41.9	41.8
MAX	488	359	812	272	281	342	511	369	112	96	43	43
MIN	78	116	243	83	127	145	189	77	39	39	41	40

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1997, BY WATER YEAR (WY)

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
MEAN	103	115	253	219	174	244	258	152	73.6	95.0	88.9	65.7
MAX	196	201	460	250	232	385	343	181	92.4	128	122	82.4
(WY)	1997	1997	1997	1995	1996	1994	1994	1997	1994	1996	1995	1996
MIN	49.5	50.0	60.1	159	135	177	122	91.3	54.4	45.7	41.9	41.8
(WY)	1996	1996	1996	1997	1995	1995	1995	1995	1997	1997	1997	1997

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1994 - 1997

ANNUAL TOTAL	72620	62066	146
ANNUAL MEAN	198	170	170
HIGHEST ANNUAL MEAN			129
LOWEST ANNUAL MEAN			1995
HIGHEST DAILY MEAN	954	812	954
LOWEST DAILY MEAN	52	39	15
ANNUAL SEVEN-DAY MINIMUM	57	39	16
10 PERCENT EXCEEDS	362	348	293
50 PERCENT EXCEEDS	169	146	118
90 PERCENT EXCEEDS	70	42	48

HUDSON RIVER BASIN

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01374821 TITICUS RIVER AT PURDYS STATION, NY

LOCATION.--Lat 41°19'37", long 73°39'22", Westchester County, Hydrologic Unit 02030101, on left bank 40 ft upstream from bridge on State Highway 22 in Purdys Station, 0.3 mi upstream from mouth, and 0.45 mi downstream from dam on Titicus Reservoir.

DRAINAGE AREA.--23.8 mi².

PERIOD OF RECORD.--March 1994 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 210 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by Titicus Reservoir. Telephone gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 561 ft³/s, Jan. 28, 1996, gage height, 5.23 ft, from rating curve extended above 120 ft³/s; minimum daily discharge, 3.5 ft³/s, Sept. 21, 1995.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 368 ft³/s, Oct. 20, gage height, 4.43 ft, from rating curve extended as explained above; minimum daily discharge, 4.7 ft³/s, Aug. 5.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	54	83	55	69	41	183	51	83	52	6.5	7.8
2	35	50	274	51	69	44	168	54	83	79	5.4	7.7
3	25	45	293	50	62	46	160	94	83	118	5.3	7.8
4	19	41	209	53	58	47	147	179	83	135	5.0	8.0
5	18	38	158	53	97	46	124	157	82	134	4.7	8.0
6	17	37	169	52	120	53	105	129	82	133	5.0	8.0
7	16	37	201	48	98	51	92	110	82	155	4.9	8.0
8	20	55	237	42	80	46	79	100	82	171	4.9	8.0
9	73	120	204	39	67	41	68	89	82	170	4.8	8.1
10	89	138	160	40	58	45	59	82	41	184	5.0	8.3
11	79	110	130	40	52	50	54	79	13	192	5.0	8.3
12	63	87	132	36	49	48	56	79	13	189	5.9	8.2
13	50	74	141	33	45	42	86	79	14	187	6.6	8.2
14	41	65	151	30	47	46	84	80	14	203	6.6	8.3
15	34	58	156	29	58	83	71	79	14	214	6.6	8.3
16	29	52	135	50	60	83	60	79	14	210	6.7	8.3
17	26	50	122	71	55	69	55	80	14	204	7.1	6.9
18	27	50	115	58	50	59	68	80	15	140	7.7	5.6
19	60	51	110	45	49	54	110	80	20	101	6.7	5.6
20	304	50	109	37	51	53	108	80	23	100	6.7	5.7
21	331	47	94	32	49	53	89	80	23	99	6.9	5.8
22	254	42	82	30	51	54	76	79	23	99	6.7	5.9
23	183	38	75	34	51	52	67	82	23	55	6.6	5.9
24	136	35	75	36	47	46	61	82	23	26	6.6	5.9
25	108	33	90	118	41	42	55	82	25	26	7.1	5.9
26	91	89	84	138	37	55	51	81	26	27	7.7	5.9
27	80	133	74	99	39	64	48	86	24	27	7.7	5.9
28	74	103	67	109	41	58	56	86	23	27	7.9	5.9
29	70	79	66	119	---	52	63	85	23	19	7.8	6.2
30	65	67	68	93	---	50	58	85	32	10	7.7	6.1
31	59	---	64	73	---	90	---	84	---	7.0	7.7	---
TOTAL	2520	1928	4128	1793	1650	1663	2561	2752	1182	3493.0	197.5	212.5
MEAN	81.3	64.3	133	57.8	58.9	53.6	85.4	88.8	39.4	113	6.37	7.08
MAX	331	138	293	138	120	90	183	179	83	214	7.9	8.3
MIN	16	33	64	29	37	41	48	51	13	7.0	4.7	5.6

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1997, BY WATER YEAR (WY)

	1994	1995	1996	1997	1994	1995	1996	1997	1994	1995	1996	1997
MEAN	34.8	43.3	68.8	78.7	59.4	57.1	72.5	53.9	32.8	56.2	17.9	13.4
MAX	81.3	64.3	133	109	73.7	68.0	89.1	88.8	51.2	113	37.1	22.9
(WY)	1997	1997	1997	1996	1996	1996	1996	1997	1994	1997	1994	1996
MIN	9.42	14.5	22.7	57.8	45.0	49.5	32.5	22.5	13.1	12.8	6.37	6.33
(WY)	1996	1995	1996	1997	1995	1995	1995	1995	1995	1995	1997	1995

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1994 - 1997

ANNUAL TOTAL	24406		24080.0									
ANNUAL MEAN	66.7		66.0							48.2		
HIGHEST ANNUAL MEAN										66.0		1997
LOWEST ANNUAL MEAN										28.6		1995
HIGHEST DAILY MEAN	492	Jan 28		331	Oct 21					492	Jan 28	1996
LOWEST DAILY MEAN	11	Sep 8		4.7	Aug 5					3.5	Sep 21	1995
ANNUAL SEVEN-DAY MINIMUM	11	Sep 8		4.9	Aug 4					4.0	Sep 16	1995
10 PERCENT EXCEEDS	135			137						103		
50 PERCENT EXCEEDS	51			54						36		
90 PERCENT EXCEEDS	13			7.0						12		

e Estimated

HUDSON RIVER BASIN

01374890 CROSS RIVER NEAR CROSS RIVER, NY

LOCATION.--Lat 41°15'37", long 73°36'09", Westchester County, Hydrologic Unit 02030101, on left bank 20 ft downstream from bridge on Ward Pound Ridge Reservation, 0.7 mi upstream from Cross River Reservoir, and 0.7 mi east of Cross River.

DRAINAGE AREA.--17.1 mi².

PERIOD OF RECORD.--Occasional low-flow and/or miscellaneous discharge measurements, water years 1974, 1976-77. December 1995 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 335 ft above sea level, from topographic map.

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

AVERAGE DISCHARGE.--1 year, 40.5 ft³/s, 32.19 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 676 ft³/s, Jan. 27, 1996, gage height, 5.87 ft, from rating curve extended above 230 ft³/s; minimum discharge, 1.2 ft³/s, Aug. 12, 1997, gage height, 1.33 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 20	0630	410	4.91	Dec. 8	0415	255	4.14
Dec. 2	1030	a*497	*5.26				

a From rating curve extended as explained above.

Minimum discharge, 1.2 ft³/s, Aug. 12, gage height, 1.33 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	39	83	e42	59	27	132	33	11	2.7	2.6	5.9
2	16	35	357	40	57	30	120	37	12	2.9	2.3	5.3
3	15	32	224	42	52	28	114	73	15	2.9	3.0	4.5
4	12	29	165	41	47	30	100	122	15	2.6	3.7	3.6
5	9.3	26	129	40	100	31	85	91	12	2.0	3.0	2.9
6	8.6	25	176	37	89	37	76	83	10	1.8	2.4	2.6
7	8.2	25	184	33	76	30	69	79	8.9	4.9	2.0	2.4
8	17	60	225	27	64	27	60	67	8.3	5.7	1.8	2.3
9	73	127	168	25	54	25	51	64	7.3	26	1.7	2.1
10	61	105	132	e24	49	31	44	63	6.4	72	1.5	2.1
11	52	85	114	e23	41	35	40	54	5.0	44	1.4	2.7
12	37	69	112	e22	38	30	45	47	4.4	25	1.3	4.7
13	29	59	104	e20	35	26	66	43	10	15	1.7	3.3
14	24	52	109	e20	43	37	43	38	16	11	2.7	3.1
15	20	46	105	21	53	79	40	35	13	8.8	1.8	2.8
16	18	42	95	50	44	59	36	25	9.7	7.8	1.8	2.5
17	16	38	91	e40	39	49	35	22	5.6	6.5	10	2.2
18	15	37	85	e33	36	43	56	21	7.8	5.5	35	2.1
19	66	39	84	e27	36	39	87	27	42	4.7	12	1.9
20	306	37	82	e25	37	40	72	43	21	3.7	15	1.7
21	229	34	70	23	35	38	59	35	13	3.0	29	1.6
22	170	31	63	20	39	40	49	27	10	8.0	21	1.5
23	128	28	60	30	35	36	44	21	8.7	4.9	15	1.5
24	104	32	60	25	31	32	41	18	6.0	5.7	10	1.4
25	87	34	70	140	27	30	37	24	5.0	14	7.4	1.3
26	74	100	59	89	26	55	33	33	4.7	8.0	6.2	1.4
27	65	94	53	70	30	47	30	24	5.3	6.6	5.0	1.3
28	63	73	48	100	29	40	51	18	3.9	6.2	6.4	1.3
29	58	58	50	91	---	35	45	15	3.3	4.8	7.5	2.7
30	50	49	53	72	---	33	37	13	2.8	3.7	8.2	2.4
31	45	---	45	59	---	91	---	12	---	3.0	5.9	---
TOTAL	1896.1	1540	3455	1351	1301	1210	1797	1307	303.1	323.4	228.3	77.1
MEAN	61.2	51.3	111	43.6	46.5	39.0	59.9	42.2	10.1	10.4	7.36	2.57
MAX	306	127	357	140	100	91	132	122	42	72	35	5.9
MIN	8.2	25	45	20	26	25	30	12	2.8	1.8	1.3	1.3
CFSM	3.58	3.00	6.52	2.55	2.72	2.28	3.50	2.47	.59	.61	.43	.15
IN.	4.12	3.35	7.52	2.94	2.83	2.63	3.91	2.84	.66	.70	.50	.17

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

	1996	1997	1997	1996	1997	1996	1997	1996	1997	1996	1997	1996
MEAN	61.2	51.3	111	66.7	53.2	46.7	66.4	38.9	13.1	23.2	7.46	9.13
MAX	61.2	51.3	111	89.7	59.8	54.3	72.9	42.2	16.0	35.9	7.55	15.7
(WY)	1997	1997	1997	1996	1996	1996	1997	1997	1996	1996	1996	1996
MIN	61.2	51.3	111	43.6	46.5	39.0	59.9	35.5	10.1	10.4	7.36	2.57
(WY)	1997	1997	1997	1997	1997	1997	1997	1996	1997	1997	1997	1997

e Estimated

HUDSON RIVER BASIN

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01374890 CROSS RIVER NEAR CROSS RIVER, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1996 - 1997	
ANNUAL TOTAL	18677.4		14789.0			
ANNUAL MEAN	51.0		40.5		40.5	
HIGHEST ANNUAL MEAN					40.5 1997	
LOWEST ANNUAL MEAN					40.5 1997	
HIGHEST DAILY MEAN	362	Jan 28	357	Dec 2	362	Jan 28 1996
LOWEST DAILY MEAN	1.6	Sep 4	1.3	Aug 12	1.3	Aug 12 1997
ANNUAL SEVEN-DAY MINIMUM	1.8	Aug 31	1.4	Sep 22	1.4	Sep 22 1997
ANNUAL RUNOFF (CFSM)	2.98		2.37		2.37	
ANNUAL RUNOFF (INCHES)	40.63		32.17		32.19	
10 PERCENT EXCEEDS	106		90		88	
50 PERCENT EXCEEDS	37		31		30	
90 PERCENT EXCEEDS	7.2		2.7		3.6	

HUDSON RIVER BASIN

01374901 CROSS RIVER AT KATONAH, NY

LOCATION.--Lat 41°15'58", long 73°39'58", Westchester County, Hydrologic Unit 02030101, on left bank 1,100 ft downstream from dam on Cross River Reservoir, and 1.5 mi northeast of Katonah.

DRAINAGE AREA.--29.9 mi².

PERIOD OF RECORD.--March 1994 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 210 ft above sea level, from topographic map. Prior to Feb. 8, 1996, at site 500 ft upstream at different datum.

REMARKS.--Records poor. Flow regulated by Cross River Reservoir. Telephone gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 346 ft³/s, Mar. 29, 1994, gage height, 1.92 ft, site and datum then in use, from rating curve extended above 120 ft³/s; maximum gage height, 3.56 ft, Jan. 25, 1997 (present datum); minimum daily discharge, about 0.03 ft³/s, Sept. 7, 1997.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 221 ft³/s, Jan. 25, gage height, 3.56 ft; minimum daily discharge, about 0.03 ft³/s, Sept. 7.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61	64	65	149	201	186	57	125	e30	10	4.3	22
2	61	64	68	149	201	185	69	103	e30	10	4.2	22
3	62	64	66	148	200	184	77	89	e30	10	4.3	15
4	62	64	66	148	200	184	84	89	e30	11	4.2	7.5
5	61	64	65	147	202	134	87	88	e30	11	4.2	e2.7
6	61	63	67	148	201	113	86	89	e30	11	4.2	e.04
7	61	63	67	149	201	115	86	90	e25	11	4.2	e.03
8	61	64	68	149	200	114	86	101	e20	11	4.2	e.04
9	62	64	67	148	199	114	86	107	e20	12	4.2	e.05
10	62	64	66	147	199	114	86	110	e20	17	4.2	.10
11	62	64	64	147	e199	85	85	111	e18	31	4.2	.26
12	62	64	64	147	198	68	86	111	18	37	4.1	.15
13	61	64	64	147	198	68	87	111	18	37	4.1	.14
14	62	64	65	146	184	68	87	111	18	37	3.3	.15
15	62	65	65	146	195	68	86	110	18	23	5.4	1.6
16	62	64	65	147	194	68	86	111	18	13	7.2	7.5
17	62	64	66	147	193	67	85	111	18	11	5.8	4.3
18	63	64	68	147	192	67	86	109	18	8.3	6.7	3.4
19	65	63	68	146	192	67	86	109	24	7.9	5.1	4.6
20	67	63	67	145	110	66	85	109	46	8.1	4.5	5.3
21	65	63	66	144	109	66	85	109	56	8.2	4.9	5.2
22	65	63	66	144	190	66	114	108	58	8.4	2.8	5.2
23	65	64	e25	e133	190	67	134	e80	37	e6.0	.24	5.3
24	65	64	44	203	189	61	135	e70	25	e4.3	.20	2.5
25	65	e64	65	208	187	53	134	e70	19	e4.3	.20	2.6
26	64	e64	e55	205	186	51	135	e70	16	e4.3	.19	3.6
27	64	e65	65	202	185	51	136	e60	16	e4.3	.17	4.0
28	64	65	64	203	186	48	136	e50	16	e4.3	.49	3.8
29	64	64	64	201	---	46	135	e50	16	e4.3	13	3.7
30	64	64	e45	200	---	46	135	e35	13	4.3	22	3.6
31	64	---	121	201	---	48	---	e30	---	4.3	22	---
TOTAL	1951	1917	2001	4991	5281	2738	2942	2826	751	384.3	158.79	136.36
MEAN	62.9	63.9	64.5	161	189	88.3	98.1	91.2	25.0	12.4	5.12	4.55
MAX	67	65	121	208	202	186	136	125	58	37	22	22
MIN	61	63	25	133	109	46	57	30	13	4.3	.17	.03

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1997, BY WATER YEAR (WY)

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
MEAN	30.0	35.6	73.2	90.5	93.1	87.2	89.0	75.4	44.6	46.4	44.6	29.4
MAX	62.9	63.9	84.4	161	189	111	119	120	83.5	67.0	63.4	62.6
(WY)	1997	1997	1995	1997	1997	1996	1996	1996	1996	1996	1996	1996
MIN	11.5	9.96	64.5	10.4	44.7	62.5	38.2	25.9	14.6	12.4	5.12	4.55
(WY)	1996	1996	1997	1996	1996	1995	1995	1995	1995	1997	1997	1997

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1994 - 1997

ANNUAL TOTAL	26636	26077.45	
ANNUAL MEAN	72.8	71.4	60.4
HIGHEST ANNUAL MEAN			71.4
LOWEST ANNUAL MEAN			45.3
HIGHEST DAILY MEAN	125	May 12	314
LOWEST DAILY MEAN	10	Jan 1	.03
ANNUAL SEVEN-DAY MINIMUM	10	Jan 1	.10
10 PERCENT EXCEEDS	118		125
50 PERCENT EXCEEDS	64		55
90 PERCENT EXCEEDS	12	4.2	10

e Estimated

HUDSON RIVER BASIN

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01374930 MUSCOOT RIVER AT BALDWIN PLACE, NY

LOCATION.--Lat 41°20'17", long 73°46'09", Westchester County, Hydrologic Unit 02030101, on left bank 30 ft upstream from bridge on State Highway 6, and 0.7 mi southwest of Baldwin Place.

DRAINAGE AREA.--13.5 mi².

PERIOD OF RECORD.--Occasional low-flow and/or miscellaneous discharge measurements, water years 1954, 1976-77. October 1995 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 505 ft above sea level, from topographic map.

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

AVERAGE DISCHARGE.--2 years, 33.0 ft³/s, 33.18 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 449 ft³/s, Jan. 20, 1996, gage height, 6.79 ft; minimum, 0.39 ft³/s, Aug. 13, 1997, gage height, 3.63 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 130 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 20	0800	159	5.59	Jan. 25	1015	132	5.42
Nov. 26	1600	175	5.68	Mar. 31	2115	149	5.53
Dec. 2	1030	*280	*6.18	May 4	0330	196	5.79

Minimum discharge, 0.39 ft³/s, Aug. 13, gage height, 3.63 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	24	84	e43	24	19	118	29	8.4	3.2	1.1	2.3
2	14	23	231	44	e35	22	92	30	9.8	3.4	.87	2.2
3	14	21	162	47	25	22	92	68	15	17	.79	2.1
4	19	20	116	48	24	34	84	166	11	9.4	.75	1.7
5	22	19	95	46	e24	35	68	94	8.5	4.6	.76	1.5
6	20	19	93	44	e45	44	56	83	7.5	3.9	.66	1.4
7	19	19	96	39	39	33	50	103	6.6	4.7	.56	1.4
8	20	25	119	e33	32	20	44	83	6.3	4.8	.54	1.3
9	56	85	92	e32	29	23	36	77	5.7	2.7	.53	1.2
10	39	64	74	30	29	27	37	72	5.3	8.9	.49	1.2
11	29	45	66	e27	26	33	37	61	4.9	3.5	.46	1.6
12	22	37	78	e25	23	27	38	53	4.5	2.5	.45	1.9
13	20	32	80	e24	22	23	67	45	4.7	2.0	1.5	3.3
14	23	30	89	23	22	26	49	43	4.9	1.7	2.1	3.4
15	22	27	87	23	32	58	42	39	4.2	1.6	1.1	3.4
16	16	25	77	43	29	36	37	35	4.1	1.9	4.3	3.4
17	14	32	74	e40	24	29	34	22	4.0	1.5	9.6	3.4
18	13	33	71	e30	23	33	53	18	8.4	1.4	28	3.4
19	21	30	e65	e25	25	32	115	20	26	1.1	16	3.2
20	126	27	e60	22	28	32	105	33	8.0	.90	5.8	3.2
21	90	26	56	21	25	33	84	25	5.5	.83	12	3.3
22	75	43	53	22	28	33	61	20	4.9	1.6	8.0	3.3
23	58	45	54	27	25	29	45	17	4.6	1.2	5.2	3.4
24	46	44	56	24	21	25	41	14	4.1	1.9	4.0	3.4
25	38	49	e70	84	19	24	35	15	3.9	3.2	3.4	3.3
26	32	114	61	42	18	35	29	25	3.9	1.6	2.9	3.3
27	29	102	54	30	21	30	26	16	4.5	1.3	2.5	3.2
28	31	70	e50	45	21	25	49	13	3.7	4.3	4.4	3.3
29	32	62	e47	40	---	22	47	11	3.4	2.0	4.0	5.6
30	28	58	e43	32	---	22	34	9.8	3.2	1.4	3.3	9.2
31	27	---	e40	32	---	71	---	9.2	---	1.1	2.6	---
TOTAL	1031	1250	2493	1087	738	957	1705	1349.0	199.5	101.13	128.66	87.8
MEAN	33.3	41.7	80.4	35.1	26.4	30.9	56.8	43.5	6.65	3.26	4.15	2.93
MAX	126	114	231	84	45	71	118	166	26	17	28	9.2
MIN	13	19	40	21	18	19	26	9.2	3.2	.83	.45	1.2
CFSM	2.46	3.09	5.96	2.60	1.95	2.29	4.21	3.22	.49	.24	.31	.22
IN.	2.84	3.44	6.87	3.00	2.03	2.64	4.70	3.72	.55	.28	.35	.24

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

	1996	1997	1996	1997	1996	1997	1996	1997	1996	1997	1996	1997
MEAN	30.6	47.4	50.6	48.5	38.3	34.3	51.4	41.6	9.91	29.3	5.15	8.60
MAX	33.3	53.1	80.4	61.9	49.8	37.6	56.8	43.5	13.2	55.3	6.14	14.3
(WY)	1997	1996	1997	1996	1996	1996	1997	1996	1996	1996	1996	1996
MIN	27.9	41.7	20.9	35.1	26.4	30.9	45.9	39.7	6.65	3.26	4.15	2.93
(WY)	1996	1997	1996	1997	1997	1997	1996	1996	1997	1997	1997	1997

e Estimated

HUDSON RIVER BASIN

01374930 MUSCOOT RIVER AT BALDWIN PLACE, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1996 - 1997	
ANNUAL TOTAL	14639.0		11127.09			
ANNUAL MEAN	40.0		30.5		33.0	
HIGHEST ANNUAL MEAN					35.4	1996
LOWEST ANNUAL MEAN					30.5	1997
HIGHEST DAILY MEAN	317	Jan 20	231	Dec 2	317	Jan 20 1996
LOWEST DAILY MEAN	1.3	Sep 4	.45	Aug 12	.45	Aug 12 1997
ANNUAL SEVEN-DAY MINIMUM	1.4	Aug 31	.53	Aug 6	.53	Aug 6 1997
ANNUAL RUNOFF (CFSM)	2.96		2.26		2.44	
ANNUAL RUNOFF (INCHES)	40.34		30.66		33.18	
10 PERCENT EXCEEDS	83		73		74	
50 PERCENT EXCEEDS	32		24		25	
90 PERCENT EXCEEDS	5.9		1.9		3.2	

HUDSON RIVER BASIN

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01374941 MUSCOOT RIVER BELOW DAM AT AMAWALK, NY

LOCATION.--Lat 41°17'15", long 73°45'13", Westchester County, Hydrologic Unit 02030101, on left bank 20 ft upstream from bridge on State Highway 35 (Amawalk Road), 500 ft downstream from dam on Amawalk Reservoir, and 1.0 mi east of Amawalk.

DRAINAGE AREA.--19.7 mi².

PERIOD OF RECORD.--Occasional low-flow and/or miscellaneous discharge measurements, water year 1976. March 1994 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 340 ft above sea level, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Flow regulated by Amawalk Reservoir. Telephone gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 283 ft³/s, July 16, 1996, gage height, 10.02 ft, from rating curve extended above 120 ft³/s; minimum daily discharge, 2.9 ft³/s, May 25, 1995.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 137 ft³/s, May 9, 10, 11, 12, gage height, 9.41 ft; minimum daily discharge, 6.7 ft³/s, Sept. 24.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	63	97	128	50	12	42	41	26	12	14	e13
2	24	63	98	128	50	13	43	29	26	12	14	e30
3	24	63	97	126	50	12	43	30	27	12	14	e20
4	32	63	98	126	51	13	48	30	26	12	14	9.2
5	46	63	e95	126	50	12	51	30	27	12	14	9.2
6	45	63	102	88	56	13	51	30	27	12	14	9.2
7	45	63	101	70	65	23	51	30	27	12	14	9.2
8	44	64	101	71	63	27	71	26	27	12	14	9.3
9	44	63	101	49	64	27	83	97	27	12	14	9.3
10	41	63	101	36	63	26	83	137	27	12	14	9.3
11	63	63	112	38	64	28	83	136	27	12	13	9.2
12	88	63	120	38	64	27	83	75	27	12	13	9.4
13	87	64	119	31	64	25	83	29	27	12	e13	9.3
14	89	56	120	28	64	25	83	29	28	12	e13	9.3
15	88	37	120	23	64	25	83	29	28	12	e13	9.4
16	52	29	99	24	63	25	83	29	28	12	e13	9.3
17	29	29	79	24	63	25	83	29	28	12	e13	9.3
18	29	29	88	24	64	25	83	29	28	13	e13	9.1
19	30	29	116	25	64	29	83	29	29	12	e13	9.3
20	30	30	130	26	63	26	83	29	28	12	e13	11
21	30	30	130	24	59	27	83	29	28	12	e13	12
22	30	29	129	25	52	27	83	29	28	14	e13	12
23	49	29	e85	26	51	27	83	74	29	12	e13	10
24	66	29	130	25	35	25	83	96	29	12	e13	6.7
25	65	32	129	26	25	23	83	96	18	13	e13	e6.9
26	66	50	129	24	16	14	83	96	11	16	e13	e7.7
27	64	77	129	25	12	27	83	49	12	16	e13	8.8
28	64	96	129	26	13	37	83	26	12	15	e13	8.9
29	64	96	129	26	---	37	61	26	12	e15	e13	9.0
30	64	96	128	38	---	37	50	26	12	e15	e13	9.0
31	65	---	128	51	---	38	---	26	---	e15	e13	---
TOTAL	1580	1624	3469	1545	1462	757	2171	1496	736	396	413	313.3
MEAN	51.0	54.1	112	49.8	52.2	24.4	72.4	48.3	24.5	12.8	13.3	10.4
MAX	89	96	130	128	65	38	83	137	29	16	14	30
MIN	23	29	79	23	12	12	42	26	11	12	13	6.7

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1997, BY WATER YEAR (WY)

MEAN	27.7	30.6	57.0	50.3	50.6	38.0	61.5	41.6	21.5	32.1	32.5	19.8
MAX	51.0	54.1	112	65.7	65.9	55.7	83.6	58.6	24.5	70.8	73.4	28.9
(WY)	1997	1997	1997	1995	1996	1996	1994	1996	1997	1996	1996	1996
MIN	14.4	18.3	20.9	35.2	33.1	24.4	24.4	20.6	18.4	12.8	13.3	10.4
(WY)	1995	1996	1996	1996	1995	1997	1995	1995	1995	1997	1997	1997

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1994 - 1997
ANNUAL TOTAL	21086	15962.3	
ANNUAL MEAN	57.6	43.7	38.6
HIGHEST ANNUAL MEAN			44.2
LOWEST ANNUAL MEAN			27.9
HIGHEST DAILY MEAN	269	137	269
LOWEST DAILY MEAN	14	6.7	2.9
ANNUAL SEVEN-DAY MINIMUM	15	8.1	4.2
10 PERCENT EXCEEDS	115	96	83
50 PERCENT EXCEEDS	52	29	26
90 PERCENT EXCEEDS	18	12	14

e Estimated

HUDSON RIVER BASIN

01374976 ANGLE FLY BROOK AT WHITEHALL CORNERS, NY

LOCATION.--Lat 41°16'57", long 73°43'33", Westchester County, Hydrologic Unit 02030101, on left bank 20 ft downstream from bridge on State Highway 35, 0.6 mi upstream from Muscoot Reservoir, and 1.0 mi northeast of Whitehall Corners.

DRAINAGE AREA.--3.01 mi².

PERIOD OF RECORD.--Occasional low-flow and/or miscellaneous discharge measurements, water year 1976. December 1995 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 230 ft above sea level, from topographic map. Prior to Oct. 1, 1996, at datum 1.0 ft higher.

REMARKS.--Records poor. Telephone gage-height telemeter at station.

AVERAGE DISCHARGE.--1 year, 6.09 ft³/s, 27.50 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 200 ft³/s, July 15, 1996, gage height, 4.20 ft, present datum; minimum discharge, no flow, part or all of many days during July to Sept. 1997.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 80 ft³/s (revised) and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 19	2300	143	3.62	Jan. 25	0330	113	3.28
Nov. 26	0830	111	3.25	Mar. 31	1345	86	2.94
Dec. 2	0415	*148	*3.68	Aug. 17	0200	85	2.93

Minimum discharge, no flow, part or all of many days during July to September.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	4.8	24	5.3	8.2	3.5	31	4.4	1.6	.24	.00	.38
2	1.3	4.5	74	5.6	7.5	5.0	25	4.4	2.6	.48	.00	.26
3	1.2	4.2	25	7.4	7.1	4.2	21	27	4.1	1.9	.51	.22
4	1.0	3.9	17	7.3	6.2	4.5	16	24	2.2	.70	.27	.15
5	.97	3.7	14	6.9	30	4.9	12	9.8	1.6	.36	.21	.09
6	.99	3.5	30	6.2	11	6.6	11	14	1.4	.25	.04	.09
7	1.0	3.7	31	5.1	7.3	3.9	9.7	11	1.2	.43	.00	.10
8	7.1	7.0	35	4.2	6.4	3.4	7.8	8.1	1.2	.42	.00	.10
9	15	19	21	4.0	5.8	3.2	7.0	9.0	1.0	2.5	.00	.10
10	8.2	8.6	15	5.0	5.0	5.8	6.4	8.8	.88	4.7	.00	.23
11	4.4	5.5	15	4.3	4.6	5.8	6.0	7.0	.75	.76	.00	.48
12	3.0	4.6	17	3.4	4.6	4.1	9.9	6.2	.66	.38	.00	.30
13	2.7	4.3	14	3.1	4.2	3.3	16	5.7	.72	.29	.07	.16
14	2.3	4.1	24	2.8	6.1	9.9	7.5	5.4	.65	.21	.00	.10
15	2.0	3.6	16	3.6	8.2	16	6.1	5.0	.55	.17	.00	.04
16	1.8	3.4	12	e40	5.4	6.6	5.6	4.4	.48	.14	.11	.00
17	1.7	3.9	13	e6.0	4.6	5.5	6.2	4.2	.48	.11	.00	.00
18	1.8	4.3	11	e3.0	4.7	5.4	13	3.8	4.2	.13	13	.00
19	32	4.0	12	e2.8	5.7	5.1	14	5.1	12	.05	3.1	.00
20	55	3.3	11	e2.8	5.9	5.6	7.9	7.3	1.9	.00	1.1	.00
21	31	3.0	8.1	2.8	5.1	5.2	6.5	4.1	.92	.00	4.1	.00
22	18	2.9	7.6	3.3	6.4	5.9	6.1	3.3	.72	2.4	1.5	.00
23	14	2.7	8.1	5.2	4.7	4.4	5.7	2.8	.60	.34	.67	.00
24	11	2.6	12	3.5	3.9	3.8	5.3	2.6	.47	.96	.44	.00
25	8.2	2.5	15	40	3.2	3.8	5.0	4.5	.42	2.5	.31	.00
26	7.1	35	8.3	7.7	3.4	9.4	4.5	4.6	.81	.53	.25	.00
27	6.6	14	7.8	5.4	4.8	5.5	4.2	2.7	.78	.68	.20	.00
28	7.9	7.3	7.5	22	4.2	4.3	10	2.3	.45	.74	1.0	.00
29	6.8	6.3	8.7	8.2	---	4.2	6.0	1.9	.32	.25	.63	.63
30	6.0	6.2	8.6	6.1	---	4.0	4.4	1.8	.25	.12	.36	.06
31	5.4	---	e6.0	6.0	---	36	---	1.7	---	.05	.24	---
TOTAL	266.96	186.4	528.7	239.0	184.2	198.8	296.8	206.9	45.91	22.79	44.11	3.49
MEAN	8.61	6.21	17.1	7.71	6.58	6.41	9.89	6.67	1.53	.74	1.42	.12
MAX	55	35	74	40	30	36	31	27	12	4.7	16	.63
MIN	.97	2.5	6.0	2.8	3.2	3.2	4.2	1.7	.25	.00	.00	.00
CFSM	2.86	2.06	5.67	2.56	2.19	2.13	3.29	2.22	.51	.24	.47	.04
IN.	3.30	2.30	6.53	2.95	2.28	2.46	3.67	2.56	.57	.28	.55	.04

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

	1996	1997	1997	1997	1997	1997	1997	1996	1997	1997	1996	1997
MEAN	8.61	6.21	17.1	11.2	7.67	7.40	10.3	6.44	2.35	6.74	1.35	1.57
MAX	8.61	6.21	17.1	14.6	8.72	8.38	10.8	6.67	3.18	12.7	1.42	3.02
(WY)	1997	1997	1997	1996	1996	1996	1996	1997	1996	1996	1997	1996
MIN	8.61	6.21	17.1	7.71	6.58	6.41	9.89	6.21	1.53	.74	1.27	.12
(WY)	1997	1997	1997	1997	1997	1997	1997	1996	1997	1997	1996	1997

e Estimated

HUDSON RIVER BASIN

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01374976 ANGLE FLY BROOK AT WHITEHALL CORNERS, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1996 - 1997	
ANNUAL TOTAL	3083.01		2224.06			
ANNUAL MEAN	8.42		6.09		6.09	
HIGHEST ANNUAL MEAN					6.09 1997	
LOWEST ANNUAL MEAN					6.09 1997	
HIGHEST DAILY MEAN	85	Jul 13	74	Dec 2	85	Jul 13 1996
LOWEST DAILY MEAN	.18	Sep 3	.00	Jul 20	.00	Jul 20 1997
ANNUAL SEVEN-DAY MINIMUM	.24	Aug 31	.00	Sep 16	.00	Sep 16 1997
ANNUAL RUNOFF (CFSM)	2.80		2.02		2.02	
ANNUAL RUNOFF (INCHES)	38.10		27.49		27.50	
10 PERCENT EXCEEDS	18		14		14	
50 PERCENT EXCEEDS	6.1		4.2		4.3	
90 PERCENT EXCEEDS	1.0		.10		.30	

HUDSON RIVER BASIN

01374987 KISCO RIVER BELOW MOUNT KISCO, NY

LOCATION.--Lat 41°13'43", long 73°44'39", Westchester County, Hydrologic Unit 02030101, on right bank 120 ft downstream from bridge on Yeshiva Nitra Road off Pines Bridge Road, and 0.8 mi northwest of Mount Kisco.

DRAINAGE AREA.--17.6 mi², revised.

PERIOD OF RECORD.--Occasional low-flow and/or miscellaneous discharge measurements, water years 1974, 1976-77. October 1995 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 250 ft above sea level, from topographic map.

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

AVERAGE DISCHARGE.--1 year, 38.8 ft³/s, 29.92 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 710 ft³/s, Jan. 27, 1996, gage height, 5.10 ft, outside gage height, 5.31 ft, from crest-stage gage, from rating curve extended above 300 ft³/s; minimum discharge, 1.9 ft³/s, Sept. 26, 27, 28, 1997, gage height, 1.21 ft.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 20	0715	a*686	*5.05	Jan. 25	1145	375	4.25
Dec. 2	1130	424	4.40	Mar. 31	2230	314	4.04

a From rating curve extended as explained above.

Minimum discharge, 1.9 ft³/s, Sept. 26, 27, 28, gage height, 1.21 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	34	82	e32	49	23	201	28	13	4.0	5.6	6.6
2	15	31	333	33	51	25	128	30	16	4.0	5.0	5.7
3	16	29	155	40	43	25	122	85	23	10	6.0	4.9
4	13	27	105	40	40	27	98	151	18	6.8	7.5	4.0
5	11	26	87	35	125	27	78	62	13	4.6	6.8	3.5
6	10	25	171	33	89	33	67	60	12	3.8	5.3	3.3
7	10	25	175	28	52	25	62	63	11	12	3.9	3.3
8	23	37	228	24	44	22	52	45	10	17	3.3	3.3
9	133	93	144	23	40	20	46	46	9.3	39	3.2	3.5
10	64	63	104	e22	36	28	41	46	8.5	183	2.8	3.4
11	37	39	93	e21	34	35	39	38	7.8	29	2.5	6.7
12	24	32	107	e20	32	26	46	34	7.1	13	2.7	8.0
13	22	29	87	e19	30	21	96	32	19	8.7	3.8	5.0
14	20	27	127	e19	39	35	54	30	68	7.2	9.6	4.0
15	18	25	114	21	60	103	39	27	20	6.2	4.3	3.5
16	16	23	79	76	40	45	36	25	11	5.6	3.6	3.1
17	16	23	79	e60	33	33	35	23	9.1	5.6	28	2.8
18	15	24	76	e40	30	33	53	23	12	5.0	81	2.8
19	84	25	e65	e35	32	30	74	28	41	4.9	35	2.6
20	505	24	e60	e30	34	31	50	45	18	3.7	14	2.4
21	233	22	52	e25	30	33	38	29	11	3.3	30	2.5
22	151	21	47	24	33	32	36	22	8.8	33	21	2.2
23	96	19	48	37	30	27	34	19	9.2	13	12	2.3
24	76	19	53	27	26	24	32	17	7.0	12	8.6	2.3
25	62	19	e65	248	23	24	30	24	6.4	39	7.2	2.5
26	53	141	50	86	23	47	28	36	6.6	19	5.8	2.1
27	47	101	43	47	27	38	26	21	7.7	13	5.4	1.9
28	51	43	41	119	26	27	54	17	5.6	40	12	2.0
29	54	35	e40	85	---	26	50	15	4.7	15	11	13
30	42	33	e35	52	---	26	32	14	4.2	8.7	7.1	8.5
31	39	---	e30	41	---	140	---	14	---	6.9	5.6	---
TOTAL	1973	1114	2975	1442	1151	1091	1777	1149	418.0	576.0	359.6	121.7
MEAN	63.6	37.1	96.0	46.5	41.1	35.2	59.2	37.1	13.9	18.6	11.6	4.06
MAX	505	141	333	248	125	140	201	151	68	183	81	13
MIN	10	19	30	19	23	20	26	14	4.2	3.3	2.5	1.9
CFSM	3.62	2.11	5.45	2.64	2.34	2.00	3.37	2.11	.79	1.06	.66	.23
IN.	4.17	2.35	6.29	3.05	2.43	2.31	3.76	2.43	.88	1.22	.76	.26

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

	1996	1997	1996	1997	1996	1997	1996	1997	1996	1997	1996	1997
MEAN	63.6	41.0	55.1	64.8	46.6	43.5	62.9	34.4	17.1	31.1	10.6	13.2
MAX	63.6	45.0	96.0	83.1	52.0	51.8	66.5	37.1	20.3	43.7	11.6	22.3
(WY)	1997	1996	1997	1996	1996	1996	1996	1997	1996	1996	1997	1996
MIN	63.6	37.1	14.2	46.5	41.1	35.2	59.2	31.7	13.9	18.6	9.52	4.06
(WY)	1997	1997	1996	1997	1997	1997	1997	1996	1997	1997	1996	1997

e Estimated

HUDSON RIVER BASIN

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01374987 KISCO RIVER BELOW MOUNT KISCO, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1996 - 1997	
ANNUAL TOTAL	17658.5		14147.3			
ANNUAL MEAN	48.2		38.8		38.8	
HIGHEST ANNUAL MEAN					38.8 1997	
LOWEST ANNUAL MEAN					38.8 1997	
HIGHEST DAILY MEAN	505	Oct 20	505	Oct 20	505	Oct 20 1996
LOWEST DAILY MEAN	2.7	Sep 3	1.9	Sep 27	1.9	Sep 27 1997
ANNUAL SEVEN-DAY MINIMUM	2.9	Aug 31	2.2	Sep 22	2.2	Sep 22 1997
ANNUAL RUNOFF (CFSM)	2.74		2.20		2.20	
ANNUAL RUNOFF (INCHES)	37.32		29.90		29.92	
10 PERCENT EXCEEDS	97		85		82	
50 PERCENT EXCEEDS	33		27		27	
90 PERCENT EXCEEDS	9.5		4.3		6.0	

HUDSON RIVER BASIN

01375000 CROTON RIVER AT NEW CROTON DAM, NEAR CROTON-ON-HUDSON, NY

LOCATION.--Lat 41°13'30", long 73°51'35", Westchester County, Hydrologic Unit 02030101, on left bank 1,000 ft downstream from New Croton Dam, and 1.8 mi northeast of Croton-On-Hudson.

DRAINAGE AREA.--378 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1933 to current year. Prior to Oct. 1, 1941, published as "at Quaker Bridge," (low-flow records at this site are not equivalent owing to well pumpage upstream). Fragmentary records published during August 1933 to September 1941 for "at Cornell Dam near Croton" and "at New Croton near Croton" are equivalent. Oct. 1, 1941 to Sept. 30, 1955 published as "at New Croton Dam near Croton".

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 50 ft above sea level, from topographic map. Prior to Oct. 1, 1941, supplementary water-stage recorder and concrete control at site 1.1 mi downstream at Quaker Bridge.

REMARKS.--Records good except those below 300 ft³/s, which are fair, and those for estimated daily discharges, which are poor. Entire flow, except for periods of spilling and releases to augment Croton-on-Hudson water supply, diverted from New Croton Reservoir for municipal supply of City of New York.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 45,400 ft³/s, Oct. 16, 1955, gage height, 18.44 ft, from floodmarks, from rating curve extended above 9,700 ft³/s, on basis of slope-area measurements of peak flow; minimum daily discharge, 0.1 ft³/s, Mar. 14, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,490 ft³/s, Dec. 2, gage height, 6.71 ft; minimum daily, 15 ft³/s, July 1-2, Sept. 19-20, 22-30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	474	773	1270	e1050	720	484	2160	606	197	15	25	90
2	420	710	3750	e1000	718	519	1650	573	204	15	19	82
3	421	652	3070	e1050	655	560	1710	887	230	20	29	67
4	358	615	2630	e1100	623	570	1620	1820	223	63	60	34
5	324	589	2250	e1000	1220	557	1460	1330	166	112	62	20
6	330	571	2540	e900	1390	586	1380	1210	136	120	39	19
7	339	571	2820	e800	1100	547	1300	1230	121	161	26	23
8	441	686	3440	769	953	484	1180	970	107	208	19	32
9	1200	1420	2880	714	841	461	998	922	101	251	18	37
10	966	1420	2280	669	723	506	820	960	85	663	17	43
11	737	1200	1940	550	649	562	718	866	68	389	17	55
12	610	1030	1970	532	605	490	738	760	40	259	18	32
13	563	908	e2100	360	571	427	1220	646	28	213	17	32
14	533	821	e2200	311	586	474	1020	572	70	204	18	27
15	494	744	e2000	329	675	986	809	517	68	228	17	24
16	452	667	e1900	747	652	790	730	457	38	208	17	22
17	412	634	e1800	938	606	628	694	415	32	191	218	21
18	399	623	e1700	605	559	589	868	388	81	176	542	19
19	773	626	e1600	491	556	534	1320	458	359	124	353	15
20	3490	608	e1500	e450	576	517	1120	653	278	94	178	15
21	2570	576	e1400	e400	498	517	951	582	174	89	212	16
22	2090	544	e1200	e380	559	514	876	459	128	254	176	15
23	1980	457	e1300	362	590	467	839	415	116	178	127	15
24	1680	473	e1400	353	545	407	785	392	68	136	102	15
25	1440	466	e1700	1450	502	373	689	430	42	185	81	15
26	1280	1410	e1500	1340	458	512	637	552	34	149	65	15
27	1160	1700	e1400	860	480	564	587	418	38	117	51	15
28	1120	1290	e1300	1210	504	482	755	298	26	244	70	15
29	1090	1080	e1250	1280	---	430	832	242	26	147	95	15
30	956	936	e1200	868	---	419	660	217	19	67	94	15
31	860	---	e1150	720	---	1110	---	194	---	36	76	---
TOTAL	29962	24800	60440	23588	19114	17066	31126	20439	3303	5316	2858	860
MEAN	967	827	1950	761	683	551	1038	659	110	171	92.2	28.7
MAX	3490	1700	3750	1450	1390	1110	2160	1820	359	663	542	90
MIN	324	457	1150	311	458	373	587	194	19	15	17	15

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 1997, BY WATER YEAR (WY)

	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944
MEAN	166	194	309	322	403	637	694	421	213	99.3	103	94.9
MAX	3160	1815	1950	1123	1608	1599	2469	1667	1832	921	1179	1177
(WY)	1956	1956	1997	1978	1970	1953	1983	1989	1972	1984	1990	1975
MIN	.30	.40	.52	.59	.90	.38	.91	.75	.85	.71	.36	.48
(WY)	1966	1966	1966	1966	1967	1965	1965	1963	1965	1965	1981	1981

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1933 - 1997
ANNUAL TOTAL	300859	238872	
ANNUAL MEAN	822	654	304
HIGHEST ANNUAL MEAN			849
LOWEST ANNUAL MEAN			.90
HIGHEST DAILY MEAN	5510	Jan 28	3750
LOWEST DAILY MEAN	40	Jan 6	15
ANNUAL SEVEN-DAY MINIMUM	90	Jan 11	15
10 PERCENT EXCEEDS	1670		1420
50 PERCENT EXCEEDS	626		533
90 PERCENT EXCEEDS	209		26

e Estimated

HUDSON RIVER BASIN

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01375000 CROTON RIVER AT NEW CROTON DAM, NEAR CROTON-ON-HUDSON, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1997.

CHEMICAL DATA: 1997 (a).

PESTICIDE DATA: 1997 (a).

REMARKS.--A complete list of compounds included when pesticides analysis was performed on samples follows the Introduction to the Hudson NAWQA section near the end of this report. Only those compounds detected at or above the method detection limit (MDL) were included in the tables.

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

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)
JUN 16...	1320	36	273	7.6	0.029	E0.004	E0.002	E0.003	E0.002	E0.002

E Estimate.

HUDSON RIVER BASIN

01376304 HUDSON RIVER SOUTH OF HASTINGS-ON-HUDSON, NY

LOCATION.--Lat 40°59'16", long 73°53'15", Westchester County, Hydrologic Unit 02030101, 180 ft from left bank on abandoned Mobil Oil Corporation platform, 0.5 mi southwest of railroad station, at Hastings-on-Hudson. Water-quality sampling site at stage station.

DRAINAGE AREA.--13,265 mi².

ELEVATION RECORDS

PERIOD OF RECORD.--May 1992 to current year.

GAGE.--Water-stage recorder. Datum of gage is 10.00 ft below sea level. Gage-height record converted to elevation above or below(-) mean sea level for publication.

REMARKS.--Telephone and satellite gage-height, temperature, and specific conductance telemeter at station. Interruptions of record were due to malfunction of recording instrument. All data are collected, stored, and reported in Eastern Standard Time.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 7.27 ft, Dec. 11, 1992; minimum, -4.01 ft, Mar. 4, 1996.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 6.33 ft, Oct. 19; minimum, -3.02 ft, Mar. 7.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	3.20	-1.24	1.00	---	---	---	3.49	.12	1.83	2.44	-.41	.98
2	3.28	-.72	1.23	---	---	---	4.48	-.49	1.73	2.93	-.57	1.29
3	2.83	-.93	.92	---	---	---	2.96	.21	1.54	3.10	-.28	1.62
4	3.17	-.08	1.31	---	---	---	2.92	-.05	1.61	3.45	-.11	1.81
5	2.59	-.27	1.24	---	---	---	2.88	-.01	1.56	3.99	-.27	2.06
6	2.82	-.29	1.25	---	---	---	5.15	.12	2.49	3.95	-.89	1.44
7	3.11	-.30	1.43	3.08	-.60	1.39	4.44	.30	2.49	3.16	-1.54	.56
8	4.41	-.25	2.00	3.84	-.33	2.06	4.57	-.02	2.11	---	---	---
9	3.85	-.15	1.82	4.51	.06	2.18	4.75	-.58	2.10	4.06	-2.12	1.20
10	3.64	-.61	1.47	3.80	-.47	1.64	4.38	-.85	1.68	4.75	-1.06	1.86
11	3.09	-1.13	.97	3.82	-.97	1.26	4.40	-.95	1.70	3.37	-2.04	.67
12	3.38	-.96	1.25	3.30	-1.65	.69	4.52	-.97	1.73	2.50	-2.76	-.19
13	3.24	-1.16	1.12	3.34	-1.74	.74	5.41	-.06	2.48	2.58	-2.54	.00
14	3.56	-1.05	1.10	3.53	-1.52	.85	4.83	-.13	2.24	2.86	-1.70	.61
15	3.02	-1.46	.70	3.58	-1.27	.96	4.80	.11	2.30	2.89	-1.24	.85
16	3.11	---	---	3.52	-.88	1.26	4.32	-.40	1.95	3.25	-1.97	1.20
17	3.29	-1.19	1.06	4.13	-.12	1.85	3.95	-.22	1.90	1.43	-2.37	-.25
18	4.10	-.21	1.95	4.05	.00	2.02	3.89	-.55	1.81	1.88	-1.88	.21
19	6.33	1.68	3.54	4.17	-.71	2.06	3.82	-.86	1.83	2.48	-1.76	.80
20	4.76	.18	2.73	---	---	---	2.25	-2.69	.02	2.69	-1.35	.61
21	4.34	.02	2.35	3.63	---	---	2.32	-2.73	.21	2.31	-1.94	.34
22	4.10	-.27	2.14	3.62	-1.23	1.24	3.10	-1.69	.76	3.08	-.98	1.10
23	4.28	-.38	2.07	3.77	-1.38	1.40	3.58	-1.47	1.17	2.92	-1.39	.69
24	4.19	-.54	1.87	3.55	-1.36	1.09	3.90	-1.03	1.54	4.01	-1.52	1.47
25	4.09	-.86	1.62	3.78	-1.16	1.30	2.82	-1.90	.44	4.17	-.28	1.98
26	3.91	-1.11	1.41	4.13	-.88	1.35	3.17	-1.66	.73	1.84	-2.31	-.18
27	3.87	-1.23	1.36	2.75	-1.99	.41	3.55	-1.04	1.15	2.85	-1.57	.67
28	---	---	---	3.79	-.73	1.38	3.51	-.67	1.34	2.90	-1.45	.93
29	---	---	---	3.05	-.89	.99	3.33	-.58	1.39	1.82	-1.50	.12
30	---	---	---	3.32	-.25	1.41	2.57	-1.11	.79	2.14	-1.01	.74
31	---	---	---	---	---	---	2.82	-.65	1.04	2.96	.32	1.57
MONTH	---	---	---	---	---	---	5.41	-2.73	1.54	---	---	---

HUDSON RIVER BASIN

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01376304 HUDSON RIVER SOUTH OF HASTINGS-ON-HUDSON, NY--Continued

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	3.33	-.17	1.51	3.01	-.31	1.40	---	.28	---	3.59	-.71	1.67
2	2.85	-.63	1.10	3.28	-1.03	1.13	4.30	-.50	1.97	2.77	-1.71	.76
3	2.81	-1.25	1.07	2.46	-.79	1.04	3.99	-.51	1.90	4.42	-1.37	1.67
4	2.94	-1.25	1.33	4.04	-.33	2.12	4.01	-.85	1.77	3.74	-1.58	1.33
5	4.39	-.40	1.69	3.27	-.98	1.35	4.23	-1.05	1.74	4.10	-1.35	1.42
6	2.96	-1.34	.93	4.14	-2.17	.85	4.54	-1.00	1.85	4.15	-1.11	1.51
7	3.52	-1.55	1.05	2.28	-3.02	-.41	4.50	-.94	1.84	3.08	-2.17	.67
8	3.93	-1.46	1.29	3.50	-2.44	.81	3.89	-1.18	---	3.65	-1.76	.79
9	4.40	-.96	1.64	4.29	-2.09	1.08	3.18	-1.56	.84	4.04	-1.21	1.37
10	3.76	-1.41	1.22	4.18	-1.21	1.48	3.38	-1.65	.72	3.92	-.95	1.32
11	3.67	-1.17	1.27	4.08	-1.22	1.45	3.38	-1.25	1.05	3.41	-.96	1.07
12	3.96	-1.08	1.44	3.53	-1.58	.88	3.40	-1.13	1.18	3.05	-.81	1.19
13	3.00	-1.55	.60	3.00	-1.81	.46	3.81	-.46	1.40	2.88	-.73	1.15
14	3.46	-.34	1.62	3.32	-1.25	1.38	2.71	-1.06	.77	---	---	---
15	3.20	-1.25	.95	3.79	-1.41	.92	2.32	-.80	.84	---	---	---
16	1.98	-1.18	.62	2.03	-1.37	.31	2.31	-1.05	.80	---	---	---
17	2.80	-1.27	.83	2.23	-.95	.75	2.72	-.76	1.18	---	---	---
18	2.71	-1.32	.64	1.85	-1.41	.49	2.95	-.51	1.30	---	---	---
19	2.04	-1.81	.23	2.69	-.60	1.24	4.43	-.55	1.88	---	---	---
20	2.52	-1.63	.43	3.11	-.43	1.36	3.92	-.24	2.09	---	---	---
21	3.30	-.91	1.26	3.35	-.66	1.41	3.76	-.61	1.59	---	---	---
22	3.13	-1.14	.83	3.67	-.63	1.47	3.99	-.61	1.63	---	---	---
23	2.66	-2.17	.42	3.10	-1.25	1.08	4.23	-.55	1.76	---	---	---
24	2.43	-1.91	.36	2.64	-1.74	.60	4.88	-.39	2.27	---	---	---
25	2.94	-2.26	.33	3.56	-1.90	.69	4.52	-.56	1.89	---	---	---
26	2.91	-1.68	.60	3.06	-1.90	.73	3.79	-.92	1.21	---	---	---
27	2.64	-1.12	.78	3.07	-1.85	.65	3.42	-1.10	1.15	---	---	---
28	2.35	-1.41	.75	3.52	-1.11	1.17	3.87	-.30	1.83	---	---	---
29	---	---	---	3.59	-.48	1.52	3.46	-1.06	1.24	---	---	---
30	---	---	---	3.65	-.79	1.14	3.41	-.92	1.33	---	---	---
31	---	---	---	3.53	.09	1.86	---	---	---	---	---	---
MONTH	4.40	-2.26	.96	4.29	-3.02	1.05	---	-1.65	---	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	---	---	---	---	---	---	3.16	-1.15	.98	3.23	-.75	1.32
2	---	---	---	---	---	---	3.33	-.98	1.11	3.25	-.86	1.24
3	---	---	---	3.95	-.71	1.58	3.50	-.79	1.24	2.80	-1.10	.95
4	---	---	---	3.70	-.82	1.38	3.67	-.57	1.53	3.09	-.88	1.13
5	---	---	---	3.39	-1.14	1.10	3.64	-.46	1.65	2.93	-.83	1.06
6	---	---	---	3.31	-1.13	.98	3.28	-.63	1.39	2.74	-.97	1.01
7	---	---	---	3.15	-1.01	1.06	3.08	-.83	1.10	2.98	-.72	1.16
8	---	---	---	3.09	-1.08	.99	2.88	-.96	.99	2.89	-.65	1.19
9	---	---	---	3.09	-.89	1.10	2.72	-.80	1.09	3.32	-.20	1.50
10	---	---	---	2.72	-1.13	.95	2.66	-.79	.94	3.43	-.12	1.62
11	---	---	---	2.59	-.95	.93	2.75	-.97	.92	3.67	-.04	1.85
12	---	---	---	2.40	-.97	.86	2.84	-.89	1.01	3.42	-.58	1.49
13	---	---	---	2.93	-.72	1.11	3.44	-.32	1.47	3.35	-.85	1.31
14	---	---	---	2.94	-.74	1.14	3.35	-.82	1.31	3.53	-1.09	1.24
15	---	---	---	3.36	-.75	1.22	3.61	-.79	1.40	3.74	-1.19	1.33
16	---	---	---	3.30	-.75	1.24	3.55	-1.02	1.36	3.78	-1.38	1.26
17	---	---	---	3.64	-.98	1.28	3.71	-1.25	1.25	4.10	-1.30	1.47
18	---	---	---	3.76	-1.30	1.17	3.96	-1.18	1.39	4.10	-1.05	1.48
19	---	---	---	3.61	-1.51	1.07	3.82	-1.29	1.28	3.81	-1.18	1.36
20	---	---	---	3.72	-1.47	1.06	4.59	-1.21	1.50	3.81	-.89	1.28
21	---	---	---	3.72	-1.37	1.05	4.61	-.22	2.21	3.15	-1.34	.71
22	---	---	---	3.66	-1.43	1.09	4.15	-.63	1.73	3.11	-1.12	1.03
23	---	---	---	3.71	-1.28	1.15	3.70	-.82	1.34	2.53	-1.19	.72
24	---	---	---	3.82	-.88	1.62	3.14	-1.09	1.05	2.74	-1.11	.83
25	---	---	---	3.98	-.69	1.57	3.05	-.99	1.09	3.31	-.39	1.44
26	---	---	---	3.31	-1.29	1.24	3.14	-.71	1.26	2.86	-.66	1.32
27	---	---	---	3.51	-.74	1.55	3.25	-.63	1.41	3.04	-.77	1.17
28	---	---	---	3.43	-.79	1.43	3.35	-.38	1.54	3.77	-.57	1.69
29	---	---	---	3.05	-1.00	1.16	3.50	-.40	1.59	4.15	-.52	1.91
30	---	---	---	3.08	-1.10	1.06	3.56	-.48	1.57	2.99	-.74	1.19
31	---	---	---	3.16	-1.13	1.03	3.45	-.61	1.42	---	---	---
MONTH	---	---	---	---	---	---	4.61	-1.29	1.33	4.15	-1.38	1.28

HUDSON RIVER BASIN

01376304 HUDSON RIVER SOUTH OF HASTINGS-ON-HUDSON, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1992 to current year.

CHEMICAL DATA: 1993 (c), 1994 (d), 1995 (b).

PESTICIDE DATA: 1994 (a).

ORGANIC DATA: OC--1993 (c), 1994 (d), 1995 (b).

NUTRIENT DATA: 1993 (c), 1994 (d), 1995 (b).

BIOLOGICAL DATA:

Phytoplankton--1993 (a).

SEDIMENT DATA: 1993-94 (c), 1995 (b).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: May 1992 to current year.

WATER TEMPERATURE: May 1992 to current year.

INSTRUMENTATION.--Water-quality monitor provides 15-minute-interval readings.

REMARKS.--Water-quality samples were collected by boat during the period of fastest ebb current of tidal cycle in cross section in vicinity of the gage. Specific conductance and water temperature values associated with water-quality samples may fall outside the range observed for that day by the water-quality monitor due to differences in location and methods of data collection. Telephone and satellite temperature and specific conductance telemeter at station. Interruptions of record were due to malfunction of recording instrument. All data are collected, stored, and reported in Eastern Standard Time.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 31,100 μ S/cm, Dec. 11, 1992; minimum, 76 μ S/cm, Jan. 30, 31, 1996.

WATER TEMPERATURE: Maximum, 28.5°C, July 27, Aug. 4, 5, 1995; minimum (water years 1993-97), 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 27,200 μ S/cm, Sept. 29; minimum, 90 μ S/cm, Dec. 21.

WATER TEMPERATURE: Maximum, 28.0°C, July 17; minimum, 0.0°C on many days during winter period.

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	10200	6430	7900	---	---	---	9130	3240	5370	8380	3050	5200
2	10300	6290	8030	9980	2700	5340	10800	434	4140	12500	2750	6370
3	9610	5790	7650	9440	3220	5540	459	194	240	12900	3100	7760
4	13400	6690	9750	12800	3480	5690	237	117	168	15900	4100	9840
5	18600	6700	12000	15900	3480	8030	640	134	228	17900	5930	11000
6	20000	7580	13400	21900	6680	14000	8710	332	3150	13700	5680	8640
7	21200	8120	14500	21300	7370	14400	7690	1670	3570	11600	6420	---
8	20400	8030	14500	25600	9370	17900	6370	2370	3660	---	---	---
9	16100	9220	13300	25100	11100	17800	5600	1270	2720	15600	5510	8320
10	17400	11100	13200	12500	6340	8740	2800	323	1020	17000	6720	10100
11	14600	10800	13000	6720	3510	4600	2050	229	546	10400	4300	6560
12	15400	11100	13300	4140	1820	2790	2830	160	468	6180	2940	4310
13	14800	10600	12800	3850	1380	2150	5410	186	1120	5920	2860	3880
14	14800	11300	12400	4780	1110	1920	2120	134	387	8380	2750	4710
15	13400	10300	11300	6960	944	2690	186	134	154	8570	2970	5410
16	14800	---	---	8400	2010	4630	177	117	145	12500	2910	6410
17	16700	10900	12600	13700	3660	6510	212	117	145	5380	1700	3370
18	22300	11600	15100	14200	4160	7170	177	117	144	9850	2700	5240
19	27000	14600	19300	13600	4350	7650	160	109	134	13800	3990	7470
20	23100	11300	15900	---	---	---	143	100	119	14300	5620	7750
21	15300	8560	11400	11100	---	---	617	90	145	13900	4770	7350
22	11300	7990	9530	10000	3190	5490	5670	109	798	18300	5860	9870
23	9120	6680	7960	11300	2620	5650	6350	134	1330	13700	5590	8100
24	7810	5200	6530	8830	2090	4670	6320	143	1800	17700	5260	10200
25	6650	4210	5320	11300	2170	5030	2070	134	308	20400	5090	12000
26	5700	3650	4530	12000	1480	4370	477	109	163	8210	3860	5850
27	5400	3240	4000	4350	331	1240	3430	117	552	13400	6400	8500
28	---	---	---	11800	1220	3490	4860	143	1310	14500	5700	8960
29	---	---	---	7090	1230	3230	4930	824	2240	9290	5520	7170
30	---	---	---	9230	2300	4300	4930	1040	2170	14100	6430	8550
31	---	---	---	---	---	---	7890	1440	4090	19000	7450	12700
MONTH	---	---	---	---	---	---	10800	90	1370	---	---	---

HUDSON RIVER BASIN

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SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	19500	5960	10600	6360	1320	3210	---	2750	---	6750	4690	6340
2	16600	5340	10000	7230	1310	3380	5050	2300	3360	6740	4860	6360
3	17200	5820	10400	8830	2080	4960	5230	1930	3120	6800	4730	6470
4	19700	6560	11800	20400	3830	9700	4770	289	1620	6840	4590	6410
5	21500	9510	13500	14900	3660	7070	823	259	356	6730	4870	6410
6	14100	9000	11000	13500	4580	6560	331	212	285	6780	4590	6450
7	13100	8280	10100	5700	3410	4220	291	222	252	6780	4930	6490
8	12500	7790	9570	8290	3940	5140	271	222	---	6790	4580	6350
9	13700	7260	9320	9550	3220	4710	260	194	230	6900	4730	6460
10	11700	6000	8260	9770	2650	4830	271	194	228	6760	4840	6430
11	10200	5870	7430	6840	1990	3580	2780	203	488	6680	4810	6390
12	12400	5010	7760	3690	922	1930	2970	250	905	6700	4880	6250
13	8280	3890	5580	1880	585	1180	4240	753	1810	6730	4840	6460
14	13400	4620	8220	8790	830	3070	3990	836	1740	---	---	---
15	12400	4540	7090	7750	1480	3270	5970	1260	3460	---	---	---
16	12100	3890	6450	6480	1820	3140	9330	1470	3410	---	---	---
17	13900	5190	8790	7200	2500	4280	10800	2310	4910	---	---	---
18	14500	5730	8610	7990	2810	4540	10500	3480	7170	---	---	---
19	11600	4820	7600	16600	4090	9870	17300	4420	9230	---	---	---
20	12800	6780	8570	16800	4590	9720	17800	7300	11900	---	---	---
21	15100	7520	9770	17900	4440	9420	15400	7970	10500	---	---	---
22	11000	4620	7270	17100	6740	10000	14400	8440	10800	---	---	---
23	5690	2210	3500	14500	6750	8940	14200	9610	10900	---	---	---
24	4350	781	2070	12600	8060	9610	14200	8760	10600	---	---	---
25	3390	444	1270	13800	7720	9340	15400	7350	9680	---	---	---
26	4910	781	2060	14800	5690	8460	11900	6160	8010	---	---	---
27	3800	1140	2290	10100	5800	7330	10300	5350	7290	---	---	---
28	4000	762	1960	9470	5480	6990	13700	4520	8260	---	---	---
29	---	---	---	9620	4580	6580	9210	3770	---	---	---	---
30	---	---	---	7630	3240	5030	6790	4970	6340	---	---	---
31	---	---	---	8180	3440	5180	---	---	---	---	---	---
MONTH	21500	444	7530	20400	585	5980	---	194	---	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	---	---	---	---	---	---	21900	15000	17300	19500	12000	15300
2	---	---	---	---	---	---	22100	15500	17700	19400	11900	15100
3	---	---	---	24100	16200	18700	22200	16200	17900	19800	11600	14500
4	---	---	---	22400	15200	17700	22300	16900	19000	20000	12100	15700
5	---	---	---	22400	15000	17100	24100	17400	19500	21100	13200	16200
6	---	---	---	21100	14400	16800	23900	17200	19000	20000	12700	16400
7	---	---	---	21900	14800	16900	22200	17200	19000	21000	12700	16600
8	---	---	---	21000	14000	16200	22900	17500	19200	23000	12500	16300
9	---	---	---	21000	14500	16700	22800	17200	19300	22800	13700	17600
10	---	---	---	19200	13300	15500	23500	16200	19200	24600	13900	18600
11	---	---	---	20100	12700	16700	24000	16000	19100	24300	14400	20000
12	---	---	---	20900	12700	17200	23300	16000	19500	22100	13400	16800
13	---	---	---	22300	12300	18400	25500	18000	21300	20100	12700	15700
14	---	---	---	23600	13100	18500	25700	17200	20400	20000	12300	15900
15	---	---	---	24300	13800	18200	25700	16600	20700	19800	13200	16200
16	---	---	---	23600	14400	18500	24300	17100	20600	19800	12800	16200
17	---	---	---	24200	13500	18200	22400	15500	19100	21100	13300	16700
18	---	---	---	22700	14500	17600	22200	15100	18400	21100	13100	17000
19	---	---	---	21000	15300	17400	22800	14500	18400	20100	13900	16500
20	---	---	---	22200	15800	18000	22800	15500	18800	20300	13100	16300
21	---	---	---	22000	15500	17900	24400	16500	20700	18200	12300	15000
22	---	---	---	21900	15100	17800	23000	13500	18700	20600	14400	16500
23	---	---	---	21800	15300	17900	21100	13100	15900	18300	14100	15800
24	---	---	---	21900	15800	18600	20400	12400	15400	21100	13100	16000
25	---	---	---	22900	16000	18100	21600	12700	15400	24100	13800	17400
26	---	---	---	20600	15400	17600	21900	12500	15500	22500	15500	18300
27	---	---	---	21600	15600	18000	21000	12500	15900	23600	15500	17900
28	---	---	---	20000	14500	17000	21100	12700	16300	26700	16400	19500
29	---	---	---	19300	13600	15800	21300	12300	15400	27200	15500	20100
30	---	---	---	18800	14200	16100	20700	12300	15300	21800	15300	17800
31	---	---	---	21700	15300	17100	21800	11700	15600	---	---	---
MONTH	---	---	---	---	---	---	25700	11700	18200	27200	11600	16800

HUDSON RIVER BASIN

01376304 HUDSON RIVER SOUTH OF HASTINGS-ON-HUDSON, NY--Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	20.0	19.5	20.0	---	---	---	7.0	6.5	6.5	3.5	2.0	3.0
2	20.0	19.5	19.5	14.0	12.5	13.0	7.5	7.0	7.0	3.5	2.0	3.0
3	19.5	18.5	19.5	13.0	11.5	12.5	7.5	6.5	7.0	4.0	2.5	3.5
4	19.0	17.5	18.5	12.5	11.5	12.0	6.5	5.5	6.0	4.5	3.0	4.0
5	18.5	17.5	18.0	13.0	11.5	12.0	6.5	5.5	6.0	4.5	3.5	4.0
6	18.0	17.0	17.5	13.0	12.0	12.5	6.5	5.0	5.5	4.5	3.5	4.0
7	18.0	17.0	17.5	13.0	12.5	13.0	5.5	4.5	5.0	4.0	3.0	3.5
8	18.0	17.0	17.5	13.5	13.0	13.0	5.0	4.5	4.5	---	2.5	---
9	18.0	17.0	17.5	13.5	13.0	13.5	5.0	4.0	4.5	4.0	2.0	3.0
10	17.5	17.0	17.5	13.5	13.0	13.5	4.5	4.0	4.0	4.0	2.5	3.0
11	17.0	16.5	17.0	13.5	12.5	13.0	4.0	4.0	4.0	3.0	1.5	2.0
12	17.0	16.5	16.5	12.5	11.0	11.5	4.5	4.0	4.0	2.0	.5	1.0
13	16.5	16.5	16.5	11.5	10.5	11.0	4.5	4.0	4.0	1.5	.0	.5
14	16.5	16.0	16.5	11.0	10.0	10.5	4.5	4.0	4.0	1.5	.0	.5
15	16.0	15.5	16.0	10.5	9.0	9.5	4.5	4.0	4.5	1.5	.0	.5
16	16.0	16.0	---	10.0	8.5	9.5	4.5	4.5	4.5	1.5	.0	1.0
17	16.0	16.0	16.0	9.5	8.0	9.0	5.0	4.5	4.5	.5	.0	.0
18	16.5	16.0	16.0	9.5	8.0	8.5	5.0	4.5	5.0	1.0	.0	.0
19	16.0	15.0	15.5	9.5	8.5	9.0	5.0	4.5	5.0	1.0	.0	.0
20	15.5	15.0	15.5	---	---	---	5.0	3.0	4.0	.5	.0	.0
21	16.5	15.5	15.5	8.5	---	---	3.5	3.0	3.0	.5	.0	.0
22	16.5	15.5	16.0	8.5	7.5	8.0	4.0	2.5	3.0	1.0	.0	.0
23	16.5	16.0	16.0	8.0	7.5	7.5	4.0	2.5	3.0	.5	.0	.0
24	16.5	16.0	16.0	8.0	7.5	7.5	4.0	2.5	3.0	.5	.0	.0
25	16.5	16.0	16.0	8.0	7.5	7.5	3.5	2.5	3.0	1.0	.0	.5
26	16.0	16.0	16.0	8.0	7.5	7.5	3.0	2.5	2.5	.5	.0	.0
27	16.0	15.5	16.0	7.5	6.5	7.0	3.5	2.5	3.0	.5	.0	.0
28	---	15.5	---	7.5	6.5	7.0	3.5	3.0	3.0	1.0	.0	.5
29	---	---	---	7.0	6.0	6.5	3.5	3.5	3.5	.5	.0	.0
30	---	---	---	7.0	6.0	6.5	4.0	3.5	4.0	.5	.0	.0
31	---	---	---	---	---	---	4.0	3.0	3.5	1.5	.0	.5
MONTH	---	---	---	---	---	---	7.5	2.5	4.5	---	.0	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	1.5	.0	.5	3.0	2.5	2.5	---	5.0	---	12.0	11.0	11.5
2	1.5	.0	1.0	3.0	2.5	3.0	6.0	5.0	5.5	12.0	11.5	11.5
3	1.5	.5	1.0	3.0	2.5	2.5	6.0	5.0	5.5	12.0	11.5	12.0
4	2.0	.5	1.0	3.5	2.5	3.0	6.5	5.5	6.0	12.5	11.5	12.0
5	2.0	1.0	1.5	3.5	2.5	2.5	7.5	5.5	6.0	13.0	11.5	12.0
6	1.5	1.0	1.5	3.5	2.5	3.0	7.5	6.0	7.0	12.5	12.0	12.0
7	1.5	1.0	1.5	3.0	2.5	3.0	9.0	6.5	7.5	12.5	11.5	12.0
8	1.5	1.0	1.5	3.0	2.5	3.0	9.0	---	---	12.0	11.0	12.0
9	1.5	1.0	1.0	3.0	2.5	3.0	8.0	7.5	8.0	12.0	11.5	11.5
10	1.5	.5	1.0	3.5	2.5	3.0	7.5	6.5	7.0	12.0	11.5	12.0
11	1.0	.5	1.0	3.5	3.0	3.0	7.5	6.5	7.0	12.5	11.5	12.0
12	1.5	.5	1.0	3.5	2.5	3.0	7.0	7.0	7.0	13.0	12.0	12.5
13	1.0	.0	.5	3.0	2.5	3.0	8.0	7.0	7.5	13.0	12.5	13.0
14	1.5	.5	1.0	3.5	3.0	3.0	8.0	7.0	7.5	---	---	---
15	1.0	.5	1.0	3.5	3.0	3.0	8.5	7.5	8.0	---	---	---
16	1.0	.0	.5	3.0	2.5	3.0	9.5	8.0	8.5	---	---	---
17	1.5	.5	1.0	3.5	2.5	3.0	9.0	8.0	9.0	---	---	---
18	1.5	.5	1.0	3.5	3.0	3.0	9.0	8.0	8.5	---	---	---
19	2.0	1.0	1.5	4.0	3.0	3.5	8.5	8.0	8.0	---	---	---
20	2.5	1.5	2.0	4.0	3.5	3.5	9.0	8.0	8.5	---	---	---
21	2.5	2.0	2.0	4.5	3.5	4.0	9.5	8.5	9.0	---	---	---
22	3.0	2.5	3.0	5.0	4.0	4.5	10.5	8.5	9.5	---	---	---
23	3.0	2.5	2.5	4.5	4.0	4.5	10.0	9.0	9.5	---	---	---
24	3.0	2.5	2.5	4.5	3.5	4.0	10.0	9.0	9.5	---	---	---
25	2.5	1.5	2.0	4.5	4.0	4.5	10.0	9.0	9.5	---	---	---
26	2.5	1.5	2.0	4.5	4.5	4.5	10.5	9.5	10.0	---	---	---
27	3.0	2.0	2.5	5.5	4.0	4.5	11.5	10.0	10.5	---	---	---
28	3.0	2.0	2.5	5.5	5.0	5.0	11.0	10.0	10.5	---	---	---
29	---	---	---	5.5	5.0	5.5	11.5	10.5	---	---	---	---
30	---	---	---	6.5	5.5	6.0	12.0	11.0	11.5	---	---	---
31	---	---	---	6.5	5.5	6.0	---	---	---	---	---	---
MONTH	3.0	.0	1.5	6.5	2.5	3.5	---	---	---	---	---	---

HUDSON RIVER BASIN

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01376304 HUDSON RIVER SOUTH OF HASTINGS-ON-HUDSON, NY--Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	---	---	---	26.0	24.0	25.0	25.0	23.5	24.0
2	---	---	---	---	---	---	26.0	24.5	25.0	25.0	24.0	24.5
3	---	---	---	25.0	23.0	24.0	26.0	24.5	25.0	24.5	24.0	24.5
4	---	---	---	25.0	23.5	24.0	25.5	24.5	25.0	24.0	23.0	23.5
5	---	---	---	25.5	23.5	24.0	25.5	24.0	25.0	23.5	22.5	23.0
6	---	---	---	25.0	23.5	24.0	25.5	24.0	24.5	23.5	22.5	23.0
7	---	---	---	24.5	23.5	24.0	25.5	24.0	24.5	23.0	22.5	23.0
8	---	---	---	25.0	23.5	24.5	25.0	24.0	24.5	23.0	22.5	23.0
9	---	---	---	25.0	23.5	24.5	26.0	24.0	24.5	22.5	22.0	22.5
10	---	---	---	24.5	24.0	24.5	26.0	24.0	25.0	22.5	21.5	22.0
11	---	---	---	25.0	24.0	24.0	26.0	24.5	25.0	22.0	21.5	22.0
12	---	---	---	25.0	23.5	24.5	25.5	24.5	25.0	23.0	21.5	22.0
13	---	---	---	26.0	23.5	24.5	25.0	24.0	24.5	23.5	22.0	22.5
14	---	---	---	26.5	23.5	25.0	26.0	24.0	25.0	23.5	22.0	22.5
15	---	---	---	27.0	23.5	25.0	26.0	24.0	25.0	23.0	22.0	22.5
16	---	---	---	27.0	23.5	25.5	26.5	24.5	25.0	23.0	22.5	22.5
17	---	---	---	28.0	24.0	25.5	26.5	25.0	25.5	23.0	22.5	22.5
18	---	---	---	27.5	24.5	26.0	26.0	25.0	25.5	23.0	22.5	23.0
19	---	---	---	26.0	25.0	25.5	25.5	24.5	25.0	23.0	22.5	23.0
20	---	---	---	26.0	24.5	25.0	25.0	24.0	24.5	23.0	22.5	22.5
21	---	---	---	25.5	24.5	25.0	24.0	23.5	24.0	23.0	22.0	22.5
22	---	---	---	25.5	24.5	25.0	24.0	23.5	24.0	22.0	21.0	21.5
23	---	---	---	25.0	24.5	25.0	24.0	23.5	23.5	21.5	20.5	21.0
24	---	---	---	25.0	24.0	24.5	24.0	23.5	23.5	21.0	19.5	20.5
25	---	---	---	24.0	23.0	23.5	24.5	23.5	23.5	20.5	19.5	20.0
26	---	---	---	24.5	23.5	24.0	24.5	23.5	24.0	20.5	19.5	20.0
27	---	---	---	25.0	23.5	24.0	24.5	23.5	24.0	20.0	19.0	19.5
28	---	---	---	25.5	24.0	24.5	23.5	23.5	23.5	20.0	19.5	19.5
29	---	---	---	25.5	24.0	24.5	24.0	23.5	23.5	20.0	19.5	19.5
30	---	---	---	25.5	24.0	24.5	24.5	23.0	23.5	19.5	19.0	19.0
31	---	---	---	26.0	24.0	24.5	25.0	23.5	24.0	---	---	---
MONTH	---	---	---	---	---	---	26.5	23.0	24.5	25.0	19.0	22.0

HUDSON RIVER BASIN

RESERVOIRS IN HUDSON RIVER BASIN

01335900 DELTA RESERVOIR.--Lat 43°16'29", long 75°25'43", Oneida County, Hydrologic Unit 02020004, on superstructure of gatehouse at Delta Dam on Mohawk River, and 4 mi upstream from Rome. **DRAINAGE AREA**, 148 mi². **PERIOD OF RECORD**, May 1913 to current year. **REVISED RECORDS**, WDR NY-85-1: Drainage area. **GAGE**, nonrecording gage read daily at 0800. Datum of gage is Barge Canal datum.

Dam completed Aug. 3, 1912, and controlled storage for which records are available began May 1, 1913. Usable capacity 2,800 mil ft³ at crest of spillway, elevation 550.0 ft. Reservoir is used for navigation in Barge Canal. Records provided by New York State Thruway Authority.

EXTREMES FOR PERIOD OF RECORD (1951-96).--Maximum contents observed, 3,136 mil ft³, June 22, 1972, Apr. 17, 1994, elevation, 552.8 ft; minimum observed, 2.0 mil ft³, Jan. 10, 13, 16-21, Feb. 7-15, Feb. 22 to Mar. 2, 1959, elevation, 492.0 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 2,956 mil ft³, May 4, elevation, 551.3 ft; minimum observed, 1,860 mil ft³, Sept. 28-29, elevation, 541.2 ft.

01343900 HINCKLEY RESERVOIR.--Lat 43°18'41", long 75°06'30", Oneida County, Hydrologic Unit 02020004, on south side of north gatehouse at Hinckley Dam on West Canada Creek at Hinckley, and 2.2 mi east of Prospect. **DRAINAGE AREA**, 372 mi². **PERIOD OF RECORD**, March 1914 to current year. **REVISED RECORDS**, WDR NY-85-1: Drainage area. **GAGE**, water-stage recorder. Datum of gage is Barge Canal datum.

Reservoir is formed by earth and concrete dam; storage began March 1914. Usable capacity 3,320 mil ft³ between elevation 1,173.5 and 1,225.0 ft. Elevation of inverts of four 60-inch discharge pipes at north end of spillway is 1,169.5 ft, and elevation of inverts of two 42-inch pipes at south end for diverting water to city of Utica is 1,164.25 ft. Crest of Ogee spillway is at elevation 1,225.0 ft. Length of spillway is 400 ft. Area of water surface at crest elevation is 4.46 mi². Telephone gage-height telemeter at station. Records provided by New York Power Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 4,041 mil ft³, Oct. 2, 1945, elevation, 1,230.2 ft; minimum observed (after initial filling), not determined.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 3,625 mil ft³, Dec. 3, elevation, 1,227.3 ft; minimum, 694 mil ft³, Mar. 22, elevation, 1,193.3 ft.

01350100 SCHONARIE RESERVOIR (see station for mean daily elevations, skeleton capacity table, monthly contents and change in contents).

01363400 ASHOKAN RESERVOIR.--Lat 41°57'01", long 74°12'30", Ulster County, Hydrologic Unit 02020006, at gatehouse located at Dividing Weir Dyke, and 1.6 mi south of Shokan. **DRAINAGE AREA**, 256 mi². **PERIOD OF RECORD**, September 1913 to current year. **REVISED RECORDS**, WDR NY-72-1: 1968. WDR NY-83-1: (M)(m). **GAGE**, nonrecording gage read daily at 0800. Datum of gage is sea level (levels by Board of Water Supply, City of New York).

The reservoir is formed by the masonry Olive Bridge Dam across Esopus Creek and a series of earth embankments between hills. The reservoir is divided into two basins separated by a weir containing a gatehouse. Storage began Sept. 9, 1913. Usable capacity of West basin 47,180 mil gal between minimum operating level elevation 495.50 ft and crest of spillway to East basin, elevation 590.00 ft; dead storage below minimum operating level 2,237 mil gal. Usable capacity of East basin 80,678 mil gal between elevation 500.00 ft and crest of spillway, elevation 587.10 ft; no dead storage. Figures given herein represent total contents for each basin. Reservoir impounds water for diversion into Catskill Aqueduct for New York City water supply (see elsewhere in this section). Any flood spillage enters the Esopus Creek channel below Olive Bridge Dam. Records provided by Department of Environmental Protection, City of New York.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, in West basin, 54,001 mil gal, Mar. 31, 1951, elevation, 594.33 ft, in East basin, 89,411 mil gal, Mar. 31, 1951, elevation, 592.23 ft; minimum observed, in West basin, 9,098 mil gal, Oct. 24, 1926, elevation, 530.56 ft, in East basin, 8,394 mil gal, Oct. 24, 1926, elevation, 525.91 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, in West basin, 52,064 mil gal, Dec. 2, elevation, 592.50 ft, in East basin, 83,530 mil gal, Dec. 3, elevation, 588.80 ft; minimum observed, in West basin, 38,561 mil gal, Aug. 20, elevation, 578.58 ft, in East basin, 50,731 mil gal, Sept. 26, elevation, 567.44 ft.

01366400 RONDOUT RESERVOIR.--Lat 41°47'57", long 74°25'48", Ulster County, Hydrologic Unit 02020007, at release chamber at Merriman Dam on Rondout Creek, 1.1 mi upstream from Brandy Brook, and 1.3 mi northwest of Lackawack. **DRAINAGE AREA**, 95.4 mi². **PERIOD OF RECORD**, May 1951 to current year. **GAGE**, water-stage recorder. Datum of gage is sea level (levels by Board of Water Supply, City of New York).

Reservoir is formed by an earthfill rockfaced dam; storage began May 10, 1951. Initial filling (to crest of spillway) Mar. 28, 1955. Usable capacity 50,048 mil gal between minimum operating level, elevation, 720.00 ft and crest of spillway, elevation, 840.00 ft. Dead storage below elevation 720.00 ft, 2,387 mil gal. Figures given herein represent total contents. Reservoir impounds water from Rondout Creek; water diverted from Cannonsville Reservoir in the Delaware River basin through West Delaware Tunnel; water diverted from Pepacton Reservoir through East Delaware Tunnel; and water diverted from Neversink Reservoir through Neversink-Grahamsville Tunnel. Water is diverted from Rondout Reservoir for New York City water supply through West Branch Tunnel of Delaware Aqueduct (see elsewhere in this section). Records provided by New York City Department of Environmental Protection.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 53,458 mil gal, Apr. 5, 1987, elevation, 841.49 ft; minimum observed (after initial filling), 8,335 mil gal, Oct. 15, 1957, elevation, 748.75 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 52,326 mil gal, May 6, elevation, 839.84 ft; minimum observed, 45,932 mil gal, Nov. 4, elevation, 830.16 ft.

RESERVOIRS IN HUDSON RIVER BASIN--Continued

MONTH-END ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

Date	Elevation (feet) †	Contents (million ft ³)	Change in contents (equivalent in ft ³ /s)	Elevation (feet) *	Contents (million ft ³)	Change in contents (equivalent in ft ³ /s)
01335900 Delta Reservoir				01343900 Hinchlev Reservoir		
Sept. 30	546.2	2,372		1,213.6	2,137	
Oct. 31	544.7	2,210	- 60.5	1,212.7	2,058	- 29.5
Nov. 30	543.5	2,090	- 46.3	1,220.4	2,794	+284
Dec. 31	542.9	2,030	- 22.4	1,224.2	3,224	+161
CAL YR 1996	-	-	- 0.95	-	-	+ 59.1
Jan. 31	543.6	2,100	+ 26.1	1,218.8	2,630	-222
Feb. 28	546.6	2,416	+131	1,206.9	1,583	-433
Mar. 31	546.9	2,449	+ 12.3	1,202.4	1,257	-122
Apr. 30	551.0	2,920	+182	1,226.2	3,477	+856
May 31	550.2	2,824	- 35.8	1,222.9	3,073	-151
June 30	549.5	2,740	- 32.4	1,219.2	2,670	-155
July 31	546.2	2,372	-137	1,215.2	2,278	-146
Aug. 31	543.5	2,090	-105	1,209.9	1,822	-170
Sept. 30	541.2	1,860	- 88.7	1,203.6	1,340	-186
WTR YR 1997	-	-	- 16.2	-	-	- 25.3

Date	Elevation (feet) ††	Contents (million gallons)	Change in contents (equivalent in ft ³ /s)	Elevation (feet) ††	Contents (million gallons)	Change in contents (equivalent in ft ³ /s)	Elevation (feet) **	Contents (million gallons)	Change in contents (equivalent in ft ³ /s)
01363398 Ashokan Reservoir West Basin				01363399 Ashokan Reservoir East Basin			01366400 Rondout Reservoir		
Sept. 30	590.29	49,725		582.92	73,798		834.06	48,459	
Oct. 31	590.21	49,640	- 4.24	587.18	80,812	+350	830.76	46,316	-107
Nov. 30	590.10	49,524	- 5.98	586.59	79,823	- 51.0	832.64	47,531	+ 62.7
Dec. 31	590.27	49,704	+ 8.98	587.52	81,383	+ 77.9	835.01	49,085	+ 77.6
CAL YR 1996	-	-	+ 58.9	-	-	+ 87.9	-	-	+ 16.7
Jan. 31	589.68	49,099	- 30.2	587.00	80,510	- 43.6	834.38	48,670	- 20.7
Feb. 28	590.44	49,884	+ 43.4	587.55	81,433	+ 51.0	837.94	51,038	+131
Mar. 31	590.46	49,905	+ 1.05	587.54	81,416	- 0.85	837.89	51,004	- 1.7
Apr. 30	590.38	49,820	- 4.38	587.49	81,332	- 4.33	838.20	51,213	+ 10.8
May 31	590.14	49,566	- 12.7	587.04	80,577	- 37.7	837.97	51,058	- 7.7
June 30	586.20	45,633	-203	585.56	78,095	-128	836.56	50,113	- 48.7
July 31	582.12	41,766	-193	581.91	72,168	-296	834.02	48,433	- 83.9
Aug. 31	580.69	40,440	- 66.2	574.55	60,728	-571	836.72	50,220	+ 89.2
Sept. 30	580.80	40,542	+ 5.26	568.48	52,130	-443	832.76	47,609	-135
WTR YR 1997	-	-	- 38.9	-	-	- 91.9	-	-	- 3.6

† Elevation at 2400 hours by interpolation.

* Elevation at 2400 hours.

†† Elevation at 0800 hours on last day of month.

** Elevation at 0800 hours on first day of following month.

HUDSON RIVER BASIN

DIVERSIONS IN HUDSON RIVER BASIN

Undetermined diversion at Solsville from Chenango River in Susquehanna River basin into Oriskany Creek in Mohawk River Basin through Oriskany Creek Feeder.

Undetermined diversion from (and occasionally into) Oswego River, tributary to Lake Ontario, through Summit level of Erie (Barge) Canal.

Undetermined diversion from Black River tributary into Lake Ontario through Black River canal into Mohawk River in Hudson River basin.

Undetermined diversion from Hudson River basin to summit level of Champlain (Barge) Canal.

01343899 Diversion from Hinckley Reservoir (see preceding pages) for municipal supply of Utica. Diversion began prior to 1921. Records provided by Utica Board of Water Supply.

01362230 Diversion from Schoharie Reservoir (see station for mean daily discharges) on Schoharie Creek through Shandaken Tunnel to Esopus Creek at lat 42°06'52", long 74°21'51", near Phoenicia, Ulster County. No diversion prior to 1924.

01363401 Diversion from Ashokan Reservoir (see preceding pages) on Esopus Creek through the Catskill Aqueduct for municipal supply of New York City. Completed in 1917. Records provided by Department of Environmental Protection, City of New York.

01366399 Diversion from Rondout Reservoir. Total diversion from Rondout Reservoir to Delaware Aqueduct for municipal supply of City of New York. Rondout Reservoir is a collection basin for diversion from: Cannonsville Reservoir, Pepacton Reservoir, and Neversink Reservoir in the Delaware River basin and the Rondout Creek in the Hudson River basin. Diversion began April 1944 by means of temporary emergency connection to aqueduct. Records provided by Bureau of Water Resources Development, City of New York.

01367630 Diversion from Morris Lake, tributary to Wallkill River, by Newtown Water and Sewer Authority for municipal use in New Jersey. After use the water is released into the Paulins Kill (Delaware River basin). Records available from the Delaware River Basin Commission.

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

Month	01343899 <u>Hinckley Reservoir</u>	01363401 <u>Ashokan Reservoir</u>	01366399 <u>Rondout Reservoir</u>
October.....	28.8	695	1,221
November.....	28.5	619	1,397
December.....	28.2	342	1,304
CAL YR 1996	31.4	521	1,339
January.....	29.6	284	1,465
February.....	30.9	365	1,400
March.....	29.7	245	1,470
April.....	29.6	382	1,189
May.....	28.6	542	1,086
June.....	31.4	720	1,303
July.....	30.6	818	1,313
August.....	30.9	890	1,145
September.....	30.5	884	1,149
WTR YR 1997	29.8	566	1,286

HACKENSACK RIVER BASIN

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01376800 HACKENSACK RIVER AT WEST NYACK, NY

LOCATION.--Lat 41°05'44", long 73°57'52", Rockland County, Hydrologic Unit 02030103, on right bank 20 ft downstream from Penn Central Transportation Co. railroad bridge at West Nyack, 1,000 ft upstream from State Highway 59, and 1.0 mi downstream from DeForest Lake.

DRAINAGE AREA.--30.7 mi².

PERIOD OF RECORD.--December 1958 to current year.

REVISIONS.--WDR NY-90-1: Drainage area.

GAGE.--Water-stage recorder, stop-log control, and crest-stage gage. Datum of gage is 53.50 ft above sea level (levels by Hackensack Water Co.).

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Flow regulated by DeForest Lake (see Reservoirs in Hackensack River Basin). Diversion from gaging station pool for municipal supply for village of Nyack (see Diversions in Hackensack River Basin). Discharge given for this station represents the flow of Hackensack River downstream from this diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,550 ft³/s, Feb. 3, 1973, gage height, 9.38 ft, from floodmarks, from rating curve extended above 840 ft³/s; maximum gage height, 10.52 ft, May 30, 1984; minimum daily discharge, about 2.2 ft³/s, Jan. 13, 1996.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 766 ft³/s, Dec. 2, gage height, 8.26 ft; minimum daily, 11 ft³/s, July 23.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	19	e150	48	53	20	445	40	16	16	14	16
2	19	16	e550	35	53	22	205	36	15	16	14	15
3	20	16	e220	36	49	23	127	78	14	15	13	15
4	19	17	115	37	47	26	96	178	16	13	13	15
5	19	15	83	36	186	25	74	73	15	13	14	15
6	19	15	263	34	138	34	66	68	16	14	13	18
7	19	20	262	32	77	32	62	68	15	15	13	32
8	34	21	395	29	63	28	56	47	14	14	13	37
9	42	48	186	24	52	27	49	43	16	33	13	37
10	26	e70	107	25	43	33	38	41	15	21	13	38
11	21	e50	91	25	39	42	30	34	16	13	13	43
12	20	e45	114	22	33	42	37	27	15	13	14	39
13	20	e40	112	19	32	35	77	25	93	14	15	40
14	20	e30	237	17	40	62	71	22	62	15	16	39
15	20	e30	213	17	57	218	50	20	15	17	14	40
16	21	e20	104	65	55	92	40	18	18	16	13	39
17	21	e20	86	82	49	62	36	20	15	14	22	39
18	20	e20	82	51	38	53	50	20	21	14	37	39
19	69	e17	85	37	35	46	57	19	39	14	12	38
20	95	e15	85	28	35	39	41	29	31	14	14	39
21	85	e18	65	24	32	35	34	24	22	14	18	39
22	94	e17	55	21	32	36	30	20	19	23	15	39
23	66	e17	49	27	31	29	26	17	16	11	15	39
24	53	e17	48	26	28	24	27	16	14	16	15	39
25	42	e17	86	327	24	20	22	19	16	19	15	38
26	32	e60	68	137	20	32	20	21	20	14	15	38
27	27	e100	58	68	21	30	18	17	18	15	14	38
28	28	e60	49	169	22	27	63	15	15	24	16	38
29	29	e35	49	138	---	26	72	14	16	14	14	48
30	25	e25	64	70	---	26	51	15	16	13	15	38
31	22	---	58	55	---	337	---	16	---	14	15	---
TOTAL	1065	910	4189	1761	1384	1583	2070	1100	649	491	470	1027
MEAN	34.4	30.3	135	56.8	49.4	51.1	69.0	35.5	21.6	15.8	15.2	34.2
MAX	95	100	550	327	186	337	445	178	93	33	37	48
MIN	18	15	48	17	20	20	18	14	14	11	12	15

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

	31.0	31.4	39.1	44.1	50.2	69.9	73.4	51.9	34.6	34.1	28.0	33.3
MEAN	31.0	31.4	39.1	44.1	50.2	69.9	73.4	51.9	34.6	34.1	28.0	33.3
MAX	84.2	88.6	135	125	152	151	204	162	162	127	83.3	100
(WY)	1990	1976	1997	1978	1973	1961	1983	1989	1972	1984	1966	1975
MIN	7.27	7.59	5.63	8.95	10.3	6.95	9.61	7.04	12.7	11.6	12.3	9.34
(WY)	1967	1967	1967	1967	1967	1981	1966	1965	1981	1977	1981	1962

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1959 - 1997	
ANNUAL TOTAL	21479.0		16699			
ANNUAL MEAN	58.7		45.8		43.6	
HIGHEST ANNUAL MEAN					74.1	
LOWEST ANNUAL MEAN					13.4	
HIGHEST DAILY MEAN	550		550		1320	
LOWEST DAILY MEAN	2.2		11		2.2	
ANNUAL SEVEN-DAY MINIMUM	6.7		13		3.1	
10 PERCENT EXCEEDS	115		85		86	
50 PERCENT EXCEEDS	38		28		24	
90 PERCENT EXCEEDS	15		14		12	

e Estimated

HACKENSACK RIVER BASIN

01377000 HACKENSACK RIVER AT RIVERVALE, NJ

LOCATION.--Lat 40°59'55", long 73°59'27", Bergen County, Hydrologic Unit 02030103, on upstream right bank at bridge on Westwood Avenue in Rivervale, 1.5 mi upstream from Pascack Brook, 4.6 mi upstream from Oradell Dam, and 27.2 mi upstream from mouth.

DRAINAGE AREA.--58.0 mi².

PERIOD OF RECORD.--October 1941 to current year.

REVISED RECORDS.--WDR-NJ-80-1: 1968-79(M).

GAGE.--Water-stage recorder, crest-stage gages, and concrete control. Datum of gage is 22.51 ft above sea level.

REMARKS.--Records good. Flow regulated by De Forest Lake (since Feb. 1956) and Lake Tappan (since 1965), see Hackensack River basin, reservoirs in. Diversions from De Forest Lake and West Nyack, NY, for municipal water supply (see Hackensack River basin, diversions). Water occasionally diverted from Oradell Reservoir to Lake Tappan. Several measurements of water temperature were made during the year. United Water New Jersey gage-height telemeter at station.

COOPERATION.--Gage-height record collected in cooperation with United Water New Jersey.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	38	123	89	110	50	1170	94	38	165	29	67
2	35	38	1130	77	99	51	495	85	42	165	29	66
3	36	38	698	75	92	51	253	133	47	165	29	66
4	34	38	234	74	88	59	186	309	42	159	28	77
5	34	38	155	72	195	57	148	187	37	145	30	78
6	34	38	393	71	290	67	127	138	35	143	25	76
7	34	39	486	66	167	64	114	131	35	140	23	76
8	54	43	710	60	125	58	103	101	34	121	23	76
9	80	65	367	55	103	57	92	95	61	107	23	76
10	48	43	196	58	88	65	79	90	108	100	23	76
11	40	40	152	58	79	75	70	77	108	79	26	80
12	38	40	162	53	73	72	73	65	108	78	32	77
13	38	39	166	49	67	66	129	59	119	76	34	76
14	38	38	383	47	80	97	121	55	244	88	75	76
15	38	38	395	45	105	301	101	51	123	107	103	76
16	37	38	183	111	99	210	86	48	73	92	102	75
17	38	38	157	134	91	130	77	45	56	74	120	74
18	36	38	143	105	80	107	97	44	65	74	102	74
19	114	38	143	83	74	92	102	51	115	74	37	74
20	167	38	145	68	71	81	89	75	91	72	35	74
21	51	38	121	59	66	75	78	64	69	72	43	74
22	44	38	104	54	65	77	71	54	69	74	36	74
23	41	38	95	63	64	69	65	47	73	36	32	74
24	40	38	92	59	60	59	64	44	53	50	32	74
25	38	60	136	566	56	53	58	50	47	84	31	74
26	38	201	120	350	52	68	54	62	43	40	31	74
27	38	109	107	143	51	67	50	52	48	38	31	74
28	42	96	95	247	52	63	136	45	43	41	41	74
29	41	89	89	283	---	60	149	42	39	30	37	72
30	40	79	103	160	---	59	115	39	92	29	66	44
31	39	---	100	120	---	390	---	38	---	29	66	---
TOTAL	1459	1589	7683	3554	2642	2850	4552	2470	2157	2747	1374	2198
MEAN	47.1	53.0	248	115	94.4	91.9	152	79.7	71.9	88.6	44.3	73.3
MAX	167	201	1130	566	290	390	1170	309	244	165	120	80
MIN	34	38	89	45	51	50	50	38	34	29	23	44

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

	MEAN	59.7	70.3	80.9	89.8	92.5	136	140	102	74.2	78.6	70.5	63.8
MAX	312	240	248	251	221	379	438	310	319	339	339	197	177
(WY)	1956	1956	1997	1949	1951	1953	1983	1989	1972	1945	1955	1975	1975
MIN	12.1	16.6	12.6	22.6	23.0	11.2	14.5	20.4	13.4	11.6	11.4	7.87	1953
(WY)	1942	1996	1981	1982	1967	1981	1981	1981	1957	1954	1944	1953	

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1942 - 1997

ANNUAL TOTAL	42915	35275	
ANNUAL MEAN	117	96.6	88.2
HIGHEST ANNUAL MEAN			156
LOWEST ANNUAL MEAN			30.9
HIGHEST DAILY MEAN	1140	1170	2190
LOWEST DAILY MEAN	27	23	4.4
ANNUAL SEVEN-DAY MINIMUM	33	25	5.0
INSTANTANEOUS PEAK FLOW		1620	2530
INSTANTANEOUS PEAK STAGE		5.77	8.08
INSTANTANEOUS LOW FLOW		22	.00
10 PERCENT EXCEEDS	202	159	171
50 PERCENT EXCEEDS	82	72	60
90 PERCENT EXCEEDS	38	37	21

RESERVOIRS IN HACKENSACK RIVER BASIN

01376700 DE FOREST LAKE---Lat 41°06'23", long 73°58'01", Rockland County, NY, Hydrologic Unit 02030103, at dam on Hackensack River, 0.8 mi north of West Nyack, NY. **DRAINAGE AREA**, 27.5 mi². **PERIOD OF RECORD**, February 1956 to current year. **REVISED RECORDS**---WDR NJ-84-1: Drainage area. **GAGE**, water-stage recorder. Datum of gage is sea level. **REMARKS**---Reservoir is formed by earthfill dam with sheet piling cutoff and concrete spillway; dam completed and storage began in February 1956. Crest of dam topped by two 50 ft Bascule gates, 5 ft high. Capacity 5,670,000,000 gal, elevation, 85.00 ft, top of Bascule gates. Flow regulated by 12-inch Howell-Bunger valve at elevation, 59.25 ft and 24-inch Howell-Bunger valve at elevation, 61.25 ft. Reservoir used for storage and water released by United Water New Jersey for municipal water supply. **COOPERATION**---Records provided by United Water New Jersey.

01376950 LAKE TAPPAN---Lat 41°01'05", long 74°00'05", Bergen County, Hydrologic Unit 02030103, at dam on Hackensack River, 0.5 mi north of Old Tappan. **DRAINAGE AREA**, about 49.0 mi². **PERIOD OF RECORD**, October 1966 to current year. **REVISED RECORDS**, WDR NJ-89-1: Capacity. **GAGE**, water-stage recorder. Datum of gage is sea level. **REMARKS**---Reservoir is formed by earthfill dam, completed in 1966. Capacity, 3,853,000,000 gal, elevation, 55.00 ft at top of Bascule gates. Flow regulated by four Bascule gates and one sluice gate. Water is released for diversion at New Milford (diversion discontinued May 1990) and Haworth by United Water New Jersey for municipal water supply. **COOPERATION**---Records provided by United Water New Jersey.

01377450 WOODCLIFF LAKE---Lat 41°01', long 74°03', Bergen County, Hydrologic Unit 02030103, at dam on Pascack Brook, 0.7 mi north of Hillsdale. **DRAINAGE AREA**, 19.4 mi². **PERIOD OF RECORD**, December 1929 to current year. Monthend contents only, prior to September 1953, published in WSP 1302, 1722. **REVISED RECORDS**, WDR NJ-89-1: Capacity. **GAGE**, water-stage recorder. Datum of gage is sea level. **REMARKS**---Reservoir is formed by earthfill dam, completed about 1905. The dam was modified in 1984, which increased capacity, 871,000,000 gal, elevation, 95.00 ft at top of Bascule gates. Flow is regulated by two Bascule gates 85 ft long and 6 ft high each and one 24-inch Ball valve. Water is released for diversion at New Milford (diversion discontinued May 1990) and Haworth by United Water New Jersey for municipal supply. **COOPERATION**---Records provided by United Water New Jersey.

01378480 ORADELL RESERVOIR---Lat 40°57', long 74°02', Bergen County, Hydrologic Unit 02030103, at dam on Hackensack River at Oradell. **DRAINAGE AREA**, 113 mi². **PERIOD OF RECORD**, December 1922 to current year. Monthend contents only, prior to September 1953, published in WSP 1302, 1722. **REVISED RECORDS**---WDR NJ-84-1: Spillway elevation, WDR NJ-89-1: Capacity. **GAGE**, water-stage recorder. Datum of gage is sea level. **REMARKS**---Reservoir is formed by hollow concrete dam, completed in 1922. Capacity at spillway level, 3,507,000,000 gal, elevation, 23.16 ft. Flow regulated by seven sluice gates (7 by 9 ft). Prior to May 1990, water was released for diversion by United Water New Jersey 1 mi downstream from dam for municipal supply. Water is diverted from reservoir at Haworth by United Water New Jersey for municipal supply. **COOPERATION**---Records provided by United Water New Jersey.

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

Date	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft ³ /s)	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft ³ /s)
01376700 DE FOREST LAKE				01376950 LAKE TAPPAN		
Sept. 30.....	83.89	5,313	--	50.66	2,404	--
Oct. 31.....	85.08	5,697	+19.2	54.15	3,550	+57.2
Nov. 30.....	85.15	5,720	+ 1.2	55.24	3,939	+20.1
Dec. 31.....	85.22	5,742	+ 1.1	55.29	3,958	+ .9
CAL YR 1996	-	-	+ 2.6	-	-	+ 5.5
Jan. 31.....	85.21	5,740	- .1	55.27	3,950	- .4
Feb. 28.....	85.07	5,694	- 2.5	55.09	3,886	- 3.5
Mar. 31.....	85.33	5,780	+ 4.3	55.60	4,070	+ 9.2
Apr. 30.....	85.23	5,745	- 1.8	55.29	3,959	- 5.7
May 31.....	84.93	5,646	- 4.9	55.05	3,871	- 4.4
June 30.....	84.98	5,663	+ .9	54.86	3,804	- 3.5
July 31.....	84.34	5,434	-11.4	52.50	2,990	-40.6
Aug. 31.....	83.73	5,261	- 8.6	52.05	2,842	- 7.4
Sept. 30.....	81.01	4,420	-43.4	49.93	2,185	-33.9
WTR YR 1997	-	-	- 3.8	-	-	- .9
01377450 WOODCLIFF LAKE				01378480 ORADELL RESERVOIR		
Sept. 30.....	91.20	663	--	20.55	2,833	--
Oct. 31.....	89.24	562	-5.0	21.21	2,998	+ 8.2
Nov. 30.....	90.54	629	+3.5	21.32	3,026	+ 1.4
Dec. 31.....	91.03	654	+1.2	21.81	3,149	+ 6.1
CAL YR 1996	-	-	+ .6	-	-	+ 3.5
Jan. 31.....	89.65	583	-3.5	21.63	3,103	- 2.3
Feb. 28.....	88.81	541	-2.3	21.56	3,084	- 1.0
Mar. 31.....	91.72	691	+7.5	23.39	3,570	+24.3
Apr. 30.....	90.40	621	-3.6	22.94	3,446	- 6.4
May 31.....	90.63	633	+ .6	20.90	2,920	-26.3
June 30.....	92.72	745	+5.8	19.26	2,526	-20.3
July 31.....	93.55	790	+2.2	22.11	3,227	+35.0
Aug. 31.....	91.79	695	-4.7	19.32	2,541	-34.2
Sept. 30.....	90.42	622	-3.8	19.87	2,670	+ 6.7
WTR YR 1997	-	-	- .2	-	-	- .7

† Elevation at 2400 of the last day of each month.

HACKENSACK RIVER BASIN

DIVERSIONS INTO AND FROM HACKENSACK RIVER BASIN

- 01376272 United Water New Jersey diverts water from Sparkill Creek (Hudson River basin) at foot of Danny Lane in Northvale, 300 ft south of New York-New Jersey state line and 0.6 mi upstream of Sparkill Brook. Water is diverted into Oradell Reservoir on the Hackensack River, for municipal supply. Records provided by United Water New Jersey.
- 01376699 United Water New York diverts water from De Forest Lake for municipal supply in Rockland County, NY. Records provided by United Water New York.
- 01376810 Village of Nyack, NY, diverts water from Hackensack River 100 ft downstream from gaging station on Hackensack River at West Nyack, NY (station 01376800, measured flow includes diversions) for municipal supply. Records provided by Board of Water Commissioners of Nyack, NY.
- 01378490 United Water New Jersey diverts water for municipal supply from Oradell Reservoir at Haworth pumping station (station 01378478) 2.0 mi upstream from gaging station on Hackensack River at New Milford and prior to May 1990 from Hackensack River, at New Milford pumping station just upstream of gaging station on Hackensack River at New Milford, NJ (station 01378500). Diversion from the New Milford pumping station was discontinued in May 1990. Records provided by United Water New Jersey.
- 01378520 United Water New Jersey diverts water from Hirshfeld Brook, a tributary of the Hackensack River, below the gaging station on Hackensack River at New Milford, NJ, for municipal supply. Records provided by United Water New Jersey.
- 01380280 The town of Boonton diverts water from a tributary of Stony Brook about 1 mi downstream from Taylortown Reservoir for Municipal Water Supply. Records furnished by town of Boonton.
- 01388981 United Water New Jersey diverts water from the Wanaque South pumping station on the Pompton River at Two Bridges, 750 ft upstream from the Passaic River, to Oradell Reservoir. Water can also be diverted from Wanaque Reservoir to Oradell Reservoir in the Hackensack River basin. Figures given herein include diversion from both sources. Formerly diversion was from the Ramapo River (station 01387991). Records provided by United Water New Jersey.
- 01390520(revised) United Water New Jersey diverts water from Saddle River (Passaic River basin) 0.3 mi downstream from Grove Street in Paramus, and 0.3 mi upstream from Hohokus Brook. Water is diverted into Oradell Reservoir on the Hackensack River via Musquapsink and Pascack Brooks for municipal supply. Records provided by United Water New Jersey.

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

MONTH	01376699 UNITED WATER NEW YORK	01376810 WEST NYACK, NY	01378490 UNITED WATER NEW JERSEY
October.....	11.7	2.65	133
November.....	11.7	2.32	123
December.....	12.1	2.15	133
CAL YR 1996	11.30	2.38	146
January.....	11.29	2.17	147
February.....	12.11	2.18	131
March.....	7.91	2.16	114
April.....	12.87	2.22	126
May.....	13.20	2.41	137
June.....	16.94	2.60	165
July.....	18.32	2.72	177
August.....	17.28	2.67	162
September.....	13.75	2.78	155
WTR YR 1997	13.26	2.42	142

The following are diversions by pumpage from sources other than the Hackensack River into Oradell Reservoir. These figures are included in diversions from Hackensack River as noted above (station 01378490).

MONTH	01376272 SPARKILL CREEK (HUDSON RIVER BASIN)	01378520 HIRSHFELD BROOK (HACKENSACK RIVER BASIN)	01380280 STONY BROOK TRIBUTARY (TAYLORTOWN, NJ)	01388981 POMPTON RIVER (PASSAIC RIVER BASIN)	01390520 SADDLE RIVER (PASSAIC RIVER BASIN)	WELLS TO SURFACE SUPPLY
October.....	0	1.01	0.610	0.04	4.21	0.40
November.....	0	0	.525	0	0	.21
December.....	0	0	.770	0	0	.35
CAL YR 1996	0	.25	.784	5.41	2.69	.41
January.....	0	0	.776	0	0	.21
February.....	0	0	.739	0	0	.14
March.....	0	0	.651	0	0	.16
April.....	0	0	.718	0	0	.32
May.....	0	0	.924	0	0	.51
June.....	0	0	.697	9.58	0	.40
July.....	0	0	.817	42.73	4.47	.50
August.....	0	0	.759	22.43	2.52	.46
September.....	0	0	.827	34.80	14.2	.45
WTR YR 1997	0	.08	.734	9.13	2.12	.34

PASSAIC RIVER BASIN

187

01387400 RAMAPO RIVER AT RAMAPO, NY

LOCATION.--Lat 41°08'25", long 74°10'08", Rockland County, Hydrologic Unit 02030103, on right bank, 105 ft downstream from highway bridge on New York State Thruway at Ramapo, 500 ft upstream from local bridge, and 0.3 mi upstream from Torne Brook.

DRAINAGE AREA.--86.9 mi².

PERIOD OF RECORD.--Occasional low-flow and/or miscellaneous discharge measurements, water years 1936, 1952, 1956-58, 1977. June 1979 to current year.

REVISED RECORDS.--WDR NY-81-1: 1980(m). WDR NY-90-1: Drainage area.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 297.00 ft above sea level.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Occasional regulation by Lake Sebago.

AVERAGE DISCHARGE.--18 years, 167 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,700 ft³/s, Apr. 5, 1984, gage height, 13.82 ft, from rating curve extended above 3,600 ft³/s on basis of runoff comparison with station 1.5 mi downstream; minimum discharge, 5.3 ft³/s, Aug. 7, 1983, gage height, 1.27 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 6,100 ft³/s, Mar. 12, 1936, by computation of flow over dam.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,050 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 20	1200	*2,920	*7.01	Dec. 14	2100	1,120	4.41
Dec. 2	1630	2,340	6.29	Apr. 1	0500	1,170	4.49
Dec. 8	0630	1,130	4.43				

Minimum discharge, 15 ft³/s, July 23, 24, 28, Aug. 7, 8-12, 13; minimum gage height, 1.51 ft, July 24, 28.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	105	156	345	174	164	114	1090	179	56	25	18	28
2	88	144	2010	162	171	119	839	175	70	23	17	37
3	88	133	1540	165	163	133	811	250	96	23	17	59
4	74	121	900	177	158	131	817	466	95	24	17	63
5	60	112	659	173	277	128	713	342	73	22	17	48
6	53	107	828	169	311	179	531	283	59	20	16	29
7	49	106	873	155	234	170	416	272	49	23	15	22
8	74	132	1080	136	200	146	331	224	45	19	15	25
9	477	288	789	123	176	140	284	214	45	23	15	46
10	390	288	552	121	156	147	239	214	43	45	15	53
11	292	224	445	121	141	166	219	196	38	32	15	88
12	217	190	518	107	127	150	205	174	35	22	15	176
13	181	170	620	98	120	130	287	154	33	20	16	132
14	159	155	931	94	129	157	242	145	36	21	18	101
15	134	144	980	88	162	291	197	134	32	21	19	47
16	112	133	684	144	164	252	179	122	28	20	23	34
17	100	125	541	180	138	220	168	114	26	20	76	29
18	90	121	459	e130	125	209	218	115	39	20	120	26
19	373	119	413	e100	131	192	346	112	97	20	103	23
20	2610	119	388	e90	140	182	300	137	78	20	50	20
21	1540	113	309	87	134	179	252	120	53	20	64	17
22	837	104	266	84	148	173	220	99	40	23	91	18
23	543	98	249	100	151	163	200	85	34	16	60	20
24	424	92	253	106	134	140	186	77	29	19	42	19
25	338	89	357	355	120	129	172	80	26	29	33	19
26	285	382	283	285	112	170	159	119	25	23	28	20
27	243	580	247	198	112	182	147	100	30	16	25	21
28	224	335	228	246	119	158	242	81	29	17	42	20
29	219	264	222	258	---	148	262	69	24	21	61	27
30	191	231	231	197	---	144	210	70	23	17	39	35
31	176	---	209	169	---	497	---	63	---	18	31	---
TOTAL	10746	5375	18409	4792	4417	5439	10482	4985	1386	682	1133	1302
MEAN	347	179	594	155	158	175	349	161	46.2	22.0	36.5	43.4
MAX	2610	580	2010	355	311	497	1090	466	97	45	120	176
MIN	49	89	209	84	112	114	147	63	23	16	15	17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 1997, BY WATER YEAR (WY)

	MEAN	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
MEAN	106	175	220	183	198	304	343	205	107	64.1	50.8	57.3								
MAX	352	437	642	594	424	774	802	704	267	291	270	206								
(WY)	1990	1996	1984	1996	1981	1983	1984	1989	1982	1996	1990	1987								
MIN	14.5	19.8	39.9	16.8	46.8	122	84.9	74.1	27.1	13.7	10.7	10.8								
(WY)	1985	1985	1981	1981	1980	1981	1985	1995	1987	1993	1981	1981								

e Estimated

PASSAIC RIVER BASIN

01387400 RAMAPO RIVER AT RAMAPO, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1979 - 1997	
ANNUAL TOTAL	105782		69148		167	
ANNUAL MEAN	289		189		284	1984
HIGHEST ANNUAL MEAN					80.4	1985
LOWEST ANNUAL MEAN					6300	Apr 5 1984
HIGHEST DAILY MEAN	3520	Jan 20	2610	Oct 20	7.9	Sep 20 1983
LOWEST DAILY MEAN	18	Aug 31	15	Aug 7	8.1	Sep 1 1981
ANNUAL SEVEN-DAY MINIMUM	19	Aug 29	15	Aug 6	354	
10 PERCENT EXCEEDS	609		384		91	
50 PERCENT EXCEEDS	190		129		17	
90 PERCENT EXCEEDS	50		20			

PASSAIC RIVER BASIN

189

01367420 RAMAPO RIVER AT SUFFERN, NY

LOCATION.--Lat 41°07'06", long 74°09'38", Rockland County, Hydrologic Unit 02030103, on left bank, 145 ft downstream from highway bridge on New York State Thruway at Suffern, and 1.1 mi upstream from Mahwah River.

DRAINAGE AREA.--93.0 mi².

PERIOD OF RECORD.--June 1979 to current year.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 264.44 ft above sea level.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Flow affected by diversion from United Water New York well field upstream from station and by occasional regulation by Lake Sebago.

AVERAGE DISCHARGE.--18 years, 174 ft³/s, unadjusted.

COOPERATION.--Figures of pumpage from well field provided by United Water New York.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,300 ft³/s, Apr. 5, 1984, gage height, 15.38 ft, from rating curve extended above 5,400 ft³/s; minimum discharge, 1.7 ft³/s, Sept. 7, 1995, gage height, 1.04 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 6,600 ft³/s, Mar. 12, 1936, by computation of flow over dam at site 0.65 mi upstream, drainage area, 90.6 mi².

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,100 ft³/s and maximum(*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 20	1045	*3,030	*9.19	Dec. 14	2030	1,130	5.68
Dec. 2	1645	2,470	8.31	Apr. 1	0530	1,150	5.72
Dec. 8	0430	1,180	5.78				

Minimum discharge, 9.5 ft³/s, July 8, Aug. 6, 8, gage height, 1.40 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	102	159	408	179	180	118	1090	195	42	13	12	22
2	84	140	2190	161	189	127	867	187	55	13	11	27
3	82	125	1630	164	175	140	834	285	80	13	12	47
4	71	113	936	183	165	141	836	507	76	13	11	51
5	58	104	705	175	318	139	746	375	55	12	11	40
6	52	99	885	163	346	202	576	315	43	11	11	23
7	48	96	926	143	262	188	461	298	36	14	11	17
8	78	128	1130	124	225	163	370	246	32	11	11	17
9	519	313	841	112	201	153	319	238	31	14	12	36
10	437	313	612	114	176	169	270	236	29	33	11	42
11	323	243	500	111	155	193	245	213	25	23	11	87
12	238	207	576	96	142	168	234	185	22	13	11	170
13	202	175	670	92	132	144	321	158	21	12	12	119
14	172	156	973	85	149	182	271	144	25	13	12	88
15	137	140	1010	81	198	335	222	130	21	11	12	43
16	115	127	735	143	189	286	201	115	17	11	16	30
17	102	118	601	173	156	249	185	106	15	11	64	25
18	91	117	512	e120	140	238	238	105	34	12	123	22
19	423	119	465	e95	152	221	372	104	81	11	101	19
20	2750	116	433	83	161	209	326	132	61	12	47	15
21	1630	108	346	81	152	206	276	109	38	12	58	13
22	875	100	300	80	174	195	241	88	28	17	84	13
23	588	92	278	95	172	177	220	74	22	11	54	14
24	466	88	284	99	148	146	205	65	18	16	38	14
25	374	84	399	408	129	134	181	68	15	26	29	13
26	311	421	317	316	118	189	161	107	14	19	24	14
27	268	627	276	219	121	204	146	86	17	13	21	15
28	248	367	251	281	126	172	274	67	18	12	35	14
29	240	289	244	286	---	155	288	55	13	16	54	21
30	212	255	256	220	---	151	231	54	12	12	34	26
31	189	---	225	183	---	527	---	49	---	13	25	---
TOTAL	11485	5539	19914	4865	4951	6021	11207	5096	996	443	978	1097
MEAN	370	185	642	157	177	194	374	164	33.2	14.3	31.5	36.6
MAX	2750	627	2190	408	346	527	1090	507	81	33	123	170
MIN	48	84	225	80	118	118	146	49	12	11	11	13
†	11	11	11	11	11	10	11	12	12	11	10	10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 1997, BY WATER YEAR (WY)

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
MEAN	109	188	229	195	209	315	357	217	103	62.0	50.7	58.1							
MAX	389	496	693	654	475	816	862	777	269	308	305	219							
(WY)	1990	1996	1984	1996	1981	1983	1984	1989	1982	1996	1990	1987							
MIN	11.0	17.1	29.6	6.84	49.7	128	77.1	79.4	19.2	8.03	7.40	8.17							
(WY)	1985	1985	1981	1981	1980	1981	1985	1995	1995	1993	1993	1995							

e Estimated

† Diversion, in cubic feet per second, by pumpage from well field upstream of station.

PASSAIC RIVER BASIN

01387420 RAMAPO RIVER AT SUFFERN, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1979 - 1997	
ANNUAL TOTAL	112738		72592			
ANNUAL MEAN	308		199		174	
ANNUAL MEAN (+)	12		11			
HIGHEST ANNUAL MEAN					295	1984
LOWEST ANNUAL MEAN					78.2	1985
HIGHEST DAILY MEAN	3950	Jan 20	2750	Oct 20	7110	Apr 5 1984
LOWEST DAILY MEAN	11	Sep 1	11	Jul 6	2.3	Sep 7 1995
ANNUAL SEVEN-DAY MINIMUM	12	Aug 31	11	Aug 2	3.1	Sep 7 1995
10 PERCENT EXCEEDS	645		427		372	
50 PERCENT EXCEEDS	200		128		90	
90 PERCENT EXCEEDS	48		13		13	

* Diversion, in cubic feet per second, by pumpage from well field upstream of station.

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LOCATION.--Lat 41°05'51", long 74°09'48", Bergen County, Hydrologic Unit 02030103, on left bank 350 ft downstream from State Highway 17, 0.6 mi downstream from Mahwah River, and 1.0 mi west of Mahwah. Water-quality samples collected at bridge, 350 ft upstream from gage, at high flows.

PERIOD OF RECORD.--October 1902 to December 1906, September 1922 to current year. October 1902 to February 1905 monthly discharge only, published in WSP 1302. Figures of daily discharge Feb. 10, 1903, to Dec. 31, 1904, published in WSP 97, 125, are unreliable and should not be used. Gage-height records for 1903-14 are contained in reports of the National Weather Service.

GAGE.--Water-stage recorder. Datum of gage is 253.10 ft above sea level. Prior to Dec. 31, 1906, nonrecording gage on former bridge at site 250 ft downstream at different datum. Sept. 1, 1922, to Dec. 23, 1936, water-stage recorder just below former bridge at present datum.

REMARKS.--Records fair. Flow affected by diversion from United Water New York well field upstream from station (see station 01387420). Occasional regulation from lakes and ponds upstream from the station. Several measurements of water temperature were made during the year. Satellite telemeter at station.

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 20	1115	*3,300	*8.59	Dec. 8	0515	1,450	6.57
Dec. 2	0730	2,810	8.15	Apr. 1	0245	1,420	6.52

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	116	193	510	234	225	148	1330	232	61	23	18	43
2	96	175	2470	222	230	160	999	218	81	23	18	35
3	96	159	1830	225	216	172	927	366	107	26	17	51
4	76	145	1060	235	207	176	907	599	96	24	18	54
5	62	138	785	227	441	173	796	442	72	21	19	47
6	55	130	1100	218	431	242	627	379	59	20	18	31
7	52	130	1130	193	315	219	517	353	51	40	17	25
8	123	173	1370	168	267	194	427	288	47	25	17	24
9	591	394	995	153	237	182	369	284	45	28	17	40
10	484	360	703	160	214	207	313	275	43	52	16	45
11	348	271	586	152	195	227	283	242	38	34	16	162
12	248	226	655	130	181	201	285	215	35	23	15	175
13	205	199	746	122	169	175	404	190	41	21	20	126
14	182	182	1190	116	203	253	321	177	48	21	23	92
15	153	168	1180	110	253	435	259	162	34	19	17	50
16	131	154	837	247	235	345	233	143	29	19	29	35
17	119	145	678	238	199	290	222	133	27	18	108	30
18	106	143	587	e145	179	274	279	130	104	20	230	27
19	559	145	543	e120	191	250	424	145	252	19	119	24
20	3000	140	509	112	201	239	373	182	98	18	60	22
21	1840	134	416	108	190	233	311	139	59	19	99	20
22	1010	124	363	108	212	224	268	114	63	44	103	20
23	673	116	336	133	207	206	243	97	40	20	64	20
24	536	110	358	133	182	177	226	91	32	51	47	20
25	429	105	487	622	161	164	208	107	29	76	38	20
26	354	582	384	386	150	230	190	143	28	31	32	21
27	303	726	332	255	154	231	173	109	35	22	29	22
28	288	413	304	398	157	199	364	87	31	22	69	20
29	276	319	303	360	---	185	345	73	24	25	69	54
30	239	278	314	258	---	180	262	72	23	19	44	37
31	217	---	274	222	---	730	---	68	---	19	34	---
TOTAL	12967	6677	23335	6510	6202	7321	12885	6255	1732	842	1440	1392
MEAN	418	223	753	210	222	236	430	202	57.7	27.2	46.5	46.4
MAX	3000	726	2470	622	441	730	1330	599	252	76	230	175
MIN	52	105	274	108	150	148	173	68	23	18	15	20
CFSM	3.49	1.85	6.27	1.75	1.85	1.97	3.58	1.68	.48	.23	.39	.39
IN.	4.02	2.07	7.23	2.02	1.92	2.27	3.99	1.94	.54	.26	.45	.44

MEAN	146	227	278	267	279	442	405	257	151	99.8	100	107
MAX	954	736	873	877	701	1151	1055	994	735	602	755	478
(WY)	1904	1978	1984	1979	1970	1936	1984	1989	1972	1945	1955	1927
MIN	13.8	24.4	43.4	16.5	70.8	144	88.4	79.5	30.7	15.8	11.3	11.1
(WY)	1942	1965	1981	1981	1980	1985	1985	1905	1995	1993	1993	1964

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1903 - 1997	
ANNUAL TOTAL	132813		87558			
ANNUAL MEAN	363		240		230	
HIGHEST ANNUAL MEAN					461	
LOWEST ANNUAL MEAN					99.5	
HIGHEST DAILY MEAN	3470	Jan 20	3000	Oct 20	8920	Oct 9 1903
LOWEST DAILY MEAN	22	Sep 3	15	Aug 12	1.2	Aug 12 1993
ANNUAL SEVEN-DAY MINIMUM	23	Aug 31	17	Aug 6	3.7	Sep 7 1995
INSTANTANEOUS PEAK FLOW			3300	Oct 20	15500	Apr 5 1984
INSTANTANEOUS PEAK STAGE			8.59	Oct 20	13.35	Apr 5 1984
INSTANTANEOUS LOW FLOW			15	Aug 12	.20	Aug 11 1993
ANNUAL RUNOFF (CFSM)	3.02		2.00		1.91	
ANNUAL RUNOFF (INCHES)	41.17		27.14		25.99	
10 PERCENT EXCEEDS	755		525		510	
50 PERCENT EXCEEDS	256		164		138	
90 PERCENT EXCEEDS	56		22		28	

a From rating curve extended above 6,500 ft³/s.

DELAWARE RIVER BASIN

01413408 DRY BROOK AT ARKVILLE, NY

LOCATION.--Lat 42°08'48", long 74°37'25", Delaware County, Hydrologic Unit 02040102, on left bank 80 ft upstream from bridge on State Route 28, 0.6 mi upstream from mouth, 1.3 mi east of Margaretville, and 4.5 mi west of Fleischmanns.

DRAINAGE AREA.--82.2 mi².

PERIOD OF RECORD.--October to December 1996 (maximum only), December 1996 to September 1997.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,340 ft above sea level, from topographic map.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,880 ft³/s, Nov. 9, 1996, gage height, 12.01 ft, from rating curve extended above 800 ft³/s on basis of runoff comparison with nearby stations; minimum discharge, 9.0 ft³/s, Aug. 12, 13, 1997, gage height, 1.26 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, about 12,000 ft³/s, Jan. 19, 1996, gage height, about 15.5 ft, from floodmarks, on basis of runoff comparison with nearby stations.

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)
Nov. 9	unknown	a*8,880	*12.01	Dec. 2	unknown	a8,060	11.52

a From rating curve extended as explained above.

Minimum discharge, 9.0 ft³/s, Aug. 12, 13, gage height, 1.26 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	276	e64	347	504	224	122	20	10	19
2	---	---	---	271	e66	524	424	228	116	20	10	17
3	---	---	---	301	e66	476	437	332	107	21	9.9	16
4	---	---	---	268	e67	386	736	420	96	20	11	14
5	---	---	533	250	118	342	825	347	88	19	13	13
6	---	---	453	e210	101	424	1020	341	81	17	12	13
7	---	---	366	e190	86	310	1040	300	76	16	12	12
8	---	---	320	e170	e72	e250	765	259	73	16	11	12
9	---	---	267	e160	e56	e230	562	268	67	16	11	12
10	---	---	231	e150	e48	e220	430	318	61	17	10	11
11	---	---	214	e140	e46	217	349	268	56	15	9.5	83
12	---	---	292	e130	e46	189	308	248	52	14	9.3	159
13	---	---	411	e120	e46	e150	336	245	55	14	11	69
14	---	---	439	e120	e48	e150	271	224	50	13	14	47
15	---	---	377	e110	e50	e170	230	204	44	23	13	36
16	---	---	358	e110	e50	e160	210	189	40	50	11	29
17	---	---	529	e90	e52	e140	202	177	41	22	11	25
18	---	---	698	e86	e60	e130	202	162	42	17	11	23
19	---	---	630	e88	110	124	199	211	40	16	11	21
20	---	---	504	e86	181	e120	218	492	35	14	11	20
21	---	---	e370	e86	229	e110	238	343	33	14	17	19
22	---	---	336	e94	763	e120	223	321	30	17	27	18
23	---	---	299	e90	e540	e130	220	279	27	15	28	17
24	---	---	417	e86	e400	e120	225	246	26	14	19	16
25	---	---	503	e100	e310	105	223	243	26	13	15	16
26	---	---	400	e86	284	219	214	217	33	12	14	15
27	---	---	362	e80	437	178	202	187	38	12	15	15
28	---	---	321	e76	400	208	273	167	26	13	18	14
29	---	---	378	e70	---	280	245	152	23	12	38	16
30	---	---	367	e66	---	391	220	142	21	11	27	18
31	---	---	315	e64	---	577	---	133	---	11	21	---
TOTAL	---	---	---	4224	4796	7497	11551	7887	1625	524	460.7	815
MEAN	---	---	---	136	171	242	385	254	54.2	16.9	14.9	27.2
MAX	---	---	---	301	763	577	1040	492	122	50	38	159
MIN	---	---	---	64	46	105	199	133	21	11	9.3	11
CFSM	---	---	---	1.66	2.08	2.94	4.68	3.10	.66	.21	.18	.33
IN.	---	---	---	1.91	2.17	3.39	5.23	3.57	.74	.24	.21	.37

e Estimated

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LOCATION.--Lat 42°08'41", long 74°39'14", Delaware County, Hydrologic Unit 02040102, on right bank at downstream side of bridge on Fair Street at intersection with Main Street at Margaretville, 0.2 mi upstream from unnamed tributary, and 1.6 mi downstream from Dry Brook.

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

REVISED RECORDS.--WDR NY-87-1: 1948(M), 1951(P), 1953(M), 1955-56(M), 1974-75(M), 1977(M), 1978(P), 1980-81(M), 1986(M).

GAGE.--Water-stage recorder. Datum of gage is 1,302.38 ft above sea level. Prior to Sept. 9, 1937, nonrecording gage and Sept. 9, 1937 to Aug. 17, 1944, water-stage recorder, at same site at datum 1.00 ft higher.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--60 years, 307 ft³/s, 25.62 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,800 ft³/s, Jan. 19, 1966, gage height, 14.88 ft, from floodmark in gage well, 16.5 ft from outside floodmarks, from rating curve extended above 16,000 ft³/s on basis of runoff comparison of peak flow from slope-area measurement at site 1.7 mi downstream; minimum discharge, 5.0 ft³/s, Aug. 5, 1964; minimum gage height, 0.89 ft, Sept. 30, Oct. 1, 1943, present datum.

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)
Oct. 20	0515	a7,300	a10.29	Dec. 2	0630	a7,100	a10.17
Nov. 9	0645	*14,500	*12.64				

a About.

Minimum discharge not determined; minimum daily discharge, about 15 ft³/s, Aug. 12.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	108	e285	899	e530	e160	e660	e955	e390	e220	e43	e19	e35
2	96	e260	e4640	e500	e150	e865	e825	e420	e200	e45	e19	e32
3	91	e250	e2080	e590	e140	e800	e855	e530	e190	e47	e20	e30
4	84	e230	e1330	e530	e130	e685	e1400	e710	e170	e43	e20	e27
5	79	e210	e965	e485	e250	e625	e1490	e590	e160	e40	e25	e25
6	73	e200	e820	e490	e230	e790	e1640	e590	e140	e38	e25	e24
7	69	e190	e690	e445	e190	e600	e1650	e560	e130	e36	e23	e23
8	69	e335	e620	e400	e175	e535	e1240	e480	e120	e35	e21	e23
9	186	e7900	e530	e360	e170	e490	e935	e480	e110	e26	e19	e23
10	182	e2600	e460	e330	e170	e450	e750	e620	e100	e28	e19	e21
11	162	e1400	e430	e300	e160	e390	e630	e520	e98	e26	e16	e104
12	138	e980	e530	e280	e150	e360	e570	e470	e94	e24	e15	e280
13	129	756	e745	e270	e150	e330	e640	e460	e100	e22	e20	e100
14	125	627	e810	e250	e150	e320	e520	e420	e90	e21	e32	e70
15	118	531	e710	e240	e150	e350	e450	e375	e80	e27	e26	e55
16	112	469	e680	e230	e145	e300	e410	e345	e74	e95	e21	e47
17	106	420	e900	e230	e150	e290	e400	e335	e76	e50	e19	e44
18	100	395	e1130	e230	e155	e280	e395	e305	e78	e38	e20	e42
19	285	586	e1050	e220	e245	e260	e400	e380	e70	e31	e19	e41
20	e4840	504	e900	e215	e500	e260	e432	e900	e64	e28	e16	e40
21	e2600	432	e710	e210	e510	e250	e500	e640	e55	e26	e31	e37
22	e1800	402	e625	e210	e1360	e340	e450	e560	e50	e34	e55	e35
23	e930	373	e565	e200	e1060	e260	e440	e500	e50	e32	e49	e33
24	e840	356	e760	e200	e820	e210	e440	e470	e50	e27	e36	e32
25	e635	343	e900	e200	e625	e230	e435	e440	e50	e26	e28	e31
26	e520	558	e710	e210	e550	e510	e415	e370	e70	e24	e25	e30
27	e450	520	e660	e210	e860	e430	e390	e320	e70	e24	e25	e30
28	e445	459	e600	e190	e760	e470	e470	e290	e55	e25	e31	e33
29	e410	452	e695	e180	---	e570	e440	e270	e50	e24	e60	e36
30	e350	434	e690	e180	---	e715	e390	e250	e45	e22	e50	e32
31	e320	---	e585	e170	---	e1060	---	e230	---	e20	e40	---
TOTAL	16452	23457	28419	9285	10265	14685	20957	14220	2909	1027	844	1415
MEAN	531	782	917	300	367	474	699	459	97.0	33.1	27.2	47.2
MAX	4840	7900	4640	590	1360	1060	1650	900	220	95	60	280
MIN	69	190	430	170	130	210	390	230	45	20	15	21
CFSM	3.26	4.80	5.62	1.84	2.25	2.91	4.29	2.81	.59	.20	.17	.29
IN.	3.75	5.35	6.49	2.12	2.34	3.35	4.78	3.25	.66	.23	.19	.32

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

MEAN	179	320	371	322	323	552	730	411	200	115	78.3	102
MAX	1059	782	1191	1277	1144	1486	1808	879	554	538	674	685
(WY)	1956	1997	1974	1996	1981	1977	1958	1989	1972	1938	1955	1938
MIN	9.24	10.1	86.4	54.9	55.0	181	187	129	42.9	17.2	13.6	8.52
(WY)	1965	1965	1965	1961	1980	1965	1946	1987	1965	1965	1993	1964

e Estimated

DELAWARE RIVER BASIN

01413500 EAST BRANCH DELAWARE RIVER AT MARGARETVILLE, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1937 - 1997	
ANNUAL TOTAL	206636		143935			
ANNUAL MEAN	565		394		307	
HIGHEST ANNUAL MEAN					489 1978	
LOWEST ANNUAL MEAN					138 1965	
HIGHEST DAILY MEAN	11300	Jan 19	7900	Nov 9	11300	Jan 19 1996
LOWEST DAILY MEAN	35	Sep 2	15	Aug 12	6.0	Sep 25 1964
ANNUAL SEVEN-DAY MINIMUM	37	Aug 31	19	Aug 7	6.8	Sep 21 1964
ANNUAL RUNOFF (CFSM)	3.46		2.42		1.89	
ANNUAL RUNOFF (INCHES)	47.16		32.85		25.62	
10 PERCENT EXCEEDS	1130		814		702	
50 PERCENT EXCEEDS	320		250		169	
90 PERCENT EXCEEDS	72		26		29	

195

e Estimated

DELAWARE RIVER BASIN

01414000 PLATTE KILL AT DUNRAVEN, NY--Continued

SUMMARY STATISTICS

WATER YEARS 1942 - 1997

ANNUAL MEAN	64.1	
HIGHEST ANNUAL MEAN	90.7	1960
LOWEST ANNUAL MEAN	42.4	1962
HIGHEST DAILY MEAN	1430	Mar 22 1948
LOWEST DAILY MEAN	1.1	Sep 26 1943
ANNUAL SEVEN-DAY MINIMUM	1.2	Sep 23 1943
ANNUAL RUNOFF (CFSM)	1.84	
ANNUAL RUNOFF (INCHES)	24.97	
10 PERCENT EXCEEDS	148	
50 PERCENT EXCEEDS	35	
90 PERCENT EXCEEDS	4.4	

197

LOCATION.--Lat 42°06'22", long 74°43'51", Delaware County, Hydrologic Unit 02040102, on left bank 0.4 mi upstream from bridge on New York City Road 9 and Pepacton Reservoir, and 2.7 mi southwest of Dunraven.

DRAINAGE AREA.--25.2 mi².

PERIOD OF RECORD.--February 1937 to current year. Published as "at Arena" 1937-67.

REVISED RECORDS.--WSP 1432: 1937. WDR NY-82-1: Drainage area. WDR NY-84-1: 1979-83.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,298.54 ft Board of Water Supply, City of New York datum. Prior to Oct. 17, 1939, nonrecording gage at site 0.2 mi downstream at different datum. Oct. 17 to Dec. 8, 1939, nonrecording gage at present site at different datum.

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

AVERAGE DISCHARGE.--60 years, 55.0 ft³/s, 29.68 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,380 ft³/s, Jan. 19, 1996, gage height, 12.56 ft, from rating curve extended above 2,740 ft³/s on basis of flow-through-curtvert measurement of peak flow; minimum discharge observed, 1.2 ft³/s, Sept. 25, 26, 1939.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 740 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 20	0515	880	6.88	Dec. 2	0230	3,320	10.51
Nov. 9	unknown	*3,850	a*11.09				

a From floodmark.

Minimum discharge, 2.0 ft³/s, Aug. 9, 10, 11, 12, 13.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	e50	312	103	e30	102	126	73	39	7.6	2.5	8.5
2	15	e47	1150	98	e28	134	115	73	37	7.5	2.5	7.3
3	14	e44	273	105	e26	126	117	104	35	7.8	2.5	6.7
4	13	e41	184	99	e25	107	163	123	31	7.0	2.6	6.2
5	13	e38	141	99	66	104	182	106	29	6.4	2.6	5.7
6	12	e36	129	98	49	111	225	102	27	6.3	2.5	5.3
7	11	e34	123	93	41	100	241	96	25	6.0	2.4	5.0
8	12	e300	114	e80	e35	90	168	85	24	5.5	2.3	4.9
9	22	e1500	102	e72	e30	79	128	83	22	5.2	2.2	4.5
10	25	e500	93	e66	e27	76	111	90	21	5.3	2.2	4.2
11	24	e250	90	e60	e25	71	99	82	19	5.1	2.2	38
12	22	e180	119	e52	e24	62	91	76	19	4.7	2.2	70
13	20	e140	155	e50	e24	51	97	76	18	4.4	3.4	32
14	20	e110	156	e45	e25	50	84	70	17	4.2	2.7	23
15	19	92	134	e44	e26	62	75	65	14	4.1	2.5	19
16	19	83	129	e40	e28	46	68	61	14	4.7	2.7	16
17	18	75	154	e35	e30	46	64	57	14	5.0	2.6	14
18	17	73	177	e34	33	43	63	52	14	4.7	3.8	12
19	26	100	158	e33	48	39	62	78	14	4.1	2.6	11
20	485	88	130	e35	71	39	64	129	13	3.7	2.9	11
21	273	80	122	e40	97	36	65	107	13	3.8	4.9	10
22	167	73	111	e36	217	50	62	100	12	4.4	5.7	9.1
23	118	68	104	e31	169	39	62	89	10	3.9	6.4	8.6
24	114	64	131	e35	120	35	61	79	9.9	3.6	5.2	8.0
25	78	65	137	62	96	33	60	77	10	3.3	4.5	7.4
26	e66	109	126	47	86	74	58	70	12	3.1	4.2	7.1
27	52	104	120	e45	104	64	55	61	12	3.1	3.9	6.7
28	56	97	111	e40	108	78	79	54	9.9	3.0	6.5	6.6
29	e60	92	117	e37	---	106	74	49	8.9	2.8	14	7.1
30	e58	87	120	e35	---	124	69	46	8.3	2.7	11	8.3
31	e54	---	110	e32	---	147	---	43	---	2.6	9.4	---
TOTAL	1920	4620	5332	1781	1688	2324	2988	2456	552.0	145.6	127.6	383.2
MEAN	61.9	154	172	57.5	60.3	75.0	99.6	79.2	18.4	4.70	4.12	12.8
MAX	485	1500	1150	105	217	147	241	129	39	7.8	14	70
MIN	11	34	90	31	24	33	55	43	8.3	2.6	2.2	4.2
CFSM	2.46	6.11	6.83	2.28	2.39	2.97	3.95	3.14	.73	.19	.16	.51
IN.	2.83	6.82	7.87	2.63	2.49	3.43	4.41	3.63	.81	.21	.19	.57

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

MEAN	34.4	65.1	68.4	53.9	55.8	93.6	127	72.2	34.4	22.2	15.1	20.2
MAX	128	158	210	171	206	216	294	171	84.4	136	87.9	116
(WY)	1978	1960	1974	1996	1981	1948	1940	1940	1972	1945	1955	1938
MIN	1.80	1.68	20.0	6.64	12.4	27.3	34.6	23.5	7.49	3.29	2.47	1.77
(WY)	1965	1965	1944	1981	1987	1965	1946	1995	1962	1993	1993	1964

e Estimated

DELAWARE RIVER BASIN

01414500 MILL BROOK NEAR DUNRAVEN, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1937 - 1997	
ANNUAL TOTAL	32210.6		24317.4			
ANNUAL MEAN	88.0		66.6		55.0	
HIGHEST ANNUAL MEAN					83.3	1960
LOWEST ANNUAL MEAN					28.1	1965
HIGHEST DAILY MEAN	2080	Jan 19	1500	Nov 9	2080	Jan 19 1996
LOWEST DAILY MEAN	5.0	Sep 15	2.2	Aug 9	1.2	Sep 25 1939
ANNUAL SEVEN-DAY MINIMUM	5.4	Sep 11	2.3	Aug 6	1.4	Nov 12 1964
ANNUAL RUNOFF (CFSM)	3.49		2.64		2.18	
ANNUAL RUNOFF (INCHES)	47.55		35.90		29.68	
10 PERCENT EXCEEDS	164		127		120	
50 PERCENT EXCEEDS	53		44		32	
90 PERCENT EXCEEDS	11		4.2		5.8	

DELAWARE RIVER BASIN

199

01415000 TREMPER KILL NEAR ANDES, NY

LOCATION.--Lat 42°07'12", long 74°49'08", Delaware County, Hydrologic Unit 02040102, on right bank 500 ft upstream from bridge on County Highway 1, about 1,700 ft upstream from Pepacton Reservoir, and 5 mi south of Andes.

DRAINAGE AREA.--33.2 mi².

PERIOD OF RECORD.--February 1937 to current year. Published as "near Shavertown" 1937-67.

REVISED RECORDS.--WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Concrete control since Nov. 1937. Datum of gage is 1,285.87 ft above sea level. Prior to Aug. 5, 1937, nonrecording gage at site 500 ft downstream at different datum. Aug. 5 to Sept. 28, 1937, nonrecording gage at site 0.25 mi downstream at different datum.

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

AVERAGE DISCHARGE.--60 years, 58.8 ft³/s, 24.07 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,000 ft³/s, Jan. 19, 1996, gage height, 7.69 ft, from floodmark in gage well, from rating curve extended above 2,900 ft³/s on basis of runoff comparison from contracted-opening measurement at site 0.7 mi upstream; maximum gage height, 7.92 ft, Jan. 26, 1976 (ice jam); minimum discharge, 0.5 ft³/s, Sept. 17, 21, 22, 1964.

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)
Oct. 20	unknown	a1,000	b4.86	Dec. 2	unknown	a2,000	b6.09
Nov. 9	unknown	a*2,700	b*6.76				

a About

b From crest-stage gage.

Minimum discharge, 1.8 ft³/s, Aug. 11, 13, gage height, 2.22 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	56	261	e100	26	166	211	47	33	6.1	2.3	5.4
2	19	51	e1200	101	24	209	184	49	32	7.2	2.1	4.5
3	19	48	421	118	23	181	201	99	30	7.7	2.4	4.0
4	17	43	259	108	21	155	312	135	26	6.1	4.6	3.5
5	16	39	183	103	55	138	297	116	23	5.3	3.8	3.1
6	15	36	160	107	46	185	271	131	22	4.9	3.4	2.9
7	14	34	131	93	38	133	220	114	21	4.6	3.0	2.8
8	14	e600	116	e74	e30	118	170	97	20	4.6	2.6	2.9
9	35	e1600	97	e70	e26	102	137	104	18	4.5	2.3	2.7
10	35	466	81	e64	e23	98	112	147	17	5.2	2.1	2.5
11	29	265	74	e54	e21	86	91	125	16	4.4	1.9	27
12	24	181	109	e52	e20	e60	81	113	15	3.9	2.0	31
13	22	138	194	e48	e21	e50	93	107	17	3.7	5.0	15
14	22	112	206	e45	e21	e52	68	90	15	3.5	6.6	10
15	21	91	175	e45	e22	64	57	75	13	3.5	3.8	8.0
16	19	74	157	e44	e22	e48	52	66	12	9.5	3.3	6.1
17	19	66	197	e42	e23	e45	52	61	13	6.4	2.9	5.2
18	18	66	219	e41	26	43	53	54	14	5.2	3.2	5.5
19	22	125	208	e39	40	41	56	88	13	4.4	2.7	4.6
20	e750	96	167	e37	86	41	63	197	12	4.0	2.3	4.8
21	e350	85	e120	e35	126	39	63	136	12	4.0	6.9	4.8
22	e220	78	113	e33	394	e60	54	123	9.9	6.1	6.1	4.0
23	160	72	100	e32	290	e40	51	102	9.4	4.6	4.9	3.9
24	151	66	174	e27	201	e32	50	85	8.7	4.0	4.0	4.1
25	114	66	172	46	144	e33	49	82	10	3.7	3.3	3.8
26	93	145	140	38	e110	135	45	67	20	3.3	3.0	3.9
27	78	118	126	e33	230	106	42	52	17	3.2	3.0	3.5
28	99	109	113	31	196	122	59	45	10	4.3	12	3.6
29	84	100	146	e30	---	150	50	40	8.4	3.7	14	4.2
30	71	87	132	e28	---	165	44	37	7.0	2.8	7.3	5.8
31	65	---	e110	26	---	243	---	35	---	2.5	5.3	---
TOTAL	2636	5113	6061	1744	2305	3140	3288	2819	494.4	146.9	132.1	193.1
MEAN	85.0	170	196	56.3	82.3	101	110	90.9	16.5	4.74	4.26	6.44
MAX	750	1600	1200	118	394	243	312	197	33	9.5	14	31
MIN	14	34	74	26	20	32	42	35	7.0	2.5	1.9	2.5
CFSM	2.56	5.13	5.89	1.69	2.48	3.05	3.30	2.74	.50	.14	.13	.19
IN.	2.95	5.73	6.79	1.95	2.58	3.52	3.68	3.16	.55	.16	.15	.22

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

	35.7	64.8	72.8	62.1	65.6	111	128	71.7	35.0	19.9	16.9	24.4
MAX	158	170	196	181	186	260	284	178	97.7	68.9	91.6	152
(WY)	1978	1997	1997	1996	1981	1977	1956	1984	1972	1996	1955	1938
MIN	1.26	1.43	19.5	8.45	11.9	37.9	36.7	17.9	6.32	2.18	1.71	.96
(WY)	1965	1965	1965	1977	1980	1965	1946	1987	1965	1965	1964	1964

e Estimated

DELAWARE RIVER BASIN

01415000 TREMPER KILL NEAR ANDES, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1937 - 1997	
ANNUAL TOTAL	36018.8		28072.5			
ANNUAL MEAN	98.4		76.9		58.8	
HIGHEST ANNUAL MEAN					89.6	1960
LOWEST ANNUAL MEAN					26.6	1965
HIGHEST DAILY MEAN	1810	Jan 19	1600	Nov 9	1830	Mar 22 1948
LOWEST DAILY MEAN	6.8	Sep 12	1.9	Aug 11	.60	Sep 17 1964
ANNUAL SEVEN-DAY MINIMUM	7.9	Sep 7	2.5	Aug 6	.66	Sep 17 1964
ANNUAL RUNOFF (CFSM)	2.96		2.32		1.77	
ANNUAL RUNOFF (INCHES)	40.36		31.45		24.07	
10 PERCENT EXCEEDS	199		174		135	
50 PERCENT EXCEEDS	53		41		33	
90 PERCENT EXCEEDS	14		3.8		5.3	

DELAWARE RIVER BASIN

201

01417000 EAST BRANCH DELAWARE RIVER AT DOWNSVILLE, NY

LOCATION.--Lat 42°04'30", long 74°58'36", Delaware County, Hydrologic Unit 02040102, on left bank 0.5 mi downstream from Downsville Dam, at downstream end of outlet channel of Pepacton Reservoir, and 1.0 mi east of Downsville.

DRAINAGE AREA.--372 mi².

PERIOD OF RECORD.--July 1941 to current year.

REVISED RECORDS.--WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,094.92 ft above sea level (levels by Board of Water Supply, City of New York). Prior to Sept. 26, 1941, nonrecording gage, and Sept. 26, 1941, to June 27, 1955, water-stage recorder, at site 0.8 mi downstream at datum 7.03 ft lower.

REMARKS.--No estimated daily discharges. Records good. Subsequent to September 1954, entire flow from drainage area controlled by Pepacton Reservoir (see Reservoirs in Delaware River Basin). Part of flow diverted for New York City municipal supply (see Reservoirs in Delaware River Basin). Remainder of flow (except for conservation releases and spill) impounded for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,900 ft³/s, Nov. 26, 1950, gage height, 14.52 ft, site and datum then in use, from rating curve extended above 12,000 ft³/s; minimum discharge, 0.3 ft³/s, Oct. 11, 1954; minimum gage height, 1.39 ft, Jan. 17, 1964; minimum daily discharge, 0.6 ft³/s, Oct. 10, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 9, 1903, reached a stage of about 16 ft (at former site and datum).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,000 ft³/s, Dec. 2, gage height, 9.41 ft; minimum, 41 ft³/s, Mar. 1, 2, 3, gage height, 2.67 ft; minimum daily, 42 ft³/s, Mar. 2.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	43	900	719	418	215	2340	260	88	90	105	381
2	45	43	8980	596	420	42	2010	248	97	91	119	313
3	45	43	6800	563	233	45	1680	356	93	91	119	310
4	45	43	3990	592	46	266	2110	816	92	90	106	380
5	45	43	2820	513	46	580	2810	979	92	91	93	424
6	45	43	2360	474	45	1030	2880	1270	92	92	94	424
7	45	43	1910	400	45	1030	2880	1370	92	92	94	424
8	45	44	1620	316	45	829	2620	1260	92	92	95	446
9	45	123	1390	274	45	646	2180	1190	92	92	95	483
10	45	3140	1200	253	45	545	1760	1380	115	92	105	484
11	45	3670	992	181	45	453	1480	1350	115	92	105	285
12	45	2730	748	93	46	333	1300	1250	95	92	95	68
13	44	1710	1040	53	45	222	1300	1090	95	92	96	68
14	44	1200	1540	43	45	184	1100	778	95	108	98	68
15	44	789	1460	43	45	154	618	581	95	124	104	69
16	44	513	1280	43	45	108	363	455	95	146	113	69
17	43	354	1380	43	45	60	244	304	95	142	112	69
18	44	276	2210	43	45	46	184	198	95	119	104	254
19	45	427	2460	43	46	43	246	220	99	92	95	311
20	46	497	2230	43	46	44	481	863	98	92	95	103
21	45	396	1840	43	46	45	655	950	109	92	95	69
22	44	313	1540	44	46	46	424	836	100	92	95	69
23	45	236	1350	44	46	46	287	699	88	92	284	67
24	45	178	1410	45	167	46	222	541	96	92	481	69
25	44	148	1940	45	354	46	180	434	103	102	479	253
26	43	316	1760	45	467	46	218	368	98	112	413	431
27	43	506	1520	92	627	47	245	264	90	112	363	269
28	43	476	1130	139	645	78	358	157	88	112	364	157
29	43	431	1060	216	---	266	404	106	113	112	330	277
30	43	374	1230	306	---	681	362	71	116	101	361	361
31	43	---	980	364	---	1510	---	69	---	92	436	---
TOTAL	1381	19148	63070	6711	4239	9732	33941	20713	2923	3123	5743	7455
MEAN	44.5	638	2035	216	151	314	1131	668	97.4	101	185	249
MAX	51	3670	8980	719	645	1510	2880	1380	116	146	481	484
MIN	43	43	748	43	45	42	180	69	88	90	93	67

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

	MEAN	170	135	98.4	90.8	89.3	127	538	387	178	169	178	196
	MAX	714	638	2035	1258	1208	621	1871	1379	763	739	739	668
	(WY)	1962	1997	1997	1978	1976	1975	1993	1984	1972	1962	1956	1964
	MIN	4.39	6.86	6.13	6.33	6.62	6.54	13.6	18.6	18.0	18.0	17.9	18.1
	(WY)	1955	1966	1984	1964	1992	1981	1965	1966	1974	1974	1974	1974

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR			FOR 1997 WATER YEAR			WATER YEARS 1955 - 1997		
ANNUAL TOTAL	182466			178179					
ANNUAL MEAN	499			488			197		
HIGHEST ANNUAL MEAN							507		
LOWEST ANNUAL MEAN							65.3		
HIGHEST DAILY MEAN	8980	Dec 2		8980	Dec 2		9340	May 30	1984
LOWEST DAILY MEAN	41	Jan 1		42	Mar 2		.60	Oct 10	1954
ANNUAL SEVEN-DAY MINIMUM	41	Jan 3		43	Oct 26		1.5	Oct 6	1954
10 PERCENT EXCEEDS	1570			1380			591		
50 PERCENT EXCEEDS	90			119			54		
90 PERCENT EXCEEDS	42			45			7.4		

DELAWARE RIVER BASIN

01417500 EAST BRANCH DELAWARE RIVER AT HARVARD, NY

LOCATION.--Lat 42°01'29", long 75°07'13", Delaware County, Hydrologic Unit 02040102, on right bank 800 ft downstream from Baxter Brook, and 1,100 ft downstream from highway bridge at Harvard. Water-quality sampling site at discharge station.

DRAINAGE AREA.--458 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1934 to June 1967, November 1977 to current year.

REVISED RECORDS.--WDR NY-82-1: Drainage area. WDR NY-84-1: 1978-81(M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,007.41 ft above sea level. Prior to Aug. 12, 1958, water-stage recorder 1,100 ft upstream at datum 0.65 ft higher, and from Aug. 12, 1958, to June 30, 1967, water-stage recorder at site 200 ft downstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Subsequent to September 1954, entire flow from 371 mi² of drainage area controlled by Pepacton Reservoir (see Reservoirs in Delaware River Basin). Part of flow diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill) impounded for release during periods of low flow in the lower Delaware River Basin, as directed by the Delaware River Master. Satellite gage-height and temperature telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,400 ft³/s, Sept. 22, 1938, gage height, 16.93 ft, site and datum then in use, from rating curve extended above 10,000 ft³/s, on basis of slope-area measurement at gage height 15.58 ft; minimum discharge, 7.2 ft³/s, Oct. 13, 1954, gage height, 1.63 ft, site and datum then in use; minimum daily discharge, 7.6 ft³/s, Oct. 13, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,400 ft³/s, Dec. 2, gage height, 12.79 ft; minimum, 75 ft³/s, Sept. 23, 24, 25, gage height, 2.28 ft; minimum daily, 76 ft³/s, Sept. 23-24.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	129	178	1060	933	525	791	2540	431	165	118	96	447
2	101	167	9550	832	504	662	2320	425	186	112	120	350
3	96	156	8690	794	438	672	1940	511	182	112	122	318
4	90	145	5230	814	125	672	2240	960	166	108	122	371
5	84	135	3470	763	149	837	3040	1060	158	106	98	450
6	81	128	2680	737	158	1200	3120	1250	151	106	94	451
7	78	125	2160	685	137	1210	3070	1360	147	105	94	452
8	78	259	1770	598	130	1040	2670	1240	144	104	94	456
9	94	2640	1480	524	e110	877	2240	1150	140	105	93	508
10	97	3510	1240	510	e110	791	1770	1290	140	106	93	509
11	97	4490	1070	423	e110	719	1440	1300	174	104	111	494
12	89	3310	915	e250	e105	597	1240	1190	136	101	95	167
13	85	2070	1220	e200	e100	455	1220	1110	146	101	109	111
14	83	1360	1950	e170	e96	383	1100	875	148	101	109	96
15	81	970	1910	162	e110	353	798	743	135	132	101	88
16	80	734	1610	e150	e105	288	588	639	130	164	113	84
17	79	581	1560	e140	e100	216	443	508	130	159	113	80
18	78	477	2470	e140	102	187	356	374	131	155	118	107
19	90	613	2820	e130	111	165	350	419	133	107	96	438
20	458	717	2550	e120	194	159	549	1040	130	102	94	162
21	536	647	2040	e120	204	154	719	1170	154	102	104	88
22	446	564	1650	e110	754	196	603	1040	142	104	106	79
23	359	471	1400	e110	854	176	448	903	120	100	139	76
24	348	394	1390	e110	693	158	362	776	117	98	482	76
25	285	342	1990	e120	718	156	313	672	130	98	493	102
26	243	523	1850	e120	740	312	307	600	139	115	470	462
27	219	736	1630	e100	938	310	335	472	138	119	378	369
28	229	731	1240	216	1110	387	464	342	119	122	408	163
29	232	683	1120	233	---	630	539	249	122	120	415	217
30	204	622	1300	377	---	976	514	201	149	116	340	394
31	193	---	1120	420	---	1600	---	174	---	98	459	---
TOTAL	5442	28478	72135	11111	9530	17329	37638	24474	4302	3500	5879	8165
MEAN	176	949	2327	358	340	559	1255	789	143	113	190	272
MAX	536	4490	9550	933	1110	1600	3120	1360	186	164	493	509
MIN	78	125	915	100	96	154	307	174	117	98	93	76

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

	MEAN	288	343	300	238	211	346	769	491	256	231	270	292
MAX	745	949	2327	1558	725	761	2477	1670	675	767	770	653	
(WY)	1962	1997	1997	1978	1981	1986	1993	1984	1984	1962	1956	1964	
MIN	13.7	106	74.5	68.6	70.7	111	180	79.0	47.7	37.5	43.6	76.5	
(WY)	1955	1961	1961	1963	1963	1981	1985	1955	1964	1966	1965	1965	

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR				FOR 1997 WATER YEAR				WATER YEARS 1955 - 1997			
ANNUAL TOTAL	258209				227983							
ANNUAL MEAN	705				625				331			
HIGHEST ANNUAL MEAN									688			
LOWEST ANNUAL MEAN									178			
HIGHEST DAILY MEAN	9550				Dec 2				10800			
LOWEST DAILY MEAN	68				Jan 15				7.6			
ANNUAL SEVEN-DAY MINIMUM	70				Jan 11				8.6			
10 PERCENT EXCEEDS	1790								716			
50 PERCENT EXCEEDS	243								171			
90 PERCENT EXCEEDS	87								77			

e Estimated

01417500 EAST BRANCH DELAWARE RIVER AT HARVARD, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: June 1978 to current year.

INSTRUMENTATION.--Water-temperature satellite telemeter provides 15-minute-interval readings. Prior to June 1994, water-temperature recorder provided one-hour interval readings.**REMARKS.**--Water temperature is affected by release of water from upstream reservoir. Interruptions of record were due to malfunction of recording instrument.**EXTREMES FOR PERIOD OF DAILY RECORD.--**

WATER TEMPERATURES: Maximum (water years 1978, 1981-82, 1984-97), 28.0°C, June 30, 1981; minimum (water years 1979-87, 1989-97), 0.0°C on many days during winter periods, except 1989.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 24.0°C, July 14; minimum, 0.0°C on many days during winter period.

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

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

DELAWARE RIVER BASIN

01417500 EAST BRANCH DELAWARE RIVER AT HARVARD, NY--Continued

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

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

DELAWARE RIVER BASIN

205

01420500 BEAVER KILL AT COOKS FALLS, NY

LOCATION.--Lat 41°56'47", long 74°58'48", Delaware County, Hydrologic Unit 02040102, on left bank 125 ft downstream from highway bridge in Cooks Falls, and 5.5 mi downstream from Willowemoc Creek. Water-quality sampling site at discharge station.

DRAINAGE AREA.--241 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1913 to current year.

REVISED RECORDS.--WSP 521: Drainage area. WSP 781: 1933(M). WSP 891: 1936-39(M). WSP 1202: 1950. WSP 1232: 1950(M).

GAGE.--Water-stage recorder. Datum of gage is 1,151.70 ft above sea level. Prior to Oct. 1, 1933, nonrecording gage at site 125 ft upstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Telephone gage-height telemeter and satellite gage-height and temperature telemeter at station.

AVERAGE DISCHARGE.--83 years (water years 1915-97), 558 ft³/s, 31.44 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42,900 ft³/s, Jan. 19, 1996, gage height, 17.79 ft, from floodmark in gage well (outside gage height, 18.5 ft, from floodmark), from rating curve extended above 13,000 ft³/s on basis of slope-area measurement at gage height 15.52 ft; minimum discharge, 16 ft³/s, Nov. 22, 23, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 9	0715	a*26,600	*14.79	Dec. 2	0715	26,000	14.67

a From rating curve extended as explained above.

Minimum discharge, 39 ft³/s, Aug. 11, 12, 13.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	262	441	3820	818	307	1180	2550	651	351	97	48	98
2	226	406	15000	823	283	1870	1800	714	356	98	46	89
3	217	378	3980	835	268	2180	1660	1150	392	105	47	80
4	200	352	2310	885	252	1530	2240	1900	322	97	53	73
5	182	330	1620	859	359	1220	2560	1250	290	89	51	67
6	171	314	1420	924	445	1900	2580	1110	266	84	50	63
7	165	307	1190	791	361	1350	2810	1000	249	81	46	63
8	163	1250	1050	676	316	1060	2150	827	238	79	43	62
9	318	15100	879	615	282	884	1480	789	228	79	42	59
10	412	3830	758	674	253	836	1140	866	213	90	41	57
11	409	2180	693	569	259	744	949	781	198	81	40	331
12	316	1470	1150	454	286	637	843	677	184	72	41	1220
13	286	1120	2120	460	259	549	1220	637	177	68	56	442
14	264	911	2270	459	264	538	1000	594	182	65	98	288
15	245	760	1690	405	307	634	801	548	165	64	67	222
16	227	649	1420	455	260	510	715	509	151	232	55	189
17	219	591	1700	347	255	457	676	494	152	140	50	165
18	210	565	2460	294	253	459	681	473	157	96	65	152
19	232	891	2010	306	267	426	656	626	156	81	62	138
20	2720	821	1540	333	403	422	628	1720	149	71	54	138
21	2150	675	1170	383	397	396	630	1060	181	65	92	134
22	1410	598	1000	376	1470	474	581	876	144	77	134	117
23	1040	541	888	395	1670	438	537	748	131	74	121	109
24	1100	502	1020	305	1140	380	507	658	122	64	88	106
25	886	491	1670	375	848	372	479	629	120	62	72	99
26	723	1050	1100	396	743	856	452	602	144	58	63	97
27	623	1070	953	276	959	856	424	510	186	58	79	92
28	602	788	861	319	1440	1320	964	457	130	67	104	88
29	577	712	971	298	---	2100	947	420	111	58	240	93
30	510	643	1260	280	---	2730	711	390	103	54	167	134
31	490	---	1010	319	---	3410	---	378	---	50	117	---
TOTAL	17555	39736	60983	15704	14606	32718	35371	24044	5948	2556	2332	5065
MEAN	566	1325	1967	507	522	1055	1179	776	198	82.5	75.2	169
MAX	2720	15100	15000	924	1670	3410	2810	1900	392	232	240	1220
MIN	163	307	693	276	252	372	424	378	103	50	40	57
CFM	2.35	5.50	8.16	2.10	2.16	4.38	4.89	3.22	.82	.34	.31	.70
IN.	2.71	6.13	9.41	2.42	2.25	5.05	5.46	3.71	.92	.39	.36	.78

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

	385	612	637	517	494	966	1288	691	379	277	215	240
MEAN	385	612	637	517	494	966	1288	691	379	277	215	240
MAX	1535	1427	1967	1769	2026	2485	2581	1584	1271	1329	1037	946
(WY)	1978	1973	1997	1996	1981	1977	1940	1989	1928	1945	1938	1938
MIN	31.3	42.4	140	93.5	107	289	347	224	107	54.0	40.4	31.8
(WY)	1965	1965	1923	1981	1920	1932	1946	1941	1991	1962	1962	1964

DELAWARE RIVER BASIN

01420500 BEAVER KILL AT COOKS FALLS, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1913 - 1997	
ANNUAL TOTAL	343617		256618		558	
ANNUAL MEAN	939		703		937	1928
HIGHEST ANNUAL MEAN					277	1965
LOWEST ANNUAL MEAN					16700	Jan 19 1996
HIGHEST DAILY MEAN	16700	Jan 19	15100	Nov 9	23	Sep 14 1913
LOWEST DAILY MEAN	91	Sep 16	40	Aug 11	26	Sep 21 1964
ANNUAL SEVEN-DAY MINIMUM	103	Sep 10	43	Aug 6	2.31	
ANNUAL RUNOFF (CFSM)	3.90		2.92		31.44	
ANNUAL RUNOFF (INCHES)	53.04		39.61		1240	
10 PERCENT EXCEEDS	1950		1500		318	
50 PERCENT EXCEEDS	516		405		84	
90 PERCENT EXCEEDS	159		67			

DELAWARE RIVER BASIN

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01420500 BEAVER KILL AT COOKS FALLS, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1987 to current year.

INSTRUMENTATION.--Water-temperature satellite and telephone telemeter since June 1986, provides 15-minute-interval readings.

REMARKS.--Interruptions of record were due to malfunction of recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1991, 1993-97), 31.0°C, July 9, 1993; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 28.5°C, July 15; minimum, 0.0°C on many days during winter period.

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

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

DELAWARE RIVER BASIN

01420500 BEAVER KILL AT COOKS FALLS, NY--Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	.0	.0	.0	2.5	1.5	2.0	4.0	.0	2.0	12.0	10.0	11.0
2	.5	.0	.0	3.5	2.5	3.0	5.5	1.0	3.0	12.0	7.5	10.0
3	.5	.0	.0	3.0	2.0	2.5	6.5	2.0	4.5	11.0	8.5	9.0
4	.0	.0	.0	2.5	1.5	2.0	7.5	4.0	5.5	10.0	7.5	8.5
5	.0	.0	.0	3.5	2.0	3.0	7.5	4.0	5.5	11.5	6.5	9.0
6	.0	.0	.0	3.5	1.5	2.5	8.0	5.0	6.5	10.5	8.5	9.5
7	.0	.0	.0	2.5	.5	1.5	9.0	6.5	7.5	9.0	6.0	7.5
8	.0	.0	.0	1.0	.0	.5	7.0	4.0	5.5	10.0	5.5	8.0
9	.0	.0	.0	2.5	.0	1.0	5.5	2.5	4.0	10.5	8.0	9.0
10	.0	.0	.0	3.5	.0	2.0	5.0	1.0	3.0	9.5	8.0	9.0
11	.0	.0	.0	2.5	1.5	2.0	6.5	2.0	4.0	12.0	7.0	9.5
12	.0	.0	.0	3.0	.5	1.5	5.5	4.0	5.0	12.0	8.5	10.5
13	.0	.0	.0	2.5	.0	1.0	6.5	5.0	5.5	11.5	9.0	10.0
14	.0	.0	.0	1.5	.0	.0	7.5	4.0	6.0	11.0	8.0	9.5
15	.5	.0	.0	2.5	.0	1.0	8.0	3.5	6.0	14.0	9.5	11.5
16	.0	.0	.0	1.5	.0	.5	9.0	4.5	7.0	12.5	8.0	10.0
17	.5	.0	.0	1.0	.0	.5	8.5	6.5	7.0	8.0	7.0	8.0
18	.5	.0	.0	4.0	.5	2.0	6.5	3.5	4.5	---	---	---
19	.5	.0	.0	4.5	1.0	2.5	5.0	2.5	3.5	---	---	---
20	.5	.0	.0	3.5	2.0	2.5	7.0	4.0	5.5	---	---	---
21	.5	.0	.5	3.5	1.5	2.5	7.5	5.0	6.0	---	---	---
22	.5	.0	.0	3.0	1.5	2.5	8.5	4.5	6.5	---	---	---
23	1.5	.0	.5	3.0	.0	1.5	7.5	6.0	7.0	---	---	---
24	2.5	.5	1.5	4.0	.0	1.5	8.5	---	---	---	---	---
25	1.0	.0	.5	2.0	.5	1.0	9.0	6.0	---	---	---	---
26	2.5	.0	1.0	2.5	1.5	2.0	---	---	---	---	---	---
27	3.0	2.0	2.5	6.5	1.0	3.5	11.0	6.5	9.0	---	---	---
28	3.5	2.0	3.0	7.0	2.5	5.0	---	---	---	---	---	---
29	---	---	---	5.5	3.5	4.5	11.5	6.0	---	---	---	---
30	---	---	---	5.0	4.0	4.5	---	---	---	---	---	---
31	---	---	---	4.5	.5	2.5	---	---	---	---	---	---
MONTH	3.5	.0	.5	7.0	.0	2.0	---	---	---	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	---	---	---	23.5	19.5	21.5	25.0	18.0	21.0	24.0	19.0	21.0
2	---	---	---	21.5	19.5	20.5	25.5	20.0	22.0	24.0	20.0	21.5
3	---	---	---	23.0	19.0	20.5	24.5	20.0	22.0	22.0	17.0	19.5
4	---	---	---	21.0	18.5	20.0	22.5	19.5	20.5	19.0	14.5	16.5
5	---	---	---	23.0	17.0	19.5	23.5	18.5	20.5	19.5	13.5	16.0
6	---	---	---	24.0	17.0	20.5	22.5	17.5	19.5	19.0	14.5	16.5
7	---	---	---	23.5	18.0	20.5	24.0	17.0	20.0	19.0	15.0	16.5
8	---	---	---	24.5	19.0	21.5	22.0	16.5	19.5	21.5	17.0	18.5
9	---	---	---	23.5	20.0	21.5	25.0	17.5	21.0	22.0	17.0	18.5
10	---	---	---	24.0	18.0	21.0	26.0	19.0	22.0	17.5	16.5	17.0
11	---	---	---	24.5	18.0	21.0	24.5	19.5	22.0	16.5	15.5	16.0
12	---	---	---	25.0	18.5	21.5	26.5	20.5	23.0	17.0	14.5	15.5
13	---	---	---	26.5	19.5	22.5	23.0	21.0	22.0	16.5	14.5	15.5
14	---	---	---	27.5	20.5	23.5	24.5	19.5	21.5	18.0	15.0	16.5
15	---	---	---	28.5	22.0	25.0	21.0	18.0	19.5	18.5	15.0	17.0
16	---	---	---	25.5	23.0	24.5	26.0	19.5	22.0	19.0	15.5	17.0
17	18.5	16.0	16.5	26.0	21.0	23.5	25.0	21.5	22.5	18.5	15.0	17.0
18	16.5	15.0	16.0	26.5	22.0	24.0	25.0	20.0	22.0	20.5	16.5	18.5
19	20.5	15.5	18.0	25.0	20.5	22.5	23.5	18.0	20.0	19.5	15.5	17.5
20	21.5	17.0	19.0	24.5	17.5	20.5	19.5	16.5	18.0	18.0	15.5	17.0
21	24.0	18.5	21.0	21.0	19.0	19.5	17.5	16.0	16.5	15.5	13.0	14.0
22	24.0	20.0	22.0	25.5	18.5	21.5	20.0	16.0	18.0	15.0	11.0	13.0
23	22.5	18.0	20.5	25.0	19.5	22.0	19.0	17.0	18.0	14.0	12.5	13.0
24	20.5	17.5	19.0	21.5	18.5	20.0	19.5	15.5	17.5	14.5	10.5	12.5
25	24.5	18.5	21.5	25.0	17.0	20.5	19.5	17.0	18.0	13.5	10.0	11.5
26	23.5	21.0	22.0	25.5	17.5	21.5	21.0	17.0	19.0	15.5	12.5	13.5
27	23.5	18.5	21.0	23.5	20.5	22.0	22.0	18.0	20.0	15.5	11.0	13.0
28	24.5	18.0	21.0	24.0	21.0	22.0	22.5	19.0	20.5	14.0	11.0	12.5
29	24.5	19.0	22.0	24.5	19.0	21.0	20.5	18.5	19.0	15.0	13.0	14.0
30	25.5	19.5	22.0	24.5	16.5	20.0	20.5	17.0	18.5	14.0	12.5	13.5
31	---	---	---	24.0	17.0	20.5	21.0	17.5	19.0	---	---	---
MONTH	---	---	---	28.5	16.5	21.5	26.5	15.5	20.0	24.0	10.0	16.0

DELAWARE RIVER BASIN

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01421000 EAST BRANCH DELAWARE RIVER AT FISHS EDDY, NY

LOCATION.--Lat 41°58'23", long 75°10'28", Delaware County, Hydrologic Unit 02040102, on left bank 3,000 ft upstream from bridge on County Highway 28 at Fishs Eddy, 0.6 mi upstream from Fish Creek, 4.2 mi downstream from Beaver Kill, and 11 mi upstream from the confluence of East and West Branches near Hancock. Water-quality sampling site at discharge station.

DRAINAGE AREA.--784 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1912 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 955.96 ft above sea level. Prior to Sept. 27, 1928, nonrecording gage and Sept. 26, 1928 to Nov. 1, 1967, water-stage recorder at site 3,000 ft downstream at datum 5.0 ft lower.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Subsequent to September 1954, entire flow from 371 mi² of drainage area controlled by Pepacton Reservoir (see Reservoirs in Delaware River Basin). Part of flow diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill) impounded for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master. Telephone gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 53,300 ft³/s, Aug. 24, 1933, gage height, 20.60 ft, at former site and datum, from rating curve extended above 22,000 ft³/s; maximum discharge since construction of Pepacton Reservoir in 1954, 53,000 ft³/s, Jan. 19, 1996, gage height, 16.88 ft, from floodmark in gage well, outside gage height was about 17.7 ft, from floodmarks; minimum discharge, 52 ft³/s, July 23, 1964, gage height, 1.16 ft, at former site and datum; minimum daily discharge, 68 ft³/s, Aug. 28, 1949.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 9, 1903, reached a stage of 23.6 ft, at former site and datum, from description obtained in April 1939, from local residents who had experienced the flood (discharge, about 70,000 ft³/s, from rating curve extended above 22,000 ft³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 35,300 ft³/s, Dec. 2, gage height, 14.05 ft; minimum discharge not determined; minimum daily discharge, about 150 ft³/s, Aug. 8-10, 12.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	407	720	4540	2070	e900	2460	5940	e1200	e580	e240	e160	e560
2	327	650	26500	1870	e880	2870	4940	e1300	e600	e240	e180	e460
3	300	597	14700	1760	e800	3520	4380	1610	e640	e240	e190	e470
4	293	544	8450	1870	e420	2660	5160	3420	e540	e230	e200	e540
5	e270	498	5900	1720	e560	2490	6280	2880	e500	e220	e170	e580
6	e260	466	4940	1760	e660	3820	6320	2960	e460	e210	e160	e580
7	e250	446	4180	1560	e560	3320	6400	2980	e440	e210	e160	e580
8	e240	953	3560	1320	e500	2660	5420	2560	e420	e210	e150	e600
9	345	18900	2960	1160	e440	2110	4400	2350	e410	e210	e150	e640
10	452	8840	2450	1210	e400	1880	3570	2630	e400	e220	e150	e660
11	545	7970	2100	989	e410	1630	2970	2530	e410	e210	e170	627
12	407	6130	2290	681	e430	1310	2530	2230	e360	e190	e150	1660
13	357	4510	3910	e740	e400	1030	2900	2050	e360	e190	e190	677
14	331	3290	5220	e700	e400	943	2490	1630	e370	e190	e230	415
15	307	2470	4530	e640	e500	1000	1720	1340	e330	e230	e190	e330
16	295	1930	3860	e660	e410	786	e1500	1140	e320	e440	e190	e290
17	293	1590	3860	e520	e400	628	e1300	978	e320	e320	e180	e280
18	290	1400	5750	e480	e400	615	e1200	812	e320	e280	e200	e320
19	293	1910	5710	e490	e420	527	e1100	993	e320	e210	e170	e640
20	3050	2100	4970	e500	e660	513	e1300	3370	e310	e190	e160	e320
21	3570	1810	4030	e560	e680	479	e1500	3000	e370	e190	e220	e240
22	2460	1580	3350	e540	e2400	604	e1400	2470	e320	e200	e270	e220
23	1830	1380	2860	e560	e3300	563	e1100	2040	e280	e190	e320	e210
24	1800	1220	2810	e460	e2100	458	e1000	1680	e270	e180	e640	e220
25	1500	1120	4370	e540	1800	461	e900	1440	e280	e180	e620	e230
26	1230	1880	3690	e560	1670	1120	e840	1310	e320	e190	e600	e600
27	1050	2480	3230	e420	2260	1200	e840	1040	e350	e200	e520	e370
28	996	2110	2590	e600	3300	1750	e1600	826	e280	e210	e600	e280
29	1020	1930	2430	e600	---	3090	e1700	e760	e260	e200	e720	e380
30	862	1730	3160	e720	---	4340	e1400	e660	e280	e190	e600	e560
31	814	---	2630	e800	---	5740	---	e620	---	e170	e640	---
TOTAL	26444	83154	155530	29060	28060	56577	84100	56809	11420	6780	9250	14539
MEAN	853	2772	5017	937	1002	1825	2803	1833	381	219	298	485
MAX	3570	18900	26500	2070	3300	5740	6400	3420	640	440	720	1660
MIN	240	446	2100	420	400	458	840	620	260	170	150	210

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

	805	1145	1194	926	994	1628	2593	1483	775	507	479	540
MEAN	805	1145	1194	926	994	1628	2593	1483	775	507	479	540
MAX	2531	2772	5017	2931	3297	4239	5957	3465	2426	1750	1707	1838
(WY)	1956	1997	1997	1978	1976	1977	1993	1984	1973	1996	1955	1960
MIN	163	458	404	277	213	578	808	432	229	157	136	139
(WY)	1974	1961	1961	1981	1980	1970	1985	1987	1977	1966	1965	1972

e Estimated

DELAWARE RIVER BASIN

01421000 EAST BRANCH DELAWARE RIVER AT FISHS EDDY, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1955 - 1997	
ANNUAL TOTAL	733663		561723		1088	
ANNUAL MEAN	2005		1539		1586	1973
HIGHEST ANNUAL MEAN					604	1965
LOWEST ANNUAL MEAN					26500	Dec 2 1996
HIGHEST DAILY MEAN	26500	Dec 2	26500	Dec 2	72	Jul 24 1964
LOWEST DAILY MEAN	170	Sep 16	150	Aug 8	84	Oct 9 1954
ANNUAL SEVEN-DAY MINIMUM	184	Sep 11	156	Aug 6	2400	
10 PERCENT EXCEEDS	4530		3570		640	
50 PERCENT EXCEEDS	1000		660		234	
90 PERCENT EXCEEDS	270		210			

01421000 EAST BRANCH DELAWARE RIVER AT FISHS EDDY, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1958-59, 1968 to current year.

CHEMICAL DATA: 1958-59 (d), 1970 (b), 1971-74 (d), 1975 (c).

MINOR ELEMENTS DATA: 1971-74 (a).

ORGANIC DATA: OC--1974 (a), 1975 (c).

NUTRIENT DATA: 1971-75 (d).

BIOLOGICAL DATA:

Bacteria--1971 (c), 1973-75 (c).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: November 1967 to current year.

INSTRUMENTATION.--Water-temperature recorder provides 15-minute-interval readings.

REMARKS.--Water temperature is affected by release of water from upstream reservoir. Interruptions of record were due to malfunction of recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1968-75, 1978, 1980-82, 1984, 1986-95), 31.5°C, Aug. 2, 1975; minimum (water years 1968-76, 1978-79, 1981-97), 0.0°C on many days during winter periods, except 1978.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 19.5°C, June 6, but may have been higher during period of instrument malfunction; minimum, 0.0°C on many days during winter period.

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	---	---	---	---	---	---	6.0	3.5	4.5	1.0	.0	.5
2	---	---	---	---	---	---	6.0	5.5	6.0	2.0	.5	1.0
3	---	---	---	---	---	---	6.0	5.0	5.5	3.5	2.0	3.0
4	---	---	---	---	---	---	6.0	5.5	5.5	4.0	3.5	4.0
5	---	---	---	---	---	---	5.5	5.0	5.5	5.0	4.0	4.5
6	---	---	---	---	---	---	5.0	4.0	4.5	4.5	2.5	4.0
7	---	---	---	---	---	---	5.0	4.5	4.5	2.5	.5	1.5
8	---	---	---	---	---	---	5.0	4.5	4.5	.5	.0	.0
9	---	---	---	---	---	---	4.5	4.0	4.5	.0	.0	.0
10	---	---	---	---	---	---	4.0	3.5	4.0	1.0	.0	.5
11	---	---	---	---	---	---	4.5	4.0	4.0	.5	.0	.0
12	---	---	---	---	---	---	4.5	4.0	4.5	.0	.0	.0
13	---	---	---	---	---	---	4.5	3.5	4.5	.0	.0	.0
14	---	---	---	---	---	---	4.0	3.5	4.0	.0	.0	.0
15	---	---	---	---	---	---	5.0	4.0	4.5	.5	.0	.0
16	---	---	---	4.0	2.5	3.5	5.0	4.5	5.0	.5	.0	.0
17	---	---	---	4.5	3.0	3.5	5.5	5.0	5.0	.0	.0	.0
18	---	---	---	5.5	3.5	4.5	5.5	5.0	5.5	.0	.0	.0
19	---	---	---	5.5	5.0	5.5	5.0	4.0	4.5	.0	.0	.0
20	---	---	---	5.0	4.5	5.0	4.0	2.0	2.5	.0	.0	.0
21	---	---	---	4.5	4.0	4.0	2.5	1.5	2.0	.0	.0	.0
22	---	---	---	4.0	4.0	4.0	3.0	2.0	2.5	.0	.0	.0
23	---	---	---	4.5	3.0	4.0	4.0	3.0	3.5	.0	.0	.0
24	---	---	---	4.5	4.0	4.0	4.5	4.0	4.0	.0	.0	.0
25	---	---	---	4.5	4.0	4.0	4.5	2.5	3.0	.0	.0	.0
26	---	---	---	5.0	4.0	4.5	3.0	2.0	2.5	.0	.0	.0
27	---	---	---	4.0	2.0	3.0	4.0	2.5	3.0	.0	.0	.0
28	---	---	---	2.0	1.5	2.0	4.0	3.0	3.5	.0	.0	.0
29	---	---	---	3.0	2.0	2.5	4.5	4.0	4.5	.0	.0	.0
30	---	---	---	3.5	2.5	3.0	4.5	3.0	4.0	.0	.0	.0
31	---	---	---	---	---	---	3.0	1.0	2.5	.0	.0	.0
MONTH	---	---	---	---	---	---	6.0	1.0	4.0	5.0	.0	.5

e Estimated

DELAWARE RIVER BASIN

01421900 WEST BRANCH DELAWARE RIVER UPSTREAM FROM DELHI, NY--Continued

SUMMARY STATISTICS

WATER YEARS 1937 - 1997

ANNUAL MEAN	230	
HIGHEST ANNUAL MEAN	328	1956
LOWEST ANNUAL MEAN	112	1965
HIGHEST DAILY MEAN	5320	Mar 31 1940
LOWEST DAILY MEAN	3.0	Sep 24 1964
ANNUAL SEVEN-DAY MINIMUM	3.3	Sep 20 1964
ANNUAL RUNOFF (CFSM)	1.71	
ANNUAL RUNOFF (INCHES)	23.30	
10 PERCENT EXCEEDS	541	
50 PERCENT EXCEEDS	121	
90 PERCENT EXCEEDS	19	

DELAWARE RIVER BASIN

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01422500 LITTLE DELAWARE RIVER NEAR DELHI, NY

LOCATION.--Lat 42°15'08", long 74°54'07", Delaware County, Hydrologic Unit 02040101, on left bank 10 ft downstream from highway bridge, 0.7 mi downstream from Toll Gate Brook, 1.5 mi upstream from mouth, and 2.0 mi south of Delhi.

DRAINAGE AREA.--49.8 mi².

PERIOD OF RECORD.--October 1937 to September 1970, January to September 1997. Water years 1972-74, 1996 (annual maximum only), November to December 1996 (maximum only).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,385.35 ft above sea level. Prior to December 7, 1939, non-recording gages at several temporary sites within a quarter of a mile of present site at various datums.

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

AVERAGE DISCHARGE.--33 years (water years 1938-70), 87.9 ft³/s, 23.99 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,100 ft³/s, Jan. 19, 1996, gage height, 8.51 ft, from floodmark, from rating curve extended above 1,600 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 0.8 ft³/s, Aug. 10, 11, 12, Sept. 24, 25, 1964.

EXTREMES FOR CURRENT YEAR.--November 1996 to September 1997: Peak discharges greater than base discharge of 1,300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 9	unknown	a*4,540	b*7.67	Dec. 2	unknown	c2,500	unknown

a From rating curve extended as explained above.

b From crest-stage gage.

c About.

Minimum recorded discharge, 0.90 ft³/s, Aug. 10, gage height, 2.35 ft, but may have been less during period of estimated record.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	e46	276	340	102	57	6.6	2.2	13
2	---	---	---	---	e43	341	275	100	54	7.7	2.2	10
3	---	---	---	---	e41	274	305	182	49	9.7	e1.9	7.3
4	---	---	---	---	e40	244	462	200	42	7.9	e2.2	6.4
5	---	---	---	---	e120	225	418	173	37	7.0	e3.9	5.0
6	---	---	---	---	e110	303	407	197	34	5.8	e3.4	4.1
7	---	---	---	---	e80	217	340	171	32	4.9	e2.2	3.7
8	---	---	---	---	e66	205	265	145	30	4.7	2.3	5.4
9	---	---	---	---	e54	196	212	180	27	5.9	e1.9	4.9
10	---	---	---	---	e54	174	171	258	24	7.2	e1.3	3.3
11	---	---	---	---	e60	156	146	205	22	5.1	1.5	31
12	---	---	---	---	e50	134	133	187	21	4.2	e1.1	51
13	---	---	---	---	e48	e120	144	175	26	3.7	e3.4	20
14	---	---	---	---	e45	e120	117	150	27	3.2	e12	13
15	---	---	---	---	e50	136	98	132	20	3.0	e7.2	9.5
16	---	---	---	---	e45	e110	89	120	18	9.0	e5.0	7.4
17	---	---	---	---	e42	e100	88	112	17	6.8	e4.5	6.2
18	---	---	---	---	e45	93	88	99	19	4.7	e4.5	6.1
19	---	---	---	---	e110	92	91	136	18	3.7	e3.0	5.7
20	---	---	---	---	e180	89	107	305	15	3.3	e2.6	5.8
21	---	---	---	e64	301	85	118	194	15	3.8	e4.5	6.7
22	---	---	---	e70	614	155	105	183	12	8.8	e12	5.6
23	---	---	---	e70	444	e100	99	159	11	5.8	e10	4.5
24	---	---	---	e80	318	e90	99	138	10	3.9	e6.2	4.1
25	---	---	---	e86	244	e80	98	138	11	3.4	e4.5	3.6
26	---	---	---	e74	217	240	93	120	15	2.8	3.1	3.7
27	---	---	---	e64	453	186	87	100	20	2.5	2.4	3.8
28	---	---	---	e66	317	206	143	86	11	4.8	4.8	3.2
29	---	---	---	e60	---	251	114	76	8.8	4.0	7.3	6.2
30	---	---	---	e56	---	282	100	71	7.5	2.7	6.4	11
31	---	---	---	e50	---	423	---	64	---	2.3	5.3	---
TOTAL	---	---	---	---	4237	5703	5352	4658	710.3	158.9	134.8	271.2
MEAN	---	---	---	---	151	184	178	150	23.7	5.13	4.35	9.04
MAX	---	---	---	---	614	423	462	305	57	9.7	12	51
MIN	---	---	---	---	40	80	87	64	7.5	2.3	1.1	3.2
CFSM	---	---	---	---	3.04	3.69	3.58	3.02	.48	.10	.09	.18
IN.	---	---	---	---	3.16	4.26	4.00	3.48	.53	.12	.10	.20

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

	39.0	92.6	104	92.8	98.8	176	212	107	51.2	30.7	20.8	31.8
MEAN	203	227	200	203	224	346	490	240	130	127	139	235
(WY)	1956	1960	1951	1949	1939	1945	1958	1943	1968	1951	1955	1938
MIN	1.63	2.73	27.4	16.2	26.8	54.3	53.0	32.4	9.91	4.57	2.55	1.29
(WY)	1965	1965	1965	1961	1963	1965	1946	1939	1964	1965	1964	1964

e Estimated

DELAWARE RIVER BASIN

01422500 LITTLE DELAWARE RIVER NEAR DELHI, NY--Continued

SUMMARY STATISTICS

WATER YEARS 1938 - 1997

ANNUAL MEAN	87.9	
HIGHEST ANNUAL MEAN	131	1960
LOWEST ANNUAL MEAN	42.2	1965
HIGHEST DAILY MEAN	1820	Mar 31 1940
LOWEST DAILY MEAN	.90	Aug 4 1964
ANNUAL SEVEN-DAY MINIMUM	.90	Sep 18 1964
ANNUAL RUNOFF (CFSM)	1.77	
ANNUAL RUNOFF (INCHES)	23.99	
10 PERCENT EXCEEDS	205	
50 PERCENT EXCEEDS	45	
90 PERCENT EXCEEDS	6.0	

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LOCATION.--Lat 42°09'58", long 75°08'25", Delaware County, Hydrologic Unit 02040101, on left bank at west end of fairgrounds at Walton, and 100 ft downstream from West Brook.

DRAINAGE AREA.--332 mi².

e Estimated

DELAWARE RIVER BASIN

01423000 WEST BRANCH DELAWARE RIVER AT WALTON, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1951 - 1997	
ANNUAL TOTAL	367655		265388		582	
ANNUAL MEAN	1005		727		833	1976
HIGHEST ANNUAL MEAN					263	1965
LOWEST ANNUAL MEAN					16000	Mar 15 1986
HIGHEST DAILY MEAN	14600	Jan 19	13300	Nov 9	13	Sep 24 1964
LOWEST DAILY MEAN	65	Sep 12	24	Aug 12	13	Sep 21 1964
ANNUAL SEVEN-DAY MINIMUM	72	Sep 7	28	Aug 6	1.75	
ANNUAL RUNOFF (CFSM)	3.03		2.19		23.80	
ANNUAL RUNOFF (INCHES)	41.20		29.74		1340	
10 PERCENT EXCEEDS	1990		1720		310	
50 PERCENT EXCEEDS	630		437		57	
90 PERCENT EXCEEDS	168		36			

DELAWARE RIVER BASIN

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01423000 WEST BRANCH DELAWARE RIVER AT WALTON, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1997.

CHEMICAL DATA: 1997 (a).

PESTICIDE DATA: 1997 (a).

REMARKS.--A complete list of compounds included when pesticides analysis was performed on samples follows the Introduction to the Hudson NAWQA section near the end of this report. Only those compounds detected at or above the method detection limit (MDL) were included in the tables.

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

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)
JUN 17...	1410	118	117	7.3	0.037	E0.012	0.029	0.012

E Estimate.

DELAWARE RIVER BASIN

0142400103 TROUT CREEK NEAR TROUT CREEK, NY

LOCATION.--Lat 42°10'25", long 75°16'47", Delaware County, Hydrologic Unit 02040101, on right bank downstream from bridge on Bullock Hill Road, 0.4 mi upstream from mouth, and 2.1 mi south of Trout Creek.

DRAINAGE AREA.--20.2 mi².

PERIOD OF RECORD.--June 1952 to June 1967, December 1996 to September 1997. Water year 1996 (annual maximum only), November 1996 (maximum only). Prior to November 1996, published as Trout Creek near Rockroyal (01424000).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,160 ft above sea level, from topographic map. Prior to November 1996, at site 0.3 mi upstream at datum 1165.70 ft above sea level.

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

AVERAGE DISCHARGE.--14 years (water years 1953-66), 30.2 ft³/s, 20.31 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,800 ft³/s, Jan. 19, 1996, gage height, 7.24 ft, from floodmarks, present site and datum (10.06 ft, from floodmark in gage house, site and datum then in use), from rating curve extended above 900 ft³/s on basis of contracted-opening measurement at gage height 7.03 ft (site and datum then in use); minimum discharge, 0.1 ft³/s, Sept. 5, 23, 24, 25, 26, 27, Oct. 1, 2, 1964; minimum gage height since December 1996, 0.82 ft, Aug. 12, 13, 1997.

EXTREMES FOR CURRENT YEAR.--November 1996 to September 1997: Peak discharges greater than base discharge of 700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 9	unknown	a*1,400	b*5.50	Dec. 2	unknown	a950	unknown

a About; by runoff comparison with nearby stations.

b From crest-stage gage.

Minimum discharge, 0.18 ft³/s, Aug. 12, 13, gage height, 0.82 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	38	14	102	98	25	15	4.6	.93	9.2
2	---	---	---	44	13	125	95	24	16	4.6	.80	3.5
3	---	---	---	56	13	97	120	61	14	4.5	.85	2.7
4	---	---	---	51	12	84	138	67	12	3.9	1.2	2.2
5	---	---	112	55	30	78	118	55	10	3.6	1.1	1.7
6	---	---	105	52	24	144	103	57	9.4	3.2	.93	1.7
7	---	---	89	47	20	e84	83	49	8.8	3.1	.78	1.3
8	---	---	78	e40	18	e74	67	42	8.3	3.1	.68	1.6
9	---	---	65	e38	e17	e62	56	52	7.5	5.2	.60	1.6
10	---	---	56	e35	e16	e58	47	62	6.5	5.2	.50	1.3
11	---	---	52	e32	e16	e50	41	52	5.9	3.5	.51	2.9
12	---	---	69	e28	15	45	40	47	6.1	3.0	.38	5.3
13	---	---	90	e27	17	38	44	45	11	2.6	4.2	3.0
14	---	---	104	e25	e14	37	37	40	9.2	2.3	3.8	2.3
15	---	---	95	e24	e14	41	31	36	6.3	2.1	2.0	1.8
16	---	---	97	e23	e13	e31	29	35	5.3	3.7	1.6	1.5
17	---	---	107	e22	e13	e29	29	33	5.2	2.6	1.4	1.3
18	---	---	94	e21	14	e28	29	30	6.3	2.1	1.5	1.5
19	---	---	88	e20	28	28	30	64	6.7	1.9	1.4	1.3
20	---	---	76	e19	51	28	29	85	11	1.7	1.2	1.4
21	---	---	62	18	98	27	26	64	11	1.9	2.2	1.6
22	---	---	55	17	216	47	24	57	6.6	3.8	2.5	1.3
23	---	---	51	e19	126	e28	22	49	5.2	2.5	2.0	1.1
24	---	---	89	e20	e86	e26	21	42	4.8	1.9	1.6	1.2
25	---	---	78	e21	e66	27	20	41	4.5	1.6	1.3	1.1
26	---	---	63	e19	e58	99	18	35	32	1.3	1.2	1.1
27	---	---	60	e18	221	66	17	30	16	2.0	1.1	1.3
28	---	---	57	e17	134	70	40	25	8.3	2.2	1.4	1.1
29	---	---	65	e16	---	83	29	21	6.4	1.6	1.3	1.7
30	---	---	57	e14	---	83	25	19	5.3	1.2	1.1	2.4
31	---	---	48	13	---	122	---	18	---	1.0	1.0	---
TOTAL	---	---	---	889	1377	1941	1506	1362	280.6	87.5	43.06	63.0
MEAN	---	---	---	28.7	49.2	62.6	50.2	43.9	9.35	2.82	1.39	2.10
MAX	---	---	---	56	221	144	138	85	32	5.2	4.2	9.2
MIN	---	---	---	13	12	26	17	18	4.5	1.0	.38	1.1
CFSM	---	---	---	1.42	2.43	3.10	2.49	2.18	.46	.14	.07	.10
IN.	---	---	---	1.64	2.54	3.57	2.77	2.51	.52	.16	.08	.12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 1997, BY WATER YEAR (WY)

	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997						
MEAN	13.6	27.9	34.2	33.2	37.4	65.2	80.9	31.2	15.3	4.57	4.87	9.19																																							
MAX	63.9	102	68.0	62.2	74.8	131	181	56.4	36.2	13.6	29.1	52.8																																							
(WY)	1956	1960	1960	1953	1961	1964	1958	1958	1960	1961	1955	1960																																							
MIN	.24	.78	7.63	3.79	9.96	24.4	36.0	10.1	2.00	.54	.47	.48																																							
(WY)	1965	1965	1961	1961	1963	1965	1966	1962	1962	1962	1964	1964																																							

e Estimated

0142400103 TROUT CREEK NEAR TROUT CREEK, NY--Continued

SUMMARY STATISTICS

WATER YEARS 1953 - 1997

ANNUAL MEAN	30.2	
HIGHEST ANNUAL MEAN	46.7	1960
LOWEST ANNUAL MEAN	15.0	1965
HIGHEST DAILY MEAN	715	Nov 28 1959
LOWEST DAILY MEAN	.10	Sep 24 1964
ANNUAL SEVEN-DAY MINIMUM	.16	Sep 20 1964
ANNUAL RUNOFF (CFSM)	1.49	
ANNUAL RUNOFF (INCHES)	20.31	
10 PERCENT EXCEEDS	72	
50 PERCENT EXCEEDS	14	
90 PERCENT EXCEEDS	1.0	

DELAWARE RIVER BASIN

01425000 WEST BRANCH DELAWARE RIVER AT STILESVILLE, NY

LOCATION.--Lat 42°04'29", long 75°23'47", Delaware County, Hydrologic Unit 02040101, on right bank at Stilesville, 0.5 mi upstream from Cold Spring Creek, 1.4 mi downstream from Cannonsville Dam, and 2.0 mi northeast of Deposit. Water-quality sampling site at discharge station.

DRAINAGE AREA.--456 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1952 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 992.23 ft above sea level (levels by Board of Water Supply, City of New York). Prior to Oct. 1, 1964, at site 600 ft downstream at datum 1.37 ft higher.

REMARKS.--Records good except those below 100 ft³/s and those for estimated daily discharges, which are poor.

Subsequent to October 1963, entire flow from 454 mi² of drainage area controlled by Cannonsville Reservoir (see Reservoirs in Delaware River Basin). Part of flow diverted for New York City municipal supply (see Reservoirs in Delaware River Basin). Remainder of flow (except for conservation releases and spill) impounded for release during period of low flow in the lower Delaware River basin, as directed by the Delaware River Master.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,800 ft³/s, Mar. 16, 1986, gage height, 13.07 ft; minimum daily, 7.2 ft³/s, Feb. 8, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,860 ft³/s, Nov. 10, gage height, 11.49 ft; minimum daily, about 35 ft³/s, Sept. 17, 22.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e48	861	1740	e1500	120	2980	2740	825	331	452	1190	304
2	48	817	5420	e1300	114	2830	2680	824	319	456	1220	241
3	48	767	7760	e1350	101	2820	2650	896	281	752	1120	240
4	e48	699	5840	e1400	84	2370	2940	1260	238	787	939	240
5	e48	509	4310	e1350	70	2040	3420	1400	211	920	1260	412
6	e48	378	3440	e1300	72	2340	3450	1420	150	600	1280	493
7	e48	299	2850	e1250	108	2480	3250	1460	124	723	1190	399
8	e48	354	2410	e1200	142	2240	2840	1380	115	697	1180	448
9	e49	4770	2060	e1150	136	1970	2420	1310	117	784	1030	383
10	e50	9230	1760	e1100	117	1780	2050	1460	177	508	899	322
11	e45	6800	1530	1060	93	1640	1750	1610	196	955	1150	261
12	e48	4730	1470	1010	70	1440	1520	1550	118	1010	1240	e150
13	e48	3470	1780	899	56	1140	1420	1490	436	718	1350	e130
14	e48	2660	2540	824	49	934	1320	1400	364	704	1330	e130
15	e48	1980	2740	786	45	788	1190	1280	138	654	1090	e130
16	e48	1520	2650	731	44	662	1090	1170	122	624	1100	e76
17	e48	1220	2610	740	45	511	955	1090	164	323	1030	e35
18	e48	1040	2890	702	44	429	876	1020	126	875	913	e50
19	e48	1130	2890	582	45	368	857	1070	274	876	733	e210
20	e60	1400	2710	504	49	323	846	1610	520	964	517	e620
21	e90	1410	2360	470	166	292	837	1890	396	978	262	e86
22	e52	1350	2040	469	956	313	837	1830	262	1100	470	e35
23	e48	1270	1790	463	2530	372	831	1690	303	790	552	e40
24	e48	1190	1680	470	2640	336	809	1520	362	706	411	e110
25	e48	1140	2090	393	2260	299	766	1370	246	1010	450	e200
26	278	1350	2050	322	2020	451	721	1270	383	865	428	e640
27	495	1780	1880	303	2310	717	694	1090	739	499	587	e620
28	708	1770	1740	259	3160	896	808	795	473	545	570	e620
29	884	1680	1650	228	---	1230	945	565	335	609	353	e620
30	920	1570	1690	183	---	1650	866	436	350	739	254	e620
31	902	---	1590	142	---	2170	---	324	---	868	330	---
TOTAL	5445	59144	81960	24440	17646	40811	48378	38305	8370	23091	26428	8865
MEAN	176	1971	2644	788	630	1316	1613	1236	279	745	853	296
MAX	920	9230	7760	1500	3160	2980	3450	1890	739	1100	1350	640
MIN	45	299	1470	142	44	292	694	324	115	323	254	35

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

	MEAN	510	280	343	341	444	786	1222	724	507	625	604	539
MAX	1593	1971	2644	1910	2309	2879	4389	1883	1593	1646	1675	1606	
(WY)	1970	1997	1997	1978	1976	1986	1993	1996	1968	1971	1968	1972	
MIN	26.2	21.5	9.10	10.3	9.89	11.1	19.7	25.2	72.7	63.9	92.3	34.0	
(WY)	1964	1966	1966	1967	1967	1989	1985	1966	1965	1965	1985	1964	

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1964 - 1997	
ANNUAL TOTAL	383109		382883			
ANNUAL MEAN	1047		1049		577	
HIGHEST ANNUAL MEAN					1049	
LOWEST ANNUAL MEAN					87.3	
HIGHEST DAILY MEAN	9230		9230		14800	
LOWEST DAILY MEAN	38		35		7.2	
ANNUAL SEVEN-DAY MINIMUM	38		46		8.1	
10 PERCENT EXCEEDS	2510		2390		1440	
50 PERCENT EXCEEDS	605		788		320	
90 PERCENT EXCEEDS	48		66		21	

e Estimated

01425000 WEST BRANCH DELAWARE RIVER AT STILESVILLE, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

CHEMICAL DATA: 1959-60 (a) unpublished, 1969 (a), 1970 (a) unpublished, 1971, 1973 (b), 1974 (d), 1975 (b).

MINOR ELEMENTS DATA: 1971 (b).

NUTRIENT DATA: 1970 (a) unpublished, 1971, 1973 (b), 1974 (d), 1975 (b).

BIOLOGICAL DATA:

Bacteria--1973 (b), 1974 (d), 1975 (b).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1962 to current year.

INSTRUMENTATION.--Water-temperature recorder provides 15-minute-interval readings.

REMARKS.--Interruption of record was due to malfunction of recording instrument. Water temperature is affected by release of water from upstream reservoir.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1963-78, 1980-82, 1984-86, 1988, 1990-92, 1994-95, 1997), 30.5°C, July 2, 1963; minimum (water years 1963-95), 0.0°C on many days during winter periods, except 1969, 1973, 1986-87, 1990-91, 1994-95.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 16.0°C, May 31, Sept. 17, 18; minimum recorded, 4.0°C, May 2, but was probably less during period of instrument malfunction.

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	14.0	7.5	10.0	12.0	11.0	11.5	7.0	7.0	7.0	---	---	---
2	10.0	8.0	9.0	11.5	11.0	11.0	7.0	6.5	7.0	---	---	---
3	11.0	6.5	9.0	11.5	10.5	11.0	7.0	6.5	6.5	---	---	---
4	11.0	5.5	7.5	12.0	10.5	11.0	7.0	6.5	6.5	---	---	---
5	12.0	6.0	8.0	11.0	10.5	10.5	6.5	6.5	6.5	---	---	---
6	12.0	6.0	8.0	11.5	10.5	11.0	6.5	6.0	6.5	---	---	---
7	12.5	6.5	8.5	12.0	11.0	11.5	6.5	6.0	6.5	---	---	---
8	8.5	7.0	8.0	12.5	11.5	12.0	6.5	6.0	6.0	---	---	---
9	9.5	7.5	8.5	11.5	11.5	11.5	6.0	6.0	6.0	---	---	---
10	8.5	7.5	8.0	11.5	11.0	11.0	6.0	5.5	6.0	---	---	---
11	9.5	6.5	7.5	11.0	10.5	11.0	6.0	5.5	5.5	---	---	---
12	10.0	6.5	8.0	10.5	10.0	10.5	6.0	5.5	6.0	---	---	---
13	10.0	8.0	9.0	10.0	10.0	10.0	---	---	---	---	---	---
14	10.5	8.0	9.5	10.0	9.5	9.5	---	---	---	---	---	---
15	9.0	7.0	8.0	9.5	9.0	9.5	---	---	---	---	---	---
16	10.0	7.0	8.5	9.5	9.0	9.0	---	---	---	---	---	---
17	11.0	9.0	9.5	9.5	9.0	9.0	---	---	---	---	---	---
18	10.0	8.5	9.0	9.0	9.0	9.0	---	---	---	---	---	---
19	9.0	8.0	8.5	9.0	9.0	9.0	---	---	---	---	---	---
20	9.0	8.0	8.5	9.0	8.5	8.5	---	---	---	---	---	---
21	9.0	8.0	8.5	8.5	8.0	8.0	---	---	---	---	---	---
22	9.0	8.0	8.5	8.0	8.0	8.0	---	---	---	---	---	---
23	10.0	8.0	9.0	8.5	8.0	8.0	---	---	---	---	---	---
24	10.0	9.0	9.0	8.0	7.5	8.0	---	---	---	---	---	---
25	9.0	8.0	8.5	8.0	7.5	8.0	---	---	---	---	---	---
26	13.0	8.0	10.5	8.0	7.5	7.5	---	---	---	---	---	---
27	14.5	12.0	13.0	7.5	7.0	7.0	---	---	---	---	---	---
28	13.5	12.5	13.0	7.0	7.0	7.0	---	---	---	---	---	---
29	13.5	12.5	13.0	7.0	6.5	7.0	---	---	---	---	---	---
30	13.0	12.5	13.0	7.0	6.5	6.5	---	---	---	---	---	---
31	13.0	11.5	12.5	---	---	---	---	---	---	---	---	---
MONTH	14.5	5.5	9.5	12.5	6.5	9.5	---	---	---	---	---	---

DELAWARE RIVER BASIN

01425000 WEST BRANCH DELAWARE RIVER AT STILESVILLE, NY--Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	---	---	---	---	---	---	8.0	5.0	7.0
2	---	---	---	---	---	---	---	---	---	7.5	4.0	6.0
3	---	---	---	---	---	---	---	---	---	7.0	6.5	6.5
4	---	---	---	---	---	---	---	---	---	7.0	6.0	7.0
5	---	---	---	---	---	---	---	---	---	7.0	6.0	6.5
6	---	---	---	---	---	---	---	---	---	7.0	5.5	6.5
7	---	---	---	---	---	---	---	---	---	6.5	5.5	6.0
8	---	---	---	---	---	---	---	---	---	6.5	6.0	6.0
9	---	---	---	---	---	---	---	---	---	8.5	6.0	7.0
10	---	---	---	---	---	---	---	---	---	7.5	6.5	7.0
11	---	---	---	---	---	---	---	---	---	7.5	6.5	7.0
12	---	---	---	---	---	---	---	---	---	8.5	7.0	7.5
13	---	---	---	---	---	---	---	---	---	8.5	7.5	8.0
14	---	---	---	---	---	---	---	---	---	9.0	7.5	8.0
15	---	---	---	---	---	---	---	---	---	8.5	7.0	8.0
16	---	---	---	---	---	---	---	---	---	7.5	6.5	7.0
17	---	---	---	---	---	---	---	---	---	7.5	7.0	7.0
18	---	---	---	---	---	---	---	---	---	9.5	7.5	8.0
19	---	---	---	---	---	---	---	---	---	10.5	8.0	9.0
20	---	---	---	---	---	---	---	---	---	10.5	9.0	9.5
21	---	---	---	---	---	---	---	---	---	10.0	7.5	8.5
22	---	---	---	---	---	---	---	---	---	9.5	7.5	8.5
23	---	---	---	---	---	---	---	---	---	10.0	8.5	9.0
24	---	---	---	---	---	---	7.5	6.0	7.0	11.5	9.0	10.0
25	---	---	---	---	---	---	7.5	6.0	7.0	11.5	10.0	11.0
26	---	---	---	---	---	---	8.0	6.5	7.0	13.0	10.5	12.0
27	---	---	---	---	---	---	8.5	6.0	7.0	13.5	11.5	12.5
28	---	---	---	---	---	---	7.5	6.0	6.5	15.0	12.0	13.0
29	---	---	---	---	---	---	8.5	6.0	7.0	15.0	12.5	13.5
30	---	---	---	---	---	---	8.5	6.0	7.0	13.5	12.0	13.0
31	---	---	---	---	---	---	---	---	---	16.0	12.5	14.0
MONTH	---	---	---	---	---	---	---	---	---	16.0	4.0	8.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	14.5	12.0	13.5	9.0	6.5	7.5	9.0	7.5	8.0	12.5	10.0	10.5
2	12.0	10.5	11.5	8.0	6.5	7.5	9.0	7.5	8.0	12.0	10.0	10.5
3	14.5	10.0	11.5	8.5	6.5	7.5	8.5	8.0	8.0	11.0	9.5	10.0
4	13.5	9.5	11.0	7.5	6.5	7.0	9.0	8.0	8.5	11.5	9.0	10.0
5	11.5	9.0	10.0	8.5	6.5	7.5	9.5	8.0	8.5	12.0	9.0	10.0
6	13.0	8.0	10.0	9.0	7.0	7.5	9.5	8.0	8.5	11.5	9.5	10.5
7	9.0	7.0	7.5	8.5	7.0	7.5	9.0	8.0	8.5	11.0	10.0	10.5
8	10.0	6.5	8.0	8.5	7.0	7.5	9.5	8.0	8.5	12.0	10.0	10.5
9	11.5	6.5	8.5	8.5	7.0	7.5	10.0	8.0	9.0	12.5	10.0	10.5
10	10.0	6.5	7.5	9.0	7.0	7.5	10.0	8.0	9.0	11.5	10.0	10.5
11	11.0	6.5	8.5	8.5	6.5	7.5	9.5	8.5	9.0	11.0	10.5	11.0
12	11.0	6.5	8.5	8.5	7.0	7.5	10.0	8.5	9.0	13.5	10.5	11.5
13	8.0	6.5	7.0	9.0	7.0	8.0	9.5	8.5	9.0	12.0	10.0	10.5
14	9.0	6.5	7.5	9.0	7.0	8.0	10.0	9.0	9.0	13.5	10.0	11.5
15	11.5	6.5	8.5	9.0	7.0	8.0	10.0	9.0	9.0	13.5	10.0	11.0
16	12.5	6.0	9.0	8.5	7.5	8.0	10.5	8.5	9.5	15.5	10.0	12.0
17	9.0	7.0	7.5	9.5	7.0	8.0	10.0	9.0	9.5	16.0	10.5	13.0
18	8.5	6.5	7.5	9.0	7.0	8.0	10.5	9.0	9.5	16.0	11.0	13.0
19	9.5	6.5	7.5	8.5	7.0	7.5	10.5	8.5	9.5	13.5	10.5	11.5
20	9.0	6.5	7.5	8.5	7.0	7.5	10.0	9.0	9.5	11.5	10.5	11.0
21	9.0	6.5	7.5	8.0	7.0	7.5	10.0	9.0	9.5	12.5	10.0	11.0
22	9.0	6.5	7.5	9.5	7.0	8.0	11.0	9.0	9.5	14.5	9.0	11.5
23	9.5	6.5	7.5	9.5	7.0	8.0	10.0	9.0	9.5	12.0	10.0	11.0
24	9.0	6.5	7.5	8.0	7.0	7.5	11.0	9.0	10.0	13.5	9.5	11.0
25	9.5	7.0	8.0	9.5	7.5	8.0	10.5	9.0	9.5	12.5	9.0	10.5
26	7.5	7.0	7.5	9.0	7.5	8.0	11.0	9.5	10.0	11.5	10.5	11.0
27	8.5	6.5	7.5	9.0	7.5	8.0	11.0	9.5	10.0	12.0	10.5	11.0
28	9.5	6.5	8.0	8.5	7.5	8.0	11.5	9.5	10.5	12.0	10.5	11.0
29	9.5	6.5	8.0	9.5	7.5	8.0	11.0	9.5	10.0	12.0	11.0	11.5
30	9.5	6.5	8.0	9.0	7.0	8.0	12.0	9.5	10.5	11.5	11.0	11.5
31	---	---	---	9.5	7.5	8.0	12.5	9.5	10.5	---	---	---
MONTH	14.5	6.0	8.5	9.5	6.5	7.5	12.5	7.5	9.0	16.0	9.0	11.0

01426500 WEST BRANCH DELAWARE RIVER AT HALE EDDY, NY

LOCATION.--Lat 42°00'11", long 75°23'02", Delaware County, Hydrologic Unit 02040101, on left bank at downstream side of bridge on County Highway 56 in Hale Eddy, and 9 mi upstream from confluence of East and West Branches near Hancock. Water-quality sampling site at discharge station.

DRAINAGE AREA.--595 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 871: 1916. WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 946.46 ft above sea level. Prior to Sept. 8, 1928, nonrecording gage.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Subsequent to October 1963, entire flow from 454 mi² drainage area controlled by Cannonsville Reservoir (see Reservoirs in Delaware River Basin). Part of flow diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill) impounded for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master. Satellite gage-height and temperature telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,900 ft³/s, Mar. 22, 1948, gage height, 15.69 ft; maximum gage height, 15.8 ft, Sept. 30, 1924, from graph based on gage readings; minimum discharge, 17 ft³/s, Oct. 20, 1963; minimum gage height, 1.03 ft, Aug. 4, 1936.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 10, 1903, reached a stage of 20.3 ft, from floodmarks, discharge, about 46,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,700 ft³/s, Nov. 10, gage height, 10.49 ft; minimum, 56 ft³/s, Sept. 23, 24, gage height, 1.32 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	191	906	2710	1600	181	3480	3210	895	400	482	1060	548
2	153	840	8700	1520	163	3480	3150	877	417	485	1180	323
3	141	785	8780	1540	143	3390	3240	1090	393	785	1100	301
4	127	728	6430	1630	125	2830	3600	1620	328	738	862	286
5	117	565	4730	1620	168	2440	3910	1650	297	912	1170	423
6	110	428	3860	1610	204	3210	3840	1670	244	662	1240	558
7	103	343	3220	1520	226	3020	3530	1680	221	749	1130	451
8	100	1090	2720	1410	213	2660	3070	1560	210	679	1120	544
9	111	7720	2340	1290	e180	2300	2610	1490	207	834	1020	426
10	120	10000	2000	1300	e160	2100	2210	1650	231	611	822	320
11	116	7400	1760	1200	e150	1930	1890	1760	297	799	1110	388
12	102	5150	1810	1030	e130	1690	1670	1680	193	1030	1110	180
13	94	3770	2240	925	e120	1360	1610	1630	474	766	1330	167
14	92	2900	3200	870	e160	1140	1470	1520	487	671	1250	162
15	90	2230	3300	796	e120	1010	1310	1390	255	685	1120	158
16	90	1750	3230	830	e110	847	1190	1280	191	654	1010	139
17	110	1440	3260	e750	e120	681	1050	1190	225	380	984	78
18	107	1250	3480	e650	109	604	961	1100	199	809	968	66
19	149	1550	3420	e620	120	530	936	1470	271	820	732	154
20	673	1740	3140	e580	285	479	916	2580	624	895	558	593
21	602	1710	2700	e540	507	433	888	2430	496	920	342	268
22	491	1620	2340	538	2420	578	874	2200	352	1080	412	74
23	392	1510	2060	561	3360	569	863	1960	358	852	627	59
24	364	1410	2040	e460	3120	502	832	1730	437	529	494	123
25	302	1380	2430	e400	2590	453	788	1560	289	1070	437	134
26	343	1990	2320	e370	2280	944	743	1440	438	813	514	562
27	540	2250	2130	e340	3190	1090	713	1240	776	632	522	689
28	772	2130	1990	e300	3910	1280	908	927	578	550	752	643
29	959	1980	1940	e250	---	1650	1040	697	404	602	389	600
30	991	1830	1970	e210	---	2070	939	554	421	733	351	724
31	960	---	1840	e190	---	2760	---	428	---	828	327	---
TOTAL	9612	70395	98090	27450	24564	51510	53961	44948	10713	23055	26043	10141
MEAN	310	2347	3164	885	877	1662	1799	1450	357	744	840	338
MAX	991	10000	8780	1630	3910	3480	3910	2580	776	1080	1330	724
MIN	90	343	1760	190	109	433	713	428	191	380	327	59

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

	656	556	637	572	721	1238	1691	991	633	690	657	613
MEAN	656	556	637	572	721	1238	1691	991	633	690	657	613
MAX	2123	2347	3164	2494	3107	3617	5167	2322	1899	1456	1698	1604
(WY)	1976	1997	1997	1978	1976	1986	1993	1996	1968	1971	1968	1972
MIN	33.2	41.8	172	127	94.2	158	194	122	132	76.2	107	45.4
(WY)	1964	1965	1982	1970	1989	1981	1985	1985	1965	1965	1985	1964

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1964 - 1997
ANNUAL TOTAL	502495	450482	
ANNUAL MEAN	1373	1234	804
HIGHEST ANNUAL MEAN			1411
LOWEST ANNUAL MEAN			204
HIGHEST DAILY MEAN	10000	Nov 10	15900
LOWEST DAILY MEAN	85	Jun 7	18
ANNUAL SEVEN-DAY MINIMUM	98	Oct 12	26
10 PERCENT EXCEEDS	3200		1780
50 PERCENT EXCEEDS	785		485
90 PERCENT EXCEEDS	125		120

e Estimated

DELAWARE RIVER BASIN

01426500 WEST BRANCH DELAWARE RIVER AT HALE EDDY, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1958-59, 1968 to current year.

CHEMICAL DATA: 1958-59 (d), 1970 (b), 1971-74 (d), 1975 (c).

MINOR ELEMENTS DATA: 1971-74 (a).

ORGANIC DATA: OC--1974 (a), 1975 (c).

NUTRIENT DATA: 1971-74 (d), 1975 (c).

BIOLOGICAL DATA:

Bacteria--1971, 1973 (c); 1974 (d); 1975 (c).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1967 to current year (no winter record for water years 1969-77).

INSTRUMENTATION.--Water-temperature satellite telemeter provides 15-minute-interval readings. Prior to May 1993, water-temperature recorder provided one-hour-interval readings. Prior to October 1976, water-temperature recorder provided continuous readings.**REMARKS.**--Water temperature is affected by release of water from upstream reservoir. Interruptions of record were due to malfunction of recording instrument.**EXTREMES FOR PERIOD OF DAILY RECORD.**--

WATER TEMPERATURES: Maximum (water years 1968-77, 1979-83, 1985, 1988-96), 30.5°C, July 22, 23, 1972, June 16, 1981; minimum (water years 1968, 1978-97), 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 23.5°C, Sept. 18, but may have been higher during period of instrument malfunction; minimum, 0.0°C on many days during winter period.

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

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

DELAWARE RIVER BASIN

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01426500 WEST BRANCH DELAWARE RIVER AT HALE EDDY, NY--Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	.5	.0	.5	2.5	2.0	2.5	4.5	1.5	2.5	9.5	7.0	8.5
2	2.0	.5	1.0	3.5	2.5	3.0	5.0	2.0	3.5	10.5	5.0	8.0
3	1.5	.5	1.0	3.0	2.0	2.5	5.5	2.5	4.0	8.0	6.5	7.5
4	1.5	.0	.5	2.5	2.0	2.5	6.0	3.5	4.5	9.5	7.0	8.0
5	2.0	.0	1.0	3.0	2.0	2.5	5.5	3.5	4.0	10.0	6.5	8.0
6	2.5	.5	1.5	3.0	2.0	2.5	6.0	4.0	5.0	8.0	6.0	7.5
7	1.5	.5	1.0	3.0	1.5	2.0	6.5	4.0	5.0	8.0	5.5	6.5
8	2.0	.0	1.0	2.5	1.5	2.0	5.5	3.5	4.5	9.0	5.5	7.0
9	1.5	.0	.5	3.5	1.0	2.0	5.0	3.0	3.5	10.0	6.5	8.0
10	.5	.0	.0	4.5	1.5	2.5	6.0	2.5	4.0	8.0	7.0	7.5
11	1.0	.0	.5	3.0	2.0	2.5	6.0	3.0	4.0	10.0	6.5	8.0
12	.5	.0	.0	4.0	1.5	2.5	5.0	3.5	4.0	10.0	7.5	8.0
13	1.0	.0	.0	4.5	1.0	2.5	5.0	4.0	4.5	9.0	7.5	8.5
14	.0	.0	.0	2.0	.5	1.5	7.0	3.5	5.0	11.0	7.5	9.0
15	1.5	.0	.5	4.0	1.0	2.5	8.0	3.0	5.0	11.0	8.0	9.0
16	.5	.0	.5	3.5	.5	1.5	8.5	3.5	5.5	8.5	6.5	7.5
17	1.5	.0	.5	2.5	.0	1.5	5.5	4.5	5.0	8.0	6.5	7.0
18	4.0	.0	1.5	5.0	1.5	3.0	4.5	3.5	4.0	12.0	6.5	9.0
19	5.5	1.0	3.5	6.5	1.0	3.5	5.0	3.5	4.0	12.0	8.5	10.0
20	5.0	1.0	3.0	4.0	2.0	3.0	6.0	4.0	4.5	13.0	9.5	11.0
21	3.5	1.0	2.5	4.0	2.0	3.0	7.5	4.0	5.5	10.0	8.5	9.5
22	4.0	1.5	2.0	3.5	1.0	3.0	8.5	4.5	6.5	10.0	8.0	9.0
23	2.5	1.0	2.0	5.0	.0	2.0	8.5	5.5	7.0	12.5	8.5	10.0
24	3.0	1.5	2.0	6.5	.0	3.0	9.0	6.0	7.5	13.5	9.5	11.0
25	3.0	1.0	2.0	3.0	1.0	2.0	10.5	6.0	8.0	12.0	10.5	11.0
26	3.5	1.5	2.0	3.0	2.0	3.0	11.0	6.0	8.0	15.5	10.0	12.5
27	3.5	2.5	3.0	7.5	2.0	4.0	11.0	6.0	8.0	15.5	10.5	13.0
28	3.5	2.0	2.5	7.0	2.5	4.5	8.5	6.5	7.5	17.5	11.0	14.0
29	---	---	---	5.0	3.5	4.5	11.5	6.0	8.5	17.0	11.5	14.0
30	---	---	---	4.5	4.0	4.0	12.5	7.0	9.0	14.0	12.0	13.0
31	---	---	---	4.0	1.5	3.0	---	---	---	18.5	12.0	15.0
MONTH	5.5	.0	1.5	7.5	.0	2.5	12.5	1.5	5.5	18.5	5.0	9.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	17.5	15.0	16.0	13.5	8.0	10.5	---	---	---	18.5	11.5	14.5
2	---	---	---	10.5	8.0	9.0	---	---	---	18.0	13.0	15.5
3	---	---	---	12.5	8.0	10.0	---	---	---	16.5	12.0	13.5
4	18.5	11.5	15.0	10.5	8.0	9.0	---	---	---	15.5	9.5	12.5
5	19.0	12.0	15.5	12.5	6.5	9.0	---	---	---	15.0	9.5	12.0
6	19.5	12.0	15.5	14.0	6.5	10.0	---	---	---	14.0	9.5	11.5
7	17.0	12.5	14.0	13.0	7.0	9.5	---	---	---	13.0	10.5	11.5
8	17.5	10.5	13.5	13.0	7.0	9.5	---	---	---	14.5	10.5	12.0
9	19.5	12.0	15.5	9.5	7.5	8.5	---	---	---	15.5	11.0	13.0
10	20.5	12.5	16.5	13.5	7.5	10.0	---	---	---	13.0	11.0	12.0
11	18.5	10.0	14.5	12.5	7.5	9.5	---	---	---	13.5	11.5	12.5
12	19.5	13.5	16.5	12.5	7.0	9.5	---	---	---	18.0	12.5	15.0
13	17.0	9.5	13.0	15.0	7.0	10.5	---	---	---	16.0	14.0	15.0
14	14.5	8.5	11.0	15.0	7.5	10.5	13.0	9.0	10.0	19.0	13.5	15.5
15	19.0	8.0	13.5	14.5	7.5	10.5	11.5	8.5	9.5	19.0	13.5	16.0
16	20.0	12.0	16.0	14.0	8.5	11.0	13.0	9.0	10.5	19.5	13.5	16.5
17	17.5	12.0	14.0	17.0	8.5	12.5	12.0	9.5	10.5	20.5	14.5	17.5
18	13.5	11.5	12.5	14.0	8.0	10.5	14.5	9.5	11.0	23.5	17.0	19.5
19	19.0	12.0	14.5	13.0	7.5	9.5	13.5	8.5	10.5	20.5	15.5	18.0
20	12.5	8.0	10.0	12.5	7.0	9.0	11.5	8.5	10.0	15.5	11.0	12.5
21	16.5	8.5	12.0	9.5	7.5	8.0	13.0	9.5	11.0	14.5	9.5	11.5
22	17.5	9.5	13.0	12.0	7.5	9.5	15.0	10.5	12.0	17.0	10.0	13.0
23	17.5	9.0	13.5	12.5	7.5	9.5	12.5	9.5	10.5	15.5	12.5	13.5
24	14.0	8.0	11.0	11.0	---	---	14.0	9.0	11.5	15.0	9.5	12.0
25	18.5	10.5	14.0	---	---	---	12.5	10.0	11.5	17.0	9.5	13.0
26	15.5	9.5	11.5	---	---	---	14.0	9.5	11.5	13.5	10.5	12.0
27	13.5	8.0	10.5	---	---	---	14.5	10.5	12.0	15.0	10.0	12.0
28	16.5	7.0	11.0	---	---	---	15.0	10.5	12.0	13.0	10.0	11.5
29	16.5	8.0	12.0	---	---	---	16.0	11.5	13.5	13.5	11.0	12.0
30	16.5	8.0	12.5	---	---	---	17.0	10.5	13.5	13.5	11.0	12.0
31	---	---	---	---	---	---	15.5	12.0	14.0	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	23.5	9.5	13.5

LOCATION.--Lat 41°57'08", long 75°17'31", Delaware County, Hydrologic Unit 02040101, at bridge at end of Pennsylvania State Highway 191 in Hancock, and 1.3 mi upstream from confluence with East Branch Delaware River.

DRAINAGE AREA.--650 mi².

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1996 to September 1997.

INSTRUMENTATION.--Water-temperature satellite telemeter provides 15-minute-interval readings.

REMARKS.--Water temperature is affected by release of water from upstream reservoir. Interruptions of record were due to malfunction of recording instrument.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 24.5°C, Sept. 18; minimum, 0.0°C on many days during winter period.

[illegible]

DELAWARE RIVER BASIN

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01427000 WEST BRANCH DELAWARE RIVER AT HANCOCK, NY--Continued

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

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

DELAWARE RIVER BASIN

01427301 DELAWARE RIVER NEAR HANKINS, NY

LOCATION.--Lat 41°49'25", long 75°06'48", Sullivan County, Hydrologic Unit 02040101, on left bank 5 ft downstream from Kellams Bridge, and 1.5 mi northwest of Hankins.

DRAINAGE AREA.--1,668 mi².

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: August 1993 to current year.

INSTRUMENTATION.--Water-temperature satellite telemeter since March 1994, provides 15-minute-interval readings. From August 1993 to March 1994, water-temperature recorder provided 15-minute-interval readings.

REMARKS.--Water temperature is affected by release of water from upstream reservoir. Interruptions of record were due to malfunction of recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1994-97), 27.5°C, July 15, 1995; minimum (water years 1994-97), 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 25.5°C, July 18; minimum, 0.0°C on many days during winter period.

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	16.0	14.0	15.0	9.0	7.0	8.0	6.0	3.5	4.5	1.5	.0	.5
2	15.5	14.5	14.5	7.0	5.5	6.0	6.0	5.5	6.0	1.5	.0	.5
3	14.5	12.5	14.0	6.0	5.0	5.5	5.5	5.0	5.5	3.0	1.5	2.5
4	12.5	10.5	11.5	6.5	5.5	6.0	---	---	---	4.0	3.0	3.5
5	---	9.5	---	6.5	6.0	6.5	---	5.5	---	4.5	4.0	4.0
6	---	---	---	8.0	6.5	7.0	---	4.5	---	4.5	3.5	4.0
7	---	---	---	10.0	8.0	8.5	4.5	4.5	4.5	3.5	---	---
8	---	---	---	11.5	10.0	11.0	5.0	4.5	5.0	---	.0	---
9	---	---	---	11.0	9.5	10.0	4.5	4.5	4.5	.0	.0	.0
10	---	---	---	9.5	8.5	9.0	4.5	4.0	4.0	.5	.0	.0
11	---	---	---	8.5	8.0	8.5	---	---	---	.5	.0	.5
12	12.0	8.5	---	8.0	7.0	7.5	4.5	---	---	.0	.0	.0
13	12.0	---	---	7.0	6.0	6.5	4.5	3.5	4.5	.0	.0	.0
14	13.0	---	---	6.0	5.5	6.0	4.0	3.5	3.5	.0	.0	.0
15	11.5	---	---	5.5	4.5	5.0	5.0	4.0	4.5	.0	.0	.0
16	---	---	---	5.0	3.5	4.0	5.0	4.5	5.0	.5	.0	.0
17	---	---	---	4.5	3.5	4.0	5.5	5.0	5.0	.0	.0	.0
18	---	---	---	5.0	4.5	4.5	5.5	5.5	5.5	.0	.0	.0
19	---	---	---	5.5	5.0	5.5	5.5	4.0	5.0	.0	.0	.0
20	---	---	---	5.5	5.0	5.0	4.0	2.0	3.0	.0	.0	.0
21	---	---	---	5.0	4.5	4.5	2.0	1.5	1.5	.0	.0	.0
22	10.5	---	---	4.5	4.5	4.5	2.5	1.5	2.0	.0	.0	.0
23	11.0	9.5	10.5	5.0	4.0	4.5	3.5	2.5	3.0	.5	.0	.0
24	11.5	10.5	11.0	5.0	4.5	4.5	4.0	3.5	3.5	.0	.0	.0
25	11.0	10.0	10.5	5.0	4.5	4.5	4.0	2.5	3.0	.0	.0	.0
26	10.5	9.0	10.0	5.5	4.5	5.0	2.5	2.0	2.0	.0	.0	.0
27	11.0	9.0	10.0	4.5	2.5	3.5	3.0	2.0	2.5	.0	.0	.0
28	11.5	10.5	11.0	2.5	2.0	2.5	3.5	3.0	3.5	.0	.0	.0
29	10.5	9.5	10.0	3.0	2.0	2.5	4.5	3.5	4.0	.0	.0	.0
30	9.5	9.0	9.5	3.5	3.0	3.0	4.5	3.5	4.0	.0	.0	.0
31	10.0	8.5	9.0	---	---	---	3.5	1.5	2.5	.0	.0	.0
MONTH	---	---	---	11.5	2.0	6.0	---	---	---	---	---	---

DELAWARE RIVER BASIN

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01427301 DELAWARE RIVER NEAR HANKINS, NY--Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	.0	.0	.0	3.0	2.5	2.5	3.5	1.0	2.0	12.5	11.5	12.0
2	.5	.0	.0	3.5	2.5	3.0	4.5	2.5	3.5	12.0	9.5	11.0
3	.0	.0	.0	3.5	2.5	3.0	6.0	3.5	4.5	11.5	9.5	10.5
4	.5	.0	.0	2.5	2.0	2.5	7.0	5.0	6.0	10.0	8.5	9.0
5	.5	.0	.0	3.0	2.5	2.5	6.5	5.5	6.0	10.5	8.0	9.5
6	.5	.0	.0	3.0	2.5	3.0	7.5	5.5	6.5	10.5	9.0	10.0
7	.5	.0	.0	2.5	1.5	2.0	8.5	7.0	7.5	9.0	7.5	8.0
8	.5	.0	.0	2.0	1.0	1.5	7.5	5.5	6.0	9.0	6.5	8.0
9	1.0	.0	.0	2.0	.5	1.5	6.0	3.5	4.5	10.0	8.5	9.0
10	.5	.0	.0	3.5	1.0	2.5	4.5	2.5	3.5	10.0	8.5	9.5
11	.5	.0	.0	3.5	2.5	3.0	5.5	3.5	4.5	10.5	7.5	9.0
12	.0	.0	.0	2.5	1.5	2.0	5.5	5.0	5.0	11.0	9.5	10.5
13	1.0	.0	.0	2.0	1.0	1.5	6.0	5.0	5.5	11.0	9.5	10.0
14	.0	.0	.0	2.0	.0	1.0	7.0	4.5	5.5	11.0	8.5	9.5
15	.5	.0	.0	2.5	.0	1.0	7.5	5.0	6.5	12.5	10.5	11.5
16	.5	.0	.0	1.5	.0	1.0	8.5	6.0	7.5	12.0	9.0	10.5
17	1.0	.0	.0	.5	.0	.5	8.5	7.5	8.0	9.0	8.0	8.5
18	1.0	.0	.5	3.0	.5	2.0	7.5	4.5	6.0	11.5	7.5	9.0
19	1.0	.0	.5	4.5	2.0	3.5	5.0	3.5	4.5	13.0	11.5	12.0
20	1.0	.0	.5	4.0	3.5	4.0	6.0	4.5	5.0	14.0	12.5	13.0
21	.5	.0	.5	3.5	3.0	3.5	7.5	5.5	6.0	13.0	10.5	11.5
22	.5	.0	.0	4.0	2.5	3.5	8.5	6.5	7.5	10.5	9.0	10.0
23	1.5	.0	.5	3.0	1.0	2.0	8.5	7.5	8.0	12.0	9.0	10.5
24	2.0	1.0	1.5	3.5	.5	2.0	9.0	7.5	8.0	14.0	11.0	12.5
25	1.5	.0	1.0	2.5	2.0	2.5	9.5	7.5	8.5	14.0	12.0	13.0
26	2.5	.5	1.5	3.0	2.0	2.5	11.0	8.0	9.5	14.5	11.0	12.5
27	3.5	2.5	3.0	5.5	2.0	3.5	11.0	9.0	10.0	15.0	12.5	14.0
28	3.5	3.0	3.0	7.0	5.0	6.0	10.5	9.0	9.5	16.5	13.5	15.0
29	---	---	---	6.5	6.0	6.0	11.0	8.0	9.5	17.0	14.5	16.0
30	---	---	---	6.0	5.5	5.5	13.0	10.0	11.5	16.0	14.5	15.0
31	---	---	---	5.5	1.5	4.0	---	---	---	17.0	14.0	15.5
MONTH	3.5	.0	.5	7.0	.0	2.5	13.0	1.0	6.5	17.0	6.5	11.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	18.0	16.5	17.5	24.0	22.0	23.0	19.5	17.0	18.5	22.0	19.5	20.5
2	17.5	15.5	16.5	22.5	19.5	21.0	19.0	16.5	17.5	21.5	19.0	20.5
3	17.0	14.5	15.5	20.5	18.5	19.5	18.0	16.0	17.0	21.0	18.0	20.0
4	19.0	15.5	17.0	20.0	18.5	19.5	16.5	15.0	16.0	18.0	16.0	17.0
5	20.0	16.5	18.5	19.5	16.5	18.0	17.5	15.0	16.0	18.0	14.5	16.5
6	20.0	17.5	19.0	19.5	16.0	18.0	16.5	14.0	15.5	17.5	16.0	16.5
7	19.0	18.0	18.5	21.0	17.5	19.0	18.0	14.0	16.0	16.5	15.0	16.0
8	19.0	16.5	17.5	20.0	18.0	19.0	17.0	14.5	15.5	17.5	16.0	16.5
9	20.5	17.0	19.0	20.0	18.0	19.5	18.0	14.0	16.0	17.5	16.0	17.0
10	22.5	18.5	20.5	19.0	15.0	17.5	19.0	15.5	17.5	17.0	16.0	16.5
11	24.0	20.0	22.0	21.0	17.0	19.0	19.0	17.0	18.0	16.0	15.0	15.5
12	24.0	21.5	23.0	21.0	18.0	19.5	18.5	15.5	17.5	16.0	15.0	15.5
13	23.5	21.5	22.5	21.0	16.0	18.5	18.5	14.5	16.5	17.5	15.5	17.0
14	22.5	20.0	21.5	22.5	18.0	20.0	17.5	14.5	16.0	20.0	17.0	18.5
15	21.0	17.5	19.5	24.0	21.0	22.5	17.0	15.0	16.0	21.0	18.0	19.5
16	22.0	18.5	20.0	24.0	21.5	23.0	18.5	14.5	16.5	21.5	18.5	20.0
17	20.5	18.5	19.5	24.0	21.0	23.0	18.5	17.0	18.0	21.5	19.0	20.0
18	19.0	18.0	18.5	25.5	22.5	24.0	19.0	16.0	17.5	23.5	20.0	21.0
19	21.5	18.5	20.0	24.0	20.0	21.5	19.0	15.5	17.5	23.5	19.5	21.0
20	22.5	20.0	21.0	20.0	17.0	18.5	18.5	16.0	17.0	21.0	19.0	20.5
21	22.5	20.0	21.5	19.0	17.0	17.5	16.0	15.0	15.5	19.0	14.0	16.0
22	24.0	21.5	22.5	18.0	15.0	16.5	18.5	15.5	16.5	16.5	12.5	14.0
23	24.0	21.0	22.5	19.0	16.0	17.5	19.0	17.0	18.0	16.0	14.0	15.0
24	23.5	21.0	22.0	18.5	17.0	17.5	18.5	16.0	17.5	17.0	13.0	14.5
25	24.5	21.0	22.5	19.5	17.0	18.0	18.5	17.0	17.5	16.5	13.0	14.0
26	24.5	23.0	23.5	20.0	15.5	17.5	18.5	16.5	17.5	17.0	14.0	15.5
27	23.5	21.0	22.5	20.5	19.0	19.5	18.0	16.0	17.5	15.5	13.5	14.5
28	22.5	19.0	21.0	21.0	18.0	19.5	19.0	17.5	18.0	14.0	12.5	13.5
29	23.5	19.5	21.5	21.5	18.5	20.0	19.0	16.5	17.5	15.0	14.0	14.0
30	25.0	21.5	23.5	20.5	17.0	19.0	20.0	17.5	19.0	15.0	13.5	14.0
31	---	---	---	20.5	17.5	19.0	20.0	18.5	19.5	---	---	---
MONTH	25.0	14.5	20.5	25.5	15.0	19.5	20.0	14.0	17.0	23.5	12.5	17.0

DELAWARE RIVER BASIN

01427510 DELAWARE RIVER AT CALLICOON, NY

LOCATION.--Lat 41°45'24", long 75°03'28", Wayne County, Pennsylvania, Hydrologic Unit 02040101, on right bank, 0.5 mi downstream from Callicoon Creek, 0.5 mi downstream from Interstate Bridge 7, and 0.8 mi southeast of Callicoon. Water-quality sampling site at discharge station.

DRAINAGE AREA.--1,820 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1975 to current year.

REVISED RECORDS.--WDR NY-82-1: Drainage area. WDR NY-86-1: 1975-84 (M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 734.88 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Subsequent to September 1954, entire flow from 371 mi² of drainage area controlled by Pepacton Reservoir (see Reservoirs in Delaware River Basin), and subsequent to October 1963, entire flow from 454 mi² of drainage area controlled by Cannonsville Reservoir (see Reservoirs in Delaware River Basin). Part of flow from these reservoirs diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill) impounded for release during period of low flow in the lower Delaware River basin, as directed by the Delaware River Master. Satellite gage-height and temperature telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 95,600 ft³/s, Jan. 19, 1996, gage-height, 16.31 ft; minimum, 306 ft³/s, Sept. 24, 25, 1997; minimum gage height, 2.20 ft, Sept. 13, 1977, Aug. 23, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 55,800 ft³/s, Dec. 2, gage height, 12.03 ft; minimum, 306 ft³/s, Sept. 24, 25, gage height, 2.46 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1230	2140	6820	5510	e2000	8790	12200	2960	e1200	941	1080	1160
2	952	1960	41400	5130	2200	8500	10800	3000	e1400	989	1420	1040
3	826	1820	32100	4880	2100	10200	10400	3650	e1700	900	1380	860
4	747	1710	20100	5230	2130	8260	11300	7330	1550	1110	1250	783
5	680	1560	14200	5050	1720	7080	12400	6640	1370	e1300	1240	794
6	626	1350	11800	5080	2170	10000	12300	6160	1250	1170	1490	1070
7	583	1210	10400	4700	e2200	9390	11900	6330	1140	996	1360	1100
8	575	2260	8950	4220	e1900	7810	10700	5700	1090	987	1340	1050
9	770	34500	7720	4230	e1400	6640	8880	5230	1050	1080	1320	1040
10	944	24700	6600	4020	e1200	5970	7450	5430	993	1070	1120	1040
11	1030	19100	5830	3550	e1200	5560	6360	5730	993	855	e1600	1250
12	937	13600	6590	e2900	e1200	4750	5600	5280	1020	1340	e1600	1880
13	797	9980	9510	e2500	e1100	3910	5890	4920	895	1210	e1800	1530
14	744	7700	13600	e2300	e1100	3380	5580	4500	1250	920	1560	917
15	683	6170	12200	e2000	e1100	e2900	4610	3940	1150	971	1580	710
16	648	4920	10700	e1800	e1100	e2600	3790	3480	853	991	1260	605
17	614	4040	10200	e1700	e1000	2450	3300	3180	797	1070	1360	528
18	602	3490	12300	e1600	e1100	2300	3000	2900	846	836	1290	438
19	642	4310	12500	e1500	e1100	2090	2870	2920	839	1170	1090	386
20	2970	5050	11100	e1900	1840	1980	2830	6930	991	1140	960	804
21	5940	4670	9170	e2200	2590	1840	2940	7220	1210	1180	897	1030
22	4500	4250	7840	e2500	e7000	2110	3000	6310	1150	1320	667	540
23	3390	3830	6920	2780	11400	2340	2680	5510	914	1240	914	363
24	3200	3460	6530	3540	8500	1950	2440	4750	919	987	954	321
25	2820	3210	8600	e2600	6740	1800	2240	4210	963	1140	1060	364
26	2280	4540	8010	e2200	5860	2800	2070	3950	878	1020	1160	405
27	2110	6110	7190	e1800	6480	4140	1990	e3300	1240	1110	1050	1300
28	2160	5530	6460	e1500	9890	4480	2740	e2500	1500	918	1370	1110
29	2510	5050	6070	e1800	---	5940	3900	e1900	e900	909	1500	1020
30	2410	4610	7100	e1700	---	7950	3360	e1500	923	913	1230	1160
31	2300	---	6510	e1900	---	10300	---	e1300	---	1010	935	---
TOTAL	51220	196830	345020	94320	89320	160210	179520	138660	32974	32793	38837	26598
MEAN	1652	6561	11130	3043	3190	5168	5984	4473	1099	1058	1253	887
MAX	5940	34500	41400	5510	11400	10300	12400	7330	1700	1340	1800	1880
MIN	575	1210	5830	1500	1000	1800	1990	1300	797	836	667	321

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

	MEAN	2115	2787	2805	2430	2733	4570	5765	3511	1624	1319	1306	1415
	MAX	6545	6561	11130	7594	7993	11080	14500	7866	3228	3571	2710	3716
	(WY)	1978	1997	1997	1978	1976	1977	1993	1984	1984	1996	1994	1977
	MIN	701	1130	1127	587	611	1177	1497	935	734	777	560	839
	(WY)	1992	1979	1990	1977	1980	1981	1985	1985	1985	1981	1985	1994

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1975 - 1997

ANNUAL TOTAL	1733386	1386302	2691
ANNUAL MEAN	4736	3798	3972
HIGHEST ANNUAL MEAN			1435
LOWEST ANNUAL MEAN			1985
HIGHEST DAILY MEAN	48100	Jan 20	54800
LOWEST DAILY MEAN	575	Oct 8	312
ANNUAL SEVEN-DAY MINIMUM	676	Oct 13	354
10 PERCENT EXCEEDS	10400		6030
50 PERCENT EXCEEDS	2680		1400
90 PERCENT EXCEEDS	834		778

e Estimated

01427510 DELAWARE RIVER AT CALLICOON, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: June 1975 to current year.

INSTRUMENTATION.--Water-temperature satellite telemeter since May 1989, provides 15-minute-interval readings. Prior to May 1989, water-temperature recorder provided one-hour-interval readings.**REMARKS.**--Water temperature is affected by release of water from upstream reservoir. Interruptions of record were due to malfunction of recording instrument.**EXTREMES FOR PERIOD OF DAILY RECORD.**--

WATER TEMPERATURES: Maximum recorded, (water years 1976-97), 30.5°C, July 12, 1987; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 26.5°C, June 25, 30, July 15, 16, 18; minimum, 0.0°C on many days during winter period.

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	17.0	13.5	15.0	8.5	6.5	8.0	6.0	3.0	4.0	1.5	.0	---
2	16.0	14.5	15.0	6.5	5.5	6.0	6.0	5.5	6.0	1.0	.0	---
3	14.5	12.5	14.0	6.0	4.5	5.5	5.5	5.5	5.5	3.0	1.0	2.0
4	12.5	10.0	11.5	6.5	4.5	5.5	6.0	5.5	5.5	4.0	3.0	3.5
5	12.0	9.0	11.0	7.0	5.0	6.0	5.5	5.5	5.5	4.5	4.0	4.0
6	12.5	9.5	11.0	8.0	6.5	7.0	5.5	4.0	4.5	4.5	3.0	4.0
7	13.0	10.0	11.5	9.5	8.0	8.5	4.5	4.5	4.5	3.0	1.0	2.5
8	13.0	11.5	11.5	12.0	9.5	11.0	5.0	4.5	4.5	1.0	.0	---
9	13.0	11.0	12.0	11.0	9.5	10.5	4.5	4.0	4.5	---	.0	---
10	12.5	10.5	11.5	9.5	8.5	9.0	4.0	3.5	4.0	.0	.0	.0
11	11.0	9.0	10.0	8.5	8.0	8.5	4.0	3.5	3.5	.5	.0	.0
12	11.0	8.0	9.5	8.0	7.0	7.5	4.0	3.5	4.0	.0	.0	.0
13	12.5	10.0	11.0	7.0	6.0	6.5	4.5	3.5	4.0	.0	.0	.0
14	13.0	11.0	12.0	6.0	5.5	6.0	3.5	3.0	3.5	.0	.0	.0
15	11.5	9.0	10.5	5.5	4.5	5.0	4.5	3.5	4.0	.0	.0	.0
16	12.5	8.5	10.5	4.5	3.5	4.0	5.0	4.5	4.5	.0	.0	.0
17	13.5	11.0	12.0	4.5	3.5	4.0	5.0	4.5	5.0	.0	.0	.0
18	13.0	11.0	11.5	5.0	4.0	4.5	5.5	5.0	5.0	.0	.0	.0
19	11.0	10.0	10.5	5.5	5.0	5.5	5.0	4.0	5.0	.0	.0	.0
20	11.5	10.0	10.5	5.5	4.5	5.0	4.0	2.0	3.0	.0	.0	.0
21	10.5	9.5	10.0	5.0	4.5	4.5	2.0	1.0	1.5	.0	.0	.0
22	11.0	9.5	10.0	4.5	4.0	4.0	2.0	1.5	1.5	.0	.0	.0
23	11.5	9.5	10.5	5.0	3.5	4.0	3.5	2.0	3.0	.0	.0	.0
24	12.0	10.5	11.0	4.5	4.5	4.5	4.0	3.5	3.5	.0	.0	.0
25	11.5	10.0	10.5	5.0	4.0	4.5	4.0	2.5	3.0	.0	.0	.0
26	11.0	9.0	10.0	5.5	4.5	5.0	2.5	2.0	2.0	.0	.0	.0
27	11.5	9.0	10.5	4.5	2.5	3.5	3.0	2.0	2.5	.0	.0	.0
28	11.5	10.0	11.0	2.5	2.0	2.0	3.5	3.0	3.0	.0	.0	.0
29	10.5	9.5	10.0	3.0	2.0	2.5	4.0	3.5	4.0	.0	.0	.0
30	9.5	9.0	9.5	3.0	2.5	3.0	4.5	3.5	4.0	.0	.0	.0
31	10.0	8.5	9.0	---	---	---	3.5	1.5	2.5	.0	.0	.0
MONTH	17.0	8.0	11.0	12.0	2.0	5.5	6.0	1.0	4.0	---	.0	---

DELAWARE RIVER BASIN

01427510 DELAWARE RIVER AT CALLICOON, NY--Continued

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

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	---	---	---	25.5	22.5	24.0	22.5	19.0	21.0	23.5	19.5	21.5
2	---	---	---	24.0	22.0	23.0	22.0	19.5	20.5	23.0	20.0	21.5
3	18.0	---	---	23.5	21.0	22.0	20.5	18.0	19.5	22.0	18.5	20.0
4	20.5	15.0	17.5	22.5	19.5	21.0	19.0	17.5	18.5	19.0	16.5	17.5
5	21.5	16.5	19.0	22.5	18.0	20.5	20.5	16.5	18.5	19.0	15.5	17.5
6	21.0	17.0	19.0	22.0	17.5	20.0	19.0	15.5	17.5	18.5	16.0	17.5
7	19.5	17.5	18.5	23.5	18.0	21.0	20.0	15.5	17.5	18.5	16.0	17.0
8	20.0	16.0	18.0	23.5	19.5	21.5	19.0	16.0	17.5	19.0	16.5	17.5
9	22.5	17.0	19.5	22.5	20.0	21.0	20.5	16.0	18.0	18.5	16.5	17.5
10	24.0	18.0	21.0	22.0	18.5	20.5	21.5	17.0	19.0	17.5	16.0	16.5
11	25.5	20.0	22.5	23.0	18.0	20.5	---	---	---	16.5	16.0	16.0
12	25.0	21.0	23.5	24.5	19.5	22.0	---	---	---	18.0	15.5	16.5
13	24.5	21.5	23.0	23.0	19.0	21.0	---	---	---	18.5	15.5	16.5
14	23.5	20.5	22.5	24.5	19.5	22.0	20.0	16.0	18.0	20.0	16.5	18.5
15	23.5	18.0	21.0	26.5	22.0	24.0	18.5	16.0	17.5	21.0	17.5	19.5
16	23.0	18.5	21.0	26.5	23.5	25.0	20.5	16.5	18.5	21.5	18.5	20.0
17	22.0	18.5	19.5	26.0	22.5	24.5	21.0	18.5	20.0	21.5	18.5	20.0
18	19.5	18.5	19.0	26.5	22.5	24.5	21.0	18.0	19.5	22.0	20.0	21.0
19	23.0	19.0	21.0	25.5	22.0	23.5	20.5	16.5	18.5	22.0	19.0	21.0
20	24.5	20.0	22.0	23.0	19.0	21.0	19.5	17.0	18.0	21.5	19.0	20.5
21	26.0	21.5	23.5	21.0	19.0	20.0	17.5	16.0	16.5	19.0	16.0	17.0
22	25.0	22.0	23.5	22.0	18.5	20.0	19.5	16.0	18.0	16.5	13.5	15.0
23	25.0	21.0	23.0	21.0	17.0	19.5	19.0	17.5	18.5	16.0	14.5	15.5
24	24.5	20.5	22.5	20.5	18.5	19.0	20.0	17.0	18.5	15.5	13.0	14.5
25	26.5	22.0	24.5	22.5	18.0	20.0	19.5	17.5	18.5	15.5	13.0	14.5
26	26.0	23.5	25.0	22.0	17.5	20.0	21.0	17.5	19.0	16.5	15.0	16.0
27	26.0	21.5	24.0	22.5	20.0	21.5	20.0	17.5	19.0	16.5	13.5	15.0
28	25.0	20.5	23.0	22.5	20.0	21.5	21.0	18.0	19.0	15.0	13.5	14.0
29	25.5	20.5	23.0	23.0	19.5	21.5	20.0	18.0	19.0	15.5	14.0	14.5
30	26.5	21.5	24.0	23.0	18.0	21.0	21.5	17.5	19.5	15.5	14.0	14.5
31	---	---	---	23.5	18.5	21.0	21.0	18.5	20.0	---	---	---
MONTH	---	---	---	26.5	17.0	21.5	---	---	---	23.5	13.0	17.5

01428500 DELAWARE RIVER ABOVE LACKAWAXEN RIVER NEAR BARRYVILLE, NY

LOCATION.--Lat 41°30'32", long 74°59'10", Sullivan County, Hydrologic Unit 02040101, on left bank, 1.6 mi upstream from Lackawaxen River, and 4.6 mi northwest of Barryville. Water-quality sampling site at discharge station.

DRAINAGE AREA.--2,020 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 600.22 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Subsequent to September 1954, entire flow from 371 mi² of drainage area controlled by Pepacton Reservoir, and subsequent to October 1963, entire flow from 454 mi² of drainage area controlled by Cannonsville Reservoir (see Reservoirs in Delaware River Basin). Part of flow of these reservoirs diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill) impounded for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master. Telephone gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 130,000 ft³/s, Aug. 19, 1955, gage height, 26.40 ft, from floodmarks in gage house, from rating curve extended above 55,000 ft³/s, on basis of slope-area measurement at gage height 23.19 ft; minimum discharge, 122 ft³/s, Sept. 5, 1953, gage height, 1.11 ft; minimum daily, 126 ft³/s, Sept. 4, 1953.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 54,000 ft³/s, Dec. 2, gage height, 15.53 ft; minimum daily, 368 ft³/s, Sept. 25.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1580	2770	6260	6000	3570	9490	13400	3510	1660	842	1050	1010
2	1200	2520	36200	5380	2950	8680	11800	3450	1590	880	1250	1240
3	1040	2310	36200	5190	2450	10900	11500	3780	2070	934	1360	937
4	938	2140	22600	5540	2070	9010	12300	7710	1810	1110	1330	851
5	868	1960	15800	5420	1980	7590	13100	7380	1420	1080	1130	813
6	810	1690	12800	5450	e1900	10600	13100	6650	1250	1230	1380	934
7	766	1490	11700	5120	e1800	10600	12600	6820	1150	1040	1410	1130
8	770	1940	10000	4580	e1700	8620	11500	6230	1070	1070	1300	1030
9	1030	35000	8660	4100	e1500	7340	9600	5730	1010	995	1290	1120
10	1170	28700	7360	e4000	e1400	6520	8050	5960	966	1200	1220	1030
11	1300	21800	6440	e3600	e1300	6190	6870	6220	910	991	1030	1200
12	1240	16000	7060	e3100	e1200	5410	6050	5830	974	1030	1300	2050
13	1050	11800	10100	e2700	e1100	4570	6330	5420	888	1300	1410	2100
14	960	9030	16000	e2500	e1050	4010	6160	5080	1000	1090	1650	1140
15	897	7230	14500	e2100	e1000	4190	5240	4510	1160	928	1570	858
16	841	5820	12200	e1900	e1000	3830	4360	4050	921	991	1370	724
17	808	4860	11300	e1500	e980	3140	3860	3730	789	1060	1260	632
18	782	4260	13100	e1300	e960	2960	3560	3470	815	938	1300	554
19	875	4820	13700	e1300	e1000	2830	3410	3380	836	1050	1250	479
20	3040	5780	12300	2060	e1400	2640	3300	6770	792	1110	1030	560
21	6970	5410	10100	2680	e2300	2480	3360	7750	1090	1130	1010	989
22	5650	4950	8550	2560	e5000	2660	3470	6750	1070	1210	862	847
23	4400	4510	7510	2310	12700	3110	3200	5900	941	1350	766	494
24	4070	4130	6920	2320	10100	2640	2940	5160	835	1160	1030	405
25	3750	3860	8860	1800	e7800	2310	2730	4620	915	826	1090	368
26	3090	4710	8660	2080	e6200	3030	2500	4370	818	1320	1060	423
27	2790	6780	7650	1770	6520	4790	2330	3860	946	1050	1160	825
28	2800	6230	6950	1470	10300	4920	3020	3280	1300	1050	1110	1230
29	3100	5680	6340	2240	---	6120	4390	2690	1100	884	1770	1050
30	3080	5260	7340	4240	---	8110	3990	2180	871	902	1240	1010
31	2930	---	7010	4080	---	10700	---	1900	---	970	1080	---
TOTAL	64595	223440	370170	100390	93230	179990	198020	154140	32967	32721	38068	28033
MEAN	2084	7448	11940	3238	3330	5806	6601	4972	1099	1056	1228	934
MAX	6970	35000	36200	6000	12700	10900	13400	7750	2070	1350	1770	2100
MIN	766	1490	6260	1300	960	2310	2330	1900	789	826	766	368

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

	MEAN	2074	2860	3209	2714	2997	5091	6526	4059	2201	1597	1397	1494
	MAX	7404	7448	11940	8335	9389	12050	16500	8615	6701	4087	3033	4186
	(WY)	1978	1997	1997	1978	1976	1977	1993	1984	1972	1996	1994	1987
	MIN	527	610	1181	687	712	1399	1878	1161	673	328	465	448
	(WY)	1964	1965	1989	1977	1980	1981	1985	1965	1965	1965	1965	1965

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1964 - 1997
ANNUAL TOTAL	1908548	1515764	
ANNUAL MEAN	5215	4153	3016
HIGHEST ANNUAL MEAN			4650
LOWEST ANNUAL MEAN			1297
HIGHEST DAILY MEAN	63000	Jan 20	63000 Jan 20 1996
LOWEST DAILY MEAN	766	Oct 7	250 Oct 27 1963
ANNUAL SEVEN-DAY MINIMUM	850	Jan 5	264 Oct 23 1963
10 PERCENT EXCEEDS	11800		6630
50 PERCENT EXCEEDS	3100		1640
90 PERCENT EXCEEDS	956		853

e Estimated

DELAWARE RIVER BASIN

01428500 DELAWARE RIVER ABOVE LACKAWAXEN RIVER NEAR BARRYVILLE, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968 to current year.

CHEMICAL DATA: 1971-73 (a).

NUTRIENT DATA: 1971 (a).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1967 to current year (no winter record for water years 1969-76).

INSTRUMENTATION.--Water-temperature recorder provides 15-minute-interval readings. Prior to October 1995, water-temperature recorder provided one-hour-interval readings. Prior to October 1975, water-temperature recorder provided continuous readings.

REMARKS.--Interruptions of record were due to malfunction of recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1968-75, 1980-81, 1983, 1985-96), 32.5°C, July 9, 10, 1993; minimum (water years 1968, 1977-97), 0.0°C, on many days during winter periods, each year except water years 1980-82.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 26.5°C, July 29, but may have been higher during period of instrument malfunction; minimum, 0.0°C on many days during winter period.

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	18.0	14.5	16.0	9.0	7.0	8.0	5.0	3.0	3.5	1.5	.0	.5
2	16.0	15.0	15.5	7.5	6.0	7.0	6.0	5.0	5.5	.0	.0	.0
3	17.0	13.0	15.0	6.5	5.0	6.0	5.5	5.0	5.5	2.0	.0	1.0
4	15.5	11.5	13.0	7.0	5.0	6.0	5.5	5.5	5.5	3.0	2.0	2.5
5	14.5	11.0	12.5	7.0	5.5	6.5	5.5	5.5	5.5	4.0	3.0	3.5
6	14.5	10.5	12.5	8.5	6.5	7.5	5.5	4.0	4.5	4.0	3.0	3.5
7	15.0	11.0	13.0	9.5	8.0	8.5	4.5	4.0	4.0	3.0	1.5	2.5
8	12.5	12.0	12.0	12.0	9.5	11.0	4.5	4.0	4.0	1.5	.0	.5
9	14.5	11.5	12.5	11.5	10.0	11.0	4.5	4.0	4.0	.0	.0	.0
10	12.5	11.0	12.0	10.0	8.5	9.0	4.0	3.5	3.5	.0	.0	.0
11	13.0	10.0	11.0	8.5	8.0	8.5	3.5	3.0	3.5	.0	.0	.0
12	12.5	9.0	11.0	8.0	7.0	7.5	3.5	3.5	3.5	.0	.0	.0
13	13.0	10.0	11.5	7.0	6.0	6.5	4.0	3.5	4.0	.0	.0	.0
14	15.0	11.0	12.5	6.0	5.5	6.0	3.5	3.0	3.0	.0	.0	.0
15	13.5	9.5	11.5	5.5	4.5	5.0	4.5	3.0	3.5	.0	.0	.0
16	15.0	10.0	12.0	5.0	4.0	4.0	4.5	4.0	4.5	.0	.0	.0
17	14.0	11.5	12.5	4.5	3.5	4.0	5.0	4.5	4.5	.0	.0	.0
18	12.5	12.0	12.5	5.0	4.0	4.5	5.0	5.0	5.0	.0	.0	.0
19	12.0	11.0	11.0	5.5	5.0	5.0	5.0	4.0	5.0	.0	.0	.0
20	11.5	10.0	11.0	5.5	5.0	5.0	4.0	2.0	3.0	.0	.0	.0
21	11.0	10.5	10.5	5.0	4.5	4.5	2.0	1.0	1.5	.0	.0	.0
22	11.0	10.0	10.5	4.5	4.0	4.5	1.5	.5	1.0	.0	.0	.0
23	11.5	10.5	11.0	4.5	3.5	4.0	3.0	1.5	2.0	.0	.0	.0
24	12.0	11.5	11.5	4.5	4.5	4.5	3.5	2.5	3.0	.0	.0	.0
25	12.0	11.0	11.5	5.0	4.5	4.5	3.0	2.5	3.0	.0	.0	.0
26	12.0	10.5	11.0	5.0	4.5	5.0	2.5	1.5	2.0	.0	.0	.0
27	12.0	10.0	11.0	4.5	3.0	3.5	2.5	1.5	2.0	.0	.0	.0
28	12.0	10.5	11.5	3.0	2.0	2.0	3.0	2.0	2.5	.0	.0	.0
29	11.5	10.0	10.5	2.0	1.5	2.0	3.5	3.0	3.5	.0	.0	.0
30	10.0	9.5	10.0	3.0	2.0	2.5	4.0	3.5	4.0	.0	.0	.0
31	10.5	9.0	9.5	---	---	---	3.5	1.5	3.0	.0	.0	.0
MONTH	18.0	9.0	12.0	12.0	1.5	6.0	6.0	.5	3.5	4.0	.0	.5

DELAWARE RIVER BASIN

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01428500 DELAWARE RIVER ABOVE LACKAWAXEN RIVER NEAR BARRYVILLE, NY--Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	.0	.0	.0	3.0	2.0	2.5	3.5	2.0	3.0	14.0	12.5	---
2	.0	.0	.0	3.0	2.5	2.5	5.0	3.0	4.0	14.0	11.5	---
3	.0	.0	.0	3.0	2.5	3.0	6.0	4.0	5.0	12.5	11.0	---
4	.0	.0	.0	2.5	2.0	2.5	7.5	5.5	6.5	11.0	10.0	---
5	.0	.0	.0	3.0	2.0	2.5	7.5	6.5	7.0	11.5	9.0	10.5
6	.0	.0	.0	3.0	2.5	3.0	8.0	6.5	7.0	11.5	10.5	---
7	.0	.0	.0	3.0	2.0	2.5	9.5	7.5	8.5	10.5	9.0	---
8	.0	.0	.0	2.0	1.5	2.0	8.5	6.5	---	9.5	7.5	---
9	.5	.0	.0	2.0	.5	1.5	6.5	4.5	5.5	10.5	9.0	---
10	.5	.0	.0	3.0	1.0	2.0	5.0	3.5	4.5	10.5	10.0	---
11	.0	.0	.0	3.5	2.5	3.0	6.0	4.0	---	11.0	9.0	10.0
12	.0	.0	.0	3.0	2.0	2.5	6.0	5.5	5.5	12.0	10.0	---
13	.0	.0	.0	2.5	1.0	2.0	---	5.5	---	12.0	10.5	---
14	.0	.0	.0	2.0	1.0	1.5	7.5	6.0	---	11.5	10.0	---
15	.5	.0	.0	2.0	.5	1.5	8.0	6.0	---	13.5	11.0	---
16	.0	.0	.0	2.0	.5	1.0	9.0	7.0	---	13.0	11.0	---
17	.5	.0	.0	1.5	.0	1.0	---	8.0	---	11.0	9.5	10.0
18	.5	.0	.0	3.0	1.0	2.0	8.0	6.0	7.5	11.5	8.5	10.0
19	1.0	.0	.5	4.5	2.0	3.0	6.0	5.5	5.5	14.0	11.0	12.5
20	1.5	.0	.5	4.5	3.0	4.0	---	5.0	---	15.0	13.5	14.0
21	1.5	.0	.5	4.5	3.0	4.0	---	6.0	---	14.5	12.0	---
22	1.5	.0	.5	4.5	3.0	4.0	9.0	7.0	---	12.0	10.5	---
23	.5	.0	.0	4.0	2.5	3.0	10.0	8.5	---	12.5	10.0	---
24	1.0	.0	.0	4.5	2.0	3.0	10.5	9.0	---	14.5	---	---
25	.5	.0	.0	3.0	2.0	2.5	---	8.5	---	14.5	---	---
26	1.0	.0	.5	4.0	3.0	3.0	12.5	9.0	---	15.0	13.0	---
27	2.5	.5	1.5	5.5	2.5	4.0	13.0	9.5	---	15.5	13.5	---
28	3.5	2.5	3.0	7.5	5.0	6.0	11.5	10.0	---	17.5	14.5	---
29	---	---	---	7.5	7.0	7.0	12.0	9.5	10.5	18.5	15.5	---
30	---	---	---	7.0	6.5	7.0	13.5	---	---	17.0	16.0	---
31	---	---	---	7.0	3.0	5.0	---	---	---	19.0	15.5	---
MONTH	3.5	.0	.5	7.5	.0	3.0	---	---	---	19.0	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	19.5	17.5	18.5	---	---	---	25.5	21.0	23.5	25.5	21.0	23.0
2	18.5	17.0	---	---	---	---	25.5	22.0	23.5	26.0	22.0	24.0
3	17.0	16.0	---	---	---	---	25.0	21.5	23.0	24.5	20.0	22.5
4	---	---	---	---	---	---	22.5	20.0	21.5	23.0	18.0	---
5	---	---	---	---	---	---	23.0	19.0	---	22.5	17.0	---
6	---	---	---	---	---	---	22.5	18.5	20.5	22.0	18.0	---
7	---	---	---	---	---	---	22.5	18.0	20.5	21.5	18.0	20.0
8	---	---	---	---	---	---	21.5	18.0	20.0	21.0	19.0	19.5
9	---	---	---	---	---	---	23.5	18.0	21.0	20.5	18.5	19.0
10	---	---	---	---	---	---	23.5	19.5	21.5	18.5	17.5	---
11	---	---	---	---	---	---	24.0	20.5	22.0	18.0	---	---
12	---	---	---	---	---	---	24.5	21.5	23.0	19.0	17.0	18.0
13	---	---	---	---	---	---	23.5	22.0	22.5	19.5	17.5	18.5
14	---	---	---	---	---	---	23.5	20.5	21.5	21.0	17.0	19.0
15	---	---	---	---	---	---	21.0	19.0	20.0	23.5	18.0	20.5
16	---	---	---	---	---	---	24.0	19.0	21.5	23.5	19.0	21.0
17	---	---	---	---	---	---	24.5	21.0	22.5	23.0	19.5	21.0
18	---	---	---	---	---	---	25.0	21.0	22.5	24.0	20.5	22.0
19	---	---	---	---	---	---	24.0	---	---	24.0	20.0	21.5
20	---	---	---	---	---	---	21.0	18.5	---	24.0	20.0	21.5
21	---	---	---	---	---	---	20.5	18.0	---	21.0	17.5	---
22	---	---	---	---	---	---	22.0	18.0	20.0	20.0	15.5	---
23	---	---	---	---	---	---	21.0	18.5	---	---	15.5	---
24	---	---	---	22.0	19.5	20.5	22.5	18.0	---	---	14.0	---
25	---	---	---	24.5	19.0	---	22.0	19.0	20.0	18.0	13.5	---
26	---	---	---	25.5	20.0	23.0	22.5	19.5	21.0	18.5	15.0	---
27	---	---	---	26.0	22.5	24.0	24.0	20.0	21.5	18.5	14.0	---
28	---	---	---	25.5	22.5	24.0	23.5	20.5	22.0	17.0	14.5	---
29	---	---	---	26.5	22.0	24.0	23.0	20.5	21.5	18.0	15.5	---
30	---	---	---	26.0	20.0	23.0	24.0	19.5	21.5	17.5	14.5	---
31	---	---	---	26.0	20.5	23.0	23.5	20.0	21.5	---	---	---
MONTH	---	---	---	---	---	---	25.5	---	---	---	---	---

DELAWARE RIVER BASIN

01432160 DELAWARE RIVER AT BARRYVILLE, NY

LOCATION.--Lat 41°28'31", long 74°54'46", Pike County, Pa., Hydrologic Unit 02040104, at Shohola-Barryville Bridge at Barryville, just upstream from Halfway Brook, and 1,000 ft upstream from Shohola Creek.

DRAINAGE AREA.--2,659 mi².

PERIOD OF RECORD.--Water years 1958, 1968 to current year.

CHEMICAL DATA: 1958 (d), 1969 (a), 1973 (b), 1974 (d), 1975 (b).

NUTRIENT DATA: 1973 (b), 1974 (d), 1975 (b).

Bacteria.--1973 (b), 1974 (d), 1975 (b).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1967 to September 1973, March 1975 to current year.

INSTRUMENTATION.--Water-temperature recorder since February 1994, provides 15-minute-interval readings. From March 1975 to February 1994, water-temperature recorder provided one-hour-interval readings. Prior to September 1973, water-temperature recorder provided continuous recordings.

REMARKS.--Unpublished records of daily temperatures for May to September 1964-66 are available in files of the Geological Survey. Temperature probe may be influenced by solar radiation during periods of low flow.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1968-73, 1976-78, 1980-82, 1986-88, 1990-97), 32.0°C, July 20, 21, 1980; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 29.5°C, July 16, 18; minimum, 0.0°C on many days during winter period.

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	17.0	14.5	16.0	9.0	7.0	8.0	5.0	2.5	3.5	2.0	.0	.5
2	16.5	15.0	15.5	7.0	6.0	6.5	6.0	5.0	5.5	1.5	.0	.5
3	16.0	14.5	15.0	6.0	4.5	5.5	5.5	4.5	5.0	3.0	.5	1.5
4	14.5	12.0	13.0	6.5	4.0	5.0	5.5	4.5	5.0	4.0	2.0	3.0
5	13.5	11.0	12.5	7.0	5.0	6.0	5.5	4.5	5.0	4.5	3.0	3.5
6	13.5	10.0	11.5	8.5	6.0	7.0	5.0	3.5	4.0	4.0	2.5	3.5
7	14.5	10.5	12.5	9.5	8.0	8.5	4.0	3.0	3.5	3.0	1.0	2.5
8	14.0	12.0	13.0	12.0	9.0	10.5	4.5	3.5	4.0	1.5	.0	.5
9	14.5	12.5	13.5	11.5	9.5	10.5	4.5	3.5	4.0	.5	.0	.0
10	14.0	12.5	13.0	10.0	8.0	9.0	4.0	2.5	3.5	1.0	.0	.0
11	13.0	10.5	12.0	8.5	7.0	8.0	4.0	2.5	3.0	.5	.0	.0
12	12.0	10.0	11.0	7.5	6.0	7.0	4.0	3.0	3.5	.5	.0	.0
13	12.5	11.0	12.0	6.5	5.5	6.0	4.0	3.0	4.0	.5	.0	.0
14	14.0	11.0	12.0	6.0	4.5	5.5	3.5	2.5	3.0	.5	.0	.0
15	13.0	10.5	11.5	5.5	3.0	4.5	4.0	2.5	3.5	.5	.0	.0
16	12.5	9.5	11.0	5.0	2.5	4.0	4.5	3.5	4.0	.5	.0	.0
17	13.5	11.5	12.5	4.0	2.5	3.5	5.0	4.0	4.5	.5	.0	.0
18	13.0	12.0	12.5	5.5	3.0	4.0	5.0	4.0	4.5	.5	.0	.0
19	12.0	10.5	11.5	6.0	4.5	5.0	5.0	4.0	4.5	.5	.0	.0
20	11.5	10.0	11.0	5.5	4.0	5.0	4.0	1.5	3.0	.5	.0	.0
21	11.5	11.0	11.5	5.5	3.5	4.5	2.0	.5	1.5	.5	.0	.0
22	12.0	10.0	11.0	4.5	3.5	4.0	2.0	.5	1.5	.5	.0	.0
23	12.5	10.5	11.5	4.5	3.0	4.0	3.0	1.5	2.5	.5	.0	.0
24	12.5	11.5	12.0	4.5	3.5	4.0	3.5	2.5	3.0	.5	.0	.0
25	12.5	11.0	12.0	5.5	3.5	4.5	3.5	2.0	2.5	.5	.0	.0
26	11.5	10.0	11.0	5.5	4.5	5.0	2.5	1.0	2.0	.5	.0	.0
27	12.0	9.5	10.5	5.0	2.5	3.5	2.5	1.5	2.0	.5	.0	.0
28	12.0	10.5	11.5	3.5	1.0	2.5	3.0	2.0	2.5	.5	.0	.0
29	11.0	9.5	10.0	2.5	1.0	1.5	4.0	2.5	3.5	.5	.0	.0
30	10.0	9.0	9.5	3.5	1.5	2.5	4.0	3.0	3.5	.5	.0	.0
31	10.0	8.5	9.0	---	---	---	3.5	1.0	2.5	.5	.0	.0
MONTH	17.0	8.5	12.0	12.0	1.0	5.5	6.0	.5	3.5	4.5	.0	.5

DELAWARE RIVER BASIN

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01432160 DELAWARE RIVER AT BARRYVILLE, NY--Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	1.0	.0	.5	3.0	2.0	2.5	4.5	2.0	3.5	15.0	13.0	13.5
2	1.0	.0	.5	3.5	2.0	3.0	5.5	2.5	4.0	14.5	11.5	13.0
3	1.0	.0	.5	3.5	2.5	3.0	6.5	4.0	5.5	13.5	12.0	12.5
4	1.0	.0	.0	3.0	2.0	2.5	8.5	5.5	7.0	12.0	10.5	11.5
5	1.0	.0	.5	3.5	2.0	2.5	8.5	6.5	7.5	12.5	9.5	11.0
6	1.0	.0	.5	3.5	2.5	3.0	9.0	6.5	7.5	12.0	11.0	11.5
7	1.0	.0	.5	3.0	1.5	2.5	10.0	8.0	9.0	11.0	9.0	10.0
8	1.0	.0	.0	3.0	1.0	2.0	9.0	7.5	8.5	10.5	8.0	9.5
9	.5	.0	.0	2.5	.5	1.5	7.5	5.0	6.5	11.0	9.5	10.0
10	.5	.0	.0	4.0	1.5	2.5	6.5	3.5	5.0	11.0	10.0	10.5
11	.5	.0	.0	4.0	2.5	3.0	7.0	4.0	5.5	12.0	9.5	11.0
12	.5	.0	.0	4.0	1.5	3.0	6.5	5.5	6.0	13.0	10.5	12.0
13	.5	.0	.0	3.5	1.5	2.5	8.0	5.5	7.0	13.0	11.0	12.0
14	.5	.0	.0	2.5	.5	1.5	8.0	6.0	7.0	12.0	10.0	11.0
15	1.5	.0	.5	3.5	1.0	2.0	9.0	6.0	7.5	14.5	11.5	13.0
16	1.0	.0	.5	3.0	.5	1.5	10.0	7.0	8.5	13.5	11.5	12.5
17	1.0	.0	.5	3.0	.0	1.5	9.5	8.0	9.0	11.5	10.0	11.0
18	2.0	.0	1.0	4.0	1.0	2.5	8.5	6.0	7.5	12.5	9.0	11.0
19	2.5	.5	1.5	4.5	1.5	3.0	7.0	5.5	6.0	15.0	11.5	13.0
20	2.5	.5	1.5	4.5	2.5	3.5	7.5	5.0	6.5	15.5	14.0	15.0
21	3.0	.5	1.5	4.5	2.5	3.5	8.5	5.5	7.0	14.5	12.5	13.5
22	3.0	.5	2.0	4.5	3.0	4.0	9.5	6.5	8.0	13.0	11.0	11.5
23	1.5	.0	.5	4.0	2.0	3.0	10.0	8.0	9.0	13.5	10.5	12.0
24	2.0	.0	1.0	4.5	1.5	3.0	10.5	8.5	9.5	15.5	12.0	13.5
25	1.5	.0	.5	3.5	2.0	3.0	11.0	8.5	10.0	15.0	14.0	14.5
26	2.5	.0	1.0	4.0	3.0	3.5	12.5	8.5	10.5	16.5	13.5	14.5
27	4.0	1.0	2.5	6.0	2.5	4.0	12.5	9.5	11.5	16.5	13.5	15.0
28	3.5	2.0	3.0	8.0	4.5	6.0	12.0	10.5	11.0	18.0	14.5	16.5
29	---	---	---	8.0	7.0	7.0	13.0	9.5	11.0	18.5	15.0	17.0
30	---	---	---	7.5	7.0	7.5	14.5	10.5	12.5	17.5	15.5	16.5
31	---	---	---	7.5	3.0	5.5	---	---	---	19.0	15.5	17.0
MONTH	4.0	.0	.5	8.0	.0	3.0	14.5	2.0	8.0	19.0	8.0	13.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	19.5	17.5	18.5	28.0	21.5	24.5	25.0	20.5	23.0	24.5	20.5	22.5
2	18.5	16.0	17.5	25.0	22.0	23.0	25.0	21.5	23.5	24.5	22.0	23.5
3	16.5	14.5	15.5	27.0	21.5	24.0	25.0	22.0	23.5	24.0	19.0	21.5
4	18.5	14.5	16.5	24.5	20.5	23.0	23.5	20.5	22.0	21.0	17.5	19.0
5	20.0	16.5	18.5	26.0	21.0	23.0	23.0	19.5	21.0	22.0	16.0	18.5
6	20.0	18.0	19.0	24.5	21.0	23.0	22.0	19.0	20.5	22.0	17.0	19.0
7	19.5	17.5	18.5	26.0	21.5	23.5	22.0	19.0	20.5	20.5	18.0	19.0
8	20.0	16.5	18.5	25.0	20.5	23.0	21.0	18.5	20.0	20.5	19.0	19.5
9	21.5	17.0	19.5	24.5	21.0	22.5	22.5	19.0	21.0	19.5	18.0	19.0
10	23.0	17.5	20.5	25.0	21.0	23.0	23.0	20.0	22.0	18.5	17.5	18.0
11	24.5	19.0	22.5	25.5	20.5	23.0	24.5	20.5	22.5	17.5	17.0	17.5
12	25.0	20.5	23.0	27.5	20.5	24.0	24.5	21.5	23.0	19.0	17.0	18.0
13	24.5	21.0	22.5	26.5	22.5	24.5	23.5	22.0	22.5	19.0	17.0	18.0
14	25.0	21.5	23.0	27.5	22.0	25.0	23.5	21.0	22.0	19.5	17.5	18.5
15	24.0	20.0	22.5	29.0	22.5	25.5	21.5	20.0	20.5	20.5	18.0	19.0
16	24.5	20.5	22.5	29.5	24.0	26.5	23.5	20.0	21.5	21.5	18.0	19.5
17	21.0	18.5	20.0	29.0	24.0	27.0	24.0	21.0	23.0	23.0	17.5	20.0
18	20.0	18.0	19.0	29.5	25.0	27.0	23.5	21.0	22.5	24.0	19.0	20.5
19	23.0	18.0	20.5	26.5	23.0	25.0	22.5	20.0	21.5	25.0	17.5	20.5
20	24.5	19.0	22.0	25.5	21.5	23.5	21.0	18.0	19.5	24.0	18.5	20.5
21	26.0	20.0	23.5	24.5	22.0	23.5	19.5	17.5	18.5	19.5	17.0	18.0
22	27.5	23.0	25.0	26.0	22.0	24.0	21.5	18.0	19.5	19.0	15.5	17.0
23	26.5	21.5	24.5	24.0	22.0	23.0	21.5	17.5	19.0	18.0	16.0	17.0
24	26.0	20.0	22.0	22.5	19.5	21.0	21.0	18.0	19.5	21.0	14.0	16.5
25	27.5	20.5	24.0	26.5	19.0	22.0	21.0	18.5	19.5	22.0	12.5	16.0
26	26.5	21.0	23.5	25.0	20.5	23.0	22.0	19.0	20.5	19.5	15.0	17.0
27	27.0	20.5	24.0	27.5	22.5	24.5	23.0	19.5	21.5	22.0	12.5	16.5
28	27.0	21.5	24.5	26.0	22.5	24.5	23.5	20.5	21.5	16.5	14.5	15.5
29	27.0	23.5	25.5	26.0	21.0	23.5	22.0	20.5	21.0	17.0	15.5	16.0
30	28.5	22.5	25.5	25.5	19.5	22.5	22.5	19.5	21.0	16.5	14.5	15.5
31	---	---	---	25.0	20.0	22.5	23.0	20.0	21.5	---	---	---
MONTH	28.5	14.5	21.5	29.5	19.0	24.0	25.0	17.5	21.0	25.0	12.5	18.5

DELAWARE RIVER BASIN

01432805 DELAWARE RIVER AT POND EDDY, NY

LOCATION.--Lat 41°26'20", long 74°49'11", Pike County, Pa., Hydrologic Unit 02040104, at interstate bridge at Pond Eddy, 450 ft downstream from Mill Brook, and 4.5 mi upstream from Mongaup River.

DRAINAGE AREA.--2,820 mi².

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1973 to current year.

INSTRUMENTATION.--Water-temperature recorder since August 1994, provides 15-minute-interval readings. Prior to August 1994, water-temperature recorder provided one-hour-interval readings.

REMARKS.--Interruptions of record were due to malfunction of recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1976, 1978, 1980-81, 1983-84, 1986, 1989-90, 1992-97) 31.0°C, July 21, 1980, July 31, 1995; minimum (water years 1974, 1977-78, 1980, 1983-97), 0.0°C on many days during winter periods, except 1978, 1980, and 1985.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 29.0°C, July 16; minimum, 0.0°C on many days during winter period.

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	17.0	15.5	16.0	9.0	7.5	8.0	5.0	3.0	3.5	1.5	.0	.5
2	16.5	15.5	16.0	7.5	6.0	6.5	6.0	5.0	5.5	.5	.0	.0
3	16.5	14.5	15.5	6.5	5.5	5.5	5.5	5.0	5.0	2.0	.5	1.0
4	15.0	12.5	13.5	6.0	5.0	5.5	5.5	5.0	5.0	3.5	2.0	2.5
5	14.5	12.0	13.0	6.5	5.5	6.0	5.5	5.0	5.0	4.0	3.0	3.5
6	14.0	11.0	12.0	8.0	6.5	7.0	5.0	4.0	4.5	4.0	3.0	3.5
7	14.5	11.0	12.5	9.0	8.0	8.5	4.0	3.5	4.0	3.0	1.5	2.5
8	13.5	12.5	13.0	11.5	9.0	10.5	4.0	3.5	4.0	1.5	.0	.5
9	14.5	12.5	13.5	11.5	10.0	11.0	4.0	3.5	4.0	.0	.0	.0
10	14.0	12.5	13.5	10.0	8.5	9.0	4.0	3.5	3.5	.0	.0	.0
11	12.5	11.0	12.0	8.5	7.5	8.0	3.5	3.0	3.0	.0	.0	.0
12	12.5	11.0	11.5	7.5	7.0	7.0	3.5	3.5	3.5	.0	.0	.0
13	13.0	11.0	12.0	7.0	6.0	6.0	4.0	3.5	4.0	.0	.0	.0
14	13.5	11.5	12.0	6.0	5.5	5.5	3.5	3.0	3.0	.0	.0	.0
15	13.0	11.0	12.0	5.5	4.5	4.5	4.0	3.0	3.5	.0	.0	.0
16	13.0	10.0	11.5	4.5	3.5	4.0	4.5	4.0	4.0	.0	.0	.0
17	14.5	11.5	12.5	4.0	3.0	3.5	5.0	4.0	4.5	.0	.0	.0
18	13.0	12.0	13.0	5.0	3.5	4.0	5.0	4.5	5.0	.0	.0	.0
19	12.0	11.0	11.5	5.5	5.0	5.0	5.0	4.0	4.5	.0	.0	.0
20	11.5	10.5	11.0	5.0	4.5	5.0	4.0	2.0	3.0	.0	.0	.0
21	11.5	11.0	11.0	5.0	4.0	4.5	2.0	1.0	1.5	.0	.0	.0
22	11.5	10.5	11.0	4.5	4.0	4.0	1.5	.5	1.0	.0	.0	.0
23	12.0	10.5	11.0	4.5	3.5	4.0	2.5	1.5	2.0	.0	.0	.0
24	12.5	12.0	12.0	4.5	4.0	4.0	3.0	2.5	3.0	.0	.0	.0
25	12.0	11.5	12.0	5.0	4.0	4.5	3.0	2.0	2.5	.0	.0	.0
26	11.5	10.5	11.0	5.0	4.5	5.0	2.0	1.5	2.0	.0	.0	.0
27	12.0	10.0	11.0	4.5	3.0	3.5	2.0	1.5	2.0	.0	.0	.0
28	12.0	11.0	11.5	3.0	1.5	2.0	3.0	2.0	2.5	.0	.0	.0
29	11.0	10.0	10.5	2.0	1.5	1.5	3.5	3.0	3.0	.0	.0	.0
30	10.5	9.5	10.0	3.0	1.5	2.0	4.0	3.5	3.5	.0	.0	.0
31	10.0	9.0	9.5	---	---	---	3.5	1.5	2.5	.0	.0	.0
MONTH	17.0	9.0	12.0	11.5	1.5	5.5	6.0	.5	3.5	4.0	.0	.5

DELAWARE RIVER BASIN

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01432805 DELAWARE RIVER AT POND EDDY, NY--Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	.0	.0	.0	3.0	2.5	2.5	4.0	2.5	3.5	14.5	12.5	13.5
2	.0	.0	.0	3.5	2.5	3.0	5.0	2.5	4.0	---	11.5	---
3	.0	.0	.0	3.0	2.5	3.0	6.0	4.0	5.0	13.5	12.0	12.5
4	.0	.0	.0	3.0	2.5	2.5	8.0	6.0	7.0	13.0	10.5	11.5
5	.0	.0	.0	3.0	2.5	2.5	8.0	7.0	7.5	---	---	---
6	.5	.0	.0	3.0	3.0	3.0	8.5	7.0	7.5	12.0	11.0	11.5
7	.0	.0	.0	3.0	2.0	2.5	10.0	8.0	9.0	11.0	9.5	10.0
8	.0	.0	.0	2.5	1.5	2.0	9.0	7.5	8.5	9.5	8.5	9.0
9	.5	.0	.0	2.0	1.0	1.5	7.5	5.5	6.5	10.5	9.5	10.0
10	.5	.0	.0	3.5	1.5	2.5	5.5	4.0	5.0	11.0	10.0	10.5
11	.0	.0	.0	3.5	3.0	3.0	6.0	4.5	5.5	12.0	10.0	11.0
12	.0	.0	.0	3.0	2.5	3.0	6.0	6.0	6.0	12.5	10.5	11.5
13	.0	.0	.0	2.5	1.5	2.0	8.0	6.0	7.0	12.5	11.0	12.0
14	.0	.0	.0	2.5	1.0	1.5	8.5	6.5	7.0	---	10.5	---
15	.5	.0	.0	2.5	1.0	2.0	8.5	6.5	7.5	---	---	---
16	.5	.0	.0	2.0	1.0	1.5	10.0	7.0	8.5	13.5	12.0	12.5
17	.5	.0	.0	2.0	.5	1.0	9.5	8.5	9.0	---	10.5	---
18	1.5	.0	.5	3.0	1.5	2.5	8.5	6.5	7.5	---	9.5	---
19	1.5	1.0	1.0	4.0	2.0	3.0	6.5	5.5	6.0	---	---	---
20	2.0	1.0	1.5	4.0	3.0	3.5	7.0	5.5	6.0	---	14.5	---
21	2.0	.5	1.5	4.0	3.0	3.5	8.0	6.0	7.0	15.5	13.5	14.0
22	2.5	1.0	2.0	4.5	3.5	4.0	9.0	6.5	8.0	14.5	12.5	13.0
23	1.0	.0	.5	4.0	2.5	3.0	9.5	8.0	9.0	---	---	---
24	1.5	.0	.5	4.0	2.0	3.0	10.5	9.0	9.5	---	---	---
25	1.0	.0	.5	3.5	2.5	3.0	10.5	9.0	10.0	---	14.0	---
26	2.0	.0	.5	4.0	3.0	3.5	12.0	9.0	10.5	---	13.5	---
27	3.5	1.5	2.0	5.5	3.0	4.0	12.5	10.0	11.0	---	13.5	---
28	3.5	2.5	3.0	7.5	5.0	6.0	12.0	11.0	11.5	---	14.0	---
29	---	---	---	7.5	7.0	7.5	12.5	10.0	11.0	---	---	---
30	---	---	---	7.5	7.0	7.5	---	10.5	---	---	---	---
31	---	---	---	7.0	3.0	5.5	---	---	---	---	16.0	---
MONTH	3.5	.0	.5	7.5	.5	3.0	---	2.5	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	---	18.0	---	26.5	24.0	25.0	25.0	21.5	23.0	25.0	21.0	22.5
2	18.5	17.0	18.0	24.0	23.0	23.5	25.0	22.5	23.5	25.5	22.5	23.5
3	17.0	15.0	16.0	25.0	22.5	23.5	25.0	23.0	23.5	24.0	20.5	22.5
4	18.0	14.5	16.0	23.5	22.0	23.0	23.5	21.5	23.0	21.5	18.0	19.5
5	19.5	16.5	18.0	25.0	21.0	23.0	23.5	20.5	21.5	22.0	17.0	19.0
6	20.0	17.5	18.5	25.5	21.0	23.0	23.0	19.5	21.0	21.5	17.5	19.0
7	18.5	17.5	18.0	26.0	21.5	23.0	23.0	19.5	21.0	21.5	18.0	19.5
8	19.5	16.5	18.0	24.0	22.5	23.0	22.5	19.0	20.5	20.5	19.0	19.5
9	21.5	17.0	19.0	24.0	22.0	22.5	24.0	19.0	21.0	20.0	18.5	19.0
10	22.5	18.5	20.5	24.5	21.0	22.5	23.5	20.5	22.0	18.5	18.0	18.0
11	24.0	20.0	22.0	25.5	21.5	23.0	24.5	21.0	22.5	18.0	17.0	17.5
12	23.5	21.5	22.5	26.0	22.0	23.5	24.0	22.0	23.0	18.5	17.0	17.5
13	23.5	22.0	22.5	26.5	23.0	24.5	24.0	22.5	23.0	19.0	17.5	18.5
14	24.5	21.0	22.5	27.0	24.0	25.0	24.5	22.0	23.0	20.0	17.5	18.5
15	24.5	20.5	22.0	27.5	24.5	25.5	22.5	21.0	21.5	21.5	18.0	19.0
16	24.5	20.0	22.0	29.0	25.0	26.5	23.5	20.5	21.5	22.0	18.5	19.5
17	22.0	20.0	20.5	28.5	25.5	26.5	24.5	22.0	23.0	22.0	18.5	20.0
18	20.0	19.0	19.5	28.5	26.0	26.5	24.5	22.0	23.0	23.0	19.5	21.0
19	22.5	19.0	20.5	27.5	24.0	25.5	24.0	21.0	22.0	23.0	19.0	20.5
20	24.0	20.0	22.0	26.0	22.0	23.5	21.5	19.0	20.5	22.5	13.0	19.0
21	24.5	22.0	23.0	25.5	22.0	23.5	19.5	18.5	19.0	19.5	17.0	18.5
22	26.5	24.0	25.0	26.5	22.5	24.0	21.5	18.0	19.5	19.0	15.5	17.0
23	27.0	23.0	24.5	24.5	22.5	23.5	21.0	18.5	19.5	17.0	14.5	16.5
24	24.0	22.5	23.0	22.5	20.5	21.5	22.0	18.0	19.5	17.0	11.5	15.0
25	26.0	22.0	23.5	25.0	19.5	21.5	21.5	19.0	20.0	18.0	14.0	15.5
26	25.0	22.5	23.5	25.5	20.0	22.5	21.5	19.5	20.5	17.5	14.5	16.0
27	25.5	21.5	23.5	27.0	23.0	24.5	24.0	20.0	21.5	17.5	12.5	15.0
28	26.0	22.0	24.0	26.0	24.0	24.5	23.5	21.0	22.0	16.0	15.0	15.5
29	27.5	23.5	25.0	26.0	22.0	23.5	22.5	21.0	21.5	18.0	15.0	16.0
30	27.5	23.5	25.5	25.0	20.5	22.5	23.5	20.0	21.5	16.5	15.0	15.5
31	---	---	---	24.5	20.5	22.5	23.5	20.5	22.0	---	---	---
MONTH	---	14.5	---	29.0	19.5	23.5	25.0	18.0	21.5	25.5	11.5	18.5

DELAWARE RIVER BASIN

01434000 DELAWARE RIVER AT PORT JERVIS, NY

LOCATION.--Lat 41°22'14", long 74°41'52", Pike County, Pa., Hydrologic Unit 02040104, on right bank 250 ft downstream from bridge (on U.S. Highways 6 and 209) between Port Jervis, N.Y. and Matamoras, Pa., 1.2 mi upstream from Neversink River, and 6.5 mi downstream from Mongaup River. Water-quality sampling site at discharge station.

DRAINAGE AREA.--3,070 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1904 to current year.

REVISED RECORDS.--WSP 1031: 1905-36. WDR NY-71-1: 1970. WDR NY-82-1: Drainage area. WDR NY-86-1: 1979-80.

GAGE.--Water-stage recorder. Datum of gage is 415.35 ft above sea level. October 1904 to August 13, 1928, non-recording gage at bridge 250 ft upstream at present datum; operated by U.S. Weather Service prior to June 20, 1914.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated by Lake Wallenpaupack and by Toronto, Cliff Lake, and Swinging Bridge Reservoirs (see Reservoirs in Delaware River Basin) and smaller reservoirs. Large diurnal fluctuations at medium and low flows caused by powerplants on tributary streams. Subsequent to September 1954, entire flow from 371 mi² of drainage area controlled by Pepacton Reservoir, and subsequent to October 1963, entire flow from 454 mi² of drainage area controlled by Cannonsville Reservoir (see Reservoirs in Delaware River Basin). Part of flow from these reservoirs diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill) impounded for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master. Telephone and satellite gage-height telemeters at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 233,000 ft³/s, Aug. 19, 1955, gage height, 23.91 ft, from floodmarks in gage house, from rating curve extended above 89,000 ft³/s, on basis of slope-area measurement of peak flow; maximum gage height, 26.6 ft, Feb. 12, 1981 (ice jam), from floodmarks; minimum observed discharge, 175 ft³/s, Sept. 23, 1908, gage height, 0.6 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--The U.S. Weather Bureau reported a discharge of 205,000 ft³/s, Oct. 10, 1903, gage height, 23.1 ft, from rating curve extended above 70,000 ft³/s, by velocity-area studies; maximum gage height, 25.5 ft, Mar. 8, 1904 (ice jam).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 64,600 ft³/s, Dec. 2, gage height, 12.70 ft; minimum, 741 ft³/s, Sept. 24, gage height, 1.62 ft; minimum daily, 1,210 ft³/s, Sept. 6.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3720	4260	7750	8840	2960	12000	17300	4530	2600	1550	1890	1680
2	2880	3970	39300	8320	2280	10300	15400	4300	2530	1500	1860	1760
3	2790	3390	46500	8170	2420	13300	15300	4340	3410	1770	1860	1590
4	2550	3380	29000	7780	3350	12400	16600	8580	3490	1870	1790	1330
5	2490	2790	20800	7730	3180	10600	16800	9830	2950	1470	1730	1350
6	1580	3000	17600	8170	3870	13500	16500	8220	2390	1560	1860	1210
7	1840	2840	16700	7930	3610	15400	16000	8090	2060	1520	1870	1360
8	2520	2860	15900	6980	3070	12200	14800	7730	1960	1760	1620	1390
9	3390	39100	14200	5710	2860	10100	12900	6920	1780	1970	1650	1550
10	3440	40400	11900	5750	2670	9290	11300	6820	2110	1990	1580	1550
11	3680	28000	10500	6250	2430	9220	9400	7120	2080	1780	1370	2130
12	3010	20900	11500	5930	2350	8340	7960	7090	1980	1680	1420	3810
13	2640	16100	15300	5330	2550	7330	7980	6610	2050	1820	1540	3430
14	2380	13200	24100	5440	2290	6610	8340	6060	1530	2110	1930	2470
15	2710	11200	23400	4980	1880	7170	7510	5580	1720	1830	1960	1700
16	2090	8980	19300	4220	1900	6650	6170	4890	1590	1750	1900	1990
17	2010	7040	17700	e4500	2170	5580	5650	4500	1600	1630	1930	1860
18	2040	6470	19700	e4200	2300	5290	5270	4230	1640	1790	2110	1810
19	2570	6850	20900	4100	3030	5040	5170	4390	1690	1520	1840	1730
20	9190	8360	19100	3960	4060	4980	4700	7220	1700	1760	1490	1510
21	13200	7900	16000	4160	4870	4820	4780	9600	1830	1590	1570	1680
22	11300	7090	13900	4220	6960	4370	4660	8110	1870	1590	1510	1450
23	9020	6170	12600	4140	15600	4630	4090	7130	1660	1940	1230	1590
24	8870	5680	11500	5030	13800	4150	3890	6060	1760	1710	1400	1430
25	8400	5370	13900	3750	11400	4190	3910	5490	1680	1470	1340	1430
26	6230	6640	14000	3210	9440	4980	3460	5360	2120	1480	1420	1380
27	4830	9960	11500	3450	8870	6790	3170	4900	1750	1650	1490	1490
28	4650	9290	10700	3610	12500	6470	3860	4220	1970	1840	1500	1540
29	4570	7430	9150	3720	---	7310	5650	3440	1910	1670	2240	1420
30	4630	7750	10600	3930	---	9290	5080	3090	1600	1590	1810	1640
31	4490	---	10800	3450	---	13100	---	2700	---	1550	1560	---
TOTAL	139710	306370	535800	166960	138670	255400	263600	187150	61010	52710	52270	52260
MEAN	4507	10210	17280	5386	4953	8239	8787	6037	2034	1700	1686	1742
MAX	13200	40400	46500	8840	15600	15400	17300	9830	3490	2110	2240	3810
MIN	1580	2790	7750	3210	1880	4150	3170	2700	1530	1470	1230	1210

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

	MEAN	3063	4274	5348	4788	5169	7951	9517	6107	3728	2654	2247	2417
MAX	10440	10310	17280	12980	13730	17520	23650	12670	12650	6680	4513	7928	
(WY)	1978	1973	1997	1996	1976	1977	1993	1984	1972	1973	1969	1987	
MIN	1001	884	1866	1216	1601	2583	2954	1890	993	699	963	1144	
(WY)	1965	1965	1965	1981	1980	1981	1985	1995	1965	1965	1965	1965	

e Estimated

DELAWARE RIVER BASIN

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01434000 DELAWARE RIVER AT PORT JERVIS, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1964 - 1997	
ANNUAL TOTAL	2926830		2211910			
ANNUAL MEAN	7997		6060		4767	
HIGHEST ANNUAL MEAN					7216	1973
LOWEST ANNUAL MEAN					2028	1965
HIGHEST DAILY MEAN	95200	Jan 20	46500	Dec 3	95200	Jan 20 1996
LOWEST DAILY MEAN	1300	Aug 21	1210	Sep 6	385	Jul 6 1965
ANNUAL SEVEN-DAY MINIMUM	1660	Aug 16	1390	Sep 4	432	Jul 1 1965
10 PERCENT EXCEEDS	16700		13600		10300	
50 PERCENT EXCEEDS	5200		3970		2860	
90 PERCENT EXCEEDS	2010		1560		1500	

DELAWARE RIVER BASIN

01434000 DELAWARE RIVER AT PORT JERVIS, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957-60, 1964 to January 1994, June 1997.

CHEMICAL DATA: 1958-59 (e), 1964-65 (c), 1966 (a), 1967-68 (c), 1969-76 (d), 1987 (b), 1988-89 (c), 1990-91 (b), 1992, 1997 (a).

MINOR ELEMENTS DATA: 1970, 1972-73 (a), 1974-76 (c), 1987 (b), 1988-89 (c), 1990-91 (b), 1992 (a).

PESTICIDE DATA: 1974 (a), 1987 (b), 1988-89 (c), 1990 (b), 1997 (a).

ORGANIC DATA: OC--1974 (b), 1975 (d).

NUTRIENT DATA: 1968 (a), 1969-76 (d), 1987 (b), 1988-89 (c), 1990 (b).

BIOLOGICAL DATA:

Bacteria--1973-76 (d).

Phytoplankton--1974 (b), 1975-76 (c).

Periphyton--1976 (a).

SEDIMENT DATA: 1959, 1976 (c), 1988 (b), 1989 (c), 1990-91 (b), 1992 (a).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: January to September 1973

WATER TEMPERATURE: February 1957 to September 1960, January to September 1973, June 1974 to January 1994.

SUSPENDED-SEDIMENT DISCHARGE: February 1957 to September 1960, March 1970 to June 1976.

REMARKS.--A complete list of compounds included when pesticides analysis was performed on samples follows the Introduction to the Hudson NAWQA section near the end of this report. Only those compounds detected at or above the method detection limit (MDL) were included in the tables.**EXTREMES FOR PERIOD OF DAILY RECORD.**--

WATER TEMPERATURE: Maximum (water years 1957-59, 1973-81, 1983-84, 1988-93), 30.0°C, July 13, 1981; minimum (water years 1958-60, 1973, 1975-93), 0.0°C on many days during winter periods, except 1984.

SUSPENDED-SEDIMENT CONCENTRATION (water years 1957-60, 1970-76): Maximum daily mean, 760 mg/L, June 29, 1973; minimum daily mean, less than 1 mg/L on many days.

SUSPENDED-SEDIMENT DISCHARGE (water years 1957-60, 1970-76): Maximum daily, 187,000 tons, June 29, 1973; minimum daily, 1 ton, Aug. 29, 1957.

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

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)
JUN								
17...	1120	1440	83	7.5	0.010	E0.003	0.005	0.012

E Estimate.

0143400680 EAST BRANCH NEVERSINK RIVER NORTHEAST OF DENNING, NY

LOCATION.--Lat 41°58'01", long 74°26'54", Ulster County, Hydrologic Unit 02040104, on right bank 0.3 mi upstream from Tray Mill Brook, and 2.3 mi northeast of Denning.

DRAINAGE AREA.--8.93 mi².

PERIOD OF RECORD.--October 1990 to current year. Occasional discharge measurements, water years 1988-90.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 2,140 ft above sea level, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges and those above 300 ft³/s, which are poor. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--7 years, 31.0 ft³/s, 47.18 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,030 ft³/s, Jan. 19, 1996, gage height, 6.21 ft; minimum, 2.0 ft³/s, Aug. 7, 8, 9, 1991; minimum gage height, 1.05 ft, Aug. 29, 30, 31, Sept. 1, 2, 1993.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 20	0300	*1,630	*5.81	Dec. 2	0200	1,560	5.74
Nov. 9	0415	1,420	5.58				

Minimum discharge, 2.9 ft³/s, Aug. 12, gage height, 1.30 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	30	457	e40	16	31	73	65	18	5.8	3.6	11
2	34	28	513	e38	15	93	50	68	18	6.2	3.5	8.5
3	33	27	97	41	14	64	47	124	17	7.2	3.5	7.2
4	28	26	64	39	14	45	64	113	16	6.3	3.7	6.5
5	26	25	51	54	23	39	72	64	15	5.6	3.9	6.1
6	25	24	47	58	17	e40	105	56	14	5.3	3.6	5.9
7	23	23	42	43	15	37	223	49	14	5.2	3.4	5.8
8	25	75	39	e40	14	e35	111	41	13	5.2	3.4	5.8
9	43	463	34	e35	14	e32	71	40	12	7.8	3.4	5.6
10	37	88	32	e33	14	30	56	42	12	7.6	3.2	5.6
11	31	59	31	e30	13	27	48	36	12	5.4	3.2	125
12	27	49	44	e29	13	26	50	33	11	4.9	3.1	137
13	25	43	50	e27	13	e25	96	32	11	4.7	8.4	35
14	24	40	42	e26	14	e30	63	29	11	4.5	5.6	23
15	22	37	36	e25	14	e35	51	28	10	15	3.8	18
16	21	34	34	e23	13	e28	47	27	9.4	22	3.6	15
17	20	33	99	e22	12	e25	48	26	9.5	7.5	3.4	13
18	19	32	95	e21	12	24	46	24	9.5	5.8	4.6	12
19	130	37	64	e20	14	22	41	33	9.1	5.1	3.5	11
20	690	32	51	e19	16	21	41	63	8.4	4.7	3.6	11
21	202	29	e45	e18	15	21	41	34	8.2	4.8	50	10
22	96	28	40	e19	57	e20	39	30	7.7	5.9	22	9.7
23	67	26	37	e20	38	e21	38	27	7.2	4.7	11	9.5
24	62	25	73	e20	26	e22	37	25	7.3	4.5	7.1	9.2
25	50	25	78	e25	e23	e19	36	25	7.1	4.3	5.7	8.9
26	44	49	48	e20	e25	35	35	24	7.7	4.1	5.4	8.6
27	40	37	42	e19	31	28	37	22	7.2	4.2	6.2	8.2
28	38	30	39	e20	41	36	125	21	6.5	4.3	14	8.1
29	35	29	49	e19	---	55	71	20	6.2	4.0	28	14
30	34	28	57	18	---	95	55	19	5.9	3.8	11	15
31	32	---	43	17	---	119	---	19	---	3.7	8.2	---
TOTAL	2022	1511	2473	878	546	1180	1917	1259	320.9	190.1	246.6	569.2
MEAN	65.2	50.4	79.8	28.3	19.5	38.1	63.9	40.6	10.7	6.13	7.95	19.0
MAX	690	463	513	58	57	119	223	124	18	22	50	137
MIN	19	23	31	17	12	19	35	19	5.9	3.7	3.1	5.6
CFSM	7.30	5.64	8.93	3.17	2.18	4.26	7.16	4.55	1.20	.69	.89	2.12
IN.	8.42	6.29	10.30	3.66	2.27	4.92	7.99	5.24	1.34	.79	1.03	2.37

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1997, BY WATER YEAR (WY)

	MEAN	35.6	39.9	38.5	36.5	18.6	36.2	70.1	30.2	19.6	17.6	13.0	16.0
MAX	69.7	58.7	79.8	72.6	37.0	49.7	139	49.4	46.6	63.0	28.5	38.4	
(WY)	1996	1996	1997	1996	1996	1991	1993	1996	1992	1996	1994	1996	
MIN	12.8	15.0	15.0	15.8	11.1	23.7	21.6	15.0	6.52	3.90	3.55	5.10	
(WY)	1994	1995	1996	1994	1993	1993	1995	1995	1991	1991	1993	1991	

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1991 - 1997

ANNUAL TOTAL	18866.0	13112.8	
ANNUAL MEAN	51.5	35.9	31.0
HIGHEST ANNUAL MEAN			47.1
LOWEST ANNUAL MEAN			19.4
HIGHEST DAILY MEAN	700	Jan 19	701
LOWEST DAILY MEAN	7.3	Sep 6	2.1
ANNUAL SEVEN-DAY MINIMUM	8.6	Jan 10	2.4
ANNUAL RUNOFF (CFSM)	5.77		3.47
ANNUAL RUNOFF (INCHES)	78.59		47.18
10 PERCENT EXCEEDS	96		58
50 PERCENT EXCEEDS	31		19
90 PERCENT EXCEEDS	13		5.8

e Estimated

DELAWARE RIVER BASIN

01434017 EAST BRANCH NEVERSINK RIVER NEAR CLARYVILLE, NY

LOCATION.--Lat 41°55'31", long 74°32'26", Ulster County, Hydrologic Unit 02040104, on left bank at downstream side of bridge on Denning Road, 1.6 mi southwest of Ladleton, and 1.9 mi northeast of the village of Claryville.

DRAINAGE AREA.--22.9 mi².

PERIOD OF RECORD.--July 1991 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,740 ft above sea level, from topographic map.

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

AVERAGE DISCHARGE.--6 years, 71.7 ft³/s, 42.52 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,240 ft³/s, Jan. 19, 1996, gage height, 11.25 ft; minimum, 5.8 ft³/s, Aug. 9, 1991, Aug. 31, Sept. 1, 1993; minimum gage height, 5.33 ft, Aug. 9, 1991.

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)
Oct. 20	0415	2,310	10.27	Dec. 2	0215	*2,800	*10.80
Nov. 9	0500	2,630	10.63				

Minimum discharge, 6.0 ft³/s, Aug. 13, gage height, 5.53 ft; minimum gage height, 5.37 ft, Aug. 10.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	54	825	e86	e34	73	199	117	42	14	8.5	22
2	63	51	1170	e88	e33	208	137	131	43	15	8.2	18
3	61	48	267	89	e32	167	130	233	41	16	8.2	16
4	52	45	165	84	e31	113	198	243	37	15	8.4	15
5	48	42	123	98	e52	95	222	135	35	13	9.5	14
6	45	40	111	111	e45	137	273	124	33	13	8.8	13
7	43	40	96	83	e38	92	441	106	32	12	8.0	12
8	44	127	87	e78	e34	e82	263	90	31	12	7.8	12
9	96	1140	76	e76	e32	e76	169	87	29	20	7.8	12
10	81	258	70	e72	e30	73	131	92	28	21	7.7	12
11	64	155	67	e70	e29	65	111	79	26	14	7.5	182
12	56	115	115	e68	e29	59	112	71	25	13	6.8	293
13	52	96	138	e64	e29	e56	213	68	26	12	17	86
14	49	84	130	e62	e30	e56	142	63	26	11	15	55
15	46	75	101	e60	e32	89	113	62	23	27	10	41
16	44	68	90	e58	e30	e60	102	58	22	65	9.2	35
17	42	65	205	e56	e30	e62	102	56	23	20	8.8	30
18	40	63	234	e52	e29	53	99	52	23	15	14	28
19	143	81	160	e50	e30	52	91	76	23	13	11	26
20	1190	66	121	e46	40	48	91	162	20	12	9.9	25
21	451	58	e110	e46	32	46	90	84	20	12	70	24
22	226	53	96	e47	128	54	83	74	18	15	38	23
23	148	50	81	e52	e90	e46	80	66	17	12	23	22
24	144	48	159	e48	e56	e45	77	62	17	11	15	22
25	103	48	192	e47	e50	e40	74	62	17	11	12	21
26	86	115	109	e46	e54	87	70	58	20	10	15	20
27	77	81	95	e41	72	69	69	53	19	10	20	19
28	72	67	86	e37	99	100	234	50	16	11	37	19
29	65	58	104	e40	---	158	142	47	15	9.6	63	28
30	64	55	122	e37	---	253	108	46	14	9.0	26	35
31	61	---	92	e36	---	329	---	45	---	8.7	19	---
TOTAL	3828	3346	5597	1928	1250	2943	4366	2752	761	472.3	530.1	1180
MEAN	123	112	181	62.2	44.6	94.9	146	88.8	25.4	15.2	17.1	39.3
MAX	1190	1140	1170	111	128	329	441	243	43	65	70	293
MIN	40	40	67	36	29	40	69	45	14	8.7	6.8	12
CFSM	5.39	4.87	7.88	2.72	1.95	4.15	6.36	3.88	1.11	.67	.75	1.72
IN.	6.22	5.44	9.09	3.13	2.03	4.78	7.09	4.47	1.24	.77	.86	1.92

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1997, BY WATER YEAR (WY)

	1991	1992	1993	1994	1995	1996	1997
MEAN	67.0	90.5	86.9	89.1	45.7	83.6	172
MAX	134	134	181	159	86.9	102	301
(WY)	1996	1996	1997	1996	1996	1995	1996
MIN	29.2	36.9	37.7	34.0	29.6	60.6	55.2
(WY)	1994	1995	1996	1994	1993	1993	1995

SUMMARY STATISTICS FOR 1996 CALENDAR YEAR FOR 1997 WATER YEAR WATER YEARS 1991 - 1997

	1996	1997	1991-1997
ANNUAL TOTAL	40397	28953.4	
ANNUAL MEAN	110	79.3	71.7
HIGHEST ANNUAL MEAN			101
LOWEST ANNUAL MEAN			47.7
HIGHEST DAILY MEAN	1200	1190	1200
LOWEST DAILY MEAN	18	6.8	5.9
ANNUAL SEVEN-DAY MINIMUM	19	7.8	6.3
ANNUAL RUNOFF (CFSM)	4.82	3.46	3.13
ANNUAL RUNOFF (INCHES)	65.62	47.03	42.52
10 PERCENT EXCEEDS	207	143	137
50 PERCENT EXCEEDS	67	53	42
90 PERCENT EXCEEDS	27	12	13

e Estimated

DELAWARE RIVER BASIN

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01434021 WEST BRANCH NEVERSINK RIVER AT WINNISOOK LAKE NEAR FROST VALLEY, NY

LOCATION.--Lat 42°00'40", long 74°24'53", Ulster County, Hydrologic Unit 02040104, on right bank 0.1 mi southwest of Winnisook Lake, and 4.5 mi northeast of Frost Valley.

DRAINAGE AREA.--0.77 mi².

PERIOD OF RECORD.--January 1991 to current year.

REVISED RECORDS.--WDR NY-94-1: 1992-93(P).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 2,680 ft above sea level, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges and those above 60 ft³/s, which are poor.

Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--6 years, 2.54 ft³/s, 44.82 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 136 ft³/s, Oct. 21, Nov. 11, 1995, gage height, 2.64 ft; maximum gage height, 2.74 ft, Mar. 29, 1993 (ice jam); minimum discharge, 0.05 ft³/s, Aug. 6, 7, 8, 1991, gage height, 0.93 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 35 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 20	0215	*113	2.29	Dec. 2	0130	a100	b*2.35
Nov. 9	1745	96	2.10	Sept. 11	1930	60	1.82

a About.

b Ice jam.

Minimum discharge, 0.10 ft³/s, part of each day July 31, Aug. 1-2, 7-12; minimum gage height, 1.08 ft, part of each day July 31, Aug. 1-2, 7-13.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.4	1.6	e30	3.6	.89	3.0	10	9.9	1.2	.26	.12	.99
2	2.8	1.5	e33	3.0	.79	11	3.3	8.3	1.2	.27	.12	.77
3	2.4	1.4	6.5	3.1	.78	6.0	3.0	15	.99	.30	.13	.71
4	2.0	1.3	4.1	3.0	.78	3.8	3.7	13	.90	.26	.14	.63
5	1.8	1.3	3.3	e2.9	1.3	3.0	4.3	5.9	.90	.24	.14	.57
6	1.6	1.2	3.2	e2.7	.88	e2.7	9.1	4.9	.90	.23	.13	.54
7	1.4	1.2	2.8	e2.6	.78	e2.5	19	4.2	.89	.22	.12	.50
8	2.0	5.7	2.6	e2.5	.75	e2.3	8.2	3.3	.81	.21	.12	.50
9	4.8	37	2.3	e2.4	.75	e1.8	4.7	3.3	.78	.30	.12	.47
10	6.2	6.0	2.1	e2.3	e.72	e1.6	3.8	3.7	.73	.26	.11	.50
11	4.2	4.2	2.1	e2.2	e.70	e1.6	3.2	3.3	.69	.20	.11	16
12	2.7	3.4	2.6	e2.1	e.70	e1.5	3.2	3.1	.68	.20	.13	16
13	2.0	3.0	3.0	e1.8	e.76	e1.6	6.5	3.1	.68	.18	.37	4.4
14	1.8	2.7	2.7	e1.6	e.80	e2.1	4.8	2.6	.64	.17	.23	2.9
15	1.7	2.4	2.5	e1.5	.81	e1.6	3.7	2.5	.62	.58	.17	2.0
16	1.6	2.2	2.4	e1.4	.68	e1.4	3.4	2.4	.58	.47	.15	1.6
17	1.5	2.1	11	e1.2	.68	e1.3	3.4	2.1	.58	.23	.15	1.3
18	1.5	2.0	10	e1.1	.68	e1.3	3.4	2.0	.58	.20	.24	1.1
19	17	2.1	5.5	e1.0	.80	e1.2	3.0	3.1	.49	.18	.17	1.1
20	51	1.9	3.9	e.94	.79	e1.2	2.8	7.8	.43	.17	.18	1.1
21	17	1.7	3.2	e.90	.94	e1.2	2.7	3.7	.40	.18	1.9	.97
22	9.2	1.6	2.9	e.88	8.0	e1.2	2.6	3.0	.39	.19	1.1	.87
23	6.4	1.5	2.7	e.88	e3.5	e1.1	2.6	2.6	.38	.17	.95	.81
24	5.9	1.4	5.5	e.92	e2.2	e1.1	2.8	2.2	.36	.15	.54	.78
25	4.5	1.4	7.4	e1.0	e1.8	e1.1	2.9	2.1	.34	.15	.39	.74
26	3.7	2.9	4.2	e1.2	e1.6	e1.4	3.0	2.0	.38	.14	.35	.68
27	3.1	2.7	3.4	e2.8	e2.4	e1.6	3.3	1.8	.34	.15	.35	.64
28	2.9	2.3	3.0	e2.3	4.3	e2.0	15	1.5	.30	.15	1.5	.58
29	2.3	2.1	4.3	1.6	---	5.3	7.6	1.4	.28	.14	3.5	1.1
30	1.8	1.9	5.3	1.1	---	7.7	6.2	1.3	.27	.14	1.5	1.1
31	1.7	---	3.9	1.0	---	8.7	---	1.2	---	.12	1.0	---
TOTAL	171.9	103.7	181.4	57.52	40.56	84.9	155.2	126.3	18.71	6.81	16.23	61.95
MEAN	5.55	3.46	5.85	1.86	1.45	2.74	5.17	4.07	.62	.22	.52	2.07
MAX	51	37	33	3.6	8.0	11	19	15	1.2	.58	3.5	16
MIN	1.4	1.2	2.1	.88	.68	1.1	2.6	1.2	.27	.12	.11	.47
CFSM	7.20	4.49	7.60	2.41	1.88	3.56	6.72	5.29	.81	.29	.68	2.68
IN.	8.30	5.01	8.76	2.78	1.96	4.10	7.50	6.10	.90	.33	.78	2.99

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1997, BY WATER YEAR (WY)

	1991	1992	1993	1994	1995	1996	1997
MEAN	3.09	3.16	2.47	2.72	1.13	2.74	6.56
MAX	5.97	4.88	5.85	5.52	2.20	4.09	12.1
(WY)	1996	1997	1997	1996	1992	1993	1996
MIN	1.02	1.17	1.03	1.11	.51	1.29	1.57
(WY)	1994	1995	1996	1994	1992	1996	1995

e Estimated

DELAWARE RIVER BASIN

01434021 WEST BRANCH NEVERSINK RIVER AT WINNISOOK LAKE NEAR FROST VALLEY, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1991 - 1997	
ANNUAL TOTAL	1495.42		1025.18			
ANNUAL MEAN	4.09		2.81		2.54	
HIGHEST ANNUAL MEAN					3.83	1996
LOWEST ANNUAL MEAN					1.47	1995
HIGHEST DAILY MEAN	65	Jan 19	51	Oct 20	68	Oct 21 1995
LOWEST DAILY MEAN	.48	Jan 15	.11	Aug 10	.07	Jul 29 1991
ANNUAL SEVEN-DAY MINIMUM	.51	Jan 10	.12	Aug 6	.08	Aug 2 1991
ANNUAL RUNOFF (CFSM)	5.31		3.65		3.30	
ANNUAL RUNOFF (INCHES)	72.25		49.53		44.82	
10 PERCENT EXCEEDS	9.2		5.8		5.3	
50 PERCENT EXCEEDS	1.8		1.6		1.1	
90 PERCENT EXCEEDS	.83		.22		.29	

01434025 BISCUIT BROOK ABOVE PIGEON BROOK AT FROST VALLEY, NY
(Hydrologic bench-mark station)
(National trends network station)

LOCATION.--Lat 41°59'43", long 74°30'05", Ulster County, Hydrologic Unit 02040104, on right bank 0.2 mi upstream from Pigeon Brook, 0.6 mi upstream from mouth, and 0.8 mi northeast of Frost Valley. Water-quality sampling site at discharge station.

DRAINAGE AREA.--3.72 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1983 to current year. February to May 1983 (occasional discharge measurements).

REVISED RECORDS.--WDR NY-91-1: Drainage area. WDR NY-94-1: 1984(P), 1985(M), 1987(P), 1989(P), 1993(P).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 2,060 ft above sea level, from topographic map. Prior to Sept. 11, 1987, at datum 1.00 ft higher.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. Satellite gage-height telemeter at station. Also published as a chemical-quality-of-precipitation site (National trends network station number 00336840).

AVERAGE DISCHARGE.--14 years, 10.5 ft³/s, 38.50 in./yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 815 ft³/s, Apr. 4, 1987, gage height, 4.37 ft, present datum; minimum discharge, 0.24 ft³/s, Sept. 2, 3, 1991, gage height, 0.75 ft; minimum gage height, 0.54 ft, Aug. 9, 10, 11, 12, 1997.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 20	0300	428	3.67	Dec. 2	0130	420	3.65
Nov. 9	0345	*437	*3.69				

Minimum discharge, 0.27 ft³/s, Aug. 9, 10, 11, 12, gage height, 0.54 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	7.3	e90	e19	4.2	13	28	14	5.9	1.2	.39	2.1
2	10	6.8	e150	17	4.0	43	20	13	6.2	1.4	.37	1.6
3	11	6.4	38	17	3.9	28	20	28	5.7	1.6	.37	1.4
4	9.2	6.1	24	16	3.8	18	32	27	5.1	1.3	.43	1.2
5	8.6	5.8	19	21	9.7	15	37	19	4.8	1.2	.53	1.2
6	8.1	5.5	17	21	5.0	18	55	18	4.5	1.1	.41	1.1
7	7.6	5.8	14	15	4.3	13	91	16	4.3	e1.0	.34	1.1
8	8.9	29	13	e13	4.1	e11	44	13	4.0	e1.0	.32	1.1
9	16	166	11	e12	e3.8	e10	26	15	3.8	1.4	.32	1.0
10	16	34	10	11	e3.7	9.4	20	16	3.5	1.4	.29	.99
11	12	24	11	10	e3.6	8.4	17	13	3.2	1.1	.28	17
12	10	19	17	e9.0	3.6	7.7	18	12	3.0	e1.0	.29	23
13	9.7	17	19	e8.0	3.6	e7.4	32	11	2.9	e.90	2.4	6.9
14	9.2	15	17	e7.4	4.2	e7.0	23	10	2.7	e.84	1.3	4.6
15	8.5	13	14	e6.8	4.0	e6.8	18	9.8	2.5	5.6	.58	3.6
16	8.1	12	13	e6.4	3.6	e6.6	16	9.1	2.4	3.8	.50	3.0
17	7.7	e11	36	e6.0	3.5	e6.4	16	8.6	2.5	1.4	.48	2.6
18	7.3	e10	37	e5.5	3.6	6.4	15	7.8	2.6	1.1	1.5	2.4
19	44	14	25	e5.2	4.6	6.3	13	14	2.5	e1.0	.60	2.1
20	199	12	19	e5.0	e5.2	6.1	14	22	2.2	e.90	.67	2.7
21	58	11	e16	e4.8	e4.7	5.9	13	13	2.2	e.92	6.6	2.2
22	26	9.8	e13	e4.7	e4.0	e5.8	12	11	2.0	1.4	3.2	2.0
23	18	9.5	12	e4.6	20	e5.6	11	10	1.8	1.1	2.0	1.9
24	17	9.1	29	4.8	11	e5.4	11	9.6	1.8	e.84	1.3	2.0
25	13	9.2	30	e6.5	e9.0	e5.2	10	9.8	1.7	e.82	.99	1.8
26	11	20	18	e5.0	e8.0	13	9.6	8.8	1.8	e.78	.86	1.8
27	10	15	15	e4.8	14	11	9.2	7.9	1.7	e.76	1.3	1.6
28	10	13	14	e4.5	18	19	26	7.4	1.4	e.68	8.6	1.6
29	8.9	12	22	4.7	---	32	18	6.9	1.3	e.60	7.9	2.6
30	8.6	11	25	4.6	---	48	14	6.6	1.3	e.46	3.1	4.4
31	8.0	---	17	4.4	---	47	---	6.3	---	.42	2.0	---
TOTAL	610.4	539.3	805	284.7	210.7	445.4	688.8	393.6	91.3	39.02	50.22	102.59
MEAN	19.7	18.0	26.0	9.18	7.53	14.4	23.0	12.7	3.04	1.26	1.62	3.42
MAX	199	166	150	21	40	48	91	28	6.2	5.6	8.6	23
MIN	7.3	5.5	10	4.4	3.5	5.2	9.2	6.3	1.3	.42	.28	.99
CP5M	5.29	4.83	6.98	2.47	2.02	3.86	6.17	3.41	.82	.34	.44	.92
IN.	6.10	5.39	8.05	2.85	2.11	4.45	6.89	3.94	.91	.39	.50	1.03

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

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
MEAN	9.03	13.8	12.6	9.85	9.38	16.0	23.2	13.3	5.63	4.38	3.75	5.07			
MAX	19.7	20.8	26.0	25.3	28.3	30.3	54.3	33.1	11.3	15.7	9.31	17.4			
(WY)	1997	1993	1997	1996	1984	1986	1993	1989	1992	1996	1990	1987			
MIN	1.00	3.24	4.43	2.65	2.26	8.41	8.83	4.57	1.83	.74	.65	.86			
(WY)	1985	1985	1990	1989	1987	1996	1995	1995	1991	1991	1993	1983			

e Estimated

DELAWARE RIVER BASIN

01434025 BISCUIT BROOK ABOVE PIGEON BROOK AT FROST VALLEY, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1983 - 1997	
ANNUAL TOTAL	5798.4		4261.03		10.5	
ANNUAL MEAN	15.8		11.7		14.0	1996
HIGHEST ANNUAL MEAN					6.76	1985
LOWEST ANNUAL MEAN						
HIGHEST DAILY MEAN	240	Jan 19	199	Oct 20	431	Apr 4 1987
LOWEST DAILY MEAN	1.1	Sep 3	.28	Aug 11	.27	Sep 3 1991
ANNUAL SEVEN-DAY MINIMUM	1.2	Aug 31	.32	Aug 6	.31	Sep 7 1991
ANNUAL RUNOFF (CFSM)	4.26		3.14		2.83	
ANNUAL RUNOFF (INCHES)	57.98		42.61		38.50	
10 PERCENT EXCEEDS	32		23		20	
50 PERCENT EXCEEDS	8.9		7.7		5.9	
90 PERCENT EXCEEDS	2.4		1.0		1.5	

01434025 BISCUIT BROOK ABOVE PIGEON BROOK, AT FROST VALLEY, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1983 to September 1987, November 1992 to current year.

CHEMICAL DATA: 1983-87 (e), 1993-95 (b), 1996-97 (a).

MINOR ELEMENTS DATA: 1983-87 (e), 1993-95 (b), 1996 (a).

PESTICIDE DATA: 1997 (a).

RADIOCHEMICAL DATA: 1993-95 (a).

ORGANIC DATA: 1983-87 (e).

NUTRIENT DATA: 1983-87 (e), 1993-95 (b), 1996-97 (a).

BIOLOGICAL DATA:

Bacteria--1993-95 (b), 1996 (a).

SEDIMENT DATA: 1993-95 (b), 1996 (a).

REMARKS.--All anion and cation analysis were performed on water samples which passed through a 0.1-micrometer membrane filter. Chemical, nutrient, and minor elements data for additional samples are available in files of the Geological Survey. Also published as a chemical-quality-of-precipitation site (National trends network station number 00336840). A complete list of compounds included when pesticides analysis was performed on samples follows the Introduction to the Hudson NAWQA section near the end of this report. Only those compounds detected at or above the method detection limit (MDL) were included in the tables.

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

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (90095)	PH WATER WHOLE LAB (STAND- ARD UNITS) (00403)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
MAY 27...	1035	7.9	22	6.8	16.0	7.5	2.1	.49	.4	.2	2.8	4.8
AUG 20...	0840	.50	26	7.0	11.5	11.5	2.4	.57	.5	.2	3.3	4.4

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
MAY 27...	.4	<.1	1.7	16	<.01	.25	<.02	<.2	<.01	<.01	<.01	3
AUG 20...	.2	<.1	2.5	16	<.01	.45	<.02	<.2	<.01	<.01	<.01	<3

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (00095)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)
JUN 09...	1050	0.61	21	E0.002

E Estimate.

DELAWARE RIVER BASIN

01434498 WEST BRANCH NEVERSINK RIVER AT CLARYVILLE, NY

LOCATION.--Lat 41°55'13", long 74°34'30", Sullivan County, Hydrologic Unit 02040104, on left bank about 100 ft downstream from bridge on County Highway 157 in Claryville.

DRAINAGE AREA.--33.8 mi².

PERIOD OF RECORD.--July 1991 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,620 ft above sea level, from topographic map.

REMARKS.--Records good except those above 1,600 ft³/s and those for estimated daily discharges, which are poor. Diversion upstream from station to maintain lake volume at Frost Valley YMCA camp. Excess lake water is diverted back into the river upstream from station.

AVERAGE DISCHARGE.--6 years, 110 ft³/s, 44.07 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,020 ft³/s, Jan. 19, 1996, gage height, 11.83 ft, from rating curve extended above 1,190 ft³/s on basis of runoff comparisons with nearby stations; minimum discharge, 5.9 ft³/s, result of freezeup, Mar. 14, 1993; minimum gage height, 3.84 ft, Aug. 12, 13, 1997.

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)
Oct. 20	0415	a4,650	10.23	Dec. 2	0230	a6,890	11.35
Nov. 9	0415	a*7,920	*11.79				

a From rating curve extended as explained above.

Minimum discharge, 7.1 ft³/s, Aug. 12, 13, gage height, 3.84 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	86	88	1430	137	e58	134	319	157	77	19	9.5	24
2	77	82	2520	143	e56	332	228	165	78	20	9.2	20
3	77	76	460	160	e54	283	218	283	74	22	9.0	17
4	65	71	290	151	e52	187	333	322	66	22	8.9	15
5	61	68	221	161	e94	154	378	211	62	19	9.6	14
6	57	64	200	176	e80	200	475	198	59	17	8.9	14
7	54	64	172	143	e70	e130	748	175	56	17	8.3	13
8	55	184	156	e120	e60	e120	437	152	53	16	8.1	13
9	121	2970	135	e110	e56	e100	282	149	49	22	8.1	13
10	116	445	123	e100	e54	108	215	162	47	23	7.8	12
11	93	273	118	e96	e52	96	184	144	43	18	7.6	235
12	79	205	180	e88	e52	e80	181	128	40	16	7.4	398
13	73	169	222	e84	e52	e74	310	123	41	15	17	115
14	68	150	221	e80	e58	e78	228	113	39	14	17	72
15	63	132	178	e74	e66	113	181	109	35	41	10	52
16	61	118	160	e64	e56	e74	165	102	33	78	9.4	42
17	59	111	279	e58	e52	e70	165	98	34	24	8.9	36
18	56	108	361	e56	e48	69	160	91	34	19	14	33
19	169	140	265	e56	e52	66	148	127	34	16	10	30
20	2160	116	206	e58	77	64	149	257	31	15	9.9	32
21	614	101	169	e58	51	61	150	154	30	15	52	29
22	331	92	153	e62	206	72	135	137	28	19	38	26
23	229	86	140	e56	175	e56	127	126	25	16	23	25
24	222	82	231	e60	118	e54	121	116	25	14	17	25
25	169	81	294	e90	95	e52	115	116	25	14	14	24
26	142	182	186	e80	97	122	108	109	26	13	13	23
27	127	142	162	e70	122	101	104	99	26	13	15	22
28	121	114	147	e68	168	164	276	94	22	13	62	21
29	109	106	188	e64	---	282	197	88	21	12	101	30
30	104	100	218	e62	---	448	157	85	19	11	40	49
31	98	---	167	e60	---	507	---	82	---	9.9	26	---
TOTAL	5916	6720	9952	2845	2231	4451	6994	4472	1232	602.9	599.6	1474
MEAN	191	224	321	91.8	79.7	144	233	144	41.1	19.4	19.3	49.1
MAX	2160	2970	2520	176	206	507	748	322	78	78	101	398
MIN	54	64	118	56	48	52	104	82	19	9.9	7.4	12
CFSM	5.65	6.63	9.50	2.72	2.36	4.25	6.90	4.27	1.21	.58	.57	1.45
IN.	6.51	7.40	10.95	3.13	2.46	4.90	7.70	4.92	1.36	.66	.66	1.62

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1997, BY WATER YEAR (WY)

	1991	1992	1993	1994	1995	1996	1997
MEAN	97.3	151	138	146	71.0	132	281
MAX	192	224	321	305	136	160	498
(WY)	1996	1997	1997	1996	1996	1995	1993
MIN	40.9	61.2	49.3	53.8	40.2	108	86.7
(WY)	1994	1995	1996	1994	1993	1993	1995

e Estimated

DELAWARE RIVER BASIN

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01434498 WEST BRANCH NEVERSINK RIVER AT CLARYVILLE, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1991 - 1997	
ANNUAL TOTAL	64230		47489.5			
ANNUAL MEAN	175		130		110	
HIGHEST ANNUAL MEAN					151 1996	
LOWEST ANNUAL MEAN					70.3 1995	
HIGHEST DAILY MEAN	3100	Jan 19	2970	Nov 9	3100	Jan 19 1996
LOWEST DAILY MEAN	24	Sep 16	7.4	Aug 12	6.8	Sep 14 1991
ANNUAL SEVEN-DAY MINIMUM	25	Jan 10	8.0	Aug 6	7.3	Sep 8 1991
ANNUAL RUNOFF (CFSM)	5.19		3.85		3.24	
ANNUAL RUNOFF (INCHES)	70.69		52.27		44.07	
10 PERCENT EXCEEDS	296		228		208	
50 PERCENT EXCEEDS	100		79		60	
90 PERCENT EXCEEDS	37		15		15	

LOCATION.---Lat 41°53'24", long 74°35'25", Sullivan County, Hydrologic Unit 02040104, on left bank 50 ft downstream from covered bridge, 300 ft upstream from small tributary, 2.2 mi downstream from confluence of East and West Branches, and 2.2 mi southwest of Claryville.

PERIOD OF RECORD.--July 1951 to current year.

REVISED RECORDS.--WDR NY-75-1: Gage datum. WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,522.37 ft above sea level. Prior to October 1, 1974, at datum 6.00 ft higher. Oct. 1, 1974 to Sept. 30, 1979 at datum 5.00 ft higher.

REMARKS.--Records good below 6,000 ft³/s and fair above, except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--46 years, 189 ft³/s, 38.54 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,300 ft³/s, Apr. 4, 1987, gage height, 13.26 ft; maximum gage height, 13.83 ft, present datum, July 10, 1952; minimum discharge, 6.8 ft³/s, Sept. 24, 25, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Nov. 25, 1950, reached a stage of about 15.0 ft, present datum, from floodmarks, discharge, 23,400 ft³/s, by slope-area measurement.

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)
Oct. 20	0500	7,140	11.65	Dec. 2	0300	10,100	12.49
Nov. 9	0445	*10,400	*12.57				

Minimum discharge, 15 ft³/s, Aug. 11, 12, 13, gage height, 6.15 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	179	162	2290	258	96	249	605	293	112	e36	19	47
2	156	151	4070	260	91	572	426	330	115	e38	18	42
3	153	140	872	282	89	516	405	537	111	e41	18	35
4	133	132	544	274	86	356	597	622	97	e37	18	31
5	122	125	414	285	147	299	664	364	92	e33	20	29
6	116	119	371	323	128	401	798	335	87	e32	20	28
7	109	118	324	259	102	288	1270	294	83	e31	18	28
8	e110	371	293	220	93	244	764	250	79	e31	17	27
9	e250	4330	254	214	e90	e220	494	239	75	e50	17	27
10	e210	848	229	218	e86	217	378	260	70	e54	17	26
11	e160	517	218	195	e82	195	328	226	66	e35	16	339
12	e140	390	342	e170	e82	174	317	200	63	e33	16	703
13	e130	325	432	e150	e82	e150	555	189	61	e30	29	195
14	e120	284	441	e140	e85	e150	402	176	63	e28	36	124
15	e120	250	353	e140	96	235	325	169	56	e50	24	92
16	e120	223	315	e140	e88	e160	294	158	54	146	21	76
17	115	211	520	e130	81	e140	291	152	54	46	19	67
18	111	204	669	e120	79	147	283	143	56	35	25	62
19	250	260	495	e120	86	137	262	200	55	29	22	56
20	3460	220	385	e110	119	135	258	465	50	27	20	56
21	1220	191	315	e110	101	129	263	254	49	26	103	53
22	627	175	288	e110	368	e120	234	219	47	32	85	50
23	431	165	262	e110	344	e120	220	194	e43	28	51	48
24	415	157	414	e110	225	e110	211	179	e42	26	36	47
25	314	155	559	142	183	e110	199	176	45	24	30	45
26	263	338	347	e120	e170	244	187	166	49	23	28	44
27	231	271	305	e110	223	206	181	149	48	23	40	42
28	219	213	277	e100	317	309	528	139	e41	24	77	42
29	197	198	323	e110	---	492	377	130	e38	22	161	53
30	190	187	384	e100	---	763	295	125	e36	20	71	71
31	181	---	300	100	---	965	---	121	---	19	49	---
TOTAL	10552	11430	17605	5230	3819	8553	12411	7454	1937	1109	1141	2585
MEAN	340	381	568	169	136	276	414	240	64.6	35.8	36.8	86.2
MAX	3460	4330	4070	323	368	965	1270	622	115	146	161	703
MIN	109	118	218	100	79	110	181	121	36	19	16	26
CSFM	5.11	5.72	8.53	2.53	2.05	4.14	6.21	3.61	.97	.54	.55	1.29
IN.	5.89	6.38	9.83	2.92	2.13	4.78	6.93	4.16	1.08	.62	.64	1.44

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1997, BY WATER YEAR (WY)

MEAN	152	212	219	170	170	274	439	251	137	85.4	72.1	86.8
MAX	613	409	568	530	747	681	899	608	483	341	430	336
(WY)	1956	1973	1997	1996	1981	1977	1993	1989	1972	1996	1955	1979
MIN	12.4	18.4	71.9	41.8	48.4	85.8	160	99.1	37.3	19.3	16.8	10.6
(WY)	1965	1965	1981	1961	1980	1958	1981	1995	1991	1991	1953	1964

e Estimated

DELAWARE RIVER BASIN

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01435000 NEVERSINK RIVER NEAR CLARYVILLE, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1951 - 1997	
ANNUAL TOTAL	117501		83826			
ANNUAL MEAN	321		230		189	
HIGHEST ANNUAL MEAN					286	1996
LOWEST ANNUAL MEAN					100	1965
HIGHEST DAILY MEAN	4970	Jan 19	4330	Nov 9	6090	Feb 20 1981
LOWEST DAILY MEAN	53	Sep 6	16	Aug 11	7.5	Sep 25 1964
ANNUAL SEVEN-DAY MINIMUM	57	Aug 31	17	Aug 6	8.9	Sep 21 1964
ANNUAL RUNOFF (CFSM)	4.82		3.45		2.84	
ANNUAL RUNOFF (INCHES)	65.63		46.82		38.54	
10 PERCENT EXCEEDS	558		419		375	
50 PERCENT EXCEEDS	190		140		114	
90 PERCENT EXCEEDS	73		29		32	

DELAWARE RIVER BASIN

01436000 NEVERSINK RIVER AT NEVERSINK, NY

LOCATION.--Lat 41°49'12", long 74°38'09", Sullivan County, Hydrologic Unit 02040104, on right bank at downstream end of outlet channel, 1,650 ft downstream from Neversink Dam and State Highway 55, 2.0 mi southwest of Neversink, and 2.6 mi upstream from Wynkoop Brook.

DRAINAGE AREA.--92.6 mi².

PERIOD OF RECORD.--October 1941 to current year.

REVISED RECORDS.--WDR NY-72-1: 1961 (M), 1968 (M). WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,255.24 ft above sea level (levels by Board of Water Supply, City of New York). Prior to Jan. 17, 1953, water-stage recorder at site 650 ft downstream at datum 0.20 ft lower. Jan. 17, 1953 to Apr. 16, 1954, water-stage recorder at present site at datum 0.41 ft higher.

REMARKS.--No estimated daily discharges. Records good. Subsequent to June 1953, entire flow from 92.5 mi² of drainage area controlled by Neversink Reservoir (see Reservoirs in Delaware River Basin). Part of flow diverted for New York City municipal supply (see Reservoirs in Delaware River Basin). Remainder of flow (except for conservation release and spill) impounded for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,300 ft³/s, Nov. 25, 1950, gage height, 11.23 ft, site and datum then in use, from rating curve extended above 2,600 ft³/s on basis of contracted-opening and critical-depth measurements of peak flow; maximum gage height, 11.65 ft, Sept. 27, 1942, site and datum then in use; minimum discharge, no flow for all or part of each day Sept. 22-24, Oct. 26-29, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 440 ft³/s, Apr. 8, gage height, 4.12 ft; minimum discharge, 20 ft³/s, Jan. 8, Apr. 18.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	24	24	24	23	26	25	38	48	54	60	54
2	24	24	25	24	23	26	25	47	48	46	84	65
3	25	24	24	23	23	26	26	49	48	46	84	55
4	25	24	24	24	24	26	26	48	48	46	71	46
5	23	24	31	24	24	26	26	47	48	46	48	47
6	23	24	81	23	23	25	25	69	48	46	48	54
7	23	24	307	22	24	24	25	117	48	46	48	48
8	23	25	264	22	24	25	211	50	48	54	48	48
9	23	27	312	23	24	25	171	49	48	66	55	48
10	23	25	250	23	23	25	53	49	72	59	68	48
11	23	25	33	23	24	25	22	49	71	48	64	49
12	24	25	24	22	23	24	22	49	46	47	48	48
13	24	25	24	22	23	25	23	49	46	56	48	48
14	23	24	25	22	24	25	27	49	46	81	48	48
15	23	24	24	23	23	24	22	49	46	97	61	48
16	23	24	24	23	23	25	22	49	46	106	85	48
17	24	24	24	23	23	25	22	49	48	114	85	48
18	24	24	45	22	23	25	22	48	48	92	70	48
19	25	24	120	23	24	25	22	49	48	47	47	48
20	26	24	96	23	24	25	22	48	58	47	48	47
21	26	24	25	23	24	25	23	49	79	47	48	47
22	26	24	24	23	25	25	23	49	72	47	48	48
23	26	24	24	23	24	25	23	49	56	46	56	47
24	25	24	24	23	24	25	23	49	56	46	48	47
25	27	24	28	23	24	25	22	49	74	60	48	48
26	28	24	24	23	24	25	22	49	64	84	48	48
27	28	23	24	23	25	25	23	49	59	85	49	48
28	27	24	24	23	26	26	23	48	80	83	55	56
29	27	23	23	23	---	26	23	48	113	83	48	48
30	27	24	23	23	---	25	23	48	93	67	48	48
31	26	---	23	23	---	26	---	48	---	45	46	---
TOTAL	775	726	2047	711	665	780	1067	1586	1753	1937	1760	1478
MEAN	25.0	24.2	66.0	22.9	23.8	25.2	35.6	51.2	58.4	62.5	56.8	49.3
MAX	31	27	312	24	26	26	211	117	113	114	85	65
MIN	23	23	23	22	23	24	22	38	46	45	46	46

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1997, BY WATER YEAR (WY)

	MEAN	52.5	25.1	15.6	14.4	16.4	13.0	88.0	79.4	65.7	69.9	74.3	65.4
MAX	279	198	66.0	33.5	148	29.1	420	319	369	293	305	231	
(WY)	1956	1956	1997	1956	1961	1978	1993	1956	1972	1962	1956	1964	
MIN	14.0	4.76	3.17	4.19	4.24	4.58	10.5	14.6	14.9	14.6	14.1	14.1	
(WY)	1974	1966	1966	1971	1989	1976	1965	1967	1971	1967	1968	1968	

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1954 - 1997

ANNUAL TOTAL	22706.4	15285	
ANNUAL MEAN	62.0	41.9	48.4
HIGHEST ANNUAL MEAN			158
LOWEST ANNUAL MEAN			11.4
HIGHEST DAILY MEAN	2040	May 1	312
LOWEST DAILY MEAN	2.6	Feb 4	22
ANNUAL SEVEN-DAY MINIMUM	15	Feb 2	22
10 PERCENT EXCEEDS	67		66
50 PERCENT EXCEEDS	29		26
90 PERCENT EXCEEDS	22		23
			5.1

e Estimated

DELAWARE RIVER BASIN

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01436690 NEVERSINK RIVER AT BRIDGEVILLE, NY

LOCATION.--Lat 41°38'15", long 74°37'04", Sullivan County, Hydrologic Unit 02040104, on left bank 0.1 mi upstream from State Highway 17 bridge, 0.25 mi upstream from Bridgeville. Water-quality sampling site at discharge station.

DRAINAGE AREA.--171 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1992 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,080 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Subsequent to June 1953, entire flow from 92.5 mi² of drainage area controlled by Neversink Reservoir (see Reservoirs in Delaware River basin). Part of flow diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill) impounded for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master. Satellite gage-height and temperature telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,420 ft³/s, Jan. 19, 1996, gage height, 11.72 ft; minimum, 31 ft³/s, Oct. 2, 3, 1995, gage height, 4.33 ft; minimum daily discharge, 32 ft³/s, Oct. 2, 1995.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,280 ft³/s, Nov. 9, gage height, 10.73 ft; minimum, 57 ft³/s, Aug. 1, 2, 9, 12, 13, gage height, 4.50 ft; minimum daily discharge, 58 ft³/s, Aug. 1.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	222	167	535	e180	e110	257	619	138	111	90	58	102
2	191	153	1760	e190	e110	340	504	164	126	70	91	108
3	158	135	760	217	e110	353	535	295	160	69	97	99
4	117	113	539	230	e110	274	586	468	124	67	101	73
5	101	108	442	220	208	245	484	271	110	65	71	66
6	99	105	431	223	254	568	407	281	101	64	63	66
7	93	105	641	e180	179	384	358	320	96	62	60	71
8	139	151	599	e130	147	296	630	231	91	62	59	65
9	371	2410	605	e130	e130	252	458	227	85	98	59	64
10	248	880	548	e130	e120	e230	299	284	83	148	74	64
11	200	568	348	e130	e120	e210	225	228	127	88	80	141
12	146	432	476	e120	e120	e190	210	199	83	76	65	350
13	136	362	734	e130	e110	e180	322	186	79	71	68	158
14	143	319	774	e130	e110	e170	244	173	78	86	70	123
15	137	282	650	e120	109	e160	204	167	74	117	61	93
16	123	244	531	e130	e100	e160	182	156	71	124	91	86
17	120	221	556	e140	101	e150	168	153	76	134	99	83
18	115	208	631	e150	100	e160	164	151	84	134	118	81
19	325	251	611	e160	119	172	160	195	83	78	74	78
20	1430	233	e540	e170	196	173	148	372	79	64	66	74
21	710	202	e360	e150	205	167	123	243	122	63	185	71
22	510	182	304	e140	501	238	120	191	116	73	133	70
23	404	168	279	e130	428	217	118	170	97	67	93	68
24	334	157	343	e130	288	173	115	153	78	65	86	66
25	261	155	520	e130	230	160	107	137	95	67	74	64
26	220	308	334	e130	208	419	103	147	107	97	70	65
27	197	286	290	e120	250	333	91	131	95	105	103	64
28	199	211	266	e120	321	342	293	125	104	110	122	65
29	193	186	265	e120	---	357	240	118	123	103	124	81
30	174	175	291	e120	---	364	158	115	134	101	95	74
31	180	---	245	e120	---	702	---	115	---	65	80	---
TOTAL	7996	9477	16208	4620	5094	8396	8375	6304	2992	2683	2690	2733
MEAN	258	316	523	149	182	271	279	203	99.7	86.5	86.8	91.1
MAX	1430	2410	1760	230	501	702	630	468	160	148	185	350
MIN	93	105	245	120	100	150	91	115	71	62	58	64

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1997, BY WATER YEAR (WY)

	1992	1993	1994	1995	1996	1997
MEAN	141	231	252	234	152	275
MAX	258	320	523	394	262	328
(WY)	1997	1996	1997	1996	1996	1994
MIN	79.1	114	112	110	90.2	231
(WY)	1994	1995	1996	1994	1993	1996

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1992 - 1997

ANNUAL TOTAL	107624	77568		
ANNUAL MEAN	294	213		
HIGHEST ANNUAL MEAN			205	
LOWEST ANNUAL MEAN			253	1996
HIGHEST DAILY MEAN	3160	May 1	2410	Nov 9
LOWEST DAILY MEAN	62	Sep 4	58	Aug 1
ANNUAL SEVEN-DAY MINIMUM	65	Aug 31	66	Jul 2
10 PERCENT EXCEEDS	598		436	
50 PERCENT EXCEEDS	184		146	
90 PERCENT EXCEEDS	86		71	

e Estimated

DELAWARE RIVER BASIN

01436690 NEVERSINK RIVER AT BRIDGEVILLE, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1992 to current year.

INSTRUMENTATION.--Water-temperature satellite telemeter provides 15-minute-interval readings.

REMARKS.--Interruptions of record were due to malfunction of recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 26.5°C, July 15, 1995; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 26.0°C, July 13, 14; minimum, 0.0°C on many days during winter period.

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

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

DELAWARE RIVER BASIN

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01436690 NEVERSINK RIVER AT BRIDGEVILLE, NY--Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	.0	.0	.0	2.0	1.5	2.0	4.5	.5	2.5	15.0	12.0	13.5
2	.0	.0	.0	4.0	2.0	3.0	6.0	1.5	4.0	15.0	9.5	12.5
3	.5	.0	.0	3.0	1.5	2.0	7.0	2.5	5.0	12.5	9.0	10.5
4	.0	.0	.0	1.5	.5	1.5	8.5	4.5	6.5	11.5	8.5	10.0
5	.0	.0	.0	3.0	1.5	2.0	9.0	5.0	7.0	14.0	8.0	10.5
6	.5	.0	.0	3.0	1.5	2.0	9.5	6.5	8.0	12.5	10.0	11.5
7	.5	.0	.0	3.0	.0	1.0	12.5	8.5	10.0	11.0	7.5	9.0
8	.5	.0	.0	2.0	.5	1.0	9.5	3.5	6.5	11.5	6.5	9.5
9	1.0	.0	.0	3.0	.0	1.5	6.0	2.0	4.0	11.0	9.5	10.5
10	1.0	.0	.0	4.5	.0	2.0	6.5	1.5	4.0	11.0	9.5	10.0
11	.5	.0	.0	4.0	2.0	2.5	8.5	3.0	5.5	14.5	8.5	11.0
12	.0	.0	.0	4.0	.5	2.0	6.5	5.5	6.0	16.0	10.5	13.0
13	.5	.0	.0	3.5	.0	1.5	9.5	5.5	7.0	13.5	10.5	12.0
14	.0	.0	.0	1.5	.0	.5	10.5	5.5	7.5	13.5	8.5	11.0
15	1.5	.0	.5	3.5	.5	1.5	11.0	5.0	7.5	17.5	11.0	13.5
16	.5	.0	.0	2.0	.0	.5	12.0	5.5	8.5	14.5	11.5	13.0
17	1.0	.0	.0	1.5	.0	1.0	10.0	8.0	8.5	11.5	9.5	10.0
18	1.5	.0	.5	4.5	1.0	2.5	8.0	4.5	6.0	14.5	7.5	11.0
19	1.0	.0	.5	5.5	1.5	3.0	6.5	4.0	5.0	16.0	12.0	13.5
20	1.5	.0	.5	3.5	2.5	3.0	9.0	4.0	6.5	17.0	13.5	15.0
21	2.0	.0	.5	4.0	1.5	3.0	9.0	5.0	7.0	14.0	11.5	12.5
22	1.5	.0	.5	4.5	2.0	3.5	10.0	5.5	8.0	12.5	10.0	11.0
23	1.5	.0	.5	4.5	.5	2.5	10.5	7.5	9.0	16.5	9.0	12.5
24	2.0	.0	.5	5.5	.0	2.5	10.5	8.0	9.0	17.5	11.0	14.5
25	1.5	.0	.5	2.5	1.5	2.0	11.5	7.5	9.5	15.5	13.0	14.0
26	2.5	.0	1.0	3.0	2.0	2.5	13.5	7.0	10.0	18.0	11.0	14.5
27	4.5	1.5	3.0	7.0	1.5	4.0	14.0	7.0	10.5	18.5	11.5	14.5
28	4.0	2.0	3.0	8.5	3.5	6.0	11.5	8.5	9.5	19.0	11.5	15.0
29	---	---	---	6.5	5.0	5.5	14.0	7.0	10.0	18.0	12.5	15.5
30	---	---	---	6.5	5.0	5.5	16.5	9.0	12.5	15.5	13.5	14.0
31	---	---	---	5.5	.0	3.0	---	---	---	18.5	13.0	15.5
MONTH	4.5	.0	.5	8.5	.0	2.5	16.5	.5	7.5	19.0	6.5	12.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	19.0	15.5	17.0	22.0	16.0	19.0	23.0	17.5	20.0	21.5	17.5	19.5
2	17.5	13.5	15.5	20.5	18.5	19.5	22.5	19.0	20.5	22.5	18.5	20.0
3	15.5	12.5	13.5	23.0	18.5	20.0	21.5	17.5	19.5	20.5	17.0	19.0
4	19.0	12.0	15.5	21.5	18.0	19.5	19.5	16.5	17.5	19.0	13.5	16.0
5	20.0	14.0	17.0	23.5	16.5	19.5	19.5	15.0	17.0	19.0	12.5	15.5
6	20.0	14.5	17.5	23.5	16.5	19.5	20.5	16.0	18.0	18.0	14.0	16.0
7	17.5	15.0	16.0	24.0	17.5	20.5	23.0	15.5	19.0	18.0	14.0	16.0
8	18.0	13.0	15.5	24.0	18.5	21.0	19.5	16.0	18.0	18.5	16.0	17.0
9	20.5	13.5	17.0	22.0	19.0	20.5	21.5	16.0	18.5	17.5	15.5	16.5
10	23.0	15.5	19.0	22.5	16.5	19.5	22.0	17.5	19.5	15.5	14.5	15.0
11	22.5	17.0	19.5	23.5	16.5	19.5	---	17.0	---	15.5	14.5	15.0
12	22.5	17.0	19.5	25.0	17.5	21.0	---	---	---	18.0	14.5	16.0
13	22.5	18.5	20.0	26.0	19.0	22.0	---	19.0	---	17.5	15.5	16.5
14	22.0	17.5	19.5	26.0	19.5	22.5	23.5	18.0	20.0	19.5	15.0	17.0
15	22.5	14.5	18.5	24.5	20.0	22.5	20.5	17.0	19.0	19.0	14.0	16.5
16	22.5	15.5	19.0	24.0	19.0	21.5	23.5	18.5	20.5	20.0	15.0	17.5
17	19.0	16.0	17.0	22.5	17.5	20.0	22.0	18.5	20.5	19.5	15.0	17.5
18	16.5	15.5	16.0	22.0	17.5	19.5	22.0	17.0	19.5	21.0	17.0	18.5
19	21.0	15.5	18.0	23.5	16.5	19.5	20.5	15.0	17.5	20.0	14.5	17.0
20	22.0	16.5	19.5	23.0	16.0	19.0	17.5	15.5	16.5	19.5	16.5	17.5
21	24.0	18.5	21.0	21.5	18.0	19.5	15.5	14.5	15.0	17.5	13.0	15.0
22	23.5	19.0	21.0	23.5	18.0	20.5	18.5	14.5	16.0	16.0	10.5	13.0
23	22.5	17.0	20.0	23.0	18.0	20.5	18.0	15.0	16.5	14.0	12.5	13.5
24	22.0	17.5	19.0	20.5	17.5	19.0	19.0	14.0	16.5	15.0	10.5	12.5
25	24.5	18.5	21.0	23.5	16.0	19.0	19.0	15.0	17.0	14.0	9.5	11.5
26	23.5	20.0	21.5	23.0	16.5	19.5	20.0	16.0	18.0	15.0	12.0	13.0
27	24.0	17.0	20.0	21.5	18.5	20.0	21.0	17.0	19.0	15.5	10.0	12.5
28	23.5	17.0	20.0	20.5	16.5	18.5	20.0	17.5	18.5	13.0	10.0	11.5
29	23.0	16.5	19.5	22.0	16.0	18.5	20.5	17.0	18.5	15.0	12.0	13.0
30	22.0	16.0	19.0	21.5	14.5	17.5	21.5	16.0	18.5	15.5	12.5	13.5
31	---	---	---	23.0	15.5	19.0	20.5	16.5	18.5	---	---	---
MONTH	24.5	12.0	18.5	26.0	14.5	20.0	---	---	---	22.5	9.5	15.5

LOCATION.--Lat 41°26'28", long 74°36'08", Orange County, Hydrologic Unit 02040104, on right bank just upstream from highway bridge on Graham Road, 0.5 mi downstream from Basher Kill, 0.8 mi southeast of Godeffroy, 1.7 mi south of Cuddebackville, and 8.5 mi upstream from mouth.

PERIOD OF RECORD.--July 1937 to current year. Gage heights and discharge measurements, August to October 1903 and August 1909 to April 1914, and twice-daily figures of discharge for January 1911 to December 1912 (which do not represent daily mean discharges because of diurnal fluctuation) are published in WSP 97, 261, 321, 351, and 381. August to October 1903, published as "Navesink River at Godeffroy, NY."

REVISED RECORDS.--WSP 1502: 1951(M). WDR NY-82-1: Drainage area. WDR NY-87-1: 1986.

GAGE.--Water-stage recorder. Datum of gage is 459.66 ft above sea level (levels by Corps of Engineers). Prior to Apr. 30, 1914, nonrecording gages at same site (August to October 1903 at datum 0.98 ft higher).

REMARKS. --Records fair except those for estimated daily discharges, which are poor. Prior to 1949, diurnal fluctuation at low and medium flow caused by powerplant at Cuddebackville. Subsequent to June 1953, entire flow from 92.5 mi² of drainage area controlled by Neversink Reservoir (see Reservoirs in Delaware River Basin). Part of flow diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill), impounded for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,000 ft³/s, Aug. 19, 1955, gage height, 12.49 ft, from rating curve extended above 11,000 ft³/s, on basis of slope-area measurement of peak flow; minimum discharge observed, no flow July 21, 22, 28, 1911, result of regulation.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,730 ft³/s, Nov. 9, gage height, 7.65 ft; minimum, 73 ft³/s, Aug. 10.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	525	408	710	527	297	612	e1600	424	273	201	84	156
2	465	380	e1400	511	294	649	1390	416	269	171	88	199
3	428	350	e1300	521	293	780	1450	490	335	162	113	190
4	361	320	e1200	543	289	632	1650	1020	297	157	115	164
5	326	304	e1100	524	e340	569	1580	657	268	152	115	140
6	312	294	1130	529	e450	1110	1390	602	252	151	89	142
7	301	287	1250	486	e390	973	1220	647	239	146	83	149
8	313	298	1350	432	e350	775	1320	556	230	143	80	142
9	759	3690	1350	392	e330	674	1130	495	221	162	79	143
10	586	2060	1230	e400	e300	636	865	616	211	237	78	146
11	543	1400	1000	e400	e290	647	675	534	224	166	92	253
12	443	1100	1110	e390	e280	579	595	463	221	135	95	752
13	413	907	1670	e390	e270	511	762	437	202	125	81	383
14	406	796	1930	e380	e270	497	648	417	198	121	95	252
15	399	709	1850	e360	302	586	552	391	189	139	82	215
16	372	628	1570	354	e280	552	484	374	182	154	87	186
17	363	578	1540	e340	e270	471	457	359	179	163	121	174
18	348	548	1430	e330	e270	472	470	358	191	167	160	163
19	532	569	1340	e320	290	460	467	388	200	143	130	150
20	2970	562	1230	e310	390	451	437	615	191	98	96	141
21	1790	508	933	e300	405	442	403	489	202	93	202	136
22	1380	477	802	e290	856	496	385	410	215	101	230	124
23	1110	449	732	311	e920	520	370	378	204	100	153	118
24	950	428	735	298	e740	443	357	352	185	99	141	110
25	768	415	1050	325	e600	421	344	335	178	99	127	103
26	651	576	793	342	e540	797	325	348	201	104	121	98
27	565	637	708	304	585	776	308	321	206	125	134	92
28	515	516	658	e300	702	737	534	300	188	136	171	99
29	490	481	637	e300	---	738	629	288	199	126	205	133
30	443	462	659	e300	---	760	469	275	224	121	164	127
31	425	---	603	299	---	e1800	---	275	---	109	139	---
TOTAL	20252	21137	35000	11808	11593	20566	23266	14030	6574	4306	3750	5380
MEAN	653	705	1129	381	414	663	776	453	219	139	121	179
MAX	2970	3690	1930	543	920	1800	1650	1020	335	237	230	752
MIN	301	287	603	290	270	421	308	275	178	93	78	92

MEAN	304	386	450	367	411	683	849	540	364	234	225	216
MAX	2033	1094	1227	1053	981	1370	2080	1392	1722	652	1327	705
(WY)	1956	1956	1974	1979	1976	1977	1993	1989	1972	1972	1955	1960
MIN	94.9	86.3	119	72.6	118	297	248	180	111	54.2	76.0	71.1
(WY)	1985	1966	1981	1981	1980	1981	1985	1962	1957	1966	1968	1972

ANNUAL TOTAL	243920		177662				
ANNUAL MEAN	666		487			419	
HIGHEST ANNUAL MEAN						704	1956
LOWEST ANNUAL MEAN						215	1965
HIGHEST DAILY MEAN	4370	May 1	3690	Nov 9	15900		Aug 19 1955
LOWEST DAILY MEAN	140	Aug 30	78	Aug 10	32		Aug 17 1965
ANNUAL SEVEN-DAY MINIMUM	150	Aug 27	84	Aug 7	38		Aug 11 1965
10 PERCENT EXCEEDS	1340		1100		878		
50 PERCENT EXCEEDS	486		372		270		
90 PERCENT EXCEEDS	190		125		107		

e Estimated

DELAWARE RIVER BASIN

261

01438500 DELAWARE RIVER AT MONTAGUE, NJ

LOCATION.--Lat 41°18'33", long 74°47'44", Pike County, PA, Hydrologic Unit 02040104, on right bank 1,500 ft upstream from toll bridge (on U.S. Route 206) between Montague, NJ and Milford, PA, 0.8 mi downstream from Sawkill Creek, and at river mile 246.3.

DRAINAGE AREA.--3,480 mi².

PERIOD OF RECORD.--March 1936 to September 1939 (gage heights only, published as "at Milford, PA"). October 1939 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WDR-NJ-81-2: 1980.

GAGE.--Water-stage recorder. Datum of gage is 369.93 ft above sea level. Prior to Feb. 9, 1940, nonrecording gage on upstream side of left span of subsequently dismantled bridge at present site at datum 70 ft lower.

REMARKS.--Records good except for estimated daily discharges and periods of shifting control, which are fair. Diurnal fluctuations at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack, Cliff Lake, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, and Neversink Reservoirs (see Delaware River basin, reservoirs in) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs (see Delaware River basin, diversions). Several measurements of water temperature were made during the year. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of October 10, 1903, reached a stage of 35.5 ft, from floodmark, present datum.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4650	4950	8340	9800	e3700	12700	18800	5310	3060	1640	1980	1930
2	3810	4610	37900	9010	e2900	11000	17700	5070	2860	1640	2100	2110
3	3490	4010	50600	9000	e2800	13800	17400	5080	3770	1750	2150	2020
4	3150	4000	32000	8740	e3700	13000	18800	9340	4040	2020	1990	1590
5	3060	3300	23300	8610	e3700	11300	19300	10800	3500	1550	2010	1690
6	2100	3510	19700	8900	e3800	14100	18700	9190	2830	1550	2050	1430
7	2170	3350	18600	8780	e4600	16900	17900	9060	2490	1610	2110	1560
8	2970	3400	17900	7790	e4300	13300	16500	8680	2300	1780	1840	1670
9	4390	38900	15800	6500	3490	11100	14300	7800	2070	2030	1770	1790
10	4460	43700	13200	6420	3190	10200	12500	7750	2350	2220	1650	1850
11	4520	30200	11600	e6800	2890	10200	10600	7950	2250	2150	1460	2450
12	3840	22800	12400	e6600	2860	9370	9150	7900	2240	1870	1420	4790
13	3410	17400	16700	e5900	3130	8310	9240	7390	2200	2010	1670	4470
14	2870	14000	26400	e6000	2740	7550	9530	6790	1750	2270	2040	3140
15	3330	12000	26500	e5500	2520	8190	8610	6270	1800	2110	2190	1920
16	2680	10100	21700	e4800	2240	7790	7260	5610	1710	2050	2140	2380
17	2530	8060	19700	e5400	2580	6610	6640	5120	1710	1880	2370	2100
18	2500	7400	21800	e4800	2600	6190	6250	4850	1750	1980	2550	2080
19	3350	7520	23100	e4500	3500	5960	6170	4930	1820	1790	2150	1930
20	11800	9030	21300	e4400	4550	5810	5650	7460	1840	1960	1660	1780
21	14600	8590	17600	e4500	5540	5680	5620	10200	1890	1780	1870	1760
22	12800	7710	15000	e4600	7800	5330	5460	8800	2060	1800	1930	1580
23	10600	6960	13400	e4500	15000	5510	4960	7840	1660	2090	1500	1840
24	10100	6340	12300	e5300	14500	5020	4570	6700	1940	1970	1560	1580
25	9480	5920	15000	e4700	12100	4790	4610	6130	1760	1730	1520	1510
26	7470	7170	15100	e3700	10300	5990	4170	5970	2280	1580	1620	1540
27	5910	10500	12400	e3800	9710	7880	3840	5510	1880	1990	1620	1530
28	5590	9980	11500	e4200	12700	7580	4450	4790	2010	2010	1760	1540
29	5430	8270	10300	e4200	---	8230	6610	4030	2060	1970	2390	1610
30	5450	8260	11100	e4400	---	10100	6040	3540	1740	1850	2410	1730
31	5250	---	11500	e4000	---	13700	---	3180	---	1760	1910	---
TOTAL	167760	331940	583740	186150	153440	283190	301330	209040	67620	58390	59390	61110
MEAN	5412	11060	18830	6005	5480	9135	10040	6743	2254	1884	1916	2037
MAX	14600	43700	50600	9800	15000	16900	19300	10800	4040	2270	2550	4790
MIN	2100	3300	8340	3700	2240	4790	3840	3180	1660	1550	1420	1430

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

	MEAN	3363	5214	6306	5846	5977	9951	12000	7406	4318	3035	2606	2650
MAX	15690	11760	18830	15600	15120	24480	31560	16090	15200	11220	14230	9167	
(WY)	1956	1952	1997	1996	1976	1945	1940	1943	1972	1945	1955	1960	
MIN	807	995	1968	1318	1748	3191	3322	2215	1214	864	715	892	
(WY)	1942	1965	1965	1981	1980	1981	1985	1965	1965	1954	1954	1941	

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1940 - 1997
ANNUAL TOTAL	3336440	2463100	
ANNUAL MEAN	9116	6748	5717
HIGHEST ANNUAL MEAN			8621
LOWEST ANNUAL MEAN			2309
HIGHEST DAILY MEAN	118000	Jan 20	187000
LOWEST DAILY MEAN	1500	Aug 22	412
ANNUAL SEVEN-DAY MINIMUM	1960	Aug 30	565
INSTANTANEOUS PEAK FLOW			67100
INSTANTANEOUS PEAK FLOW		18.15	Dec 2
INSTANTANEOUS LOW FLOW		870	Dec 2
10 PERCENT EXCEEDS	18500	14500	12100
50 PERCENT EXCEEDS	6070	4600	3440
90 PERCENT EXCEEDS	2390	1750	1590

e Estimated

a From rating curve extended above 90,000 ft³/s on basis of flood-routing study.

DELAWARE RIVER BASIN

RESERVOIRS IN DELAWARE RIVER BASIN

- 01416900 PEPACTON RESERVOIR.**--Lat 42°04'38", long 74°58'04", Delaware County, Hydrologic Unit 02040102, near release chamber at Downsview Dam on East Branch Delaware River, and 1.6 mi east of Downsview. **DRAINAGE AREA**, 372 mi². **PERIOD OF RECORD**, September 1954 to current year. **REVISED RECORDS**, WDR NY-90-1: Drainage area. **GAGE**, water-stage recorder. Datum of gage is sea level (levels by Board of Water Supply, City of New York). Reservoir is formed by an earthfill rockfaced dam. Storage began Sept. 15, 1954. Usable capacity 140,190 mil gal between minimum operating level, elevation, 1,152.0 ft and crest of spillway, elevation, 1,280.0 ft. Capacity: at crest of spillway 149,799 mil gal; at minimum operating level, 9,609 mil gal; at sill of diversion tunnel, elevation, 1,143.0 ft, 6,098 mil gal; in dead storage below release outlet, elevation, 1,126.50 ft, 1,898 mil gal. Figures given herein represent total contents. Reservoir impounds water for diversion through East Delaware Tunnel to Rondout Reservoir on Rondout Creek, in Hudson River basin (see elsewhere in this section), for water supply to City of New York; for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master; and for conservation release. No diversion prior to Jan. 6, 1955. Records provided by New York City Department of Environmental Protection. **EXTREMES FOR PERIOD OF RECORD.**--Maximum contents observed, 154,027 mil gal, Apr. 5, 1960, elevation, 1,282.27 ft; minimum observed (after first filling), 9,575 mil gal, Dec. 26, 1964, elevation, 1,151.92 ft. **EXTREMES FOR CURRENT YEAR.**--Maximum contents observed, 153,952 mil gal, Dec. 2, elevation, 1,282.23 ft; minimum observed, 94,457 mil gal, Sept. 30, elevation, 1,246.04 ft.
- 01424997 CANNONVILLE RESERVOIR.**--Lat 42°03'46", long 75°22'29", Delaware County, Hydrologic Unit 02040101, in emergency gate tower at Cannonville Dam on West Branch Delaware River, and 1.8 mi southeast of Stilesville. **DRAINAGE AREA**, 454 mi². **PERIOD OF RECORD**, October 1963 to current year. **REVISED RECORDS**, WDR NY-71-1: 1966. **GAGE**, water-stage recorder. Datum of gage is sea level (levels by Board of Water Supply, City of New York). Reservoir is formed by an earthfill rockfaced dam. Storage began Sept. 30, 1963. Usable capacity 95,706 mil gal between minimum operating level, elevation, 1,040.0 ft and crest of spillway, elevation, 1,150.0 ft. Capacity, at crest of spillway, 98,618 mil gal; at minimum operating level, 2,912 mil gal; at mouth of inlet channel to diversion tunnel, elevation, 1,035.0 ft, 1,892 mil gal; in dead storage below release outlet elevation, 1,020.5 ft, 328 mil gal. Figures given herein represent total contents. Impounded water is diverted for New York City water supply via West Delaware Tunnel to Rondout Reservoir in Hudson River basin (see elsewhere in this section); is released in Delaware River for downstream low flow augmentation, as directed by the Delaware River Master; and is released for conservation flow in the Delaware River. No diversion prior to January 29, 1964. Records provided by New York City Department of Environmental Protection. **EXTREMES FOR PERIOD OF RECORD.**--Maximum contents observed, 109,617 mil gal, Mar. 16, 1986, elevation, 1,156.73 ft; minimum observed (after first filling), 11,901 mil gal, Nov. 7, 1968, elevation, 1,066.24 ft. **EXTREMES FOR CURRENT YEAR.**--Maximum contents observed, 106,375 mil gal, Nov. 10, elevation, 1,154.82 ft; minimum observed, 44,077 mil gal, Sept. 30, elevation, 1,107.80 ft.
- 01433000 SWINGING BRIDGE RESERVOIR.**--Lat 41°34'21", long 74°47'00", Sullivan County, Hydrologic Unit 02040104, at dam on Mongaup River, and 1.8 mi northwest of Fowlersville. **DRAINAGE AREA**, 116 mi², excluding Cliff Lake, Lebanon Lake, and Toronto Reservoir. **PERIOD OF RECORD**, January 1930 to current year. **REVISED RECORDS**, WSP 1552: 1951-54. WDR NY-86-1: 1985. WDR NY-90-1: Drainage area. **GAGE**, nonrecording gage, daily readings at 0900. Datum of gage is sea level (levels by Orange and Rockland Utilities, Inc.). All capacity figures given herein are based on zero storage at minimum operating pool level, 1,010 ft. Reservoir is formed by an earthfill dam. Storage began Jan. 19, 1930. Usable capacity, 1,436.6 mil ft³ between elevations 1,010.0 ft, minimum operating pool, and 1,071.2 ft, top of flashboards. Capacity below elevation 1,010.0 ft, minimum operating pool, about 212.7 mil ft³. Reservoir is used for storage of water for power. Figures given herein represent contents above 1,010.0 ft. Water is received from Cliff Lake, Lebanon Lake, and Toronto Reservoir. Records provided by Orange and Rockland Utilities, Inc. **EXTREMES FOR PERIOD OF RECORD.**--Maximum contents observed, 1,461.6 mil ft³, Mar. 14, 1977, elevation, 1,071.8 ft; minimum observed (after first filling), -141.4 mil ft³, Dec. 2, 1938, elevation, 987.5 ft. **EXTREMES FOR CURRENT YEAR.**--Maximum contents observed, 1,383.3 mil ft³, Nov. 12, elevation, 1,069.9 ft; minimum observed, 886.1 mil ft³, Jan. 24, 25, elevation, 1,056.3 ft.
- 01433100 TORONTO RESERVOIR.**--Lat 41°37'15", long 74°49'55", Sullivan County, Hydrologic Unit 02040104, at dam on Black Lake Creek, and 2.5 mi southeast of village of Black Lake. **DRAINAGE AREA**, 22.9 mi². **PERIOD OF RECORD**, January 1926 to current year. **REVISED RECORDS**, WSP 1552: 1951-54. WSP 1702: 1959 (M). WDR NY-85-1: 1984. WDR NY-86-1: 1985. WDR NY-90-1: Drainage area. **GAGE**, nonrecording gage, daily readings at 0900. Datum of gage is sea level (levels by Orange and Rockland Utilities, Inc.). All capacity figures given herein are based on zero storage at minimum operating pool level, 1,165.0 ft. Reservoir is formed by an earthfill dam completed July 24, 1926. Storage began Jan. 13, 1926. Usable capacity 1,098.2 mil ft³ between elevations 1,165.0 ft, minimum operating pool, and 1,220.0 ft, top of permanent flashboards. Capacity below elevation 1,165.0 ft, minimum operating pool, about 26.8 mil ft³. Reservoir is used for storage of water for power. Figures given herein represent contents above 1,165.0 ft. Records provided by Orange and Rockland Utilities, Inc. **EXTREMES FOR PERIOD OF RECORD.**--Maximum contents observed, 1,171.2 mil ft³, July 20, 1945, elevation, 1,222.0 ft; minimum observed (after first filling), -26.8 mil ft³, Nov. 15, 1928, elevation, 1,144.5 ft. **EXTREMES OF CURRENT YEAR.**--Maximum contents observed, 1,112.6 mil ft³, Jan. 8, elevation, 1,220.4 ft; minimum observed, 191.9 mil ft³, Sept. 30, elevation, 1,183.8 ft.
- 01433200 CLIFF LAKE.**--Lat 41°35'00", long 74°47'40", Sullivan County Hydrologic Unit 02040104, at dam on Black Lake Creek, and 2.5 mi northwest of Fowlersville. **DRAINAGE AREA**, 6.46 mi², excluding area above Toronto Reservoir. **PERIOD OF RECORD**, January 1939 to current year. **REVISED RECORDS**, WSP 1552: 1951-54. WDR NY-75-1: 1974(m). WDR NY-86-1: 1985. **GAGE**, nonrecording gage, daily readings at 0900. Datum of gage is sea level (levels by Orange and Rockland Utilities, Inc.). All capacity figures given herein are based on zero storage at minimum operating pool level, 1,043.3 ft. Reservoir is formed by a concrete gravity-type dam. Storage began Jan. 6, 1939. Usable capacity, 136.06 mil ft³ between elevations 1,043.3 ft, minimum operating pool, and 1,072.0 ft, top of permanent flashboards. Capacity below elevation 1,043.3 ft, minimum operating pool, about 6.54 mil ft³. Reservoir is used for storage of water for power. Water is received from Toronto and Lebanon Lake reservoirs and is discharged through a tunnel into Swinging Bridge Reservoir. Figures given herein represent contents above 1,043.3 ft. Records provided by Orange and Rockland Utilities, Inc. **EXTREMES FOR PERIOD OF RECORD.**--Maximum contents observed, 145.44 mil ft³, July 30, 31, 1945, elevation, 1,073.1 ft; minimum observed (after first filling), about -6.54 mil ft³, Mar. 16, 1963, elevation, 1,038.0 ft. **EXTREMES FOR CURRENT YEAR.**--Maximum contents observed, 121.28 mil ft³, Oct. 21, elevation, 1,070.2 ft; minimum observed, 47.92 mil ft³, Jan. 24, elevation, 1,058.8 ft.

DELAWARE RIVER BASIN

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RESERVOIRS IN DELAWARE RIVER BASIN--Continued

01435900 NEVERSINK RESERVOIR.--Lat 41°49'27", long 74°38'20", Sullivan County, Hydrologic Unit 02040104, at a gatehouse at Neversink Dam on Neversink River, and 2 mi southwest of Neversink. **DRAINAGE AREA**, 92.5 mi². **PERIOD OF RECORD**, June 1953 to current year. **REVISED RECORDS**, WDR NY-85-1: Drainage area. **GAGE**, nonrecording gage read daily at 0900. Datum of gage is sea level (levels by Board of Water Supply, City of New York).

Reservoir is formed by an earthfill rockfaced dam. Storage began June 2, 1953. Usable capacity 34,941 mil gal between minimum operating level, elevation, 1,319.0 ft and crest of spillway, elevation, 1,440.0 ft. Capacity at crest of spillway 37,146 mil gal; at minimum operating level, 2,205 mil gal; dead storage below diversion sill and outlet sill, elevation 1,314.0 ft, 1,680 mil gal. Figures given herein represent total contents. Reservoir impounds water for diversion through Neversink-Grahamsville Tunnel to Rondout Reservoir on Rondout Creek, in Hudson River basin, for water supply of City of New York (see elsewhere in this section); for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master; and for conservation release. No diversion prior to Dec. 3, 1953. Records provided by New York City Department of Environmental Protection.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 37,983 mil gal, Apr. 17, 1993, elevation, 1,441.68 ft; minimum observed (after first filling), 1,985 mil gal, Nov. 25, 1964, elevation, 1,316.98 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 37,340 mil gal, Apr. 8, elevation, 1,440.39 ft; minimum observed, 17,566 mil gal, Sept. 30, elevation, 1,391.74 ft.

MONTH-END ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

Date	Elevation (feet) ††	Contents (million gallons)	Change in contents (equivalent in ft ³ /s)	Elevation (feet) ††	Contents (million gallons)	Change in contents (equivalent in ft ³ /s)	Elevation (feet) †	Contents (million ft ³)	Change in contents (equivalent in ft ³ /s)
01416900 Pepacton Reservoir				01424997 Cannonsville Reservoir			01433000 Swinging Bridge Reservoir		
Sept. 30	1,268.39	129,257		1,144.35	90,073		1,065.3	1,202.7	
Oct. 31	1,273.79	138,598	+466	1,150.86	100,002	+ 496	1,065.8	1,221.7	+ 7.1
Nov. 30	1,280.26	150,280	+603	1,151.57	101,145	+ 59.0	1,065.3	1,202.7	- 7.3
Dec. 31	1,280.42	150,577	+ 14.8	1,151.49	101,016	- 6.4	1,066.0	1,229.3	+ 9.9
CAL YR 1996	-	-	+244	-	-	+ 142	-	-	+ 10.0
Jan. 31	1,277.83	145,826	-237	1,150.09	98,763	- 112	1,058.4	955.6	-102
Feb. 28	1,278.75	147,502	+ 92.6	1,152.25	102,239	+ 192	1,065.7	1,217.9	+108
Mar. 31	1,280.90	151,466	+198	1,151.98	101,805	- 21.7	1,066.4	1,244.7	+ 10.0
Apr. 30	1,280.27	150,299	- 60.2	1,150.75	99,825	- 102	1,061.0	1,045.3	- 76.9
May 31	1,279.92	149,652	- 32.3	1,150.35	99,181	- 32.1	1,062.3	1,091.8	+ 17.4
June 30	1,273.98	138,933	-553	1,145.35	91,544	- 394	1,060.1	1,013.8	- 30.1
July 31	1,266.59	126,221	-634	1,128.17	67,925	-1,179	1,060.7	1,034.8	+ 7.8
Aug. 31	1,256.82	110,447	-787	1,112.25	48,891	- 950	1,060.9	1,041.8	+ 2.6
Sept. 30	1,245.63	93,880	-854	1,107.58	43,846	- 260	1,060.0	1,010.3	- 12.2
WTR YR 1997	-	-	-150	-	-	- 196	-	-	- 6.1
Date	Elevation (feet) †	Contents (million ft ³)	Change in contents (equivalent in ft ³ /s)	Elevation (feet) †	Contents (million ft ³)	Change in contents (equivalent in ft ³ /s)	Elevation (feet) ††	Contents (million gallons)	Change in contents (equivalent in ft ³ /s)
01433100 Toronto Reservoir				01433200 Cliff Lake			01435900 Neversink Reservoir		
Sept. 30	1,208.0	725.2		1,066.5	93.71		1,414.69	25,866	
Oct. 31	1,206.3	679.2	- 17.2	1,066.8	95.78	+ 0.8	1,423.63	29,583	+186
Nov. 30	1,212.7	859.0	+ 69.4	1,064.4	79.82	- 6.2	1,428.52	31,732	+111
Dec. 31	1,220.2	1,105.4	+ 92.0	1,067.4	100.04	+ 7.5	1,438.09	36,208	+223
CAL YR 1996	-	-	+ 17.3	-	-	+ 1.4	-	-	+ 58.3
Jan. 31	1,216.4	974.7	- 48.8	1,064.5	80.46	- 7.3	1,426.88	31,000	-260
Feb. 28	1,211.0	809.3	- 68.4	1,065.4	86.30	+ 2.4	1,424.22	29,837	- 64.3
Mar. 31	1,214.8	923.0	+ 42.5	1,066.3	92.33	+ 2.3	1,434.99	34,720	+244
Apr. 30	1,218.4	1,042.4	+ 46.1	1,061.0	59.36	-12.7	1,437.42	35,884	+ 60.0
May 31	1,220.1	1,101.8	+ 22.2	1,062.8	69.86	+ 3.9	1,439.38	36,840	+ 47.7
June 30	1,214.5	913.6	- 72.6	1,063.6	74.78	+ 1.9	1,432.91	33,742	-160
July 31	1,199.2	496.8	-156	1,066.0	90.26	+ 5.8	1,423.78	29,647	-204
Aug. 31	1,189.1	282.0	- 80.2	1,061.1	59.93	-11.3	1,404.52	21,964	-383
Sept. 30	1,183.8	191.9	- 34.8	1,060.4	56.12	- 1.5	1,391.26	17,411	-235
WTR YR 1997	-	-	- 16.9	-	-	- 1.2	-	-	- 35.8

†† Elevation at 0800 hours on first day of following month.

† Elevation at 0900 hours.

DELAWARE RIVER BASIN

DIVERSIONS FROM DELAWARE RIVER BASIN

01415200 Diversion from Pepacton Reservoir (see preceding pages) on East Branch Delaware River to Rondout Reservoir on Rondout Creek, in Hudson River basin, for municipal supply of City of New York. No diversion prior to Jan. 6, 1955. Records provided by Bureau of Water Resources Development and Department of Environmental Protection, City of New York.
REVISED RECORDS, WDR NY-71-1: 1970. WDR NY-81-1: 1980.

014239000 Diversion from Cannonsville Reservoir (see preceding pages) on West Branch Delaware River to Rondout Reservoir on Rondout Creek, in Hudson River basin, for municipal supply of City of New York. No diversion prior to Jan. 29, 1964. Records provided by Bureau of Water Resources Development and Department of Environmental Protection, City of New York.
REVISED RECORDS, WDR NY-81-1: 1980.

01435800 Diversion from Neversink Reservoir (see preceding pages) on Neversink River to Rondout Reservoir on Rondout Creek, in Hudson River basin, for municipal supply of City of New York. No diversion prior to Dec. 3, 1953. Records provided by Bureau of Water Resources Development and Department of Environmental Protection, City of New York.
REVISED RECORDS, WDR NY-82-1: 1976, 1977.

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

Month	01415200 <u>Pepacton Reservoir</u>	01423900 <u>Cannonsville Reservoir</u>	01435800 <u>Neversink Reservoir</u>
October.....	484	104	191
November.....	617	127	361
December.....	245	0.0	479
CAL YR 1996	496	204	305
January.....	697	110	471
February.....	696	384	242
March.....	678	259	128
April.....	395	9.2	436
May.....	497	73.0	246
June.....	699	317	193
July.....	586	459	176
August.....	694	165	386
September.....	697	0.0	290
WTR YR 1997	581	166	300

STREAMS TRIBUTARY TO LAKE ONTARIO

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04250200 SALMON RIVER AT PINEVILLE, NY

LOCATION.--Lat 43°32'00", long 76°02'20", Oswego County, Hydrologic Unit 04140102, on right bank 30 ft downstream from County Highway 48 in Pineville, 0.8 mi upstream from Trout Brook, and 2.3 mi northwest of Altmar.

DRAINAGE AREA.--238 mi².

PERIOD OF RECORD.--November 1992 to current year.

GAGE.--Water-stage recorder. Datum of gage is 477.54 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Seasonal regulation of flow by Salmon River Reservoir at Redfield. Extensive diurnal fluctuation caused by powerplants at Bennett Bridge and Lighthouse Hill operated by Niagara Mohawk Power Corporation. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,060 ft³/s, Apr. 11, 1993, gage height, 11.63 ft; minimum daily, 64 ft³/s, Aug. 21, 1995.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 24,800 ft³/s, Dec. 29, 1984, gage height, 16.36 ft, on basis of contracted-opening measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,150 ft³/s, Nov. 9, gage height, 10.81 ft; minimum daily, 175 ft³/s, Aug. 14.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	681	542	603	1300	e780	2310	2340	2020	264	211	413	388
2	616	549	1990	1300	e820	2430	2120	1960	265	210	800	402
3	694	550	2630	1340	e800	2440	2090	1790	248	210	781	402
4	676	540	2430	1340	1120	1850	2340	1880	248	234	299	407
5	673	516	1990	1380	1140	2280	2410	1800	243	254	191	399
6	671	510	1330	1470	1140	2320	2620	1480	238	232	190	402
7	666	520	1300	1390	1130	2250	3030	1010	239	221	191	399
8	661	1320	1280	1340	892	2160	3510	957	236	215	194	388
9	658	5490	1270	1320	e760	2150	3460	937	232	267	194	404
10	665	2760	1250	1320	e620	1670	3290	962	228	256	193	398
11	663	2560	1250	1300	e520	1320	2800	939	222	460	191	399
12	662	2420	1240	1280	e520	1300	2380	924	220	803	212	407
13	658	1790	1290	1280	e500	1290	2450	911	214	322	233	406
14	588	1310	1370	1280	e500	1280	2460	926	213	220	175	412
15	500	1270	1350	1080	e500	1290	2410	901	210	217	178	401
16	501	1250	1320	939	e500	1290	2400	888	208	213	189	397
17	515	1230	1310	1020	e520	1270	2410	882	236	211	187	390
18	545	1110	1300	e960	e520	1260	2410	881	246	208	185	389
19	552	903	1300	e920	e520	911	2410	909	344	204	183	399
20	573	930	972	e880	e540	699	2390	920	294	202	180	438
21	572	923	741	e840	614	662	2000	899	461	203	184	430
22	567	756	935	e820	983	553	1300	894	468	197	186	415
23	588	512	932	e780	1020	560	1300	878	458	196	224	417
24	577	523	1260	e740	985	529	1300	867	458	195	228	413
25	544	512	2080	e720	1190	506	1830	856	462	194	205	405
26	535	515	1750	e700	1150	541	1840	848	467	194	202	402
27	529	532	1360	e680	1740	554	1810	682	647	196	204	413
28	538	540	1340	e680	2470	958	1920	552	828	196	208	409
29	539	517	1360	e680	---	1110	2270	399	803	196	372	496
30	538	498	1410	e680	---	1340	2090	246	324	201	811	532
31	545	---	1350	e660	---	1940	---	245	---	203	792	---
TOTAL	18490	33898	43293	32419	24494	43023	69390	31243	10224	7541	8975	12359
MEAN	596	1130	1397	1046	875	1388	2313	1008	341	243	290	412
MAX	694	5490	2630	1470	2470	2440	3510	2020	828	803	811	532
MIN	500	498	603	660	500	506	1300	245	208	194	175	388

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1997, BY WATER YEAR (WY)

	1993	1994	1995	1996	1997
MEAN	727	1006	943	940	763
MAX	822	1295	1397	1330	1291
(WY)	1996	1996	1997	1993	1996
MIN	596	680	559	548	532
(WY)	1997	1994	1996	1994	1995

SUMMARY STATISTICS FOR 1996 CALENDAR YEAR FOR 1997 WATER YEAR WATER YEARS 1993 - 1997

	1996	1997	1993-1997
ANNUAL TOTAL	350653	335349	
ANNUAL MEAN	958	919	791
HIGHEST ANNUAL MEAN			920
LOWEST ANNUAL MEAN			548
HIGHEST DAILY MEAN	6510	5490	7670
LOWEST DAILY MEAN	70	175	64
ANNUAL SEVEN-DAY MINIMUM	89	182	65
10 PERCENT EXCEEDS	2060	2090	1740
50 PERCENT EXCEEDS	673	673	542
90 PERCENT EXCEEDS	126	210	143

e Estimated

STREAMS TRIBUTARY TO LAKE ONTARIO

04252500 BLACK RIVER NEAR BOONVILLE, NY

LOCATION.--Lat 43°30'42", long 75°18'25", Oneida County, Hydrologic Unit 04150101, on left bank at downstream side of bridge on Moose River Road, 0.8 mi upstream from Sugar River, and 2 mi northeast of Boonville.

DRAINAGE AREA.--304 mi².

PERIOD OF RECORD.--January to February 1911 (monthly discharges only, published in WSP 1307), March 1911 to current year.

REVISED RECORDS.--WSP 784: 1934. WSP 1084: 1912(M), 1913, 1917-1919(M), 1922(M), 1924(M), 1926(M), 1928(M), 1930(M), 1933(M). WSP 1307: 1914(M). WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 935.50 ft above sea level. Prior to Sept. 27, 1933, nonrecording gage at same site and datum.

REMARKS.--Records good except those below 800 ft³/s, which are fair, and those for estimated daily discharges, which are poor. Occasional regulation by several headwater reservoirs. Forestport feeder diverts water from State Pond at Forestport 9 mi upstream. That portion of diverted water which does not pass Black River Canal (flowing south), returns to Black River downstream from station through Mill Creek sluiceway. Slight diurnal fluctuation at medium and low flow caused by mill upstream from station. Telephone and satellite gage-height telemeters at station.

AVERAGE DISCHARGE.--86 years, 721 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,800 ft³/s, Apr. 18, 1982, Dec. 30, 1984, gage heights, 11.31 ft and 11.41 ft, respectively; maximum gage height, 13.10 ft, Feb. 21, 1981 (ice jam); minimum observed discharge, about 5 ft³/s, Aug. 26, 1918, gage height, 2.40 ft; minimum daily, 7.0 ft³/s, Aug. 26, 1918.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,900 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 9	2330	5,600	9.29	Apr. 7	2145	5,450	9.05
Dec. 2	2345	*7,490	*9.86				

Minimum discharge, 127 ft³/s, Aug. 31, gage height, 3.79 ft; minimum daily, 147 ft³/s, Aug. 31.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	983	603	982	e780	e780	e2400	2130	2040	749	275	159	199
2	563	527	4980	e900	e720	2200	1720	1960	788	302	156	179
3	452	495	5540	e1000	e680	2380	1570	2170	657	492	157	352
4	430	478	2830	1080	e620	2120	1750	2850	566	706	154	312
5	384	463	1850	1180	e680	e1500	2280	2390	528	789	152	230
6	360	451	1370	1690	e680	e1100	3080	1840	505	554	152	161
7	334	453	1170	1440	e660	e940	4960	1540	528	399	159	167
8	341	1170	1020	e1000	e640	e840	4720	1310	507	332	156	216
9	321	4420	887	e840	e620	e760	3180	1160	525	533	150	183
10	427	4470	829	e780	e600	e720	2260	1260	447	840	149	148
11	581	2580	762	e740	e580	e700	1650	1170	391	524	162	151
12	496	1790	752	e720	e560	e660	1310	1230	361	399	178	248
13	422	1210	1400	e700	e540	e640	1600	1220	361	315	484	370
14	373	968	2360	e660	e540	e620	1750	957	348	307	920	358
15	372	830	1850	e620	e540	e640	1570	943	323	299	472	277
16	360	733	1400	e580	e540	e660	1610	847	309	249	348	203
17	443	714	1330	e540	e520	697	1930	1080	567	259	315	174
18	485	695	e1300	e520	e540	722	2230	908	857	283	282	168
19	420	794	e1200	e520	e560	e600	2050	949	844	278	196	173
20	514	929	e1100	e540	e640	e600	1760	1110	631	264	173	227
21	539	828	e950	e600	e800	e560	1510	983	496	272	170	431
22	564	735	923	e700	1350	e560	1590	957	451	278	184	343
23	621	661	874	e800	1760	e540	1600	973	388	259	247	249
24	811	595	1560	e900	1750	e540	1740	872	365	233	306	215
25	800	582	2740	e1100	e1200	e520	1840	756	413	206	275	178
26	658	e560	2120	e1300	e1100	e640	1720	703	435	173	199	161
27	556	e540	1620	e1200	e1300	e800	1630	609	391	171	183	156
28	519	e560	1290	e1100	e2400	1120	2240	570	338	200	251	156
29	504	e580	e1000	e1000	---	1680	3570	549	304	191	212	226
30	515	e640	e900	e950	---	2320	2670	561	290	176	180	510
31	630	---	e800	e860	---	2450	---	706	---	163	147	---
TOTAL	15778	31054	49689	27340	23900	33229	65220	37173	14663	10721	7428	7121
MEAN	509	1035	1603	882	854	1072	2174	1199	489	346	240	237
MAX	983	4470	5540	1690	2400	2450	4960	2850	857	840	920	510
MIN	321	451	752	520	520	520	1310	549	290	163	147	148

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1997, BY WATER YEAR (WY)

	MEAN	539	745	737	638	573	1017	1896	988	506	354	283	382
MAX	1695	1480	1759	1837	1410	2394	3313	2402	1707	980	760	1157	
(WY)	1946	1960	1974	1913	1981	1921	1993	1972	1917	1947	1986	1975	
MIN	55.0	149	260	158	167	302	692	328	55.0	55.4	41.5	49.4	
(WY)	1915	1931	1961	1931	1931	1931	1995	1941	1920	1913	1913	1913	

e Estimated

STREAMS TRIBUTARY TO LAKE ONTARIO

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04252500 BLACK RIVER NEAR BOONVILLE, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1911 - 1997	
ANNUAL TOTAL	362194		323316		721	
ANNUAL MEAN	990		886		1119	1976
HIGHEST ANNUAL MEAN					448	1931
LOWEST ANNUAL MEAN					11100	Dec 30 1984
HIGHEST DAILY MEAN	5540	Dec 3	5540	Dec 3	7.0	Aug 26 1918
LOWEST DAILY MEAN	170	Jan 16	147	Aug 31	19	Aug 22 1918
ANNUAL SEVEN-DAY MINIMUM	194	Sep 1	153	Aug 4		
10 PERCENT EXCEEDS	2140		1840		1550	
50 PERCENT EXCEEDS	686		630		470	
90 PERCENT EXCEEDS	284		194		167	

STREAMS TRIBUTARY TO LAKE ONTARIO

04256000 INDEPENDENCE RIVER AT DONNATTSBURG, NY

LOCATION.--Lat 43°44'50", long 75°20'05", Lewis County, Hydrologic Unit 04150101, on right bank at downstream side of highway bridge on Donnattsburg Road at Donnattsburg, 1.2 mi downstream from Chase Lake Outlet, 4.2 mi northeast of Glenfield, and 5.0 mi upstream from mouth.

DRAINAGE AREA.--88.7 mi².

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

REVISED RECORDS.--WDR NY-87-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 972.84 ft above sea level. Prior to Sept. 16, 1949, nonrecording gage at same site and datum.

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

AVERAGE DISCHARGE.--55 years, 197 ft³/s, 30.15 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,420 ft³/s, Dec. 30, 1984, gage height, 13.34 ft, from rating curve extended above 2,100 ft³/s on basis of slope-area measurement of peak flow; minimum observed discharge, 18 ft³/s, Sept. 17, 1948, Aug. 4, 5, 1949, gage height, 2.85 ft.

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. 9	1415	*2,840	*8.10	Apr. 7	1315	1,790	6.90
Dec. 2	1900	2,560	7.80				

Minimum discharge, 31 ft³/s, Aug. 11, gage height, 3.41 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	156	149	149	e280	e170	e600	586	287	148	51	35	e50
2	110	134	1640	e270	e150	e560	428	330	176	51	34	e50
3	93	120	1490	270	e140	e700	365	337	147	65	33	48
4	82	108	641	298	e130	e500	496	528	121	184	33	52
5	74	110	405	345	e120	e350	768	476	107	236	37	46
6	67	115	312	657	e160	e300	1070	321	98	165	58	40
7	63	123	260	492	e170	e260	1660	310	93	112	46	50
8	59	350	225	e300	e150	e230	1200	267	104	84	38	113
9	56	2330	201	e250	e140	e210	636	232	104	264	34	81
10	66	1540	180	e220	e140	e190	416	310	91	655	33	58
11	124	698	163	e210	e130	e180	323	350	80	310	32	49
12	120	448	153	e190	e120	e170	272	297	73	168	33	49
13	98	322	262	e180	e120	e160	322	302	69	116	57	51
14	85	235	787	e170	e120	e140	454	257	65	90	144	57
15	79	196	621	e170	e110	e130	375	227	60	77	103	55
16	75	168	421	e160	e110	e120	338	239	55	72	74	49
17	73	163	385	e160	e110	e110	392	232	66	65	63	44
18	70	166	e350	e160	e110	e96	406	219	103	62	56	43
19	67	185	e300	e150	e110	e90	351	210	151	64	49	43
20	73	208	e270	e150	e130	e94	323	226	164	62	43	48
21	87	189	e240	e150	e200	e96	306	205	115	58	42	63
22	93	164	e230	e150	e400	e98	318	253	90	56	41	65
23	94	e130	210	e170	e740	e100	310	256	76	53	47	56
24	174	e120	349	e220	e500	e110	300	212	72	50	58	50
25	263	e120	801	e300	e350	e120	286	179	84	46	59	47
26	175	e120	564	e360	e260	e120	260	157	125	43	51	50
27	131	e120	363	e400	e300	e150	237	143	94	42	45	51
28	109	e120	285	e300	e500	e200	294	132	73	41	e48	49
29	99	e120	e280	e250	---	e270	502	119	62	41	e50	61
30	93	112	e280	e210	---	e500	384	112	56	42	e52	151
31	123	---	e280	e190	---	e800	---	123	---	37	e50	---
TOTAL	3131	9183	13097	7782	5890	7754	14378	7848	2922	3462	1578	1719
MEAN	101	306	422	251	210	250	479	253	97.4	112	50.9	57.3
MAX	263	2330	1640	657	740	800	1660	528	176	655	144	151
MIN	56	108	149	150	110	90	237	112	55	37	32	40
CFSM	1.14	3.45	4.76	2.83	2.37	2.82	5.40	2.85	1.10	1.26	.57	.65
IN.	1.31	3.85	5.49	3.26	2.47	3.25	6.03	3.29	1.23	1.45	.66	.72

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

	MEAN	161	229	209	163	151	277	517	259	129	86.6	76.1	106
MAX	509	427	524	319	392	707	1014	712	325	257	208	309	
(WY)	1946	1989	1985	1949	1981	1945	1993	1971	1972	1947	1981	1981	
MIN	26.4	74.8	59.3	45.1	44.1	95.5	147	77.3	40.1	26.3	25.4	23.1	
(WY)	1964	1967	1961	1961	1963	1970	1995	1987	1949	1966	1944	1964	

e Estimated

STREAMS TRIBUTARY TO LAKE ONTARIO

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04256000 INDEPENDENCE RIVER AT DONNATTSBURG, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1942 - 1997	
ANNUAL TOTAL	93970		78744			
ANNUAL MEAN	257		216		197	
HIGHEST ANNUAL MEAN					292	1947
LOWEST ANNUAL MEAN					132	1961
HIGHEST DAILY MEAN	2330	Nov 9	2330	Nov 9	5410	Dec 30 1984
LOWEST DAILY MEAN	34	Sep 5	32	Aug 11	18	Aug 4 1949
ANNUAL SEVEN-DAY MINIMUM	35	Sep 2	36	Jul 30	20	Aug 4 1949
ANNUAL RUNOFF (CFSM)	2.89		2.43		2.22	
ANNUAL RUNOFF (INCHES)	39.41		33.02		30.15	
10 PERCENT EXCEEDS	613		418		419	
50 PERCENT EXCEEDS	150		144		120	
90 PERCENT EXCEEDS	55		49		42	

STREAMS TRIBUTARY TO LAKE ONTARIO

04256500 STILLWATER RESERVOIR NEAR BEAVER RIVER, NY

LOCATION.--Lat 43°53'50", long 75°03'05", Herkimer County, Hydrologic Unit 04150101, in gatehouse at Stillwater Dam on Beaver River, 2.5 mi upstream from Moshier Creek, and 7.5 mi west of Beaver River Post Office.

DRAINAGE AREA.--171 mi².

PERIOD OF RECORD.--May 1908 to current year. Prior to February 1925, month-end contents only, published in WSP 1307. February 1925 to September 1937, published in WSP 824.

REVISED RECORDS.--WDR NY-85-1: Drainage area.

GAGE.--Nonrecording gage read once daily and prior to reservoir gate changes. Datum of gage is sea level, adjustment of 1912.

REMARKS.--Reservoir originally formed about 1885; enlarged at various times and in 1924 enlarged to a usable capacity of 4,623 mil ft³ between elevations 1,650.3 ft and 1,679.3 ft (top of 24-inch flashboards in place throughout year). Elevation of gate sill of lowest outlet, 1,642.3 ft. Capacity below elevation 1,650.3 ft, 90 mil ft³, is included in records presented herein, but is not ordinarily available for release. Reservoir is used to regulate flow of Beaver and Black Rivers for flood control, power development, and general public welfare. Satellite gage-height and rain-gage telemeter at station.

COOPERATION.--Records provided by Board of Hudson River-Black River Regulating District.

EXTREMES FOR PERIOD OF RECORD.--Maximum observed elevation, 1,680.08 ft, May 20, 1969, contents, 4,939 mil ft³; minimum observed since first filling, 1,644.80 ft, Mar. 25-27, 1949, contents, 8 mil ft³.

EXTREMES FOR CURRENT YEAR.--Maximum observed elevation, 1,678.89 ft, May 7, 8, 14, contents, 4,594 mil ft³; minimum observed, 1,668.40 ft, Oct. 20, contents, 2,116 mil ft³.

Capacity table (elevation, in feet, and contents, in millions of cubic feet)

1,658.0	604	1,670.0	2,431
1,660.0	821	1,675.0	3,556
1,665.0	1,518	1,680.0	4,916

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY OBSERVATION AT 08:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1669.29	1669.45	1674.20	1676.78	1674.33	1672.82	1674.66	1678.52	1677.82	1676.92	1676.32	1673.29
2	1669.33	1669.42	1674.50	1676.73	1674.20	1673.13	1674.70	1678.57	1677.83	1676.86	1676.21	1673.16
3	1669.35	1669.44	1675.25	1676.70	1674.06	1673.58	1674.73	1678.63	1677.75	1676.83	1676.12	1673.04
4	1669.40	1669.43	1675.64	1676.66	1673.90	1673.98	1674.77	1678.68	1677.73	1676.87	1676.04	1672.90
5	1669.37	1669.42	1675.87	1676.60	1673.77	1674.18	1674.90	1678.83	1677.72	1676.97	1675.98	1672.76
6	1669.27	1669.41	1675.96	1676.64	1673.68	1674.33	1675.18	1678.87	1677.72	1677.00	1675.87	1672.61
7	1669.20	1669.40	1676.00	1676.73	1673.53	1674.51	1675.66	1678.89	1677.68	1676.98	1675.74	1672.47
8	1669.13	1669.41	1675.98	1676.72	1673.38	1674.64	1676.14	1678.89	1677.69	1676.93	1675.59	1672.42
9	1669.04	1670.11	1675.96	1676.69	1673.23	1674.74	1676.47	1678.87	1677.65	1676.88	1675.46	1672.31
10	1668.98	1671.55	1675.93	1676.65	1673.07	1674.82	1676.64	1678.84	1677.61	1677.08	1675.33	1672.17
11	1668.98	1672.11	1675.89	1676.60	1672.88	1674.82	1676.76	1678.85	1677.56	1677.18	1675.19	1672.03
12	1668.95	1672.49	1675.85	1676.53	1672.72	1674.79	1676.84	1678.83	1677.52	1677.19	1675.09	1671.88
13	1668.88	1672.77	1675.80	1676.47	1672.56	1674.73	1676.91	1678.88	1677.50	1677.17	1674.96	1671.76
14	1668.82	1673.00	1675.87	1676.40	1672.38	1674.66	1677.05	1678.89	1677.45	1677.13	1675.05	1671.63
15	1668.75	1673.21	1676.06	1676.26	1672.22	1674.66	1677.15	1678.87	1677.39	1677.10	1675.00	1671.50
16	1668.68	1673.38	1676.11	1676.11	1672.06	1674.58	1677.23	1678.83	1677.33	1677.14	1674.58	1671.34
17	1668.62	1673.54	1676.12	1675.95	1671.88	1674.51	1677.33	1678.82	1677.27	1677.12	1674.82	1671.20
18	1668.55	1673.69	1676.14	1675.79	1671.68	1674.41	1677.44	1678.77	1677.30	1677.08	1674.76	1671.07
19	1668.48	1673.82	1676.20	1675.62	1671.48	1674.41	1677.57	1678.70	1677.28	1677.09	1674.63	1670.92
20	1668.40	1673.98	1676.24	1675.42	1671.38	1674.43	1677.68	1678.63	1677.33	1677.05	1674.52	1670.78
21	1668.42	1674.10	1676.28	1675.25	1671.32	1674.48	1677.75	1678.57	1677.30	1677.02	1674.41	1670.68
22	1668.44	1674.15	1676.26	1675.05	1671.39	1674.54	1677.82	1678.54	1677.28	1676.98	1674.28	1670.53
23	1668.55	1674.17	1676.25	1674.94	1671.80	1674.55	1677.91	1678.52	1677.28	1676.94	1674.18	1670.37
24	1668.70	1674.19	1676.25	1674.88	1672.07	1674.54	1678.00	1678.47	1677.23	1676.89	1674.14	1670.25
25	1668.90	1674.20	1676.46	1674.78	1672.16	1674.47	1678.08	1678.40	1677.21	1676.84	1674.08	1670.07
26	1669.10	1674.22	1676.67	1674.83	1672.15	1674.37	1678.14	1678.33	1677.17	1676.78	1673.98	1669.95
27	1669.21	1674.24	1676.73	1674.78	1672.12	1674.29	1678.16	1678.23	1677.13	1676.72	1673.87	1669.81
28	1669.26	1674.24	1676.73	1674.71	1672.42	1674.21	1678.20	1678.14	1677.09	1676.69	1673.77	1669.72
29	1669.33	1674.23	1676.73	1674.65	---	1674.17	1678.36	1678.07	1677.03	1676.63	1673.65	1669.61
30	1669.36	1674.22	1676.76	1674.57	---	1674.27	1678.48	1677.97	1676.98	1676.54	1673.53	1669.60
31	1669.34	---	1676.78	1674.45	---	1674.48	---	1677.88	---	1676.43	1673.41	---
MEAN	1668.97	1672.37	1676.05	1675.84	1672.64	1674.36	1676.89	1678.61	1677.43	1676.94	1674.86	1671.39
MAX	1669.40	1674.24	1676.78	1676.78	1674.33	1674.82	1678.48	1678.89	1677.83	1677.19	1676.32	1673.29
MIN	1668.40	1669.40	1674.20	1674.45	1671.32	1672.82	1674.66	1677.88	1676.98	1676.43	1673.41	1669.60
†	2312	3363	4012	3402	3009	3458	4486	4299	4065	3902	3156	2352
††	+11.6	+405	+242	-228	-162	+168	+397	-69.8	-90.3	-60.9	-279	-310

CAL YR 1996 MEAN 1673.82 MAX 1679.48 MIN 1668.40 †† +36.2
WTR YR 1997 MEAN 1674.71 MAX 1678.89 MIN 1668.40 †† +2.25

† Contents, in millions of cubic feet, at 2400 hours on last day of month by interpolation.

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

STREAMS TRIBUTARY TO LAKE ONTARIO

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04258000 BEAVER RIVER AT CROGHAN, NY

LOCATION.--Lat 43°53'50", long 75°24'16", Lewis County, Hydrologic Unit 04150101, on left bank 1,200 ft upstream from Black Creek, and 0.5 mi west of Croghan.

DRAINAGE AREA.--291 mi².

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

REVISED RECORDS.--WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 806.20 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated by Stillwater Reservoir (see station 04256500). Between Stillwater Dam and this station, flow is further regulated by several powerplant ponds. Diurnal fluctuation at low and medium flow. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--67 years, 615 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,100 ft³/s, May 21, 1969, gage height, 6.98 ft; minimum, 11 ft³/s, Jan. 22, 29, Feb. 4, 1967, gage height, 0.63 ft; minimum daily, 22 ft³/s, July 18, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,440 ft³/s, Nov. 9, gage height, 5.03 ft; minimum, 232 ft³/s, July 3, gage height, 1.99 ft; minimum daily discharge, 259 ft³/s, Oct. 14, July 1.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	459	266	434	e940	893	1020	1380	955	737	259	440	578
2	462	266	1370	956	889	690	1010	958	753	262	407	592
3	290	408	2090	936	837	934	1000	1050	705	274	437	561
4	285	381	1170	899	829	1140	1010	1150	575	586	424	427
5	292	335	493	973	839	968	1010	1200	450	586	422	477
6	262	331	661	e1000	775	803	1070	1040	438	524	391	488
7	280	442	771	e1100	763	641	1590	1040	437	420	433	585
8	333	816	680	e1100	828	529	1700	1030	482	420	428	586
9	293	2270	779	e1000	890	499	1270	985	472	635	476	609
10	262	1910	764	954	819	455	984	998	507	697	509	494
11	279	1080	759	959	789	466	900	1000	411	687	507	513
12	287	761	692	949	746	797	891	1070	448	506	545	568
13	260	320	912	915	839	836	924	1090	379	448	746	555
14	259	297	1300	932	819	887	883	1040	264	326	665	562
15	282	291	1230	887	810	888	835	1050	260	274	676	595
16	296	287	1040	933	807	843	803	1020	262	389	547	483
17	283	289	1030	e1000	820	819	826	995	345	484	577	519
18	287	292	986	e1200	763	411	834	985	469	477	653	626
19	353	295	857	e1400	760	362	905	988	436	410	613	548
20	313	292	831	e1300	817	317	916	979	391	418	623	615
21	323	286	962	e1000	958	276	902	974	500	375	549	620
22	269	282	1020	e1200	1490	324	830	979	423	395	445	575
23	268	308	940	1080	1700	338	824	905	445	344	496	539
24	496	386	1030	1190	1900	379	855	878	368	317	748	507
25	326	386	1180	1050	1210	786	873	947	355	338	606	569
26	321	407	1330	1010	966	846	807	932	347	282	637	479
27	290	423	1100	1050	1060	860	815	948	353	306	533	473
28	297	441	1100	856	1130	895	847	844	304	308	571	494
29	276	444	1150	809	---	1040	913	824	388	314	592	521
30	265	426	1120	906	---	1270	955	688	284	422	532	532
31	266	---	1060	897	---	1580	---	738	---	446	552	---
TOTAL	9514	15418	30841	31381	26746	22899	29362	30280	12988	12929	16780	16290
MEAN	307	514	995	1012	955	739	979	977	433	417	541	543
MAX	496	2270	2090	1400	1900	1580	1700	1200	753	697	748	626
MIN	259	266	434	809	746	276	803	688	260	259	391	427

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1997, BY WATER YEAR (WY)

MEAN	513	581	657	683	700	700	812	721	516	488	518	503
MAX	944	1144	1190	1486	1519	1490	1528	1977	1184	863	913	824
(WY)	1946	1989	1978	1978	1973	1976	1954	1943	1947	1972	1986	1986
MIN	263	160	175	315	292	321	298	199	244	174	363	328
(WY)	1961	1940	1940	1961	1956	1967	1995	1941	1941	1965	1967	1972

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1930 - 1997	
ANNUAL TOTAL	293937		255428		615	
ANNUAL MEAN	803		700		916	
HIGHEST ANNUAL MEAN					1976	
LOWEST ANNUAL MEAN					1931	
HIGHEST DAILY MEAN	2360	Jan 20	2270	Nov 9	4700	May 21 1969
LOWEST DAILY MEAN	259	Oct 14	259	Oct 14	22	Jul 18 1965
ANNUAL SEVEN-DAY MINIMUM	275	Oct 9	275	Oct 9	37	Jul 12 1965
10 PERCENT EXCEEDS	1490		1080		974	
50 PERCENT EXCEEDS	708		653		579	
90 PERCENT EXCEEDS	297		292		282	

e Estimated

LOCATION.--Lat 43°59'08", long 75°55'30", Jefferson County, Hydrologic Unit 04150101, on right bank 200 ft downstream from Vanduzee Street Bridge at Watertown, and 3.5 mi upstream from Philomel Creek.

DRAINAGE AREA.--1,864 mi².

PERIOD OF RECORD.--July 1920 to current year.

REVISED RECORDS.--WDR NY-77-1: 1974. WDR NY-85-1: Drainage area. WDR NY-93-1: 1955, 1958-60, 1962-64, 1969, 1971-72, 1974, 1976-77, 1979-82, 1984-87, 1989-92.

GAGE.--Water-stage recorder. Datum of gage is 373.88 ft above sea level. Prior to Sept. 3, 1921, nonrecording gage, and from Sept. 3, 1921 to Mar. 15, 1977, recording gage at same site at datum 1.00 ft higher. Prior to June 13, 1992, at site 200 ft upstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated by Stillwater Reservoir (see station 04256500), Fulton Chain of Lakes, and other reservoirs. Extensive diurnal fluctuation at low and medium flow caused by mills and powerplants in and above Watertown. During canal season, water is diverted out of basin through Forestport feeder and Black River Canal (flowing south). Several measurements of water temperature were made during the year. Telephone and satellite gage-height telemeters at station.

AVERAGE DISCHARGE.--77 years, 4,140 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42,600 ft³/s, Apr. 12, 1993, gage height, 14.2 ft; minimum, 10 ft³/s, Sept. 2, 1934, gage height, 0.81 ft, present datum; minimum daily discharge, 137 ft³/s, Sept. 4, 1939.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, about 39,700 ft³/s, Apr. 23, 1869 (from New York State Museum Bulletin 85).

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

Minimum discharge, 362 ft³/s, June 6, gage height, 1.60 ft; minimum daily, 1,100 ft³/s, July 27-28, Aug. 7.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5590	2990	3640	6880	e5000	12400	14600	11800	3560	1380	1190	1400
2	4430	3360	8820	4990	e4500	14200	14200	11800	4130	1450	1170	1420
3	2910	3100	12900	5650	e4100	16200	13200	11500	4110	1270	1140	1430
4	2480	3180	19100	6730	e4000	16400	12500	11600	3650	1770	1130	1430
5	2040	2820	18600	8590	e4100	15300	12400	11800	3320	3100	1130	1630
6	1580	2650	15000	11300	e4100	13200	13200	11900	2410	3560	1110	1320
7	1740	2890	12400	10400	e4000	11000	15400	11400	2500	3010	1100	1400
8	1670	4230	10100	9130	e4000	9690	19100	10500	2550	2450	1120	1420
9	1740	14200	8550	8850	e4000	7840	20700	9420	2360	2590	1120	1490
10	1640	18000	7230	5950	e3700	6560	18300	8580	2460	3810	1130	1530
11	1640	22300	6170	5340	e3500	5910	15200	8030	2380	4400	1170	1370
12	2180	19900	5370	4880	e3400	5630	12700	7770	1970	3530	1180	1340
13	2220	15900	5480	4470	e3200	5160	11200	7880	1770	2830	1340	1460
14	1970	12500	8670	4480	e3100	4410	10600	7580	1480	2070	1830	1620
15	1840	9870	10400	4700	e3000	3180	10000	7080	1480	1800	2570	1780
16	1600	7740	11200	4770	e2900	4180	9650	6530	1550	1660	2600	1730
17	1640	6090	10900	e4700	e2900	4970	9470	6280	1460	1630	2100	1570
18	1840	5120	10000	e4600	e3000	4560	9350	6080	1970	1620	1930	1450
19	1980	4860	9300	e4500	e3200	3970	9540	5850	3050	1590	1750	1480
20	2190	4870	8910	e4400	e4700	3660	9940	5730	3680	1630	1500	1490
21	3180	5070	8370	e4200	e6600	3530	9890	5920	3540	1560	1540	1510
22	3190	4820	7560	e4300	e10000	3360	9440	5930	3030	1510	1490	1890
23	3120	4490	6950	e4700	e13000	3240	8960	5850	2620	1230	1430	1670
24	3270	3850	7370	5630	e13000	2960	8740	5680	2280	1490	1460	1740
25	4390	3670	10600	6310	e12000	3130	8690	5400	2060	1350	1830	1550
26	4250	3450	11200	6880	e11000	3710	8630	4970	1710	1260	1820	1550
27	3680	3290	11600	7250	11000	4800	8570	4540	2110	1100	1670	1500
28	3200	3310	11200	7000	12100	6540	8800	4040	2000	1100	1360	1440
29	2770	2950	10800	e6600	---	10500	10100	3450	1850	1140	1450	1740
30	2620	3250	10500	e5700	---	13800	10800	3450	1710	1110	1480	2230
31	2550	---	9380	e5400	---	14500	---	3230	---	1160	1430	---
TOTAL	81140	204720	308270	189280	163100	238490	353870	231570	74750	61160	46270	46580
MEAN	2617	6824	9944	6106	5825	7693	11800	7470	2492	1973	1493	1553
MAX	5590	22300	19100</									

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1920 - 1997, BY WATER YEAR (WY)

MEAN	3129	4384	4476	4023	3631	6072	9945	5418	2712	2011	1744	2153
MAX	9058	8440	9944	8658	9181	13590	19180	12790	8235	5266	4083	5011
(WY)	1946	1989	1997	1937	1981	1921	1993	1943	1947	1972	1986	1975
MIN	1149	1117	1403	1173	1289	1776	3460	1600	991	925	730	919
(WY)	1964	1931	1923	1961	1931	1940	1995	1941	1941	1965	1923	1923

e Estimated

STREAMS TRIBUTARY TO LAKE ONTARIO

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04260500 BLACK RIVER AT WATERTOWN, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1920 - 1997	
ANNUAL TOTAL	2280268		1999200			
ANNUAL MEAN	6230		5477		4140	
HIGHEST ANNUAL MEAN					6392	1976
LOWEST ANNUAL MEAN					2579	1931
HIGHEST DAILY MEAN	23100	Apr 25	22300	Nov 11	41000	Apr 12 1993
LOWEST DAILY MEAN	968	Sep 7	1100	Jul 27	137	Sep 4 1939
ANNUAL SEVEN-DAY MINIMUM	1310	Sep 2	1120	Aug 4	637	Aug 15 1923
10 PERCENT EXCEEDS	14200		11800		8840	
50 PERCENT EXCEEDS	4290		3970		2800	
90 PERCENT EXCEEDS	1690		1450		1260	

STREAMS TRIBUTARY TO LAKE ONTARIO

04260500 BLACK RIVER AT WATERTOWN, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956-60, 1962 to September 1994, June 1997.

CHEMICAL DATA: 1956 (e), 1959 (a), 1960 (b), 1965 (a), 1966-81 (d), 1982-87 (c), 1988-91 (d), 1992 (c), 1993-94 (b).

MINOR ELEMENTS DATA: 1970-71 (a), 1974-79 (b), 1980 (c), 1981-87 (b), 1988-90 (c), 1991 (d), 1992 (c), 1993-94 (b).

PESTICIDE DATA: 1975-79 (b), 1980-82 (a), 1988-90 (b), 1997 (a).

ORGANIC DATA: OC--1973 (c), 1974 (a), 1975 (c), 1976-77 (b), 1978-81 (d).

PCB--1978-79 (b), 1980-82 (a).

NUTRIENT DATA: 1968 (b), 1969-81 (d), 1982-87 (c), 1988-91 (d), 1992-94 (b).

BIOLOGICAL DATA:

Bacteria--1973-81 (d), 1982-86 (c), 1987-88 (b), 1989-91 (c), 1992-94 (b).

Phytoplankton--1975-77 (d), 1978-79 (c), 1980 (b), 1981 (c).

Periphyton--1975-80 (b).

SEDIMENT DATA: 1975-76 (d), 1977 (c), 1978-81 (d), 1982-89 (c), 1990-91 (d), 1992-94 (b).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: October 1955 to September 1959, July 1962 to March 1969.

REMARKS.--A complete list of compounds included when pesticides analysis was performed on samples follows the Introduction to the Hudson NAWQA section near the end of this report. Only those compounds detected at or above the method detection limit (MDL) were included in the tables.**EXTREMES FOR PERIOD OF DAILY RECORD.**--

WATER TEMPERATURE: Maximum (water years 1955-59, 1962-68), 28.0°C, July 28, 1964; minimum, 0.0°C on many days during winter periods.

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

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)
JUN 19...	3400	0.012	E0.004	0.006	

E Estimate.

LAKES AND RESERVOIRS IN STREAMS TRIBUTARY TO LAKE ONTARIO

04253300 SIXTH LAKE.--Lat 43°44'43", long 74°46'58", Hamilton County, Hydrologic Unit 04150101, on dam at outlet of Sixth Lake at Inlet, and 11.2 mi upstream from dam at Old Forge. **DRAINAGE AREA**, 18.6 mi². **PERIOD OF RECORD**, November 1911 to current year. **GAGE**, nonrecording gage read daily at 0800. Datum of gage is sea level (levels by Hudson River-Black River Regulating District).

The Sixth and Seventh Lakes of Fulton Chain Lakes are partially formed and controlled by the concrete dam at Inlet, while the Eighth Lake is upstream and at approximately 5 ft higher elevation. Storage began around 1881. The present structure is a concrete dam with control gates which were installed in 1938. Usable capacity 296.6 mil ft³ between minimum operating level, elevation 1,775.1 ft and crest of spillway, elevation 1,786.0 ft; no dead storage below minimum operating level. Figures given herein represent total contents. The dam is operated, records collected, provided, and stored by Board of Hudson River-Black River Regulating District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 332 mil ft³, Oct. 3, 1945, elevation, 1,787.1 ft; minimum observed, less than 0.90 mil ft³, Nov. 18, 1943, water level below elevation 1,775.6 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 290.2 mil ft³, May 11, elevation, 1,785.80 ft; minimum observed, 165.3 mil ft³, Feb. 12-19, elevation, 1,781.80 ft.

04253400 FIRST LAKE (formerly published as "Old Forge Reservoir").--Lat 43°42'44", long 74°58'12", Herkimer County, Hydrologic Unit 04150101, at dam on Middle Branch Moose River, 100 ft downstream from bridge on State Highway 28 at Old Forge, and 11.2 mi downstream from dam on Sixth Lake outlet at Inlet. **DRAINAGE AREA**, 53.6 mi². **PERIOD OF RECORD**, November 1911 to current year. **REVISED RECORDS**, WDR NY-85-1: Drainage area. **GAGE**, nonrecording gage read daily at 0800. Datum of gage is sea level (levels by Hudson River-Black River Regulating District).

The First through Fifth Lakes of Fulton Chain Lakes are partially formed and controlled by a concrete dam with 12-inch flashboards. Storage began around 1881 or 1882 with a wooden crib dam. This dam was replaced with a concrete dam in 1905 and gates were installed in 1927. Usable capacity with flashboards, 895.6 mil ft³, elevation, 1,707.0 ft. Usable capacity without flashboards, 764.3 mil ft³, elevation, 1,706.1 ft; no dead storage below minimum operating level. Figures given herein represent total contents. The dam is operated, records collected, provided, and stored by Board of Hudson River-Black River Regulating District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 1,019 mil ft³, June 17, 1972, elevation, 1,707.9 ft; minimum observed, 6.50 mil ft³, Nov. 3, 1939, elevation, 1,699.8 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 890.2 mil ft³, July 5-6, 8-9, elevation, 1,707.00 ft; minimum observed, 368.4 mil ft³, Feb. 17, elevation, 1,702.96 ft.

04256500 STILLWATER RESERVOIR NEAR BEAVER RIVER (see station for daily elevation, skeleton capacity table, monthly contents, and change in contents).

MONTH-END ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

Date	Elevation (feet) †	Contents (million ft ³)	Change in contents (equivalent in ft ³ /s)	Elevation (feet) †	Contents (million ft ³)	Change in contents (equivalent in ft ³ /s)
04253300 Sixth Lake				04253400 First Lake		
Sept. 30	1,785.20	271.0		1,706.60	836.2	
Oct. 31	1,784.20	239.5	-11.8	1,704.99	625.4	-78.7
Nov. 30	1,783.40	214.6	- 9.60	1,704.07	506.8	-45.8
Dec. 31	1,782.60	189.8	- 9.26	1,703.67	456.8	-18.7
CAL YR 1996	-	-	- 0.22	-	-	+ 1.02
Jan. 31	1,782.27	179.6	- 3.81	1,703.07	381.8	-28.0
Feb. 28	1,782.33	181.3	+ 0.70	1,703.60	448.2	+27.5
Mar. 31	1,783.37	213.7	+12.1	1,704.93	617.6	+63.3
Apr. 30	1,784.43	246.6	+12.7	1,705.55	698.2	+31.1
May 31	1,785.58	283.1	+13.6	1,706.91	878.0	+67.1
June 30	1,785.60	283.8	+ 0.27	1,706.83	867.4	- 4.10
July 31	1,785.66	285.7	+ 0.71	1,706.81	864.6	- 1.05
Aug. 31	1,785.60	283.8	- 0.71	1,706.89	875.4	+ 4.03
Sept. 30	1,785.30	274.2	- 3.70	1,706.44	814.8	-23.4
WTR YR 1997	-	-	+ 0.10	-	-	- 0.68

† Elevation at 2400 hours, by interpolation.

ST. LAWRENCE RIVER BASIN

04262000 OSWEGATCHIE RIVER NEAR OSWEGATCHIE, NY

LOCATION.--Lat 44°13'21", long 75°04'29", St. Lawrence County, Hydrologic Unit 04150302, on left bank, 300 ft downstream from Niagara Mohawk Power Corporation Flat Rock powerplant, and 2.8 mi north of Oswegatchie.

DRAINAGE AREA.--259 mi².

PERIOD OF RECORD.--October 1924 to September 1968, July 1987 to current year. Prior to October 1958, published as East Branch Oswegatchie River near Oswegatchie.

REVISED RECORDS.--WDR NY-88-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,016.52 ft above sea level.

REMARKS.--No estimated daily discharges. Records good. Extensive diurnal fluctuation at low and medium flow caused by powerplant. Since 1867, flow regulated by Cranberry Lake. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--54 years (water years 1925-68, 1988-97), 523 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,090 ft³/s, Apr. 12, 1947; maximum gage height, 7.3 ft, Apr. 26, 1926; minimum daily discharge, 1.0 ft³/s, July 25, 1926.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,820 ft³/s, Nov. 9, gage height, 5.98 ft; minimum, 85 ft³/s, Feb. 5, gage height, 1.68 ft; minimum daily, 198 ft³/s, June 16.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	276	306	818	783	427	1710	1520	600	477	361	208	204
2	380	284	1750	865	410	1880	1050	395	439	225	202	359
3	496	283	1800	993	518	1950	801	400	429	294	204	294
4	330	264	1460	988	540	1480	1040	709	522	411	199	252
5	256	246	1100	1080	543	1120	1400	880	517	402	199	285
6	254	391	1200	1220	631	1440	1670	1160	311	344	199	314
7	227	434	829	1100	576	1460	1810	1130	275	430	200	292
8	217	1080	663	1030	524	1520	1660	1030	275	579	328	306
9	222	2420	759	1010	513	991	1560	904	254	797	323	341
10	226	2030	526	886	519	969	1410	1030	211	666	318	322
11	236	1830	769	819	519	794	977	1020	226	579	452	292
12	241	1510	717	782	522	715	689	1030	404	366	201	344
13	242	1210	881	786	499	892	919	1220	352	257	277	329
14	244	1190	1490	763	429	782	1190	1140	260	303	498	329
15	231	1150	1520	737	425	1020	1190	843	237	351	293	324
16	224	1040	1210	737	474	750	883	646	198	347	360	372
17	223	976	931	681	463	629	927	904	202	423	343	508
18	218	497	962	693	447	756	590	901	231	326	217	293
19	218	727	1040	736	403	779	624	960	276	407	209	312
20	219	294	965	582	716	755	696	884	286	433	200	323
21	228	314	887	468	1000	741	979	726	309	454	199	321
22	236	299	668	432	1920	708	975	792	437	442	199	274
23	272	302	781	605	2160	453	828	853	572	453	204	222
24	323	567	1160	591	2120	726	638	865	615	464	204	341
25	333	664	1490	816	1680	721	349	761	551	403	205	488
26	334	676	1320	1240	1610	768	466	605	455	388	203	290
27	270	549	993	1050	1720	916	310	547	445	281	205	246
28	240	613	849	887	1840	965	388	505	429	236	206	283
29	239	470	1110	915	---	1070	630	519	424	409	202	462
30	235	707	1130	803	---	1540	496	437	415	456	203	529
31	305	---	825	676	---	1650	---	524	---	428	214	---
TOTAL	8195	23323	32603	25754	24148	32650	28665	24920	11034	12715	7674	9851
MEAN	264	777	1052	831	862	1053	956	804	368	410	248	328
MAX	496	2420	1800	1240	2160	1950	1810	1220	615	797	498	529
MIN	217	246	526	432	403	453	310	395	198	225	199	204

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1997, BY WATER YEAR (WY)

	MEAN	396	507	517	547	534	697	1011	694	417	333	306	326
MAX	685	1048	1097	1094	970	1161	1787	1659	1218	930	632	719	
(WY)	1946	1989	1928	1937	1947	1990	1947	1943	1947	1996	1989	1957	
MIN	189	177	239	230	225	288	302	219	170	131	152	152	
(WY)	1942	1940	1935	1931	1931	1931	1995	1941	1988	1991	1991	1990	

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1925 - 1997

ANNUAL TOTAL	274819	241532		
ANNUAL MEAN	751	662		523
HIGHEST ANNUAL MEAN				884
LOWEST ANNUAL MEAN				311
HIGHEST DAILY MEAN	2580	2420	Nov 9	3790
LOWEST DAILY MEAN	206	198	Jun 16	1.0
ANNUAL SEVEN-DAY MINIMUM	213	202	Aug 1	71
10 PERCENT EXCEEDS	1490	1220		970
50 PERCENT EXCEEDS	620	519		424
90 PERCENT EXCEEDS	228	226		200

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LOCATION.--Lat 44°11'08", long 75°19'52", St. Lawrence County, Hydrologic Unit 04150302, on right bank just downstream from highway bridge, 0.5 mi northeast of Geers Corners, 1.5 mi downstream from Big Creek, and 4.0 mi downstream from Harrisville.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,300 ft³/s and maximum (*):

Minimum discharge, 75 ft³/s, Aug. 11, 12, gage height, 1.41 ft.

e Estimated

ST. LAWRENCE RIVER BASIN

04262500 WEST BRANCH OSWEGATCHIE RIVER NEAR HARRISVILLE, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1916 - 1997	
ANNUAL TOTAL	285177		223963			
ANNUAL MEAN	779		614		526	
HIGHEST ANNUAL MEAN					833	
LOWEST ANNUAL MEAN					333	
HIGHEST DAILY MEAN	5280	Jan 21	4750	Nov 10	6820	Mar 15 1977
LOWEST DAILY MEAN	81	Sep 8	76	Aug 11	21	Aug 11 1985
ANNUAL SEVEN-DAY MINIMUM	86	Sep 2	88	Aug 6	34	Aug 28 1934
ANNUAL RUNOFF (CFSM)	3.19		2.51		2.15	
ANNUAL RUNOFF (INCHES)	43.48		34.15		29.27	
10 PERCENT EXCEEDS	1850		1300		1180	
50 PERCENT EXCEEDS	467		405		324	
90 PERCENT EXCEEDS	137		130		99	

ST. LAWRENCE RIVER BASIN

* 279

04263000 OSWEGATCHIE RIVER NEAR HEUVELTON, NY

LOCATION.--Lat 44°35'58", long 75°22'45", St. Lawrence County, Hydrologic Unit 04150302, on right bank 1.5 mi downstream from Beaver Creek, and 2.5 mi upstream from Heuvelton.

DRAINAGE AREA.--965 mi².

PERIOD OF RECORD.--June 1916 to current year.

REVISED RECORDS.--WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 288.85 ft above sea level. Prior to Sept. 16, 1916, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Since 1867, seasonal flow regulated by Cranberry Lake; slight diurnal fluctuation at low flow and medium flow caused by powerplants. During high stages on Grass River, part of flow of that stream may pass through Upper Lake, Indian Creek and Lower Lake and enter Oswegatchie River at Rensselaer Falls, 4.5 mi upstream from station. In October 1973, a dike was installed on Indian Creek to prevent overflow of Grass River during high flows. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--81 years, 1,747 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,600 ft³/s, Apr. 6, 1960, gage height, 10.36 ft; minimum, 99 ft³/s, Aug. 4, 1991, gage height, 0.49 ft; minimum gage height, 0.47 ft, Aug. 17, 1949, but may have been less during period of no gage-height record Sept. 7, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,070 ft³/s, Nov. 12, gage height, 6.66 ft; minimum, 310 ft³/s, Aug. 10, gage height, 0.94 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	779	797	1470	e2200	e1900	5710	8120	2680	1080	729	648	441
2	914	838	2890	e2200	e1700	5920	7300	2550	1130	699	562	457
3	799	888	4510	e2300	1450	6310	6450	2430	1190	635	451	435
4	802	871	5470	e2400	1420	6720	5980	2620	1170	587	405	485
5	886	833	5810	e2600	1540	6780	5700	2800	1100	694	368	517
6	761	804	5060	e3000	1580	5920	5810	2910	1020	936	375	457
7	586	766	4250	e3500	1670	4900	6040	3070	985	1030	356	436
8	550	1210	3370	e4300	e1700	e4000	6150	2970	768	1000	337	477
9	517	4400	2810	e3600	e1600	e3300	6050	2910	742	1000	333	472
10	495	7230	2430	e3000	e1400	e2900	5630	2800	693	1140	322	470
11	450	8590	2230	e2500	e1300	e2600	4870	3000	715	1570	448	502
12	447	8950	1880	e2200	e1300	e2400	3970	3160	668	1620	409	504
13	510	7760	2130	e2000	e1200	e2000	3210	3200	608	1460	587	479
14	574	5820	3590	e1900	e1200	e1900	3020	3170	713	1170	556	484
15	580	4310	e4830	e1800	e1100	e1800	3140	3090	600	899	624	503
16	548	3410	e5230	e1700	e1100	e1900	3220	2850	498	707	921	518
17	497	2750	e5020	e1700	e1000	e1900	2860	2420	524	625	782	588
18	503	2440	4360	e1600	e1000	1830	2570	2180	607	668	775	598
19	494	2150	3750	e1500	e1400	1730	2630	2200	556	770	761	676
20	493	1780	3400	e1400	2490	1710	2920	2140	565	747	726	561
21	585	1880	3070	e1400	3360	1710	3090	2130	632	766	658	550
22	693	1560	2660	e1400	4540	1660	3160	2010	841	883	578	620
23	747	1440	2320	e1500	e5800	1630	3180	1850	1150	825	603	593
24	904	1390	e2280	e1800	e6600	1520	2950	1890	1130	800	607	564
25	1080	1330	e3040	e2200	e7400	1350	2670	1870	1320	765	566	534
26	1260	e1400	e3670	e2800	e7100	1560	2260	1820	1170	788	505	610
27	1270	e1300	e3760	e3100	e6100	2080	1850	1650	1030	650	547	720
28	1180	e1200	e3530	e3000	5780	3070	1890	1490	941	616	536	524
29	1030	e1200	e3100	e2700	---	4460	2340	1360	835	493	492	601
30	914	e1300	e2800	e2500	---	e6100	2630	1110	779	437	443	1160
31	832	---	e2400	e2100	---	e7800	---	1080	---	504	435	---
TOTAL	22680	80597	107120	71900	75730	105170	121660	73410	25760	26213	16716	16536
MEAN	732	2687	3455	2319	2705	3393	4055	2368	859	846	539	551
MAX	1270	8950	5810	4300	7400	7800	8120	3200	1320	1620	921	1160
MIN	447	766	1470	1400	1000	1350	1850	1080	498	437	322	435

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 1997, BY WATER YEAR (WY)

	MEAN	1139	1791	1921	1802	1640	3106	4256	2152	1120	730	613	703
MAX	3563	4284	4522	5369	4800	6327	8867	5243	4481	2096	2196	2420	
(WY)	1978	1928	1928	1930	1954	1977	1993	1976	1947	1947	1981	1981	
MIN	327	552	582	507	538	972	1167	620	391	319	278	278	
(WY)	1964	1957	1923	1961	1934	1940	1995	1941	1941	1965	1934	1990	

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1916 - 1997
ANNUAL TOTAL	884094	743492	
ANNUAL MEAN	2416	2037	1747
HIGHEST ANNUAL MEAN			2952
LOWEST ANNUAL MEAN			1029
HIGHEST DAILY MEAN	10500	Jan 23	19200
LOWEST DAILY MEAN	355	Sep 8	107
ANNUAL SEVEN-DAY MINIMUM	394	Sep 5	133
10 PERCENT EXCEEDS	5540		3990
50 PERCENT EXCEEDS	1730		1100
90 PERCENT EXCEEDS	510		434

e Estimated

ST. LAWRENCE RIVER MAIN STEM

04264331 ST. LAWRENCE RIVER AT CORNWALL, ONTARIO--NEAR MASSENA, NY

LOCATION.--Lat 45°00'22", long 74°47'43", Stormont County, Ontario--St. Lawrence County, NY, Hydrologic Unit 04150301, at Robert Moses-Robert H. Saunders power dam on Lake St. Lawrence at the International Boundary at Cornwall, Ontario, 2.9 mi upstream from Grass River, 5.9 mi northeast of Massena, NY, and 6.2 mi upstream from Raquette River.

DRAINAGE AREA.--298,800 mi².

PERIOD OF RECORD.--June 1860 to September 1935 (monthly discharges only, published in WSP 1307), October 1935 to current year. Prior to October 1970 published as 04264000 "St. Lawrence River at Ogdensburg."

REVISED RECORDS.--WSP 1437: 1870, 1875, 1881, 1883, 1884, 1890.

GAGE.--There is no gage. Discharge is determined from summation of discharge through the Robert Moses-Robert H. Saunders power dam, the Long Sault Dam, the Massena Diversion, the Rasin River Diversion, the Cornwall and Massena municipal water supply, and the Cornwall and the Wiley-Dondero navigation canals. U.S.-Canada coordinated discharge figures supplied by Corps of Engineers. Prior to 1956, base gage at lock 25 at Iroquois Ont. with supplementary gages. August 1956 to June 1958, base gage at lock 24 between Iroquois and Morrisburg, Ont., and supplementary were gages of the Hydro-Electric Power Commission of Ontario. Discharge in the reach of river at Cornwall, Ont.--near Massena, NY is considered to be the same as discharge at Ogdensburg, NY when adjusted for storage in Lake St. Lawrence.

REMARKS.--Since July 1958, flow regulated by international agreement administered by International St. Lawrence River Board of Control under the International Joint Commission. 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. 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.

COOPERATION.--Records of daily discharge provided by Buffalo District, Corps of Engineers through International St. Lawrence River Board of Control.

AVERAGE DISCHARGE.--137 years (water years 1861-1997), 246,400 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 378,000 ft³/s, May 20, 28, June 8, 1993; minimum daily, 139,000 ft³/s, Feb. 7, 1936; maximum monthly discharge, 353,500 ft³/s, May and June 1993; minimum monthly, 153,800 ft³/s, Feb. 1936.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 343,000 ft³/s, Mar. 23; minimum daily, 225,000 ft³/s, Jan. 17.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	289000	293000	294000	312000	245000	315000	319000	283000	339000	328000	311000	297000
2	289000	294000	302000	325000	255000	314000	315000	283000	338000	327000	310000	297000
3	290000	294000	304000	325000	266000	310000	297000	286000	335000	325000	309000	297000
4	293000	294000	289000	325000	272000	307000	295000	277000	336000	325000	309000	297000
5	280000	292000	293000	325000	275000	307000	297000	268000	335000	325000	309000	297000
6	293000	280000	290000	322000	282000	311000	316000	269000	335000	325000	309000	296000
7	293000	281000	297000	320000	286000	314000	280000	268000	336000	325000	309000	296000
8	292000	290000	303000	289000	286000	315000	271000	268000	336000	325000	307000	296000
9	289000	293000	303000	247000	286000	320000	282000	268000	335000	323000	307000	296000
10	289000	293000	303000	233000	290000	321000	303000	268000	335000	321000	307000	296000
11	289000	293000	294000	233000	295000	321000	316000	269000	335000	321000	307000	296000
12	289000	293000	267000	236000	298000	323000	322000	276000	334000	321000	307000	296000
13	289000	293000	282000	244000	300000	325000	327000	289000	332000	321000	307000	295000
14	289000	296000	298000	230000	300000	325000	328000	293000	332000	322000	307000	294000
15	289000	299000	301000	233000	300000	324000	328000	293000	332000	325000	306000	295000
16	289000	297000	299000	229000	301000	326000	328000	297000	332000	317000	299000	294000
17	284000	297000	304000	225000	300000	326000	322000	308000	330000	318000	299000	294000
18	268000	297000	304000	230000	302000	329000	318000	318000	329000	318000	299000	294000
19	267000	298000	304000	230000	303000	330000	307000	318000	329000	318000	299000	294000
20	271000	302000	304000	230000	304000	333000	300000	313000	328000	318000	299000	293000
21	265000	304000	304000	232000	304000	337000	300000	311000	328000	318000	299000	294000
22	272000	304000	304000	239000	304000	340000	300000	311000	328000	316000	299000	294000
23	283000	304000	304000	244000	304000	343000	300000	322000	329000	311000	298000	301000
24	285000	297000	312000	244000	305000	339000	301000	329000	328000	311000	298000	301000
25	290000	288000	319000	239000	309000	312000	300000	332000	328000	311000	298000	301000
26	293000	285000	314000	230000	312000	303000	307000	333000	328000	311000	298000	300000
27	293000	297000	320000	233000	314000	325000	310000	336000	328000	310000	298000	299000
28	293000	299000	319000	238000	315000	321000	301000	337000	329000	311000	298000	299000
29	291000	298000	325000	230000	---	328000	290000	339000	328000	310000	298000	299000
30	284000	298000	325000	230000	---	329000	283000	339000	328000	311000	297000	299000
31	293000	---	323000	234000	---	325000	---	339000	---	311000	297000	---
TOTAL	8863000	8843000	9404000	7936000	8213000	9998000	9163000	9340000	9955000	9879000	9394000	8897000
MEAN	285900	294800	303400	256000	293300	322500	305400	301300	331800	318700	303000	296600
MAX	293000	304000	325000	325000	315000	343000	328000	339000	339000	328000	311000	301000
MIN	265000	280000	267000	225000	245000	303000	271000	268000	328000	310000	297000	293000

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1936 - 1997, BY WATER YEAR (WY)

	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947
MEAN	250300	247000	242000	227600	234600	246500	258000	267500	272400	268900	263500	257900
MAX	323800	338100	327000	298700	293300	322500	325100	353500	353500	350000	330300	326400
(WY)	1987	1987	1987	1987	1997	1997	1973	1993	1993	1973	1974	1986
MIN	182600	176100	174700	168700	153800	179800	179200	176500	188600	200600	200000	194900
(WY)	1936	1936	1936	1936	1936	1965	1964	1965	1965	1964	1936	1936

ST. LAWRENCE RIVER MAIN STEM

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04264331 ST. LAWRENCE RIVER AT CORNWALL, ONTARIO--NEAR MASSENA, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1936 - 1997	
ANNUAL TOTAL	101922000		109885000		253100	
ANNUAL MEAN	278500		301100		309300	1987
HIGHEST ANNUAL MEAN					191800	1936
LOWEST ANNUAL MEAN					378000	May 20 1993
HIGHEST DAILY MEAN	325000	Dec 29	343000	Mar 23	139000	Feb 7 1936
LOWEST DAILY MEAN	215000	Jan 5	225000	Jan 17	148000	Feb 6 1936
ANNUAL SEVEN-DAY MINIMUM	219000	Jan 5	230000	Jan 14	300000	
10 PERCENT EXCEEDS	303000		329000		253000	
50 PERCENT EXCEEDS	286000		301000		207000	
90 PERCENT EXCEEDS	248000		269000			

ST. LAWRENCE RIVER BASIN

04266500 RAQUETTE RIVER AT PIERCEFIELD, NY

LOCATION.--Lat 44°14'05", long 74°34'20", St. Lawrence County, Hydrologic Unit 04150305, on left bank 0.5 mi downstream from powerplant at Piercefield, and 1.5 mi upstream from Dead Creek.

DRAINAGE AREA.--721 mi².

PERIOD OF RECORD.--August 1908 to current year.

REVISED RECORDS.--WSP 604: 1924. WSP 1387: 1910, 1913, 1914(M), 1916, 1921. WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,502.12 ft above sea level. Prior to Jan. 1, 1911, nonrecording gage at present site at datum 2.00 ft higher and Jan. 1, 1911 to Oct. 21, 1912, nonrecording gage at present site and datum.

REMARKS.--No estimated daily discharges. Records good. Seasonal distribution of flow modified by natural storage in lakes and ponds upstream from station and by regulation of Forked Lake, Round Lake, Lows Lake, and Raquette Pond (Tupper Lake) at Setting Pole Dam. Extensive diurnal fluctuation caused by powerplant at Piercefield. Telephone gage-height telemeter at station.

AVERAGE DISCHARGE.--89 years, 1,326 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,630 ft³/s, Apr. 27, 1993, gage height, 12.04 ft; maximum gage height, 12.25 ft, May 8, 1972; minimum daily, 4.1 ft³/s, Oct. 12, 1947.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, about 7,000 ft³/s, May 1, 1900 (from New York State Museum Bulletin 85).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,730 ft³/s, Nov. 12, gage height, 9.56 ft; minimum daily, 157 ft³/s, Aug. 13.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	371	1080	1880	2480	1270	2350	1930	3370	1900	888	510	675
2	368	1050	2140	2340	1250	2540	2260	3380	1810	917	499	631
3	225	1020	2340	2310	1220	2700	2380	3530	1710	813	507	717
4	368	1010	2550	2340	1130	2660	2390	3590	1700	938	519	688
5	310	828	2690	2420	1030	2620	2470	3670	1690	941	505	453
6	272	945	2750	2480	983	2610	2660	3660	1660	1050	495	538
7	354	941	2760	2460	1020	2570	2870	3580	1600	941	522	587
8	218	1240	2710	2360	1040	2510	3270	3590	1550	983	445	607
9	273	2270	2650	2250	1020	2440	3410	3570	1440	830	369	617
10	304	3380	2590	2190	963	2380	3600	3480	1230	641	509	482
11	372	4170	2510	2160	918	2310	3680	3410	1040	1140	376	626
12	255	4680	2430	2130	920	2220	3650	3420	1050	1110	296	525
13	371	4570	2400	2080	914	2130	3610	3380	1040	1090	157	511
14	374	4370	2490	2040	896	2080	3550	3310	957	1060	176	522
15	675	4130	2500	1990	897	2000	3510	3270	840	987	383	625
16	457	3890	2510	1840	888	1810	3370	3190	706	1090	405	512
17	555	3650	2470	1610	869	1880	3310	3150	578	1130	686	647
18	577	3420	2470	1640	858	1840	3160	3060	572	1210	703	516
19	567	3280	2470	1580	920	1780	3270	2990	644	1300	1010	545
20	454	3120	2480	1530	1000	1730	3240	2880	787	1290	893	573
21	564	2960	2430	1510	1160	1690	3200	2800	820	1170	958	573
22	474	2820	2390	1420	1470	1510	3230	2760	1010	1220	634	630
23	574	2700	2360	1210	1600	1240	3120	2690	1180	1060	876	563
24	832	2560	2430	1180	1790	1220	3130	2640	1240	1110	810	561
25	837	2440	2530	1240	1880	1220	3130	2550	1140	1040	820	559
26	1010	2320	2560	1290	1930	1230	3090	2440	1100	929	948	559
27	1020	2200	2550	1290	1980	1230	3100	2320	1100	924	762	558
28	1180	2120	2550	1310	2110	1240	3160	2110	1050	918	797	554
29	1000	2020	2620	1310	---	1290	3200	1980	1020	948	787	472
30	1020	1920	2650	1280	---	1450	3300	1960	1080	588	753	410
31	1060	---	2630	1270	---	1650	---	1920	---	513	716	---
TOTAL	17291	77104	77490	56540	33926	60130	93250	93650	35244	30769	18826	17036
MEAN	558	2570	2500	1824	1212	1940	3108	3021	1175	993	607	568
MAX	1180	4680	2760	2480	2110	2700	3680	3670	1900	1300	1010	717
MIN	218	828	1880	1180	858	1220	1930	1920	572	513	157	410

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

	MEAN	872	1180	1263	1081	934	1292	3116	2938	1307	735	584	605
MAX	3292	2676	3439	2934	2148	3577	5405	6094	3982	2461	1867	1614	
(WY)	1946	1989	1984	1985	1916	1921	1993	1943	1947	1972	1986	1938	
MIN	54.7	133	348	343	319	325	1230	878	396	324	182	112	
(WY)	1948	1909	1931	1918	1961	1940	1995	1987	1941	1995	1934	1913	

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1908 - 1997

ANNUAL TOTAL	682460	611256	1326	
ANNUAL MEAN	1865	1675	2030	
HIGHEST ANNUAL MEAN			734	1976
LOWEST ANNUAL MEAN				1965
HIGHEST DAILY MEAN	6000	4680	8500	Apr 27 1993
LOWEST DAILY MEAN	107	157	4.1	Oct 12 1947
ANNUAL SEVEN-DAY MINIMUM	140	289	4.6	Oct 10 1947
10 PERCENT EXCEEDS	4140	3270	2890	
50 PERCENT EXCEEDS	1700	1290	939	
90 PERCENT EXCEEDS	260	512	358	

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LOCATION.--Lat 44°30'42", long 74°53'00", St. Lawrence County, Hydrologic Unit 04150305, on left bank 300 ft upstream from bridge on State Highway 56 at South Colton, 500 ft downstream from Niagara Mohawk Power Corporation powerplant, and 0.8 mi upstream from Cold Brook.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,140 ft³/s, May 19, gage height, 7.84 ft; minimum, 7.3 ft³/s, Oct. 28, gage height, 1.42 ft; minimum daily, 352 ft³/s, Oct. 28.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	544	1070	3070	3220	1990	2860	3020	2470	2150	1280	1380	1340
2	439	1090	2730	3200	2160	2650	2880	2490	1820	1490	1390	1110
3	488	945	3150	3190	2000	3000	2840	2910	1560	1270	1340	1350
4	511	1180	3000	3540	2420	2610	2850	2620	1440	1400	1400	1440
5	549	1100	3010	3240	2180	2900	3050	3110	1790	1100	1370	1260
6	667	906	2780	2950	2060	3340	3270	3370	1680	1340	1040	1410
7	505	1030	2760	2940	2080	3160	3280	3370	1580	1340	915	819
8	398	963	2880	2910	2140	3010	3260	3390	1680	1470	850	593
9	571	2190	2900	3180	2010	3010	3640	3380	1590	1250	913	590
10	626	2810	2800	3180	2350	3120	3780	3240	1310	1390	807	1040
11	678	3060	2850	3030	2170	3390	3720	3130	1650	1350	877	1320
12	527	3630	3030	3080	2170	3280	3710	3560	1600	1340	673	935
13	524	3570	2720	3040	2040	3370	3750	3470	1570	1370	862	1210
14	537	3260	3210	3130	2190	3610	3760	3370	1700	1370	835	1690
15	475	3360	3450	2820	2280	3320	3740	3470	1710	1360	790	1620
16	585	3230	3170	3240	2190	2780	3630	3750	1430	1350	728	1860
17	494	3170	3620	3230	2330	3000	3120	3860	1420	1360	748	1150
18	642	3320	2960	3260	2090	3180	2770	3610	1010	1710	808	1200
19	478	3070	3300	2880	1890	3610	2730	3640	1000	1530	888	1650
20	402	2760	3090	2510	1970	3610	2950	3550	1010	1640	907	1460
21	775	2750	2800	3080	1510	3620	3300	3590	1020	1510	905	1370
22	444	2960	2810	2810	1220	3630	2700	3330	955	1600	910	1190
23	523	2940	2720	2120	1470	3630	2280	3380	927	1710	890	1480
24	462	2890	2940	2200	1390	3620	2310	3700	1120	1670	879	1410
25	474	2840	2950	1920	1920	3130	2250	3370	1020	1670	1010	1380
26	536	2420	2640	1500	2770	3190	2060	3380	1010	1950	1420	1590
27	503	2840	2870	1980	2460	3070	1960	3030	976	1750	1080	1290
28	352	2710	2810	2080	2600	2920	2170	2840	978	1530	1380	1620
29	761	2900	3040	2110	---	2900	2170	2820	1020	1610	1490	1160
30	554	2910	3130	2360	---	2680	2330	2430	1200	1580	1470	1140
31	579	---	3260	2060	---	2660	---	2220	---	1500	1450	---
TOTAL	16603	73874	92450	85990	58050	97860	89280	99850	40926	45790	32405	38677
MEAN	536	2462	2982	2774	2073	3157	2976	3221	1364	1477	1045	1289
MAX	775	3630	3620	3540	2770	3630	3780	3860	2150	1950	1490	1860
MIN	352	906	2640	1500	1220							

MEAN	1393	1648	1805	1674	1646	2036	3147	3164	1763	1255	1140	1095
MAX	3849	3248	4208	4138	3117	3985	5568	6260	3496	3356	2990	1816
(WY)	1978	1986	1984	1985	1996	1990	1954	1971	1972	1972	1986	1986
MIN	536	386	435	673	595	657	980	1041	656	462	535	557
(WY)	1997	1965	1965	1956	1961	1956	1995	1987	1962	1988	1985	1995

ANNUAL TOTAL	845772		771755			
ANNUAL MEAN	2311		2114		1817	
HIGHEST ANNUAL MEAN					2661	1976
LOWEST ANNUAL MEAN					984	1965
HIGHEST DAILY MEAN	7100	May 14	3860	May 17	9060	May 14 1971
LOWEST DAILY MEAN	271	Sep 4	352	Oct 28	4.6	Jun 2 1954
ANNUAL SEVEN-DAY MINIMUM	471	Oct 22	471	Oct 22	239	Nov 1 1964
10 PERCENT EXCEEDS	3850		3370		3420	
50 PERCENT EXCEEDS	2230		2120		1540	
90 PERCENT EXCEEDS	551		784		602	

LOCATION.--Lat 44°50'20", long 74°58'45", St. Lawrence County, Hydrologic Unit 04150305, on right bank 250 ft upstream from bridge on Grant Road at Raymondville, 0.3 mi downstream from Trout Brook, 0.4 mi downstream from Niagara Mohawk Power Corporation powerplant, and 18.0 mi upstream from mouth.

DRAINAGE AREA.--1.125 mi²

PERIOD OF RECORD.--November 1943 to current year.

REVISED RECORDS.--WDR NY-82-1: Drainage area. WDR NY-85-1: 1983-84.

GAGE.--Water-stage recorder. Datum of gage is 183.33 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Extensive diurnal fluctuation caused by power and industrial operations. Flow regulated since 1953 by Carry Falls Reservoir, about 46 mi upstream and by Niagara Mohawk Power Corporation powerplant, 0.4 mi upstream; considerable natural storage in large lakes upstream from Piercfield. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,000 ft³/s, Apr. 5, 1974, gage height, 8.40 ft; maximum gage height, 9.24 ft, Feb. 22, 1954 (ice jam); minimum discharge, 2.2 ft³/s, Sept. 18, 19, 1966; minimum gage height, 0.42 ft, July 13, 1950; minimum daily discharge, 7.0 ft³/s, Oct. 15, 1951.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,850 ft³/s, Nov. 10, gage height, 5.08 ft; maximum gage height, 5.59 ft, Jan. 31 (ice jam); minimum discharge, 41 ft³/s, Oct. 5, gage height, 0.76 ft; minimum daily, 479 ft³/s, Oct. 5.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	513	1150	3260	e3600	e2600	e3200	e3700	3510	2480	1480	1520	1540
2	588	1240	4140	e3600	e2500	e3100	e3700	3160	2360	1380	1450	1150
3	762	1620	4450	e3600	e2700	e3200	e3900	3340	1670	1480	1450	1460
4	487	1120	4260	e3800	e2600	e3100	e4100	3670	1680	1510	1330	1450
5	479	1160	3510	e3700	2700	e3100	e4300	3640	1750	1510	1520	1350
6	566	983	3360	e3500	2620	e3600	e4300	4070	1800	1510	1280	1360
7	513	860	3480	e3500	2600	e3500	e4700	4100	1770	1490	935	1390
8	587	1490	3430	e3400	e2700	e3500	e4900	4010	1750	1470	918	501
9	563	3770	3360	e3700	e2600	e3300	4610	4030	1790	1500	866	1070
10	546	5270	3310	3690	e2900	e3400	4470	4520	1730	1400	756	1460
11	606	4450	3330	3590	e2600	e3500	4380	4630	1810	1480	817	1390
12	545	4070	3400	e3500	e2500	e3400	4410	4310	1530	1480	1070	1510
13	564	3900	3660	e3500	e2500	e3400	4490	4190	1760	1390	1040	1540
14	578	4370	4540	e3400	e2700	e3800	4550	4200	1590	1520	1080	1390
15	633	3940	4930	e3400	e2800	e3600	4530	4120	1730	1400	1110	762
16	529	3730	4560	e3500	e2700	e3400	4400	4160	1670	1440	761	1410
17	578	3720	4380	e3700	e2800	3720	4120	4130	1490	1450	987	1450
18	583	3640	4240	e3700	e2600	3980	3230	4200	1320	1750	843	1500
19	553	3540	4030	e3600	e2400	4160	3650	4250	1090	1800	854	1480
20	600	3010	3720	e3100	e2500	4110	4070	4200	1080	1760	856	1490
21	621	2980	3260	e3100	e2100	4130	4520	4140	1090	1730	998	1660
22	627	3200	3290	e3600	e1700	4100	4350	4070	1260	1710	910	1510
23	636	3210	3330	e2600	e1900	e4000	3740	3950	1230	1720	898	1580
24	647	3230	3620	e2700	e1800	e4000	2810	3710	1110	1720	932	1580
25	702	3150	3650	e2400	e2500	e3700	2470	3980	1210	1770	1070	1510
26	481	3240	3480	e2000	e3200	e3600	2670	3880	1130	1780	1460	1570
27	781	3180	3520	e2300	e3100	e3300	2680	3790	1040	1760	1270	1510
28	608	3210	3420	e2400	e3000	e3300	2620	3230	1060	1770	1290	1310
29	651	3200	3480	e2500	---	e3500	2880	3110	1090	1750	1630	1650
30	661	3150	e3500	e2600	---	e4200	3020	2980	1230	1680	1450	1820
31	522	---	e3600	e2800	---	e3900	---	2370	---	1650	1430	---
TOTAL	18310	88783	115500	100080	71920	111800	116270	119650	45300	49240	34781	42353
MEAN	591	2959	3726	3228	2569	3606	3876	3860	1510	1588	1122	1412
MAX	781	5270	4930	3800	3200	4200	4900	4630	2480	1800	1630	1820
MIN	479	860	3260	20								

MEAN	1607	1992	2146	1968	1980	2591	3893	3567	2010	1395	1267	1259
MAX	4545	3776	5228	5021	3979	4723	7005	6768	3602	3623	3454	2244
(WY)	1978	1986	1984	1985	1996	1990	1993	1971	1972	1972	1986	1981
MIN	591	500	684	699	672	866	1140	1209	807	518	630	573
(WY)	1997	1965	1965	1956	1956	1956	1995	1987	1962	1988	1993	1993

ANNUAL TOTAL	1036571		913987				
ANNUAL MEAN	2832		2504			2139	
HIGHEST ANNUAL MEAN						3022	1976
LOWEST ANNUAL MEAN						1148	1965
HIGHEST DAILY MEAN	10200	May 13	5270	Nov 10	11100		Apr 26 1993
LOWEST DAILY MEAN	386	Sep 7	479	Oct 5	8.1		Jul 30 1962
ANNUAL SEVEN-DAY MINIMUM	533	Sep 22	534	Oct 4	345		Nov 22 1953
10 PERCENT EXCEEDS	4920		4140		4010		
50 PERCENT EXCEEDS	2900		2600		1700		
90 PERCENT EXCEEDS	607		833		844		

e Estimated

04268000 RAQUETTE RIVER AT RAYMONDVILLE, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1955, 1957, 1960-61, 1969-72, 1979-93, June 1997.

CHEMICAL DATA: 1955, 1957 (a), 1960-61 (e), 1969 (a), 1970 (d), 1971 (b), 1972 (a), 1979-80 (d), 1981-82 (c), 1983-93 (b).

MINOR ELEMENTS DATA: 1969 (a), 1970, 1979 (b), 1980 (d), 1981-93 (b).

PESTICIDE DATA: 1970, 1997 (a).

ORGANIC DATA: OC--1979-80 (d), 1981 (c).

NUTRIENT DATA: 1955, 1957 (a), 1960-61 (e), 1969 (a), 1970 (d), 1971 (b), 1972 (a), 1979-80 (d), 1981-82 (c), 1983-93 (b).

BIOLOGICAL DATA:

Bacteria--1969-71 (a), 1979-80 (d), 1981-82 (c), 1983-93 (b).

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

Periphyton--1979-80 (b).

SEDIMENT DATA: 1979 (c), 1980 (d), 1981-82 (c), 1983-93 (b).

REMARKS.--A complete list of compounds included when pesticides analysis was performed on samples follows the Introduction to the Hudson NAWQA section near the end of this report. Only those compounds detected at or above the method detection limit (MDL) were included in the tables.

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

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)
JUN 19...	1030	1290	0.008	0.005

ST. LAWRENCE RIVER BASIN

04268800 WEST BRANCH ST. REGIS RIVER NEAR PARISHVILLE, NY

LOCATION.--Lat 44°35'55", long 74°44'15", St. Lawrence County, Hydrologic Unit 04150306, on right bank 25 ft upstream from highway bridge, 4.1 mi downstream from Mud Pond Outlet, 4.2 mi southeast of Parishville, and 4.8 mi upstream from Niagara Mohawk Power Corp. dam.

DRAINAGE AREA.--171 mi².

PERIOD OF RECORD.--October 1958 to September 1968, June 1991 to current year. Annual maximum, water years 1969-91.

GAGE.--Water-stage recorder. Datum of gage is 971.64 ft above sea level. October 1968 to May 1991, crest-stage gage at present site and datum.

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

AVERAGE DISCHARGE.--16 years (water years 1959-68, 1992-97), 316 ft³/s, 25.09 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,960 ft³/s, Dec. 29, 1984, gage height, 7.37 ft; maximum gage height, 7.51 ft, Feb. 25, 1985 (ice jam); minimum recorded discharge, 50 ft³/s, Aug. 1, 2, 1965, Sept. 5, 1995, gage height, 0.92 ft; minimum daily discharge, about 46 ft³/s, Feb. 1, 1961.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 9	1400	*3,490	*5.50	Apr. 7	1015	2,130	4.09

Minimum discharge, 60 ft³/s, Aug. 10, 11, gage height, 0.98 ft; minimum daily, 63 ft³/s, Aug. 10.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	285	232	e250	e330	e290	e800	871	819	281	105	70	150
2	208	207	1210	e350	e280	e900	743	839	300	105	68	142
3	174	186	1290	e400	e270	e1100	689	830	279	174	74	159
4	159	170	965	447	e260	e900	849	842	240	408	78	163
5	145	163	819	514	e280	e840	1050	753	213	478	108	142
6	130	164	633	779	e300	e600	1460	635	202	386	93	119
7	119	166	502	688	e310	e450	2050	573	190	256	81	118
8	109	688	419	e520	e300	e320	1750	517	175	185	72	134
9	105	3120	366	e450	e270	e270	1260	494	161	275	67	127
10	115	2810	328	e410	e260	e240	919	649	150	374	63	108
11	174	2100	303	e370	e240	e210	771	702	140	321	157	99
12	192	1390	283	e350	e230	e190	650	663	130	229	316	103
13	167	959	375	e310	e220	e180	641	674	125	170	516	113
14	149	691	995	e290	e210	e160	713	597	141	144	1020	138
15	135	523	990	e280	e200	e150	683	533	144	130	695	145
16	118	408	818	e280	e200	e130	668	505	129	122	456	130
17	114	405	697	e240	e190	e140	759	517	187	130	370	115
18	107	354	637	e240	e200	e160	784	490	212	189	346	115
19	104	363	604	e250	e230	e190	747	448	212	200	271	109
20	118	385	527	e250	e300	e220	758	415	221	158	189	153
21	179	360	346	e270	e500	e240	865	396	195	127	152	297
22	237	328	395	e290	e800	e250	919	441	271	111	151	252
23	351	274	414	e340	e1500	e270	921	501	477	99	202	193
24	399	240	516	e470	e1300	e280	889	478	377	92	253	174
25	405	272	625	e600	e1100	e300	815	425	280	85	232	153
26	330	262	548	e520	e800	e320	741	374	223	80	177	147
27	256	234	e500	e450	e730	e350	687	335	178	77	153	142
28	209	204	e450	e380	e740	e400	755	304	147	82	165	138
29	182	e210	e400	e350	---	e600	989	280	127	80	194	258
30	180	e220	e360	e330	---	e1000	929	265	115	77	184	497
31	226	---	e330	e310	---	1050	---	267	---	74	155	---
TOTAL	5881	18088	17895	12058	12510	13210	27325	16561	6222	5523	7128	4833
MEAN	190	603	577	389	447	426	911	534	207	178	230	161
MAX	405	3120	1290	779	1500	1100	2050	842	477	478	1020	497
MIN	104	163	250	240	190	130	641	265	115	74	63	99
CFSM	1.11	3.53	3.38	2.27	2.61	2.49	5.33	3.12	1.21	1.04	1.34	.94
IN.	1.28	3.93	3.89	2.62	2.72	2.87	5.94	3.60	1.35	1.20	1.55	1.05

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

	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
MEAN	233	340	266	255	209	336	966	438	247	167	169	152
MAX	414	603	577	677	447	545	1780	749	384	347	292	233
(WY)	1996	1997	1997	1996	1997	1995	1993	1996	1996	1996	1962	1992
MIN	97.8	185	111	67.0	106	149	312	233	123	75.0	69.9	91.6
(WY)	1965	1961	1961	1961	1963	1965	1995	1995	1991	1966	1960	1964

e Estimated

ST. LAWRENCE RIVER BASIN

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04268800 WEST BRANCH ST. REGIS RIVER NEAR PARISHVILLE, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1959 - 1997	
ANNUAL TOTAL	171178		147234			
ANNUAL MEAN	468		403		316	
HIGHEST ANNUAL MEAN					431	1996
LOWEST ANNUAL MEAN					198	1965
HIGHEST DAILY MEAN	3740	Jan 20	3120	Nov 9	3740	Jan 20 1996
LOWEST DAILY MEAN	75	Sep 7	63	Aug 10	46	Feb 1 1961
ANNUAL SEVEN-DAY MINIMUM	83	Sep 2	74	Jul 29	47	Jan 28 1961
ANNUAL RUNOFF (CFSM)	2.74		2.36		1.85	
ANNUAL RUNOFF (INCHES)	37.24		32.03		25.09	
10 PERCENT EXCEEDS	1030		834		638	
50 PERCENT EXCEEDS	282		280		200	
90 PERCENT EXCEEDS	110		117		90	

LOCATION.--Lat 44°45'22", long 74°13'09", Franklin County, Hydrologic Unit 04150307, on right bank 0.1 mi downstream from Niagara Mohawk Power Corp. powerplant at Chasm Falls, and 3.0 mi downstream from Duane Stream.

DRAINAGE AREA.--132 mi².

PERIOD OF RECORD.--July 1925 to September 1982, October 1986 to current year.

REVISED RECORDS.--WSP 729: 1931 (m). WSP 759: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,011.52 ft above sea level.

REMARKS.--No estimated daily discharges. Records good. Seasonal regulation of flow by upstream reservoirs. Diurnal fluctuation at low and medium flow caused by powerplant. A small diversion from tributary upstream from station is used as water supply for village of Malone.

AVERAGE DISCHARGE.--68 years (water years 1926-82, 1987-97), 231 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,890 ft³/s, Apr 25, 1926, gage height, 5.0 ft; minimum, 9.8 ft³/s, Sept. 26, 27, 1963; minimum daily, 28 ft³/s, Sept. 4, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 29, 1984, reached a stage of 5.63 ft, from floodmarks, discharge, 3,700 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,380 ft³/s, Nov. 10, gage height, 4.54 ft; minimum, 16 ft³/s, Sept. 13; minimum daily, 101 ft³/s, July 31.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	159	193	242	242	197	340	427	687	232	134	107	191
2	144	202	615	283	190	454	379	647	231	129	104	179
3	144	186	686	300	184	627	357	571	212	150	130	195
4	144	171	515	301	144	537	448	558	200	210	117	189
5	139	168	401	313	152	432	515	525	195	194	133	201
6	139	184	346	423	157	314	685	454	183	172	121	176
7	132	178	312	339	165	331	1080	420	175	149	113	179
8	129	305	290	278	135	320	1040	376	170	139	106	173
9	125	1630	271	279	143	291	715	357	164	264	102	113
10	140	1940	254	289	146	294	532	508	158	265	107	115
11	199	1170	240	281	150	267	459	560	122	193	108	115
12	177	735	230	264	193	245	391	490	155	165	180	134
13	137	520	235	269	185	228	392	488	137	146	236	156
14	155	402	315	266	189	216	437	425	163	150	462	168
15	145	339	316	262	191	250	402	373	159	142	330	167
16	149	280	284	249	179	241	406	348	143	148	242	169
17	127	273	278	210	187	226	455	358	165	151	225	153
18	132	257	345	222	189	230	453	336	188	183	191	146
19	127	328	340	228	224	218	437	299	194	184	164	137
20	138	340	303	239	301	223	460	291	203	152	148	179
21	226	298	274	215	340	211	497	283	173	146	146	244
22	263	270	278	225	451	210	547	352	206	139	163	191
23	250	252	266	301	524	203	602	431	305	131	228	166
24	246	235	300	287	512	205	613	368	241	121	241	164
25	232	225	353	277	403	198	573	333	213	124	206	161
26	207	181	305	267	359	217	534	309	188	114	171	150
27	189	178	305	229	343	226	529	285	165	117	174	152
28	179	173	283	236	374	275	589	232	158	116	215	145
29	173	191	315	222	---	370	861	225	143	124	295	171
30	174	196	344	208	---	527	813	221	140	115	230	294
31	197	---	260	211	---	514	---	228	---	101	183	---
TOTAL	5217	12000	10101	8215	6907	9440	16628	12338	5481	4768	5678	5073
MEAN	168	400	326	265	247	305	554	398	183	154	183	169
MAX	263	1940	686	423	524	627	1080	687	305	265	462	294
MIN	125	168	230	208	135	198	357	221	122	101	102	111

MEAN	193	219	203	190	167	271	544	336	200	154	147	156
MAX	540	446	401	379	409	637	890	948	540	393	350	322
(WY)	1978	1928	1928	1937	1981	1976	1960	1971	1947	1947	1981	1981
MIN	98.4	93.5	106	101	90.7	102	206	129	89.8	79.3	65.4	87.0
(WY)	1958	1935	1935	1961	1936	1940	1995	1941	1941	1941	1934	1941

ANNUAL TOTAL	110692		101846				
ANNUAL MEAN	302		279			231	
HIGHEST ANNUAL MEAN						364	1947
LOWEST ANNUAL MEAN						152	1965
HIGHEST DAILY MEAN	1940	Nov 10	1940	Nov 10		2670	Apr 25 1926
LOWEST DAILY MEAN	108	Sep 5	101	Jul 31		28	Sep 4 1934
ANNUAL SEVEN-DAY MINIMUM	113	Sep 2	112	Jul 27		55	Aug 5 1941
10 PERCENT EXCEEDS	596		501			410	
50 PERCENT EXCEEDS	225		226			173	
90 PERCENT EXCEEDS	132		137			103	

LOCATION.--Lat 45°00'00", long 73°30'05", Clinton County, Hydrologic Unit 02010006, on left bank 500 ft upstream from highway bridge at Perry Mills, and 7.5 mi upstream from Corbeau Creek.

DRAINAGE AREA.--247 mi².

PERIOD OF RECORD.--September 1928 to September 1968, October 1986 to September 1989 (annual maximum only), March 1990 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 164.93 ft above sea level. April 1987 to February 1990, crest-stage gage at present site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Records prior to October 1968 affected by diurnal fluctuation at low and medium flow by sawmill immediately upstream. Occasional regulation by Chazy Lake (usable capacity, about 765 mil ft³) from which the Clinton Correctional Facility at Dannemora (Saranac River basin) obtains its water supply (about 1 ft³/s). Several measurements of water temperature were made during the year. Satellite gage-height telemeter at station.

AVERAGE DISCHARGE.--47 years (water years 1928-68, 1991-97), 271 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,700 ft³/s, Nov. 9, 1996, gage height, 12.24 ft; minimum discharge, about 0.8 ft³/s, Sept. 18, 1932; minimum gage height, 1.31 ft, Aug. 31, 1966; minimum daily discharge, 8.7 ft³/s, July 30, 1991.

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)
Oct. 22	0415	3,060	7.09	Apr. 7	0845	2,840	6.85
Nov. 9	1945	*9,700	*12.24	Apr. 29	0745	2,730	6.72

Minimum discharge, 25 ft³/s, Aug. 10, 11, gage height, 1.37 ft; minimum daily, 27 ft³/s, Aug. 10.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	251	367	e360	e180	e300	e900	1080	190	47	30	127
2	70	213	1740	e370	e170	e340	e820	940	182	45	28	132
3	67	195	1860	e380	e170	e430	e840	756	163	46	67	117
4	65	183	978	e400	e170	e1100	1200	774	133	67	82	128
5	69	178	710	e440	e160	e880	1490	681	118	72	55	104
6	59	188	587	e370	e150	e700	2030	534	111	57	44	84
7	57	198	537	e310	e160	e600	2720	525	104	49	37	74
8	54	422	516	e270	e170	e450	1960	452	99	45	35	80
9	53	6470	501	e240	e160	e370	1120	409	95	68	30	79
10	58	5410	445	e220	e160	e330	811	715	87	146	27	70
11	114	2220	401	e210	e150	e300	713	859	80	93	29	60
12	132	1300	371	e200	e140	e270	748	591	73	65	53	62
13	104	949	367	e190	e140	e250	919	557	71	53	74	79
14	89	730	489	e190	e130	e230	1270	472	71	64	267	79
15	75	607	692	e180	e130	e220	907	405	76	72	163	74
16	66	497	588	e170	e120	e210	625	378	72	148	107	65
17	65	491	517	e160	e130	e200	648	354	87	151	175	61
18	61	479	589	e160	e140	e190	749	336	123	124	340	61
19	58	931	585	e150	e150	e180	670	324	117	194	162	58
20	68	1330	483	e150	e170	e180	1010	335	116	124	97	64
21	1420	920	e350	e140	e240	e180	1680	305	99	96	77	130
22	2730	664	e350	e150	e550	e170	2210	349	98	86	114	139
23	1500	e430	368	e160	e350	e170	2300	552	109	75	388	99
24	856	e380	416	e170	e280	e180	1880	414	91	67	381	82
25	617	e320	565	e160	e250	e200	1500	337	78	57	242	75
26	462	e280	e370	e150	e270	e220	1280	303	79	54	174	68
27	376	e270	e330	e150	e280	e270	1160	273	69	51	161	62
28	322	e260	e330	e150	e290	e350	1440	246	64	46	234	59
29	291	e260	e360	e160	---	e600	2440	220	59	44	226	81
30	248	271	e450	e160	---	e2000	1420	199	50	38	182	196
31	260	---	e400	e170	---	e1300	---	195	---	34	140	---
TOTAL	10550	27297	17612	6840	5560	13370	39460	14870	2964	2378	4221	2649
MEAN	340	910	568	221	199	431	1315	480	98.8	76.7	136	88.3
MAX	2730	6470	1860	440	550	2000	2720	1080	190	194	388	196
MIN	53	178	330	140	120	170	625	195	50	34	27	55

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1997, BY WATER YEAR (WY)

	1977, BY YEAR, YEAR (1)					1977, BY YEAR, YEAR (1)					1977, BY YEAR, YEAR (1)				
MEAN	140	213	203	244	204	478	929	384	190	115	89.4	82.3			
MAX	589	910	568	775	553	1217	2377	969	852	823	274	368			
(WY)	1955	1997	1997	1930	1930	1936	1993	1947	1947	1947	1962	1954			
MIN	22.3	35.8	41.1	51.7	46.5	70.5	236	97.2	43.5	23.1	26.2	20.2			
(WY)	1967	1931	1967	1956	1956	1956	1995	1941	1941	1965	1966	1966			

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1928 - 1997
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STATISTICS	WINTER YEAR 1985-1986		WINTER YEAR 1986-1987		WINTER YEARS 1988-1991	
ANNUAL TOTAL	185012		147771			
ANNUAL MEAN	505		405		271	
HIGHEST ANNUAL MEAN					514	1947
LOWEST ANNUAL MEAN					97.2	1965
HIGHEST DAILY MEAN	6470	Nov 9	6470	Nov 9	6470	Nov 9 1996
LOWEST DAILY MEAN	46	Sep 8	27	Aug 10	8.7	Jul 30 1991
ANNUAL SEVEN-DAY MINIMUM	49	Sep 2	36	Aug 6	11	Jul 26 1991
10 PERCENT EXCEEDS	1180		924		611	
50 PERCENT EXCEEDS	270		194		140	
90 PERCENT EXCEEDS	68		61		45	

e Estimated

ST. LAWRENCE RIVER BASIN

04271815 LITTLE CHAZY RIVER NEAR CHAZY, NY

LOCATION.--Lat 44°54'08", long 73°24'56", Clinton County, Hydrologic Unit 02010006, on right bank at downstream side of bridge on Stetson Road, 0.2 mi upstream from abandoned dam, 1.4 mi northeast of Chazy, and 2.2 mi upstream from mouth.

DRAINAGE AREA.--52.8 mi².

PERIOD OF RECORD.--March 1990 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 115 ft above sea level, from topographic map.

REMARKS.--Records poor. Some regulation at low flow by dams and reservoirs upstream from station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--7 years, 57.7 ft³/s, 14.85 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,750 ft³/s, Nov. 10, 1996, gage height, 10.40 ft, outside gage height was 11.12 ft, from crest-stage gage; minimum, 0.42 ft³/s, Sept. 7, 8, 1991; minimum gage height, 1.36 ft, several days during August and September, 1991.

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)
Oct. 22	1900	754	9.15	Nov. 10	0445	*2,750	a*10.40

a Recorded; outside gage height, 11.12 ft, from crest-stage gage.

Minimum discharge not determined; minimum daily discharge, about 2.5 ft³/s, Aug. 2.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	51	140	48	e24	e50	e90	e220	24	3.9	e2.6	54
2	10	45	355	34	e23	e64	e94	e160	23	3.8	e2.5	47
3	9.5	41	381	41	e22	e82	e110	e130	21	4.3	e6.0	42
4	8.9	37	e300	43	e22	e130	e140	e110	19	6.2	e8.0	37
5	8.6	35	e230	62	e21	e80	e180	e100	17	e7.0	e5.0	29
6	8.5	37	e170	e45	e20	e58	e250	e98	16	e6.2	e4.0	23
7	9.4	38	e140	e42	e20	e50	e320	e94	14	e5.4	e3.7	19
8	13	107	e130	e39	22	e44	e170	89	14	e4.0	e3.4	18
9	11	678	e120	e37	26	e38	e120	87	12	e8.0	e3.1	18
10	9.4	1530	e110	e35	21	e35	e94	e110	11	e15	2.7	17
11	12	464	97	e34	19	e33	e82	e150	10	e8.0	3.5	15
12	14	378	86	e33	18	e31	e120	e120	9.8	e6.0	3.7	14
13	13	335	77	e32	e18	e29	e160	e98	9.0	e5.0	7.2	15
14	12	316	86	e31	e18	e28	e220	80	8.4	e7.0	24	15
15	11	209	208	e30	e18	e27	e140	68	8.3	e10	30	15
16	11	93	176	e28	e19	e26	e80	67	7.9	e14	21	13
17	11	93	117	e27	e20	e26	e92	60	8.7	e20	40	12
18	11	88	96	26	e23	e25	e80	53	10	e13	77	12
19	9.4	232	86	27	e25	e25	e160	48	13	e20	43	11
20	13	329	77	27	e28	e24	e180	51	16	e13	26	15
21	265	319	60	30	e40	e23	e220	46	14	e10	23	25
22	690	288	56	31	e64	e23	e250	44	12	e9.0	38	25
23	662	163	56	29	e90	e23	e280	45	11	e7.0	142	21
24	506	104	66	27	e40	e23	e310	40	10	e6.2	190	19
25	390	85	74	25	e42	e25	e250	38	9.0	e5.6	134	17
26	310	e76	48	e22	e44	e29	e150	36	8.8	e5.0	83	15
27	124	e70	e44	e21	e45	e35	e170	34	8.8	e4.5	56	14
28	76	e66	e40	e23	e47	e45	e230	31	6.7	e4.0	54	13
29	62	63	e44	e23	---	e90	e350	29	5.5	e3.5	78	24
30	55	61	e56	e23	---	e270	e290	26	4.6	e3.1	72	53
31	57	---	e52	e23	---	e170	---	25	---	e2.8	50	---
TOTAL	3414.7	6431	3778	998	839	1661	5382	2387	362.5	240.5	1236.4	667
MEAN	110	214	122	32.2	30.0	53.6	179	77.0	12.1	7.76	39.9	22.2
MAX	690	1530	381	62	90	270	350	220	24	20	190	54
MIN	8.5	35	40	21	18	23	80	25	4.6	2.8	2.5	11
CFSM	2.09	4.06	2.31	.61	.57	1.01	3.40	1.46	.23	.15	.76	.42
IN.	2.41	4.53	2.66	.70	.59	1.17	3.79	1.68	.26	.17	.87	.47

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

	1990	1991	1992	1993	1994	1995	1996	1997
MEAN	42.7	80.5	53.1	55.4	32.5	86.3	204	73.6
MAX	110	214	122	129	75.6	196	420	145
(WY)	1997	1997	1997	1995	1991	1990	1993	1996
MIN	5.74	7.76	10.5	12.2	7.45	20.8	43.4	31.1
(WY)	1992	1992	1992	1994	1992	1993	1995	1995

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1990 - 1997
ANNUAL TOTAL	35228.9	27397.1	
ANNUAL MEAN	96.3	75.1	57.7
HIGHEST ANNUAL MEAN			75.2
LOWEST ANNUAL MEAN			28.1
HIGHEST DAILY MEAN	1530	Nov 10	1530
LOWEST DAILY MEAN	3.8	Sep 5	2.5
ANNUAL SEVEN-DAY MINIMUM	4.0	Sep 2	3.3
ANNUAL RUNOFF (CFSM)	1.82		1.42
ANNUAL RUNOFF (INCHES)	24.82		19.30
10 PERCENT EXCEEDS	293		184
50 PERCENT EXCEEDS	45		33
90 PERCENT EXCEEDS	9.3		8.0

e Estimated

ST. LAWRENCE RIVER BASIN

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04273500 SARANAC RIVER AT PLATTSBURGH, NY

LOCATION.--Lat 44°40'54", long 73°28'18", Clinton County, Hydrologic Unit 02010006, on right bank at Plattsburgh, 600 ft downstream from Imperial Paper and Color Corp. dam, 3.0 mi upstream from mouth, and 5.5 mi downstream from Mead Brook.

DRAINAGE AREA.--608 mi².

PERIOD OF RECORD.--March 1903 to September 1930, October 1943 to current year. Published as "near Plattsburgh," 1903-30.

REVISED RECORDS.--WSP 345: Drainage area. WSP 384: 1909-10 (monthly discharge only). WSP 1387: 1907-8. WSP 1437: 1908 (minimum daily only).

GAGE.--Water-stage recorder. Datum of gage is 155.74 ft above sea level. Prior to Nov. 12, 1919, nonrecording gage, and Nov. 12, 1919 to Sept. 30, 1930, water-stage recorder, at site 1.5 mi upstream at different datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Considerable diurnal fluctuation caused by power and industrial operations. Slight regulation by storage in Upper and Lower Saranac Lakes. During the year, the city of Plattsburgh diverted an average of 4.46 ft³/s from Saranac River and Mead and West Brooks, tributaries upstream from station, for municipal supply. About 1 ft³/s diverted from Great Chazy River basin into Saranac River for water supply of State Institutions at Dannemora. Several measurements of water temperature were made during the year. Telephone gage-height telemeter at station.

AVERAGE DISCHARGE.--81 years (water years 1904-30, 1944-97), 848 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,400 ft³/s, Nov. 9, 1996, gage height, 12.11 ft; minimum daily, 3.6 ft³/s, June 26, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 14,400 ft³/s, Nov. 9, gage height, 12.11 ft; minimum daily, 326 ft³/s, Aug. 10.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	426	590	e1200	1050	e600	1390	1440	2420	988	501	358	705
2	430	663	2400	1200	e580	1610	1580	2330	1010	436	366	610
3	430	653	2160	1430	e580	2170	1630	2100	812	415	418	714
4	439	772	2120	e1200	e560	1670	1890	2280	858	714	434	568
5	425	630	1910	e1200	e560	1450	2090	2140	823	517	372	432
6	420	618	1830	e1100	e540	e1300	2700	1920	825	541	382	516
7	415	620	1740	e1100	e520	e1200	3860	1860	803	580	361	547
8	385	916	1670	e1000	e520	e1100	3140	1680	799	599	338	523
9	406	10200	1570	e1000	e500	e1000	2560	1600	735	849	341	516
10	466	6370	1460	e950	e500	e940	2150	2000	653	972	326	513
11	576	4370	1370	e940	e480	e900	1870	2250	666	869	346	504
12	497	3760	1300	e900	e480	e860	1780	2110	607	888	433	558
13	449	3080	1210	e960	e460	e820	1820	2150	505	725	793	565
14	475	2440	1270	e820	e460	e800	2020	1950	498	487	1440	562
15	449	2040	1320	e800	e460	e780	1740	1750	682	415	927	544
16	459	1910	1280	e800	e450	e750	1710	1660	604	1500	968	511
17	455	1790	1260	e760	e440	e730	1940	1680	603	900	732	445
18	437	1650	1370	e740	e480	e700	2030	1600	665	833	859	400
19	474	1930	1420	e730	e560	e700	1650	1510	757	762	790	393
20	527	1980	e1300	e740	e750	e690	2120	1500	658	691	757	408
21	1480	1640	e1100	e750	e1200	e680	2300	1480	605	637	778	512
22	1500	e1400	e1100	e780	e1500	e680	2420	1530	637	575	898	445
23	1180	e1300	e1200	e760	e1300	e660	2550	1640	716	525	1080	396
24	950	e1200	e1200	e740	e1200	e650	2510	1490	681	489	794	465
25	865	e1200	e1400	e700	e1100	e660	2380	1410	639	425	586	454
26	753	e1200	e1100	e700	e1200	e680	2260	1340	688	411	515	497
27	705	e1100	e1000	e660	e1300	e780	2210	1280	794	412	520	490
28	719	e1000	e1100	e650	e1300	e1000	2530	1230	749	426	600	540
29	666	e1000	e1200	e630	---	e1300	3420	1170	610	423	619	661
30	668	e1100	1490	e620	---	2130	2680	1110	653	349	548	669
31	731	---	1100	e620	---	2090	---	1030	---	408	575	---
TOTAL	19257	59122	44150	26930	20580	32870	66980	53200	21323	19274	19254	15663
MEAN	621	1971	1424	869	735	1060	2233	1716	711	622	621	522
MAX	1500	10200	2400	1430	1500	2170	3860	2420	1010	1500	1440	714
MIN	385	590	1000	620	440	650	1440	1030	498	349	326	393

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

	MEAN	618	735	732	681	655	1083	1972	1381	795	554	473	484
	MAX	2162	1971	2071	1350	1372	2487	3626	3687	2757	1820	1045	1220
	(WY)	1978	1997	1984	1913	1981	1921	1993	1971	1947	1947	1986	1905
	MIN	250	239	309	302	304	434	698	518	330	190	266	204
	(WY)	1965	1923	1909	1923	1961	1967	1957	1903	1988	1979	1911	1968

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1903 - 1997
ANNUAL TOTAL	444988	398603	
ANNUAL MEAN	1216	1092	848
HIGHEST ANNUAL MEAN			1458
LOWEST ANNUAL MEAN			460
HIGHEST DAILY MEAN	10200	10200	10200
LOWEST DAILY MEAN	282	326	3.6
ANNUAL SEVEN-DAY MINIMUM	347	352	38
10 PERCENT EXCEEDS	2430	2090	1630
50 PERCENT EXCEEDS	934	799	637
90 PERCENT EXCEEDS	421	438	324

e Estimated

ST. LAWRENCE RIVER BASIN

04273700 SALMON RIVER AT SOUTH PLATTSBURGH, NY

LOCATION.--Lat 44°38'24", long 73°29'43", Clinton County, Hydrologic Unit 02010004, on left bank 32 ft upstream from bridge on Salmon River Road, 0.4 mi west of State Highway 22, and 3.9 mi upstream from mouth, at South Plattsburgh.

DRAINAGE AREA.--61.9 mi².

PERIOD OF RECORD.--May 1959 to September 1968 (no winter records prior to October 1965), March 1990 to current year. Occasional low-flow measurements, water years 1954, 1957-58. Annual maximum, water years 1968-86.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 220.53 ft above sea level. October 1968 to September 1986, crest-stage gage at present site and datum.

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

AVERAGE DISCHARGE.--10 years (water years 1966-68, 1991-97), 57.2 ft³/s, 12.55 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,200 ft³/s, Nov. 9, 1996, gage height, 7.56 ft, from floodmark in gage well; minimum discharge, 3.0 ft³/s, Sept. 17, 1967; minimum daily, 3.6 ft³/s, Sept. 17, 1967.

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)
Nov. 9	1300	*4,200	a*7.56	Mar. 30	--	b750	ice jam
Dec. 2	1345	709	3.73	Apr. 7	0330	545	3.37

a From floodmark in gage well.

b About.

Minimum discharge, 6.6 ft³/s, Aug. 10; minimum daily, 10 ft³/s, Aug. 10.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	43	109	e66	e42	e130	e160	152	46	19	12	39
2	20	37	589	e76	e42	e110	159	129	46	19	12	29
3	20	35	333	e78	e40	e95	167	112	40	27	19	25
4	19	34	187	e78	e40	e87	255	157	37	41	17	22
5	19	34	139	e72	e41	e83	271	123	34	26	14	19
6	19	39	116	e70	e40	e79	422	99	32	21	13	17
7	19	38	103	e70	e39	e74	482	100	31	19	13	18
8	18	170	102	e67	e38	e70	324	87	30	18	12	19
9	20	2640	100	e66	e39	e68	192	84	28	37	11	18
10	25	716	83	e64	e40	e62	141	182	27	35	10	16
11	32	277	74	e64	e41	e58	120	169	25	25	12	16
12	26	170	69	e64	e42	e55	107	128	25	20	24	21
13	23	124	69	e62	e42	e52	166	126	24	19	66	21
14	22	96	89	e62	e41	e50	180	95	29	22	75	21
15	19	79	120	e58	e39	e49	128	80	27	21	34	20
16	19	e70	92	e58	e38	e48	116	75	24	57	29	19
17	20	67	80	e58	e38	e47	130	80	34	37	26	17
18	20	68	89	e58	e40	e47	139	72	41	35	22	17
19	21	236	89	e56	e50	e44	166	71	58	30	18	16
20	30	242	81	e54	e80	e43	280	70	42	24	15	21
21	224	150	e66	e53	e120	e43	299	62	32	20	22	34
22	182	109	e64	e54	e200	e42	296	63	30	19	53	23
23	113	89	e64	e58	e140	e41	321	61	33	17	52	19
24	83	77	e82	e56	e110	e40	289	56	30	16	41	19
25	68	70	e78	e54	e92	e41	219	54	28	15	29	18
26	52	71	e74	e50	e90	e48	176	57	26	14	23	18
27	44	e73	e72	e46	e98	e70	147	51	24	20	26	17
28	40	e72	e72	e49	e110	e140	244	46	22	19	48	17
29	37	e70	e68	e45	---	e500	347	43	20	16	34	34
30	38	e75	e65	e44	---	e620	202	42	19	14	27	42
31	48	---	e64	e43	---	e350	---	44	---	13	24	---
TOTAL	1363	6071	3482	1853	1812	3286	6645	2770	944	735	833	652
MEAN	44.0	202	112	59.8	64.7	106	222	89.4	31.5	23.7	26.9	21.7
MAX	224	2640	589	78	200	620	482	182	58	57	75	42
MIN	18	34	64	43	38	40	107	42	19	13	10	16
CFSM	.71	3.27	1.81	.97	1.05	1.71	3.58	1.44	.51	.38	.43	.35
IN.	.82	3.65	2.09	1.11	1.09	1.97	3.99	1.66	.57	.44	.50	.39

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1997, BY WATER YEAR (WY)

	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
MEAN	37.6	62.4	50.2	54.8	41.1	102	171	73.9	40.2	23.5	23.0	16.9
MAX	87.9	202	112	117	67.9	189	365	145	93.5	74.5	44.0	24.8
(WY)	1996	1997	1997	1996	1996	1992	1993	1996	1996	1996	1990	1991
MIN	11.7	14.3	14.0	21.5	15.2	22.1	42.2	29.2	18.7	7.16	7.82	10.1
(WY)	1967	1967	1967	1967	1967	1967	1995	1995	1995	1966	1966	1966

e Estimated

ST. LAWRENCE RIVER BASIN

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04273700 SALMON RIVER AT SOUTH PLATTSBURGH, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1966 - 1997	
ANNUAL TOTAL	33953		30446			
ANNUAL MEAN	92.8		83.4		57.2	
HIGHEST ANNUAL MEAN					83.4 1997	
LOWEST ANNUAL MEAN					28.0 1967	
HIGHEST DAILY MEAN	2640	Nov 9	2640	Nov 9	2640	Nov 9 1996
LOWEST DAILY MEAN	15	Sep 7	10	Aug 10	3.6	Sep 17 1967
ANNUAL SEVEN-DAY MINIMUM	17	Sep 2	12	Aug 5	4.5	Sep 14 1967
ANNUAL RUNOFF (CFSM)	1.50		1.35		.92	
ANNUAL RUNOFF (INCHES)	20.40		18.30		12.55	
10 PERCENT EXCEEDS	182		166		117	
50 PERCENT EXCEEDS	60		48		34	
90 PERCENT EXCEEDS	20		19		12	

ST. LAWRENCE RIVER BASIN

04273800 LITTLE AUSABLE RIVER NEAR VALCOUR, NY

LOCATION.--Lat 44°35'39", long 73°29'48", Clinton County, Hydrologic Unit 02010004, on left bank at upstream side of bridge on Fuller Road, 2.8 mi southwest of Valcour, and 2.9 mi upstream from mouth.

DRAINAGE AREA.--67.8 mi².

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1956-1961, 1966, 1973-1974. October 1991 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 260 ft above sea level, from topographic map.

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

AVERAGE DISCHARGE.--6 years, 50.5 ft³/s, 10.12 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,840 ft³/s, Nov. 9, 1996, gage height, 7.06 ft, outside gage height was 7.62 ft, from crest-stage gage, from rating curve extended above 1,100 ft³/s on basis of peak flow from contracted-opening measurement at site 0.4 mi upstream; minimum discharge, 2.6 ft³/s, Aug. 9, 10, 11, 1997; minimum gage height, 1.02 ft, July 31, 1992, Aug. 9, 10, 11, 1997.

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. 9	1715	a*2,840	b*7.06	No other peak greater than base discharge.			

a From rating curve extended as explained above.

b Recorded; outside gage height was 7.62 ft, from crest-stage gage.

Minimum discharge, 2.6 ft³/s, Aug. 9, 10, 11, gage height, 1.02 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	29	82	e58	e30	e130	158	104	41	7.8	4.9	17
2	11	26	462	e62	e28	e110	151	96	48	6.6	4.5	17
3	10	24	344	e66	e29	e100	146	91	46	11	5.2	16
4	9.7	23	169	e64	e30	e94	171	100	37	19	6.7	15
5	9.5	23	138	e60	e33	e84	186	98	28	16	6.2	12
6	9.5	28	114	e60	e32	e76	251	88	24	12	5.2	11
7	9.9	27	107	e58	e30	e70	310	80	22	9.9	5.0	11
8	9.5	113	102	e56	e29	e66	200	72	20	8.4	4.4	10
9	11	1960	103	e54	e26	e64	147	67	18	14	3.7	10
10	14	914	91	e56	22	e60	111	91	15	33	3.7	9.2
11	19	248	77	e54	22	e56	100	102	14	29	4.5	8.8
12	17	150	66	e54	22	e52	91	100	12	13	11	11
13	15	118	61	e52	20	e50	99	89	11	10	30	21
14	14	99	73	e52	16	e48	110	80	13	10	40	14
15	12	e86	104	e50	20	e47	104	72	13	11	31	12
16	11	e74	101	e50	19	e46	94	65	11	33	21	11
17	11	63	e84	e48	16	e45	89	63	12	44	18	9.5
18	11	62	e72	e47	19	e44	92	61	17	36	15	8.8
19	11	125	79	e46	e40	e41	108	60	26	29	12	8.3
20	16	166	79	e45	e70	e39	170	60	24	18	10	10
21	139	146	e60	e45	e100	e36	199	55	18	14	13	16
22	187	114	e56	e47	e190	e36	270	54	16	12	34	15
23	154	94	55	e52	e130	e35	226	53	19	11	37	12
24	92	75	80	e48	e100	e34	168	49	19	9.5	30	12
25	60	61	e70	e45	e90	e33	143	49	16	8.4	20	11
26	42	e60	e66	e42	e86	e32	115	47	14	7.5	15	11
27	34	e56	e64	e40	e92	e56	98	45	13	7.2	14	10
28	29	e54	e62	e42	e110	e130	116	42	12	7.7	19	9.7
29	26	52	e60	e38	---	e240	149	39	9.6	8.0	20	17
30	26	55	e58	e36	---	360	133	37	8.7	7.0	17	24
31	29	---	e56	e33	---	233	---	37	---	5.6	15	---
TOTAL	1064.1	5125	3195	1560	1451	2547	4505	2146	597.3	468.6	476.0	380.3
MEAN	34.3	171	103	50.3	51.8	82.2	150	69.2	19.9	15.1	15.4	12.7
MAX	187	1960	462	66	190	360	310	104	48	44	40	24
MIN	9.5	23	55	33	16	32	89	37	8.7	5.6	3.7	8.3
CFSM	.51	2.52	1.52	.74	.76	1.21	2.21	1.02	.29	.22	.23	.19
IN.	.58	2.81	1.75	.86	.80	1.40	2.47	1.18	.33	.26	.26	.21

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1997, BY WATER YEAR (WY)

	1992	1993	1994	1995	1996	1997
MEAN	28.6	63.9	43.2	55.5	32.9	170
MAX	68.4	171	103	126	63.4	86.5
(WY)	1996	1997	1997	1996	1996	1993
MIN	11.2	23.0	27.7	15.5	15.1	41.6
(WY)	1995	1992	1994	1994	1992	1994

SUMMARY STATISTICS

	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1992 - 1997
ANNUAL TOTAL	30347.8	23515.3	
ANNUAL MEAN	82.9	64.4	50.5
HIGHEST ANNUAL MEAN			73.5
LOWEST ANNUAL MEAN			26.3
HIGHEST DAILY MEAN	1960 Nov 9	1960 Nov 9	1960 Nov 9
LOWEST DAILY MEAN	6.3 Aug 15	3.7 Aug 9	3.5 Aug 27
ANNUAL SEVEN-DAY MINIMUM	6.9 Sep 2	4.7 Aug 5	4.1 Aug 21
ANNUAL RUNOFF (CFSM)	1.22	.95	.75
ANNUAL RUNOFF (INCHES)	16.65	12.90	10.12
10 PERCENT EXCEEDS	169	130	102
50 PERCENT EXCEEDS	51	40	27
90 PERCENT EXCEEDS	10	10	8.1

e Estimated

ST. LAWRENCE RIVER BASIN

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04275500 AUSABLE RIVER NEAR AU SABLE FORKS, NY

LOCATION.--Lat 44°27'05", long 73°38'35", Clinton County, Hydrologic Unit 02010004, on left bank 1.8 mi downstream from confluence of East and West Branches, and 1.8 mi east of Au Sable Forks.

DRAINAGE AREA.--448 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1910 to September 1968, March 1990 to current year. Prior to October 1924, published as "at Au Sable Forks". Monthly discharge only for winter periods during 1911 and 1913 water years, published in WSP 1307.

REVISED RECORDS.--WSP 1307: 1911-19 (M), 1922-24 (M).

GAGE.--Water-stage recorder. Datum of gage is 505.65 ft above sea level. Prior to Oct. 1, 1924, chain gage at site 1.5 mi upstream at different datum.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Occasional regulation by Fern Lake and Taylor Pond in Black Brook basin and Upper and Lower Ausable Lakes. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--65 years (water years 1911-68, 1991-97), 673 ft³/s, 20.42 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,400 ft³/s, Nov. 9, 1996, gage height, 13.83 ft, from rating curve extended above 13,000 ft³/s by runoff comparison from contracted-opening measurement at site 3.9 mi downstream; maximum gage height, at least 14.5 ft, 200 ft upstream from gage, Mar. 13, 1990 (ice jam); minimum discharge, practically no flow July 21, 1912, result of unusual regulation.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 23, 1990 (ice jam), reached a stage of 14.5 ft, from floodmark 200 ft upstream from gage.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 9	unknown	a*37,400	*13.83	Dec. 2	1100	11,300	7.71

a From rating curve extended as explained above.

Minimum discharge not determined; minimum daily discharge, about 120 ft³/s, Aug. 9-10.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	291	545	568	e600	e780	920	e1400	3520	e2000	246	e150	253
2	237	448	7900	e700	e740	1600	e1200	4310	e2300	228	e150	248
3	207	392	4050	e800	e680	2140	e1100	2390	e1500	272	e150	242
4	201	349	2300	e880	e640	1230	e1400	3150	1080	578	e160	229
5	196	329	1470	e900	e580	921	e1600	2200	883	821	e150	227
6	185	325	1180	e1000	e540	e680	3020	1700	787	538	e140	214
7	180	326	e980	e800	e500	e620	5260	1660	741	374	e140	205
8	176	651	e900	e660	e460	e560	3110	1260	681	298	e130	215
9	183	e22000	e840	e620	e430	e500	1910	1160	631	705	e120	217
10	211	e7000	e760	e580	e410	e480	1490	2220	575	1240	e120	204
11	290	e3500	e720	e540	e390	e450	1180	2110	560	679	e150	190
12	294	e2000	e680	e520	e370	e410	927	1960	503	454	189	215
13	261	1400	e700	e480	e350	e390	993	2540	443	347	308	352
14	241	1050	768	e450	e330	e350	1100	2010	409	294	1080	324
15	221	e800	792	e420	e310	e430	938	1630	359	506	617	374
16	207	e640	724	e400	e300	e420	889	1580	315	948	408	300
17	200	e600	685	e380	e280	e410	1100	1650	330	689	441	252
18	194	666	1200	e360	e270	e420	1200	1350	500	511	449	229
19	188	1330	1160	e340	e350	e410	1150	1230	e1050	427	320	221
20	216	1420	903	e370	e540	e400	1180	1810	e900	368	248	230
21	1160	1030	730	e420	e1000	e390	1460	1590	651	310	253	278
22	2200	819	e660	e470	e2700	e380	1850	e1500	e1000	271	e800	301
23	1720	e640	e640	e540	2590	e380	2250	e1600	e900	243	e600	272
24	1160	e580	991	e600	1410	e390	2220	e1300	647	218	424	253
25	939	e520	2020	e680	e740	e400	1940	e1300	522	202	361	233
26	669	e500	1230	e720	e700	453	1780	e1400	480	194	292	216
27	520	e470	1020	e800	787	539	1810	e1200	407	185	258	205
28	480	e450	847	e860	1160	705	3030	e1000	346	e220	284	200
29	377	e480	953	e900	---	1320	3620	e1100	310	e190	287	237
30	357	503	1390	e880	---	2810	2770	e1300	271	e170	259	466
31	495	---	e640	e820	---	2330	---	e1600	---	e160	248	---
TOTAL	14456	51763	40401	19490	20337	23838	54877	56330	22081	12886	9686	7602
MEAN	466	1725	1303	629	726	769	1829	1817	736	416	312	253
MAX	2200	22000	7900	1000	2700	2810	5260	4310	2300	1240	1080	466
MIN	176	325	568	340	270	350	889	1000	271	160	120	190
CFSM	1.04	3.85	2.91	1.40	1.62	1.72	4.08	4.06	1.64	.93	.70	.57
IN.	1.20	4.30	3.35	1.62	1.69	1.98	4.56	4.68	1.83	1.07	.80	.63

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1910 - 1997, BY WATER YEAR (WY)

	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921
MEAN	494	609	523	431	353	832	1869	1390	600	351	283	328
MAX	1637	1729	1659	1198	1010	3288	3436	3101	1831	1444	718	1255
(WY)	1919	1928	1921	1996	1925	1921	1960	1947	1947	1947	1943	1938
MIN	175	229	169	132	118	167	600	359	182	150	99.4	96.5
(WY)	1915	1940	1923	1918	1931	1940	1995	1921	1941	1965	1923	1921

e Estimated

ST. LAWRENCE RIVER BASIN

04275500 AUSABLE RIVER NEAR AU SABLE FORKS, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1910 - 1997	
ANNUAL TOTAL	388479		333747			
ANNUAL MEAN	1061		914		673	
HIGHEST ANNUAL MEAN					1087	1947
LOWEST ANNUAL MEAN					380	1965
HIGHEST DAILY MEAN	22000	Nov 9	22000	Nov 9	22000	Nov 9 1996
LOWEST DAILY MEAN	138	Sep 7	120	Aug 9	9.0	Dec 22 1912
ANNUAL SEVEN-DAY MINIMUM	146	Sep 2	136	Aug 5	72	Aug 8 1923
ANNUAL RUNOFF (CFSM)	2.37		2.04		1.50	
ANNUAL RUNOFF (INCHES)	32.26		27.71		20.42	
10 PERCENT EXCEEDS	2230		1870		1500	
50 PERCENT EXCEEDS	541		575		345	
90 PERCENT EXCEEDS	201		215		165	

04275500 AUSABLE RIVER NEAR AU SABLE FORKS, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1997.

PESTICIDE DATA: 1997 (a).

REMARKS.--A complete list of compounds included when pesticides analysis was performed on samples follows the Introduction to the Hudson NAWQA section near the end of this report. Only those compounds detected at or above the method detection limit (MDL) were included in the tables.

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

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)
JUN 18...	1420	505	E0.003	E0.002

E Estimate.

LOCATION.--Lat 44°21'30", long 73°23'50", Essex County, Hydrologic Unit 02010004, on right bank 0.5 mi upstream from bridge on State Highway 22, 2.5 mi downstream from North Branch Bouquet River, and 3.0 mi upstream from mouth, at Willsboro.

PERIOD OF RECORD.--August to September 1904 and August to November 1908 (gage heights and discharge measurements only), July 1923 to September 1968, October 1986 to September 1989 (annual maximum only), March 1990 to current year.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Occasional diurnal fluctuation at low flow caused by powerplant at Wadhams. Slight regulation by Lincoln Pond on Black River. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.---Maximum discharge, 12,300 ft³/s, Nov. 9, 1996, gage height, 10.93 ft, from floodmark in gage well; minimum discharge, 8.8 ft³/s, Sept. 20, 1957, gage height, 1.84 ft.

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 9	unknown	*12,300	a*10.93	Dec. 2	2115	5,320	7.52

Minimum discharge, 48 ft³/s, Aug. 10, 11, gage height, 2.23 ft.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	128	224	e520	e420	e220	e760	874	1080	358	87	65	84
2	93	195	4070	e440	e210	e900	738	1310	507	87	64	82
3	82	174	2790	e440	e200	e1000	742	872	376	90	65	81
4	74	159	1150	e430	e190	e740	901	1140	300	172	60	76
5	77	153	858	e410	e190	e640	1100	902	267	148	60	73
6	71	150	719	e390	e190	e560	1580	722	233	118	64	65
7	70	152	637	e360	e180	e500	2330	713	213	97	62	64
8	70	167	621	e340	e170	e450	1750	602	201	94	57	64
9	77	e7500	598	e330	e170	e410	1000	540	189	131	51	63
10	98	e2400	525	e340	e170	e380	742	710	172	243	49	68
11	114	1300	474	e340	e160	e360	665	774	157	175	52	64
12	115	856	456	e320	e160	e340	593	627	148	123	59	67
13	97	648	418	e310	e150	e310	614	661	140	107	91	154
14	94	e520	472	e300	e150	e300	684	604	136	97	212	128
15	84	e490	591	e290	e160	e290	604	540	125	112	155	108
16	76	e450	505	e290	e150	e290	577	514	117	289	110	95
17	75	e440	469	e280	e150	e280	605	526	118	183	86	80
18	78	e490	e500	e260	e160	e280	660	483	144	145	86	76
19	77	e720	e520	e260	e200	e270	743	438	244	134	79	94
20	77	857	e470	e270	e270	e270	913	469	288	104	68	96
21	368	633	419	e270	e400	e260	933	471	189	96	73	108
22	1080	522	413	e260	e680	e270	974	402	193	90	215	117
23	861	458	427	e260	e840	e260	991	381	216	86	232	95
24	521	396	467	e270	e700	e260	900	340	176	81	161	101
25	433	354	e500	e270	e540	e270	801	332	150	77	122	92
26	300	352	e420	e250	e490	e330	727	348	140	70	93	90
27	237	338	e370	e240	e520	e450	709	326	127	68	87	91
28	199	330	e400	e230	e600	e800	1040	280	112	75	86	90
29	186	e310	e430	e230	---	e1500	1660	272	108	90	107	127
30	169	e350	e450	e230	---	e1900	1120	282	100	75	87	287
31	185	---	e410	e220	---	1550	---	294	---	66	82	---
TOTAL	6266	22088	22069	9550	8370	17180	28270	17955	5944	3610	2940	2880
MEAN	202	736	712	308	299	554	942	579	198	116	94.8	96.0
MAX	1080	7500	4070	440	840	1900	2330	1310	507	289	232	287
MIN	70	150	370	220	150	260	577	272	100	66	49	63
CFSM	.74	2.68	2.59	1.12	1.09	2.02	3.43	2.11	.72	.42	.34	.35
IN.	.85	2.99	2.99	1.29	1.13	2.32	3.82	2.43	.80	.49	.40	.39

MEAN	175	261	238	216	176	449	940	547	244	141	102	103
MAX	543	892	755	772	627	1375	1945	1140	919	582	417	483
(WY)	1946	1928	1928	1996	1925	1936	1993	1945	1947	1947	1990	1938
MIN	40.8	80.5	79.4	53.6	45.1	67.9	258	149	70.3	30.3	28.6	26.9
(WY)	1958	1957	1931	1940	1940	1967	1995	1941	1995	1965	1941	1941

e Estimated

ST. LAWRENCE RIVER BASIN

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04276500 BOUQUET RIVER AT WILLSBORO, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1923 - 1997	
ANNUAL TOTAL	185736		147122			
ANNUAL MEAN	507		403		297	
HIGHEST ANNUAL MEAN					468	1928
LOWEST ANNUAL MEAN					122	1965
HIGHEST DAILY MEAN	7500	Nov 9	7500	Nov 9	8400	Oct 1 1924
LOWEST DAILY MEAN	61	Sep 8	49	Aug 10	12	Sep 19 1957
ANNUAL SEVEN-DAY MINIMUM	66	Sep 2	56	Aug 6	20	Sep 23 1941
ANNUAL RUNOFF (CFSM)	1.85		1.47		1.08	
ANNUAL RUNOFF (INCHES)	25.13		19.90		14.68	
10 PERCENT EXCEEDS	1010		846		689	
50 PERCENT EXCEEDS	303		270		150	
90 PERCENT EXCEEDS	92		77		60	

ST. LAWRENCE RIVER BASIN

04276770 MILL BROOK AT PORT HENRY, NY

LOCATION.--Lat 44°03'09", long 73°28'47", Essex County, Hydrologic Unit 02010001, on left bank 30 ft downstream from bridge on Forge Hollow Road, and 2.0 mi upstream from mouth at Port Henry.

DRAINAGE AREA.--27.0 mi².

PERIOD OF RECORD.--Occasional low-flow and/or miscellaneous discharge measurements, water year 1966. March 1990 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 150 ft above sea level, from topographic map.

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

AVERAGE DISCHARGE.--7 years, 34.4 ft³/s, 17.31 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,290 ft³/s, Jan. 19, 1996, gage height, 4.97 ft, from rating curve extended above 370 ft³/s; minimum discharge, 1.9 ft³/s, July 5, 1995; minimum gage height, 0.65 ft, Aug. 8, 9, 1997.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 2	0730	*688	*3.85	No other peak greater than base discharge.			

Minimum discharge, 2.9 ft³/s, Aug. 8, 9, gage height, 0.65 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.5	15	48	e38	e17	47	e120	102	32	7.1	4.5	6.2
2	7.1	14	429	e36	e17	64	e110	103	29	7.1	4.3	5.2
3	7.1	13	171	e34	e16	e58	e100	95	22	10	4.6	7.6
4	6.2	12	117	36	e16	e52	e130	114	20	10	4.6	5.5
5	6.1	12	91	45	e16	e49	e160	88	18	8.3	4.0	4.5
6	6.0	12	75	49	e16	e45	e220	80	17	7.4	3.8	4.0
7	6.2	12	64	e35	e16	e41	e280	76	16	6.9	3.5	4.5
8	6.3	13	e56	e30	e17	e38	e220	62	15	6.5	3.3	4.8
9	11	188	e52	e26	e20	e36	e160	59	13	17	3.2	4.2
10	11	93	50	e24	e27	e34	e120	65	13	13	4.2	3.8
11	11	64	46	e22	e17	e32	e100	56	12	9.7	5.7	4.0
12	8.8	50	43	e21	e14	e30	e90	52	13	8.4	6.8	7.2
13	8.5	40	45	e20	e13	e29	e84	48	13	7.7	23	5.5
14	8.0	34	55	e19	e13	e27	e80	43	12	7.3	15	5.3
15	7.4	29	58	e19	e13	e30	78	43	11	22	8.8	4.8
16	7.5	25	54	e18	e13	e28	77	49	10	31	8.3	4.1
17	7.6	26	59	e18	e13	e27	85	46	13	15	7.7	3.7
18	7.3	26	64	e18	e14	e26	90	40	17	12	6.5	3.8
19	7.4	38	60	e19	e16	e25	105	41	28	9.7	5.2	3.5
20	11	37	54	e20	e20	e23	106	40	16	8.6	4.4	4.4
21	59	32	42	e23	25	e22	104	36	14	8.1	18	5.8
22	57	29	e40	e26	54	e22	102	34	13	7.9	20	4.9
23	34	26	e39	e27	62	e21	96	31	11	6.9	10	4.7
24	29	23	77	e28	44	e20	88	29	11	6.3	7.4	4.9
25	21	22	79	e30	69	e20	81	28	11	5.8	5.9	4.7
26	17	23	53	e26	51	e30	75	26	10	5.8	8.5	4.7
27	16	e21	51	e23	56	e40	67	24	8.9	6.5	12	4.6
28	15	e20	47	e21	64	e56	147	22	8.1	7.4	9.0	4.2
29	14	e20	e44	e19	---	e80	162	21	7.9	6.1	7.0	22
30	16	21	e42	e18	---	e110	112	20	7.5	5.0	6.1	15
31	18	---	e40	e18	---	e130	---	22	---	4.6	5.1	---
TOTAL	455.0	990	2245	806	749	1292	3549	1595	442.4	295.1	240.4	172.1
MEAN	14.7	33.0	72.4	26.0	26.8	41.7	118	51.5	14.7	9.52	7.75	5.74
MAX	59	188	429	49	69	130	280	114	32	31	23	22
MIN	6.0	12	39	18	13	20	67	20	7.5	4.6	3.2	3.5
CFSM	.54	1.22	2.68	.96	.99	1.54	4.38	1.91	.55	.35	.29	.21
IN.	.63	1.36	3.09	1.11	1.03	1.78	4.89	2.20	.61	.41	.33	.24

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

	1990	1991	1992	1993	1994	1995	1996	1997
MEAN	22.4	36.9	35.9	35.0	20.6	51.0	115	52.8
MAX	55.1	77.5	72.4	77.5	38.4	98.2	223	95.0
(WY)	1991	1996	1997	1996	1996	1990	1993	1990
MIN	7.14	13.7	15.7	10.3	9.08	18.6	31.9	17.8
(WY)	1995	1994	1994	1994	1992	1993	1995	1995

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1990 - 1997

ANNUAL TOTAL	17176.9	12831.0	
ANNUAL MEAN	46.9	35.2	34.4
HIGHEST ANNUAL MEAN			48.6
LOWEST ANNUAL MEAN			20.1
HIGHEST DAILY MEAN	460	Jan 19	915
LOWEST DAILY MEAN	5.5	Sep 22	2.1
ANNUAL SEVEN-DAY MINIMUM	6.2	Sep 1	2.4
ANNUAL RUNOFF (CFSM)	1.74		1.27
ANNUAL RUNOFF (INCHES)	23.67		17.31
10 PERCENT EXCEEDS	100		84
50 PERCENT EXCEEDS	30		19
90 PERCENT EXCEEDS	8.1		6.0

e Estimated

ST. LAWRENCE RIVER BASIN

301

04276842 PUTNAM CREEK EAST OF CROWN POINT CENTER, NY

LOCATION.--Lat 43°56'31", long 73°27'54", Essex County, Hydrologic Unit 02010001, on right bank 200 ft upstream from bridge at Fish Hatchery, 200 ft downstream from Rennie Brook, and 0.2 mi east of Crown Point Center.

DRAINAGE AREA.--51.6 mi².

PERIOD OF RECORD.--Occasional low-flow and/or miscellaneous discharge measurements, water year 1966. March 1990 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 220 ft above sea level, from topographic map.

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

AVERAGE DISCHARGE.--7 years, 74.7 ft³/s, 19.68 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 2,500 ft³/s, Apr. 17, 1993, gage height, 7.5 ft, from reconstructed graph, outside gage height was 8.14 ft, from crest-stage gage; minimum discharge, 0.53 ft³/s, July 14, 15, 1995; minimum gage height, 3.02 ft, July 26, 1993.

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)
Dec. 2	1545	*1,440	a*6.87	No other peak greater than base discharge.			

a Recorded; outside gage height was 7.28 ft, from crest-stage gage.

Minimum recorded discharge, 1.7 ft³/s, Aug. 9, 10, 11, 13, gage height, 3.58 ft, but may have been less during period of estimated record Aug. 11-13.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	41	70	70	e33	148	268	208	47	5.4	2.8	14
2	12	36	1120	75	e32	161	238	220	50	5.0	2.8	12
3	11	32	807	77	e31	166	213	200	44	6.1	2.5	13
4	9.1	30	383	73	e31	139	254	236	38	7.5	2.2	12
5	8.5	27	255	80	e31	118	300	201	32	6.6	3.1	11
6	8.1	26	194	100	e30	e96	448	180	28	6.1	2.7	9.7
7	7.6	25	e160	e80	e30	e86	650	217	25	5.6	2.4	9.3
8	7.3	27	e140	e64	e30	e76	544	192	23	5.2	2.1	8.8
9	11	188	123	e50	e32	e70	335	165	20	11	1.8	8.3
10	12	239	105	e47	e34	e66	244	175	18	11	1.8	7.7
11	15	191	92	e45	e30	e62	198	166	15	9.1	e1.8	7.4
12	14	139	86	e44	e28	e60	169	145	14	7.8	e1.8	9.2
13	13	104	85	e42	e25	58	169	129	13	6.7	e7.0	8.2
14	12	80	98	e40	e25	56	170	111	11	5.9	8.1	8.4
15	11	64	107	e39	e25	66	157	103	11	9.2	6.0	8.6
16	10	53	103	e37	e25	61	146	111	9.7	41	6.3	8.8
17	9.6	49	107	e36	e25	57	144	110	10	27	7.4	8.3
18	9.2	48	121	e36	e26	53	158	98	13	19	6.5	8.6
19	11	58	128	e37	e28	50	205	93	22	13	5.7	e8.0
20	21	64	126	e39	e37	e47	231	95	20	9.8	5.2	e9.6
21	105	59	105	43	e54	e46	225	85	18	9.0	13	e11
22	163	53	95	46	121	e45	208	79	16	8.7	22	e6.8
23	146	48	88	50	153	e44	190	72	13	7.3	20	e6.4
24	123	44	130	47	140	44	174	66	12	5.9	16	e6.2
25	98	40	201	53	110	43	161	60	11	5.1	12	e6.0
26	75	e38	e140	59	97	60	145	55	9.6	4.3	9.9	e5.8
27	60	e37	e110	50	132	71	129	50	8.2	4.0	10	e5.8
28	51	37	e96	e40	165	98	223	45	7.3	4.0	22	e5.6
29	43	37	e88	e38	---	156	306	42	6.8	3.7	28	e12
30	42	36	e84	e36	---	267	244	38	6.1	3.3	21	e14
31	46	---	e80	e34	---	319	---	37	---	3.0	16	---
TOTAL	1177.4	1950	5627	1607	1560	2889	7246	3784	571.7	276.3	269.9	270.5
MEAN	38.0	65.0	182	51.8	55.7	93.2	242	122	19.1	8.91	8.71	9.02
MAX	163	239	1120	100	165	319	650	236	50	41	28	14
MIN	7.3	25	70	34	25	43	129	37	6.1	3.0	1.8	5.6
CFM	.74	1.26	3.52	1.00	1.08	1.81	4.68	2.37	.37	.17	.17	.17
IN.	.85	1.41	4.06	1.16	1.12	2.08	5.22	2.73	.41	.20	.19	.20

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

	1990	1991	1992	1993	1994	1995	1996	1997
MEAN	51.6	81.0	88.4	82.7	44.7	114	272	114
MAX	128	167	188	211	75.7	210	566	214
(WY)	1991	1991	1991	1996	1991	1990	1993	1990
MIN	7.06	29.5	43.1	22.1	17.8	48.9	64.7	32.0
(WY)	1995	1995	1996	1994	1992	1993	1995	1995

e Estimated

ST. LAWRENCE RIVER BASIN

04276842 PUTNAM CREEK EAST OF CROWN POINT CENTER, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1990 - 1997	
ANNUAL TOTAL	36310.0		27228.8			
ANNUAL MEAN	99.2		74.6		74.7	
HIGHEST ANNUAL MEAN					100 1996	
LOWEST ANNUAL MEAN					40.5 1995	
HIGHEST DAILY MEAN	1500	Jan 20	1120	Dec 2	2200	Apr 17 1993
LOWEST DAILY MEAN	5.0	Sep 7	1.8	Aug 9		Jul 15 1995
ANNUAL SEVEN-DAY MINIMUM	5.9	Sep 2	2.1	Aug 6		Jul 10 1995
ANNUAL RUNOFF (CFSM)	1.92		1.45			1.45
ANNUAL RUNOFF (INCHES)	26.18		19.63			19.68
10 PERCENT EXCEEDS	249		189			187
50 PERCENT EXCEEDS	48		40			36
90 PERCENT EXCEEDS	9.2		6.3			6.4

ST. LAWRENCE RIVER BASIN

303

04278000 LAKE GEORGE AT ROGERS ROCK, NY

LOCATION.--Lat 43°48'28", long 73°27'30", Essex County, Hydrologic Unit 02010001, on west shore about 500 ft north of Hooper's dock at Rogers Rock, and 0.4 mi west of Baldwin.

DRAINAGE AREA.--233 mi² at outlet at Ticonderoga.

PERIOD OF RECORD.--July 1913 to current year.

REVISED RECORDS.--WDR NY-87-1: Datum.

GAGE.--Water-stage recorder. Datum of gage is 316.06 ft above sea level, adjustment of 1912. Prior to Nov. 4, 1929, nonrecording gages at several sites within a half mile of present site at same datum. Nov. 4, 1929 to Sept. 26, 1936, nonrecording gage at present site and datum.

REMARKS.--Elevation of lake regulated by floodgates at Ticonderoga. Prior to October 1974, lake was regulated by powerplant wheel gate and floodgates. Lake George has been controlled by a dam at its outlet for more than 100 years. Area of water surface is 44 mi². Telephone gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height observed, 5.09 ft, Apr. 9, 1936; minimum, 0.64 ft, Dec. 20, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 4.14 ft, Dec. 3; minimum, 2.88 ft, Feb. 21.

**GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.47	3.36	3.49	3.47	3.26	3.22	3.61	3.96	3.77	3.68	3.50	3.55
2	3.50	3.32	3.92	3.45	3.24	3.25	3.64	3.93	3.78	3.68	3.47	3.58
3	3.44	3.31	4.08	3.39	3.21	3.23	3.68	3.88	3.77	3.71	3.40	3.57
4	3.39	3.31	4.08	3.37	3.21	3.26	3.71	3.96	3.77	3.75	3.41	3.56
5	3.39	3.26	4.06	3.38	3.25	3.27	3.76	3.93	3.77	3.69	3.42	3.55
6	3.40	3.27	4.04	3.39	3.23	3.36	3.83	3.93	3.78	3.68	3.43	3.53
7	3.39	3.30	4.02	3.36	3.19	3.37	3.91	3.93	3.78	3.66	3.44	3.47
8	3.35	3.35	4.02	3.31	3.14	3.34	3.95	3.88	3.77	3.64	3.42	3.43
9	3.37	3.44	3.97	3.26	3.13	3.33	3.93	3.87	3.78	3.62	3.40	3.45
10	3.39	3.49	3.93	3.32	3.10	3.35	3.89	3.90	3.80	3.64	3.42	3.44
11	3.41	3.52	3.87	3.31	3.07	3.33	3.88	3.91	3.79	3.65	3.41	3.44
12	3.42	3.50	3.80	3.32	3.05	3.31	3.85	3.90	3.78	3.63	3.34	3.51
13	3.42	3.48	3.80	3.29	3.01	3.28	3.88	3.88	3.77	3.63	3.44	3.51
14	3.41	3.44	3.77	3.28	3.00	3.30	3.87	3.87	3.73	3.62	3.43	3.50
15	3.38	3.40	3.76	3.29	3.03	3.34	3.86	3.83	3.74	3.64	3.44	3.51
16	3.38	3.41	3.76	3.31	3.01	3.31	3.86	3.85	3.77	3.68	3.47	3.44
17	3.35	3.41	3.72	3.32	3.03	3.30	3.83	3.84	3.73	3.68	3.41	3.48
18	3.36	3.42	3.70	3.22	3.02	3.24	3.81	3.84	3.72	3.66	3.39	3.47
19	3.32	3.43	3.67	3.22	2.99	3.23	3.87	3.84	3.76	3.64	3.38	3.48
20	3.32	3.46	3.72	3.20	2.95	3.20	3.91	3.86	3.75	3.61	3.37	3.44
21	3.40	3.44	3.66	3.17	2.93	3.18	3.91	3.83	3.76	3.60	3.39	3.44
22	3.44	3.41	3.61	3.19	2.96	3.17	3.90	3.82	3.76	3.56	3.49	3.45
23	3.43	3.42	3.57	3.16	3.02	3.15	3.89	3.79	3.73	3.54	3.50	3.40
24	3.46	3.36	3.61	3.17	3.05	3.12	3.89	3.79	3.73	3.54	3.48	3.38
25	3.44	3.39	3.64	3.24	3.05	3.11	3.90	3.79	3.74	3.52	3.46	3.38
26	3.42	3.37	3.62	3.25	3.05	3.15	3.91	3.77	3.73	3.53	3.46	3.32
27	3.43	3.40	3.57	3.24	3.10	3.15	3.92	3.77	3.68	3.53	3.47	3.32
28	3.43	3.42	3.57	3.29	3.18	3.15	3.99	3.78	3.71	3.55	3.55	3.33
29	3.37	3.41	3.56	3.28	---	3.20	4.00	3.78	3.70	3.50	3.55	3.38
30	3.38	3.42	3.50	3.27	---	3.35	3.98	3.79	3.70	3.50	3.56	3.43
31	3.39	---	3.43	3.27	---	3.50	---	3.76	---	3.49	3.56	---
MEAN	3.40	3.40	3.76	3.29	3.09	3.26	3.86	3.85	3.75	3.61	3.45	3.46
MAX	3.50	3.52	4.08	3.47	3.26	3.50	4.00	3.96	3.80	3.75	3.56	3.58
MIN	3.32	3.26	3.43	3.16	2.93	3.11	3.61	3.76	3.68	3.49	3.34	3.32

CAL YR 1996 MEAN 3.60 MAX 4.34 MIN 3.15
WTR YR 1997 MEAN 3.52 MAX 4.08 MIN 2.93

ST. LAWRENCE RIVER BASIN

04278300 NORTHWEST BAY BROOK NEAR BOLTON LANDING, NY

LOCATION.--Lat 43°39'48", long 73°36'14", Warren County, Hydrologic Unit 02010001, on left bank 10 ft downstream from county bridge on Padanarum Road, 7.7 mi north of Bolton Landing.

DRAINAGE AREA.--22.0 mi².

PERIOD OF RECORD.--October 1965 to September 1968, October 1968 to September 1971 (annual maximum only), October 1971 to September 1997 (discontinued).

REVISED RECORDS.--WDR NY-90-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 423.60 ft above sea level. Prior to Oct. 1, 1973, at datum 1.00 ft higher.

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

AVERAGE DISCHARGE.--29 years (water years 1966-68, 1972-97), 35.8 ft³/s, 22.12 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,950 ft³/s, Jan. 19, 1996, gage height, 6.57 ft, from rating curve extended above 590 ft³/s on basis of slope-area measurement at gage height 5.53 ft; maximum gage height, 7.14 ft, Feb. 11, 1981 (ice jam); minimum discharge, 0.28 ft³/s, Sept. 27, 28, 29, 1968, gage height, 0.18 ft, present datum.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 9	1700	828	4.54	Dec. 2	0400	a*1,450	*5.76

a From rating curve extended as explained above.

Minimum discharge, 0.72 ft³/s, Aug. 10, 11, 12, 13, gage height, 0.60 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	20	109	e40	e15	76	134	56	19	2.0	.96	6.7
2	9.0	19	831	39	e14	77	109	55	17	1.8	.92	5.2
3	8.3	17	213	38	e13	79	110	61	15	2.0	1.0	11
4	6.8	16	128	33	e13	60	164	90	13	2.7	1.0	8.0
5	6.1	15	96	39	e14	52	179	65	12	2.3	1.7	5.5
6	5.9	14	77	52	e14	e45	257	77	10	1.8	1.4	4.4
7	5.5	14	65	39	e13	e42	275	91	9.2	1.6	1.0	4.9
8	5.1	15	61	e35	e13	e40	168	67	8.5	1.5	.91	5.0
9	13	303	53	e33	e12	e37	106	67	7.7	4.8	.85	4.0
10	14	172	46	e31	e12	e35	84	86	7.1	4.8	.80	3.6
11	22	89	42	29	e11	e33	69	71	6.3	2.8	.82	3.6
12	15	61	40	27	e11	e31	62	60	5.7	2.1	.87	10
13	13	48	42	26	e11	e30	73	54	5.6	1.7	2.7	6.8
14	11	40	49	24	e10	e29	68	47	5.0	1.6	2.6	5.4
15	9.7	33	54	23	e10	e27	59	43	4.4	2.9	1.8	4.6
16	9.1	e28	50	e22	e9.6	e26	56	42	3.9	6.2	1.6	4.0
17	9.2	26	54	e20	e9.6	e25	57	39	4.8	3.1	1.8	3.4
18	9.0	25	67	e19	e10	e23	61	35	6.1	3.5	1.5	3.5
19	8.5	34	60	e19	e11	e22	85	36	11	5.1	1.2	3.0
20	18	34	51	e19	e13	e21	89	36	7.0	3.4	1.0	4.3
21	66	29	43	20	e15	e19	77	31	5.6	3.0	4.9	5.2
22	61	26	39	21	e60	e18	69	31	5.0	2.9	7.5	3.8
23	47	24	38	e21	e200	e18	58	27	4.2	2.2	3.9	3.4
24	45	22	66	e20	e45	e19	51	25	3.9	1.8	2.7	3.0
25	36	21	99	e25	139	20	46	24	5.0	1.5	2.1	2.8
26	28	26	66	e21	108	25	41	22	4.4	1.3	1.8	2.7
27	24	e21	54	e20	110	32	37	19	3.6	1.3	2.1	2.5
28	22	e20	47	e19	150	58	72	17	3.0	1.9	14	2.4
29	20	e19	e44	e18	---	161	81	16	2.7	1.7	21	7.8
30	21	20	e42	e17	---	255	61	15	2.3	1.2	18	8.2
31	24	---	e39	e16	---	208	---	15	---	1.1	8.7	---
TOTAL	603.2	1251	2765	825	1066.2	1643	2858	1420	218.0	77.6	113.13	148.7
MEAN	19.5	41.7	89.2	26.6	38.1	53.0	95.3	45.8	7.27	2.50	3.65	4.96
MAX	66	303	831	52	200	255	275	91	19	6.2	21	11
MIN	5.1	14	38	16	9.6	18	37	15	2.3	1.1	.80	2.4
CFSM	.88	1.90	4.05	1.21	1.73	2.41	4.33	2.08	.33	.11	.17	.23
IN.	1.02	2.12	4.68	1.39	1.80	2.78	4.83	2.40	.37	.13	.19	.25

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1997, BY WATER YEAR (WY)

	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997		
MEAN	25.3	40.5	41.7	33.2	30.8	72.7	89.6	47.5	18.5	9.65	10.4	9.93																						
MAX	83.6	93.9	131	92.6	168	187	176	95.0	43.4	32.1	62.4	45.5																						
(WY)	1978	1973	1974	1996	1981	1979	1994	1983	1968	1972	1990	1975																						
MIN	1.65	6.22	15.3	5.08	5.81	23.5	27.1	11.1	3.38	1.71	.93	.89																						
(WY)	1983	1983	1989	1981	1977	1967	1995	1987	1988	1977	1985	1982																						

e Estimated

ST. LAWRENCE RIVER BASIN

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04278300 NORTHWEST BAY BROOK NEAR BOLTON LANDING, NY--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1966 - 1997
ANNUAL TOTAL	16219.0	12988.83	
ANNUAL MEAN	44.3	35.6	35.8
HIGHEST ANNUAL MEAN			50.8 1990
LOWEST ANNUAL MEAN			20.1 1995
HIGHEST DAILY MEAN	831 Dec 2	831 Dec 2	1300 Mar 6 1979
LOWEST DAILY MEAN	2.4 Sep 7	.80 Aug 10	.42 Sep 28 1968
ANNUAL SEVEN-DAY MINIMUM	3.4 Aug 20	.95 Aug 6	.56 Sep 8 1982
ANNUAL RUNOFF (CFSM)	2.01	1.62	1.63
ANNUAL RUNOFF (INCHES)	27.42	21.96	22.12
10 PERCENT EXCEEDS	94	77	82
50 PERCENT EXCEEDS	23	19	17
90 PERCENT EXCEEDS	5.7	2.1	2.6

LOCATION.--Lat 43°37'40", long 73°18'50", Rutland County, Hydrologic Unit 02010001, on right bank 0.3 mi downstream from Carver Falls, 1.9 mi upstream from Hubbardton River, and 3.2 mi northwest of Fair Haven.

DRAINAGE AREA.--187 mi².

PERIOD OF RECORD.--Discharge records: October 1928 to current year.

Water-quality records: Water year 1954.

REVISED RECORDS.--WSP 1114: 1929(M), 1932-35.

GAGE.--Water-stage recorder. Elevation of gage is 105 ft above sea level, from topographic map.

REMARKS.--Records fair except for periods of estimated daily discharges and Oct. 3 to Nov. 30, which are poor. Flow regulated by powerplant upstream and Lake Bomoseen.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,800 ft³/s, July 20, 1945, gage height, 24.36 ft, from high-water mark in well, from rating curve extended above 2,600 ft³/s on basis of computations of flow over dam at gage heights 16.10 ft, 21.40 ft, and 24.36 ft; minimum daily discharge, 2.1 ft³/s, Aug. 8, 1965, Sept. 13, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 2	2315	*4.860	*15.19	No other peak greater than base discharge.			

Minimum daily discharge, 12 ft³/s, Aug. 20, 26, Sept. 20.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	124	244	e338	e143	1130	1670	355	138	35	18	45
2	47	123	2760	e295	e140	983	1340	379	156	26	13	e25
3	48	112	2890	e260	e120	904	1210	369	133	53	14	e34
4	46	125	1520	e250	e120	510	1120	629	141	68	14	e38
5	28	99	1200	e248	e130	425	1120	478	151	53	15	e40
6	36	88	998	e295	e148	421	1220	418	110	49	25	e25
7	41	90	882	e285	e151	403	1280	669	72	39	24	e15
8	38	87	776	286	e149	e375	1070	654	78	25	13	e15
9	42	172	406	292	e128	e345	858	585	70	42	13	e40
10	82	262	352	281	e148	e325	698	634	69	40	13	e25
11	137	191	370	302	e133	e300	420	621	68	40	13	e15
12	106	183	358	279	e126	e270	359	520	57	41	13	e15
13	74	172	449	272	e127	259	402	433	59	25	14	e15
14	71	162	443	259	e113	178	365	393	58	25	32	e23
15	61	142	448	262	e110	e205	308	340	54	48	33	e28
16	70	140	406	241	e107	e190	280	280	39	67	22	22
17	40	122	391	e175	e102	e205	274	281	35	49	22	21
18	67	132	435	e135	e100	e230	349	261	71	52	20	23
19	40	144	453	e150	e119	208	502	244	219	51	15	18
20	66	173	463	e157	339	182	540	251	225	47	12	12
21	116	165	406	e156	348	169	551	233	94	37	13	17
22	220	142	342	e147	822	183	481	206	82	25	36	34
23	212	148	331	e113	1550	159	427	217	57	34	22	33
24	182	141	410	e138	861	147	369	204	68	38	22	30
25	107	139	1090	e143	516	153	328	182	65	35	19	18
26	83	154	708	e150	483	235	294	144	54	39	12	13
27	88	213	620	e150	913	358	262	185	49	32	14	15
28	80	149	563	e150	1870	540	303	157	45	28	123	15
29	82	160	522	e150	---	1020	420	112	41	26	147	37
30	128	166	510	e150	---	1950	415	109	41	23	79	47
31	131	---	368	e149	---	2040	---	118	---	22	57	---
TOTAL	2626	4420	22114	6658	10116	15002	19235	10661	2599	1214	902	753
MEAN	84.7	147	713	215	361	484	641	344	86.6	39.2	29.1	25.1
MAX	220	262	2890	338	1870	2040	1670	669	225	68	147	47
MIN	28	87	244	113	100	147	262	109	35	22	12	12
CFSM	.45	.79	3.81	1.15	1.93	2.59	3.43	1.84	.46	.21	.16	.13
IN.	.52	.88	4.40	1.32	2.01	2.98	3.83	2.12	.52	.24	.18	.15

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1997. BY WATER YEAR (WY)

MEAN	142	226	263	254	258	521	675	323	159	104	80.3	91.1
MAX	721	760	1018	897	800	1627	1441	902	776	639	629	666
(WY)	1978	1973	1984	1996	1984	1986	1977	1983	1947	1976	1976	1938
MIN	18.2	21.4	38.4	42.0	26.8	113	231	71.5	19.4	7.08	3.94	8.19
(WY)	1974	1965	1965	1931	1980	1940	1966	1941	1965	1965	1965	1995

e Estimated

ST. LAWRENCE RIVER BASIN

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04280000 POULTNEY RIVER BELOW FAIR HAVEN, VT--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1929 - 1997	
ANNUAL TOTAL	143833		96300		258	
ANNUAL MEAN	393		264		527	1976
HIGHEST ANNUAL MEAN					66.9	1965
LOWEST ANNUAL MEAN					7010	Jan 20 1996
HIGHEST DAILY MEAN	7010	Jan 20	2890	Dec 3	b 2.1	Aug 8 1965
LOWEST DAILY MEAN	22	Sep 21	a 12	Aug 20	3.0	Aug 13 1965
ANNUAL SEVEN-DAY MINIMUM	31	Sep 17	15	Aug 7	c 14800	Jul 20 1945
INSTANTANEOUS PEAK FLOW			c 4860	Dec 2	d 24.36	Jul 20 1945
INSTANTANEOUS PEAK STAGE			15.19	Dec 2	1.38	
ANNUAL RUNOFF (CFSM)	2.10		1.41		18.73	
ANNUAL RUNOFF (INCHES)	28.61		19.16		612	
10 PERCENT EXCEEDS	971		599		135	
50 PERCENT EXCEEDS	182		144		28	
90 PERCENT EXCEEDS	48		22			

a Also occurred on Aug. 26 and Sept. 20.

b Also occurred on Sept. 13, 1977.

c From rating curve extended above 2,600 ft³/s as explained in 'EXTREMES FOR PERIOD OF RECORD' paragraph.

d From high-water mark in well.

ST. LAWRENCE RIVER BASIN

04280450 METTAWEE RIVER NEAR MIDDLE GRANVILLE, NY

LOCATION.--Lat 43°27'50", long 73°17'05", Washington County, Hydrologic Unit 02010001, on right bank 110 ft downstream from bridge on County Highway 21 and 2.2 mi north of Middle Granville.

DRAINAGE AREA.--167 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1990 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 320 ft above sea level, from topographic map.

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

AVERAGE DISCHARGE.--7 years, 257 ft³/s, 20.89 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,600 ft³/s, revised, Jan. 20, 1996, gage height, 10.69 ft, minimum discharge, 8.9 ft³/s, Sept. 7, 1995, gage height, 2.81 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 31, 1984, reached a discharge of 5,380 ft³/s, on basis of slope-area measurement of peak flow 2.8 mi upstream at Middle Granville (drainage area 156 mi²).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 2	1415	*4,920	*9.00	Mar. 29	2145	2,190	6.76

Minimum discharge, 12 ft³/s, Aug. 11, 12, gage height, 2.90 ft.

REVISIONS.--Peak, daily, monthly, and yearly discharges have been revised as shown in the following tables. They supersede figures published in WDR NY Vol. 1, 1993, 1994, 1996.

Revised peak discharges that were previously at or above 2,000 ft³/s for 1993, 1994, and 1996 water years are given herewith:

Water year	Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Water year	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
1993	Mar. 29, 1993	2045	*4,310	8.56	1994	Apr. 14, 1994	0315	3,340	7.80
1994	Apr. 7, 1994	1315	*3,410	7.86	1996	Jan. 20, 1996	0130	*7,600	10.69

* Denotes maximum for the water year.

Revised daily discharges, in cubic feet per second, for 1993 and 1996 water years are given herewith:

Water year	Date	Discharge
1993	Mar. 29	3,060
1993	Mar. 30	4,160
1996	Jan. 20	3,880

Revised monthly and yearly discharges, in cubic feet per second, for 1993 and 1996 water years are given herewith:

	TOTAL	MEAN	MAX	MIN	CFSM	IN.
MAR 1993	16284	525	4160	70	3.15	3.63
WTR YR 1993	92446	253	4160	20	1.52	20.59
CAL YR 1993	90793	249	4160	20	1.49	20.22
JAN 1996	18993	613	3880	54	3.67	4.23
WTR YR 1996	124098	339	3880	13	2.03	27.64

ST. LAWRENCE RIVER BASIN

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04280450 METTAWEE RIVER NEAR MIDDLE GRANVILLE, NY--Continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	87	682	e400	e160	637	1330	412	217	49	19	35
2	52	83	3480	e390	e150	682	1060	456	205	45	18	32
3	47	79	1920	e420	e140	628	944	517	175	55	17	37
4	45	75	1210	415	e140	515	940	812	157	81	17	39
5	42	73	921	431	e160	461	885	605	144	59	22	31
6	41	71	758	557	e170	541	929	598	131	51	21	28
7	40	70	645	443	e150	465	965	751	121	45	18	26
8	40	71	617	e380	e120	e380	825	607	116	41	16	26
9	81	156	541	e360	e110	e350	667	546	107	43	15	24
10	90	191	477	e340	e110	e340	558	681	98	61	14	22
11	122	148	431	323	e100	331	495	590	90	49	12	21
12	94	133	426	e300	e100	e280	448	515	102	41	13	31
13	79	121	529	e290	e110	e260	519	486	127	36	21	34
14	74	112	503	e270	e130	e250	450	442	92	33	27	35
15	72	104	497	241	e130	e270	396	410	80	36	21	30
16	67	e94	457	329	e110	e260	366	426	73	50	19	27
17	74	e92	453	e310	e120	e250	348	398	81	42	17	24
18	70	93	512	e210	e150	228	415	360	113	46	16	23
19	65	107	512	e220	e300	212	457	347	215	55	15	22
20	66	119	481	e230	e500	208	468	393	148	42	13	23
21	126	117	419	e250	e430	200	548	340	113	37	19	27
22	136	110	380	e230	1490	e230	564	334	96	38	27	25
23	124	105	363	e340	848	e210	535	303	83	33	28	23
24	114	101	633	e240	e520	198	501	277	83	30	24	24
25	105	97	1290	e250	e390	191	463	259	87	28	20	22
26	96	196	772	e280	e400	574	415	244	78	27	18	21
27	89	249	657	e200	967	604	378	220	70	25	20	21
28	88	e190	585	e200	908	879	495	201	62	29	98	19
29	88	e180	575	e190	---	1560	510	187	56	25	81	30
30	85	161	594	e180	---	1850	433	175	52	22	55	50
31	95	---	e450	e170	---	1700	---	170	---	21	41	---
TOTAL	2466	3585	22770	9389	9113	15744	18307	13062	3372	1275	782	832
MEAN	79.5	120	735	303	325	508	610	421	112	41.1	25.2	27.7
MAX	136	249	3480	557	1490	1850	1330	812	217	81	98	50
MIN	40	70	363	170	100	191	348	170	52	21	12	19
CFSM	.48	.72	4.40	1.81	1.95	3.04	3.65	2.52	.67	.25	.15	.17
IN.	.55	.80	5.07	2.09	2.03	3.51	4.08	2.91	.75	.28	.17	.19

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

MEAN	123	262	354	330	212	474	635	380	125	109	95.2	48.9
MAX	308	455	735	613	325	667	1163	776	175	400	220	94.4
(WY)	1991	1991	1997	1996	1997	1990	1994	1996	1990	1996	1994	1994
MIN	63.6	79.2	115	179	116	243	238	135	66.4	24.5	25.2	16.8
(WY)	1993	1995	1996	1994	1992	1992	1995	1995	1991	1995	1997	1995

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1990 - 1997	
ANNUAL TOTAL	133594		100697		257	
ANNUAL MEAN	365		276		155	
HIGHEST ANNUAL MEAN					339	
LOWEST ANNUAL MEAN					155	
HIGHEST DAILY MEAN	3880	Jan 20	3480	Dec 2	4160	Mar 30 1993
LOWEST DAILY MEAN	35	Sep 21	12	Aug 11	9.8	Sep 7 1995
ANNUAL SEVEN-DAY MINIMUM	39	Sep 16	16	Aug 6	13	Sep 2 1995
ANNUAL RUNOFF (CFSM)	2.19		1.65		1.54	
ANNUAL RUNOFF (INCHES)	29.76		22.43		20.89	
10 PERCENT EXCEEDS	1000		606		585	
50 PERCENT EXCEEDS	179		148		157	
90 PERCENT EXCEEDS	53		24		35	

e Estimated

ST. LAWRENCE RIVER BASIN

04280450 METTAWEE RIVER NEAR MIDDLE GRANVILLE, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1997.

PESTICIDE DATA: 1997 (a).

REMARKS.--A complete list of compounds included when pesticides analysis was performed on samples follows the Introduction to the Hudson NAWQA section near the end of this report. Only those compounds detected at or above the method detection limit (MDL) were included in the tables.

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

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)
JUN 12...	1120	84	E0.003	0.019	E0.009	0.022	E0.002

E Estimate.

ST. LAWRENCE RIVER BASIN

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04294500 LAKE CHAMPLAIN AT BURLINGTON, VT

LOCATION.--Lat 44°28'52", long 73°13'27", Chittenden County, Hydrologic Unit 02010003, 50 ft south of Gulf Oil Co. dock at Burlington, 0.1 mi north of Burlington Water Department pumping station, and 0.5 mi north of railroad station.

PERIOD OF RECORD.--Gage heights: May 1907 to current year.

Water-quality records: Water year 1971.

REVISED RECORDS.--WSP 684: 1912-29 (datum correction). WSP 1207: 1938 (datum correction).

GAUGE.--Water-stage recorder. Datum of gage is 92.86 ft above sea level. Prior to July 20, 1937, nonrecording gage at site 0.7 mi south, and July 20, 1937, to Sept. 7, 1939, nonrecording gage at site 0.1 mi south, both at present datum.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 9.00 ft, Apr. 27, 1993; minimum observed, -0.25 ft, Dec. 4, 1908.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 6.21 ft, May 9, affected by seiche; minimum, 1.62 ft, Oct. 20, affected by seiche.

**GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.13	2.43	3.49	4.90	3.72	3.90	4.56	5.93	4.95	3.12	e2.96	2.98
2	2.04	2.42	4.00	4.84	3.68	4.01	4.67	6.01	4.90	e3.11	e2.89	2.95
3	2.05	2.39	4.66	4.81	3.63	4.20	4.75	6.04	4.83	e3.18	e2.82	2.93
4	2.05	2.34	5.05	4.77	3.58	4.31	4.83	6.06	4.75	e3.11	e2.78	2.92
5	2.02	2.35	5.19	4.69	3.56	4.37	4.93	6.06	4.67	e3.03	e2.72	2.89
6	1.92	2.32	5.23	4.73	3.54	4.47	5.03	6.01	4.58	e3.05	e2.72	2.81
7	1.86	2.22	5.21	4.74	3.49	4.46	5.29	6.10	4.50	e3.00	e2.75	2.81
8	1.89	2.27	5.27	4.71	3.46	4.44	5.52	6.16	4.42	e2.93	e2.70	2.80
9	1.89	2.85	5.28	4.68	3.40	4.41	5.66	6.16	4.32	e2.92	e2.65	2.78
10	1.89	3.54	5.25	4.67	3.36	4.33	5.70	6.17	4.23	e2.91	e2.63	2.74
11	1.89	3.82	5.22	4.63	3.33	4.35	5.68	6.17	4.15	e2.94	e2.60	2.69
12	1.84	3.94	5.20	4.58	3.28	4.31	5.67	6.13	4.07	e2.94	e2.57	2.69
13	1.82	3.96	5.15	4.53	3.25	4.26	5.68	6.14	3.99	e2.92	e2.70	2.68
14	1.82	3.97	5.15	4.47	3.18	4.22	5.68	6.11	3.92	e2.89	e2.70	2.66
15	1.79	3.96	5.16	4.40	3.18	4.20	5.66	6.07	3.84	e2.92	e2.80	2.63
16	1.76	3.91	5.08	4.30	3.14	4.15	5.62	6.01	3.71	e3.13	e2.89	2.61
17	1.76	3.88	5.09	4.32	3.10	4.07	5.60	5.91	3.65	e3.37	e2.75	2.56
18	1.70	3.84	5.10	4.27	3.04	4.05	5.64	5.88	3.64	e3.41	e2.72	2.54
19	1.68	3.88	5.11	4.18	3.03	3.98	5.72	5.84	3.62	e3.33	e2.71	2.50
20	1.72	3.89	5.10	4.13	3.04	3.93	5.75	5.75	3.58	e3.31	e2.73	2.53
21	1.88	3.89	5.03	4.12	3.07	3.89	5.80	5.69	3.54	e3.35	e2.78	2.52
22	2.07	3.87	4.94	4.00	3.21	3.87	5.84	5.63	3.53	e3.29	2.80	2.46
23	2.24	3.83	4.93	4.02	3.42	3.81	5.87	5.58	3.51	e3.26	2.87	2.44
24	2.38	3.80	4.85	3.98	3.59	3.75	5.90	5.53	3.48	e3.26	2.90	2.41
25	2.44	3.78	4.95	3.95	3.66	3.66	5.88	5.48	3.42	e3.19	2.92	2.34
26	2.50	3.78	5.01	3.95	3.67	3.63	5.86	5.41	3.38	e3.17	2.92	2.34
27	2.52	3.75	5.01	3.90	3.74	3.61	5.83	5.34	3.34	e3.12	2.90	2.33
28	2.52	3.68	4.95	3.86	3.84	3.63	5.85	5.25	3.27	e3.07	2.92	2.28
29	2.51	3.63	4.96	3.84	---	3.71	5.94	5.17	3.23	e2.98	2.96	2.32
30	2.46	3.52	4.97	3.79	---	4.00	5.96	5.06	3.17	e2.97	2.99	2.35
31	2.45	---	4.97	3.73	---	4.35	---	5.00	---	e2.98	2.97	---
MEAN	2.05	3.39	4.99	4.34	3.40	4.08	5.55	5.80	3.94	3.10	2.80	2.62
MAX	2.52	3.97	5.28	4.90	3.84	4.47	5.96	6.17	4.95	3.41	2.99	2.98
MIN	1.68	2.22	3.49	3.73	3.03	3.61	4.56	5.00	3.17	2.89	2.57	2.28

CAL YR 1996 MEAN 4.31 MAX 8.02 MIN 1.68
WTR YR 1997 MEAN 3.84 MAX 6.17 MIN 1.68

e Estimated

ST. LAWRENCE RIVER BASIN

04295000 RICHELIEU RIVER (LAKE CHAMPLAIN) AT ROUSES POINT, NY

LOCATION.--Lat 44°59'46", long 73°21'37", Clinton County, Hydrologic Unit 02010006, on left bank at outlet of Lake Champlain in Rouses Point, and 1.0 mi south of Fort Montgomery ruins.

DRAINAGE AREA.--8,277 mi².

PERIOD OF RECORD.--October 1863 to December 1870 (maximum and minimum monthly gage heights at St. Johns, Quebec, published in WSP 97) and March 1871 to current year (daily gage heights prior to October 1970, elevations thereafter: those for 1871-1907 published in WSP 894). Gage heights prior to October 1, 1925, published as "Richelieu River at Fort Montgomery, Rouses Point". Discharge records for January 1875 to September 1916 at "Chambly, Quebec," published in WSP 65, 82, 97, 129, 170, 206, 424, and 1307 have been found to be unreliable and should not be used. Daily discharge record for "Richelieu River at Fryers Rapids, Quebec," published in Water Survey of Canada annual reports.

GAUGE.--Water-stage recorder. Datum of gage is sea level. March 1871 to May 1923, nonrecording gage located in Fort Montgomery and May 1923 to October 1938, nonrecording gage at present site. Prior to October 1970, at datum 93.00 ft higher.

REMARKS.--Area of lake surface about 490 mi². Total volume below 92.5 ft elevation, reported by Lake Champlain Studies Center, 902.2 bil ft³. Telephone gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 101.88 ft, Apr. 25, 1993; minimum observed, 92.17 ft, Oct. 23, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known since at least 1827, 102.1 ft, May 4, 1869, from marks at railroad bridge near present gage, according to data published on p. 428 of the Report of the Board of Engineers on Deep Waterways, 1900: U.S. 56th Cong., 2d sess. H. Doc. 149.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 99.25 ft, May 6; minimum, 94.35 ft, Oct. 3, 20.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95.12	95.34	96.63	97.76	96.56	96.85	97.30	98.95	97.78	96.02	95.82	95.85
2	95.32	95.26	96.85	97.68	96.51	96.87	97.47	98.78	97.70	95.97	95.75	95.86
3	94.85	95.21	97.51	97.61	96.46	97.00	97.59	98.94	97.65	96.04	95.68	95.73
4	94.86	95.28	97.81	97.59	96.44	97.17	97.66	98.88	97.58	95.97	95.64	95.71
5	94.88	95.13	97.98	97.67	96.42	97.18	97.76	98.97	97.49	95.89	95.58	95.76
6	95.00	95.22	98.06	97.59	96.36	97.24	97.96	98.97	97.43	95.91	95.58	95.83
7	94.92	95.47	98.20	97.50	96.33	97.28	98.14	98.80	97.34	95.86	95.61	95.67
8	94.72	95.30	98.08	97.45	96.26	97.25	98.34	98.95	97.26	95.79	95.56	95.62
9	94.69	95.72	98.08	97.49	96.24	97.25	98.41	98.98	97.20	95.78	95.51	95.60
10	94.64	96.42	98.12	97.53	96.20	97.28	98.48	98.97	97.12	95.77	95.49	95.63
11	94.68	96.65	98.02	97.48	96.14	97.17	98.52	98.98	97.03	95.80	95.46	95.65
12	94.78	96.74	97.98	97.40	96.13	97.12	98.49	99.04	96.96	95.80	95.43	95.59
13	94.80	96.77	98.01	97.34	96.06	97.07	98.48	98.96	96.89	95.78	95.56	95.54
14	94.59	96.78	97.96	97.32	96.09	97.09	98.44	98.94	96.75	95.75	95.56	95.53
15	94.58	96.73	97.97	97.33	96.01	97.04	98.49	98.90	96.71	95.78	95.66	95.53
16	94.64	96.75	98.16	97.34	95.95	96.98	98.48	98.84	96.88	95.99	95.75	95.44
17	94.53	96.71	97.99	97.13	95.95	96.96	98.38	98.82	96.67	96.23	95.61	95.55
18	94.64	96.65	97.90	---	95.97	96.85	98.26	98.70	96.51	96.27	95.58	95.43
19	94.55	96.70	97.89	---	95.89	96.83	98.40	98.68	96.47	96.19	95.57	95.48
20	94.43	96.72	97.93	---	95.89	96.77	98.56	98.60	96.47	96.17	95.59	95.32
21	94.59	96.70	97.99	---	95.95	96.72	98.61	98.52	96.46	96.21	95.64	95.31
22	94.88	96.66	97.96	97.06	96.02	96.65	98.65	98.37	96.39	96.15	95.68	95.42
23	95.11	96.70	97.84	96.78	96.25	96.63	98.67	98.37	96.35	96.12	95.72	95.32
24	95.25	96.59	97.96	96.86	96.41	96.58	98.65	98.37	96.35	96.12	95.77	95.29
25	95.31	96.58	97.72	96.88	96.52	96.61	98.70	98.28	96.39	96.05	95.79	95.42
26	95.34	96.42	97.91	96.74	96.57	96.50	98.66	98.19	96.25	96.03	95.78	95.19
27	95.38	96.46	97.81	96.78	96.56	96.47	98.65	98.16	96.18	95.98	95.84	95.20
28	95.33	96.53	98.00	96.74	96.66	96.48	98.70	98.10	96.17	95.93	95.85	95.29
29	95.29	96.50	97.81	96.64	---	96.58	98.73	98.03	96.12	95.84	95.82	95.24
30	95.53	96.69	97.67	96.62	---	96.83	98.84	98.02	96.07	95.83	95.80	95.27
31	95.34	---	97.68	96.61	---	97.07	---	97.86	---	95.84	95.83	---
MEAN	94.92	96.25	97.85	---	96.24	96.92	98.35	98.64	96.82	95.96	95.66	95.51
MAX	95.53	96.78	98.20	---	96.66	97.28	98.84	99.04	97.78	96.27	95.85	95.86
MIN	94.43	95.13	96.63	---	95.89	96.47	97.30	97.86	96.07	95.75	95.43	95.19

CAL YR 1996 MEAN 97.16 MAX 100.88 MIN 94.43

LAKES AND RESERVOIRS IN STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

04260990 CRANBERRY LAKE AT CRANBERRY LAKE, NY--Lat 44°13'14", long 74°50'55", St. Lawrence County, Hydrologic Unit 04150302, on right wall at outlet structure, at village of Cranberry Lake. **DRAINAGE AREA**, 140 mi².

PERIOD OF RECORD, April 1923 to current year. **GAGE**, nonrecording gage read daily at 1200 hours. Datum of gage is 1,469.75 ft above sea level.

Dam completed in 1867 and controlled storage for which records are available began in 1923. Usable capacity above elevation 1,475.25 ft is 2,530 mil ft³. Crest at spillway is at elevation, 1,486.43 ft. Length of spillway is 110 ft. Area of water surface at crest elevation is 10.9 mi². Records provided by Oswegatchie River-Cranberry Reservoir Commission.

EXTREMES FOR PERIOD OF RECORD--Maximum contents observed, 2,985 mil ft³, May 13-15, 1971, gage height, 18.5 ft; minimum observed, 70 mil ft³, Apr. 1-4, 1956, gage height, 6.0 ft.

EXTREMES FOR CURRENT YEAR--Maximum contents observed, 2,560 mil ft³, May 5-6, 11-19, gage height, 17.1 ft; minimum observed, 1,364 mil ft³, Mar. 30, gage height, 12.6 ft.

04278000 LAKE GEORGE AT ROGERS ROCK, NY (see station for daily mean gage heights).

04294500 LAKE CHAMPLAIN AT BURLINGTON, VT (see station for daily mean gage heights).

04295000 RICHELIEU RIVER (LAKE CHAMPLAIN) AT ROUSES POINT, NY (see station for daily mean elevations).

MONTH-END GAGE HEIGHT AND CONTENTS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

Date	Gage height (feet) *	Contents (million ft ³)	Change in contents (equivalent in ft ³ /s)
04260990 Cranberry Lake			
Sept. 30	14.7	1,892	
Oct. 31	15.1	1,996	+ 38.8
Nov. 30	15.8	2,184	+ 72.5
Dec. 31	15.7	2,156	- 10.5
CAL YR 1996	-	-	+ 5.88
Jan. 31	14.7	1,892	- 98.6
Feb. 28	14.4	1,814	- 32.2
Mar. 31	13.3	1,532	-105
Apr. 30	16.5	2,380	+327
May 31	16.6	2,410	+ 11.2
June 30	16.6	2,410	0.0
July 31	16.2	2,296	- 42.5
Aug. 31	16.2	2,296	0.0
Sept. 30	15.5	2,100	- 75.6
WTR YR 1997	-	-	+ 6.59

* Gage heights at 2400 hours, by interpolation.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are usually presented in two tables. The first is usually 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. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a third table. No discharge measurements were made at low-flow partial-record stations for the 1997 water year.

Crest-stage partial-record stations

The following table contains annual maximum discharges 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.

Maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1997 maximum		Period of record maximum		Date	Gage height (ft)	Dis- charge (ft ³ /s)
			Date	Gage height (ft)	Date	Gage height (ft)			
Housatonic River basin									
Stony Brook near Dover Plains, NY (01199477)	Lat 41°42'38", long 73°37'18", Dutchess County, Hydrologic Unit 01100005, on town road, 100 ft upstream from mouth, and 2.9 mi southwest of Dover Plains. Drainage area is 1.93 mi ² .	1976-97	10-20-96	1.86	94	4- 4-87	6.40	532	
Hudson River basin									
Arbutus Pond Outlet near Newcomb, NY (01311992)	Lat 43°58'56", long 74°14'09", Essex County, Hydrologic Unit 02020001, on right bank at outlet of Arbutus Pond, 0.4 mi upstream from mouth at Fishing Brook, and 3.7 mi northwest of Newcomb. Drainage area is 1.22 mi ² .	1991-92†, 1993-97	11- 9-96	2.07	24	4-17-94	2.13	26	
Hudson River near Newcomb, NY (01312000)	Lat 43°58'00", long 74°07'55", Essex County, Hydrologic Unit 02020001, on right bank 30 ft downstream from bridge on State Highway 28N, 0.5 mi downstream from outlet of Harris Lake, 2.0 mi east of Newcomb, and 4.0 mi upstream from Wolf Creek. Drainage area is 192 mi ² .	1926-31, 1932-87†, 1988-97	11-10-96	a9.0	a5,900	1- 1-49	11.40	7,440	
Schroon River at Riverbank, NY (01317000)	Lat 43°36'34", long 73°44'17", Warren County, Hydrologic Unit 02020001, on right bank 30 ft upstream from highway bridge, and 11.8 mi down- stream from Schroon Lake, at Riverbank. Drainage area is 527 mi ² .	1908-25, 1926-70†, 1987-97	4- 7-97	6.61	3,620	3-21-36	f12.18	12,100	
Steele Brook at Shushan, NY (01329154)	Lat 43°05'35", long 73°19'38", Washington County, Hydrologic Unit 02020003, at bridge on county road, 0.8 mi east of Shushan, and 1.1 mi upstream from mouth. Drainage area is 2.85 mi ² .	1979-97	12- 2-96	4.97	98	1-19-96	6.56	149	
Batten Kill at Battenville, NY (01329500)	Lat 43°06'05", long 73°25'55", Washington County, Hydrologic Unit 02020003, on left bank 1.0 mi southwest of Battenville, and 1.2 mi up- stream from Trout Brook. Drainage area is 394 mi ² .	1923-68†, 1987-97	12- 2-96	9.66	8,370	11- 4-27	f17.7	21,300	

† Operated as a continuous-record gaging station.

a About.

f From floodmark.

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1997 maximum		Period of record maximum				
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)	
Hudson River basin--Continued									
Little Hoosic River at Petersburg, NY (01333500)	Lat 42°45'50", long 73°20'16", Rensselaer County, Hydrologic Unit 02020003, on left bank 100 ft downstream from highway bridge on dirt road, 1.0 mi downstream from Petersburg, and 4.9 mi upstream from mouth. Drainage area is 56.1 mi ² .	1951-96†, 1997	12- 2-96	6.19	2,190	6-30-73 q12-31-48	9.20 f9.4	5,000 7,470	
Vly Brook near Morehouseville, NY (01342797)	Lat 43°23'43", long 74°50'00", Hamilton County, Hydrologic Unit 02020004, at culvert on State Highway 8, 0.6 mi up- stream from mouth, and 3.1 mi west of Morehouseville. Drainage area is 3.28 mi ² .	1993-97	11- 9-96	10.24	223	10-21-95	a11.2	a320	
West Canada Creek at Nobleboro, NY (01342800)	Lat 43°23'47", long 74°51'35", Herkimer County, Hydrologic Unit 02020004, at bridge on State Highway 8, 2.9 mi northeast of Wilmurt, in village of Nobleboro. Drainage area is 193 mi ² .	1958-66, 1967-68†, 1969-76, 1987-97	11- 9-96	10.58	12,000	q12-29-84 10-21-95	f13.93 10.94	20,000 12,800	
North Creek near Ephratah, NY (01348420)	Lat 43°00'28", long 74°33'54", Fulton County, Hydrologic Unit 02020004, at culvert on town road, 0.4 mi upstream from mouth, and 1.2 mi northwest of Ephratah. Drainage area is 6.52 mi ² .	1975-97	11- 9-96	8.86	530	6-29-82	8.95	540	
Normans Kill at Albany, NY (01359528)	Lat 42°38'00", long 73°48'22", Albany County, Hydrologic Unit 02020006, on left bank 0.35 mi upstream from bridge on Normans Kill Road at Normansville, and 0.40 mi upstream from Delaware Avenue bridge in Albany. Drainage area is 168 mi ² .	1980-83†, 1992-97	11- 9-96	8.48	4,150	3-22-80	13.41	11,600	
Kinderhook Creek at Rossman, NY (01361000)	Lat 42°19'50", long 73°44'40", Columbia County, Hydrologic Unit 02020006, on right bank 1.0 mi upstream from Claverack Creek, 2.25 mi downstream from Stuyvesant Falls, at Rossman. Drainage area is 329 mi ² .	1906-14, 1929-68†, 1988-97	12- 2-96	6.95	4,820	12-31-48	f19.8	29,800	
Catskill Creek at Oak Hill, NY (01361500)	Lat 42°24'16", long 74°09'07", Greene County, Hydrologic Unit 02020006, on right bank 150 ft downstream from highway bridge in southernmost part of Oak Hill, and 250 ft down- stream from small tributary. Drainage area is 98.0 mi ² .	1929-77†, 1987-97	10-20-96	10.46	6,170	4- 4-87	f16.6	15,400	
Roeliff Jansen Kill near Hillsdale, NY (01362100)	Lat 42°09'14", long 73°31'14", Columbia County, Hydrologic Unit 02020006, at bridge on county highway off State Highway 22, 1.8 mi south of Hillsdale. Drainage area is 27.5 mi ² .	1958-60†, 1961-97	12- 2-96	3.89	656	6-30-73	9.78	3,280	
Bushnellsville Creek at Shandaken, NY (01362197)	Lat 42°07'25", long 74°24'02", Ulster County, Hydrologic Unit 02020006, on right bank along State Highway 42, 0.4 mi upstream from Esopus Creek, and 0.6 mi northwest of Shandaken. Drainage area is 11.4 mi ² .	1972-87, 1994-97	12- 2-96 1-18-97	7.16 b7.20	177 -	q10-15-55 4- 4-87	f12.40 10.66	1,830 1,000	

† Operated as a continuous-record gaging station.

q Peak outside period of record.

f From floodmark.

a About.

b Ice jam.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1997 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
Hudson River basin--Continued								
Rutgers Creek at Gardnerville, NY (01368500)	Lat 41°20'40", long 74°29'10", Orange County, Hydrologic Unit 02020007, on right bank 2.2 mi upstream from mouth at highway bridge in Gardnerville, 8 mi southwest of Middletown. Drainage area is 59.7 mi ² .	1944-48, 1949-68†, 1987-90, 1994-97	10-20-96	5.84	1,540	8-19-55	f12.38	8,490
Fishkill Creek at Hopewell Junction, NY (01372800)	Lat 41°34'22", long 73°48'25", Dutchess County, Hydrologic Unit 02020008, on right bank 400 ft upstream from bridge on State Highway 376, 0.6 mi south of State Highway 82, at Hopewell Junction. Drainage area is 57.3 mi ² .	1958-75†, 1987-97	10-20-96	6.82	1,010	12-21-73 1-20-96	9.19 b11.71	2,770 -
Peekskill Hollow Creek at Tompkins Corners, NY (01374250)	Lat 41°23'18", long 73°48'47", Putnam County, Hydrologic Unit 02030101, at bridge on Bryant Pond Road, 0.9 mi southwest of Tompkins Corners, and 1.1 mi downstream from Wiccopee Brook. Drainage area is 14.9 mi ² .	1975-97	12- 2-96	3.48	472	8- 7-90	4.77	1,120
Passaic River basin								
Torne Brook at Ramapo, NY (01387410)	Lat 41°08'34", long 74°09'44", Rockland County, Hydrologic Unit 02030103, 0.3 mi up- stream from mouth, and 0.5 mi east of Ramapo. Drainage area is 2.60 mi ² .	1960-97	12- 2-96	6.11	414	11- 8-77	11.02	1,520
Delaware River basin								
Callicoon Creek at Callicoon, NY (01427500)	Lat 41°45'39", long 75°02'55", Sullivan County, Hydrologic Unit 02040101, on right bank 0.7 mi southeast of Callicoon, 0.9 mi upstream from mouth, and 1.0 mi southwest of Hortonville. Drainage area is 110 mi ² .	1941-82†, 1983-97	11- 9-96	5.80	4,310	8-17-47	9.68	16,000
East Branch Neversink River at Denning, NY (01434010)	Lat 41°57'30", long 74°28'26", Ulster County, Hydrologic Unit 02040104, on downstream side of bridge on private road at Strauss Estate, 0.4 mi downstream from Riley Brook, 0.9 mi upstream from Erts Brook, and 1.0 mi northeast of Denning. Drainage area is 13.3 mi ² .	1984-97	10-20-96	4.59	2,340	4- 4-87	f6.39	4,460
Streams tributary to Lake Ontario								
North Branch Grindstone Creek near Altmar, NY (042490673)	Lat 43°29'31", long 76°05'41", Oswego County, Hydrologic Unit 04140102, at culvert on Hong Kong Road, 4.1 mi up- stream from confluence with South Branch Grindstone Creek, and 4.1 mi southwest of Altmar. Drainage area is 11.2 mi ² .	1976-97	12- 2-96	9.37	272	3-13-77	15.03	482
North Branch Salmon River at Redfield, NY (04249200)	Lat 43°32'32", long 75°48'51", Oswego County, Hydrologic Unit 04140102, at bridge on Harvester Mill Road, 0.7 mi northeast of Redfield. Drainage area is 82.5 mi ² .	1962-64, 1987-97	11- 9-96	16.87	6,320	q12-29-84 11- 9-96	f19.15 16.87	13,600 6,320

f From floodmark.

† Operated as a continuous-record gaging station.

b Ice jam.

q Peak outside period of record.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1997 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
Streams tributary to Lake Ontario--Continued								
Sandy Creek near Adams, NY (04250750)	Lat 43°48'48", long 76°04'30", Jefferson County, Hydrologic Unit 04140102, on left bank 250 ft upstream from bridge on Liberty Street, 2.5 mi downstream from Adams, and 10.0 mi upstream from mouth. Drainage area is 128 mi ² .	1958-95†, 1996-97	11- 8-96 2-22-97	8.38 b9.45	4,950 -	1-19-96	f11.06	7,700
Moose River at McKeever, NY (04254500)	Lat 43°36'36", long 75°06'35", Herkimer County, Hydrologic Unit 04150101, on left bank 0.5 mi west of McKeever, and 1.9 mi downstream from con- fluence of Middle and South Branches. Drainage area is 363 mi ² .	1901-22, 1923-70†, 1987-97	11- 9-96	12.00	10,200	6- 3-47 q12-29-84	f17.45 f16.00	d18,700 15,800
Tributary to Mill Creek Tributary near Lowville, NY (04256040)	Lat 43°45'43", long 75°31'13", Lewis County, Hydrologic Unit 04150101, at culvert on West Road, 0.85 mi above mouth, and 2.0 mi southwest of Lowville. Drainage area is 1.66 mi ² .	1976-86, 1993-97	12- 2-96 2-23-97	10.49 b12.98	105 -	3- 5-79	13.41	312
Deer River at Deer River, NY (04258700)	Lat 43°55'49", long 75°35'27", Lewis County, Hydrologic Unit 04150101, on left bank 350 ft upstream from bridge on State Highway 26, 2.0 mi upstream from mouth, at Deer River. Drainage area is 94.8 mi ² .	1957-68†, 1969-97	11- 8-96 2-22-97	5.90 b6.55	6,530 -	3- 6-79 12-29-84	b11.10 f10.63	- 17,200
St. Lawrence River basin								
Elm Creek near Hermon, NY (04265100)	Lat 44°26'15", long 75°12'49", St. Lawrence County, Hydro- logic Unit 04150304, at bridge 2.7 mi southeast of Hermon, and 6.8 mi upstream from con- fluence with Tanner Creek. Drainage area is 32.6 mi ² .	1959-68†, 1969-97	11- 9-96	7.14	672	4- 6-74	9.07	a1,270
Plum Brook near Grantville, NY (04268200)	Lat 44°52'46", long 74°54'54", St. Lawrence County, Hydro- logic Unit 04150305, on right bank 430 ft upstream from bridge at junction of Brouse and Grant Roads, 1.0 mi up- stream from mouth, 1.4 mi north of Grantville, 2.3 mi southwest of Massena city limits. Drainage area is 43.9 mi ² .	1959-63†, 1964-97	4- 7-97	5.06	560	3-30-63 3-11-92	6.94 b7.86	1,920 -
St. Regis River at Brasher Center, NY (04269000)	Lat 44°51'49", long 74°46'45", St. Lawrence County, Hydro- logic Unit 04150306, on left bank 600 ft upstream from highway bridge at Brasher Center, and 6.5 mi downstream from West Branch. Drainage area is 612 mi ² .	1911-17†, 1919-96†, 1997	11- 9-96	10.75	9,750	4- 6-37 4- 6-37	12.82 ab15.3	16,800 -
Duane Stream southeast of Duane Center, NY (04269856)	Lat 44°39'12", long 74°13'42", Franklin County, Hydrologic Unit 04150307, on left bank at culvert on County Highway 26, and 1.8 mi southeast of Duane Center. Drainage area is 1.80 mi ² .	1995-97	11- 9-96	18.82	17	8- 6-95	20.35	33

† Operated as a continuous-record gaging station.

f From floodmark.

b Ice jam.

d Dam failure.

q Peak outside period of record.

a About.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1997 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
St. Lawrence River basin--Continued								
Little Salmon River at Bombay, NY (04270200)**	Lat 44°56'24", long 74°33'26", Franklin County, Hydrologic Unit 04150307, on right bank 0.5 mi east of village of Bombay, and 7.2 mi upstream from mouth. Drainage area is 92.2 mi ² .	1958-95†, 1996-97	11- 9-96	f10.82	2,370	4- 4-74	12.90	3,250
Chateaugay River below Chateaugay, NY (04270510)**	Lat 44°57'49", long 74°07'53", Franklin County, Hydrologic Unit 04150307, on left bank 10 ft downstream from bridge on Sam Cook Road, 0.2 mi downstream from Marble River, and 4.1 mi northwest of Chateaugay. Drainage area is 151 mi ² .	1966-95†, 1997	11- 9-96	f7.51	5,370	2-11-66 11- 9-96	b10.99 f7.51	- 5,370
Trout River at Trout River, NY (04270700)	Lat 44°59'23", long 74°17'56", Franklin County, Hydrologic Unit 04150307, on right bank at downstream side of bridge on county highway, 0.2 mi east of State Highway 30, and 3.3 mi downstream from Little Trout River, at Trout River. Drainage area is 107 mi ² .	1960-66†, 1967-97	11- 9-96	8.98	6,320	3-10-92 7- 5-96	b10.43 9.42	- 6,980
West Branch Ausable River near Lake Placid, NY (04274000)	Lat 44°18'40", long 73°55'00", Essex County, Hydrologic Unit 02010004, on right bank 150 ft upstream from Monument Falls, 4 mi downstream from Lake Placid outlet, and 4 mi northeast of Lake Placid. Drainage area is 116 mi ² .	1917, 1920-27, 1928-68†, 1983-97	11- 9-96	12.09	10,600	9-22-38	12.20	10,800
East Branch Ausable River at Au Sable Forks, NY (04275000)	Lat 44°26'20", long 73°40'55", Essex County, Hydrologic Unit 02010004, on left bank 700 ft upstream from bridge on Burt Street, and 0.5 mi upstream from confluence with West Branch, in Au Sable Forks. Drainage area is 198 mi ² .	1925-95†, 1996-97	11- 9-96	15.22	23,900	11- 9-96	15.22	23,900
Highlands Forge Lake Outlet near Willsboro, NY (04276069)	Lat 44°25'29", long 73°25'35", Essex County, Hydrologic Unit 02010001, on left bank 5.0 ft downstream from bridge on Highlands Road, 0.8 mi up- stream from mouth, and 4.9 mi northwest of Willsboro. Drainage area is 10.9 mi ² .	1990-96†, 1997	11- 9-96	6.97	510	3-21-94 11- 9-96	b7.77 6.97	- 510
Hoisington Brook at Westport, NY (04276645)	Lat 44°11'15", long 73°27'19", Essex County, Hydrologic Unit 02010001, on right bank 30 ft downstream from Ledge Hill Road, 500 ft west of State Route 9N, and 0.1 mi west of Westport. Drainage area is 6.47 mi ² .	1990-96†, 1997	4- 4-90 5-13-90 8-13-90 10-24-90 11-10-90 12-24-90 3-11-92 4-10-93 4-17-93 4-22-93 11- 9-96 2-22-97	5.86 5.23 5.90 5.55 5.72 5.28 b6.39 5.32 5.57 5.44 5.99 b6.40	R198 R87 R207 R137 R168 R94 Ra200 R100 R140 R118 168 -	8-13-90 1-19-96	5.90 b6.47	R207 a200
Mill Brook at Putnam, NY (04279040)	Lat 43°44'01", long 73°23'20", Washington County, Hydrologic Unit 02010001, on right bank 50 ft downstream from bridge on County Highway 3, and 1.0 mi southeast of Putnam. Drainage area is 10.3 mi ² .	1990-96†, 1997	12- 2-96	*4.37	358	1-19-96	†5.19	681

† Operated as a continuous-record gaging station.

f From floodmark.

** Not an active site.

b Ice jam.

R Revised.

a About.

* Recorded; outside gage height, 5.10 ft, from crest-stage gage.

†† Recorded; outside gage height, 6.57 ft, from crest-stage gage.

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1997 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
St. Lawrence River basin--Continued								
Mount Hope Brook at South Bay near Whitehall, NY (04279125)	Lat 43°31'19", long 73°30'27", Washington County, Hydrologic Unit 02010001, on right bank 10 ft downstream from County Highway 16 bridge, 400 ft upstream from confluence with Spectacle Brook, 5.6 mi south- west of Whitehall, at South Bay. Drainage area is 11.6 mi ² .	1990-96†, 12- 2-96 1997		7.97	1,060	12- 2-96	7.97	1,060

† Operated as a continuous-record gaging station.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during water year 1997

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements Date	Discharge (ft ³ /s)
Hudson River basin						
01351270 West Creek	Cobleskill Creek	Lat 42°40'05", long 74°31'19", Schoharie County, Hydrologic Unit 02020005, at bridge on town highway, 0.7 mi west of Cobleskill townline, 0.9 mi northwest of Warnerville, and 2.5 mi southeast of Hyndsville.	53.0	1949-50, 1972, 1993-94	6-10-97	*6.88
01356220 Stony Creek	Mohawk River	Lat 42°47'49", long 73°49'48", Saratoga County, Hydrologic Unit 02020004, at bridge on River View Road, at Vischer Ferry.	12.0	1951-53	6-12-97	*3.51
01361200 Claverack Creek	Kinderhook Creek	Lat 42°12'54", long 73°43'46", Columbia County, Hydrologic Unit 02020006, on right bank 40 ft up- stream from bridge on State Highway 9H, 2.2 mi upstream from Taghkanic Creek, and 0.5 mi south of Claverack.	60.6	1960-68†, 1969-80, 1993-95†, 1996	6-10-97	*34.7
01365500 Chestnut Creek	Rondout Creek	Lat 41°50'42", long 74°32'27", Sullivan County, Hydrologic Unit 02020007, on right bank 0.1 mi down- stream from Red Brook, 0.6 mi up- stream from bridge on State Highway 55, at Gramsville.	20.9	1939-87†, 1988-89, 1991	9- 3-97	e7.07
Delaware River basin						
01421200 Cadosia Creek	East Branch Delaware River	Lat 41°58'03", long 75°15'51", Delaware County, Hydrologic Unit 02040102, at bridge on State Highway 236, 0.3 mi upstream from mouth, at Cadosia.	17.9	1949-50, 1955, 1957-71, 1973-96	6- 4-97 6-12-97 7- 3-97 7-29-97	14.2 *6.91 *4.06 1.72
01424997 Cannonsville Reservoir	Delaware River	Lat 42°03'46", long 75°22'29", Delaware County, Hydrologic Unit 02040101, on West Branch Delaware River, at outlet of Cannonsville Dam, 1.8 mi southeast of Stilesville.	454	1992-95	11- 8-95	25.1
01426000 Oquaga Creek	West Branch Delaware River	Lat 42°03'31", long 75°25'42", Broome County, Hydrologic Unit 02040101, on left bank, 150 ft down- stream from Bone Creek, 0.3 mi up- stream from mouth, 0.1 mi upstream from Mill Street bridge, in Deposit.	67.6	1941-73†, 1975-76, 1979-96	6- 9-97 6-12-97 7- 3-97 7-29-97 7-31-97 9- 2-97	20.8 *13.5 *9.30 10.4 *6.01 37.3
01428000 Tenmile River	Delaware River	Lat 41°33'51", long 75°00'56", Sullivan County, Hydrologic Unit 02040101, on left bank, 0.5 mi downstream from East Branch Tenmile River, 0.8 mi upstream from mouth, and 0.6 mi northeast of Tusten.	45.6	1946-73†, 1978-96	5-21-97 6-10-97 7-30-97	104 *19.8 *2.55
01438000 Neversink River	Delaware River	Lat 41°21'40", long 74°41'07", Orange County, Hydrologic Unit 02040104, at Tristates Bridge on East Main Street (U.S. Highway 6), 0.1 mi upstream from Clove Brook, and 0.6 mi upstream from mouth, in Port Jervis.	336	1902-03, 1943, 1945, 1960-62, 1965-96	6- 6-97 6-23-97 8- 4-97 8-15-97 9-15-97	253 205 130 95.4 270
Streams tributary to Lake Ontario						
04257000 Beaver River	Black River	Lat 43°53'56", long 75°03'08", Herkimer County, Hydrologic Unit 04150101, at logging bridge about 0.2 mi downstream from Stillwater Dam, 7.5 mi west of Beaver River Post Office, and 2.5 mi upstream from Moshier Creek.	171	1909-96	1-15-97 2- 4-97 2-12-97 5-13-97 6-24-97 8- 5-97 9-12-97	690 667 774 748 305 447 526

* Base flow.

† Operated as a continuous-record gaging station.

e Estimate.

Discharge measurements made at miscellaneous sites during water year 1997--Continued

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft. ³ /s)
Streams tributary to St. Lawrence River						
04271530 Great Chazy River	Lake Champlain	Lat 44°59'14", long 73°27'37", Clinton County, Hydrologic Unit 02010006, at bridge on DuBois-Webb Road, 0.1 mi west of U.S. Route 87 bridge at Champlain.	255		11- 9-96	p14,700
0427379950 Little Ausable River	Lake Champlain	Lat 44°35'43", long 73°30'12", Clinton County, Hydrologic Unit 02010004, at bridge on Telegraph Road, 1.6 mi northeast of Peru.	67.5		11- 9-96	p2,840
04274515 West Branch Ausable River	Lake Champlain	Lat 44°26'28", long 73°40'34", Essex County, Hydrologic Unit 02010004, at bridge on State High- way 9N, 500 ft upstream from the confluence with the East Branch Ausable River, at Au Sable Forks.	238	1938, 1996	11-10-96	2,920
0427500105 East Branch Ausable River	Ausable River	Lat 44°26'24", long 73°40'30", Essex County, Hydrologic Unit 02010004, near Forge Street East bridge in Au Sable Forks, 0.1 mi upstream from confluence with the West Branch Ausable River.	198		11- 9-96	p23,900
04275530 Ausable River	Lake Champlain	Lat 44°27'51", long 73°34'32", Clinton County, Hydrologic Unit 02010004, at bridge in Clintonville, 1.6 mi downstream from Green Street Brook.	458		11- 9-96	p38,000

p Peak discharge.

Statewide Pesticide Monitoring Program

Water-quality partial-record stations are particular sites where chemical-quality, biological and/or sediment data are collected systematically over a period of years for use in hydrologic analyses. These data are collected usually less than quarterly.

A complete list of compounds included when pesticides analysis was performed on samples follows the Introduction to the Hudson NAWQA section near the end of this report. Only those compounds detected at or above the method detection limit (MDL) were included in the tables.

Surface-water Pesticide Sampling Survey

The following sites were sampled during the 1997 water year as part of a state-wide pesticide sampling network. The sampling network includes sites throughout New York state. The sites listed below are those located in western New York which are also published in their volume, WDR NY Vol. 3.

STATION NUMBER	STATION NAME	DATE	TIME
04227000	CANASERAGA CREEK AT SHAKERS CROSSING NY	04-24-97	0840
04227000	CANASERAGA CREEK AT SHAKERS CROSSING NY	05-22-97	1030
04227000	CANASERAGA CREEK AT SHAKERS CROSSING NY	06-10-97	1440
04227000	CANASERAGA CREEK AT SHAKERS CROSSING NY	06-18-97	0800
04227000	CANASERAGA CREEK AT SHAKERS CROSSING NY	06-24-97	1700
04227000	CANASERAGA CREEK AT SHAKERS CROSSING NY	06-25-97	1040
04227000	CANASERAGA CREEK AT SHAKERS CROSSING NY	07-24-97	0930
04227000	CANASERAGA CREEK AT SHAKERS CROSSING NY	07-24-97	0939
04227000	CANASERAGA CREEK AT SHAKERS CROSSING NY	08-21-97	0920
04228500	GENESEE RIVER AT AVON NY	04-24-97	1000
04228500	GENESEE RIVER AT AVON NY	05-22-97	1150
04228500	GENESEE RIVER AT AVON NY	06-10-97	1530
04228500	GENESEE RIVER AT AVON NY	06-18-97	0910
04228500	GENESEE RIVER AT AVON NY	06-19-97	1140
04228500	GENESEE RIVER AT AVON NY	06-25-97	1240
04228500	GENESEE RIVER AT AVON NY	07-24-97	1120
04228500	GENESEE RIVER AT AVON NY	07-24-97	1129
04228500	GENESEE RIVER AT AVON NY	08-21-97	1030
04234000	FALL CREEK NEAR ITHACA NY	05-22-97	1210
04234000	FALL CREEK NEAR ITHACA NY	06-11-97	1320
04234000	FALL CREEK NEAR ITHACA NY	06-18-97	1410
04234000	FALL CREEK NEAR ITHACA NY	06-19-97	0830
04234000	FALL CREEK NEAR ITHACA NY	06-26-97	0810
04234000	FALL CREEK NEAR ITHACA NY	07-04-97	0940
04234000	FALL CREEK NEAR ITHACA NY	07-04-97	0949
04234000	FALL CREEK NEAR ITHACA NY	07-04-97	1610
04234000	FALL CREEK NEAR ITHACA NY	07-09-97	2150
04234000	FALL CREEK NEAR ITHACA NY	07-10-97	0700
04234000	FALL CREEK NEAR ITHACA NY	07-24-97	1800
04234000	FALL CREEK NEAR ITHACA NY	08-21-97	1610
04235820	GROUT BROOK TRIB SOUTHEAST OF FAIR HAVEN NY	04-24-97	1430
04235820	GROUT BROOK TRIB SOUTHEAST OF FAIR HAVEN NY	05-22-97	1030
04235820	GROUT BROOK TRIB SOUTHEAST OF FAIR HAVEN NY	06-17-97	0830
04237500	SENECA RIVER AT BALDWINVILLE NY	04-24-97	1300
04237500	SENECA RIVER AT BALDWINVILLE NY	05-22-97	0910
04237500	SENECA RIVER AT BALDWINVILLE NY	06-11-97	1120
04237500	SENECA RIVER AT BALDWINVILLE NY	06-18-97	1150
04237500	SENECA RIVER AT BALDWINVILLE NY	06-26-97	0930
04237500	SENECA RIVER AT BALDWINVILLE NY	07-05-97	1400
04237500	SENECA RIVER AT BALDWINVILLE NY	07-05-97	1409
04237500	SENECA RIVER AT BALDWINVILLE NY	07-11-97	0910
04237500	SENECA RIVER AT BALDWINVILLE NY	07-24-97	1530
04237500	SENECA RIVER AT BALDWINVILLE NY	08-21-97	1340

Surface-water Pesticide Sampling Survey--Continued

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)
04-24-97	325	<0.002	<0.002	0.020	<0.003	<0.003	<0.004	<0.004	E0.004
05-22-97	448	<0.002	0.006	0.085	<0.003	<0.003	<0.004	0.010	E0.004
06-10-97	170	<0.002	0.005	0.140	<0.003	<0.003	<0.004	0.008	E0.016
06-18-97	257	<0.002	0.011	0.320	<0.003	<0.003	<0.004	0.032	E0.028
06-24-97	1090	<0.002	0.066	3.13	E0.005	<0.003	--	0.409	E0.169
06-25-97	490	<0.002	0.024	0.862	<0.003	<0.003	E0.004	0.031	E0.104
07-24-97	82	<0.002	0.004	0.222	E0.005	<0.003	<0.004	0.013	E0.014
07-24-97	82	<0.002	0.004	0.226	E0.005	<0.003	<0.004	0.014	E0.015
08-21-97	58	<0.002	<0.002	0.044	<0.003	<0.003	<0.004	<0.004	E0.004
04-24-97	1740	<0.002	<0.002	0.023	<0.003	<0.003	<0.004	<0.004	E0.006
05-22-97	4690	0.004	0.008	0.132	<0.003	<0.003	<0.004	0.010	E0.009
06-10-97	4120	<0.002	0.007	0.119	<0.003	<0.003	<0.004	0.017	E0.016
06-18-97	1610	<0.002	0.008	0.114	<0.003	<0.003	<0.004	0.006	E0.014
06-19-97	2050	<0.002	0.006	0.094	<0.003	<0.003	<0.004	0.006	E0.015
06-25-97	1630	<0.002	0.073	0.582	<0.003	E0.040	<0.004	0.078	E0.040
07-24-97	458	<0.002	0.007	0.094	<0.003	<0.003	<0.004	0.018	E0.016
07-24-97	458	<0.002	0.006	0.092	<0.003	<0.003	<0.004	0.011	E0.015
08-21-97	326	<0.002	E0.002	0.048	<0.003	<0.003	<0.004	<0.004	E0.007
05-22-97	226	<0.002	E0.002	0.053	<0.003	<0.003	<0.004	0.005	E0.009
06-11-97	73	<0.002	<0.002	0.042	<0.003	<0.003	<0.004	0.004	E0.021
06-18-97	155	<0.002	E0.003	0.138	<0.003	<0.003	<0.004	0.048	E0.026
06-19-97	254	<0.002	0.005	0.311	<0.003	<0.003	<0.004	0.027	E0.075
06-26-97	84	<0.002	<0.002	0.079	<0.003	<0.003	<0.004	0.006	E0.023
07-04-97	143	<0.002	<0.002	0.041	<0.003	<0.003	<0.004	0.007	E0.024
07-04-97	143	<0.002	<0.002	0.043	<0.003	<0.003	<0.004	0.006	E0.023
07-04-97	136	<0.002	<0.002	0.056	<0.003	<0.003	<0.004	0.010	E0.027
07-09-97	297	<0.002	<0.002	0.071	<0.003	<0.003	<0.004	<0.004	E0.026
07-10-97	366	<0.002	0.005	0.203	E0.005	<0.003	<0.004	0.009	E0.036
07-24-97	44	<0.002	<0.002	0.024	<0.003	<0.003	<0.004	<0.004	E0.013
08-21-97	24	<0.002	<0.002	0.021	<0.003	<0.003	<0.004	<0.004	E0.006
04-24-97	--	<0.002	<0.002	0.022	<0.003	<0.003	<0.004	<0.004	E0.020
05-22-97	--	<0.002	<0.002	0.019	<0.003	<0.003	<0.004	<0.004	E0.010
06-17-97	2.0	<0.002	<0.002	0.222	<0.003	<0.003	<0.004	0.011	E0.035
04-24-97	679	<0.002	<0.002	0.046	<0.003	<0.003	<0.004	0.007	E0.017
05-22-97	4960	<0.002	0.006	0.068	<0.003	<0.003	<0.004	0.014	E0.013
06-11-97	3740	<0.002	0.084	0.286	<0.003	<0.003	<0.004	0.068	E0.068
06-18-97	1030	<0.002	0.039	0.216	<0.003	<0.003	<0.004	0.057	E0.065
06-26-97	732	<0.002	0.034	0.212	<0.003	<0.003	<0.004	0.048	E0.062
07-05-97	1810	<0.002	0.033	0.261	<0.003	<0.003	<0.004	0.077	E0.089
07-05-97	1810	<0.002	0.030	0.248	<0.003	<0.003	<0.004	0.073	E0.083
07-11-97	1020	<0.002	0.024	0.265	<0.003	<0.003	<0.004	0.069	E0.079
07-24-97	1680	<0.002	0.021	0.236	<0.003	<0.003	<0.004	0.053	E0.038
08-21-97	550	<0.002	0.008	0.184	<0.003	<0.003	<0.004	0.030	E0.020

E Estimate.

Surface-water Pesticide Sampling Survey--Continued

DATE	DI- AZINON, DIS- SOLVED (UG/L) (39572)	EPTC WATER FLTRD 0.7 U GF, REC (82668)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (82663)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (82683)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)
04-24-97	<0.002	<0.002	<0.004	0.013	<0.004	<0.004	<0.018	<0.005
05-22-97	<0.002	<0.002	<0.004	0.142	<0.004	<0.004	<0.018	<0.005
06-10-97	<0.002	0.032	<0.004	0.142	<0.004	<0.004	<0.018	<0.005
06-18-97	<0.002	0.043	<0.004	0.202	0.006	0.010	<0.018	0.059
06-24-97	<0.002	0.068	<0.004	0.643	<0.004	<0.004	<0.018	0.027
06-25-97	<0.002	0.008	<0.004	0.969	0.008	0.030	<0.018	0.029
07-24-97	<0.002	<0.002	<0.004	0.074	<0.004	<0.004	<0.018	0.007
07-24-97	<0.002	<0.002	<0.004	0.076	<0.004	<0.004	<0.018	0.008
08-21-97	<0.002	<0.002	<0.004	0.016	<0.020	<0.004	<0.018	<0.005
04-24-97	<0.002	<0.002	<0.004	0.011	<0.004	<0.004	<0.018	<0.005
05-22-97	<0.002	<0.002	<0.004	0.183	0.007	<0.004	<0.018	0.018
06-10-97	<0.002	0.005	<0.004	0.102	<0.004	<0.004	<0.018	0.015
06-18-97	<0.002	0.027	<0.004	0.069	<0.004	<0.004	<0.018	0.009
06-19-97	<0.002	0.012	<0.004	0.065	<0.004	<0.004	<0.018	0.015
06-25-97	<0.002	0.045	0.004	1.12	0.006	<0.004	<0.018	0.035
07-24-97	<0.002	0.004	<0.004	0.050	<0.004	<0.004	<0.018	0.008
07-24-97	<0.002	E0.003	<0.004	0.044	<0.004	<0.004	<0.018	0.007
08-21-97	E0.003	<0.002	<0.004	0.017	<0.004	<0.004	<0.018	0.006
05-22-97	<0.002	E0.002	<0.004	0.042	<0.004	<0.004	<0.018	<0.005
06-11-97	<0.002	<0.002	<0.004	0.020	<0.004	<0.004	<0.018	0.009
06-18-97	<0.002	<0.002	<0.004	0.042	<0.004	<0.004	<0.018	0.014
06-19-97	<0.002	<0.002	<0.004	0.222	<0.010	<0.004	<0.018	0.017
06-26-97	<0.002	<0.002	<0.004	0.019	<0.004	<0.004	<0.018	0.012
07-04-97	<0.002	<0.002	<0.004	0.011	<0.004	<0.004	<0.018	0.007
07-04-97	<0.002	<0.002	<0.004	0.011	<0.004	<0.004	<0.018	0.007
07-04-97	<0.002	<0.002	<0.004	0.045	<0.004	<0.004	<0.018	0.007
07-09-97	<0.002	<0.002	<0.004	0.015	<0.004	<0.004	0.020	<0.005
07-10-97	<0.002	<0.002	<0.004	0.081	<0.004	<0.004	<0.018	0.006
07-24-97	<0.002	<0.002	<0.004	0.010	<0.004	<0.004	<0.018	E0.005
08-21-97	<0.002	<0.002	<0.004	E0.004	<0.004	<0.004	<0.018	<0.005
04-24-97	<0.002	<0.002	<0.004	E0.004	<0.004	<0.004	<0.018	<0.005
05-22-97	<0.002	<0.002	<0.004	0.007	<0.004	<0.004	<0.018	<0.005
06-17-97	<0.002	<0.002	<0.004	0.380	<0.004	<0.004	<0.018	<0.005
04-24-97	<0.002	<0.002	<0.004	0.037	<0.004	<0.004	<0.018	0.007
05-22-97	0.016	E0.002	<0.004	0.085	<0.004	<0.004	<0.018	0.014
06-11-97	<0.002	<0.002	<0.004	0.141	<0.004	<0.004	<0.018	0.038
06-18-97	E0.003	<0.002	<0.004	0.097	<0.004	<0.004	<0.018	0.030
06-26-97	<0.002	<0.002	<0.004	0.094	<0.004	<0.004	<0.018	0.026
07-05-97	<0.002	0.005	<0.004	0.105	<0.004	<0.004	<0.018	0.030
07-05-97	<0.002	0.006	<0.004	0.095	<0.004	<0.004	<0.018	0.028
07-11-97	<0.002	0.004	<0.004	0.102	<0.004	<0.004	<0.018	0.027
07-24-97	<0.002	0.004	<0.004	0.080	<0.004	<0.004	<0.018	0.027
08-21-97	<0.002	<0.002	<0.004	0.049	<0.004	<0.004	<0.018	0.024

E Estimate.

Surface-water Pesticide Synoptic-Sampling Study

In June 1997, New York State and the U.S. Geological Survey began a cooperative effort to monitor pesticides in order to assess the presence and distribution of pesticides and their residues in waters of the State. The initial monitoring effort included a statewide survey of pesticide concentrations in surface waters, particularly in areas where pesticides are used and areas where surface water provides the water supply. Water samples collected from 64 streams and rivers across New York were analyzed for 47 pesticides or pesticide degradates. The sites located in Long Island and western New York are also published in their volumes for the 1997 water year, WDR NY Vol. 2 and 3, respectively.

STATION NUMBER	STATION NAME	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE SECONDS (00095)	PH WATER WHOLE FIELD (STAND- ARDS) UNITS (00400)
01304000	NISSEQUOGUE RIVER NEAR SMITHTOWN NY	06-16-97	0830	44	158	7.0
01304500	PECONIC RIVER AT RIVERHEAD NY	06-18-97	1020	35	110	7.2
*01304500	PECONIC RIVER AT RIVERHEAD NY	06-18-97	1021	35	111	7.2
01305000	CARMANS RIVER AT YAPHANK NY	06-18-97	0910	26	158	7.1
01305500	SWAN RIVER AT EAST PATCHOGUE NY	06-18-97	0740	e12	158	7.2
01306495	CONNETQUOT RIVER NEAR OAKDALE NY	06-17-97	1210	20	150	7.3
01308000	SAMPAWAMS CREEK AT BABYLON NY	06-17-97	0940	6.1	223	7.0
01308500	CARLLS RIVER AT BABYLON NY	06-17-97	0840	18	233	7.1
01309100	SANTAPOGUE RIVER (HIGHWAY 27A) AT LINDENHURST, NY	06-16-97	1140	e5.0	238	6.7
01309500	MASSAPEQUA CREEK AT MASSAPEQUA NY	06-16-97	1010	2.6	277	7.2
01349150	CANAJOHARIE CREEK NR CANAJOHARIE NY	06-11-97	0840	5.8	779	7.4
01351270	WEST CREEK AT WARNERSVILLE NY	06-10-97	1800	6.9	304	--
01351450	SCHOHARIE CREEK AT ESPERANCE NY	06-11-97	1010	138	--	--
01356220	STONY CREEK AT VISCHER FERRY NY	06-12-97	1600	3.5	--	--
01357500	MOHAWK RIVER AT COHOES NY	06-11-97	1400	155	--	--
01361200	CLAVERACK CREEK AT CLAVERACK NY	06-10-97	1530	34.7	256	--
01371500	WALLKILL RIVER AT GARDINER NY	06-16-97	1030	195	441	7.6
01372043	HUDSON RIVER NEAR POUGHKEEPSIE NY	06-09-97	1110	--	191	--
01375000	CROTON R @ NEW CROTON DAM NR CROTON-ON-HUDSON NY	06-16-97	1320	36	273	7.6
01376500	SAW MILL RIVER AT YONKERS NY	06-09-97	1440	16	746	--
01423000	WEST BRANCH DELAWARE RIVER AT WALTON NY	06-17-97	1410	118	117	7.3
01434000	DELAWARE RIVER AT PORT JERVIS NY	06-17-97	1120	1440	83	7.5
01434025	BISCUIT BK ABOVE PIGEON BK AT FROST VALLEY NY	06-09-97	1050	0.61	21	--
01510000	OTSELIC RIVER AT CINCINNATUS NY	06-17-97	0950	71	--	--
01513831	SUSQUEHANNA RIVER AT OWEGO NY	06-10-97	1130	2460	--	--
01529500	COHOCTON RIVER NEAR CAMPBELL NY	06-10-97	1420	337	--	--
03011020	ALLEGHENY RIVER AT SALAMANCA NY	06-18-97	1520	4480	--	--
03011505	RED HOUSE BROOK SOUTH OF RED HOUSE LAKE NY	06-17-97	2000	3.0	--	--
0421332805	SPRING CREEK AT MOUTH NEAR WESTFIELD NY	06-17-97	1510	1.1	--	--
0421337640	BEAVER CREEK NEAR CORDOVA NY	06-17-97	1340	1.2	--	--
04213500	CATTARAUGUS CREEK AT GOWANDA NY	06-18-97	1050	379	350	8.3
04216418	TONAWANDA CREEK AT ATTICA NY	06-10-97	1150	60	--	--
04218000	TONAWANDA CREEK AT RAPIDS NY	06-10-97	0840	252	--	--
04219650	FOURMILE CREEK NEAR YOUNGSTOWN NY	06-17-97	0720	56	--	--
04219726	LAKE ONTARIO TRIB. NO. 150 NEAR WILSON NY	06-17-97	0630	1.2	--	--
04227000	CANASERAGA CREEK AT SHAKERS CROSSING NY	06-10-97	1440	170	--	--
04228500	GENESEE RIVER AT AVON NY	06-10-97	1530	4120	--	--
04229500	HONEOYE CREEK AT HONEOYE FALLS NY	06-11-97	0910	82	--	--
04230500	OATKA CREEK AT GARBUTT NY	06-16-97	1110	97	--	--
04231000	BLACK CREEK AT CHURCHVILLE NY	06-16-97	1010	29	--	--
04232060	SALMON CREEK AT PULTNEYVILLE NY	06-16-97	1240	1.8	--	--
04232070	SALMON CREEK NEAR SODUS NY	06-16-97	1050	7.9	--	--
04232100	STERLING CREEK AT STERLING NY	06-09-97	1250	19	--	--
0423241755	BULLHORN CREEK AT MCGRATH POINT NY	06-09-97	1350	0.67	--	--
04234000	FALL CREEK NEAR ITHACA NY	06-11-97	1320	73	--	--
04235000	CANANDAIGUA OUTLET AT CHAPIN NY	06-16-97	1230	114	--	--
04235250	FLINT CREEK AT PHELPS NY	06-11-97	1140	34	--	--
04235276	BLACK BROOK AT TYRE NY	06-16-97	1400	1.8	--	--
04235820	GROUT BROOK TRIB SOUTHEAST OF FAIR HAVEN NY	06-17-97	0830	2.0	--	--
04237500	SENECA RIVER AT BALDWINVILLE NY	06-11-97	1120	3740	--	--
04245200	BUTTERNUT CREEK NEAR JAMESVILLE NY	06-17-97	1130	77	--	--
04247000	ONEIDA RIVER NEAR EUCLID NY	06-09-97	0940	1240	--	--
04249000	OSWEGO RIVER AT LOCK 7, OSWEGO NY	06-09-97	1120	6480	--	--
04260500	BLACK RIVER AT WATERTOWN NY	06-19-97	1450	3400	--	--
04268000	RAQUETTE RIVER AT RAYMONDVILLE NY	06-19-97	1030	1290	--	--
04275500	AUSABLE RIVER NEAR AU SABLE FORKS NY	06-18-97	1420	549	--	--
04280450	METTAWEE RIVER NEAR MIDDLE GRANVILLE NY	06-12-97	1120	84	--	--
422950076305901	CAYUGA LAKE NEAR BOLTON POINT	07-02-97	0910	--	--	--
423034077092601	KEUKA LAKE VINEYARD BASIN	06-09-97	1200	0.2	--	--
423939077465201	SMALL AGRICULTURAL BASIN NR. SHAKERS CROSSING	06-10-97	1350	9.8	--	--
423949077343501	REYNOLDS GULLY AT CANANDICE LAKE RD.	06-12-97	1300	3.1	--	--
424104077180001	CANADAIGUA LAKE VINEYARD BASIN	06-09-97	1030	0.2	--	--
424618077364701	HEMLOCK LAKE NEAR HEMLOCK NY	07-02-97	0850	--	--	--
425540078140101	SMALL AGRICULTURAL BASIN NR. ALEXANDER	06-10-97	1100	0.1	--	--
425549076250201	SKANEATELES LAKE NEAR SKANEATELES NY	07-02-97	1400	--	--	--

* Replicate sample.

e Estimated daily.

Surface-water Pesticide Synoptic-Sampling Study--Continued

DATE	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	BEN- FLUR- ALIN WAT FLD GF, REC (UG/L) (82673)	CAR- BARYL WATER FLTRD GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD GF, REC (UG/L) (82674)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD GF, REC (UG/L) (82682)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)
06-16-97	<0.002	<0.001	<0.002	E0.101	<0.003	<0.004	<0.004	<0.002	<0.002	<0.002	<0.001	<0.002
06-18-97	<0.002	0.005	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002	<0.002	<0.002	<0.001	<0.002
*06-18-97	<0.002	0.005	<0.002	<0.003	E0.015	<0.004	<0.004	<0.002	<0.002	<0.002	<0.001	<0.002
06-18-97	0.005	E0.003	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002	<0.002	<0.002	<0.001	<0.002
06-18-97	<0.002	<0.001	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002	<0.002	<0.002	<0.001	<0.002
06-17-97	<0.002	E0.002	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002	<0.002	<0.002	<0.001	<0.002
06-17-97	<0.002	0.006	<0.002	E0.006	<0.003	<0.004	<0.004	<0.002	<0.002	0.012	0.014	<0.002
06-17-97	<0.002	E0.004	<0.002	E0.019	<0.003	<0.004	<0.004	<0.002	<0.002	0.005	<0.001	<0.002
06-16-97	<0.002	0.009	<0.002	E0.035	<0.003	<0.004	<0.004	<0.002	<0.002	<0.002	0.015	<0.002
06-16-97	<0.002	0.005	<0.002	E0.015	<0.003	<0.004	<0.004	<0.002	E0.002	E0.004	0.019	<0.002
06-11-97	<0.002	0.032	<0.002	<0.003	<0.003	<0.004	0.011	<0.002	E0.010	<0.002	<0.001	<0.002
06-10-97	<0.002	0.028	<0.002	<0.003	<0.003	<0.004	0.005	<0.002	E0.007	<0.002	<0.001	<0.002
06-11-97	E0.004	0.019	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002	E0.005	<0.002	<0.001	<0.002
06-12-97	<0.002	0.015	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002	E0.002	0.006	<0.001	<0.002
06-11-97	E0.003	0.017	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002	E0.005	0.006	<0.001	<0.002
06-10-97	<0.002	0.010	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002	E0.005	<0.002	<0.001	<0.002
06-16-97	0.006	0.094	0.005	<0.003	<0.003	0.020	0.017	<0.002	E0.004	<0.002	<0.001	<0.002
06-09-97	0.006	0.046	<0.002	<0.003	<0.003	<0.004	0.006	<0.002	E0.008	<0.002	<0.001	<0.002
06-16-97	<0.002	0.029	E0.004	<0.003	<0.003	<0.004	<0.004	<0.002	E0.002	E0.003	<0.001	<0.002
06-09-97	<0.002	0.009	<0.002	E0.016	<0.003	0.008	<0.004	0.008	E0.004	0.009	<0.001	<0.002
06-17-97	<0.002	0.037	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002	E0.012	<0.002	<0.001	<0.002
06-17-97	<0.002	0.010	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002	E0.003	<0.002	<0.001	<0.002
06-09-97	<0.002	E0.002	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002	<0.002	<0.002	<0.001	<0.002
06-17-97	E0.002	0.019	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002	E0.012	<0.002	<0.001	<0.002
06-10-97	E0.002	0.078	<0.002	E0.005	<0.003	<0.004	0.009	<0.002	E0.013	<0.002	<0.001	<0.002
06-10-97	E0.002	0.064	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002	E0.017	<0.002	<0.001	<0.002
06-18-97	0.006	0.085	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002	E0.013	<0.002	<0.001	<0.002
06-17-97	<0.002	E0.002	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002	E0.003	<0.002	<0.001	<0.002
06-17-97	<0.002	0.020	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002	E0.012	<0.002	<0.001	<0.002
06-17-97	E0.003	0.015	<0.002	E0.015	<0.003	<0.004	<0.004	<0.002	E0.004	<0.002	<0.001	<0.002
06-18-97	0.009	0.040	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002	E0.008	<0.002	<0.001	<0.002
06-10-97	0.012	0.072	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002	E0.015	<0.002	<0.001	<0.002
06-10-97	0.019	0.311	<0.002	<0.003	<0.003	<0.004	0.088	<0.002	E0.028	<0.002	<0.001	0.005
06-17-97	0.069	0.336	<0.002	E0.434	<0.003	<0.004	E0.009	E0.002	E0.046	0.123	<0.001	<0.002
06-17-97	0.014	0.051	<0.002	E0.011	<0.003	0.007	0.005	<0.002	E0.018	<0.002	E0.003	<0.002
06-10-97	0.005	0.140	<0.002	<0.003	<0.003	<0.004	0.008	<0.002	E0.016	<0.002	<0.001	0.032
06-10-97	0.007	0.119	<0.002	<0.003	<0.003	<0.004	0.017	<0.002	E0.016	<0.002	<0.001	0.005
06-11-97	0.007	0.104	<0.002	<0.003	<0.003	<0.004	0.048	<0.002	E0.011	<0.002	<0.001	E0.004
06-16-97	<0.002	0.103	<0.002	<0.003	<0.003	<0.004	0.012	<0.002	E0.035	<0.002	<0.001	0.006
06-16-97	0.007	0.227	<0.002	<0.003	<0.003	<0.004	0.052	<0.002	E0.035	<0.002	<0.001	0.016
06-16-97	<0.002	0.046	<0.002	E0.105	<0.003	0.008	0.013	<0.002	E0.024	<0.002	<0.001	E0.002
06-16-97	E0.002	0.048	<0.002	E0.015	<0.003	<0.004	0.010	<0.002	E0.011	<0.002	<0.001	<0.002
06-09-97	0.004	0.021	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002	E0.005	<0.002	<0.001	<0.002
06-09-97	<0.002	0.010	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002	E0.005	<0.002	<0.001	<0.002
06-11-97	<0.002	0.042	<0.002	<0.003	<0.003	<0.004	0.004	<0.002	E0.021	<0.002	<0.001	<0.002
06-16-97	0.017	0.125	<0.002	<0.003	<0.003	<0.004	0.044	<0.002	E0.061	<0.002	<0.001	<0.002
06-11-97	0.004	0.071	<0.002	<0.003	<0.003	0.011	0.029	<0.002	E0.017	<0.002	<0.001	E0.004
06-16-97	E0.002	0.156	<0.002	<0.003	<0.003	<0.004	0.092	<0.002	E0.016	<0.002	<0.001	<0.002
06-17-97	<0.002	0.222	<0.002	<0.003	<0.003	<0.004	0.011	<0.002	E0.035	<0.002	<0.001	<0.002
06-11-97	0.084	0.286	<0.002	<0.003	<0.003	<0.004	0.068	<0.002	E0.068	<0.002	<0.001	<0.002
06-17-97	E0.002	0.040	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002	E0.015	<0.002	<0.001	<0.002
06-09-97	E0.003	0.019	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002	E0.010	<0.002	<0.001	<0.002
06-09-97	0.143	0.308	<0.002	<0.003	<0.003	<0.004	0.052	<0.002	E0.023	0.005	<0.001	<0.002
06-19-97	<0.002	0.012	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002	E0.004	<0.002	<0.001	<0.002
06-19-97	<0.002	0.008	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002	<0.002	<0.002	<0.001	<0.002
06-18-97	<0.002	E0.003	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002	<0.002	<0.002	<0.001	<0.002
06-12-97	E0.003	0.019	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002	E0.009	<0.002	<0.001	<0.002
07-02-97	<0.002	0.176	<0.002	<0.003	<0.003	<0.004	0.020	<0.002	E0.104	<0.002	<0.001	<0.002
06-09-97	<0.002	0.008	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002	E0.004	<0.002	<0.001	<0.002
06-10-97	E0.003	0.760	<0.002	<0.003	<0.003	<0.004	0.050	<0.002	E0.029	<0.002	<0.001	0.004
06-12-97	<0.002	E0.001	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002	E0.002	<0.002	<0.001	<0.002
06-09-97	<0.002	0.005	<0.002	E0.006	<0.003	<0.004	<0.004	<0.002	E0.003	<0.002	<0.001	<0.002
07-02-97	<0.002	0.013	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002	E0.006	<0.002	<0.001	<0.002
06-10-97	0.010	0.847	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002	E0.079	<0.002	<0.001	<0.002
07-02-97	<0.002	0.044	<0.002	<0.003	<0.003	<0.004	<0.004	E0.002	E0.047	<0.002	<0.001	<0.002

E Estimate.

* Replicate sample.

Surface-water Pesticide Synoptic-Sampling Study--Continued

DATE	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN WATER DISSOLV (UG/L) (82630)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)
06-16-97	<0.002	<0.001	<0.002	<0.004	<0.003	<0.004	<0.018	<0.005	<0.010	<0.007	<0.002
06-18-97	<0.002	<0.001	0.005	<0.004	<0.003	<0.004	<0.018	<0.005	<0.010	<0.007	<0.002
*06-18-97	<0.002	<0.001	0.005	<0.004	<0.003	<0.004	0.022	<0.005	<0.010	<0.007	<0.002
06-18-97	<0.002	<0.001	E0.004	<0.004	<0.003	<0.004	<0.018	<0.005	<0.010	<0.007	<0.002
06-18-97	<0.002	<0.001	<0.002	<0.004	<0.003	<0.004	<0.018	<0.005	<0.010	<0.007	<0.002
06-17-97	<0.002	<0.001	<0.002	<0.004	<0.003	<0.004	<0.018	<0.005	<0.010	<0.007	<0.002
06-17-97	<0.002	<0.001	<0.002	<0.004	<0.003	<0.004	<0.018	0.006	<0.010	<0.007	E0.002
06-17-97	<0.002	<0.001	E0.003	<0.004	<0.003	<0.004	0.024	0.006	<0.010	<0.007	<0.002
06-16-97	<0.002	<0.001	<0.002	<0.004	<0.003	<0.004	<0.018	0.032	0.161	<0.007	<0.002
06-16-97	<0.002	<0.001	E0.003	<0.004	<0.003	<0.004	<0.018	0.006	<0.010	<0.007	E0.002
06-11-97	<0.002	<0.001	0.026	<0.004	<0.003	<0.004	<0.018	<0.005	<0.010	<0.007	<0.002
06-10-97	<0.002	<0.001	0.005	<0.004	<0.003	<0.004	<0.018	<0.005	<0.010	<0.007	E0.002
06-11-97	<0.002	<0.001	0.018	<0.004	<0.003	0.005	<0.018	<0.005	<0.010	<0.007	<0.002
06-12-97	<0.002	<0.001	0.020	<0.004	<0.003	<0.004	<0.018	0.008	<0.010	<0.007	<0.002
06-11-97	<0.002	<0.001	0.015	<0.004	<0.003	<0.004	<0.018	<0.005	<0.010	<0.007	E0.003
06-10-97	0.007	<0.001	0.021	<0.004	<0.003	<0.004	<0.018	0.008	<0.010	<0.007	<0.002
06-16-97	<0.015	<0.001	0.215	<0.004	<0.003	<0.004	<0.018	0.012	<0.010	<0.007	E0.003
06-09-97	<0.002	E0.005	0.061	<0.004	<0.003	<0.004	<0.018	0.007	<0.010	<0.007	<0.002
06-16-97	<0.002	<0.001	E0.002	<0.004	<0.003	<0.004	<0.018	<0.005	<0.010	<0.007	E0.002
06-09-97	<0.002	<0.001	<0.002	<0.004	<0.003	<0.004	0.018	0.009	<0.010	<0.007	<0.002
06-17-97	<0.002	<0.001	0.029	<0.004	<0.003	<0.004	<0.018	0.012	<0.010	<0.007	<0.002
06-17-97	<0.002	<0.001	0.005	<0.004	<0.003	<0.004	<0.018	0.012	<0.010	<0.007	<0.002
06-09-97	<0.002	<0.001	<0.002	<0.004	<0.003	<0.004	<0.018	<0.005	<0.010	<0.007	<0.002
06-17-97	<0.002	<0.001	0.015	<0.004	<0.003	<0.004	<0.018	<0.005	<0.010	<0.007	<0.002
06-10-97	<0.002	<0.001	0.061	<0.004	<0.003	<0.004	<0.018	0.005	<0.010	<0.007	<0.002
06-10-97	<0.002	<0.001	0.036	<0.004	<0.003	<0.004	<0.018	0.043	<0.010	<0.007	<0.002
06-18-97	<0.002	<0.001	0.034	<0.004	<0.003	<0.004	<0.018	<0.005	<0.010	<0.007	<0.002
06-17-97	<0.002	<0.001	<0.002	<0.004	<0.003	<0.004	<0.018	<0.005	<0.010	<0.007	<0.002
06-17-97	<0.002	<0.001	0.023	0.010	<0.003	<0.004	<0.018	0.375	<0.010	<0.007	<0.002
06-17-97	<0.002	<0.001	0.012	<0.004	<0.003	<0.004	<0.018	0.426	<0.010	<0.007	<0.002
06-18-97	<0.002	<0.001	0.015	<0.004	<0.003	<0.004	<0.018	0.227	<0.010	<0.007	<0.002
06-10-97	<0.002	<0.001	0.029	<0.004	<0.003	<0.004	<0.018	<0.005	<0.010	<0.007	<0.002
06-10-97	<0.002	<0.001	0.204	<0.004	<0.003	<0.004	<0.018	0.009	<0.010	<0.007	<0.002
06-17-97	<0.002	E0.118	0.092	<0.004	0.047	<0.004	<0.018	0.139	<0.010	<0.007	<0.002
06-17-97	<0.002	E0.330	0.016	<0.004	<0.003	<0.004	<0.018	0.056	<0.010	E0.012	<0.002
06-10-97	<0.002	<0.001	0.142	<0.004	<0.003	<0.004	<0.018	<0.005	<0.010	<0.007	<0.002
06-10-97	<0.002	<0.001	0.102	<0.004	<0.003	<0.004	<0.018	0.015	<0.010	<0.007	<0.002
06-11-97	<0.002	<0.001	0.059	<0.004	<0.003	<0.004	<0.018	0.005	<0.010	<0.007	<0.002
06-16-97	<0.002	<0.001	0.044	<0.004	<0.003	<0.004	<0.018	E0.005	<0.010	<0.007	<0.002
06-16-97	<0.002	<0.001	0.119	<0.004	<0.003	<0.004	<0.018	<0.005	<0.010	<0.007	<0.002
06-16-97	<0.002	E0.028	0.028	<0.004	<0.003	<0.004	<0.018	0.015	<0.010	E0.007	<0.002
06-16-97	0.039	E0.015	0.145	<0.004	<0.003	<0.004	<0.018	0.048	<0.010	<0.007	<0.002
06-09-97	<0.002	<0.001	0.037	<0.004	<0.003	<0.004	<0.018	<0.005	0.011	<0.007	<0.002
06-09-97	<0.002	<0.001	0.005	<0.004	<0.003	<0.004	<0.018	0.566	<0.010	<0.007	<0.002
06-11-97	<0.002	<0.001	0.020	<0.004	<0.003	<0.004	<0.018	0.009	<0.010	<0.007	<0.002
06-16-97	<0.002	<0.001	0.011	<0.004	<0.003	<0.004	<0.018	0.022	<0.010	<0.007	<0.002
06-11-97	0.011	<0.001	0.328	<0.004	<0.003	<0.004	<0.018	0.010	<0.010	<0.007	<0.002
06-16-97	<0.002	<0.001	0.091	<0.004	<0.003	<0.004	<0.018	<0.005	<0.010	<0.007	<0.002
06-17-97	<0.002	<0.001	0.380	<0.004	<0.003	<0.004	<0.018	<0.005	<0.010	<0.007	<0.002
06-11-97	<0.002	<0.001	0.141	<0.004	<0.003	<0.004	<0.018	0.038	<0.010	<0.007	<0.002
06-17-97	<0.002	<0.001	0.025	<0.004	<0.003	<0.004	<0.018	0.349	<0.010	<0.007	<0.002
06-09-97	<0.002	<0.001	0.011	<0.004	<0.003	<0.004	<0.018	<0.005	<0.010	<0.007	<0.002
06-09-97	<0.002	<0.001	0.163	<0.004	<0.003	<0.004	<0.018	0.026	<0.010	<0.007	<0.002
06-19-97	<0.002	<0.001	0.006	<0.004	<0.003	<0.004	<0.018	<0.005	<0.010	<0.007	<0.002
06-19-97	<0.002	<0.001	0.005	<0.004	<0.003	<0.004	<0.018	<0.005	<0.010	<0.007	<0.002
06-18-97	<0.002	<0.001	E0.002	<0.004	<0.003	<0.004	<0.018	<0.005	<0.010	<0.007	<0.002
06-12-97	<0.002	<0.001	0.022	<0.004	<0.003	<0.004	<0.018	<0.005	<0.010	<0.007	E0.002
07-02-97	<0.002	<0.001	0.058	<0.004	<0.003	<0.004	<0.018	0.017	<0.010	<0.007	<0.002
06-09-97	<0.002	<0.001	E0.004	<0.004	<0.003	<0.004	<0.018	0.305	<0.010	<0.007	<0.002
06-10-97	<0.002	<0.001	1.23	0.020	<0.003	<0.004	<0.018	0.007	<0.010	<0.007	<0.002
06-12-97	<0.002	<0.001	<0.002	<0.004	<0.003	<0.004	<0.018	<0.005	<0.010	<0.007	<0.002
06-09-97	<0.002	<0.001	E0.003	<0.004	<0.003	<0.004	<0.018	0.052	<0.010	<0.007	<0.002
07-02-97	<0.002	<0.001	0.013	<0.004	<0.003	<0.004	<0.018	0.010	<0.010	<0.007	<0.002
06-10-97	<0.002	<0.001	0.421	<0.004	<0.003	<0.004	<0.018	<0.005	<0.010	<0.007	<0.002
07-02-97	<0.002	<0.001	0.010	<0.004	<0.003	<0.004	<0.018	<0.005	<0.010	<0.007	<0.002

* Replicate sample.

E Estimate.

GROUND-WATER LEVELS

ALBANY COUNTY

424114073495402. Local number, A 636.

LOCATION.--Lat 42°41'14", long 73°49'54", Hydrologic Unit 02020006, Fuller Road, Albany.

Owner: State University of New York at Albany.

AQUIFER.--Water-table aquifer in sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 20.9 ft in July 1995, filled in from original depth of 24 ft, cased to 22 ft, 2-in. jet point (60-gauge screen 22 ft to 24 ft). Well gravel packed from original depth of 26 ft.

INSTRUMENTATION.--Water-stage recorder--hourly.

DATUM.--Elevation of land-surface datum is 260 ft above sea level, from topographic map.

Measuring point: Top of casing, 2.40 ft above land-surface datum.

REMARKS.--Well was drilled May 1974 as a replacement for 424114073495401 (local number A 635), located 35 ft north, which had a period of record from November 1965 to May 1974 (unpublished).

PERIOD OF RECORD.--May 1974 to August 1995, January to September 1997. Records prior to October 1976 are unpublished and available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.12 ft below land-surface datum, Apr. 12, 13, 1978, June 5, 6-7, 8, 1984; lowest, 13.13 ft below land-surface datum, Oct. 29, Nov. 25, 26-Dec. 17, 18, 20, 21-22, 23, 1981.

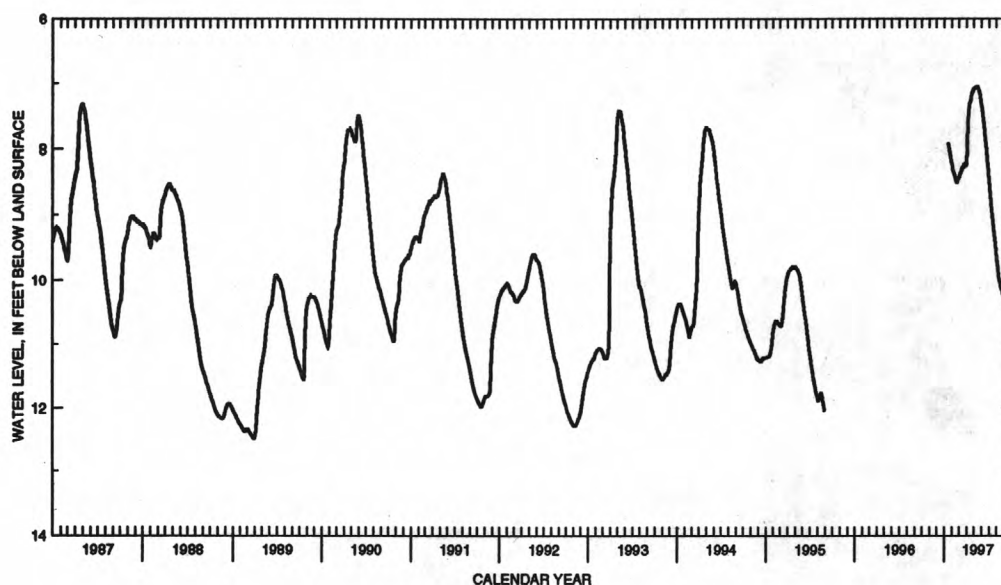
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), JANUARY TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	8.24	8.44	8.24	7.08	7.33	8.43	9.61	10.29
2	---	---	---	---	8.26	8.43	8.21	7.08	7.36	8.48	9.65	10.31
3	---	---	---	---	8.29	8.42	8.12	7.08	7.38	8.52	9.68	10.32
4	---	---	---	---	8.32	8.41	7.98	7.08	7.41	8.56	9.72	10.34
5	---	---	---	---	8.33	8.41	7.84	7.08	7.44	8.60	9.75	10.36
6	---	---	---	---	8.34	8.38	7.71	7.07	7.47	8.64	9.79	10.37
7	---	---	---	---	8.35	8.38	7.59	7.07	7.51	8.69	9.82	10.39
8	---	---	---	---	8.36	8.37	7.52	7.07	7.53	8.74	9.85	10.40
9	---	---	---	---	8.37	8.37	7.46	7.06	7.57	8.78	9.88	10.42
10	---	---	---	---	8.38	8.35	7.42	7.05	7.60	8.82	9.91	10.43
11	---	---	---	---	8.39	8.33	7.39	7.05	7.64	8.86	9.95	10.45
12	---	---	---	---	8.40	8.32	7.36	7.05	7.67	8.90	9.98	10.46
13	---	---	---	---	8.42	8.32	7.32	7.05	7.71	8.93	10.00	10.47
14	---	---	---	---	8.44	8.31	7.30	7.05	7.75	8.97	10.02	10.48
15	---	---	---	---	8.44	8.29	7.30	7.05	7.79	9.02	10.04	10.49
16	---	---	---	7.92	8.46	8.29	7.29	7.05	7.83	9.05	10.05	10.50
17	---	---	---	7.93	8.48	8.29	7.28	7.06	7.87	9.09	10.07	10.51
18	---	---	---	7.95	8.50	8.28	7.27	7.08	7.90	9.12	10.09	10.52
19	---	---	---	7.98	8.51	8.28	7.25	7.09	7.94	9.16	10.11	10.53
20	---	---	---	7.99	8.52	8.27	7.23	7.10	7.98	9.20	10.13	10.54
21	---	---	---	8.02	8.52	8.26	7.21	7.11	8.01	9.23	10.15	10.55
22	---	---	---	8.04	8.50	8.24	7.19	7.12	8.05	9.26	10.16	10.56
23	---	---	---	8.05	8.49	8.24	7.17	7.14	8.10	9.29	10.17	10.57
24	---	---	---	8.08	8.49	8.25	7.15	7.16	8.14	9.32	10.18	10.57
25	---	---	---	8.09	8.48	8.26	7.14	7.17	8.18	9.36	10.19	10.58
26	---	---	---	8.11	8.47	8.25	7.13	7.19	8.22	9.39	10.21	10.59
27	---	---	---	8.14	8.45	8.24	7.13	7.21	8.25	9.42	10.22	10.60
28	---	---	---	8.16	8.44	8.25	7.11	7.24	8.30	9.46	10.24	10.61
29	---	---	---	8.18	---	8.27	7.10	7.27	8.34	9.49	10.25	10.62
30	---	---	---	8.21	---	8.26	7.09	7.29	8.39	9.53	10.26	10.63
31	---	---	---	8.23	---	8.25	---	7.31	---	9.57	10.28	---

JAN. to SEPT. 1997

HIGHEST 7.05 May 10, 11-15, 16, 1997

LOWEST 10.63 Sept. 30, 1997



GROUND-WATER LEVELS

329

DUTCHESS COUNTY

414737073563301. Local number, Du 321.

LOCATION.--Lat 41°47'37", long 73°56'33", Hydrologic Unit 02020008, near Hyde Park.

Owner: U.S. National Park Service.

AQUIFER.--Confined aquifer in shale of Ordovician age.

WELL CHARACTERISTICS.--Drilled unused well, diameter 6 in., depth 127 ft, cased to unknown depth, open hole.

INSTRUMENTATION.--Water-stage recorder--hourly.

DATUM.--Elevation of land-surface datum is 170 ft above sea level, from topographic map.

Measuring point: Top of extended casing, 3.10 ft above land-surface datum.

REMARKS.--Water level responds to semidiurnal earth tides (approximately 0.05 ft).

PERIOD OF RECORD.--September 1948 to April 1950, April 1953 to September 1997 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 65.62 ft below land-surface datum, June 22, 1953; lowest, 73.85 ft below land-surface datum, Sept. 13, 1966.

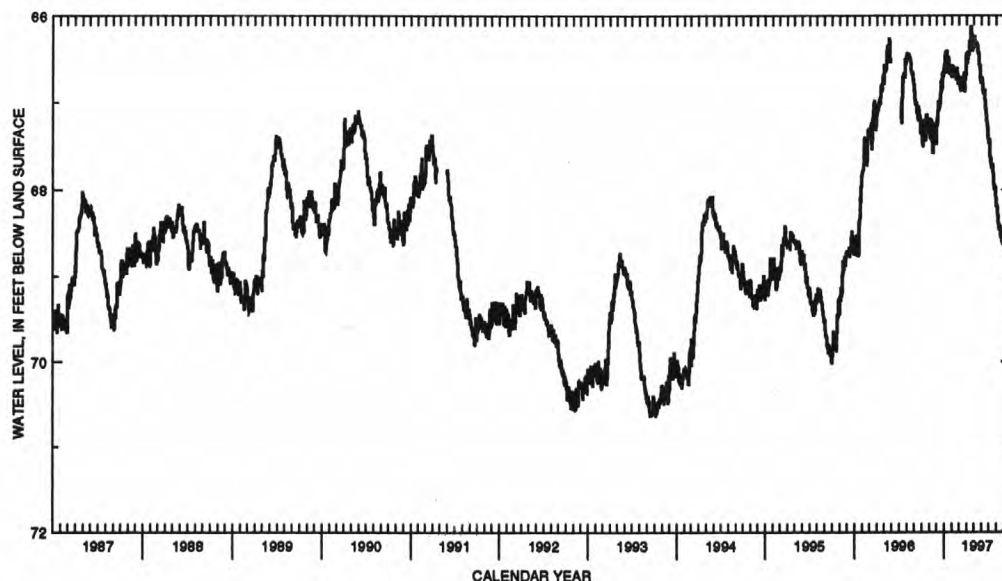
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67.36	67.19	67.41	66.67	66.57	66.78	66.43	66.26	66.73	67.46	68.18	68.62
2	67.38	67.19	67.22	66.60	66.58	66.74	66.46	66.27	66.72	67.46	68.18	68.65
3	67.36	67.24	67.18	66.50	66.64	66.74	66.51	66.29	66.72	67.44	68.17	68.64
4	67.41	67.33	67.20	66.48	66.72	66.79	66.52	66.23	66.74	67.42	68.18	68.65
5	67.47	67.39	67.24	66.45	66.66	66.82	66.55	66.28	66.76	67.46	68.19	68.67
6	67.50	67.42	67.18	66.41	66.58	66.72	66.54	66.30	66.81	67.54	68.22	68.70
7	67.46	67.42	67.11	66.44	66.59	66.72	66.46	66.32	66.85	67.62	68.28	68.71
8	67.38	67.34	67.00	66.49	66.63	66.79	66.42	66.36	66.88	67.67	68.33	68.71
9	67.25	67.21	66.99	66.53	66.65	66.88	66.42	66.36	66.89	67.68	68.37	68.74
10	67.20	67.19	67.04	66.43	66.65	66.85	66.44	66.31	66.90	67.64	68.39	68.77
11	67.25	67.23	67.06	66.40	66.64	66.78	66.47	66.31	66.90	67.68	68.41	68.77
12	67.35	67.32	67.07	66.47	66.64	66.77	66.45	66.32	66.88	67.73	68.43	68.69
13	67.40	67.41	67.06	66.56	66.68	66.85	66.33	66.32	66.86	67.74	68.42	68.68
14	67.39	67.48	67.03	66.63	66.71	66.87	66.29	66.33	66.85	67.74	68.40	68.70
15	67.41	67.54	67.02	66.67	66.65	66.76	66.36	66.35	66.93	67.75	68.41	68.73
16	67.42	67.58	67.01	66.56	66.67	66.77	66.38	66.35	67.00	67.71	68.42	68.73
17	67.42	67.56	66.93	66.48	66.71	66.82	66.34	66.39	67.04	67.71	68.44	68.75
18	67.44	67.47	66.85	66.49	66.74	66.83	66.24	66.44	67.07	67.72	68.46	68.76
19	67.41	67.34	66.78	66.55	66.69	66.85	66.13	66.45	67.07	67.75	68.51	68.78
20	67.24	67.27	66.74	66.56	66.69	66.79	66.13	66.41	67.11	67.83	68.55	68.77
21	67.13	67.25	66.82	66.62	66.69	66.72	66.18	66.44	67.14	67.89	68.50	68.81
22	67.14	67.27	66.87	66.66	66.60	66.65	66.21	66.49	67.16	67.91	68.45	68.88
23	67.19	67.33	66.86	66.62	66.63	66.69	66.22	66.55	67.20	67.94	68.46	68.89
24	67.19	67.39	66.78	66.69	66.71	66.80	66.23	66.59	67.26	67.98	68.52	68.90
25	67.23	67.45	66.66	66.61	66.78	66.89	66.28	66.59	67.28	67.98	68.58	68.88
26	67.31	67.38	66.68	66.59	66.78	66.80	66.35	66.56	67.28	67.97	68.62	68.86
27	67.36	67.35	66.70	66.69	66.71	66.73	66.41	66.63	67.29	67.96	68.63	68.91
28	67.31	67.42	66.70	66.65	66.71	66.73	66.36	66.71	67.35	67.95	68.57	68.96
29	67.26	67.46	66.65	66.67	---	66.71	66.28	66.77	67.41	67.98	68.51	68.85
30	67.22	67.48	66.62	66.71	---	66.68	66.28	66.78	67.45	68.07	68.53	68.76
31	67.18	---	66.64	66.67	---	66.61	---	66.76	---	68.14	68.57	---

WTR YEAR 1997

HIGHEST 66.10 Apr. 19, 1997

LOWEST 68.99 Sept. 28, 1997



GROUND-WATER LEVELS

ONEIDA COUNTY

433112075091501. Local number, Oe 151.

LOCATION.--Lat 43°31'12", long 75°09'15", Hydrologic Unit 04150101, at Woodgate.

Owner: Henry Rubyor.

AQUIFER.--Water-table aquifer in sand of Pleistocene age.

WELL CHARACTERISTICS.--Dug domestic well, diameter 36 in., depth 30.9 ft in May 1996, stone-lined.

INSTRUMENTATION.--Water-stage recorder--hourly. Tapa gage read weekly by observer through September 7, 1991.

DATUM.--Elevation of land-surface datum is 1,484.94 ft above sea level.

Measuring point: Top of 2-ft square concrete well cover at midpoint of south side of rectangular opening, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--July 1926 to August 1945, October 1948 to current year.

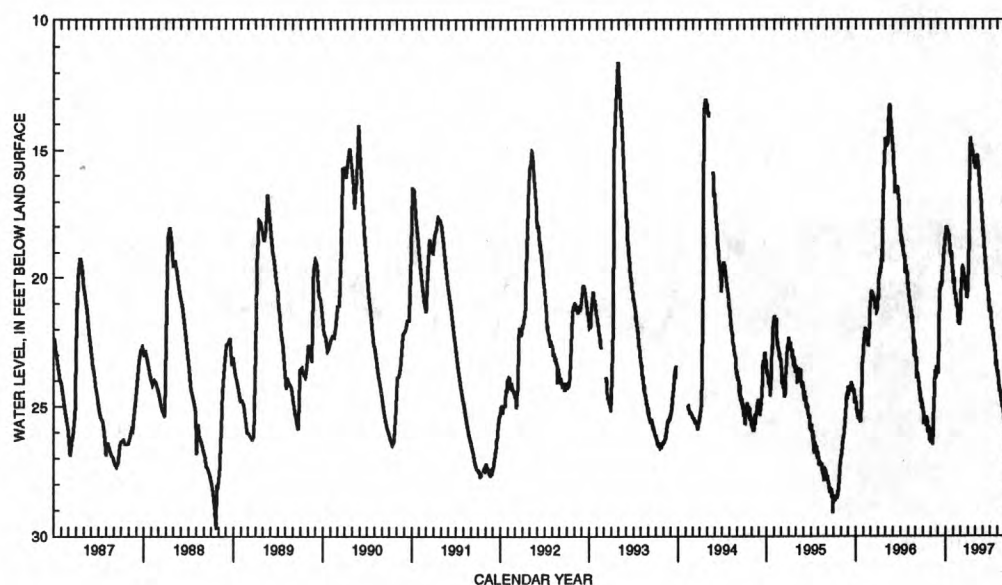
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.43 ft below land-surface datum, Apr. 3, 1976; lowest measured, 30.31 ft below land-surface datum, Feb. 25, 1961.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.03	25.86	23.49	18.48	19.72	21.55	20.49	15.47	17.80	21.16	23.69	25.58
2	25.17	26.31	23.56	18.32	20.23	21.52	20.50	15.70	18.03	21.27	23.61	25.68
3	25.21	26.30	23.72	18.08	20.17	21.35	20.07	15.66	18.24	21.28	23.81	25.63
4	25.44	26.10	23.16	18.04	20.08	21.10	19.82	15.65	18.22	21.34	23.83	25.75
5	25.69	26.22	22.71	17.99	20.07	20.70	19.65	15.72	18.40	21.37	23.86	25.74
6	25.59	26.21	21.85	18.28	20.27	20.34	19.15	15.50	18.50	21.52	24.05	25.77
7	25.45	26.13	21.34	18.24	20.65	20.17	18.38	15.47	18.61	21.64	24.18	25.73
8	25.64	26.18	20.83	18.19	20.61	20.11	17.02	15.37	18.81	21.88	24.29	26.21
9	25.68	26.38	20.50	18.27	20.61	20.01	15.66	15.25	19.02	21.96	24.28	26.11
10	25.61	26.46	20.48	18.08	20.62	19.63	15.20	15.16	19.12	22.04	24.35	26.00
11	25.36	25.97	20.39	18.26	20.70	19.60	14.94	15.34	19.22	22.01	24.33	25.94
12	25.53	25.55	20.30	18.24	20.83	19.66	14.57	15.25	19.49	21.97	24.40	26.05
13	25.52	25.37	20.17	18.29	20.87	19.61	14.50	15.45	19.44	22.10	24.43	26.22
14	25.76	25.11	20.25	18.24	20.83	19.64	14.87	15.66	19.55	22.21	24.56	26.08
15	25.65	24.76	20.36	18.28	21.12	19.77	14.99	15.64	19.77	22.20	24.65	26.20
16	25.58	24.69	20.26	---	21.09	20.08	14.83	15.61	19.95	22.29	24.66	26.42
17	25.41	24.38	20.20	---	21.08	19.83	14.78	15.82	19.94	22.42	24.78	26.33
18	25.41	23.90	20.24	---	21.12	19.91	14.86	16.08	20.32	22.59	24.82	26.36
19	25.77	23.93	19.89	---	21.31	20.21	14.94	16.21	20.33	22.65	24.94	26.69
20	25.89	23.64	19.63	---	21.52	19.96	14.98	16.34	20.19	22.57	25.03	26.59
21	25.99	23.65	19.70	19.07	21.40	20.15	14.95	16.46	20.30	22.68	24.75	26.57
22	25.93	23.64	19.66	19.06	21.47	20.30	15.04	16.59	20.56	22.81	24.71	26.56
23	25.75	23.89	19.55	19.00	21.70	20.50	15.13	16.65	20.52	22.88	25.06	26.45
24	25.79	23.88	19.27	19.25	21.80	20.46	15.12	16.82	20.64	23.02	25.14	26.48
25	25.89	23.53	19.10	18.96	21.73	20.40	15.29	16.83	20.79	23.43	25.23	26.74
26	25.98	23.44	19.00	19.32	21.55	20.41	15.45	16.98	20.91	23.23	25.18	26.71
27	25.84	23.64	18.95	19.54	21.66	20.46	15.54	17.28	20.85	23.18	25.17	26.74
28	26.04	23.55	18.68	19.42	21.84	20.63	15.33	17.40	20.87	23.25	25.52	26.89
29	26.30	23.55	18.42	---	---	20.78	15.44	17.50	21.36	23.53	25.36	26.90
30	26.06	23.50	18.62	---	---	20.77	15.45	17.68	21.22	23.60	25.42	27.02
31	25.94	---	18.46	19.84	---	20.58	---	17.80	---	23.65	25.46	---

WTR YEAR 1997

HIGHEST 14.39 Apr. 13, 1997 LOWEST 27.33 Sept. 28, 30, 1997



GROUND-WATER LEVELS

331

ST. LAWRENCE COUNTY

444904074455201. Local number, St 40.

LOCATION.--Lat 44°49'04", long 74°45'52", Hydrologic Unit 04150306, near Brasher Falls.

Owner: New York State Department of Environmental Conservation.

AQUIFER.--Water-table aquifer in sand of Pleistocene age.

WELL CHARACTERISTICS.--Dug unused well, diameter 36 in., depth 11.3 ft in October 1985, filled in from original depth of 12 ft, concrete cased to 12 ft, open end.

INSTRUMENTATION.--Tape gage read weekly by observer.

DATUM.--Elevation of land-surface datum is 300 ft above sea level, from topographic map.

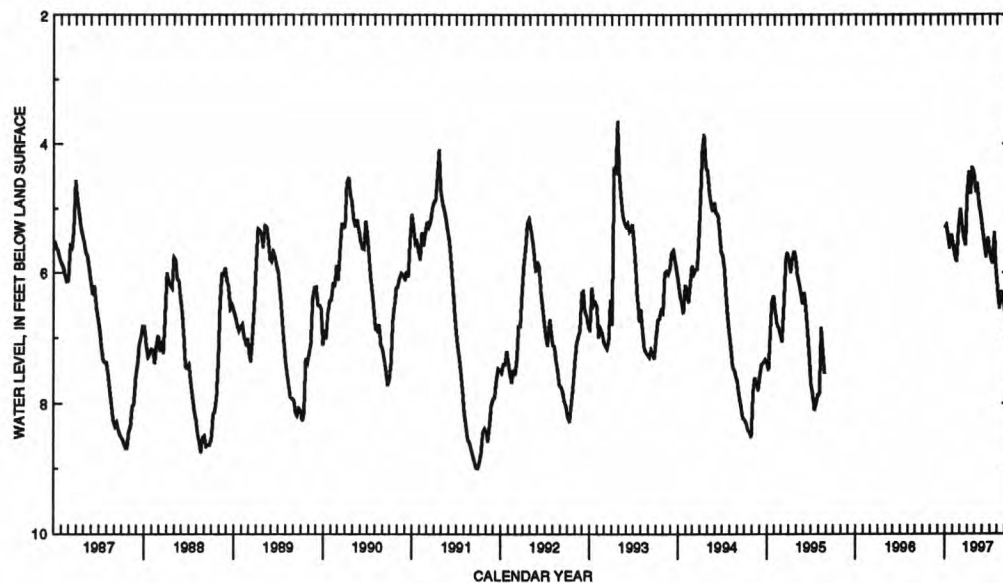
Measuring point: Chiseled mark on top edge of 6-in. by 8-in. opening of concrete well cover, 0.65 ft above land-surface datum.

PERIOD OF RECORD.--May 1953 to August 1995, December 1996 to September 1997.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.24 ft below land-surface datum, Apr. 21, 1971; lowest measured, 9.38 ft below land-surface datum, Oct. 24, 1964.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, DECEMBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 30, 1996	5.28	MAR 10, 1997	5.22	MAY 19, 1997	4.93	JUL 27, 1997	5.89
JAN 06, 1997	5.25	17	5.43	26	5.12	AUG 04	6.23
13	5.44	24	5.56	JUN 02	5.28	11	6.54
20	5.61	31	4.86	09	5.52	18	6.28
27	5.40	APR 07	4.43	16	5.75	25	6.44
FEB 03	5.58	14	4.77	23	5.45	SEP 01	6.54
10	5.76	21	4.37	30	5.65	08	6.78
17	5.82	28	4.45	JUL 07	5.80	15	6.86
24	5.30	MAY 05	4.74	13	5.85	23	6.79
MAR 03	5.01	12	4.61	20	5.37	29	6.84



GROUND-WATER LEVELS

SARATOGA COUNTY

425242073473201. Local number, Sa 1100.

LOCATION.--Lat 42°52'42", long 73°47'32", Hydrologic Unit 02020004, near Clifton Park.

Owner: Country Knolls Water Works.

AQUIFER.--Confined aquifer in sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled unused well, diameter 6 in., depth 180 ft, cased to 180 ft, open end.

INSTRUMENTATION.--Water-stage recorder--hourly.

DATUM.--Elevation of land-surface datum is 248 ft above sea level, from topographic map.

Measuring point: Top of casing, 3.00 ft above land-surface datum.

REMARKS.--Water level affected by pumping from nearby public-supply well.

PERIOD OF RECORD.--April 1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 21.84 ft below land-surface datum, Mar. 23, 24, 1986; lowest recorded, 111.99 ft below land-surface datum, Aug. 3, 1997.

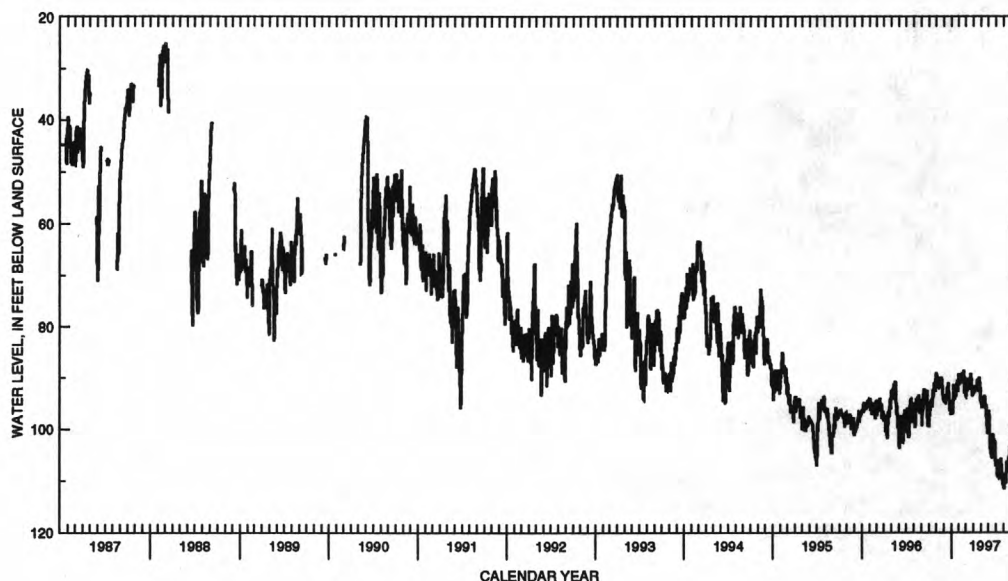
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	99.59	89.13	94.41	96.98	90.12	93.59	93.27	94.96	97.39	106.85	111.34	104.36
2	97.59	89.87	94.24	95.86	91.54	93.66	93.11	95.14	96.74	107.27	111.54	104.98
3	98.10	91.07	94.15	95.76	91.11	93.33	92.30	94.13	96.37	107.05	111.67	104.72
4	97.51	91.01	94.37	96.12	90.70	92.21	92.20	94.12	97.46	106.61	111.08	104.53
5	96.96	90.74	94.33	96.97	90.16	91.78	92.76	95.71	99.24	106.54	109.98	104.54
6	96.46	90.93	93.46	96.96	89.35	90.29	92.55	95.79	101.08	107.52	108.73	104.31
7	96.25	91.03	94.40	95.24	89.74	91.09	92.36	94.94	102.34	108.78	108.91	103.83
8	95.48	90.00	94.23	94.71	89.83	91.88	92.58	95.84	103.15	109.30	109.91	104.10
9	94.47	90.71	95.34	93.91	91.08	92.67	92.52	94.60	104.18	107.50	110.13	103.19
10	95.23	92.19	94.95	91.51	91.04	91.74	92.23	93.84	104.68	106.03	110.45	103.59
11	95.35	92.33	93.48	92.86	89.63	91.35	92.47	94.65	104.89	106.75	110.79	103.84
12	95.35	91.03	93.65	93.97	89.64	91.93	91.71	95.31	104.56	107.51	109.55	103.25
13	94.97	91.13	93.23	93.53	90.27	91.71	92.00	94.35	104.80	108.25	108.28	104.02
14	95.07	90.78	92.11	94.11	89.05	91.24	92.81	94.22	105.50	109.19	107.48	104.84
15	95.76	89.98	93.81	94.24	89.75	91.17	92.15	93.85	105.80	109.78	107.20	105.29
16	94.45	91.42	93.60	92.07	90.82	92.34	91.80	93.54	105.47	108.16	106.26	104.69
17	93.67	91.34	92.10	92.76	90.78	92.14	91.33	94.13	105.17	107.35	106.45	104.96
18	92.46	90.41	91.95	93.40	90.10	91.19	90.32	95.03	103.14	106.29	107.62	103.77
19	92.70	90.55	91.70	93.67	89.66	90.63	90.51	96.01	101.14	106.18	107.78	103.42
20	93.00	91.25	91.06	93.12	89.25	90.01	91.17	95.69	101.47	106.34	107.86	103.17
21	93.60	90.15	93.10	93.04	88.71	89.29	92.02	95.29	102.24	106.89	106.69	104.04
22	92.86	90.17	94.29	91.18	90.06	89.50	92.73	95.52	103.81	105.79	105.81	104.20
23	91.78	91.65	94.34	91.41	91.94	90.72	91.73	96.82	105.52	106.81	105.66	102.84
24	91.09	92.16	94.71	91.70	92.98	91.96	90.22	97.65	104.85	107.42	105.60	103.36
25	91.36	91.91	95.86	90.55	92.55	92.17	89.93	97.82	103.55	107.96	105.63	103.29
26	92.61	91.71	96.47	92.62	92.18	92.47	92.26	98.06	102.41	108.83	105.59	104.60
27	92.76	92.97	96.21	92.79	92.55	93.60	92.97	99.73	102.48	109.36	105.03	106.23
28	92.15	94.03	96.32	90.80	92.96	93.44	92.01	100.91	104.07	109.64	103.79	106.53
29	90.77	94.44	96.29	91.37	---	91.68	92.79	100.00	105.32	110.14	103.38	105.52
30	89.98	94.24	97.28	90.99	---	93.43	94.47	97.99	106.23	110.79	103.30	104.98
31	90.05	---	96.81	89.34	---	92.70	---	97.17	---	110.86	103.90	---

WTR YEAR 1997

HIGHEST 87.44 Feb. 21, 1997

LOWEST 111.99 Aug. 3, 1997



CHEMICAL QUALITY OF PRECIPITATION

333

DELAWARE RIVER BASIN

BISCUIT BROOK ABOVE PIGEON BROOK AT FROST VALLEY, NY
(National trends network - site 00336840)

LOCATION.--Lat 41°59'37", long 74°30'13", Ulster County, Hydrologic Unit 02040104, 0.5 mi downstream from Hydrologic benchmark station at Biscuit Brook above Pigeon Brook at Frost Valley (site number 01434025).

PERIOD OF RECORD.--October 1994 to current year. Records from October 1983 to September 1994 are unpublished and available in files of the Geological Survey.

INSTRUMENTATION.--The wetfall and dustfall sample collector is an Aerochem Metrics Model 301*. An automatic sensor detects precipitation and activates a motor that removes the cover from the wetfall-collection vessel and covers the dustfall-collection vessel. When precipitation ceases, the cycle is reversed. Inches of precipitation are obtained from an onsite recording weighing-bucket rain gage.

REMARKS.--Also published as a continuous-record gaging station (see station 01434025).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
WEEKLY WETFALL

Date	TOTAL PRECIP- ITATION FOR DEFINED PERIOD (IN) (00193)	SPEC. CONDUCT- TANCE FIELD ATM DEP (US/CM) (83154)	PH FIELD ATM DEP (UNITS) (83106)	CALCIUM ATM DEP (MG/L) (82932)	MAG- NESIUM ATM DEP (MG/L) (83002)	SODIUM ATM DEP (MG/L) (83138)	POTAS- SIUM ATM DEP (MG/L) (83120)	SULFATE ATM DEP (MG/L) (83160)	CHLO- RIDE ATM DEP (MG/L) (82944)	NI- TROGEN NITRATE ATM DEP (MG/L) (83071)	NI- TROGEN AMMON. ATM DEP (MG/L) (83047)
	WET TOT	WET T	WET DIS	WET DIS	WET DIS	WET DIS	WET DIS	AS SO4	WET DIS	AS NO3	AS NH4
	(IN)	(US/CM)	(UNITS)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)
	(00193)	(83154)	(83106)	(82932)	(83002)	(83138)	(83120)	(83160)	(82944)	(83071)	(83047)
OCT 01-08	0.18	64.2	3.91	0.12	0.020	0.064	0.019	4.14	0.18	4.69	0.29
OCT 08-15	1.41	15.7	4.45	0.03	0.007	0.030	0.006	1.10	0.08	1.19	0.17
OCT 15-22	5.72	5.1	5.08	0.03	0.024	0.072	0.189	0.34	0.14	0.25	0.08
OCT 22-29	0.49	38.8	4.14	0.10	0.025	0.127	0.025	2.94	0.20	3.44	0.51
OCT 29-NOV 05	0.16	51.6	3.94	0.22	0.052	0.205	0.046	4.14	0.61	4.41	0.99
NOV 05-12	5.14	10.5	4.63	0.01	0.025	0.229	0.009	0.48	0.40	0.58	0.07
NOV 12-19	0.55	11.4	4.57	0.02	0.012	0.136	0.008	0.95	0.21	0.50	0.04
NOV 19-26	0.94	23.7	4.32	0.05	0.007	0.028	0.007	1.56	0.09	1.85	0.23
NOV 26-DEC 03	5.07	--	--	--	--	--	--	--	--	--	--
DEC 03-10	1.41	--	--	--	--	--	--	--	--	--	--
DEC 10-17	1.66	24.2	4.26	0.06	0.012	0.079	0.012	1.65	0.19	1.71	0.12
DEC 17-23	0.38	16.9	4.44	0.13	0.006	0.037	0.011	0.89	0.06	1.73	0.07
DEC 23-31	1.44	21.8	4.35	0.03	0.010	0.090	0.011	1.70	0.17	1.30	0.22
DEC 31-JAN 07	0.49	34.3	4.19	0.05	0.006	0.038	0.012	2.28	0.12	2.89	0.41
JAN 07-14	0.61	12.3	4.60	0.07	0.006	0.036	0.006	0.62	0.11	1.18	0.06
JAN 14-21	0.92	10.5	4.63	0.01	<0.003	0.027	0.004	0.49	0.05	1.05	0.09
JAN 21-29	2.18	17.1	4.45	0.02	0.006	0.059	0.010	0.97	0.15	1.27	0.06
JAN 29-FEB 04	0.60	24.1	4.31	0.13	0.010	0.046	0.010	1.14	0.12	2.94	0.36
FEB 04-11	1.00	13.0	4.61	0.03	0.003	0.032	0.004	1.02	0.08	0.58	0.06
FEB 11-18	0.82	14.5	4.56	0.02	0.007	0.058	0.005	0.62	0.13	1.41	0.11
FEB 18-25	0.30	37.1	4.15	0.14	0.028	0.164	0.020	2.76	0.31	3.19	0.52
FEB 25-MAR 04	0.75	24.8	4.32	0.11	0.018	0.123	0.018	1.75	0.21	1.84	0.22
MAR 04-11	1.46	27.6	4.13	0.08	0.009	0.029	0.007	1.74	0.11	2.37	0.26
MAR 11-18	1.02	13.0	4.56	0.03	0.007	0.041	0.006	0.82	0.10	0.95	0.08
MAR 18-25	0.47	41.9	4.18	0.28	0.036	0.046	0.014	2.47	0.23	5.29	0.78
MAR 25-APR 02	3.20	15.8	4.49	0.06	0.012	0.059	0.004	1.24	0.13	1.05	0.15
APR 02-08	0.15	68.9	3.93	0.48	0.095	0.376	0.125	4.87	0.66	6.40	0.78
APR 08-15	0.84	14.0	4.51	0.03	0.006	0.029	0.004	0.86	0.05	1.10	0.04
APR 15-22	0.67	17.7	4.46	0.05	0.007	0.020	0.010	1.24	0.05	1.52	0.22
APR 22-29	1.30	9.2	4.70	0.02	0.003	0.018	0.009	0.71	0.03	0.64	0.10
APR 29-MAY 06	--	24.1	4.40	0.13	0.021	0.040	0.030	2.06	0.10	1.93	0.33
MAY 06-13	0.80	26.3	4.35	0.20	0.032	0.027	0.033	2.46	0.07	2.22	0.48
MAY 13-20	1.47	28.2	4.31	0.14	0.020	0.027	0.023	2.58	0.08	2.19	0.56
MAY 20-27	0.24	47.5	4.01	0.22	0.019	0.018	0.020	4.73	0.09	1.99	0.34
MAY 27-JUN 03	0.33	12.5	4.66	0.05	0.023	0.154	0.016	0.62	0.28	1.04	<0.02
JUN 03-10	0.00	--	--	--	--	--	--	--	--	--	--
JUN 10-17	0.15	32.6	4.20	0.08	0.014	0.054	0.051	2.59	0.14	1.92	0.11
JUN 17-24	0.16	84.6	3.80	0.15	0.027	0.047	0.033	6.24	0.26	5.72	0.46
JUN 24-JUL 01	0.27	19.2	4.49	0.10	0.015	0.026	0.014	1.54	0.08	1.51	0.23
JUL 01-08	0.23	48.4	4.05	0.07	0.024	0.134	0.025	3.66	0.27	3.44	0.40
JUL 08-15	0.62	63.0	3.89	0.12	0.015	0.031	0.031	5.99	0.13	2.70	0.52
JUL 15-22	2.16	49.8	4.01	0.16	0.020	0.052	0.014	4.68	0.11	2.38	0.49
JUL 22-29	TRACE	63.8	--	--	--	--	--	--	--	--	--
JUL 29-AUG 05	0.13	13.7	4.63	0.11	0.009	0.028	0.035	0.88	0.07	1.06	0.03
AUG 05-12	0.05	10.2	4.98	0.17	0.030	0.080	0.021	0.79	0.15	1.20	0.24
AUG 12-19	1.91	32.9	4.21	0.03	0.005	0.020	0.004	2.88	0.08	1.53	0.23
AUG 19-26	2.09	--	--	--	--	--	--	--	--	--	--
AUG 26-SEP 02	2.09	--	--	--	--	--	--	--	--	--	--

* The use of the brand name in this report is for identification purposes only and does not imply endorsement by the U.S. Geological Survey.

NATIONAL WATER-QUALITY ASSESSMENT (NAWQA) PROGRAM

HUDSON RIVER BASIN

Introduction

In 1991, the U.S. Geological Survey began full-scale implementation of a National Water-Quality Assessment (NAWQA) program. The long-term goals of the NAWQA program are to describe the physical, chemical, and biological conditions for a large part of the Nation's surface-water and ground-water resources, and to identify the major natural and human factors that influence the quality of these resources. Sixty study units, ranging in size from 1,200 to more than 60,000 square miles and representing major river or aquifer systems in the United States, will be investigated for the NAWQA program. Water-quality information collected during the program will be useful to policy makers and managers at all levels of government as well as to other water-resource professionals.

Assessment of the 13,400 square mile Hudson River basin began in 1991. A 3-year intensive data-collection phase ended in 1996 and the study is currently in a 6-year period of low-intensity sampling, evaluation, and assessment. Intensive sampling is planned to resume in 2002.

Surface-water-quality data collected at continuous-record sites in the Hudson River basin during the 1997 water year are published immediately following the discharge records for those sites.

Ground-water data collected in the Hudson River basin during the 1997 water year is compiled in the following table. Additional information describing data-collection methods is summarized at the beginning of the table. More detailed explanations of the data-collection methods are available in the following reports:

Koterba, M., Wilde, F., and Lapham, W., 1995, Ground-water data collection protocols and procedures for the National Water-Quality Assessment program: Collection and documentation of water-quality samples and related data: U.S. Geological Survey Open-File Report 95-399, 113 p.

Shelton, L.R., 1994, Field guide for collecting and processing stream-water samples for the National Water-Quality Assessment program: U.S. Geological Survey Open-File Report 94-455, 42 p.

Method Detection Limits

Pesticide samples were analyzed for all of the following compounds. Only those compounds detected above the method detection limit (MDL) were included in the tables.

(MDL, method detection limit; ug/L, microgram per liter)

Parameter Code	Compound Name	MDL	Unit	Parameter Code	Compound Name	MDL	Unit
49260	Acetochlor	0.002	ug/L	39532	Malathion	0.005	ug/L
46342	Alachlor (Lasso)	0.002	ug/L	39415	Metolachlor (Dual)	0.002	ug/L
04040	Atrazine, desethyl-	0.002	ug/L	82630	Metribuzin (Lexone, Sencor)	0.004	ug/L
39632	Atrazine	0.001	ug/L	82671	Molinate (Ordram)	0.004	ug/L
82686	Azinphos-methyl (Guthion)	0.001	ug/L	82684	Napropamide (Devrinol)	0.003	ug/L
82673	Benfluralin (Benefin, Balan, Bonalin)	0.002	ug/L	39542	Parathion, Ethyl-	0.004	ug/L
04028	Butylate (Genate Plus, Suntan+)	0.002	ug/L	82667	Parathion, Methyl- (PennCap-M)	0.006	ug/L
82680	Carbaryl (Sevin)	0.003	ug/L	82669	Pebulate (Tillam)	0.004	ug/L
82674	Carbofuran (Furandane)	0.003	ug/L	82683	Pendimethalin	0.004	ug/L
38933	Chlorpyrifos	0.004	ug/L	82687	Permethrin, cis-	0.005	ug/L
04041	Cyanazine	0.004	ug/L	82664	Phorate (Thimet)	0.002	ug/L
82682	Dacthal (DCPA, Chlorthal-dimethyl)	0.002	ug/L	82676	Pronamide (Kerb, Propyzamid)	0.003	ug/L
34653	DDE, p,p'-	0.006	ug/L	04037	Prometon	0.018	ug/L
39572	Diazinon	0.002	ug/L	04024	Propachlor (Ramrod)	0.007	ug/L
39381	Dieldrin	0.001	ug/L	82679	Propanil (Stampede)	0.004	ug/L
82660	Diethylaniline, 2,6-	0.003	ug/L	82685	Propargite (Omite, alkyl sulfite)	0.013	ug/L
82667	Disulfoton	0.017	ug/L	04035	Simazine (Aquatone, Princep)	0.005	ug/L
82668	EPTC (Eptam)	0.002	ug/L	82681	Thiobencarb (Bolero)	0.002	ug/L
82663	Ethalfuralin (Sonalin)	0.004	ug/L	82670	Tebuthiuron (Spike)	0.010	ug/L
82672	Ethoprop (Mocap, Ethoprophos)	0.003	ug/L	82665	Terbacil (Sinbar)	0.007	ug/L
04095	Fonofos	0.003	ug/L	82675	Terbufos (Counter)	0.013	ug/L
34253	HCH, alpha-	0.002	ug/L	82678	Triallate (Avadex BW, Far-Go)	0.001	ug/L
39341	HCH, gamma- (Lindane)	0.004	ug/L	82661	Trifluralin (Treflan)	0.002	ug/L
82666	Linuron (Lorox, Linex)	0.002	ug/L				

QUALITY OF GROUND WATER

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Agricultural land-use survey
(National water-quality assessment program)

The agricultural land-use survey was designed to examine the effects of agricultural land use on shallow ground-water quality. Samples were collected during the 1997 water year from two tile drains and four wells and were analyzed for 47 pesticides and pesticide degradates.

STATION	NUMBER	DATE	TIME	FLOW RATE (G/M) (000059)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (000095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)
MONTGOMERY COUNTY											
425030074393901	04-24-97	1523	0.7	549	7.1	--	--	--	--	<0.002	0.007
425030074393901	05-22-97	0850	4.9	587	--	--	--	8.5	--	0.008	0.011
425030074393901	05-28-97	1540	2.4	6	--	--	--	10.5	--	<0.002	0.007
425030074393901	06-04-97	1640	--	555	--	--	--	--	--	<0.002	0.008
425030074393901	06-11-97	1540	1.0	650	--	--	--	--	--	<0.002	0.008
425030074393901	06-18-97	1320	1.0	590	7.2	--	--	--	--	<0.002	0.007
425030074393901	06-19-97	0950	1.0	584	--	20.0	15.5	--	--	<0.002	0.007
425030074393901	06-25-97	1410	1.9	382	--	--	--	--	--	<0.002	0.009
425030074393901	07-01-97	1330	0.5	342	6.5	31.0	19.0	742	--	<0.002	0.006
425030074393901	07-09-97	1530	0.3	355	7.8	24.5	18.0	--	--	<0.002	0.008
425030074393901	07-16-97	1140	0.1	--	--	--	--	--	--	<0.002	0.009
425032074393901	08-21-97	1200	--	426	7.4	--	--	--	--	<0.002	0.004
425033074400001	07-09-97	1420	--	322	7.8	--	--	--	--	<0.002	<0.001
425041074393201	04-24-97	1456	0.7	540	6.9	--	--	--	--	<0.002	0.009
425041074393201	05-22-97	0920	0.6	591	--	--	8.0	--	--	<0.002	0.012
425041074393201	05-28-97	1650	1.1	1	--	--	11.5	--	--	<0.002	0.008
425041074393201	06-04-97	1730	--	561	--	--	--	--	--	<0.002	0.009
425041074393201	06-11-97	1630	1.0	399	--	--	--	--	--	<0.002	0.008
425041074393201	06-18-97	1340	0.7	578	7.1	--	--	--	--	<0.002	0.012
425041074393201	06-19-97	1000	0.4	568	--	20.0	15.0	--	--	<0.002	0.012
425041074393201	06-25-97	1450	0.9	580	--	--	--	--	--	<0.002	0.015
425041074393201	07-01-97	1420	0.3	496	7.6	36.0	6.0	742	--	<0.002	0.010
425047074394501	08-21-97	1330	--	470	7.6	--	--	--	--	<0.002	0.035
425048074393401	07-09-97	1330	--	487	7.6	--	--	--	--	<0.002	0.012

DATE	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	EPTC WATER FLTRD GF, REC (UG/L) (82668)	METHYL AZIN- PHOS WAT FLT GF, REC (UG/L) (82686)	PENDI- METH- ALIN WAT FLT GF, REC (UG/L) (39415)	SI- MAZINE, WATER, DISS, REC (UG/L) (82683)	TEBU- THIURON WATER FLTRD GF, REC (UG/L) (04035)	TRI- FLUR- ALIN WAT FLT GF, REC (UG/L) (82670)	TRI- FLUR- ALIN WAT FLT GF, REC (UG/L) (82661)
MONTGOMERY COUNTY										
04-24-97	<0.004	<0.004	E0.016	<0.002	<0.001	0.022	<0.004	<0.005	<0.010	<0.002
05-22-97	<0.004	0.010	E0.020	<0.002	<0.001	0.024	<0.004	<0.005	0.015	<0.002
05-28-97	<0.004	0.004	E0.013	<0.002	<0.001	0.019	<0.004	<0.005	0.018	E0.004
06-04-97	<0.004	<0.004	E0.006	<0.002	<0.001	0.017	<0.004	<0.005	0.015	<0.002
06-11-97	<0.004	<0.004	E0.006	<0.002	<0.001	0.014	<0.004	<0.005	0.014	E0.002
06-18-97	<0.004	0.006	E0.006	<0.002	<0.001	0.012	<0.004	<0.005	<0.010	<0.002
06-19-97	<0.004	0.007	E0.012	<0.002	<0.001	0.017	<0.004	<0.005	E0.010	<0.002
06-25-97	<0.004	0.007	E0.009	<0.002	<0.001	0.017	<0.004	<0.005	0.015	E0.002
07-01-97	<0.004	0.007	E0.004	<0.002	<0.001	0.011	<0.004	<0.005	<0.010	<0.002
07-09-97	<0.004	<0.004	E0.006	<0.002	<0.001	0.040	<0.004	<0.005	<0.010	<0.002
07-16-97	<0.004	<0.004	E0.008	<0.002	<0.001	0.101	<0.004	<0.005	<0.010	<0.002
08-21-97	<0.004	<0.004	E0.003	<0.002	<0.001	0.006	<0.004	<0.005	<0.010	<0.002
07-09-97	<0.004	<0.004	E0.005	<0.002	<0.001	<0.002	<0.004	<0.005	<0.010	<0.002
04-24-97	<0.004	<0.004	E0.009	<0.002	<0.001	0.004	<0.004	<0.005	<0.010	<0.002
05-22-97	0.006	0.199	E0.011	<0.002	<0.001	0.006	0.040	<0.005	<0.010	<0.002
05-28-97	<0.004	0.052	E0.004	<0.002	<0.001	E0.004	0.043	<0.005	<0.010	E0.004
06-04-97	<0.004	0.021	E0.004	<0.002	<0.001	0.005	0.016	<0.005	<0.010	<0.002
06-11-97	<0.004	0.015	E0.004	<0.002	<0.001	0.004	0.012	<0.005	<0.010	<0.002
06-18-97	<0.004	0.025	E0.004	<0.002	<0.001	0.006	0.015	<0.005	<0.010	<0.002
06-19-97	<0.004	0.244	E0.005	<0.002	<0.001	0.006	0.028	<0.005	<0.010	<0.002
06-25-97	<0.004	0.782	E0.011	<0.002	<0.001	0.009	0.123	0.010	<0.010	E0.002
07-01-97	<0.004	0.036	E0.003	<0.002	<0.001	0.006	0.028	<0.005	<0.010	<0.002
08-21-97	<0.004	0.107	E0.033	<0.002	<0.032	0.062	<0.004	<0.005	<0.010	<0.002
07-09-97	<0.004	1.39	E0.015	E0.002	<0.001	0.230	<0.004	0.005	<0.010	<0.002

E Estimate.

CROTON WATERSHED GROUND-WATER QUALITY NETWORK

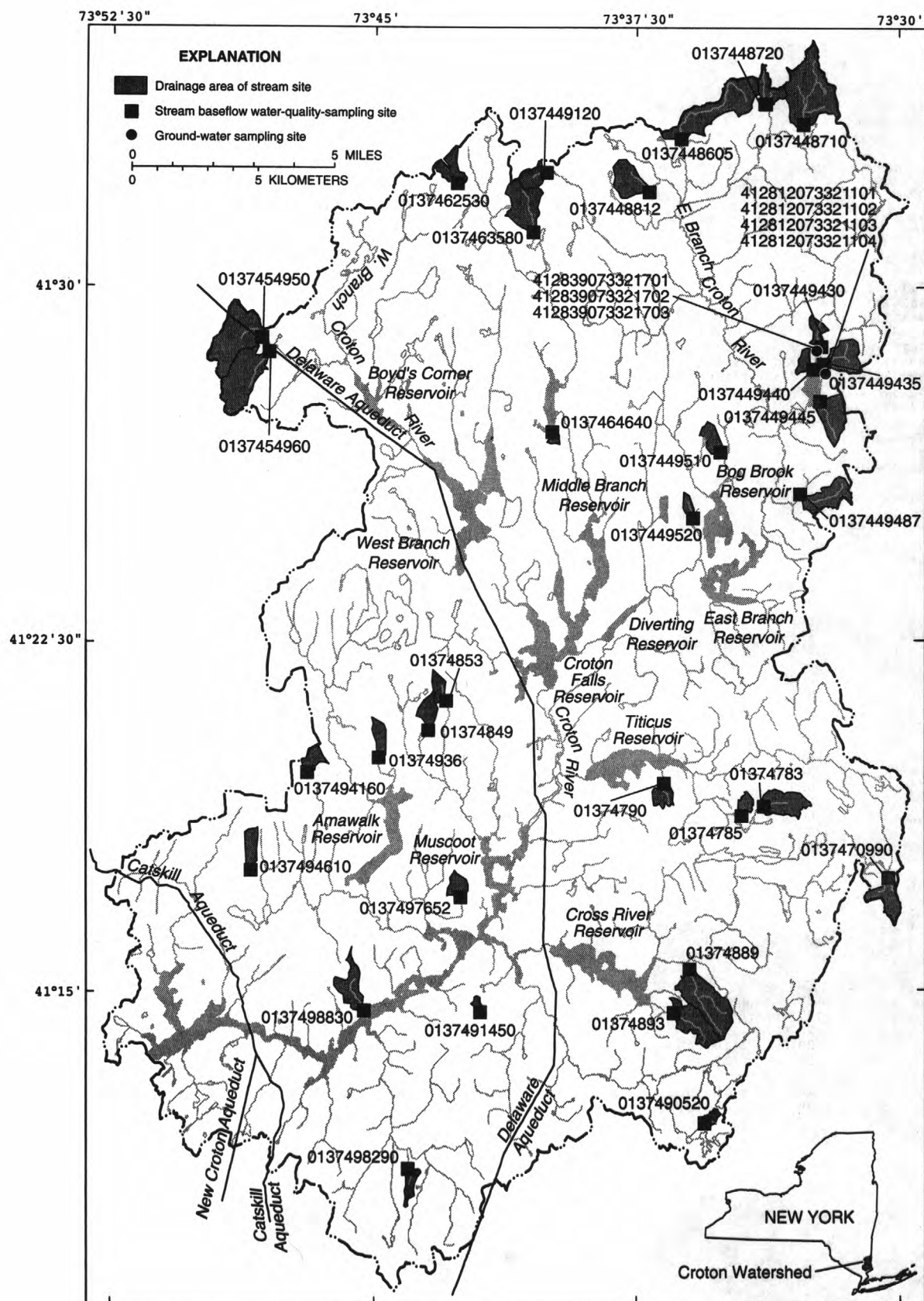


Figure 10.--Location of surface-water and ground-water sites monitored for the Croton Watershed ground-water-quality network.

Introduction

In 1996, The U.S. Geological Survey, in cooperation with the New York City Department of Environmental Protection, developed a ground-water-quality monitoring network for the Croton watershed, which provides a portion of New York City's water supply. The network consists of 33 small stream sites throughout the watershed and 7 shallow wells at Putnam Lake (see map on previous page). All sites were sampled approximately seasonally (four times) between July 1996 and September 1997. The surface water sites are first- and second-order streams whose drainage areas are representative of the range and degree of development within the watershed. These sites were sampled during periods of baseflow, when streamflow is primarily sustained by the discharge of shallow ground water. Shallow ground-water samples were collected from seven wells, finished between 2 ft and 30 ft below land surface, on the west and east sides of Putnam Lake; all wells are downgradient of unsewered residential areas.

Surface-water sites

STATION NUMBER	STATION NAME	COUNTY	LATITUDE (DEGREES)	LONGITUDE (DEGREES)
0137448605	EAST BRANCH CROTON RIVER @ PAWLING	Dutchess	413310	733613
0137448710	BRADY BR AT COUNTY ROUTE 67 EAST OF PAWLING	Dutchess	413328	733244
0137448720	BRADY BROOK TRIB @ QUAKER HILL RD NR PAWLING	Dutchess	413355	733350
0137448812	E BR CROTON R TRIB AT HARMONY RD NR PAWLING NY	Dutchess	413202	733708
0137449120	MUDDY BROOK TRIB @ SOUTH RD NR PEEKSVILLE	Dutchess	413227	734002
0137449430	PUTNAM LAKE TRIB NORTH AT PUTNAM LAKE NY	Putnam	412844	733213
0137449435	PUTNAM LAKE TRIB EAST AT PUTNAM LAKE NY	Putnam	412822	733208
0137449440	PUTNAM LAKE TRIB WEST AT PUTNAM LAKE NY	Putnam	412815	733231
0137449445	PUTNAM LAKE TRIB SOUTHEAST AT PUTNAM LAKE NY	Putnam	412733	733212
0137449487	UNAMED TRIB @ MILLTOWN RD NR PUTNAM LAKE, NY	Putnam	412533	733247
0137449510	BOG BK RES TRIB AT FOGGINTOWN RD NR BREWSTER NY	Putnam	412627	733503
0137449520	E BR CROTON R TRIB, TONETTA L RD NR BREWSTER NY	Putnam	412505	733555
0137454950	UNAMED TRIB-HORTONTOWN HILL RD NR KENT CLIFFS NY	Putnam	412854	734813
0137454960	UNAMED TRIB AT STATE RTE 301 NR KENT CLIFFS NY	Putnam	412842	734758
0137462530	UNAMED TRIB @ STORMVILLE MT RD NR PECKSVILLE	Dutchess	413206	734232
0137463580	LAKE DUTCHESS TRIB @ HOLMES RD NR PECKSVILLE	Dutchess	413113	734027
0137464640	UNNAMED TRIB, SOUTH END OF L CARMEL NR CARMEL NY	Putnam	412654	733952
0137470990	TITICUS R TRIB WEST OF POUND ST AT RIDGEFIELD CT	Westchester	411721	733019
01374783	CROOK BROOK NR GRANT CORNER NY	Westchester	411854	733356
01374785	CROOK BROOK TRIBUTARY AT GRANT CORNER NY	Westchester	411844	733435
01374790	TITICUS RES TRIB NR CAT RIDGE RD @ SALEM CTR NY	Westchester	411925	733640
01374849	LAKE LINCOLNDALE INLET AT LAKE LINCOLNDALE NY	Westchester	412035	734326
01374853	PLUM BK TRIB @ E LOVELL ST @ LAKE LINCOLNDALE NY	Westchester	412114	734257
01374889	CROSS R TRIB AT BOUTONVILLE RD AT CROSS RIVER NY	Westchester	411530	733602
01374893	UNNAMED TRIP AT WILDCAT HOLLOW NR CROSS RIVER NY	Westchester	411433	733627
0137490520	UNNAMED TRIB N OF BLUE HERON L, POUND RIDGE NY	Westchester	411209	733538
0137491450	UNAMED TRIB @ CRESCENT TERRACE @ BEDFORD HILLS NY	Westchester	411426	734153
01374936	LK SHENOROCK INLET @ HILLDALE LN, SHENOROCK NY	Westchester	411959	734448
0137494610	UNAMED TRIB AT CROMPOND RD @ YORKTOWN NY	Westchester	411739	734829
0137494160	UNAMED TRIB @ FLANDERS DR, JEFFERSON VALLEY NY	Westchester	411941	734651
0137497652	ANGLE FLY BR TRIB .5MI N OF WHITEHALL CORNERS NY	Westchester	411700	734233
0137498290	KISCO R TRIB AT ROUTE 117 NR MT KISCO NY	Westchester	411117	734404
0137498830	NEW CROTON RES TRIB-PINES BRG RD, CROTON HGTS NY	Westchester	411435	734517

Ground-water sites

STATION NUMBER	WELL NUMBER	COUNTY	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	DEPTH OF WELL (FEET)
412839073321701	1198	Putnam	412839	733217	26
412839073321702	1199	Putnam	412839	733217	8
412839073321703	1200	Putnam	412839	733217	2.4
412812073321101	1201	Putnam	412812	733211	29.5
412812073321102	1202	Putnam	412812	733211	19.5
412812073321103	1203	Putnam	412812	733211	10.5
412812073321104	1204	Putnam	412812	733211	3.5

CROTON WATERSHED GROUND-WATER-QUALITY NETWORK

QUALITY OF SURFACE WATER

STATION NUMBER	DATE	SPE- CIFIC CON- DUCT- ANCE FIELD (US/CM) (00094)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	CALCIUM DIS- SOLVED (MG/L) AS CA (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L) AS MG (00925)	SODIUM, DIS- SOLVED (MG/L) AS NA (00930)
0137448605	08-05-96	534	7.5	21.0	3.8	52	19	27
	11-22-96	464	7.4	2.0	10.0	42	16	21
	01-09-97	426	6.9	0.0	6.8	44	17	22
	05-28-97	411	7.1	13.5	9.0	42	16	19
0137448710	08-05-96	332	7.7	20.0	6.9	35	14	7.7
	11-22-96	318	7.3	4.0	9.0	32	13	7.2
	01-09-97	295	7.1	0.5	9.3	32	14	7.1
	05-28-97	304	7.2	10.5	9.2	34	14	7.2
0137448720	08-05-96	128	7.6	17.0	8.2	16	3.1	4.8
	11-22-96	128	7.5	4.5	11.6	15	2.6	3.5
	01-09-97	105	7.0	0.5	11.7	13	2.5	3.0
	05-28-97	110	7.0	11.0	9.1	13	2.5	3.2
0137448812	08-05-96	183	7.8	21.0	7.9	25	3.5	4.2
	11-22-96	150	7.8	3.5	12.4	19	2.7	3.4
	01-09-97	13.5	7.3	0.5	12.3	19	2.9	3.3
	05-28-97	152	7.4	12.5	9.8	21	2.9	3.5
0137449130	07-30-96	78.0	7.7	16.5	8.0	4.9	1.6	6.1
	11-13-96	72.0	7.2	4.0	11.8	4.2	1.5	5.4
	01-02-97	65.0	7.7	0.5	12.3	4.2	1.5	5.0
	05-28-97	65.0	6.4	10.0	9.5	4.6	1.5	4.7
0137449430	08-06-96	398	7.5	18.5	8.3	26	6.9	37
	11-06-96	314	7.4	8.0	10.9	19	5.2	28
	01-14-97	272	7.0	0.0	13.4	20	5.9	31
	05-27-97	267	7.1	11.0	10.1	17	4.6	23
0137449435	08-06-96	333	7.9	18.0	8.8	32	11	14
	11-06-96	291	7.5	8.5	11.0	25	9.2	12
	01-14-97	308	7.4	0.0	13.8	26	9.8	13
	05-27-97	267	7.7	12.0	10.3	24	8.7	13
0137449440	08-06-96	1200	7.7	17.0	8.6	59	14	140
	11-06-96	1040	7.2	11.0	9.6	53	12	130
	01-14-97	947	7.1	5.0	11.2	46	11	110
	05-27-97	956	7.2	11.0	9.8	46	11	110
0137449445	08-06-96	545	7.8	19.0	7.7	46	17	34
	11-06-96	468	7.5	9.0	10.8	40	15	27
	01-14-97	488	7.5	0.5	13.8	39	15	29
	05-27-97	440	7.7	12.5	10.1	39	15	26
0137449487	08-06-96	161	7.6	18.5	8.2	15	4.9	7.6
	11-06-96	147	7.2	8.0	10.8	12	3.9	6.2
	01-14-97	134	7.0	0.5	13.6	11	4.0	5.8
	05-27-97	125	7.0	10.5	10.3	11	3.7	6.0
0137449510	08-07-96	120	7.6	19.5	8.3	11	3.5	5.4
	11-06-96	110	7.5	7.5	11.0	8.4	2.8	4.3
	01-14-97	100	6.9	0.5	13.1	8.4	3.0	3.8
	05-27-97	87.0	7.1	11.5	10.1	8.4	2.7	4.0
0137449520	08-07-96	802	8.0	18.5	7.2	46	16	80
	11-06-96	731	7.5	9.5	9.6	46	16	71
	01-14-97	825	7.6	1.5	12.1	49	18	72
	05-27-97	680	7.8	10.5	9.6	43	16	68
0137454950	07-30-96	339	7.4	18.5	5.2	17	5.2	37
	11-22-96	268	7.6	1.5	7.8	13	4.4	29
	01-09-97	326	6.7	0.0	5.6	15	5.3	39
	05-27-97	422	6.6	18.0	5.3	19	5.7	53
0137454960	07-30-96	153	7.4	17.5	8.3	4.1	1.2	22
	11-22-96	113	7.9	2.0	12.5	3.4	1.0	15
	01-02-97	113	7.2	0.0	12.8	3.5	1.1	15
	05-27-97	196	6.4	12.5	9.4	5.1	1.5	27
0137462530	07-30-96	560	7.5	17.0	7.9	32	13	49
	11-13-96	700	7.2	7.5	10.1	34	13	77

CROTON WATERSHED GROUND-WATER-QUALITY NETWORK

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QUALITY OF SURFACE WATER--Continued

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
08-05-96	1.8	198	6.4	48	<0.1	10	284	<0.01	0.07
11-22-96	2.3	157	15	37	<0.1	7.8	240	--	0.22
01-09-97	2.1	165	16	37	<0.1	7.9	246	0.02	0.45
05-28-97	1.0	160	7.3	32	<0.1	3.5	229	<0.01	0.08
08-05-96	2.8	136	12	15	<0.1	5.8	160	--	0.62
11-22-96	2.6	123	13	13	<0.1	6.8	172	--	0.76
01-09-97	2.2	120	14	13	<0.1	6.7	168	0.02	1.2
05-28-97	2.2	124	12	13	<0.1	5.2	--	0.02	0.90
08-05-96	1.5	39	13	7.3	<0.1	9.2	78	<0.01	0.25
11-22-96	1.4	34	13	7.2	<0.1	8.4	78	--	0.21
01-09-97	1.1	29	15	5.7	<0.1	7.9	68	<0.01	0.31
05-28-97	1.1	32	13	5.1	<0.1	6.3	69	<0.01	0.17
08-05-96	1.6	69	7.7	9.9	<0.1	10	92	<0.01	0.10
11-22-96	1.3	46	11	8.8	<0.1	9.0	82	--	0.05
01-09-97	1.1	46	12	8.1	<0.1	8.9	82	0.01	0.11
05-28-97	1.2	54	9.8	7.7	<0.1	8.0	95	<0.01	0.08
07-30-96	0.50	12	5.5	12	<0.1	10	70	<0.01	0.06
11-13-96	0.50	8.1	7.6	10	<0.1	10	34	--	0.07
01-02-97	0.40	8.1	9.5	6.8	<0.1	9.2	46	<0.01	0.10
05-28-97	0.42	12	7.2	7.1	<0.1	7.9	47	<0.01	0.07
08-06-96	2.4	53	11	74	<0.1	13	228	<0.01	0.87
11-06-96	1.9	39	13	57	<0.1	13	194	--	0.88
01-14-97	1.7	40	16	60	<0.1	11	186	<0.01	1.4
05-27-97	1.5	40	11	44	<0.1	9.1	152	<0.01	0.73
08-06-96	2.6	97	13	32	<0.1	15	164	<0.01	1.2
11-06-96	2.2	76	15	29	<0.1	14	160	--	1.1
01-14-97	1.8	73	16	29	<0.1	13	166	0.01	1.5
05-27-97	1.8	73	13	27	<0.1	11	148	<0.01	0.95
08-06-96	5.3	119	22	270	<0.1	12	666	--	1.8
11-06-96	4.7	102	24	250	<0.1	13	574	--	3.2
01-14-97	3.8	91	23	190	<0.1	10	508	0.02	3.1
05-27-97	4.1	97	20	220	<0.1	10	518	0.02	2.0
08-06-96	2.8	147	17	64	<0.1	12	270	<0.01	1.6
11-06-96	2.2	132	17	53	<0.1	13	244	--	1.7
01-14-97	1.6	124	18	52	0.1	11	250	0.02	2.3
05-27-97	2.0	131	15	47	<0.1	10	239	0.01	1.5
08-06-96	1.1	45	12	13	<0.1	13	68	<0.01	0.41
11-06-96	0.90	33	13	11	<0.1	13	94	--	0.25
01-14-97	0.60	31	14	9.5	<0.1	11	82	<0.01	0.39
05-27-97	0.78	34	11	9.2	<0.1	10	68	<0.01	0.28
08-07-96	1.2	36	6.3	9.8	<0.1	14	78	<0.01	0.23
11-06-96	1.0	23	8.9	8.2	<0.1	13	64	--	0.20
01-14-97	0.90	22	11	6.8	<0.1	11	70	<0.01	0.33
05-27-97	0.78	26	7.4	5.6	<0.1	9.8	54	<0.01	0.16
08-07-96	3.4	153	21	140	<0.1	12	428	<0.01	1.0
11-06-96	2.8	148	21	130	<0.1	12	390	--	1.4
01-14-97	2.2	127	19	140	<0.1	9.7	414	0.03	1.9
05-27-97	2.3	135	17	120	<0.1	<0.1	332	<0.01	1.1
07-30-96	0.90	56	7.3	65	0.1	8.6	208	<0.01	0.09
11-22-96	1.0	41	10	45	<0.1	9.7	150	--	<0.05
01-09-97	0.90	43	14	65	<0.1	9.6	182	<0.01	0.08
05-27-97	1.2	53	7.5	93	<0.1	6.1	237	<0.01	<0.05
07-30-96	0.70	5.7	3.2	37	0.2	8.5	134	--	0.09
11-22-96	0.50	5.2	9.4	22	0.1	8.7	82	--	<0.05
01-02-97	0.50	4.7	10	20	<0.1	7.6	66	0.01	0.07
05-27-97	0.71	4.8	5.2	49	<0.1	4.4	111	<0.01	<0.05
07-30-96	2.1	107	11	100	<0.1	11	320	<0.01	0.20
11-13-96	1.9	110	17	130	<0.1	9.4	360	--	0.56

CROTON WATERSHED GROUND-WATER-QUALITY NETWORK

QUALITY OF SURFACE WATER--Continued

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L) (38260)
08-05-96	--	0.3	0.02	<0.01	--	17	90	<0.02
11-22-96	--	0.3	0.02	<0.01	0.01	13	55	<0.02
01-09-97	0.02	<0.2	<0.01	<0.01	<0.01	14	27	<0.02
05-28-97	0.02	0.6	0.08	<0.01	<0.01	13	98	--
08-05-96	--	<0.2	0.03	--	--	13	18	<0.02
11-22-96	--	0.3	0.06	0.02	0.03	13	150	<0.02
01-09-97	0.07	0.3	<0.01	<0.01	0.02	9.2	66	<0.02
05-28-97	0.08	0.4	0.04	0.05	0.02	11	42	--
08-05-96	--	<0.2	<0.01	<0.01	<0.01	12	<3.0	<0.02
11-22-96	--	<0.2	<0.01	<0.01	<0.01	13	24	<0.02
01-09-97	<0.015	<0.2	<0.01	<0.01	<0.01	9.9	9.0	<0.02
05-28-97	<0.015	<0.2	<0.01	<0.01	<0.01	13	3.8	<0.02
08-05-96	--	<0.2	<0.01	<0.01	--	13	38	<0.02
11-22-96	--	<0.2	<0.01	<0.01	<0.01	10	18	<0.02
01-09-97	<0.015	<0.2	<0.01	<0.01	<0.01	8.0	13	<0.02
05-28-97	<0.015	<0.2	<0.01	<0.01	<0.01	10	18	<0.02
07-30-96	--	<0.2	<0.01	<0.01	--	9.4	44	<0.02
11-13-96	--	<0.2	<0.01	<0.01	<0.01	8.7	22	<0.02
01-02-97	<0.015	<0.2	<0.01	<0.01	<0.01	5.0	21	<0.02
05-28-97	<0.015	<0.2	<0.01	<0.01	<0.01	8.2	22	--
08-06-96	--	0.4	<0.01	<0.01	--	25	160	<0.02
11-06-96	--	<0.2	<0.01	<0.01	<0.01	23	57	<0.02
01-14-97	0.02	<0.2	<0.01	<0.01	<0.01	22	34	<0.02
05-27-97	0.03	<0.2	<0.01	<0.01	<0.01	18	68	--
08-06-96	--	<0.2	0.02	0.01	--	25	56	<0.02
11-06-96	--	<0.2	0.01	<0.01	<0.01	23	53	<0.02
01-14-97	<0.015	<0.2	<0.01	<0.01	<0.01	20	20	<0.02
05-27-97	<0.015	<0.2	<0.01	<0.01	0.01	24	37	<0.02
08-06-96	--	<0.2	<0.01	<0.01	<0.01	53	29	<0.02
11-06-96	--	0.2	<0.01	<0.01	<0.01	52	91	<0.02
01-14-97	0.06	0.2	<0.01	<0.01	<0.01	46	200	<0.02
05-27-97	0.06	<0.2	<0.01	<0.01	<0.01	48	32	<0.02
08-06-96	--	<0.2	0.03	0.02	--	41	21	<0.02
11-06-96	--	<0.2	<0.01	<0.01	0.02	36	40	<0.02
01-14-97	<0.015	0.2	<0.01	<0.01	<0.01	31	26	<0.02
05-27-97	0.02	<0.2	0.02	0.02	0.03	34	15	<0.02
08-06-96	--	<0.2	<0.01	<0.01	0.01	18	11	<0.02
11-06-96	--	<0.2	<0.01	<0.01	<0.01	20	12	<0.02
01-14-97	<0.015	<0.2	<0.01	<0.01	<0.01	18	7.0	<0.02
05-27-97	<0.015	<0.2	<0.01	<0.01	<0.01	19	9.2	<0.02
08-07-96	--	0.3	<0.01	<0.01	--	17	130	<0.02
11-06-96	--	<0.2	0.01	0.02	<0.01	13	62	<0.02
01-14-97	<0.015	<0.2	<0.01	<0.01	<0.01	8.4	25	<0.02
05-27-97	0.018	<0.2	<0.01	0.01	<0.01	15	74	<0.02
08-07-96	--	<0.2	0.02	<0.01	--	50	16	<0.02
11-06-96	--	<0.2	0.03	0.03	0.03	40	16	<0.02
01-14-97	0.04	<0.2	<0.01	<0.01	0.02	31	12	<0.02
05-27-97	<0.015	<0.2	0.03	0.01	0.03	42	15	<0.02
07-30-96	--	0.5	<0.01	<0.01	<0.01	13	230	<0.02
11-22-96	--	0.2	<0.01	<0.01	<0.01	13	120	<0.02
01-09-97	0.03	<0.2	<0.01	<0.01	0.01	11	54	<0.02
05-27-97	0.04	0.4	<0.01	<0.01	<0.01	14	220	--
07-30-96	--	0.4	<0.01	<0.01	--	13	530	<0.02
11-22-96	--	0.2	<0.01	<0.01	<0.01	13	230	<0.02
01-02-97	0.02	<0.2	<0.01	<0.01	<0.01	5.6	110	<0.02
05-27-97	<0.015	<0.2	<0.01	<0.01	<0.01	12	92	<0.02
07-30-96	--	0.2	<0.01	<0.01	--	17	58	0.02
11-13-96	--	<0.2	<0.01	<0.01	<0.01	16	17	<0.02

QUALITY OF SURFACE WATER--Continued

STATION NUMBER	DATE	SPE- CIFIC CON- DUCT- ANCE FIELD (US/CM) (00094)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	CALCIUM DIS- SOLVED (MG/L) AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L) AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L) AS NA) (00930)
0137462530	01-09-97	825	7.3	1.5	11.3	44	17	91
	05-28-97	1020	7.3	9.0	9.4	50	19	120
0137463580	07-30-96	103	7.8	17.5	8.2	7.2	2.7	7.3
	11-13-96	88.0	7.4	4.0	12.0	5.5	2.2	6.2
	01-02-97	89.0	7.6	1.0	12.0	6.0	2.2	6.3
	05-28-97	90.0	6.6	10.0	9.9	6.7	2.5	6.7
0137464640	08-07-96	1280	7.4	20.0	6.8	68	19	140
	11-13-96	1040	7.3	7.0	10.3	59	19	110
	01-14-97	1180	7.1	2.5	10.6	64	19	120
	05-27-97	1210	7.2	11.0	9.5	68	21	128
0137470990	08-20-96	575	7.7	18.0	8.0	71	22	15
	11-05-96	573	7.3	10.0	10.4	62	19	19
	01-20-97	615	7.2	1.0	10.8	58	19	18
	05-15-97	528	7.6	14.0	9.0	55	17	19
01374783	08-20-96	--	--	--	--	8.7	2.5	6.6
	11-13-96	95.0	7.6	3.5	12.4	6.6	1.9	6.8
	01-02-97	87.0	7.2	2.0	12.1	6.2	1.8	6.3
	05-15-97	58.0	6.6	15.0	8.8	5.9	1.7	2.3
01374785	08-20-96	100	7.2	19.5	7.4	11	3.2	3.0
	11-13-96	62.0	7.5	5.0	11.5	5.9	1.8	2.4
	01-02-97	62.0	7.0	3.0	11.7	5.8	1.7	2.5
	05-15-97	84.4	6.8	15.0	9.2	6.1	1.7	6.3
01374790	11-01-96	--	--	--	--	8.6	3.0	7.0
	01-20-97	110	6.6	0.0	10.6	8.2	3.0	5.7
	05-15-97	114	6.9	15.0	9.3	8.2	2.8	8.5
01374849	08-07-96	688	7.7	19.0	8.2	47	18	54
	11-01-96	634	6.9	8.5	9.5	42	16	55
	01-31-97	575	7.3	2.0	11.7	38	14	41
	05-15-97	545	7.4	12.0	9.8	37	14	45
01374853	08-07-96	381	7.7	20.5	7.6	29	11	25
	11-01-96	367	7.0	8.5	10.1	26	9.9	23
	01-31-97	354	7.2	1.0	11.3	24	9.3	23
	05-15-97	306	7.4	12.0	9.6	23	8.4	22
01374889	08-20-96	129	6.9	16.0	4.7	15	4.2	4.2
	11-05-96	87.0	7.4	8.0	11.2	6.2	2.1	3.3
	01-20-97	90.0	6.8	0.5	12.3	7.6	2.6	3.2
	05-14-97	65.0	6.9	14.0	9.4	5.7	1.8	3.0
01374893	08-20-96	66.0	6.7	19.0	7.1	6.6	1.9	2.7
	11-05-96	69.0	7.4	7.5	10.9	4.0	1.2	2.5
	01-02-97	50.0	6.6	0.5	12.2	4.1	1.2	2.6
	05-14-97	47.0	6.4	15.0	8.7	3.8	1.1	2.6
0137490520	08-20-96	300	6.5	16.5	6.6	23	4.6	21
	11-05-96	229	7.2	8.5	10.1	15	3.5	18
	01-20-97	244	6.3	1.0	10.9	15	3.5	16
	05-14-97	243	6.6	14.5	9.2	14	3.0	23
0137491450	08-19-96	514	7.8	17.5	8.3	38	10	38
	10-31-96	452	7.4	11.5	9.8	33	9.2	36
	01-20-97	477	7.2	3.5	11.5	32	9.3	31
	05-14-97	652	7.1	11.5	9.3	43	11	56
01374936	08-08-96	563	7.5	20.5	6.4	52	20	28
	11-01-96	378	6.8	6.0	9.2	31	13	22
	01-31-97	437	6.8	0.5	9.1	35	14	22
	05-15-97	361	7.1	13.0	8.6	31	13	20
0137494610	08-08-96	748	7.5	20.5	6.9	62	18	53
	10-31-96	623	7.5	10.5	9.8	56	18	44
	01-31-97	635	7.3	0.5	12.0	51	15	43
	05-14-97	625	7.7	14.5	10.4	52	16	46
0137494160	08-08-96	160	7.1	20.0	4.5	18	5.8	5.5
	10-31-96	142	7.2	9.5	6.5	11	4.1	6.3
	01-31-97	118	6.3	0.5	8.9	8.9	3.4	6.3
	05-15-97	103	6.5	14.0	8.0	9.8	3.5	5.3
0137497652	08-19-96	424	8.1	20.5	7.8	44	17	17
	11-01-96	293	6.9	7.5	10.7	23	9.0	17
	01-31-97	281	7.2	1.0	9.9	20	7.9	16
	05-15-97	259	7.6	16.0	10.0	21	8.1	16

CROTON WATERSHED GROUND-WATER-QUALITY NETWORK

QUALITY OF SURFACE WATER--Continued

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
01-09-97	1.6	129	19	170	<0.1	7.5	446	0.01	0.75
05-28-97	2.0	130	17	240	<0.1	6.0	--	<0.01	0.52
07-30-96	1.0	19	6.8	14	<0.1	8.9	86	--	0.11
11-13-96	0.90	14	9.7	10	<0.1	8.7	36	--	0.06
01-02-97	0.80	15	11	8.8	<0.1	7.9	54	<0.01	0.13
05-28-97	0.77	18	8.5	11	<0.1	7.3	66	<0.01	0.13
08-07-96	4.9	173	20	280	<0.1	13	692	--	1.4
11-13-96	3.7	163	21	200	<0.1	12	538	--	2.6
01-14-97	3.2	148	22	240	0.1	10	604	0.02	2.9
05-27-97	3.7	159	17	270	<0.1	10	682	0.03	1.4
08-20-96	3.5	219	14	49	<0.1	21	320	--	1.3
11-05-96	3.4	177	18	66	<0.1	18	324	--	1.3
01-20-97	3.2	165	18	69	<0.1	17	314	<0.01	1.7
05-15-97	3.3	160	16	61	<0.1	14	313	<0.01	0.99
08-20-96	1.3	21	8.9	13	<0.1	11	64	--	0.16
11-13-96	1.1	15	11	11	<0.1	11	34	--	0.16
01-02-97	0.90	13	10	9.4	<0.1	9.2	54	<0.01	0.20
05-15-97	0.89	15	9.9	1.8	<0.1	11	48	<0.01	<0.05
08-20-96	1.6	34	11	2.9	<0.1	15	64	--	0.18
11-13-96	1.0	13	11	2.9	<0.1	12	22	--	<0.05
01-02-97	0.80	14	11	2.2	<0.1	11	46	0.01	0.11
05-15-97	0.99	14	9.0	10	<0.1	8.0	60	0.01	0.08
11-01-96	0.70	23	10	12	<0.1	15	86	--	0.29
01-20-97	0.70	17	12	11	<0.1	14	72	<0.01	0.56
05-15-97	0.75	20	11	15	<0.1	13	82	<0.01	0.13
08-07-96	2.2	127	19	130	<0.1	14	372	--	1.3
11-01-96	2.1	119	20	120	<0.1	14	348	--	1.9
01-31-97	1.4	99	20	85	<0.1	11	288	0.01	2.7
05-15-97	1.7	105	18	91	0.1	10	326	0.01	1.3
08-07-96	1.8	82	15	52	<0.1	12	220	--	1.0
11-01-96	1.8	72	16	51	<0.1	12	194	--	2.2
01-31-97	1.3	59	15	50	<0.1	10	180	<0.01	3.0
05-15-97	1.5	64	15	40	<0.1	10	186	0.01	1.6
08-20-96	1.4	46	9.7	7.4	<0.1	15	78	--	0.21
11-05-96	0.80	18	9.5	3.8	<0.1	14	52	--	0.07
01-20-97	0.80	23	10	4.7	<0.1	14	60	<0.01	0.11
05-14-97	0.76	16	8.8	3.4	<0.1	11	46	0.01	0.06
08-20-96	1.0	20	6.1	3.0	<0.1	14	70	--	0.12
11-05-96	0.80	8.9	7.7	3.5	<0.1	13	46	--	0.05
01-02-97	0.70	7.4	9.9	3.1	<0.1	12	42	<0.01	0.06
05-14-97	0.83	9.3	7.4	2.9	<0.1	9.4	39	0.02	0.06
08-20-96	2.4	24	12	65	<0.1	14	196	--	0.63
11-05-96	1.9	19	12	45	<0.1	12	136	--	0.29
01-20-97	1.6	17	13	45	<0.1	11	136	<0.01	0.60
05-14-97	1.8	19	12	49	<0.1	8.0	149	0.01	0.14
08-19-96	4.5	74	20	100	<0.1	17	302	--	1.6
10-31-96	4.1	70	20	81	<0.1	16	252	--	1.6
01-20-97	3.7	59	20	85	<0.1	15	254	0.01	2.1
05-14-97	4.1	78	22	120	<0.1	14	385	0.03	2.7
08-08-96	1.3	188	4.1	64	0.1	17	338	--	0.14
11-01-96	1.2	112	11	50	<0.1	14	210	--	0.18
01-31-97	1.0	112	16	49	<0.1	11	224	0.02	0.93
05-15-97	0.87	115	9.3	39	<0.1	5.5	185	<0.01	0.13
08-08-96	2.3	199	16	110	0.1	11	426	--	0.27
10-31-96	2.4	177	22	84	<0.1	15	356	--	0.47
01-31-97	1.8	142	21	86	<0.1	10	332	<0.01	1.3
05-14-97	1.9	170	16	86	<0.1	10	342	0.03	0.68
08-08-96	1.0	61	3.2	9.2	<0.1	15	138	--	0.14
10-31-96	1.1	36	7.0	11	<0.1	13	74	--	0.08
01-31-97	0.80	26	11	10	<0.1	11	70	<0.01	0.20
05-15-97	0.83	33	7.4	6.6	<0.1	9.5	80	0.01	0.05
08-19-96	1.8	156	15	32	<0.1	16	234	--	0.31
11-01-96	1.4	80	15	32	<0.1	14	168	--	0.48
01-31-97	1.4	58	15	30	<0.1	12	142	<0.01	1.2
05-15-97	1.2	74	12	27	<0.1	12	160	0.01	0.14

QUALITY OF SURFACE WATER--Continued

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L) (38260)
01-09-97	<0.015	<0.2	<0.01	<0.01	<0.01	15	11	<0.02
05-28-97	<0.015	<0.2	<0.01	<0.01	<0.01	16	11	<0.02
07-30-96	--	0.3	<0.01	<0.01	--	13	180	0.02
11-13-96	--	<0.2	<0.01	<0.01	<0.01	10	65	<0.02
01-02-97	<0.015	<0.2	<0.01	<0.01	<0.01	7.8	34	<0.02
05-28-97	<0.015	0.2	<0.01	<0.01	<0.01	13	95	--
08-07-96	--	0.4	<0.01	<0.01	--	78	69	0.14
11-13-96	--	0.7	0.02	<0.01	<0.01	53	93	0.02
01-14-97	0.36	0.7	<0.01	<0.01	<0.01	56	400	0.10
05-27-97	0.23	0.4	<0.01	<0.01	<0.01	58	34	<0.02
08-20-96	--	<0.2	0.04	--	--	36	14	<0.02
11-05-96	--	<0.2	0.02	0.01	0.02	28	10	<0.02
01-20-97	0.04	0.4	0.06	<0.01	0.02	25	3.0	<0.02
05-15-97	<0.015	0.2	0.01	<0.01	0.02	22	9.8	<0.02
08-20-96	--	<0.2	<0.01	<0.01	--	12	21	<0.02
11-13-96	--	<0.2	<0.01	<0.01	<0.01	11	27	<0.02
01-02-97	<0.015	<0.2	<0.01	<0.01	<0.01	6.1	14	<0.02
05-15-97	<0.015	<0.2	<0.01	<0.01	<0.01	9.0	22	<0.02
08-20-96	--	<0.2	0.03	--	--	13	32	<0.02
11-13-96	--	<0.2	<0.01	<0.01	<0.01	8.7	22	<0.02
01-02-97	<0.015	<0.2	<0.01	<0.01	<0.01	5.6	16	<0.02
05-15-97	0.02	<0.2	<0.01	<0.01	<0.01	8.3	17	<0.02
11-01-96	--	<0.2	<0.01	<0.01	<0.01	9.8	76	<0.02
01-20-97	<0.015	0.3	0.03	<0.01	<0.01	11	14	<0.02
05-15-97	0.02	<0.2	<0.01	<0.01	<0.01	6.0	29	<0.02
08-07-96	--	<0.2	0.08	--	--	53	22	<0.02
11-01-96	--	<0.2	<0.01	<0.01	<0.01	44	30	<0.02
01-31-97	<0.015	<0.2	<0.01	<0.01	<0.01	32	17	<0.02
05-15-97	<0.015	<0.2	<0.01	<0.01	<0.01	40	33	--
08-07-96	--	<0.2	<0.01	<0.01	0.02	38	57	<0.02
11-01-96	--	<0.2	<0.01	<0.01	<0.01	37	16	<0.02
01-31-97	0.05	<0.2	<0.01	0.01	<0.01	27	9.0	<0.02
05-15-97	<0.015	<0.2	<0.01	<0.01	<0.01	33	12	<0.02
08-20-96	--	<0.2	<0.01	<0.01	--	13	30	<0.02
11-05-96	--	<0.2	<0.01	<0.01	<0.01	10	38	<0.02
01-20-97	<0.015	<0.2	<0.01	<0.01	<0.01	11	17	<0.02
05-14-97	0.015	<0.2	<0.01	<0.01	<0.01	6.8	40	--
08-20-96	--	<0.2	<0.01	<0.01	--	13	200	<0.02
11-05-96	--	<0.2	0.01	<0.01	<0.01	8.8	120	<0.02
01-02-97	<0.015	<0.2	<0.01	<0.01	<0.01	7.8	41	<0.02
05-14-97	0.02	<0.2	0.01	<0.01	<0.01	12	130	--
08-20-96	--	0.4	0.04	<0.01	--	25	180	<0.02
11-05-96	--	<0.2	<0.01	<0.01	<0.01	20	38	<0.02
01-20-97	<0.015	0.4	0.05	0.01	<0.01	22	11	<0.02
05-14-97	<0.015	<0.2	<0.01	<0.01	<0.01	23	18	--
08-19-96	--	0.2	0.04	0.02	0.04	74	50	0.07
10-31-96	--	0.2	0.03	0.02	0.03	87	53	0.14
01-20-97	0.02	<0.2	0.01	<0.01	<0.01	32	24	<0.02
05-14-97	0.05	<0.2	0.05	0.04	0.05	45	54	<0.02
08-08-96	--	0.4	0.02	<0.01	--	38	58	0.03
11-01-96	--	<0.2	0.02	0.01	<0.01	27	26000	<0.02
01-31-97	0.03	<0.2	<0.01	<0.01	<0.01	31	24	<0.02
05-15-97	0.02	0.2	<0.01	<0.01	<0.01	27	66	<0.02
08-08-96	--	0.3	0.03	--	--	70	40	0.09
10-31-96	--	0.2	0.03	0.03	0.03	32	39	<0.02
01-31-97	0.02	<0.2	<0.01	<0.01	0.01	18	8.0	<0.02
05-14-97	0.04	<0.2	0.03	0.02	0.03	30	23	--
08-08-96	--	0.9	0.09	--	--	22	1100	0.02
10-31-96	--	0.5	0.05	<0.01	0.02	15	380	0.05
01-31-97	0.02	<0.2	<0.01	<0.01	<0.01	20	90	<0.02
05-15-97	0.02	0.3	<0.01	<0.01	0.01	14	240	<0.02
08-19-96	--	<0.2	0.03	<0.01	--	22	330	<0.02
11-01-96	--	<0.2	0.01	<0.01	<0.01	21	59	<0.02
01-31-97	0.03	<0.2	0.01	<0.01	<0.01	15	17	<0.02
05-15-97	0.02	0.2	<0.01	<0.01	0.01	13	60	<0.02

CROTON WATERSHED GROUND-WATER-QUALITY NETWORK

QUALITY OF SURFACE WATER--Continued

STATION NUMBER	DATE	SPE- CIFIC CON- DUCT- ANCE FIELD (US/CM) (00094)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	CALCIUM DIS- SOLVED (MG/L) AS CA (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L) AS MG (00925)	SODIUM, DIS- SOLVED (MG/L) AS NA (00930)	
0137498290	08-19-96	460	7.7	20.5	7.4	34	11	34	
	10-31-96	415	7.4	10.5	8.9	34	11	30	
	01-20-97	450	7.0	2.5	10.2	32	11	28	
	05-14-97	413	7.9	16.5	9.6	31	9.8	31	
0137498830	08-19-96	139	7.8	18.0	8.3	13	4.2	6.0	
	10-31-96	129	7.8	10.0	10.7	9.0	3.2	5.7	
	01-31-97	96.0	6.9	2.0	12.2	7.1	2.6	4.8	
	05-14-97	97.0	7.1	13.5	9.8	8.0	2.8	5.3	
DATE	POTAS- SIUM, DIS- SOLVED (MG/L) AS K (00935)	ALKA- LINITY LAB (MG/L) AS CACO3 (90410)	SULFATE DIS- SOLVED (MG/L) AS SO4 (00945)	CHLO- RIDE, DIS- SOLVED (MG/L) AS CL (00940)	FLUO- RIDE, DIS- SOLVED (MG/L) AS F (00950)	SILICA, DIS- SOLVED (MG/L) AS SIO2 (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L) AS N (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L) AS N (00631)
08-19-96	2.9	101	16	68	<0.1	12	240	--	1.1
10-31-96	2.9	100	17	52	<0.1	15	226	--	1.5
01-20-97	2.4	95	18	59	<0.1	15	234	0.02	2.0
05-14-97	2.5	89	15	58	<0.1	13	233	0.04	1.2
08-19-96	1.5	39	12	9.5	<0.1	14	76	--	0.34
10-31-96	1.3	26	13	9.8	<0.1	13	70	--	0.10
01-31-97	0.96	17	12	8.2	<0.1	11	62	<0.01	0.30
05-14-97	0.90	21	12	7.8	<0.1	11	58	0.02	0.12
DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L) AS N (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L) AS N (00625)	PHOS- PHORUS TOTAL (MG/L) AS P (00665)	PHOS- PHORUS DIS- SOLVED (MG/L) AS P (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L) AS P (00671)	BORON, DIS- SOLVED (UG/L) AS B (01020)	IRON, DIS- SOLVED (UG/L) AS FE (01046)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L) (38260)	
08-19-96	--	0.3	0.03	--	--	37	35	<0.02	
10-31-96	--	0.2	0.04	0.01	0.02	38	38	<0.02	
01-20-97	0.08	0.2	0.02	<0.01	<0.01	33	20	0.02	
05-14-97	0.04	0.3	0.05	0.03	0.04	31	200	--	
08-19-96	--	<0.2	<0.01	<0.01	--	16	<3.0	<0.02	
10-31-96	--	<0.2	<0.01	<0.01	<0.01	12	12	<0.02	
01-31-97	<0.015	<0.2	<0.01	<0.01	<0.01	12	4.8	<0.02	
05-14-97	0.02	<0.2	<0.01	<0.01	<0.01	11	3.5	<0.02	

CROTON WATERSHED GROUND-WATER-QUALITY NETWORK

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QUALITY OF GROUND WATER

STATION NUMBER	DATE	SPE- CIFIC CON- DUCT- ANCE FIELD (US/CM) (00094)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	CALCIUM DIS- SOLVED (MG/L) AS CA (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L) AS MG (00925)	SODIUM, DIS- SOLVED (MG/L) AS NA (00930)	POTAS- SIUM, DIS- SOLVED (MG/L) AS K (00935)	ALKA- LITY LAB (MG/L AS CACO3) (90410)
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PUTNAM COUNTY

412839073321701	12-05-96	996	6.7	11.0	2.1	100	20	49	8.5	103
	04-03-97	922	6.7	9.0	1.8	98	18	45	6.3	100
	07-01-97	907	6.9	10.5	1.9	87	17	51	5.7	98
	09-10-97	863	6.9	11.0	1.9	88	17	46	5.4	100
412839073321702	12-05-96	1480	6.5	9.5	1.7	50	18	190	3.9	114
	04-03-97	1120	6.4	7.0	4.2	42	15	133	2.6	115
	07-01-97	902	6.6	11.5	5.3	26	8.9	132	2.2	91
	09-10-97	976	6.5	14.5	3.2	24	8.1	142	2.1	112
412839073321703	12-05-96	1040	7.3	7.5	--	37	12	160	1.9	203
	04-03-97	1040	7.2	--	--	42	14	150	1.7	131
412812073321101	12-06-96	807	6.9	11.5	3.3	77	28	34	7.3	182
	04-04-97	864	6.8	11.0	3.9	82	29	32	6.6	176
	07-01-97	803	7.1	11.0	3.1	76	28	31	6.0	175
	09-10-97	763	7.0	11.0	3.5	74	27	31	5.7	177
412812073321102	12-06-96	706	6.2	13.0	2.9	49	15	60	5.1	93
	04-04-97	565	6.0	9.0	2.6	38	12	49	3.7	98
	07-01-97	534	6.3	10.5	3.3	34	11	47	3.3	91
	09-10-97	565	6.2	13.0	2.9	35	12	54	3.3	90
412812073321103	12-06-96	618	6.4	10.5	0.8	45	13	52	2.7	122
	04-04-97	507	6.1	6.0	1.4	41	12	35	1.8	132
	07-01-97	500	6.4	11.0	0.9	35	10	37	2.1	124
	09-10-97	544	6.5	17.5	0.8	37	11	43	2.3	107
412812073321104	12-06-96	773	7.1	6.5	1.5	42	15	75	2.1	--
	04-04-97	1730	6.6	--	--	79	26	210	5.1	207

DATE	SULFATE DIS- SOLVED (MG/L) AS SO4 (00945)	CHLO- RIDE, DIS- SOLVED (MG/L) AS CL (00940)	FLUO- RIDE, DIS- SOLVED (MG/L) AS F (00950)	SILICA, DIS- SOLVED (MG/L) AS SIO2 (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L) AS N (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L) AS N (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L) AS N (00608)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L) AS P (00671)	BORON, DIS- SOLVED (UG/L) AS B (01020)	IRON, DIS- SOLVED (UG/L) AS FE (01046)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L) (38260)
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PUTNAM COUNTY

12-05-96	38	210	<0.1	13	598	0.01	4.9	0.03	<0.01	32	<3.0	<0.02
04-03-97	38	200	<0.1	12	563	<0.01	4.3	<0.015	<0.01	32	<3.0	<0.02
07-01-97	38	190	<0.1	12	588	<0.01	4.6	<0.015	<0.01	37	13	<0.02
09-10-97	37	190	<0.1	11	645	<0.01	4.5	<0.015	<0.01	42	<3.0	<0.02
12-05-96	30	330	<0.1	13	758	0.41	7.1	0.06	<0.01	68	<3.0	0.05
04-03-97	43	260	<0.1	11	642	0.14	7.6	0.17	<0.01	60	<3.0	0.02
07-01-97	42	200	<0.1	12	572	0.11	6.6	0.29	<0.01	61	<3.0	0.06
09-10-97	37	210	<0.1	10	555	0.06	7.8	0.47	<0.01	79	<3.0	0.04
12-05-96	23	180	<0.1	6.3	578	<0.01	3.7	0.03	<0.01	33	5.0	0.04
04-03-97	13	260	<0.1	5.5	596	<0.01	3.6	<0.015	<0.01	30	4.0	0.06
12-06-96	22	120	<0.1	17	446	0.04	5.9	0.04	0.04	45	<3.0	<0.02
04-04-97	22	140	<0.1	17	487	0.01	6.7	0.02	<0.01	48	<3.0	<0.02
07-01-97	23	120	<0.1	17	487	0.02	6.3	0.015	<0.01	48	<3.0	<0.02
09-10-97	24	120	<0.1	15	462	0.02	6.5	0.04	<0.01	54	<3.0	<0.02
12-06-96	21	140	<0.1	12	374	0.01	2.7	<0.015	0.03	27	4.0	0.02
04-04-97	23	96	<0.1	10	318	<0.01	3.0	<0.015	<0.01	24	<3.0	<0.02
07-01-97	20	88	<0.1	10	301	<0.01	3.0	<0.015	<0.01	26	7.6	<0.02
09-10-97	20	100	<0.1	9.4	315	<0.01	--	0.13	<0.01	36	<3.0	<0.02
12-06-96	21	99	<0.1	12	322	0.02	0.72	0.02	0.04	34	75	0.12
04-04-97	20	64	<0.1	10	281	0.02	1.7	0.02	<0.01	30	120	0.46
07-01-97	18	61	<0.1	11	288	<0.01	2.6	0.05	<0.01	32	120	0.07
09-10-97	19	86	<0.1	9.8	308	0.02	2.8	0.09	<0.01	44	81	0.03
12-06-96	--	--	--	--	--	0.02	0.15	0.21	0.04	26	140	--
04-04-97	11	440	<0.1	6.0	976	0.03	3.0	0.21	<0.01	26	18	0.02

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CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
<i>Length</i>		
inch (in.)	2.54×10^1	millimeter
	2.54×10^{-2}	meter
foot (ft)	3.048×10^{-1}	meter
mile (mi)	1.609×10^0	kilometer
<i>Area</i>		
acre	4.047×10^3	square meter
	4.047×10^{-1}	square hectometer
	4.047×10^{-3}	square kilometer
square mile (mi ²)	2.590×10^0	square kilometer
<i>Volume</i>		
gallon (gal)	3.785×10^0	liter
	3.785×10^0	cubic decimeter
	3.785×10^{-3}	cubic meter
million gallons (Mgal)	3.785×10^3	cubic meter
	3.785×10^{-3}	cubic hectometer
cubic foot (ft ³)	2.832×10^1	cubic decimeter
	2.832×10^{-2}	cubic meter
cubic-foot-per-second day [(ft ³ /s) d]	2.447×10^3	cubic meter
	2.447×10^{-3}	cubic hectometer
acre-foot (acre-ft)	1.233×10^3	cubic meter
	1.233×10^{-3}	cubic hectometer
	1.233×10^{-6}	cubic kilometer
<i>Flow</i>		
cubic foot per second (ft ³ /s)	2.832×10^1	liter per second
	2.832×10^1	cubic decimeter per second
	2.832×10^{-2}	cubic meter per second
gallon per minute (gal/min)	6.309×10^{-2}	liter per second
	6.309×10^{-2}	cubic decimeter per second
	6.309×10^{-5}	cubic meter per second
million gallons per day (Mgal/d)	4.381×10^1	cubic decimeter per second
	4.381×10^{-2}	cubic meter per second
<i>Mass</i>		
ton (short)	9.072×10^{-1}	megagram or metric ton

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

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