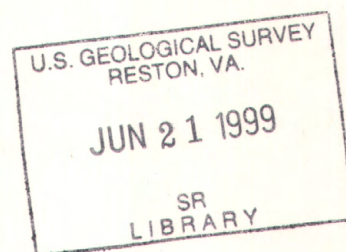


# Water Resources Data New York Water Year 1998

## Volume 1. Eastern New York Excluding Long Island

Water-Data Report NY-98-1





## CALENDAR FOR WATER YEAR 1998

1997

[illegible]

1998

JANUARY							FEBRUARY							MARCH						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
				1	2	3	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4	5	6	7	8	9	10	8	9	10	11	12	13	14	8	9	10	11	12	13	14
11	12	13	14	15	16	17	15	16	17	18	19	20	21	15	16	17	18	19	20	21
18	19	20	21	22	23	24	22	23	24	25	26	27	28	22	23	24	25	26	27	28
25	26	27	28	29	30	31								29	30	31				

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# Water Resources Data New York Water Year 1998

## Volume 1. Eastern New York Excluding Long Island

By G.K. Butch, P.M. Murray, R. Lumia, and J.F. Weigel

Water-Data Report NY-98-1





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1999



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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

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

[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 and those with a double asterisk (\*\*) after the station name had revisions published after the site was discontinued.

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

Station name	Station number	Drainage area (mi <sup>2</sup> )	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
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 <sup>2</sup> )	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
Lisha Kill northwest of Niskayuna, NY (d)	01356190	15.6	1993-97
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



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

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Station name	Station number	Drainage area (mi <sup>2</sup> )	Period of record
Hudson River Basin--continued			
Lake Tiorati Brook at Cedar Flats, NY (d)	01374420	10.6	1960-63
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
Nauraushaun Brook at Nauraushaun, NY (d)	01376850	5.89	1960-63
Hackensack River at Nauraushaun, 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 <sup>2</sup> )	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
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
Chateaugay River near Chateaugay, NY (d)	04270500	112	1908-09 1927-66



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

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Station name	Station number	Drainage area (mi <sup>2</sup> )	Period of record
St. Lawrence River Basin--continued			
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
Northwest Bay Brook near Bolton Landing, NY (d)	04278300*	22.0	1966-68 1972-97
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 <sup>2</sup> )	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
Lisha Kill northwest of Niskayuna, NY	01356190	15.6	Temp.	1993-97
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



DISCONTINUED SURFACE-WATER-QUALITY STATIONS  
(continued)

Station name	Station number	Drainage area (mi <sup>2</sup> )	Period of record
Hudson River Basin--Continued			
Hudson River at Poughkeepsie, NY	01372055	1,732	Temp. 1967-69
			S.C. 1967-69
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
			1970-76
Neversink River at Woodbourne, NY	01436500	113	Temp. 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

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WATER RESOURCES DATA FOR NEW YORK, 1998  
Volume 1.--Eastern New York excluding Long Island

INTRODUCTION

Water-resources data for the 1998 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; and ground-water levels and water quality. This volume contains records for water discharge at 127 gaging stations; stage only at 10 gaging stations; stage and contents at 4 gaging stations, and 18 other lakes and reservoirs; water quality at 32 gaging stations; and water levels at 4 observation wells. Also included are data for 36 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-98-1." 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 1998, 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 1998 were generally above normal. Runoff for 1998 is plotted in figure 1 (next page) as a percentage of the average runoff for 1960-89. The highest 1998 runoffs (greater than 150 percent of average) occurred in extreme northeastern New York. Several large storms resulted in record or near-record annual maximum flows at many gaging stations throughout eastern New York.

Average month-end contents and 1998 month-end contents of the New York City reservoir system are plotted in figure 2A; 1998 month-end contents in Great Sacandaga Lake at Conklingville (in the upper Hudson River basin), and average month-end contents for the period of record (1931-97), are plotted in figure 2B. Several significant storms from January through July kept reservoir levels above normal during those months and through the end of the water year.

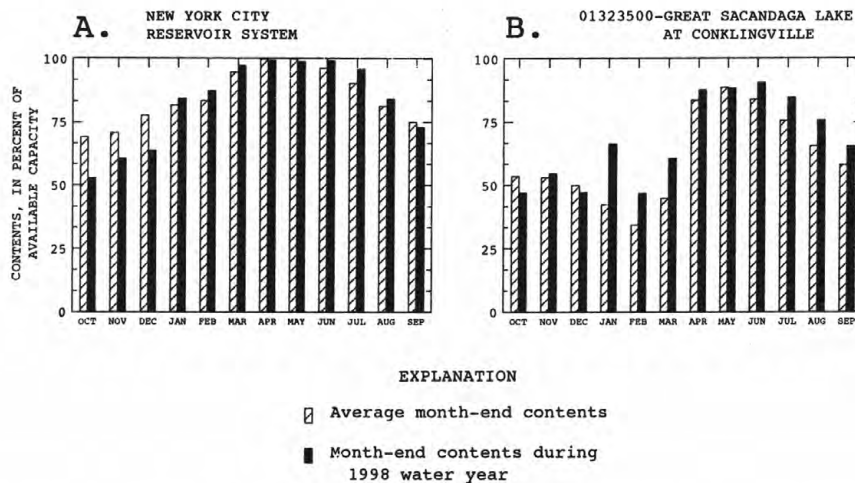


Figure 2.--Comparison of average month-end reservoir contents and month-end contents during 1998 water year for two selected reservoir systems in eastern New York.

The 1998 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. October was a dry month, slightly cooler than normal, and the precipitation was approximately 50 percent of normal. Streamflows throughout eastern New York were generally below normal.

November's precipitation was above normal (110 to 150 percent of normal) and air temperature remained cooler than normal. Excessive rainfall caused streamflows to generally increase to normal. The abundance of rain at the beginning of the month resulted in some significant peak flows in southeastern New York. Slide Mountain (in the Catskill Mountains) received 3.28 inches of rain on November 2. December was warm and dry; temperatures were 2 to 3°F warmer than normal, and precipitation ranged from 90 to 110 percent of normal. Streamflows remained near normal throughout eastern New York. Reservoir levels were below normal by the end of the month.

January was the second consecutive warm month (5 to 9°F warmer than normal) as a result of El Niño and was the third wettest January on record statewide. Excessive amounts of precipitation (150 to 200 percent of normal) from January 4-9 resulted in record or near-record stages at several streamflow-gaging stations across eastern New York (see table on p. 6). The flood-discharge recurrence interval in some areas was greater than 100 years. On January 10, the Black River at Watertown (gaging station 04260500) reached its highest stage (16.02 ft) and discharge (55,500 ft<sup>3</sup>/s) since at least 1869. A major ice storm throughout northern New York caused major damage and power outages in early to mid-January. The heavy rains also brought lake and reservoir levels throughout eastern New York to above normal.

February temperatures were above normal (9 to 11°F warmer) for the third consecutive month. February also was wet; precipitation was 90 to 150 percent of normal. Reservoir and lake levels throughout eastern New York remained above normal, and streamflows were near normal. The warm, wet trend continued through March. Several storms throughout March caused significant high flows throughout eastern New York. Discharges increased to above normal, and lakes and reservoirs remained above normal for the third consecutive month. A storm at the end of March caused flooding in many parts of northern New York. A 100-year flood discharge was recorded at Salmon River at Chasm Falls (gaging station 04270000) early on April 1.



WATER RESOURCES DATA FOR NEW YORK, 1998  
SUMMARY OF HYDROLOGIC CONDITIONS--Continued

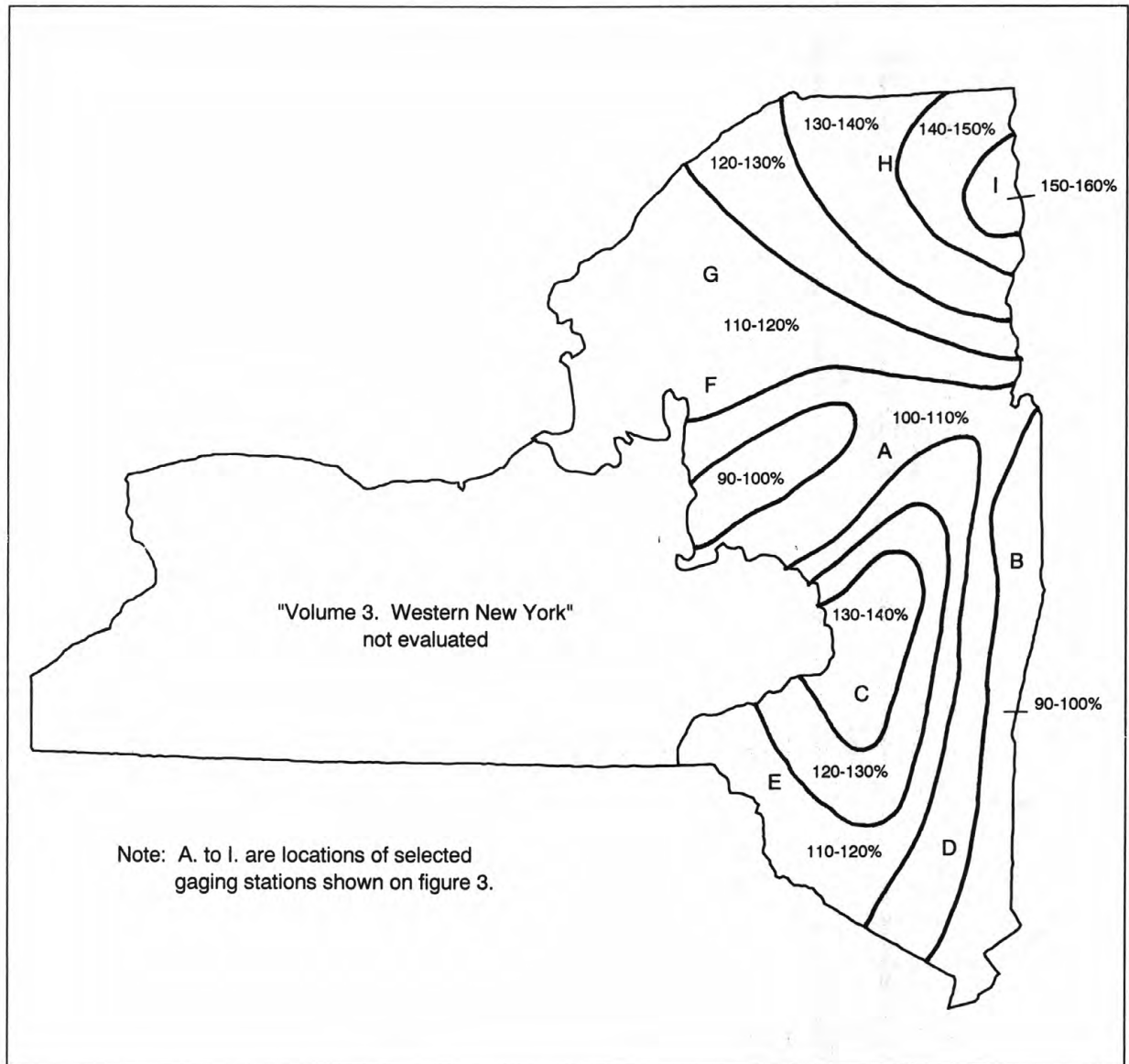


Figure 1.--1998 water year runoff as a percentage of the average annual runoff for 1960-89 for eastern New York excluding Long Island.



WATER RESOURCES DATA FOR NEW YORK, 1998

SUMMARY OF HYDROLOGIC CONDITIONS--Continued

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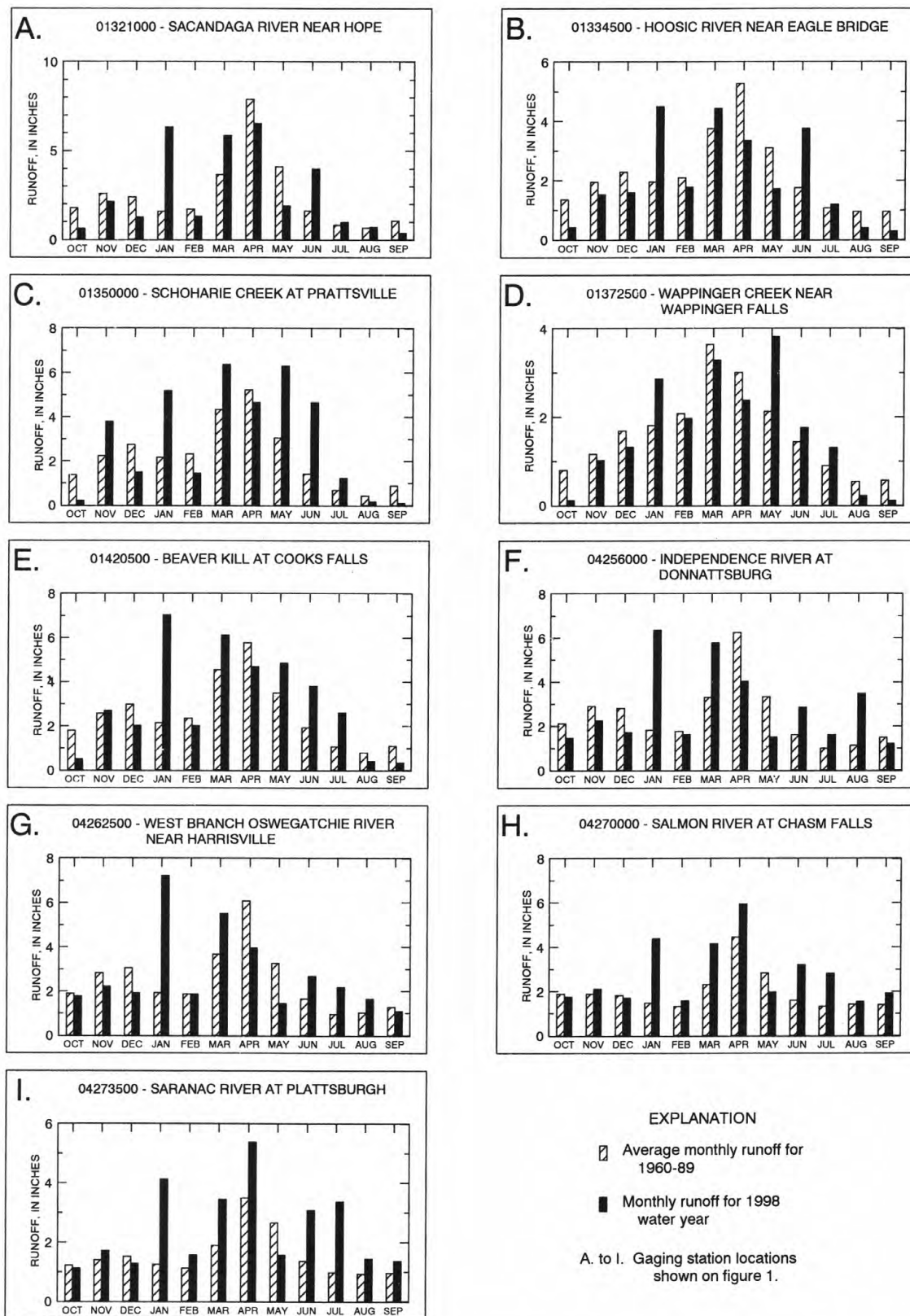


Figure 3.--Comparison of monthly runoff for 1998 water year and average monthly runoff for 1960-89 for selected gaging stations in eastern New York (site locations are shown on figure 1).



## SUMMARY OF HYDROLOGIC CONDITIONS--Continued

Continuing the previous 4-month trend, April was warmer than normal. The southern part of the state was wetter than normal, and the northern part was drier than normal. (Statewide range of precipitation was 40 to 150 percent of normal). Several significant peak discharges occurred in southeastern New York in early April. Thereafter, streamflows receded to normal or slightly below normal, except in northeastern New York, where snowmelt kept streamflows slightly above normal.

May was the second warmest May, statewide, in 104 years of record. Excess precipitation for the first 11 days of the month in southeastern parts of the state produced significant peak flows on May 10. Precipitation for the rest of the state was below normal and resulted in generally below-normal streamflows. Most reservoirs and lakes were at near normal levels by the end of May.

June was slightly warmer than normal, and excess precipitation statewide (110 to 280 percent of normal) resulted in the third-wettest June on record. Runoff from storms in the middle of the month created high flows in the southeastern part of the state during June 14-16. Storms at the end of the month in northeastern New York (Clinton and Essex Counties) produced high flows that caused bridge and culvert washouts. The daily maximum rainfall for the month (4.10 inches) occurred in Peru (Clinton County) on June 27. A bridge over the Little Ausable River washed out during this flood. The following table shows peak discharges from January through June 1998 at selected gaging stations throughout eastern New York. (The period of record is through 1998 unless noted otherwise).

Station number and name	Period of record	Previous maximum of record		Flood during 1998 water year		
		Discharge (ft <sup>3</sup> /s)	Water year	Date	Peak discharge (ft <sup>3</sup> /s)	Recurrence interval (years)
01312000-Hudson R nr Newcomb	1926-	7,440	1949	1/9	11,500	>100
01315500-Hudson R at North Creek	1907-	28,900	1949	1/9	26,300	50
01342800-West Canada Cr at Nobleboro	1958-76,1987-	20,000	1985	1/9	a15,000	40
01348000-East Canada Cr at East Creek	1946-96	b24,000	1946	1/9	17,800	60
04252500-Black R nr Boonville	1911-	12,800	1985	1/9	12,100	50
04254500-Moose R at McKeever	1901-70,1987-	b18,700	1947	1/8	14,600	50
04260500-Black R at Watertown	1920-	42,600	1993	1/10	55,500	>100
04262500-W Br Oswegatchie R nr Harrisville	1916-	7,090	1993	1/9	8,700	>100
04270000-Salmon R at Chasm Falls	1925-82,1986-	3,700	1985	4/1	3,540	100
04273700-Salmon R at South Plattsburgh	1959-86,1990-	4,200	1997	6/27	4,170	75
04273800-Little Ausable R nr Valcour	1991-	2,840	1997	6/27	7,210	a>100

a About.

b Dam failure.

July brought a return to normal temperatures. Storms throughout northeastern New York continued through the beginning of the month and produced a daily maximum rainfall of 3.27 inches on July 1 at Ellenburg Depot (Clinton County). The southeastern part of the state was drier than normal (37 percent of normal). The high flows of late June and early July receded to near normal by the end of the month as shown at two representative gaging stations in figures 4 and 5. Reservoir and lake elevations remained above normal for the month.

Precipitation during August ranged from 50 to 145 percent of normal across the state. Southeastern New York was drier, and northern New York wetter, than normal. The daily maximum rainfall for the month (4.01 inches) was recorded on August 11 at Whitehall (Washington County). From north to south, the streamflows ranged from above normal to below normal. Reservoirs and lakes remained at above-normal levels through the month.

September was warmer than normal. Northern New York was again wetter than normal, whereas southern areas were only 50 to 80 percent of normal. Streamflows were slightly above normal in northeastern parts of the state and below normal in southeastern parts. Lake and reservoir levels were generally near normal by the end of the month.

#### 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 reports.

Water-surface elevation, specific conductance, and water-temperature data from five sites were collected for the Hudson River Salt-Front study and were analyzed to locate the salt front (saltwater/freshwater interface, 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 location in 1998 ranged from less than 10 miles to about 72 miles upstream from the Battery in New York City, about the same range observed during 1996 and 1997. This range was last exceeded during 1995, when the salt front moved upstream as much as 82 miles above the Battery in New York City.



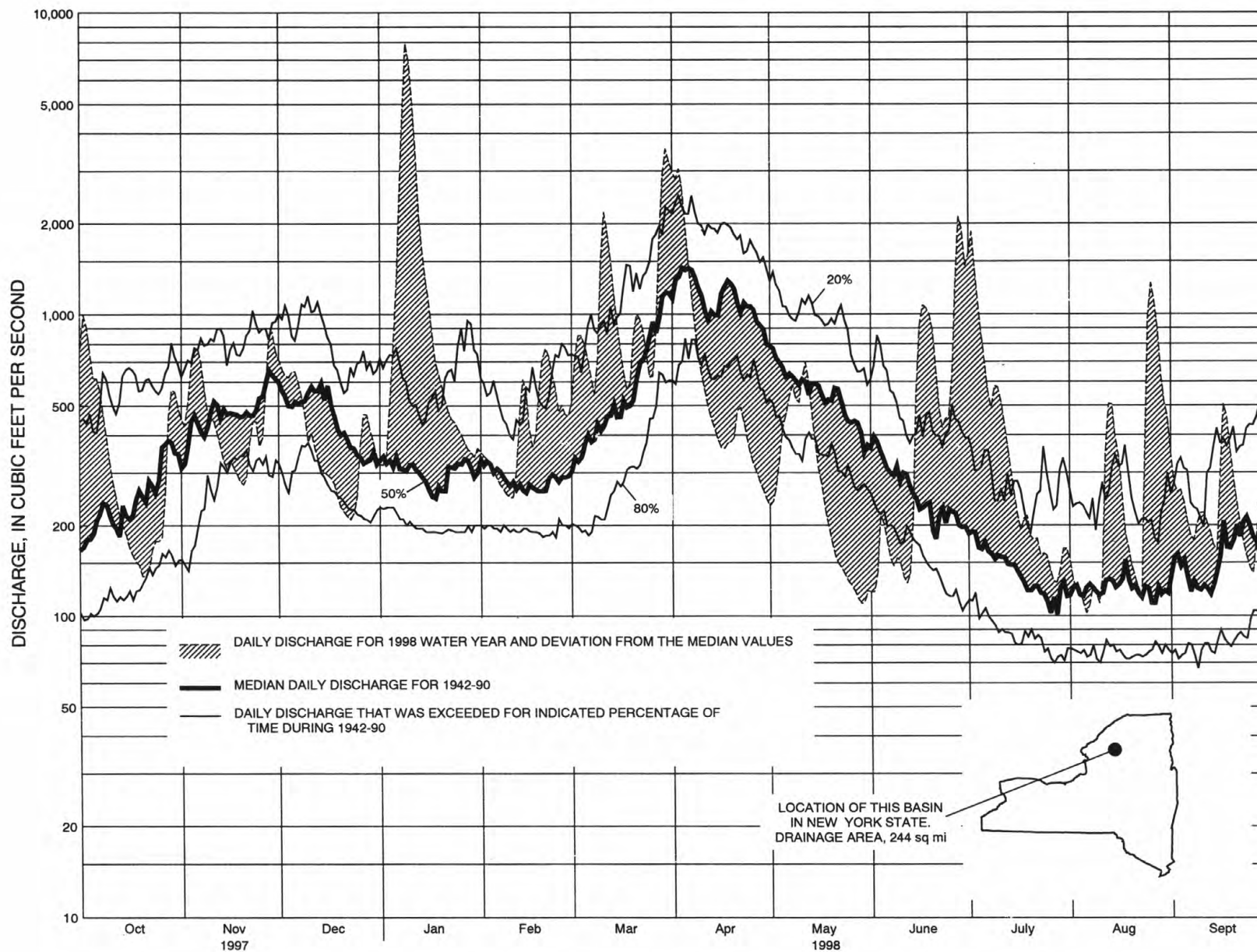


FIGURE 4.--HYDROGRAPHIC COMPARISONS, WEST BRANCH OSWEGATCHIE RIVER NEAR HARRISVILLE, NY



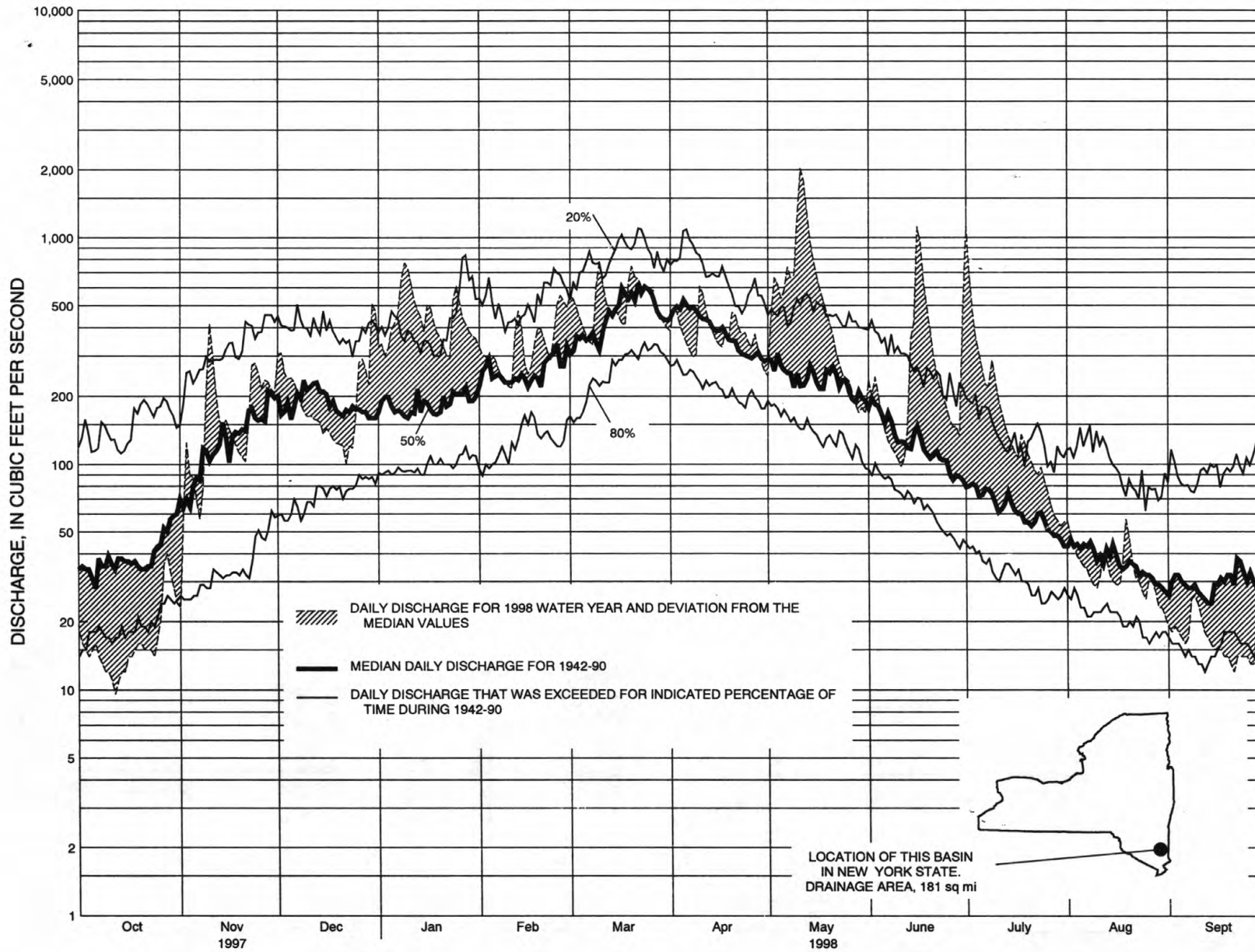


FIGURE 5.--HYDROGRAPHIC COMPARISONS, WAPPINGER CREEK NEAR WAPPINGERS FALLS, NY



## SUMMARY OF HYDROLOGIC CONDITIONS--Continued

Surface-water-temperature data are collected as an indicator of aquatic community stress. Daily minimum, maximum, and mean water-temperature data are presented for 2 sites in the Hudson River basin, 12 sites in the Delaware River basin, and one site on Lake Champlain. All temperatures were within the range reported for the period of record except at one site, which was established this year.

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 except for the maximum daily suspended-sediment discharge at the Hudson River at Stillwater (site 01331095 - location, fig. 8), which increased from 17,400 tons to 27,500 tons on January 9.

Data collected for the Hydrologic Benchmark program describe the physical properties, nutrients, and major ions at Biscuit Brook above Pigeon Brook at Frost Valley (site 01434025 - location, fig. 8); analyses of 7 samples are reported. The data from this site are representative of undeveloped watersheds in New York. Nutrient data collected for New York City's reservoir system water-quality study west of the Hudson River and the Environmental Protection Agency Long-Term Monitoring project are presented for 6 sites in southeastern New York. Data collected for the NAWQA program and Statewide Pesticide Monitoring Project describe the physical properties, pesticides, sediment, nutrients, and major ions at 2 surface-water sites and 2 ground-water sites in the Hudson River basin. Samples collected for the NAWQA program in 1993-95 are reported and describe the species composition and abundance of benthic macroinvertebrates at 29 sites in the Hudson River basin.

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.

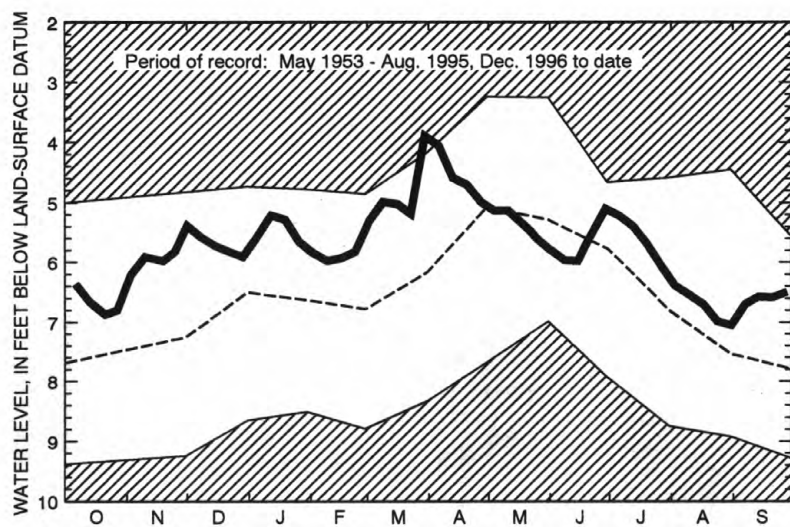
Confined aquifers are typically less responsive to individual recharge events than unconfined aquifers. Water levels in confined aquifers generally show a subdued and delayed water-level response to individual recharge events because their hydraulic connection to the overlying unconfined aquifers is 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 1998 water year. The hydrographs for well St-40 in St. Lawrence County (extreme northern New York) and well Oe-151 in Oneida County (northern New York) illustrate typical seasonal water-level fluctuations under natural (nonpumping) conditions in shallow, unconfined sand aquifers. Water levels in well St-40 were above the median height during most of this water year, and provided a new monthly maximum for March. Water levels in well Oe-151 were below the median height from October through December, above the median January through April, and below or near median height thereafter.

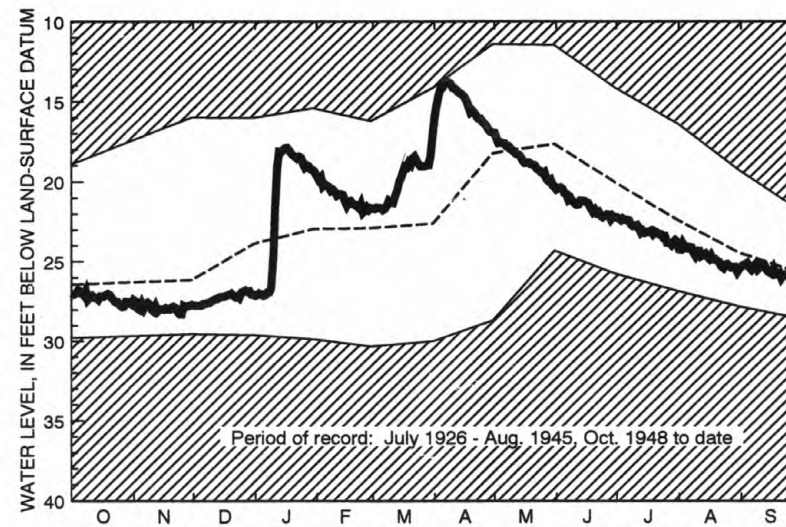
The hydrograph for well Sa-1100 in Saratoga County (east-central New York) illustrates water level fluctuations in a heavily pumped confined sand and gravel aquifer. Water levels in this well reached new monthly minimums for October, November, January, February, and May and were below the median in all other months. The natural (seasonal) fluctuations are masked by the pumping-induced drawdown. Increases in pumping near this well over the last several years are the reason for the water level declines, but pumping was reduced in the latter part of this water year and water levels showed some recovery.

Water-level conditions for the remaining well (well A-636 in Albany County), which reflect seasonal fluctuations in a shallow, unconfined sand aquifer, were at or slightly above the period-of-record median for water year 1998.

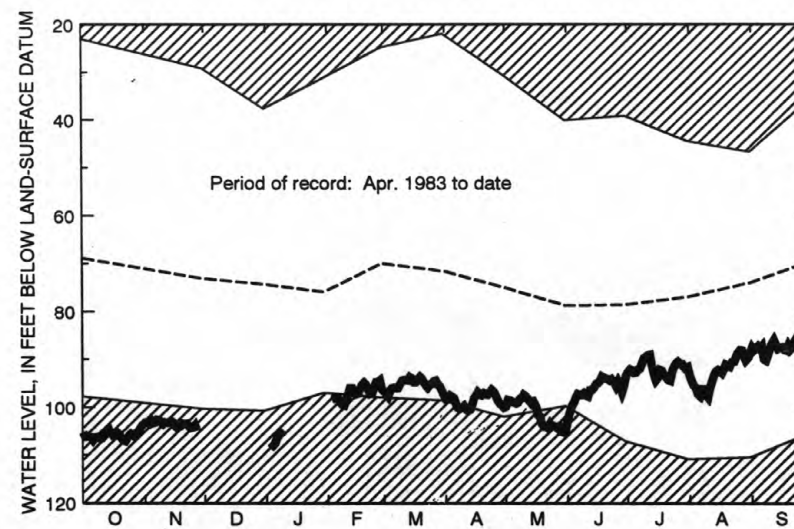
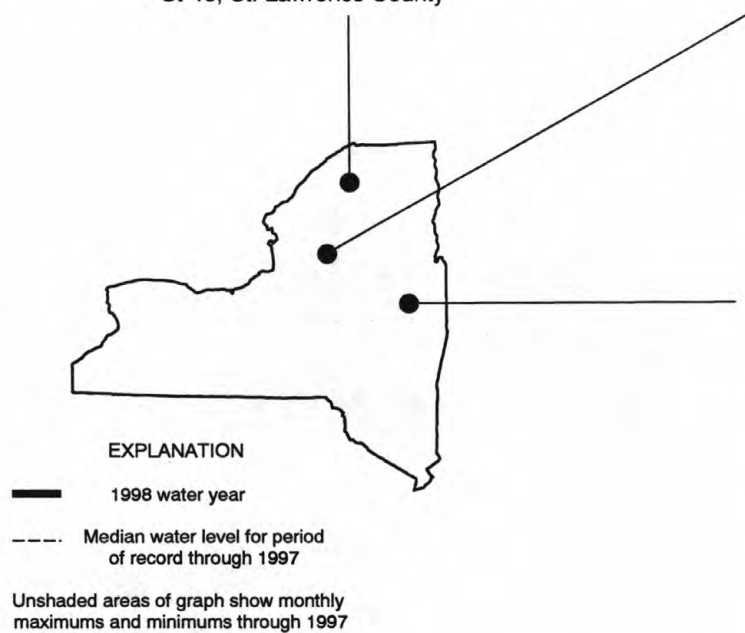




St-40, St. Lawrence County



Oe-151, Oneida County



Sa-1100, Saratoga 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 SO<sub>2</sub> 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 SO<sub>2</sub> and NO<sub>x</sub> 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.nrel.colostate.edu/NADP>

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 will be measured in ground water, surface water, streambed sediments, and fish tissues. The coordinated application of comparative hydrologic studies at a wide range of spatial and temporal scales will provide information for decision making by water-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](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 1998 water year that began October 1, 1997, and ended September 30, 1998. A calendar of the water year is provided on the inside of the front cover. The 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 "downstream 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.)

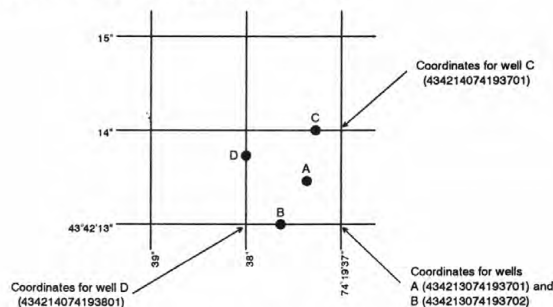


Figure 7. System for numbering wells (latitude and longitude)

### 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 re-surveys 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 \_\_\_\_\_," 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. 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.

### Hydrographs

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

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 generally shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 ft<sup>3</sup>/s; to tenths between 1.0 and 10 ft<sup>3</sup>/s; to whole numbers between 10 and 1,000 ft<sup>3</sup>/s; and to 3 significant figures above 1,000 ft<sup>3</sup>/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. In some instances, a small-area research gaging station monitored by special instrumentation may record daily discharge to thousandths of a cubic foot per second.

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.



## 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, Colorado State University, Fort Collins, CO 80523 (Telephone: 303/491-5643).

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.

Acid neutralizing capacity (ANC) is the equivalent sum of all bases or base-producing materials, solutes plus particulates, in an aqueous system that can be titrated with acid to an equivalence point.

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

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

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

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

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

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and 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. This group includes coliforms that inhabit the intestine of warm-blooded animals and those that inhabit soils. 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 all the organisms that produce colonies with a golden-green metallic sheen 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 brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C  $\pm$  1.0°C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Bed material See Bottom material.

Benthic invertebrates are invertebrate animals inhabiting the bottoms of lakes, streams, and other water bodies. They are useful as indicators of water quality.

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

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

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

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 sediment mixture of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

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

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

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

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

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water, and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with BOD 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 green 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 (FT<sup>3</sup>/S, ft<sup>3</sup>/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 stream 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 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 computed as the sum of equivalents of polyvalent cations and is expressed as the equivalent concentration of calcium carbonate ( $\text{CaCO}_3$ ).

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 substances (MBAS) are apparent detergents. The determination depends on the formation of a blue color when methylene blue dye reacts with synthetic anionic detergent compounds.

Micrograms per gram (UG/G,  $\mu\text{g/g}$ ) is a unit expressing the concentration of a chemical constituent as the mass of the constituent (micrograms) per unit mass (gram) of material analyzed. 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.

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

Milligrams per liter (MG/L,  $\text{mg/L}$ ) 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  $\text{mg/L}$ , and is based on the mass of dry 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 ( $\text{m}^2$ ), acres, or hectares. Periphyton benthic organisms, and macrophytes are expressed in these terms.

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

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

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, National Water Information 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 a particle 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) or in native water (the river water at the time and point of sampling).

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. Most of the organic matter is removed, and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis.

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 micro-organisms attached to or living upon submerged solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms.



Pesticides are chemical compounds used to control undesirable organisms. 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 ( $1 \times 10^{12}$ ) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields  $3.7 \times 10^{10}$  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 per milliliter (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 per milliliter (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 [ $\text{mg C}/(\text{m}^2 \cdot \text{time})$ ] for periphyton and macrophytes and [ $\text{mg C}/(\text{m}^3 \cdot \text{time})$ ] for phytoplankton are units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon 14). The carbon 14 method is of greater sensitivity than the oxygen light and dark bottle method, and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [ $\text{mg O}_2/(\text{m}^2 \cdot \text{time})$ ] for periphyton and macrophytes and [ $\text{mg O}_2/(\text{m}^3 \cdot \text{time})$ ] for phytoplankton are 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.

Bed load is the sediment which moves along in essentially continuous contact with the streambed by rolling, sliding, and making brief excursions into the flow a few diameters above the bed.

Bed-load discharge (tons per day) is the quantity of bed load measured by dry weight that moves past a section as bed load in a given time.

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). The entire sample is used for the analysis.

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 concentration (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 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 from 55 to 75 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

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 lives.

Natural substrate refers to any naturally occurring immersed or submersed solid surface, such as a rock or tree, upon which an organism lives.

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 are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

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

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

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

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

```

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

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

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration of the constituent, 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 are 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.)



Volatile Organic Compounds (VOCs) are organic compounds that can be isolated from the water phase of a sample by purging the water sample with inert gas, such as helium, and subsequently analyzed by gas chromatography. Many VOCs are man-made chemicals that are used and produced in the manufacture of paints, adhesives, petroleum products, pharmaceuticals, and refrigerants. They are often components of fuels, solvents, hydraulic fluids, paint thinners, and dry cleaning agents commonly used in urban settings. VOC contamination of drinking-water supplies is a human health concern because many are toxic and are known or suspected human carcinogens (U.S. Environmental Protection Agency, 1996).

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 hydrologic-data reports. (WRD was used as an abbreviation for "Water Resources Data" in reports published prior to 1976.)

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

Wet 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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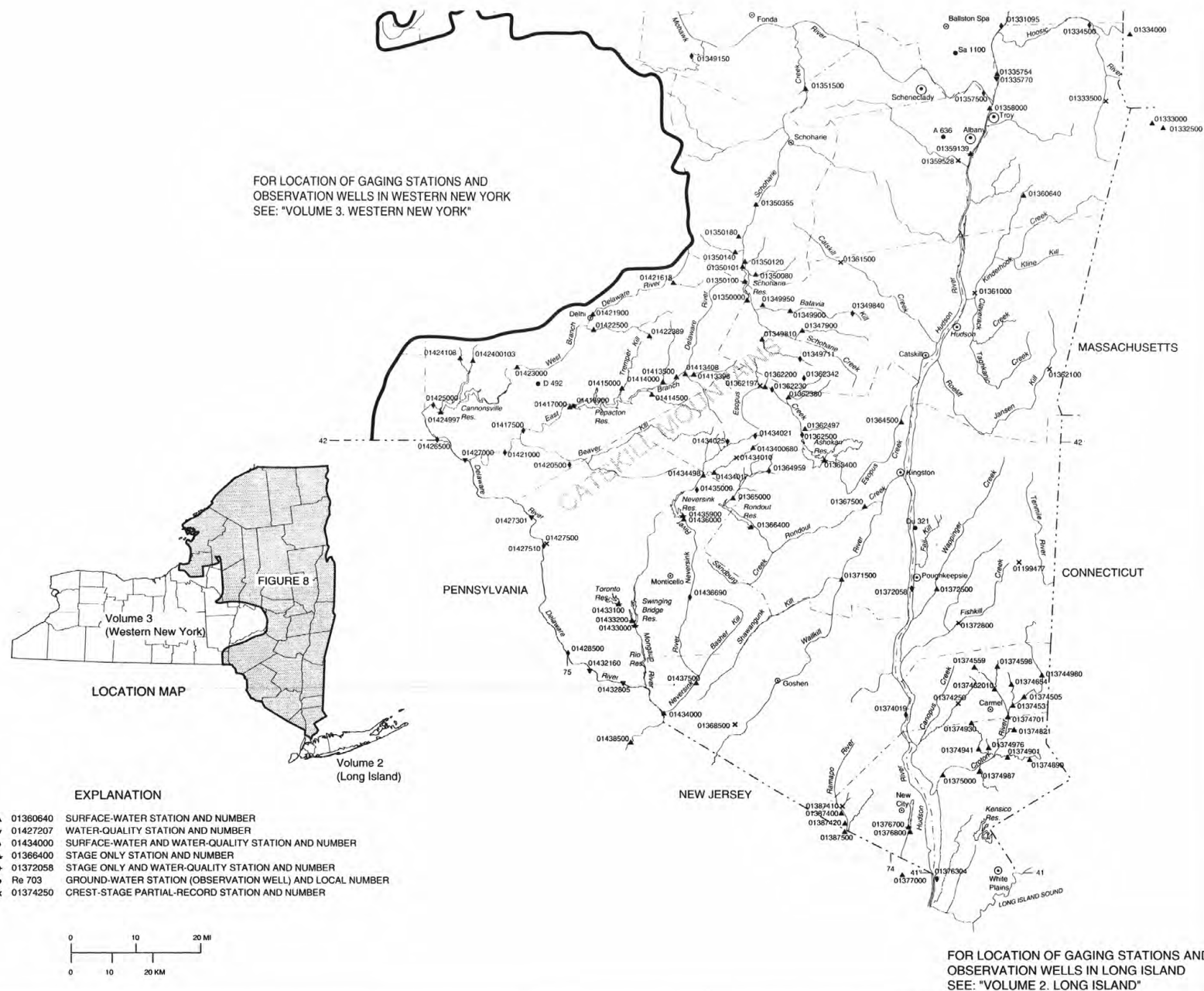


FIGURE 8.-- LOCATION OF GAGING STATIONS AND OBSERVATION WELLS



## 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 mi<sup>2</sup>.

**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 ft<sup>3</sup> 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.**--Elevation record provided by Board of Hudson River-Black River Regulating District.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum elevation observed, 1,656.71 ft, May. 28, 1913, contents, 5.781 bil ft<sup>3</sup>; minimum observed, about 1,616.8 ft, Feb. 13, 1948, contents, 0.20 bil ft<sup>3</sup>.

**EXTREMES FOR CURRENT YEAR.**--Maximum elevation observed, 1,652.27 ft, Apr. 5, contents, 4.862 bil ft<sup>3</sup>; minimum, observed, 1,641.79 ft, Jan. 4, contents, 3.023 bil ft<sup>3</sup>.

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

1,635.0	1.958	1,648.0	4.038
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 1997 TO SEPTEMBER 1998  
DAILY OBSERVATION AT 0800 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1643.76	1642.17	1642.91	1641.89	1647.52	1644.40	1649.57	1650.22	1649.25	1650.19	1648.33	1647.59
2	1643.70	1642.24	1642.91	1641.89	1647.39	1644.32	1650.86	1650.10	1649.33	1650.16	1648.27	1647.51
3	1643.62	1642.39	1642.91	1641.84	1647.24	1644.28	1651.80	1650.04	1649.35	1650.17	1648.12	1647.52
4	1643.60	1642.65	1642.91	1641.79	1647.11	1644.22	1652.17	1649.97	1649.39	1650.09	1648.07	1647.44
5	1643.61	1643.01	1642.91	1641.82	1646.97	1644.17	1652.27	1650.00	1649.42	1650.05	1647.97	1647.36
6	1643.53	1643.07	1642.89	1641.87	1646.83	1644.07	1652.21	1650.07	1649.39	1650.04	1647.89	1647.31
7	1643.53	1643.13	1642.89	1642.14	1646.67	1643.98	1652.16	1650.12	1649.33	1649.97	1647.79	1647.32
8	1643.51	1643.17	1642.89	1643.08	1646.55	1643.89	1652.02	1650.13	1649.30	1649.95	1647.71	1647.16
9	1643.46	1643.16	1642.86	1645.08	1646.40	1643.80	1651.95	1650.07	1649.33	1649.90	1647.62	1647.07
10	1643.41	1643.16	1642.86	1647.62	1646.28	1644.12	1651.91	1650.06	1649.34	1649.89	1647.53	1647.03
11	1643.36	1643.21	1642.80	1648.46	1646.15	1644.57	1651.80	1650.05	1649.33	1649.87	1647.62	1646.95
12	1643.26	1643.26	1642.76	1648.78	1646.04	1644.83	1651.68	1650.07	1649.37	1649.79	1647.72	1646.88
13	1643.17	1643.22	1642.70	1649.11	1646.01	1644.93	1651.63	1650.08	1649.54	1649.71	1647.74	1646.80
14	1643.09	1643.21	1642.64	1649.16	1645.92	1644.98	1651.52	1650.08	1649.85	1649.59	1647.70	1646.71
15	1643.03	1643.23	1642.59	1649.19	1645.83	1645.02	1651.49	1650.01	1650.42	1649.52	1647.66	1646.59
16	1642.97	1643.26	1642.54	1649.21	1645.69	1644.95	1651.37	1649.92	1650.76	1649.45	1647.61	1646.67
17	1642.86	1643.26	1642.49	1649.16	1645.60	1644.88	1651.30	1649.87	1650.88	1649.39	1647.57	1646.23
18	1642.77	1643.21	1642.45	1649.07	1645.49	1644.79	1651.26	1649.74	1651.18	1649.31	1647.49	1646.13
19	1642.69	1643.21	1642.43	1648.99	1645.40	1644.76	1651.17	1649.66	1651.49	1649.21	1647.38	1646.07
20	1642.62	1643.21	1642.36	1648.92	1645.31	1644.75	1651.19	1649.59	1651.53	1649.11	1647.30	1646.01
21	1642.56	1643.16	1642.28	1648.80	1645.19	1644.69	1651.16	1649.54	1651.47	1649.03	1647.21	1645.95
22	1642.51	1643.16	1642.20	1648.67	1645.09	1644.71	1651.19	1649.41	1651.35	1648.97	1647.10	1645.88
23	1642.45	1643.11	1642.21	1648.53	1645.00	1644.64	1651.05	1649.35	1651.18	1648.91	1647.01	1645.80
24	1642.36	1643.09	1642.14	1648.51	1644.86	1644.57	1651.00	1649.33	1651.02	1648.91	1647.31	1645.71
25	1642.25	1643.01	1642.13	1648.40	1644.83	1644.45	1650.88	1649.29	1650.80	1648.88	1647.64	1645.63
26	1642.16	1642.91	1642.11	1648.32	1644.81	1644.40	1650.81	1649.23	1650.61	1648.83	1647.77	1645.56
27	1642.17	1642.94	1642.07	1648.19	1644.63	1644.34	1650.68	1649.18	1650.69	1648.76	1647.81	1645.49
28	1642.21	1642.96	1642.03	1648.07	1644.45	1644.66	1650.58	1649.16	1650.57	1648.69	1647.83	1645.39
29	1642.25	1642.94	1641.99	1647.92	---	1645.67	1650.47	1649.18	1650.45	1648.65	1647.78	1645.30
30	1642.23	1642.86	1641.99	1647.81	---	1646.88	1650.32	1649.18	1650.18	1648.58	1647.73	1645.22
31	1642.23	---	1641.96	1647.67	---	1648.22	---	1649.19	---	1648.42	1647.66	---
MEAN	1642.93	1643.02	1642.51	1646.77	1645.90	1644.74	1651.32	1649.74	1650.20	1649.42	1647.68	1646.48
MAX	1643.76	1643.26	1642.91	1649.21	1647.52	1648.22	1652.27	1650.22	1651.53	1650.19	1648.33	1647.59
MIN	1642.16	1642.17	1641.96	1641.79	1644.45	1643.80	1649.57	1649.16	1649.25	1648.42	1647.01	1645.22
†	3.088	3.203	3.042	3.994	3.459	4.264	4.468	4.283	4.456	4.131	4.001	3.582
††	-98.9	+44.4	-60.1	+355	-221	+301	+78.7	-69.1	+66.7	-121	-48.5	-162

CAL YR 1997 MEAN 1645.84 MAX 1651.51 MIN 1641.21 †† -40.0

WTR YR 1998 MEAN 1646.72 MAX 1652.27 MIN 1641.79 †† +7.26

† 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.



## 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 mi<sup>2</sup>.

**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).

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

**EXTREMES FOR CURRENT YEAR.**--Maximum discharge, 773 ft<sup>3</sup>/s, Apr. 5, gage height, 3.52 ft; minimum, 36 ft<sup>3</sup>/s, June 8, 9, 10, gage height, 0.89 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	192	185	182	175	395	376	430	426	45	235	227	217
2	192	184	182	175	395	375	438	426	45	231	227	217
3	192	183	182	175	395	375	541	428	45	230	227	217
4	192	185	182	175	393	375	670	405	45	230	227	217
5	193	185	182	175	391	375	763	339	45	230	227	216
6	192	185	182	177	391	375	733	336	76	230	225	214
7	192	185	182	183	390	374	694	336	96	230	222	214
8	191	185	182	210	388	372	660	333	59	230	222	214
9	189	185	182	208	388	376	629	333	36	230	222	214
10	189	185	182	205	388	383	597	334	43	230	223	214
11	188	185	182	203	385	379	568	334	48	230	226	214
12	187	185	182	204	386	381	537	333	48	230	226	214
13	187	184	180	204	385	381	510	333	49	230	225	214
14	187	184	180	204	386	381	487	333	53	230	225	214
15	187	185	180	344	386	381	469	333	293	230	225	215
16	187	184	180	401	385	380	460	333	584	230	225	216
17	187	184	180	402	384	379	452	333	600	230	225	214
18	187	185	180	403	383	378	450	315	607	230	225	214
19	187	183	179	403	382	380	445	226	628	230	225	214
20	187	183	178	403	382	379	449	222	638	230	225	214
21	187	182	178	402	381	378	447	223	630	230	225	214
22	187	182	178	402	381	378	442	171	622	229	225	212
23	187	182	178	401	379	377	439	146	610	230	225	212
24	187	182	178	401	380	375	436	144	603	229	234	212
25	187	182	178	401	379	375	432	143	599	227	218	211
26	187	182	178	401	378	375	431	143	602	227	217	210
27	187	183	178	400	378	379	428	119	603	227	217	211
28	187	182	178	398	378	387	428	46	596	227	217	209
29	187	182	178	398	---	400	427	45	594	227	217	209
30	187	182	178	397	---	408	426	45	524	227	217	209
31	186	---	177	395	---	419	---	45	---	227	217	---
TOTAL	5841	5510	5578	9425	10792	11806	15318	8061	10066	7113	6930	6406
MEAN	188	184	180	304	385	381	511	260	336	229	224	214
MAX	193	185	182	403	395	419	763	428	638	235	234	217
MIN	186	182	177	175	378	372	426	45	36	227	217	209

## ADJUSTED FOR CHANGE IN CONTENTS OF INDIAN LAKE

MEAN	89.1	228	120	659	164	682	590	191	403	108	176	52.3
CFM	0.67	1.73	0.91	5.00	1.24	5.16	4.47	1.45	3.05	0.82	1.33	0.40
IN	0.78	1.93	1.05	5.76	1.29	5.95	4.98	1.67	3.40	0.94	1.53	0.44

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 1998, BY WATER YEAR (WY)

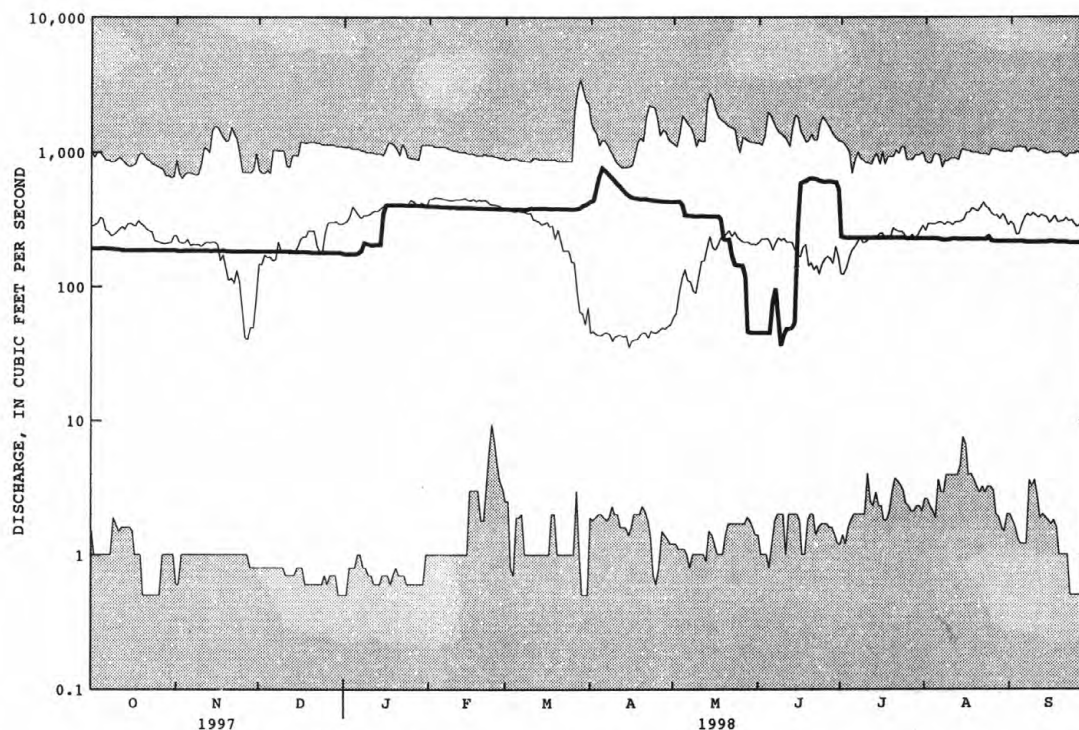
MEAN	269	221	262	366	416	282	189	310	256	273	360	349
MAX	808	649	777	944	980	745	774	799	907	644	700	862
(WY)	1978	1977	1973	1933	1932	1913	1913	1996	1947	1939	1930	1935
MIN	2.31	1.20	.74	3.13	36.7	5.69	2.51	2.42	3.30	4.43	47.7	24.9
(WY)	1919	1914	1931	1924	1945	1925	1927	1958	1958	1931	1975	1965



## HUDSON RIVER BASIN

01315000 INDIAN RIVER NEAR INDIAN LAKE, NY--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1912 - 1998	
ANNUAL TOTAL	115275		102846			
ANNUAL MEAN	316		282		296	
ANNUAL MEAN (ADJUSTED)	276		289			
HIGHEST ANNUAL MEAN					457	1976
LOWEST ANNUAL MEAN					106	1931
HIGHEST DAILY MEAN	631	May 10	763	Apr 5	3460	Mar 28 1913
LOWEST DAILY MEAN	46	Jun 26	36	Jun 9	.50	Sep 23 1913
ANNUAL SEVEN-DAY MINIMUM	46	Jun 24	45	May 29	.50	Oct 20 1913
ANNUAL RUNOFF (CFSM, ADJUSTED)	2.09		2.19			
ANNUAL RUNOFF (INCHES, ADJUSTED)	28.39		29.75			
10 PERCENT EXCEEDS	538		438		634	
50 PERCENT EXCEEDS	204		225		255	
90 PERCENT EXCEEDS	154		178		8.4	



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



## HUDSON RIVER BASIN

39

## 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 mi<sup>2</sup>.

**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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 28,900 ft<sup>3</sup>/s, Dec. 31, 1948, gage height, 12.14 ft; minimum, 112 ft<sup>3</sup>/s, July 26, 1934, gage height, 1.96 ft.

**EXTREMES FOR CURRENT YEAR.**--Maximum discharge, 26,300 ft<sup>3</sup>/s, Jan. 9, gage height, 11.54 ft; minimum, 293 ft<sup>3</sup>/s, May 30, gage height, 2.51 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	665	874	1190	e520	1130	1110	16800	1170	366	2370	646	849
2	751	1650	e1100	e620	1100	1270	16100	1270	374	2390	589	701
3	806	3610	e1100	724	e1050	1410	11600	1640	437	1940	453	854
4	811	3620	1070	783	1020	1420	7920	2180	462	1800	527	837
5	795	3710	1050	958	e1000	1370	5980	2650	511	2110	433	888
6	874	3090	1040	1250	1000	1310	4730	2970	499	2130	539	754
7	888	2460	1010	3030	938	1260	3950	2950	445	1840	468	754
8	805	2010	949	12200	928	1220	3460	2380	404	1490	570	736
9	736	1870	e860	23900	913	1480	3330	2000	362	1560	532	753
10	662	2140	e840	19900	908	3380	3010	2040	340	1850	454	781
11	681	2080	e820	10900	939	4150	2730	2400	314	1740	1170	727
12	640	1900	809	6270	1050	3670	2480	2370	400	1460	2070	699
13	631	1660	e780	4470	1330	2890	2240	2010	669	1220	2230	656
14	607	1480	e720	3260	e1300	2510	2130	1710	1820	1140	1570	576
15	435	1400	e660	2510	e1200	2150	2110	1500	4770	915	1250	635
16	532	1340	e720	2360	e1150	e1850	2010	1340	5060	914	983	1320
17	525	1220	e780	2240	1160	e1650	2030	1240	5860	796	772	1680
18	484	1140	763	2030	1120	1560	2270	1020	6370	837	792	1370
19	467	e1050	738	1850	1110	1640	2290	911	5770	691	639	1200
20	458	1010	e660	1690	1140	1850	2590	779	5110	634	596	993
21	452	955	e600	e1450	1140	1870	2660	747	4230	700	470	844
22	449	977	e540	e1300	1100	1800	2320	743	3090	612	563	785
23	449	997	611	e1350	1070	1690	2070	644	2410	788	523	712
24	450	981	667	1390	1060	e1500	1890	555	2670	1230	1540	653
25	453	e900	722	1480	1110	e1400	1810	518	2510	1140	3540	606
26	454	937	730	e1300	1110	1430	1670	459	2630	921	2530	652
27	603	1160	729	1190	1080	2090	1500	447	4690	725	1870	634
28	931	1300	e700	1210	1050	4640	1490	411	4480	725	1330	683
29	1020	1240	e660	1200	---	10000	1340	357	3470	600	1160	734
30	978	e1200	e620	1160	---	12400	1260	367	2630	653	1010	705
31	914	---	e560	1140	---	15400	---	366	---	552	875	---
TOTAL	20406	49961	24798	115635	30206	93370	117770	42144	73153	38473	32694	24771
MEAN	658	1665	800	3730	1079	3012	3926	1359	2438	1241	1055	826
MAX	1020	3710	1190	23900	1330	15400	16800	2970	6370	2390	3540	1680
MIN	435	874	540	520	908	1110	1260	357	314	552	433	576

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1907 - 1998, BY WATER YEAR (WY)

	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918
MEAN	1173	1499	1335	1192	1107	1847	4221	2824	1278	837	788	881
MAX	3923	3089	3277	3730	3846	5643	7258	6671	4768	2252	1701	2455
(WY)	1978	1989	1984	1998	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

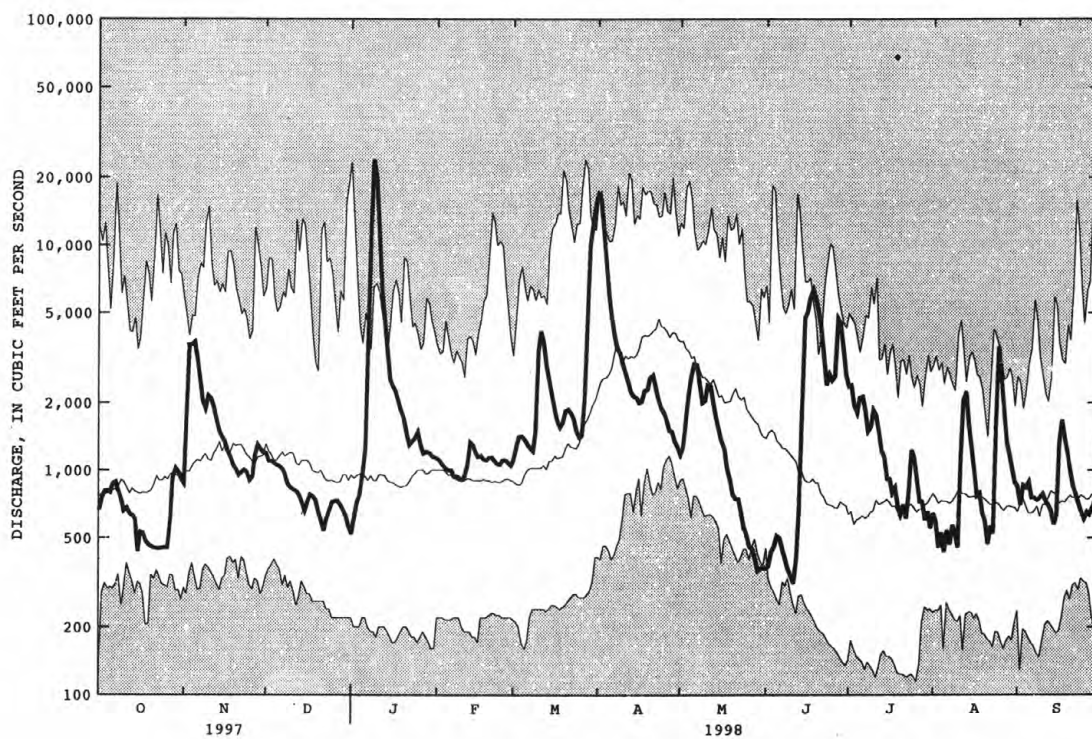
SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR	FOR 1998 WATER YEAR	WATER YEARS 1907 - 1998
ANNUAL TOTAL	563226	663381	
ANNUAL MEAN	1543	1817	1581
HIGHEST ANNUAL MEAN			2449
LOWEST ANNUAL MEAN			862
HIGHEST DAILY MEAN	8420	Apr 8	23900
LOWEST DAILY MEAN	291	Aug 11	114
ANNUAL SEVEN-DAY MINIMUM	375	Aug 6	120
10 PERCENT EXCEEDS	3450		3340
50 PERCENT EXCEEDS	1010		991
90 PERCENT EXCEEDS	496		462

e Estimated



## HUDSON RIVER BASIN

01315500 HUDSON RIVER AT NORTH CREEK, NY--Continued



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



HUDSON RIVER BASIN

41

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 mi<sup>2</sup>.

**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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 42,700 ft<sup>3</sup>/s, Jan. 1, 1949, gage height, 21.21 ft; minimum, 261 ft<sup>3</sup>/s, July 7, 1995; minimum gage height, 0.94 ft, Sept. 3, 1934, July 7, 1995.

**EXTREMES OUTSIDE PERIOD OF RECORD.**--Discharge for the flood of March 27, 1913, was about 49,000 ft<sup>3</sup>/s, based on peak runoff comparison with a station 12.7 mi upstream (drainage area 1,533 mi<sup>2</sup>).

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 15,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 10	0330	*32,400	*17.08	Apr. 2	0630	27,700	15.14

Minimum discharge, 478 ft<sup>3</sup>/s, Oct. 24, gage height, 1.68 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	859	1280	e2100	e920	2420	2260	25200	2390	986	5640	1010	1500
2	940	2190	e2100	e980	2320	2550	26900	2430	920	5340	1050	1430
3	1050	4330	2100	e1250	2250	2810	22700	3020	973	4700	957	1340
4	1090	5060	2150	1450	2160	2880	17600	3710	1010	4160	822	1460
5	1170	5280	2060	1610	e2100	2860	14100	4200	979	4240	881	1380
6	1260	4830	2020	2020	1930	2810	11800	5440	979	4360	784	1340
7	1260	4110	1970	3320	1750	2720	9960	5510	924	3880	905	1280
8	1270	3630	1890	16100	1750	2650	8500	5100	860	3540	839	1290
9	1210	3520	1730	e29600	1750	3460	7780	4350	876	3110	893	1240
10	1110	4440	1630	30400	1750	8190	7050	4550	889	3400	844	1200
11	1010	4230	1640	21700	1750	8520	6230	5910	731	3290	1280	1200
12	1010	3830	1610	14600	2100	7640	5670	5610	836	2960	2430	1130
13	965	3490	e1500	11500	e2600	6610	5110	4890	1640	2630	3290	1090
14	969	3250	e1300	9280	e2300	5890	4740	4260	3250	2350	2890	1030
15	894	3020	e1100	7930	e1900	5230	4480	3780	7770	2140	2430	958
16	749	2900	e1200	6940	e2000	4650	4200	3330	8420	1910	2190	1180
17	875	2690	e1300	6210	e2200	4240	4090	3130	9380	1860	1950	2080
18	841	2500	e1350	5420	e2200	3980	4020	2720	10600	1790	1750	1960
19	793	2330	e1300	4950	2250	4040	4160	2360	10100	1730	1690	1670
20	760	2210	e1250	4510	2320	4410	4880	2110	9450	1600	1460	1510
21	703	2110	e1200	4040	2330	4380	5160	1910	8260	1520	1380	1350
22	601	2090	977	e3500	2250	4200	4570	1780	6890	1500	1230	1210
23	565	2100	900	e3100	2140	3930	4120	1660	5790	1440	1250	1110
24	506	e2000	1120	2810	2110	3630	3800	1520	5440	1830	1400	1030
25	586	e1900	1200	e3100	2160	3370	3550	1390	5650	2020	4160	962
26	596	1820	1380	e3000	2190	3300	3340	1300	5360	1820	3830	906
27	817	2040	1450	e2400	2190	3950	3130	1180	7060	1580	3040	982
28	1200	2210	1390	2540	2160	8050	2900	1110	8040	1380	2370	988
29	1400	2220	1250	2750	---	14500	2760	1010	7170	1250	2000	1020
30	1390	2150	e1000	2720	---	18900	2570	968	6100	1090	1820	1030
31	1320	---	e900	2500	---	22300	---	920	---	1110	1670	---
TOTAL	29769	89760	46067	213150	59330	178910	235070	93548	137333	81170	54495	37856
MEAN	960	2992	1486	6876	2119	5771	7836	3018	4578	2618	1758	1262
MAX	1400	5280	2150	30400	2600	22300	26900	5910	10600	5640	4160	2080
MIN	506	1280	900	920	1750	2260	2570	920	731	1090	784	906

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1998, BY WATER YEAR (WY)

	1933	2701	2578	2261	2021	3670	8371	5315	2428	1455	1202	1348
MEAN	7087	5657	6925	6876	6948	11670	14230	11820	9497	4201	2717	4135
MAX	1978	1960	1984	1998	1981	1936	1993	1972	1947	1935	1986	1938
(WY)	575	681	551	397	384	451	2531	1576	737	392	396	590
MIN	1965	1931	1931	1931	1940	1940	1995	1987	1988	1934	1985	1995
(WY)												

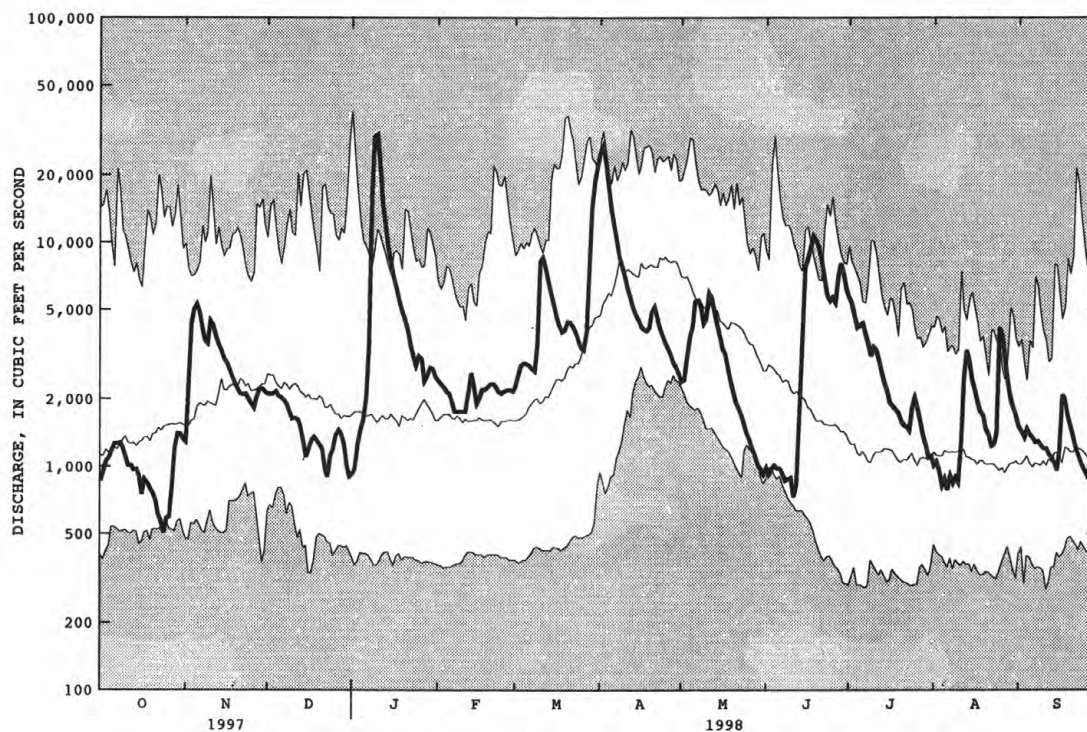
e Estimated



## HUDSON RIVER BASIN

## 01318500 HUDSON RIVER AT HADLEY, NY--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1922 - 1998	
ANNUAL TOTAL	989941		1256458		2939	
ANNUAL MEAN	2712		3442		4574	
HIGHEST ANNUAL MEAN					1408	
LOWEST ANNUAL MEAN					1408	
HIGHEST DAILY MEAN	14900	Apr 8	30400	Jan 10	38100	Jan 1 1949
LOWEST DAILY MEAN	389	Aug 12	506	Oct 24	282	Sep 11 1991
ANNUAL SEVEN-DAY MINIMUM	471	Aug 7	617	Oct 20	299	Jul 20 1934
10 PERCENT EXCEEDS	6590		6910		6520	
50 PERCENT EXCEEDS	1800		2150		1800	
90 PERCENT EXCEEDS	734		960		787	



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



## 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 mi<sup>2</sup>.

**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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 32,000 ft<sup>3</sup>/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 ft<sup>3</sup>/s, Sept. 30, 1913, gage height, 1.17 ft; minimum gage height, 1.14 ft, Aug. 11, 12, 13, 1997.

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 9,100 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 8	1430	*20,100	*8.90	Apr. 1	2115	13,500	7.59

Minimum discharge, 80 ft<sup>3</sup>/s, May 29; minimum gage height, 1.40 ft, Oct. 22, May 29.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	288	346	891	e450	545	864	10700	807	258	1580	160	234
2	193	1070	770	e560	e520	1170	10500	804	233	1270	131	218
3	240	2120	707	e660	e490	1240	7310	1010	375	938	125	273
4	268	1640	717	e760	e470	1180	5480	1190	280	634	117	216
5	479	1920	694	e980	e450	1080	4300	1390	250	769	111	172
6	491	1480	653	1600	e420	959	3560	1760	203	642	110	184
7	394	1150	e580	3310	e410	903	3070	1750	196	492	149	235
8	309	968	e500	15500	e400	843	2720	1480	150	527	108	227
9	270	1290	e460	14200	e400	1630	2460	1180	179	532	115	205
10	238	1690	e440	10100	380	5430	2870	1250	175	460	146	153
11	209	1440	378	6060	415	3520	2660	2000	157	401	747	163
12	186	1130	e440	4260	e700	2490	2490	1860	302	336	727	190
13	204	944	431	3450	e1100	2090	1930	1490	1710	327	464	120
14	156	806	424	2730	e880	1920	1860	1200	3340	244	383	132
15	195	793	401	2260	851	1640	1720	961	5040	232	318	139
16	147	709	492	2060	789	1340	1560	788	3750	219	294	174
17	181	642	669	1800	728	1170	1470	672	5800	212	234	172
18	132	600	586	1620	653	1080	1460	562	5180	152	252	167
19	170	e500	495	1350	698	1190	1340	474	3730	159	187	127
20	122	e500	416	1200	755	1410	2220	355	3660	173	143	130
21	148	499	379	1060	716	1320	2340	290	2760	149	196	137
22	106	539	418	868	665	1210	2060	284	2140	246	129	237
23	152	517	563	788	625	1110	1800	226	2040	299	149	152
24	108	e480	628	893	621	973	1570	248	1960	444	662	120
25	151	e420	746	901	648	922	1440	213	1590	311	725	110
26	111	540	e640	774	646	942	1310	179	1860	268	629	105
27	478	1020	e540	673	646	1870	1180	201	1910	244	480	164
28	676	880	e480	686	644	5980	1080	136	1470	186	408	160
29	519	856	e430	673	---	10200	992	193	1140	174	324	103
30	428	734	e400	659	---	8950	888	142	976	196	268	142
31	351	---	e360	597	---	10700	---	168	---	132	256	---
TOTAL	8100	28223	16728	83482	17265	77326	86340	25263	52814	12948	9247	5061
MEAN	261	941	540	2693	617	2494	2878	815	1760	418	298	169
MAX	676	2120	891	15500	1100	10700	10700	2000	5800	1580	747	273
MIN	106	346	360	450	380	843	888	136	150	132	108	103

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1998, BY WATER YEAR (WY)**

	MEAN	729	1126	1045	874	715	1646	3584	1766	740	425	270	379
MAX	2677	2727	2988	2693	3197	5315	6143	4342	2752	2221	1225	1604	
(WY)	1946	1960	1928	1998	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	

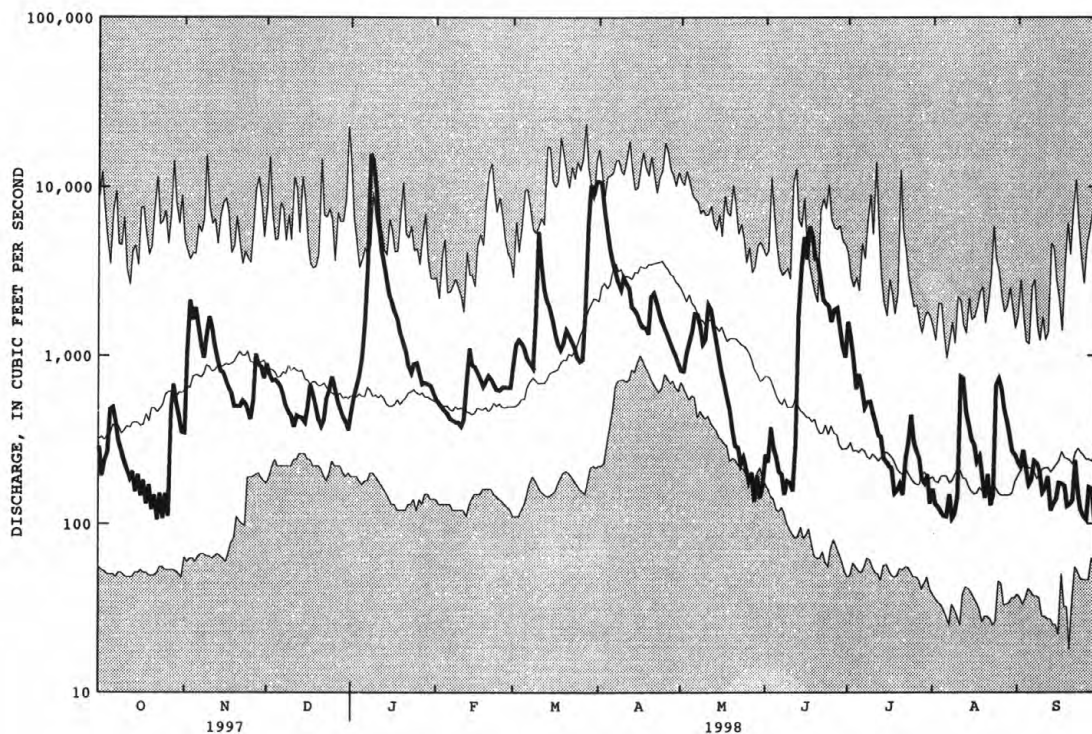
SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR	FOR 1998 WATER YEAR	WATER YEARS 1911 - 1998
ANNUAL TOTAL	368010	422797	
ANNUAL MEAN	1008	1158	1107
HIGHEST ANNUAL MEAN			1706
LOWEST ANNUAL MEAN			611
HIGHEST DAILY MEAN	8170	15500	23500
LOWEST DAILY MEAN	41	103	18
ANNUAL SEVEN-DAY MINIMUM	53	119	26
10 PERCENT EXCEEDS	3130	2290	2690
50 PERCENT EXCEEDS	600	621	569
90 PERCENT EXCEEDS	110	152	137

e Estimated



## HUDSON RIVER BASIN

01321000 SACANDAGA RIVER NEAR HOPE, NY--Continued



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



## 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 mi<sup>2</sup>.

**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 ft<sup>3</sup> 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 ft<sup>3</sup> is available exclusively for flood storage. Elevation of inverts of three Dow valves is 699.0 ft. Capacity of 4.600 bil ft<sup>3</sup> 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 mi<sup>2</sup>. 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 ft<sup>3</sup>; minimum since first filling, 729.55 ft, Mar. 30, 1940, contents, 2.100 bil ft<sup>3</sup>.

**EXTREMES FOR CURRENT YEAR.**--Maximum elevation, 770.57 ft, June 21, contents, 37.224 bil ft<sup>3</sup>; minimum, 750.36 ft, Mar. 9, contents, 16.264 bil ft<sup>3</sup>.

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 1997 TO SEPTEMBER 1998**  
**DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	755.43	751.84	754.99	751.95	759.30	751.77	758.05	766.89	767.08	767.80	765.81	762.73
2	755.31	751.98	755.01	751.82	759.04	751.62	759.83	766.95	766.96	767.73	765.67	762.63
3	755.17	752.17	754.91	751.72	758.89	751.53	761.09	767.09	766.99	767.68	765.51	762.56
4	755.08	752.41	754.85	751.61	758.68	751.39	761.85	767.22	766.90	767.60	765.34	762.45
5	755.04	752.72	754.82	751.60	758.42	751.20	762.45	767.36	766.76	767.55	765.19	762.34
6	754.98	752.97	754.83	751.66	758.14	750.98	762.92	767.56	766.64	767.48	765.03	762.24
7	754.86	753.14	754.71	751.96	757.80	750.75	763.31	767.77	766.50	767.45	764.87	762.16
8	754.75	753.29	754.63	753.94	757.46	750.50	763.61	767.91	766.39	767.46	764.73	762.04
9	754.65	753.60	754.50	757.50	757.11	750.45	763.88	767.90	766.29	767.50	764.57	761.95
10	754.59	754.04	754.35	759.71	756.76	751.26	764.14	767.96	766.18	767.50	764.41	761.82
11	754.40	754.33	754.24	760.89	756.40	752.22	764.40	768.22	766.05	767.46	764.39	761.69
12	754.27	754.58	754.10	761.55	756.17	752.78	764.59	768.48	766.01	767.41	764.41	761.55
13	754.14	754.66	754.01	762.06	756.02	753.05	764.77	768.60	766.21	767.39	764.37	761.40
14	754.02	754.72	753.88	762.44	755.83	753.04	764.92	768.60	766.68	767.35	764.31	761.26
15	753.90	754.89	753.71	762.59	755.57	752.97	765.08	768.52	767.57	767.30	764.22	761.13
16	753.75	754.94	753.57	762.55	755.29	752.84	765.21	768.42	768.27	767.25	764.10	761.00
17	753.63	755.02	753.45	762.45	754.99	752.67	765.37	768.31	768.88	767.20	764.02	760.89
18	753.48	754.97	753.33	762.32	754.72	752.48	765.53	768.16	769.70	767.12	763.91	760.76
19	753.31	754.96	753.22	762.17	754.45	752.33	765.61	768.03	770.19	767.05	763.79	760.65
20	753.20	754.98	753.08	762.01	754.19	752.22	765.93	768.03	770.42	766.99	763.71	760.55
21	753.04	754.96	752.94	761.84	753.93	752.09	766.26	768.01	770.51	766.91	763.58	760.46
22	752.94	754.94	752.78	761.60	753.63	752.02	766.42	767.93	770.46	766.85	763.46	760.32
23	752.76	755.02	752.70	761.40	753.32	751.88	766.51	767.86	770.37	766.78	763.33	760.21
24	752.58	755.07	752.57	761.24	753.05	751.67	766.63	767.78	770.11	766.76	763.31	760.06
25	752.38	755.06	752.51	761.05	752.82	751.46	766.72	767.69	769.75	766.65	763.29	759.92
26	752.23	755.03	752.45	760.81	752.55	751.25	766.75	767.63	769.36	766.57	763.25	759.75
27	752.23	755.06	752.37	760.55	752.27	751.13	766.75	767.52	769.01	766.49	763.18	759.67
28	752.26	755.02	752.29	760.30	751.99	751.59	766.79	767.43	768.61	766.38	763.11	759.53
29	752.17	755.01	752.19	760.06	---	753.18	766.85	767.35	768.23	766.27	763.04	759.33
30	752.07	754.96	752.17	759.82	---	754.94	766.88	767.24	767.93	766.11	762.96	759.18
31	751.97	---	752.09	759.58	---	756.50	---	767.12	---	765.95	762.85	---
MEAN	753.70	754.21	753.59	758.80	755.67	752.12	764.64	767.79	768.03	767.10	764.12	761.07
MAX	755.43	755.07	755.01	762.59	759.30	756.50	766.88	768.60	770.51	767.80	765.81	762.73
MIN	751.97	751.84	752.09	751.60	751.99	750.45	758.05	766.89	766.01	765.95	762.85	759.18
†	17.68	20.60	17.78	25.03	17.62	22.85	33.03	33.27	34.16	31.95	28.55	24.66
††	-1,296	+1,127	-1,053	+2,707	-3,063	+1,953	+3,927	+90	+343	-825	-1,269	-1,501

CAL YR 1997 MEAN 759.14 MAX 770.02 MIN 750.26 †† -395

WTR YR 1998 MEAN 760.09 MAX 770.51 MIN 750.45 †† +111

† 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 mi<sup>2</sup>.

**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 ft<sup>3</sup>/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 U.S. Geological Survey. Since Dec. 4, 1979, discharge computed by U.S. Geological Survey.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, about 35,500 ft<sup>3</sup>/s, Mar. 28, 1913, gage height, 12.36 ft, site and datum then in use; minimum, 4.2 ft<sup>3</sup>/s, May 4, 1985, Mar. 30, 31, Apr. 1-10, 11, 13, 14, 15, 1992. Maximum discharge since construction of Conklingville Dam in 1930, 13,300 ft<sup>3</sup>/s, May 4, 1983, gage height, 9.68 ft.

**EXTREMES FOR CURRENT YEAR.**--Maximum discharge, 9,110 ft<sup>3</sup>/s, June 24, gage height, 7.99 ft; minimum, 32 ft<sup>3</sup>/s, Nov. 12, gage height, 0.64 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1640	1710	1970	2020	4260	4770	165	529	1730	4020	2060	1640
2	1690	1740	1960	2020	4160	4740	118	545	1700	2160	2020	1670
3	1700	1660	1960	1990	2050	4150	83	548	1730	2280	2020	1760
4	1700	183	1970	1990	4060	4690	76	545	1730	2160	2190	1770
5	1690	36	1980	1990	4110	4750	46	542	1700	2150	2230	1700
6	1700	35	1980	2000	4840	4750	83	546	1720	2180	2230	1720
7	1760	35	1970	2000	4940	4690	44	544	1700	1120	2240	1800
8	1710	34	1970	1190	4860	4660	75	1690	1710	1030	2220	1750
9	1730	38	2130	196	4920	4720	43	1690	1740	1040	2240	1810
10	1720	193	2140	83	4920	2290	43	1790	1730	957	2260	1720
11	1700	1150	2130	43	4860	63	42	1730	1750	1030	2360	1980
12	1730	35	1980	40	4890	75	85	1790	1600	1030	1530	1880
13	1700	1050	1980	39	4850	2790	43	2540	1610	1030	1650	1940
14	1700	1020	3350	38	4840	4110	43	3020	1670	1030	1530	1950
15	1730	1020	1990	2950	4870	4110	42	3030	105	1030	1650	1740
16	1870	1010	1990	4140	4840	4110	42	3030	70	1030	1570	2070
17	1880	968	1990	4110	4870	4110	42	3030	124	1030	1590	1880
18	1870	978	2100	4230	4850	4110	41	3030	74	1100	1660	1540
19	1860	987	2050	4370	4850	4110	43	1030	2160	1160	1540	1570
20	1900	986	2050	4280	4880	4110	131	1030	4830	1130	1540	1600
21	1910	986	2080	4270	4880	4100	982	1020	4850	1360	1500	1570
22	1890	988	2010	4270	4800	4090	1050	1100	5030	1360	1860	1760
23	1870	985	2030	4270	4840	4050	1040	1350	6390	1490	1860	1880
24	1870	984	2040	4260	4790	4100	1040	1370	7710	1530	1880	2010
25	1930	984	2010	4270	4800	4070	1010	1360	7940	1530	1880	2010
26	1950	1440	2010	4270	4670	4050	1010	1370	7300	1540	1380	2090
27	1960	1910	2030	4270	4690	4100	1030	1530	7890	1530	1370	2050
28	1880	1970	1990	4260	4850	1610	1030	1530	7880	1570	1460	2050
29	1870	1970	2000	4260	---	180	533	1690	6790	1860	1580	2130
30	1700	1970	2000	4260	---	112	530	1700	4530	1880	1530	2250
31	1700	---	1990	4270	---	96	---	1810	---	1930	1600	---
TOTAL	55510	29055	63830	86649	130040	106466	10585	48059	97493	47277	56230	55290
MEAN	1791	969	2059	2795	4644	3434	353	1550	3250	1525	1814	1843
MAX	1960	1970	3350	4370	4940	4770	1050	3030	7940	4020	2360	2250
MIN	1640	34	1960	38	2050	63	41	529	70	957	1370	1540

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

	MEAN	496	2058	1005	5541	1577	5390	4280	1642	3591	702	545	338
CFSM	0.47	1.95	0.95	5.25	1.49	5.11	4.06	1.56	3.40	0.67	0.52	0.32	
IN.	0.54	2.18	1.10	6.05	1.56	5.89	4.53	1.79	3.80	0.77	0.60	0.36	

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1998, BY WATER YEAR (WY)**

	MEAN	1969	2223	2523	2766	2782	1994	1188	2418	2022	1935	1908	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	969	1117	1210	1144	89.0	5.85	40.5	712	927	872	963	
(WY)	1996	1998	1965	1965	1931	1954	1985	1931	1987	1941	1995	1941	



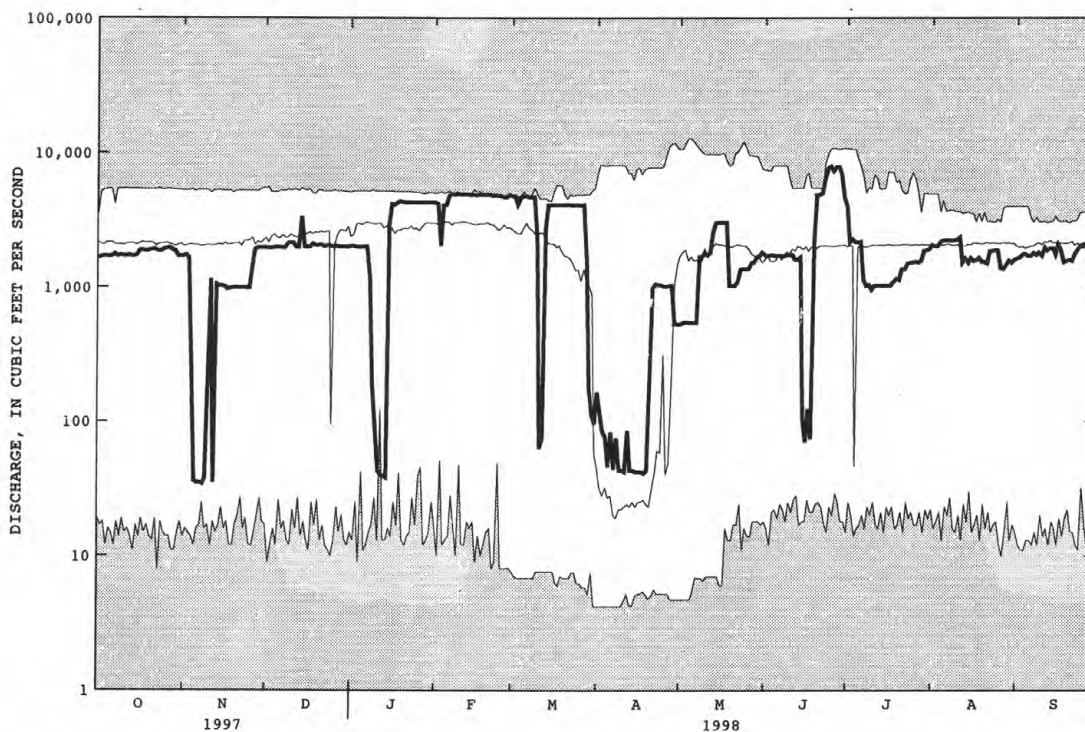
HUDSON RIVER BASIN

47

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

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1931 - 1998	
ANNUAL TOTAL	870290		786484		2129	
ANNUAL MEAN	2384		2155		2157	
ANNUAL MEAN (ADJUSTED)*	1986		2266		3452	
HIGHEST ANNUAL MEAN					1122	
LOWEST ANNUAL MEAN					12800	
HIGHEST DAILY MEAN	7860	May 6	7940	Jun 25	12800	May 4 1983
LOWEST DAILY MEAN	34	Nov 8	34	Nov 8	4.2	Mar 31 1992
ANNUAL SEVEN-DAY MINIMUM	41	Apr 11	42	Apr 13	4.2	Mar 31 1992
ANNUAL RUNOFF (CFSM, ADJUSTED)*	1.88		2.15		2.04	
ANNUAL RUNOFF (INCHES, ADJUSTED)*	25.55		29.16		27.76	
10 PERCENT EXCEEDS	4380		4700		4050	
50 PERCENT EXCEEDS	1960		1810		2080	
90 PERCENT EXCEEDS	1010		122		31	

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



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



## 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 mi<sup>2</sup>.

**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.**--No estimated daily discharges. 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.

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

**EXTREMES OUTSIDE PERIOD OF RECORD.**--Maximum discharge, 89,100 ft<sup>3</sup>/s, Mar. 28, 1913, at site about 14 mi upstream (drainage area, 2,779 mi<sup>2</sup>).

**EXTREMES FOR CURRENT YEAR.**--Maximum discharge, 35,000 ft<sup>3</sup>/s, Jan. 10, gage height, 28.29 ft; minimum, 464 ft<sup>3</sup>/s, Oct. 29, gage height, 19.82 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2440	2990	3860	2980	6190	6760	25400	3280	2660	9500	2820	2770
2	2530	3040	4120	2880	6480	6980	28000	2890	2660	7880	2930	2600
3	2490	5150	3990	3120	4960	6820	25400	2960	2590	6550	2880	3270
4	2950	6030	4160	3400	4860	7000	19300	3940	2460	6200	2900	2750
5	2760	4960	3900	3770	5710	7300	15600	4530	2520	6250	2820	3060
6	2900	5150	3930	3850	6000	7400	12800	5350	2870	6520	2920	3050
7	2940	4460	3930	4470	6110	7240	10500	5790	2800	5690	2950	3010
8	2560	3390	3770	15300	6160	7240	8830	5830	2730	4530	2910	2800
9	2970	3730	3630	32000	6240	7490	7770	6710	2300	4060	3030	2820
10	2770	4060	3900	33800	6470	11700	7380	5750	2630	3970	2970	2950
11	2600	4860	3820	25500	6220	9100	6340	7180	2330	3990	3040	2800
12	2630	4570	3280	16800	6720	7820	5960	7820	2520	4030	4080	2930
13	2280	3960	3550	12600	7010	7810	5410	6880	2690	3950	4170	3120
14	2700	4080	4320	9770	7120	9910	4530	7090	4080	3380	3850	3350
15	2470	4300	3300	8730	6640	9430	4630	6550	7390	3180	3690	2750
16	2620	3630	2840	10700	6670	8630	4050	5660	8710	2980	3030	2810
17	2660	3850	3430	10000	6720	7990	4250	6280	9150	2910	3700	3340
18	2690	3450	3220	9420	6730	7960	3970	5510	11000	2850	3760	4130
19	2560	3130	3410	9250	6790	7940	3800	4340	11600	2860	3150	2680
20	2400	3180	3200	8680	6940	7930	4860	3090	15100	2500	3060	3310
21	2490	3020	3410	8190	6890	8240	5460	3020	13600	2710	2800	2650
22	2510	2900	3020	7670	6870	8250	5990	2910	12000	2860	2720	2910
23	2430	2960	2770	6430	6800	7980	5260	2780	11700	2890	3000	2570
24	2220	3180	2900	6890	6500	7440	4840	2620	12800	2920	2900	2780
25	2440	2930	3240	6770	6600	7240	4270	2690	13500	3300	4430	2640
26	2430	3250	3250	7070	6650	7070	4690	3060	12400	3600	6080	3010
27	2820	3610	3760	6830	6640	7160	4040	2770	14200	4050	4690	3030
28	3020	4180	3250	6220	6670	9440	3630	2330	16300	3040	3780	3370
29	3060	3870	3250	6500	---	13000	3460	1750	15100	3000	3190	2840
30	3040	4410	3230	6640	---	19500	3220	2620	11200	2830	3350	3080
31	3020	---	2940	6510	---	22100	---	2580	---	2880	3280	---
TOTAL	82400	116280	108580	302740	180360	277870	253640	136560	233590	127860	104880	89180
MEAN	2658	3876	3503	9766	6441	8964	8455	4405	7786	4125	3383	2973
MAX	3060	6030	4320	33800	7120	22100	28000	7820	16300	9500	6080	4130
MIN	2220	2900	2770	2880	4860	6760	3220	1750	2300	2500	2720	2570

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1998, BY WATER YEAR (WY)**

MEAN	4310	5698	5751	5493	5246	6096	9956	7539	4108	2868	2891	3133
MAX	9773	9326	10260	9907	8616	10950	16790	16670	7786	4237	4586	4478
(WY)	1978	1996	1997	1978	1984	1990	1993	1983	1998	1984	1986	1987
MIN	2658	2963	2957	2714	2697	3387	3177	2231	1922	1786	1962	2361
(WY)	1998	1979	1979	1989	1989	1989	1995	1995	1995	1995	1995	1995

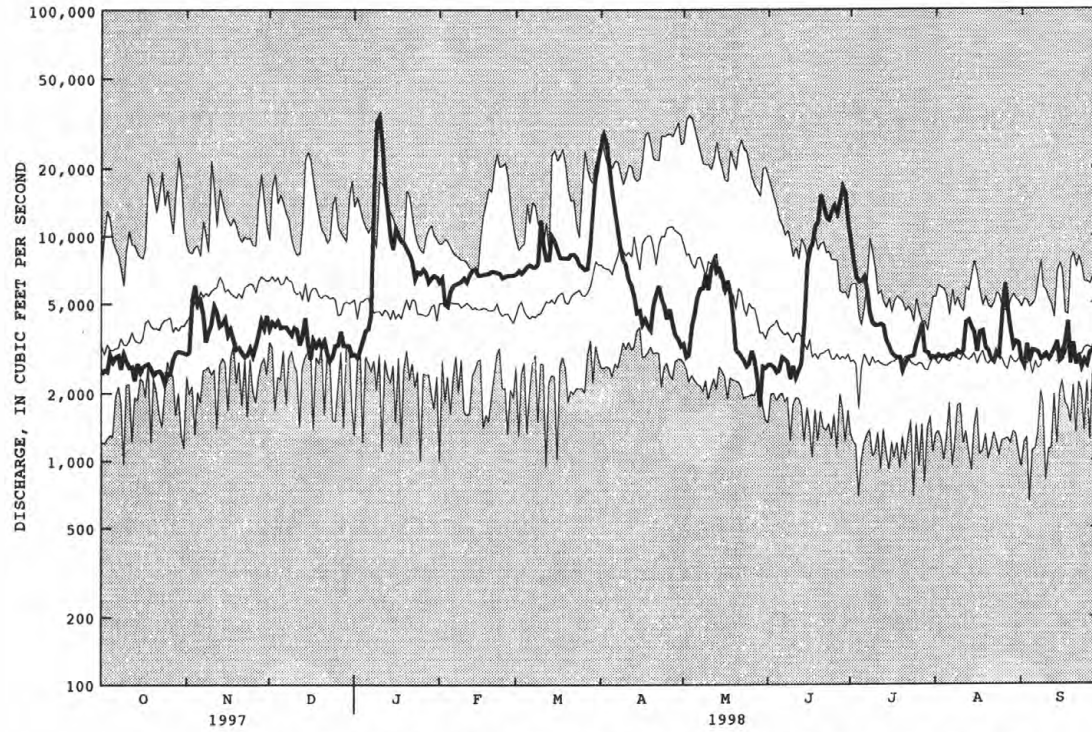
SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1977 - 1998	
ANNUAL TOTAL	1887410		2013940			
ANNUAL MEAN	5171		5518		5239	
HIGHEST ANNUAL MEAN					6768	
LOWEST ANNUAL MEAN					3569	
HIGHEST DAILY MEAN	17100		33800		34100	
LOWEST DAILY MEAN	1680		1750		652	
ANNUAL SEVEN-DAY MINIMUM	2370		2420		1270	
10 PERCENT EXCEEDS	9630		9430		9260	
50 PERCENT EXCEEDS	3760		3900		4000	
90 PERCENT EXCEEDS	2500		2660		2400	



HUDSON RIVER BASIN

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01327750 HUDSON RIVER AT FORT EDWARD, NY--Continued



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



## HUDSON RIVER BASIN

## 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 mi<sup>2</sup>, 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), 1993-98 (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), 1993-98 (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 1997 TO SEPTEMBER 1998

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	AROCLO 1260 PCB TOTAL (UG/L) (39508)	AROCLO 1254 PCB TOTAL (UG/L) (39504)	AROCLO 1242 PCB TOTAL (UG/L) (39496)
OCT							
01...	1123	2900	2	12	<.010	<.020	<.020
16...	1121	3370	2	17	<.010	.011	.028
30...	1123	3730	3	30	<.010	<.020	<.020
NOV							
13...	1114	2630	2	11	<.010	.014	.015
26...	1029	4160	1	16	<.010	.016	.024
DEC							
09...	1114	4100	1	11	<.010	<.010	.025
JAN							
08...	1150	13900	14	518	<.010	.022	.042
09...	1035	33000	56	5020	<.010	.026	.064
10...	0935	35200	31	2980	<.010	.023	.028
12...	1050	16400	8	368	<.010	.012	.012
MAR							
04...	1015	7330	1	22	<.010	<.010	<.020
10...	1030	13100	7	262	<.010	<.010	<.020
11...	0955	9410	6	145	<.010	<.010	<.020
27...	1013	7170	2	46	<.010	<.010	<.020
30...	1135	20200	11	578	<.010	<.010	.025
31...	1125	23100	26	1600	<.010	<.010	.028
APR							
01...	1057	26200	22	1520	<.010	<.010	.027
03...	1135	26000	12	821	<.010	<.010	.034
06...	1150	13500	2	80	<.010	<.010	.021
14...	1034	3970	2	23	<.010	<.010	.022
30...	1105	3080	2	14	<.010	<.010	.022
MAY							
15...	1109	6960	2	36	<.010	<.010	<.020
26...	1143	2980	2	17	<.010	<.010	<.020
JUN							
09...	1047	2710	2	15	<.010	<.010	.022
JUL							
15...	1133	3290	1	9.8	<.010	<.010	.024
AUG							
10...	1108	3780	3	27	<.010	<.010	.032
SEP							
03...	1142	3740	4	35	<.010	<.010	.037
16...	1052	2020	1	6.4	<.010	<.010	.023



## HUDSON RIVER BASIN

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## 01329500 BATTEN KILL AT BATTENVILLE, NY

**LOCATION.**--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 upstream from Trout Brook.

**DRAINAGE AREA.**--394 mi<sup>2</sup>.

**PERIOD OF RECORD.**--September to December 1908 (gage heights only), October 1922 to September 1968, October 1986 to March 1998 (annual maximum only), April to September 1998.

**GAGE.**--Water-stage recorder. Datum of gage is 369.09 ft above sea level. September 24 to December 8, 1908, staff and chain gages at site 1 mi upstream at different datum.

**REMARKS.**--No estimated daily discharges. Records good. Regulation at low and medium flows prior to 1982. Telephone gage-height telemeter at station.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 21,300 ft<sup>3</sup>/s, Nov. 4, 1927, gage height, 17.7 ft (from floodmarks); minimum discharge, 7.3 ft<sup>3</sup>/s, Oct. 5, 1953 (result of regulation).

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 4,100 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 9	Unknown	*9,350	a*10.30	Apr. 2	0100	4,230	6.67

a Recorded; outside gage height was 11.95 ft, from floodmark.

Minimum discharge (April to September), 127 ft<sup>3</sup>/s, Sept. 30, gage height, 2.65 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	3750	550	1500	838	217	147
2	---	---	---	---	---	---	4020	566	746	1060	204	146
3	---	---	---	---	---	---	3520	827	681	674	194	251
4	---	---	---	---	---	---	2760	732	580	537	185	239
5	---	---	---	---	---	---	2120	654	432	806	179	185
6	---	---	---	---	---	---	1760	863	361	830	176	160
7	---	---	---	---	---	---	1520	1040	326	625	194	227
8	---	---	---	---	---	---	1380	871	332	595	220	325
9	---	---	---	---	---	---	1350	785	351	692	193	263
10	---	---	---	---	---	---	1290	857	316	732	175	298
11	---	---	---	---	---	---	1110	1250	284	669	222	263
12	---	---	---	---	---	---	983	1030	276	570	312	216
13	---	---	---	---	---	---	907	833	401	507	271	191
14	---	---	---	---	---	---	850	693	1620	448	224	176
15	---	---	---	---	---	---	802	609	3020	407	196	166
16	---	---	---	---	---	---	746	550	2800	372	184	184
17	---	---	---	---	---	---	765	521	2160	354	177	236
18	---	---	---	---	---	---	783	503	2260	334	180	187
19	---	---	---	---	---	---	674	452	1990	303	222	163
20	---	---	---	---	---	---	1640	411	1530	297	188	153
21	---	---	---	---	---	---	1780	383	1230	341	164	145
22	---	---	---	---	---	---	1230	379	948	314	153	138
23	---	---	---	---	---	---	989	363	826	316	145	140
24	---	---	---	---	---	---	905	337	734	533	182	140
25	---	---	---	---	---	---	882	320	634	437	278	132
26	---	---	---	---	---	---	893	302	666	341	295	130
27	---	---	---	---	---	---	807	279	712	299	268	147
28	---	---	---	---	---	---	728	265	631	269	208	161
29	---	---	---	---	---	---	653	253	544	251	180	141
30	---	---	---	---	---	---	592	250	490	239	174	130
31	---	---	---	---	---	---	---	252	---	229	160	---
TOTAL	---	---	---	---	---	---	42189	17980	29381	15219	6320	5580
MEAN	---	---	---	---	---	---	1406	580	979	491	204	186
MAX	---	---	---	---	---	---	4020	1250	3020	1060	312	325
MIN	---	---	---	---	---	---	592	250	276	229	145	130
CFSM	---	---	---	---	---	---	3.57	1.47	2.49	1.25	.52	.47
IN.	---	---	---	---	---	---	3.98	1.70	2.77	1.44	.60	.53

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 1998, BY WATER YEAR (WY)**

	320	620	673	712	654	1196	1752	998	520	350	234	266
MEAN	320	620	673	712	654	1196	1752	998	520	350	234	266
MAX	847	2498	1675	2016	1402	3718	3535	2141	1167	1874	583	1550
(WY)	1956	1928	1928	1949	1925	1936	1960	1940	1954	1935	1943	1938
MIN	74.7	108	192	142	214	291	582	302	162	96.1	85.2	66.9
(WY)	1965	1965	1948	1948	1931	1965	1946	1941	1964	1965	1965	1964



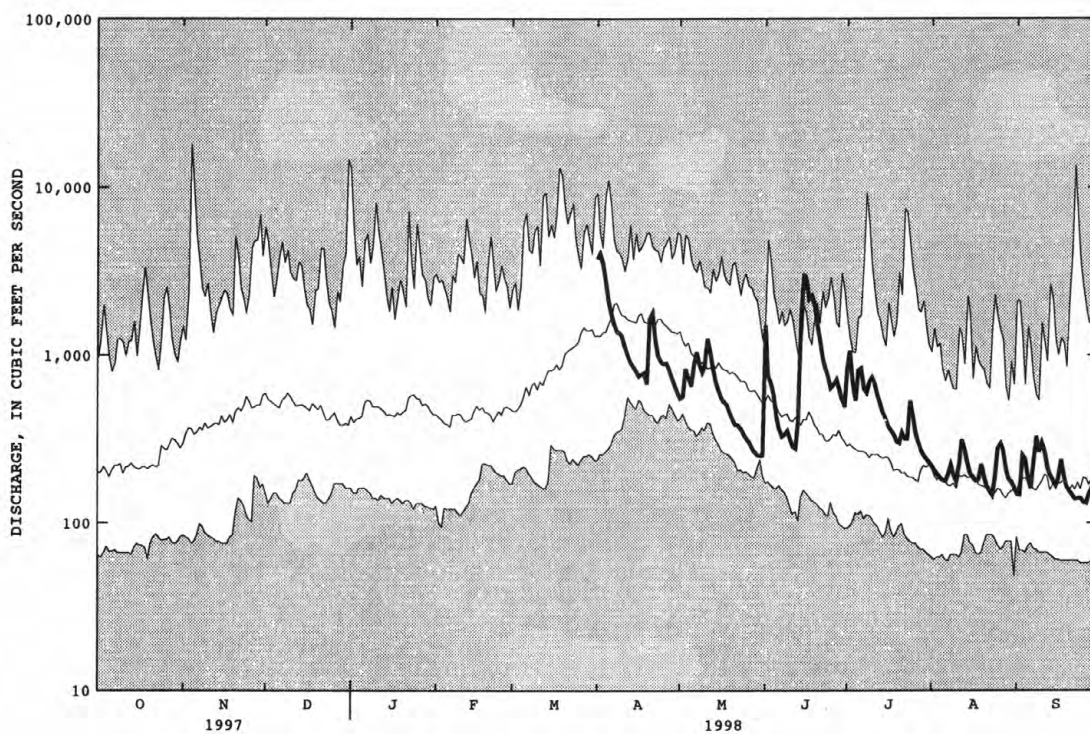
## HUDSON RIVER BASIN

01329500 BATTEN KILL AT BATTENVILLE, NY--Continued

## SUMMARY STATISTICS

WATER YEARS 1923 - 1998

ANNUAL MEAN	691	
HIGHEST ANNUAL MEAN	980	1928
LOWEST ANNUAL MEAN	335	1965
HIGHEST DAILY MEAN	18000	Nov 4 1927
LOWEST DAILY MEAN	48	Aug 31 1953
ANNUAL SEVEN-DAY MINIMUM	58	Sep 21 1964
ANNUAL RUNOFF (CFSM)	1.75	
ANNUAL RUNOFF (INCHES)	23.83	
10 PERCENT EXCEEDS	1570	
50 PERCENT EXCEEDS	414	
90 PERCENT EXCEEDS	140	



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



## HUDSON RIVER BASIN

53

## 01330000 GLOWEGEE CREEK AT WEST MILTON, NY

**LOCATION.**--Lat 43°01'50", long 73°55'40", Saratoga County, Hydrologic Unit 02020003, on left bank at upstream side of highway bridge, 0.5 mi south of West Milton, 1.5 mi upstream from mouth, and 4.0 mi northwest of Ballston Spa.

**DRAINAGE AREA.**--26.0 mi<sup>2</sup>.

**PERIOD OF RECORD.**--April 1948 to June 1963, October 1990 to current year.

**GAGE.**--Water-stage recorder. Concrete control since June 20, 1952. Datum of gage is 407.22 ft above sea level.

Prior to Aug. 27, 1948, nonrecording gage at highway bridge at same site and datum.

**REMARKS.**--Records good except those for estimated daily discharges, which are poor. Since May 1955, ground-water pumpage by the Knolls Atomic Power Laboratory, West Milton site, enters Glowegee Creek upstream from station.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 1,670 ft<sup>3</sup>/s, Dec. 31, 1948, gage height, 7.04 ft (prior to concrete control); maximum gage height, 7.12 ft, Jan. 8, 1998; minimum discharge, 0.37 ft<sup>3</sup>/s, Aug. 10, 11, 1949, gage height, 0.67 ft (prior to concrete control).

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 400 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 8	1130	*1,370	*7.12	Mar. 10	0615	561	5.58

Minimum discharge, 4.1 ft<sup>3</sup>/s, Aug. 5, 9, 10, Sept. 1, 2, gage height, 2.93 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	23	65	16	27	118	85	19	52	19	5.4	5.0
2	11	111	45	22	26	114	161	29	26	18	4.8	11
3	13	70	35	22	26	102	114	41	51	14	5.0	27
4	17	45	37	35	27	87	78	44	28	14	5.1	14
5	27	49	44	54	e25	82	63	37	18	44	4.4	11
6	23	35	43	91	e23	82	53	59	13	26	4.9	8.3
7	16	27	34	e120	e22	75	46	43	11	18	5.5	32
8	21	25	30	978	e21	80	41	36	11	74	5.8	30
9	11	90	26	801	e20	226	44	29	20	81	4.4	19
10	13	109	24	344	21	373	40	127	13	39	6.2	13
11	8.6	62	24	e170	21	135	34	169	10	23	24	9.8
12	8.4	40	23	e110	61	75	30	132	30	17	28	8.3
13	7.1	32	23	94	90	57	29	69	152	15	12	7.4
14	7.1	24	20	69	57	53	27	46	255	13	8.7	7.4
15	11	34	14	45	38	53	26	34	203	12	7.8	6.9
16	9.2	34	15	45	29	48	25	31	106	20	7.0	8.4
17	7.7	e30	18	45	30	45	26	27	123	16	6.7	6.4
18	7.3	e29	18	44	32	45	25	23	85	12	7.8	5.5
19	6.8	28	18	43	46	75	29	19	59	10	18	5.1
20	6.4	27	e17	e38	66	96	146	17	67	9.8	11	5.0
21	7.0	26	e15	e32	71	82	72	15	45	9.9	8.7	5.6
22	6.9	36	12	30	75	61	45	12	38	9.3	6.7	7.7
23	6.8	44	13	27	68	54	35	11	56	14	6.8	7.2
24	8.5	37	16	36	57	50	33	8.8	37	24	8.9	5.4
25	7.8	30	22	37	73	52	29	8.2	28	16	10	5.5
26	10	30	46	e33	88	68	27	8.5	23	13	11	5.8
27	61	56	47	30	91	111	26	8.3	26	10	7.3	10
28	47	42	35	e30	81	133	24	7.8	22	8.1	5.8	10
29	27	33	27	29	---	117	24	7.9	20	6.6	5.1	7.8
30	20	34	e23	29	---	87	20	10	20	6.5	5.7	7.6
31	17	---	e19	28	---	68	---	15	---	6.7	6.1	---
TOTAL	464.6	1292	848	3527	1312	2904	1457	1143.5	1648	618.9	264.6	313.1
MEAN	15.0	43.1	27.4	114	46.9	93.7	48.6	36.9	54.9	20.0	8.54	10.4
MAX	61	111	65	978	91	373	161	169	255	81	28	32
MIN	6.4	23	12	16	20	45	20	7.8	10	6.5	4.4	5.0
CFSM	.58	1.66	1.05	4.38	1.80	3.60	1.87	1.42	2.11	.77	.33	.40
IN.	.66	1.85	1.21	5.05	1.88	4.15	2.08	1.64	2.36	.89	.38	.45

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 1998, BY WATER YEAR (WY)**

	MEAN	20.6	35.6	38.9	39.0	36.3	75.5	100	44.9	20.8	13.0	10.5	11.2
MAX	108	73.0	100	114	77.3	133	204	97.4	54.9	42.3	29.6	30.4	30.4
(WY)	1956	1955	1997	1998	1954	1951	1993	1953	1998	1996	1994	1960	1960
MIN	4.29	8.83	10.5	8.49	7.68	35.6	35.0	18.2	7.85	2.13	3.04	2.02	2.02
(WY)	1962	1962	1962	1961	1962	1960	1995	1995	1959	1959	1958	1948	1948

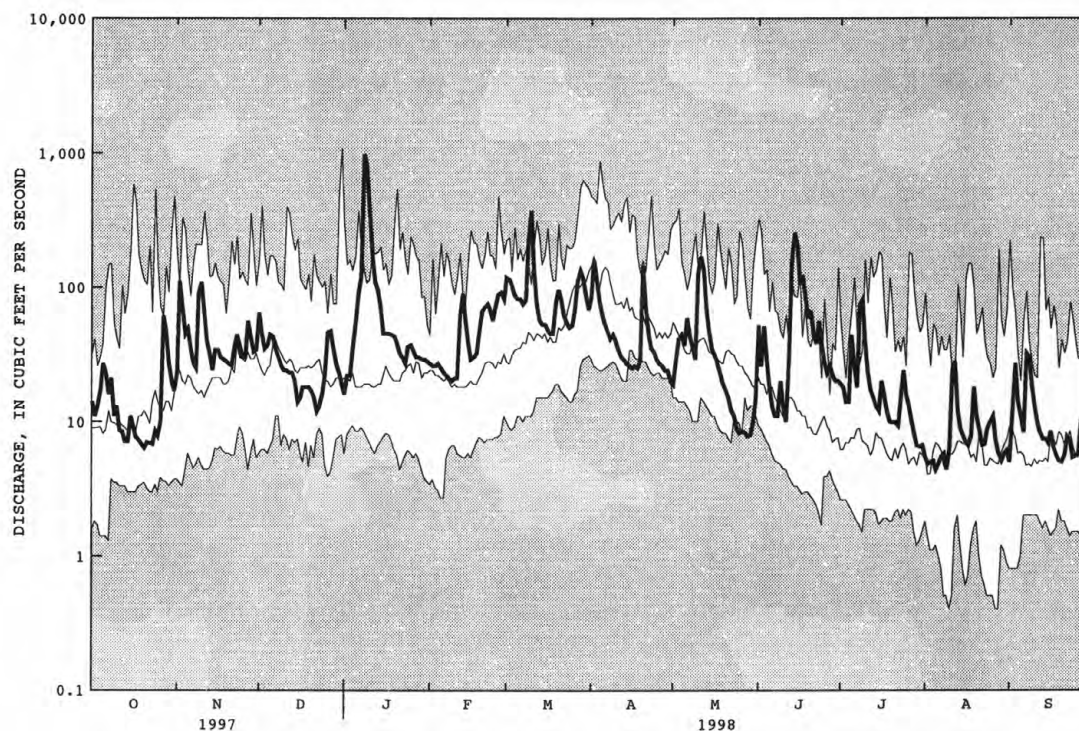
e Estimated



## HUDSON RIVER BASIN

## 01330000 GLOWEGEE CREEK AT WEST MILTON, NY--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1948 - 1998	
ANNUAL TOTAL	13687.7		15792.7			
ANNUAL MEAN	37.5		43.3		37.5	
HIGHEST ANNUAL MEAN					53.4	1956
LOWEST ANNUAL MEAN					24.5	1995
HIGHEST DAILY MEAN	388	Mar 31	978	Jan 8	1080	Dec 31 1948
LOWEST DAILY MEAN	2.5	Aug 2	4.4	Aug 5	.40	Aug 10 1949
ANNUAL SEVEN-DAY MINIMUM	3.1	Jul 27	5.0	Aug 1	.51	Aug 22 1949
ANNUAL RUNOFF (CFSM)	1.44		1.66		1.44	
ANNUAL RUNOFF (INCHES)	19.58		22.60		19.60	
10 PERCENT EXCEEDS	88		87		86	
50 PERCENT EXCEEDS	22		27		19	
90 PERCENT EXCEEDS	5.9		7.1		4.4	



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



## 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 mi<sup>2</sup>.

## 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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 44,600 ft<sup>3</sup>/s, May 4, 1983, gage height, 8.69 ft; minimum discharge not determined.

**EXTREMES FOR CURRENT YEAR.**--Maximum daily discharge, about 41,200 ft<sup>3</sup>/s, Jan. 10; minimum daily, about 2,200 ft<sup>3</sup>/s, May 29; maximum and minimum instantaneous discharges not determined.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e3000	e3700	e5300	e3800	e7600	e8800	e31000	e4300	e3900	e11800	e3400	e3200
2	e3000	e3900	e5700	e3700	e7900	e9300	e34000	e3800	e3700	e10200	e3500	e3000
3	e3000	e6700	e5400	e4100	e6100	e9200	e31000	e4100	e3500	e8300	e3400	e3700
4	e3500	e7200	e5500	e4500	e6000	e9400	e24000	e5000	e3300	e7700	e3400	e3200
5	e3300	e6000	e5200	e5000	e6900	e9700	e19000	e5600	e3300	e8000	e3300	e3400
6	e3600	e6200	e5200	e5300	e7200	e9800	e16000	e6800	e3600	e8400	e3400	e3300
7	e3500	e5500	e5200	e6600	e7300	e9500	e13000	e7500	e3500	e7200	e3500	e3400
8	e3100	e4100	e5000	e22000	e7400	e9400	e11000	e7200	e3500	e5800	e3500	e3200
9	e3400	e4400	e4700	e41000	e7400	e10200	e10000	e8000	e3000	e5300	e3600	e3300
10	e3200	e5200	e5000	e41200	e7600	e16500	e9800	e7200	e3300	e5300	e3500	e3500
11	e3000	e6000	e4900	e32000	e7300	e13000	e8400	e9000	e2900	e5200	e3700	e3300
12	e3000	e5600	e4300	e23000	e8200	e10900	e7900	e9500	e3200	e5200	e5000	e3400
13	e2700	e5000	e4600	e17100	e9300	e10700	e6800	e8400	e3500	e5100	e5000	e3500
14	e3200	e5100	e5500	e13400	e8900	e13200	e5800	e8400	e5900	e4300	e4500	e3700
15	e2900	e5300	e4300	e11800	e8200	e12400	e5700	e7700	e10700	e4100	e4300	e3000
16	e3000	e4600	e3700	e13100	e8100	e11300	e5000	e6600	e12400	e3800	e3600	e3200
17	e3000	e4800	e4400	e12200	e8200	e10400	e5300	e7200	e12600	e3700	e4300	e3800
18	e3100	e4400	e4100	e11900	e8300	e10300	e5000	e6400	e15000	e3600	e4400	e4600
19	e2900	e4000	e4300	e11100	e8500	e10400	e4800	e5100	e15500	e3600	e3800	e3000
20	e2800	e4000	e4100	e11100	e8800	e10400	e6800	e3800	e19200	e3200	e3600	e3500
21	e2900	e3800	e4300	e10400	e8700	e10700	e7700	e3600	e17100	e3400	e3300	e2900
22	e3000	e3700	e3900	e9700	e8600	e10600	e7700	e3400	e14800	e3600	e3200	e3100
23	e2900	e3700	e3600	e8200	e8700	e10100	e6800	e3300	e14300	e3600	e3500	e2800
24	e2700	e3900	e3700	e8500	e8300	e9400	e6200	e3100	e15300	e3900	e3400	e3000
25	e2800	e3700	e4200	e8600	e8500	e9200	e5500	e3100	e15900	e4200	e5300	e2900
26	e2900	e3900	e4300	e8800	e8500	e9000	e6300	e3500	e14800	e4500	e7100	e3200
27	e3300	e4500	e4900	e8500	e8500	e9600	e5400	e3200	e16800	e4900	e5500	e3300
28	e3800	e5200	e4200	e7900	e8500	e13000	e4900	e2700	e18800	e3700	e4400	e3700
29	e3900	e5000	e4200	e8000	---	e18000	e4600	e2200	e17300	e3700	e3600	e3100
30	e3800	e5700	e4200	e8100	---	e25000	e4300	e3200	e13000	e3500	e3800	e3300
31	e3500	---	e3800	e8000	---	e27000	---	e3100	---	e3500	e3700	---
TOTAL	97700	144800	141700	388600	223500	366400	319700	166000	293600	162300	123500	99500
MEAN	3152	4827	4571	12540	7982	11820	10660	5355	9787	5235	3984	3317
MAX	3900	7200	5700	41200	9300	27000	34000	9500	19200	11800	7100	4600
MIN	2700	3700	3600	3700	6000	8800	4300	2200	2900	3200	3200	2800

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1998, BY WATER YEAR (WY)

	5362	7142	7246	6928	6689	8559	12700	9368	5220	3571	3520	3791
MEAN	5362	7142	7246	6928	6689	8559	12700	9368	5220	3571	3520	3791
MAX	12060	11880	13820	12540	11760	14620	21760	19960	9787	5716	5919	6311
(WY)	1978	1996	1997	1998	1981	1979	1993	1983	1998	1996	1986	1987
MIN	2974	3647	3945	3035	2762	4735	3987	2790	2380	2042	2245	2523
(WY)	1981	1981	1981	1981	1980	1989	1995	1995	1995	1995	1995	1995

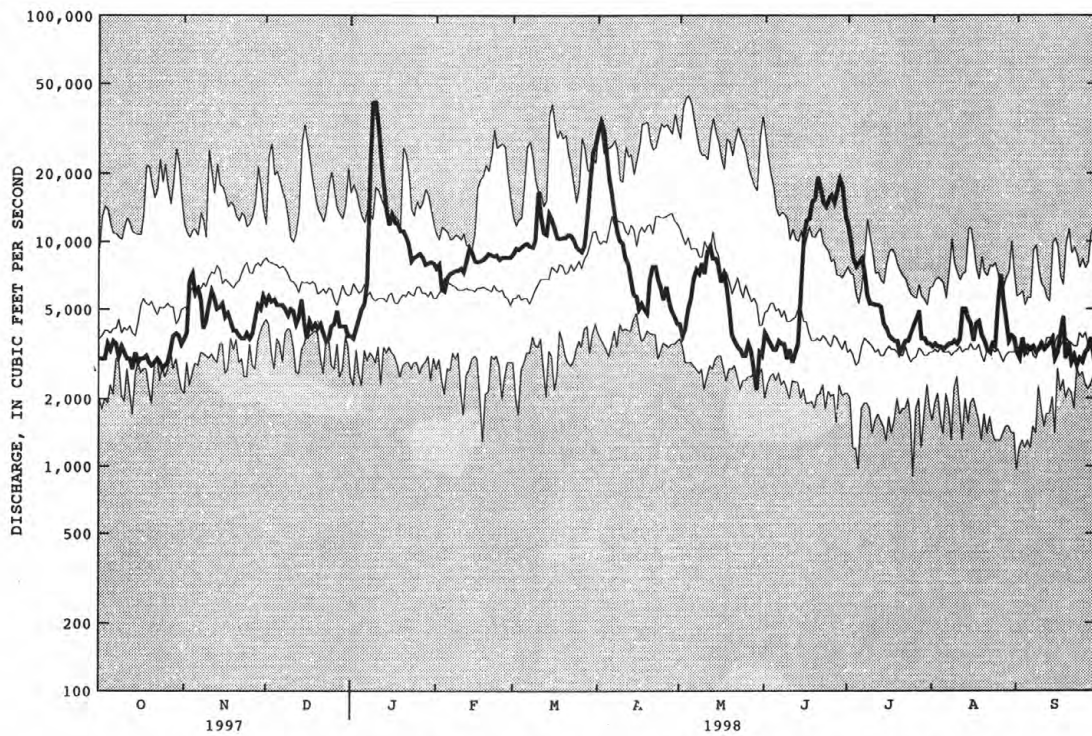
SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR	FOR 1998 WATER YEAR	WATER YEARS 1977 - 1998
ANNUAL TOTAL	2423200	2527300	
ANNUAL MEAN	6639	6924	6632
HIGHEST ANNUAL MEAN			8808
LOWEST ANNUAL MEAN			4344
HIGHEST DAILY MEAN	22400	41200	44100
LOWEST DAILY MEAN	2100	2200	900
ANNUAL SEVEN-DAY MINIMUM	2830	2860	1390
10 PERCENT EXCEEDS	12900	12500	12300
50 PERCENT EXCEEDS	4800	5000	5110
90 PERCENT EXCEEDS	3000	3200	2800

e Estimated



## HUDSON RIVER BASIN

01331095 HUDSON RIVER AT STILLWATER, NY--Continued



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



## HUDSON RIVER BASIN

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## 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), 1998 (d).

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

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

SEDIMENT DATA: 1977 (d), 1978 (a), 1981-98 (e).

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: March 1977 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD (Water years 1977-98).--

SUSPENDED-SEDIMENT CONCENTRATION: Maximum daily mean, 280 mg/L, Mar. 30, 1993; minimum daily mean, &lt;1 mg/L on many days during water years 1991-95, 1997-98.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 27,500 tons, Jan. 9, 1998; minimum daily, 3.5 tons, Aug. 24, Sept. 2, 1995.

EXTREMES FOR CURRENT YEAR.--

SUSPENDED-SEDIMENT CONCENTRATION: Maximum daily mean, 248 mg/L, Jan. 9; minimum daily mean, &lt;1 mg/L, Apr. 30, Sept. 2, 3.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 27,500 tons, Jan. 9; minimum daily, 7.3 tons, Oct. 13, 24.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	AROCLO R 1260 PCB TOTAL (UG/L) (39508)	AROCLO R 1254 PCB TOTAL (UG/L) (39504)	AROCLO R 1242 PCB TOTAL (UG/L) (39496)
OCT							
16...	1239	e3000	2	18	<.010	.013	.030
NOV							
13...	1307	e5000	3	38	<.010	.013	.023
DEC							
09...	1302	e4700	2	30	<.010	.010	.028
JAN							
08...	1305	e22000	152	9010	<.010	.019	.025
09...	1232	e41000	236	26100	<.010	.031	.070
10...	1105	e41200	120	13300	<.010	.032	.085
12...	1205	e23000	16	1020	<.010	.015	.028
MAR							
04...	1128	e9400	6	142	<.010	<.010	.029
10...	1215	e16500	65	2890	<.010	.030	.036
11...	1035	e13000	31	1100	<.010	<.010	.039
27...	1135	e9600	11	275	<.010	<.010	.033
30...	1253	e25000	28	1860	<.010	<.010	.031
31...	1240	e27000	17	1270	<.010	<.010	.035
APR							
01...	1210	e31000	22	1870	.024	.032	.048
03...	1243	e31000	26	2160	<.010	<.010	.046
06...	1309	e16000	2	86	<.010	<.010	.034
14...	1202	e5800	1	16	<.010	<.010	.027
30...	1239	e4300	<1	--	<.010	<.010	.035
MAY							
26...	1325	e3500	3	25	<.010	<.010	.048

e Estimated daily.



## HUDSON RIVER BASIN

01331095 HUDSON RIVER AT STILLWATER, NY--Continued

## SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

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	2	16	2	20	2	29	2	21	1	21	e8	190
2	1	8.1	4	42	4	62	2	20	e1	21	e6	151
3	e1	8.1	11	199	3	44	e2	22	e1	16	e6	149
4	2	19	e13	253	e2	30	e2	24	2	32	6	152
5	3	27	e6	97	4	56	3	41	2	37	14	367
6	2	19	e3	50	2	28	e4	57	1	19	e7	185
7	1	9.4	e2	30	3	42	5	89	2	39	3	77
8	2	17	2	22	e2	27	132	7840	1	20	3	76
9	1	9.2	2	24	2	25	248	27500	1	20	9	248
10	2	17	e4	56	e2	27	145	16100	e1	21	58	2580
11	e2	16	e10	162	e2	26	46	3970	e1	20	33	1160
12	1	8.1	e6	91	2	23	16	994	13	288	14	412
13	e1	7.3	3	41	5	62	e12	554	13	326	e6	173
14	1	8.6	e2	28	2	30	e8	289	5	120	e5	178
15	1	7.8	e1	14	1	12	e5	159	2	44	e4	134
16	2	16	e1	12	e2	20	e3	106	1	22	5	153
17	e1	8.1	5	65	2	24	e2	66	1	22	2	56
18	e1	8.4	e2	24	1	11	e2	64	1	22	4	111
19	1	7.8	e1	11	1	12	e2	60	2	46	e4	112
20	1	7.6	2	22	e1	11	e2	60	6	143	e4	112
21	e1	7.8	e1	10	2	23	e2	56	e6	141	e3	87
22	e1	8.1	e2	20	e2	21	e2	52	7	163	e3	86
23	e1	7.8	2	20	e2	19	2	44	8	188	3	82
24	e1	7.3	3	32	e2	20	e2	46	6	134	4	102
25	e1	7.6	e2	20	e2	23	e1	23	3	69	e4	99
26	1	7.8	2	21	2	23	1	24	e6	138	8	194
27	1	8.9	e3	36	2	26	1	23	4	92	10	259
28	1	10	4	56	3	34	1	21	6	138	8	281
29	e2	21	4	54	e2	23	2	43	---	---	12	583
30	3	31	2	31	e2	23	e1	22	---	---	28	1890
31	2	19	---	---	e2	21	e1	22	---	---	15	1090
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	22	1840	e1	12	14	147	e5	159	e1	9.2	1	8.6
2	48	4410	e1	10	13	130	e5	138	e1	9.4	<1	8.1
3	26	2180	3	33	10	95	e5	112	e1	9.2	<1	10
4	13	842	e2	27	9	80	7	146	e1	9.2	e1	8.6
5	e6	308	e2	30	3	27	e5	108	e1	8.9	e1	9.2
6	3	130	e2	37	3	29	8	181	e2	18	e2	18
7	2	70	e2	41	2	19	e6	117	e2	19	3	28
8	2	59	2	39	4	38	e5	78	e2	19	4	35
9	2	54	e2	43	6	49	7	100	e2	19	2	18
10	e2	53	e2	39	7	62	7	100	e3	28	1	9.4
11	6	136	e5	122	e6	47	e6	84	e3	30	1	8.9
12	8	171	e10	257	e5	43	5	70	e2	27	1	9.2
13	2	37	e7	159	e4	38	e3	41	e2	27	1	9.4
14	2	31	5	113	e8	127	e3	35	e2	24	1	10
15	4	62	e4	83	e43	1240	e3	33	e3	35	2	16
16	2	27	4	71	33	1100	4	41	e2	19	2	17
17	3	43	5	97	10	340	e3	30	e2	23	1	10
18	5	68	6	104	19	770	e3	29	e2	24	2	25
19	10	130	2	28	e18	753	4	39	e2	21	2	16
20	20	367	e2	21	e12	622	e3	26	e2	19	2	19
21	11	229	e3	29	e10	462	e3	28	e2	18	2	16
22	e6	125	e3	28	e8	320	e2	19	e2	17	1	8.4
23	3	55	e4	36	e7	270	e2	19	e2	19	1	7.6
24	e3	50	e4	33	e6	248	1	11	e2	18	2	16
25	e3	45	5	42	e5	215	3	34	e2	29	1	7.8
26	e2	34	3	28	e4	160	3	36	e2	38	2	17
27	e2	29	2	17	3	136	e1	13	e2	30	3	27
28	e1	13	3	22	15	761	e1	10	2	24	2	20
29	e1	12	4	24	e10	467	e1	10	2	19	1	8.4
30	<1	12	4	35	e6	211	e1	9.4	2	21	1	8.9
31	---	---	5	42	---	---	e1	9.4	3	30	---	---

e Estimated

&lt; Actual value is known to be less than the value shown.



## HUDSON RIVER BASIN

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## 01332500 HOOSIC RIVER NEAR WILLIAMSTOWN, MA

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

**DRAINAGE AREA.**--126 mi<sup>2</sup>.

**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.**--58 years, 273 ft<sup>3</sup>/s, 29.45 in/yr.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 13,000 ft<sup>3</sup>/s, Dec. 31, 1948, gage height, 14.85 ft, former site and datum, from rating curve extended above 4,300 ft<sup>3</sup>/s on basis of contracted-opening measurement of peak flow; minimum discharge, 5.8 ft<sup>3</sup>/s, Aug. 30, 31, Oct. 26, 1940; minimum daily, 24 ft<sup>3</sup>/s, Sept. 9, 1980.

**EXTREMES FOR CURRENT YEAR.**--Maximum discharge, 3,540 ft<sup>3</sup>/s, Jan. 9, gage height, 8.89 ft; minimum, 43 ft<sup>3</sup>/s, Aug. 10, Sept. 7.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82	107	712	e100	140	410	1230	162	640	248	76	51
2	68	476	361	e110	138	401	1100	229	224	209	64	52
3	101	388	268	124	139	383	886	229	261	163	58	55
4	115	242	253	237	135	338	634	196	188	142	52	53
5	103	281	254	390	132	309	483	189	157	181	53	50
6	93	191	232	656	128	279	403	686	140	149	49	48
7	75	158	208	1130	121	260	352	426	131	135	51	59
8	68	141	191	2420	121	256	326	308	139	175	52	62
9	64	433	171	2570	117	743	380	264	132	235	48	59
10	62	587	163	1290	117	1210	375	421	117	172	46	68
11	58	303	155	794	119	634	303	439	108	142	132	58
12	57	225	149	558	563	413	270	401	122	127	81	54
13	56	191	144	496	552	343	248	288	1090	115	62	52
14	56	182	135	396	280	333	231	241	1810	105	58	52
15	58	176	114	318	200	306	218	209	1930	98	61	51
16	61	165	128	315	199	274	207	186	1210	93	59	52
17	60	155	130	292	200	255	214	212	1300	94	58	51
18	58	151	124	270	260	250	217	197	891	88	63	50
19	57	140	121	253	303	436	201	165	659	80	63	49
20	57	136	121	220	292	407	556	147	515	91	57	49
21	56	130	105	198	254	378	365	136	567	97	55	58
22	55	242	90	180	235	308	282	126	370	90	53	70
23	55	212	108	176	222	276	242	119	306	96	51	60
24	54	185	109	197	229	259	248	111	291	100	74	53
25	73	162	134	188	251	256	243	103	240	81	66	50
26	83	173	183	170	221	299	227	100	223	69	62	48
27	177	327	158	155	222	708	208	96	247	66	58	69
28	150	225	138	158	248	1620	191	91	188	67	55	56
29	108	205	120	156	---	2190	178	88	161	73	53	51
30	93	244	140	153	---	1670	170	97	178	75	52	50
31	85	---	124	148	---	1600	---	162	---	79	51	---
TOTAL	2398	6933	5543	14818	6138	17804	11188	6824	14535	3735	1873	1640
MEAN	77.4	231	179	478	219	574	373	220	485	120	60.4	54.7
MAX	177	587	712	2570	563	2190	1230	686	1930	248	132	70
MIN	54	107	90	100	117	250	170	88	108	66	46	48
CFSM	.61	1.83	1.42	3.79	1.74	4.56	2.96	1.75	3.85	.96	.48	.43
IN.	.71	2.05	1.64	4.37	1.81	5.26	3.30	2.01	4.29	1.10	.55	.48

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

	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951
MEAN	173	260	275	249	243	446	677	374	216	133	115	120
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	1980

e Estimated

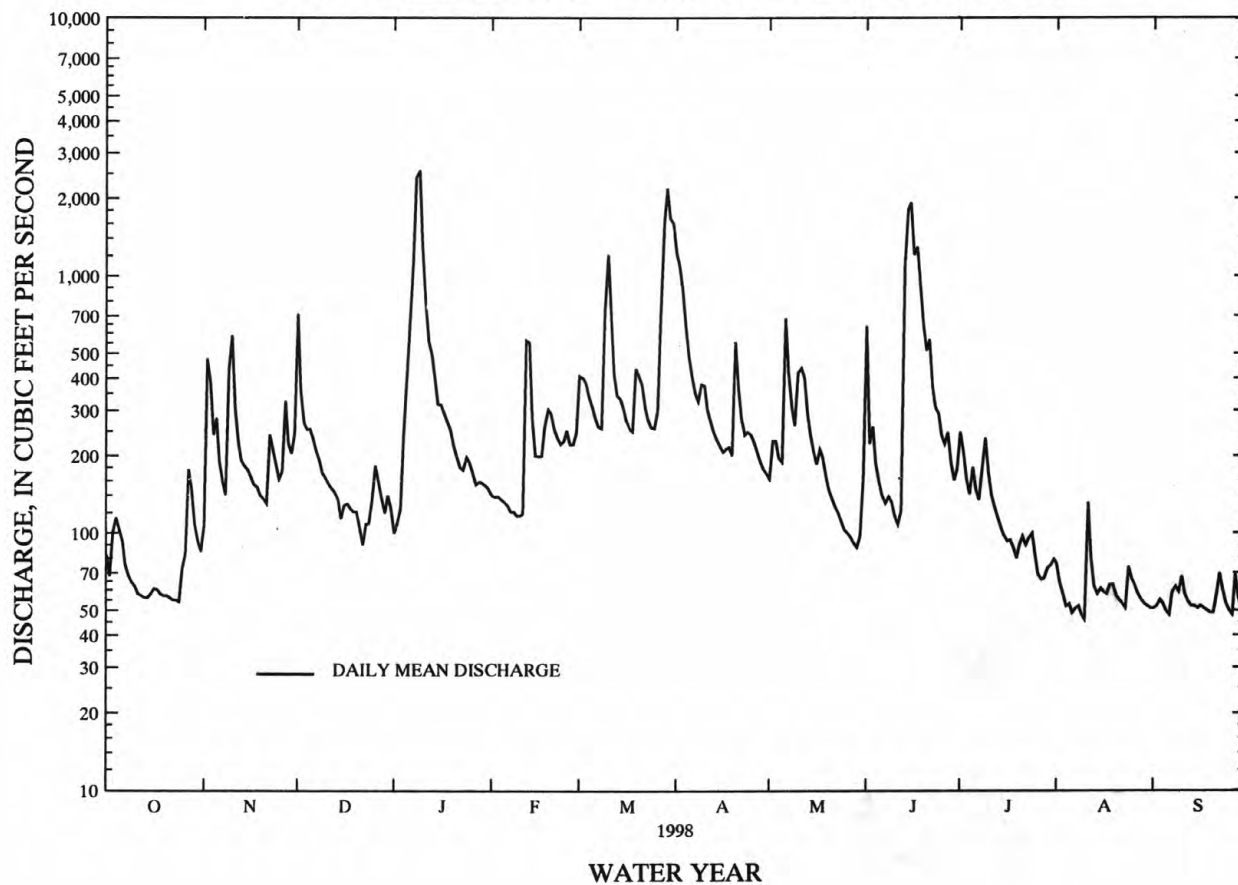


## HUDSON RIVER BASIN

## 01332500 HOOSIC RIVER NEAR WILLIAMSTOWN, MA--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1940 - 1998	
ANNUAL TOTAL	86881		93429		273	
ANNUAL MEAN	238		256		135	
HIGHEST ANNUAL MEAN					368	1975
LOWEST ANNUAL MEAN					135	1965
HIGHEST DAILY MEAN	1500	Apr 7	2570	Jan 9	10400	Dec 31 1948
LOWEST DAILY MEAN	47	Aug 2	46	Aug 10	24	Sep 9 1980
ANNUAL SEVEN-DAY MINIMUM	51	Jul 28	50	Aug 4	25	Sep 9 1980
INSTANTANEOUS PEAK FLOW			3540	Jan 9	13000	Dec 31 1948
INSTANTANEOUS PEAK STAGE			8.89	Jan 9	14.85	Dec 31 1948
INSTANTANEOUS LOW FLOW			43	Aug 10	5.8	Aug 30 1940
ANNUAL RUNOFF (CFSM)	1.89		2.03		2.17	
ANNUAL RUNOFF (INCHES)	25.65		27.58		29.45	
10 PERCENT EXCEEDS	581		488		582	
50 PERCENT EXCEEDS	151		162		165	
90 PERCENT EXCEEDS	57		55		66	

## HOOSIC RIVER NEAR WILLIAMSTOWN, MA 01332500





## HUDSON RIVER BASIN

61

## 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 mi<sup>2</sup>.

**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.**--49 years, 82.3 ft<sup>3</sup>/s, 26.26 in/yr.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 4,060 ft<sup>3</sup>/s, Dec. 21, 1973, gage height, 5.68 ft in gage well, from rating curve extended above 750 ft<sup>3</sup>/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 ft<sup>3</sup>/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.**--Maximum discharge, 772 ft<sup>3</sup>/s, June 14, gage height, 3.55 ft; minimum, 5.3 ft<sup>3</sup>/s, Sept. 20, 21, 26, 29, 30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	13	221	e33	48	167	208	51	121	50	13	6.9
2	9.7	42	132	e35	e46	156	205	61	48	46	12	7.0
3	14	50	e90	e45	46	145	179	56	61	40	11	8.6
4	15	41	e66	e84	45	133	151	53	45	36	11	7.2
5	14	43	e60	e150	44	123	130	53	39	45	11	6.7
6	12	32	e56	e250	41	114	114	97	35	35	11	6.6
7	10	27	e50	e370	e40	108	103	72	33	32	11	9.9
8	9.8	25	e45	e470	e38	105	98	65	34	52	10	9.8
9	9.4	101	e41	e400	e37	234	102	65	31	52	9.0	8.3
10	8.9	141	e39	e300	e36	376	94	84	28	41	10	8.1
11	8.3	86	e38	e240	39	232	82	81	26	36	40	6.8
12	8.2	69	e37	e190	190	159	76	73	30	33	18	6.5
13	8.2	58	e35	e150	151	132	71	65	102	30	14	6.3
14	8.1	57	e33	e120	95	122	67	60	357	28	12	6.2
15	8.6	52	e31	e110	70	106	64	55	433	26	12	6.1
16	9.3	49	e32	e100	73	96	61	50	334	26	11	6.3
17	8.4	46	e33	e95	75	89	61	51	270	28	11	6.4
18	8.2	44	e33	e90	101	84	57	47	184	24	13	6.1
19	8.2	42	e32	e84	118	151	58	43	159	22	14	5.8
20	8.0	40	e30	e80	107	124	134	39	117	27	10	5.5
21	7.9	40	e28	e76	97	114	93	36	97	26	9.4	6.9
22	7.9	96	e25	71	93	101	82	34	83	23	8.8	14
23	7.6	74	e28	69	85	92	78	32	70	22	8.5	9.4
24	7.6	65	e32	75	87	88	78	30	79	21	17	6.3
25	12	56	e37	68	84	89	74	28	59	18	12	5.7
26	12	71	e46	61	79	108	68	27	55	17	11	5.5
27	19	134	e44	57	82	172	65	25	74	16	9.2	11
28	18	85	e37	58	97	335	60	24	53	16	8.1	7.5
29	15	81	e33	54	---	362	57	25	48	15	7.5	6.0
30	13	109	e37	53	---	275	53	26	54	14	7.6	5.5
31	13	---	e34	50	---	231	---	58	---	14	7.4	---
TOTAL	331.3	1869	1515	4088	2144	4923	2823	1566	3159	911	370.5	218.9
MEAN	10.7	62.3	48.9	132	76.6	159	94.1	50.5	105	29.4	12.0	7.30
MAX	19	141	221	470	190	376	208	97	433	52	40	14
MIN	7.6	13	25	33	36	84	53	24	26	14	7.4	5.5
CFSM	.25	1.46	1.15	3.10	1.80	3.73	2.21	1.19	2.47	.69	.28	.17
IN.	.29	1.63	1.32	3.57	1.87	4.30	2.47	1.37	2.76	.80	.32	.19

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

	MEAN	45.4	78.1	93.9	81.2	81.7	144	206	112	61.7	31.7	26.3	27.5
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

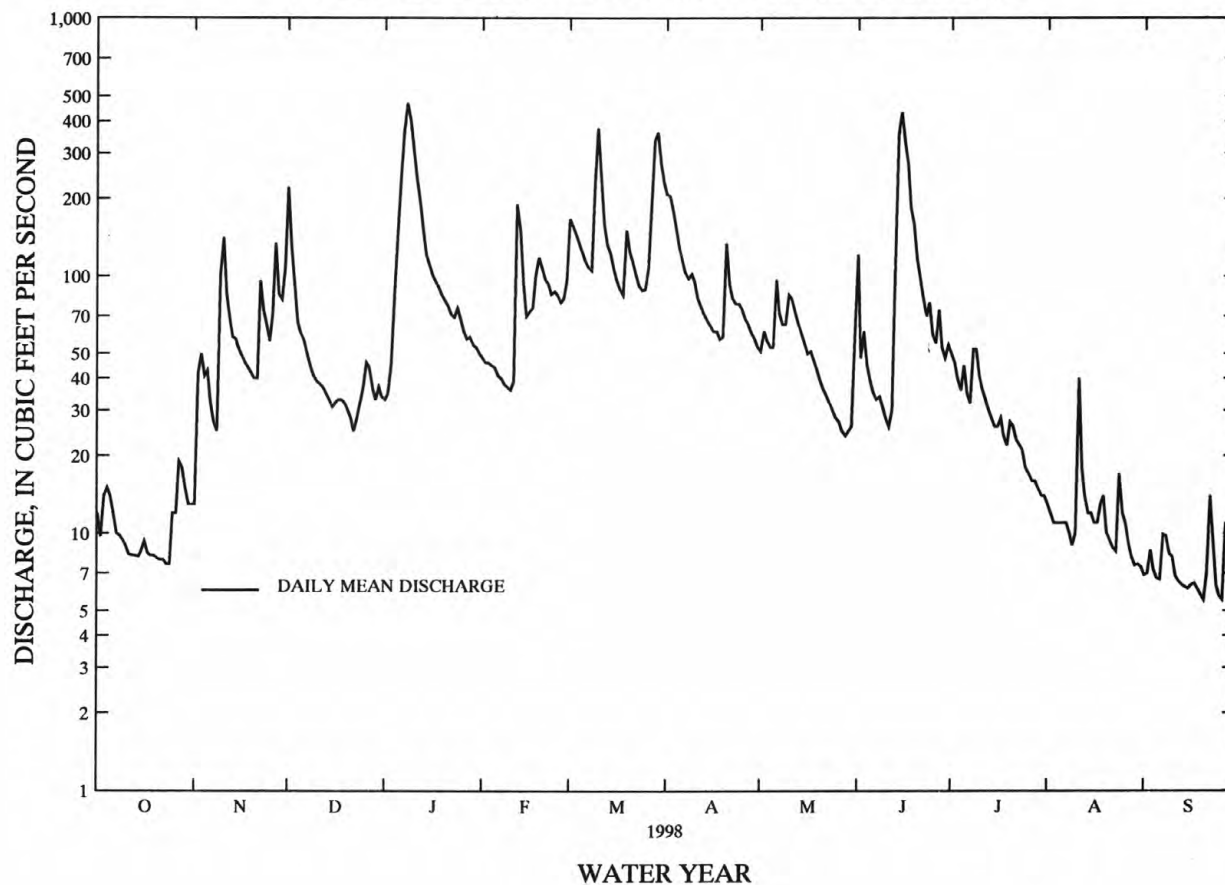


## HUDSON RIVER BASIN

## 01333000 GREEN RIVER AT WILLIAMSTOWN, MA--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1949 - 1998	
ANNUAL TOTAL	26875.8		23918.7		82.3	
ANNUAL MEAN	73.6		65.5		126	1975
HIGHEST ANNUAL MEAN					31.7	1965
LOWEST ANNUAL MEAN					2200	Dec 21 1973
HIGHEST DAILY MEAN	411	Mar 26	470	Jan 8	3.2	Sep 20 1964
LOWEST DAILY MEAN	7.0	Sep 28	5.5	Sep 20	3.4	Sep 19 1964
ANNUAL SEVEN-DAY MINIMUM	7.9	Sep 22	6.1	Sep 14	4060	Dec 21 1973
INSTANTANEOUS PEAK FLOW			772	Jun 14	6.35	Mar 13 1977
INSTANTANEOUS PEAK STAGE			3.55	Jun 14	3.1	Sep 20 1964
INSTANTANEOUS LOW FLOW			5.3	Sep 20	1.93	
ANNUAL RUNOFF (CFSM)	1.73		1.54		26.26	
ANNUAL RUNOFF (INCHES)	23.47		20.89		186	
10 PERCENT EXCEEDS	189		137		48	
50 PERCENT EXCEEDS	43		45		11	
90 PERCENT EXCEEDS	8.9		8.2			

## GREEN RIVER AT WILLIAMSTOWN, MA 01333000





## 63

**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.

**DRAINAGE AREA.**--111 mi<sup>2</sup>.

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

Water-quality records: Water years 1953-54.

**REVISED 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 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 09	0745	*3,770	*7.70	June 15	0215	2,080	5.72
May 31	2300	2,310	6.02				

Minimum discharge, 40 ft<sup>3</sup>/s, September 6, 7.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	103	70	523	e93	125	281	1230	170	855	465	57	43
2	69	269	288	e93	122	274	1200	235	268	346	55	48
3	92	302	212	108	121	255	1030	237	328	250	52	65
4	116	203	200	184	119	218	676	193	214	210	50	50
5	111	263	198	275	117	205	478	186	169	275	52	45
6	96	175	184	345	113	191	387	452	141	218	52	42
7	71	139	165	627	106	178	341	321	130	185	65	64
8	62	124	150	2010	104	173	328	262	163	257	60	72
9	57	212	136	2740	101	347	344	232	154	315	52	78
10	55	378	128	1170	101	754	317	251	123	226	52	113
11	53	241	122	649	104	432	277	255	110	183	133	69
12	51	183	117	449	369	288	254	226	118	162	106	59
13	50	156	113	385	387	247	237	195	648	143	73	55
14	49	149	109	320	210	245	224	174	1250	125	61	49
15	54	140	e78	274	147	231	212	159	1480	116	59	47
16	60	131	102	275	e134	208	203	143	777	108	64	56
17	57	119	104	255	144	195	200	176	808	102	56	49
18	53	114	95	234	182	191	198	156	787	97	60	44
19	52	107	92	218	213	244	203	129	632	89	64	42
20	50	106	93	207	199	245	601	115	568	92	53	42
21	60	103	81	194	179	243	e366	106	604	91	49	47
22	52	163	e56	171	162	215	e274	102	378	84	46	63
23	48	154	86	162	155	195	240	98	344	128	45	64
24	47	136	90	181	159	184	239	91	295	112	56	53
25	64	115	120	178	167	182	253	85	248	88	90	48
26	81	125	153	159	166	207	241	80	353	78	106	45
27	141	241	125	145	172	396	213	79	361	72	63	68
28	138	178	107	148	182	877	194	73	307	68	51	57
29	98	151	91	137	---	1550	181	70	242	68	47	48
30	76	162	124	135	---	1300	170	75	237	63	46	46
31	69	---	108	132	---	1520	---	378	---	61	44	---
TOTAL	2235	5109	4350	12653	4560	12271	11311	5504	13092	4877	1919	1671
MEAN	72.1	170	140	408	163	396	377	178	436	157	61.9	55.7
MAX	141	378	523	2740	387	1550	1230	452	1480	465	133	113
MIN	47	70	56	93	101	173	170	70	110	61	44	42

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1998, BY WATER YEAR (WY)

MEAN	149	211	214	196	181	321	538	325	179	122	103	114
MAX	418	413	471	425	575	958	1008	742	436	311	481	585
(WY)	1976	1960	1974	1937	1981	1936	1969	1943	1998	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

## 01334000 WALLOOMSAC RIVER NEAR NORTH BENNINGTON, VT--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1931 - 1998	
ANNUAL TOTAL	63561		79552		221	
ANNUAL MEAN	174		218		362	1976
HIGHEST ANNUAL MEAN					98.9	1965
LOWEST ANNUAL MEAN					6350	Dec 31 1948
HIGHEST DAILY MEAN	1040	Apr 7	2740	Jan 9	b 21	Sep 22 1964
LOWEST DAILY MEAN	29	Aug 10	a 42	Sep 6	22	Sep 20 1964
ANNUAL SEVEN-DAY MINIMUM	33	Jul 29	47	Sep 15	c 8450	Sep 21 1938
INSTANTANEOUS PEAK FLOW			3770	Jan 9	12.04	Sep 21 1938
INSTANTANEOUS PEAK STAGE			7.70	Jan 9	4.0	Sep 27 1932
INSTANTANEOUS LOW FLOW			d 40	Sep 6		
10 PERCENT EXCEEDS	409		378		458	
50 PERCENT EXCEEDS	124		144		141	
90 PERCENT EXCEEDS	41		52		57	

a Also occurred on September 19, 20.

b Also occurred on September 23, 1964 and July 12, 1965.

c From rating curve extended above 2,800 ft<sup>3</sup>/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.

d Also occurred on September 7.



**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.

**DRAINAGE AREA.**--510 mi<sup>2</sup>.

**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 355.4 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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 55,400 ft<sup>3</sup>/s, Dec. 31, 1948, gage height, 21.15 ft, from floodmark in gage house, from rating curve extended above 30,000 ft<sup>3</sup>/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 ft<sup>3</sup>/s, Sept. 14, 1913.

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 7,400 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 9	1115	*13,100	*12.07	No other peak greater than base discharge.			

Minimum discharge, 65 ft<sup>3</sup>/s, Oct. 24, gage height, 2.04 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	246	188	2530	330	541	1690	3900	736	2750	1330	190	126
2	185	660	1660	502	534	1730	3970	876	1050	1170	177	131
3	177	1120	1220	530	541	1680	3570	1020	1110	863	162	167
4	327	682	1110	853	520	1490	2670	844	815	715	154	145
5	267	853	1120	1640	506	1410	2110	779	637	858	148	127
6	277	609	1030	2150	471	1310	1790	1650	537	738	148	115
7	200	476	911	3880	434	1200	1570	1450	487	623	161	138
8	169	413	813	7670	435	1140	1430	1140	517	762	161	191
9	155	563	730	11000	415	2120	1500	1010	509	1180	139	166
10	141	1830	682	6160	417	4180	1420	1190	435	834	132	239
11	129	1100	639	3890	425	2820	1250	1420	384	679	308	184
12	126	783	598	2770	1450	1900	1120	1260	384	581	356	146
13	122	641	571	2330	2150	1550	1030	1050	1300	516	224	133
14	119	601	544	1970	1210	1530	964	913	4610	456	176	120
15	125	566	413	1580	813	1380	901	810	6120	413	160	117
16	136	518	495	1510	820	1240	859	716	4070	378	178	121
17	133	475	489	1370	868	1130	838	730	3960	369	156	116
18	129	451	445	1230	994	1110	842	745	3390	344	162	106
19	124	420	421	1140	1260	1470	785	624	2900	307	181	98
20	121	412	423	1060	1270	1570	2260	544	2190	296	154	95
21	124	389	389	959	1130	1510	1730	493	2390	332	135	95
22	125	655	283	836	1010	1320	1340	445	1680	297	127	148
23	114	828	368	781	991	1180	1170	422	1470	337	119	166
24	113	671	394	875	953	1110	1150	386	1330	368	147	128
25	129	574	470	863	1050	1100	1120	354	1120	289	197	112
26	203	565	669	749	985	1230	1080	331	1150	249	252	102
27	266	1220	642	616	1040	1830	981	317	1230	227	172	136
28	453	967	542	e640	1100	3550	888	293	1120	212	146	149
29	306	817	429	635	---	5230	834	277	882	207	137	110
30	231	775	e400	620	---	4610	778	301	848	203	137	100
31	203	---	e350	595	---	4510	---	498	---	197	133	---
TOTAL	5675	20822	21780	61734	24333	60830	45850	23624	51375	16330	5329	4027
MEAN	183	694	703	1991	869	1962	1528	762	1713	527	172	134
MAX	453	1830	2530	11000	2150	5230	3970	1650	6120	1330	356	239
MIN	113	188	283	330	415	1100	778	277	384	197	119	95
CFSM	.36	1.36	1.38	3.90	1.70	3.85	3.00	1.49	3.36	1.03	.34	.26
IN.	.41	1.52	1.59	4.50	1.77	4.44	3.34	1.72	3.75	1.19	.39	.22

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1910 - 1998, BY WATER YEAR (WY)

MEAN	524	893	986	952	922	1684	2329	1290	691	433	343	383
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

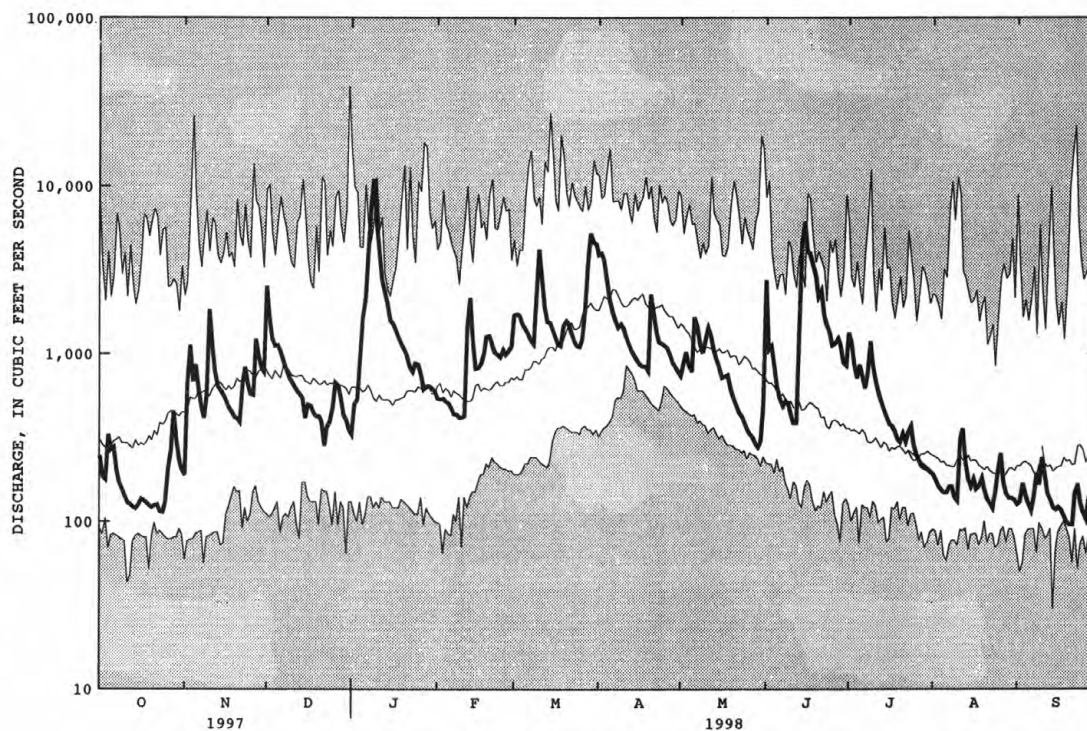
e Estimated



## HUDSON RIVER BASIN

## 01334500 HOOSIC RIVER NEAR EAGLE BRIDGE, NY--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1910 - 1998	
ANNUAL TOTAL	295361		341709			
ANNUAL MEAN	809		936		952	
HIGHEST ANNUAL MEAN					1611	
LOWEST ANNUAL MEAN					378	
HIGHEST DAILY MEAN	3970	Apr 7	11000	Jan 9	39000	Dec 31 1948
LOWEST DAILY MEAN	88	Aug 2	95	Sep 20	30	Sep 14 1913
ANNUAL SEVEN-DAY MINIMUM	95	Jul 29	107	Sep 15	77	Oct 7 1964
ANNUAL RUNOFF (CFSM)	1.59		1.84		1.87	
ANNUAL RUNOFF (INCHES)	21.54		24.92		25.36	
10 PERCENT EXCEEDS	2020		1810		2130	
50 PERCENT EXCEEDS	528		624		560	
90 PERCENT EXCEEDS	114		134		173	



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



## 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 mi<sup>2</sup>.

**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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 71,800 ft<sup>3</sup>/s, Mar. 15, 1977; maximum gage height, 36.38 ft, May 30, 31, 1984; minimum daily discharge, 1,170 ft<sup>3</sup>/s, July 25, 1983; minimum instantaneous discharge not determined.

**EXTREMES FOR CURRENT YEAR.**--Maximum discharge, 56,000 ft<sup>3</sup>/s, Jan. 9, gage height, 32.50 ft; minimum daily discharge, about 2,700 ft<sup>3</sup>/s, May 29; minimum instantaneous discharge not determined.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e3200	4260	7270	4970	8120	12100	e35900	5970	e6800	e14400	3770	3470
2	3250	e4900	8290	4970	8490	13300	e39000	5510	e5200	e12400	e3700	3170
3	3290	e8300	7550	4560	7480	13400	e37500	6150	e5100	e9900	3610	e3900
4	e3800	e8400	6940	5500	6180	12600	30100	6750	e4500	e9000	e3600	3410
5	3700	e7200	7060	6960	7470	12800	25400	7310	e4300	e9700	e3500	3720
6	e3900	e7100	6880	9020	7410	12600	21000	7920	e4600	e9800	e3600	3940
7	3880	e6200	6640	13400	7340	12000	17300	9380	e4400	e8300	e3700	3880
8	3430	e4800	6280	31600	7700	11600	14400	e8800	e4300	e7200	3740	4140
9	3750	e5100	5880	e53000	7610	15100	12600	e9000	e3800	e7100	e3800	3860
10	3450	e7200	5730	e52000	7750	25800	11800	e8500	e4100	e6600	e3700	3780
11	3160	e7400	6530	e42000	7870	24500	10700	e10400	e3600	e6300	e4100	3760
12	3210	e6600	5030	31000	8940	17800	9320	e11000	e3800	e6200	e5400	3830
13	3060	e5900	5170	24400	13400	13300	8730	e9800	e5100	e6000	e5300	3930
14	3500	e6000	5760	20300	11900	16500	7280	e9700	e10000	5030	5070	3960
15	3210	e6100	4790	14500	10100	15500	7150	e9000	e17000	4680	4510	3990
16	3470	e5400	4550	17600	8810	14200	6660	e8000	e18000	4450	e3800	e3400
17	3470	e5600	4790	16400	9660	12600	5820	e8500	e18300	4450	4670	e4000
18	3460	e5200	4830	15400	9420	12400	6550	e8000	e20500	4190	4610	5010
19	3410	e4700	4610	13900	10600	12800	5880	e6600	e20700	4060	e4000	3130
20	3400	4420	4880	13400	12000	13700	9360	e4900	e23500	3480	e3800	3780
21	3280	4960	4660	12100	11700	13500	11400	e4500	e21700	3760	e3600	3950
22	3490	4780	4260	11100	11500	13300	9860	e4200	e18100	e3900	3400	e3300
23	3540	5250	3610	9370	11200	12600	8930	e4100	e17200	3980	e3700	3660
24	3140	5720	4140	10000	10000	11500	e8200	e3800	e17900	e4300	3810	e3200
25	2950	5010	4470	10000	10600	11200	7790	e3700	e17800	e4500	e5600	3320
26	3410	e5100	5360	9830	10700	11600	8140	e4000	e16900	e4800	e7400	3530
27	3900	6160	5930	9360	11100	12500	7380	e3900	e19000	e5200	6250	3550
28	4460	6870	5550	9080	11000	16700	6260	e3300	e20600	4020	4800	4000
29	4700	6520	4930	9170	---	22900	6270	e2700	e18500	e4000	e3800	4010
30	4400	7580	4840	8760	---	e30300	5950	e3700	e14500	e3800	3990	e3500
31	4080	---	4880	8440	---	e32200	---	e3900	---	e3800	3850	---
TOTAL	110350	178730	172090	502090	266050	482900	402630	202990	369800	189300	132180	112080
MEAN	3560	5958	5551	16200	9502	15580	13420	6548	12330	6106	4264	3736
MAX	4700	8400	8290	53000	13400	32200	39000	11000	23500	14400	7400	5010
MIN	2950	4260	3610	4560	6180	11200	5820	2700	3600	3480	3400	3130

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1998, BY WATER YEAR (WY)

	MEAN	6643	8799	8990	8548	8336	11660	16320	11420	6197	4072	3898	4169
MAX	16560	14490	18960	16200	16250	20240	29480	24610	12330	7855	7282	7009	
(WY)	1978	1996	1997	1998	1981	1979	1993	1996	1998	1996	1990	1987	
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	

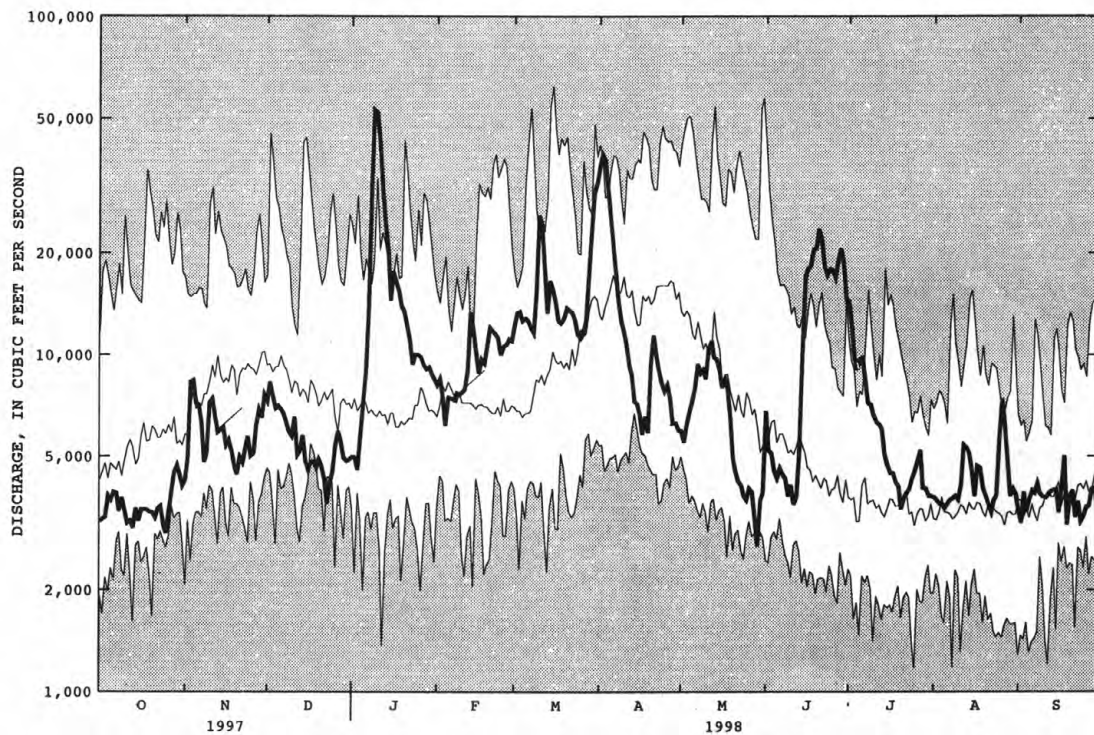
SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR	FOR 1998 WATER YEAR	WATER YEARS 1977 - 1998
ANNUAL TOTAL	2928700	3121190	
ANNUAL MEAN	8024	8551	
HIGHEST ANNUAL MEAN			11050
LOWEST ANNUAL MEAN			5334
HIGHEST DAILY MEAN	28000	Apr 8	53000
LOWEST DAILY MEAN	2700	Aug 20	2700
ANNUAL SEVEN-DAY MINIMUM	3060	Sep 1	3290
10 PERCENT EXCEEDS	16000		16800
50 PERCENT EXCEEDS	5730		6150
90 PERCENT EXCEEDS	3210		3550

e Estimated



## HUDSON RIVER BASIN

01335754 HUDSON RIVER ABOVE LOCK 1 NEAR WATERFORD, NY--Continued



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



## 01335770 HUDSON RIVER AT WATERFORD, NY

**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 mi<sup>2</sup>.

**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), 1996-98 (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), 1976-98 (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.

**EXTREMES FOR PERIOD OF DAILY RECORD** (water years 1977-98).--

SUSPENDED-SEDIMENT CONCENTRATION: Maximum daily mean, 810 mg/L, March 14, 1977; minimum daily mean, <1 mg/L on many days during water years 1991, 1993-95, 1997-98.

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

**EXTREMES FOR CURRENT YEAR.**--

SUSPENDED-SEDIMENT CONCENTRATION: Maximum daily mean, 246 mg/L, Jan. 9; minimum daily mean, <1 mg/L, Oct. 28, Aug. 2, Sept. 7.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 35,200 tons, Jan. 9; minimum daily, 8.0 tons, Oct. 25.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	AROCLO 1260 PCB TOTAL (UG/L) (39508)	AROCLO 1254 PCB TOTAL (UG/L) (39504)	AROCLO 1242 PCB TOTAL (UG/L) (39496)
OCT							
01...	1446	e3200	3	25	<.010	<.020	<.020
16...	1426	2290	2	14	<.010	.010	.022
30...	1436	4100	1	15	<.010	.012	.023
NOV							
13...	1445	e5900	5	73	<.010	<.200	<.010
*26...	1334	e5100	230	3170	.028	.036	.050
DEC							
09...	1454	5930	4	58	<.010	.010	.024
JAN							
08...	1415	34000	263	24100	<.010	.018	.023
09...	1115	e53000	276	39500	--	--	--
09...	1450	e53000	235	33600	<.010	.031	.032
10...	1230	e52000	56	7890	<.010	.025	.064
12...	1310	30600	23	1860	<.010	<.010	.035
MAR							
04...	1255	12300	8	259	<.010	<.010	.029
10...	1410	27600	62	4620	<.010	<.010	.043
11...	1145	23900	48	3100	<.010	<.010	.031
27...	1321	12400	14	475	<.010	<.010	.029
30...	1345	e30300	38	3110	--	--	--
30...	1350	e30300	36	2920	<.010	.012	.055
30...	1420	e30300	37	3030	--	--	--
31...	1350	e32200	27	2310	<.010	<.010	.036
APR							
01...	1225	e35900	31	3020	<.010	<.010	.036
03...	1100	e37500	38	3850	--	--	--
03...	1400	e37500	30	3040	--	--	--
03...	1415	e37500	27	2730	<.010	<.010	.039
06...	1430	20500	7	365	<.010	<.010	.020
14...	1348	6820	3	52	<.010	<.010	.021
30...	1413	5820	2	33	<.010	<.010	.025
MAY							
14...	1429	e9700	7	178	<.010	<.010	.027
26...	1509	e4000	4	40	<.010	<.010	.044
JUN							
09...	1334	e3800	6	56	<.010	<.010	.051
JUL							
15...	1343	4220	2	21	<.010	<.010	<.020
AUG							
10...	1414	e3700	1	10	<.010	<.010	.037
SEP							
03...	1415	e3900	6	63	<.010	<.010	.041
16...	1330	e3400	5	46	<.010	<.010	.043

e Estimated daily.

\* Does not represent natural river conditions. Gates at lock upstream were open to drain pool behind dam.



## HUDSON RIVER BASIN

01335770 HUDSON RIVER AT WATERFORD, NY--Continued

## SUSPENDED--SEDIMENT, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

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	2	17	1	12	9	177	e1	13	2	44	8	261
2	3	26	2	26	17	381	2	27	2	46	9	323
3	2	18	8	179	8	163	1	12	2	40	8	289
4	2	21	e14	318	4	75	2	30	2	33	3	102
5	2	20	7	136	4	76	3	56	2	40	6	207
6	3	32	5	96	3	56	12	292	2	40	5	170
7	2	21	5	84	3	54	23	832	2	40	4	130
8	2	19	1	13	3	51	184	15700	2	42	4	125
9	2	20	1	14	2	32	246	35200	1	21	19	775
10	2	19	2	39	2	31	135	19000	1	21	58	4040
11	3	26	9	180	1	18	36	4080	2	42	63	4170
12	1	8.7	9	160	2	27	20	1670	5	121	20	961
13	2	17	4	64	3	42	14	922	16	579	7	251
14	2	19	2	32	e2	31	8	438	13	418	6	267
15	2	17	1	16	1	13	6	235	6	164	4	167
16	2	19	1	15	2	25	33	1570	3	71	2	77
17	1	9.4	2	30	e2	26	23	1020	2	52	3	102
18	e1	9.3	1	14	2	26	9	374	2	51	2	67
19	2	18	1	13	2	25	6	225	7	200	4	138
20	1	9.2	2	24	2	26	6	217	5	162	4	148
21	1	8.9	1	13	3	38	4	131	7	221	3	109
22	1	9.4	2	26	2	23	3	90	7	217	3	108
23	1	9.6	2	28	3	29	3	76	10	302	2	68
24	e1	8.5	1	15	2	22	4	108	8	216	e3	93
25	1	8.0	2	27	2	24	5	135	6	172	5	151
26	1	9.2	11	151	3	43	3	80	7	202	8	251
27	1	11	10	166	3	48	3	76	9	270	11	371
28	<1	12	8	148	2	30	1	25	8	238	9	406
29	2	25	6	106	2	27	2	50	---	---	15	927
30	2	24	10	205	2	26	2	47	---	---	29	2370
31	2	22	---	---	1	13	2	46	---	---	29	2520
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	54	5230	2	32	e30	551	7	272	2	20	1	9.4
2	72	7580	e2	30	20	281	9	301	<1	10	2	17
3	31	3140	3	50	13	179	7	187	1	9.7	2	21
4	16	1300	3	55	12	146	5	122	2	19	1	9.2
5	8	549	e3	59	e9	104	6	157	1	9.4	1	10
6	5	284	5	107	7	87	7	185	2	19	2	21
7	3	140	8	203	5	59	4	90	e2	20	<1	10
8	4	156	4	95	4	46	e6	117	2	20	e2	22
9	3	102	e4	97	4	41	e8	153	3	31	3	31
10	4	127	5	115	3	33	6	107	4	40	2	20
11	2	58	8	225	3	29	e4	68	4	44	3	30
12	2	50	21	624	4	41	2	33	3	44	2	21
13	3	71	13	344	7	96	3	49	2	29	4	42
14	3	59	8	210	21	567	2	27	3	41	3	32
15	3	58	e6	146	76	3490	3	38	4	49	3	32
16	2	36	5	108	28	1360	2	24	e3	31	2	18
17	3	47	4	92	41	2030	4	48	2	25	3	32
18	6	106	e8	173	42	2320	2	23	4	50	2	27
19	2	32	4	71	31	1730	2	22	3	32	2	17
20	15	379	4	53	27	1710	2	19	3	31	e2	20
21	14	431	3	36	23	1350	2	20	e3	29	e3	32
22	7	186	3	34	13	635	2	21	3	28	3	27
23	5	121	4	44	e10	464	2	21	3	30	2	20
24	8	177	4	41	26	1260	3	35	3	31	1	8.6
25	5	105	3	30	16	769	1	12	e3	45	1	9.0
26	4	88	3	32	10	456	2	26	3	60	2	19
27	2	40	3	32	e8	410	2	28	3	51	2	19
28	2	34	4	36	16	890	1	11	3	39	e2	22
29	1	17	e4	29	12	599	e2	22	3	31	2	22
30	2	32	5	50	8	313	e2	21	2	22	2	19
31	---	---	e5	53	---	---	2	21	2	21	---	---

e Estimated

&lt; Actual value is known to be less than the value shown



## HUDSON RIVER BASIN

71

## 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 mi<sup>2</sup>.

**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.**--Records good except those for estimated daily discharges, which are poor. 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 ft<sup>3</sup>). 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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 8,560 ft<sup>3</sup>/s, Oct. 2, 1945, gage height, 11.18 ft, from rating curve extended above 5,200 ft<sup>3</sup>/s on basis of flow-over-dam measurement of peak flow; minimum discharge, 18 ft<sup>3</sup>/s, July 21, 27, Oct. 24, 25, 1983, minimum gage height, 0.63 ft, Oct. 24, 25, 1983.

**EXTREMES FOR CURRENT YEAR.**--Maximum discharge, 6,100 ft<sup>3</sup>/s, Jan. 9, gage height, 9.66 ft, from outside floodmark; minimum, 142 ft<sup>3</sup>/s, Sept. 28, 29, 30, gage height, 1.61 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	173	221	253	228	198	1180	309	196	188	193	248	231
2	173	224	233	228	196	1160	340	197	188	193	247	231
3	173	230	229	233	194	1150	552	198	188	193	245	231
4	173	228	239	264	193	1140	700	203	185	194	245	231
5	178	225	239	281	193	710	631	239	185	197	245	231
6	174	223	237	317	192	336	536	283	185	193	245	230
7	173	221	234	336	193	335	455	273	185	193	245	231
8	171	221	233	e2840	193	341	395	243	185	193	245	228
9	170	236	231	e4850	193	394	360	220	185	193	243	228
10	171	232	231	2950	192	399	385	228	185	339	243	227
11	172	226	231	1610	192	531	324	343	185	486	243	227
12	170	223	231	981	216	984	279	330	187	254	240	226
13	170	223	231	755	224	1150	280	277	206	254	240	226
14	170	223	229	1310	207	1140	258	236	200	254	240	226
15	170	225	226	1260	201	1140	232	202	209	254	240	226
16	168	224	226	1230	199	1130	220	215	196	254	240	226
17	168	224	226	1220	198	1120	221	208	235	254	240	188
18	168	220	226	1210	208	1110	221	213	203	254	239	151
19	168	216	226	1210	242	1120	210	193	195	254	237	149
20	168	220	226	1200	232	1140	287	190	191	254	237	148
21	168	226	226	1200	221	1120	329	190	190	254	237	147
22	168	233	226	1190	213	571	299	190	189	254	237	146
23	168	232	226	1190	468	273	269	189	191	256	237	146
24	168	231	226	1180	600	272	242	188	191	254	237	146
25	168	228	232	1170	846	273	239	188	190	254	237	146
26	168	238	247	1170	1140	286	221	188	191	254	237	147
27	173	263	239	1160	1140	321	219	188	192	254	237	144
28	173	237	234	507	1140	306	203	188	192	254	236	144
29	271	237	231	204	---	309	196	188	191	254	234	142
30	422	251	231	204	---	296	196	188	193	251	233	142
31	223	---	230	201	---	291	---	188	---	248	231	---
TOTAL	5691	6861	7185	33889	9824	22028	9608	6760	5776	7640	7440	5742
MEAN	184	229	232	1093	351	711	320	218	193	246	240	191
MAX	422	263	253	4850	1140	1180	700	343	235	486	248	231
MIN	168	216	226	201	192	272	196	188	185	193	231	142

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1998, BY WATER YEAR (WY)

	306	366	407	476	385	441	665	381	273	252	233	249
MEAN	306	366	407	476	385	441	665	381	273	252	233	249
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

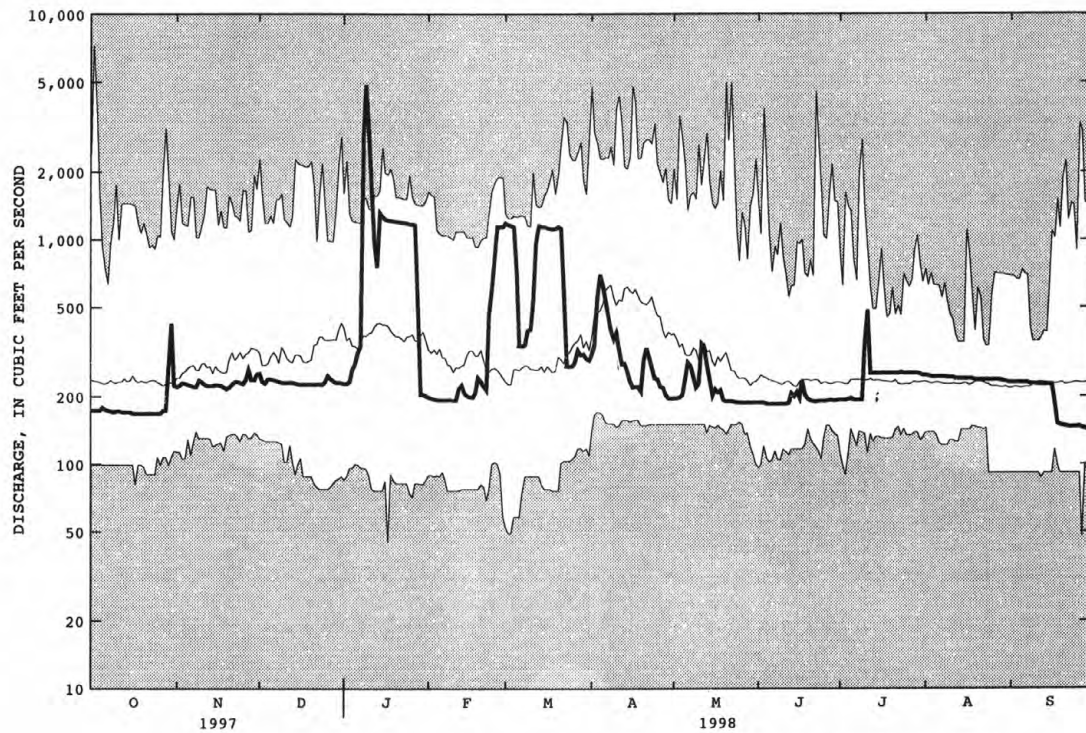
SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR	FOR 1998 WATER YEAR	WATER YEARS 1928 - 1998
ANNUAL TOTAL	126440	128444	
ANNUAL MEAN	346	352	369
HIGHEST ANNUAL MEAN			601
LOWEST ANNUAL MEAN			219
HIGHEST DAILY MEAN	1500	4850	7270
LOWEST DAILY MEAN	165	142	45
ANNUAL SEVEN-DAY MINIMUM	166	144	55
10 PERCENT EXCEEDS	779	900	726
50 PERCENT EXCEEDS	228	231	252
90 PERCENT EXCEEDS	170	173	169

e Estimated



## HUDSON RIVER BASIN

01336000 MOHAWK RIVER BELOW DELTA DAM, NEAR ROME, NY--Continued



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



## 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 mi<sup>2</sup>.

**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 ft<sup>3</sup>). 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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge prior to regulation, 23,300 ft<sup>3</sup>/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); maximum discharge since regulation, 20,500 ft<sup>3</sup>/s, Oct. 2, 1945, gage height, 8.08 ft; minimum discharge, 20 ft<sup>3</sup>/s, Sept. 3, 1929, gage height, 0.90 ft.

**EXTREMES FOR CURRENT YEAR.**--Maximum discharge, 12,700 ft<sup>3</sup>/s, Jan. 10, gage height, 6.63 ft; minimum, 214 ft<sup>3</sup>/s, Jan. 1; minimum gage height, 1.98 ft, Jan. 1, Sept. 23.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	566	715	1580	e660	1290	3000	3480	1020	534	1570	552	333
2	581	847	1140	e740	1290	2550	5850	884	443	1540	534	363
3	565	978	900	e820	1310	2300	8420	981	551	1070	581	368
4	570	892	986	e1600	1310	1820	6230	1230	455	822	608	372
5	865	901	1020	1710	1300	1470	4420	1150	478	1120	576	751
6	655	835	966	2830	e1200	1720	3270	1260	556	830	574	732
7	566	917	930	3350	e1200	1690	2680	756	561	815	598	871
8	550	918	895	9720	e1200	1750	2590	1040	568	837	593	785
9	537	1120	873	7200	e1200	3520	2470	1020	480	813	591	766
10	581	1140	845	11100	e1200	4380	1960	1240	626	794	639	761
11	778	989	854	8730	1300	2320	1700	1420	558	766	984	737
12	697	953	852	4940	1730	1960	1750	1250	636	760	798	735
13	705	911	840	3550	1720	1740	1690	1090	1100	747	664	742
14	727	915	817	2710	e1100	1850	1630	1030	965	766	635	743
15	740	919	e760	2420	e1000	1750	1610	984	1940	629	640	858
16	723	918	e800	2050	e960	1700	1550	952	2340	514	637	788
17	722	921	827	1800	1080	1710	1210	946	2610	683	603	709
18	719	e920	809	1770	1220	1720	1100	933	3500	549	622	671
19	718	934	795	1760	1820	2180	1180	937	3600	597	583	679
20	752	947	728	1650	1650	2390	1800	934	2940	664	584	684
21	722	967	e660	1590	1510	2080	1440	789	2560	582	585	712
22	726	1070	e640	1670	1340	1900	1660	704	2130	758	577	327
23	731	1100	e700	1680	1300	1800	1630	608	1910	850	582	315
24	735	e1050	746	1780	1330	1720	1310	570	1580	851	816	392
25	590	995	806	1720	1420	1760	1220	530	1560	639	804	656
26	579	1130	1140	e1600	1400	2020	1180	542	1270	614	592	655
27	753	1840	959	e1600	1590	3110	1180	506	1230	605	714	744
28	721	1090	839	1710	1760	3420	1150	482	882	603	642	687
29	646	969	e740	1670	---	3700	1150	382	793	665	782	728
30	639	1130	e720	1440	---	3320	1150	440	989	565	763	727
31	604	---	e680	1300	---	3230	---	466	---	608	646	---
TOTAL	20763	29931	26847	88870	37730	71580	69660	27076	40345	24226	20099	19392
MEAN	670	998	866	2867	1348	2309	2322	873	1345	781	648	646
MAX	865	1840	1580	11100	1820	4380	8420	1420	3600	1570	984	871
MIN	537	715	640	660	960	1470	1100	382	443	514	534	315

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 1998, BY WATER YEAR (WY)

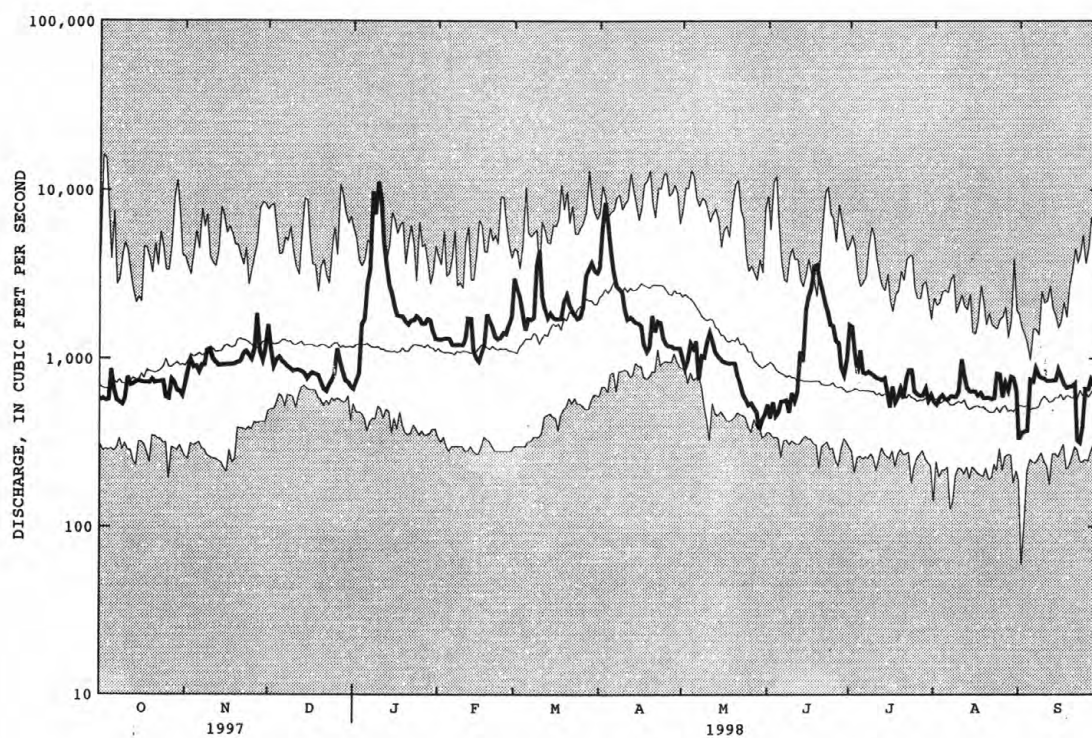
	MEAN	1946	1960	1972	1985	1998	2000	2001	2002	2003	2004	2005
MEAN	946	1340	1403	1339	1236	1892	2913	1869	980	746	596	697
MAX	3131	2984	2835	3044	2704	3725	5623	4667	3875	2075	1481	1831
(WY)	1946	1960	1972	1985	1998	2000	2001	2002	2003	2004	2005	2006
MIN	338	335	621	453	316	681	1056	594	359	283	227	284
(WY)	1965	1965	1931	1931	1931	1940	1995	1987	1941	1941	1934	1934

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR	FOR 1998 WATER YEAR	WATER YEARS 1921 - 1998
ANNUAL TOTAL	478165	476519	
ANNUAL MEAN	1310	1306	1329
HIGHEST ANNUAL MEAN			1872
LOWEST ANNUAL MEAN			829
HIGHEST DAILY MEAN	6310	11100	16100
LOWEST DAILY MEAN	440	315	59
ANNUAL SEVEN-DAY MINIMUM	465	465	211
10 PERCENT EXCEEDS	2540	2310	2600
50 PERCENT EXCEEDS	918	920	1000
90 PERCENT EXCEEDS	489	572	455

e Estimated



HUDSON RIVER BASIN  
01346000 WEST CANADA CREEK AT KAST BRIDGE, NY--Continued



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



## 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 mi<sup>2</sup>.

**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 ft<sup>3</sup>) (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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge (river channel only), 33,100 ft<sup>3</sup>/s, Mar. 14, 1977, gage height, 19.17 ft, from floodmark in gage house; minimum daily discharge, probably not less than 463 ft<sup>3</sup>/s, Sept. 2, 1934; minimum instantaneous discharge not determined.

**EXTREMES FOR CURRENT YEAR.**--Maximum discharge (river channel only), 24,100 ft<sup>3</sup>/s, Jan. 10, gage height, 16.35 ft; minimum daily discharge, 624 ft<sup>3</sup>/s, Sept. 24; minimum gage height, 4.41 ft, Apr. 27; minimum instantaneous discharge not determined.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1040	1200	4780	e1500	2170	7200	6300	1810	1370	2370	950	808
2	989	1270	4090	1580	2060	7780	9390	1750	1160	2380	991	777
3	906	1740	2650	1820	2140	8050	11400	2040	1250	1860	970	945
4	976	1620	2330	4340	2080	7410	9380	2700	1090	1390	960	842
5	1360	1600	2640	6210	2130	6300	7220	2670	951	2380	1000	1100
6	1370	1470	2530	e8400	2080	5520	5630	2610	1030	1900	969	1170
7	1120	1420	2280	10900	2020	4410	4660	1910	1010	1590	1050	1640
8	1050	1420	2200	21900	1970	4180	4230	2010	992	1710	965	1670
9	909	1710	2060	21500	1960	6980	4240	1860	1000	1680	1010	1420
10	948	2210	1880	23300	1950	11800	3610	2510	983	1530	1030	1440
11	1130	1890	1820	19300	2010	9060	3150	4320	955	1530	2230	1370
12	1050	1650	1790	12600	2640	7570	3010	3650	1060	1580	1840	1290
13	1010	1490	1740	8760	e4000	5550	2840	2810	2070	1280	1350	1260
14	1040	1530	1710	6310	e3500	4940	2660	2280	2910	1240	1190	1190
15	1080	1510	1510	5320	e2500	4510	2580	2030	4100	1190	1120	1310
16	1050	1520	1570	4920	1960	4190	2500	1850	4640	1160	1090	1260
17	1040	1500	1640	4420	e2100	4030	2110	1750	4750	1010	1040	1220
18	1020	1490	1560	4230	2520	4030	1970	1640	5610	1030	1140	1140
19	1040	1500	1540	4100	3930	4790	2100	1610	5290	1030	1200	1050
20	1070	1480	1540	3810	5860	6140	4650	1540	3940	1040	1080	1050
21	1050	1540	1540	3660	5480	6070	3910	1420	4360	1080	1060	1140
22	1060	1780	1380	3590	4330	5470	3440	1230	3160	1260	998	799
23	1070	2230	1450	3460	3720	4490	3070	1140	2790	1630	1000	661
24	1070	2240	1490	3800	2930	3790	2430	1100	2500	1800	1420	624
25	916	2190	1570	3760	3650	3650	2310	1010	2260	1320	1600	942
26	903	2090	2330	e3500	4540	4130	2360	910	2000	1120	1390	1030
27	1080	4120	2710	e3400	4500	7640	1560	945	2610	1030	1320	1310
28	1200	3380	2430	3510	4740	8990	1450	952	2110	1020	1190	1230
29	1030	2440	2000	2960	---	8890	1960	908	1580	1100	1260	1130
30	1050	2470	e1800	2500	---	7370	1970	848	1570	1130	1270	1100
31	1170	---	e1600	2230	---	6190	---	910	---	1070	1220	---
TOTAL	32797	55700	64160	211590	85470	191120	118090	56723	71101	44440	36903	33918
MEAN	1058	1857	2070	6825	3053	6165	3936	1830	2370	1434	1190	1131
MAX	1370	4120	4780	23300	5860	11800	11400	4320	5610	2380	2230	1670
MIN	903	1200	1380	1500	1950	3650	1450	848	951	1010	950	624

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1998, BY WATER YEAR (WY)**

	1910	2848	3147	3077	2930	4811	6056	3344	1887	1477	1180	1404
MEAN	1910	2848	3147	3077	2930	4811	6056	3344	1887	1477	1180	1404
MAX	6529	5873	6673	6825	6759	9558	13160	7879	6306	3771	2912	4361
(WY)	1946	1960	1997	1998	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

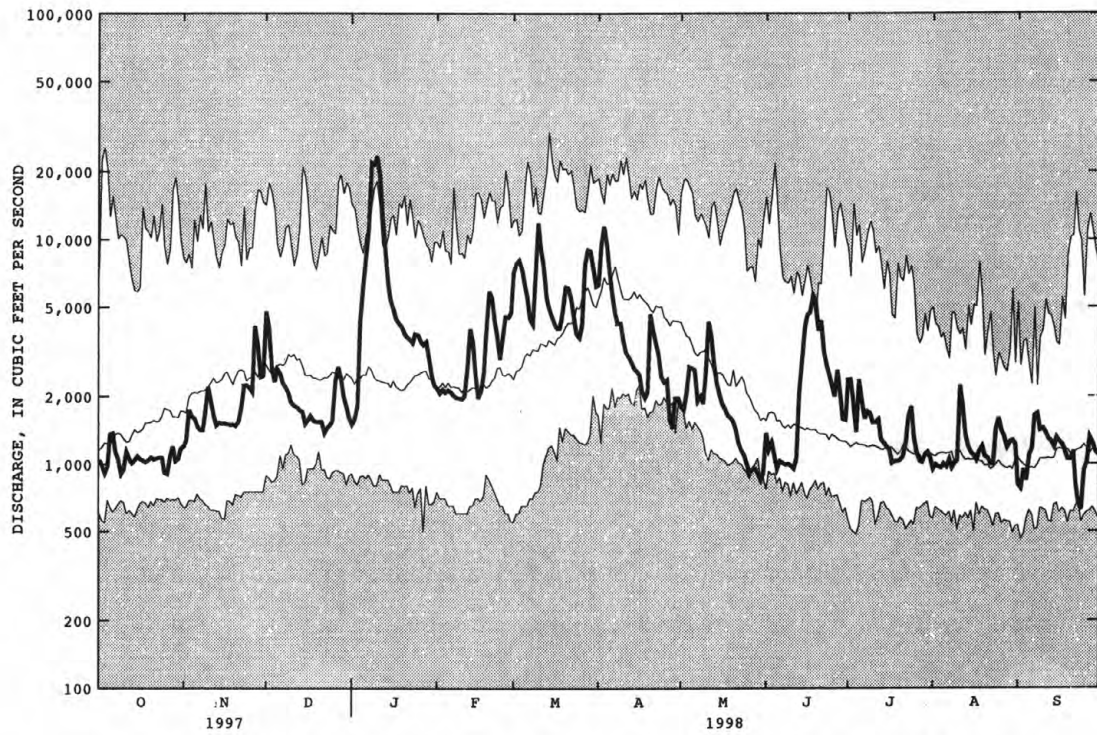
SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR	FOR 1998 WATER YEAR	WATER YEARS 1928 - 1998
ANNUAL TOTAL	945873	1002012	
ANNUAL MEAN	2591	2745	2836
HIGHEST ANNUAL MEAN			4208
LOWEST ANNUAL MEAN			1684
HIGHEST DAILY MEAN	12400	Feb 22	29900
LOWEST DAILY MEAN	793	Aug 11	463
ANNUAL SEVEN-DAY MINIMUM	827	Sep 5	529
10 PERCENT EXCEEDS	5720		5940
50 PERCENT EXCEEDS	1700		1940
90 PERCENT EXCEEDS	874		905

e Estimated



## HUDSON RIVER BASIN

01347000 MOHAWK RIVER NEAR LITTLE FALLS, NY--Continued



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



## HUDSON RIVER BASIN

77

**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 mi<sup>2</sup>.

**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.

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

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

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 8	0945	*2,910	*8.15	Apr. 20	0345	1,670	6.59
Mar. 10	0400	1,840	6.84	May 10	2400	1,460	6.27
Apr. 1	2115	2,440	7.61				

Minimum discharge, 1.6 ft<sup>3</sup>/s, Oct. 20, 21, 22; minimum gage height, 1.38 ft, Sept. 23.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	1.9	195	e30	31	567	692	31	52	21	4.8	4.3
2	2.7	7.1	78	e45	29	391	708	42	23	17	4.7	5.1
3	2.4	6.7	64	e100	e28	338	262	69	83	14	4.6	7.7
4	2.5	4.5	49	e200	e28	250	168	94	33	13	4.6	5.8
5	2.7	5.9	77	e450	e27	202	128	76	22	21	4.7	4.6
6	2.7	4.4	72	619	e25	175	99	63	18	15	4.8	4.3
7	2.5	3.2	51	752	e25	162	79	61	15	9.1	5.1	4.8
8	2.2	3.3	39	2060	e24	202	69	45	14	45	5.3	6.8
9	2.0	48	33	1540	e24	848	107	40	13	55	4.9	5.5
10	2.0	34	27	629	24	1020	91	444	11	19	4.8	4.6
11	2.1	16	26	281	24	260	62	658	10	12	18	4.2
12	2.1	11	27	167	106	143	52	270	14	9.0	10	4.0
13	2.1	9.5	23	136	299	126	46	138	64	7.7	5.9	3.8
14	2.1	8.5	22	107	e150	91	41	96	129	6.9	5.5	3.8
15	2.2	8.3	25	150	e100	76	38	73	223	6.4	5.3	3.9
16	2.3	11	23	123	82	65	35	58	218	9.5	5.3	4.2
17	2.1	10	22	76	48	59	37	48	120	7.5	5.1	4.5
18	1.9	9.4	21	59	58	60	37	39	67	6.2	5.1	4.2
19	1.9	9.0	19	53	259	239	64	35	49	5.7	6.6	4.0
20	1.9	10	e19	49	403	216	818	30	36	14	5.4	3.8
21	1.8	10	e18	45	302	176	195	27	30	14	4.6	3.8
22	1.9	22	29	53	234	118	117	24	23	7.1	4.5	3.8
23	2.0	30	17	39	167	99	89	22	20	7.3	4.5	3.8
24	2.0	29	18	50	108	102	75	19	18	9.9	6.9	4.0
25	2.2	39	24	46	146	142	70	17	16	6.5	11	4.0
26	2.3	55	88	e37	223	228	59	19	19	5.7	10	4.1
27	3.2	253	107	e36	211	525	52	16	69	5.2	6.6	7.0
28	4.3	87	68	e36	180	431	42	13	26	5.0	5.1	7.0
29	2.7	74	38	35	---	297	35	12	18	4.7	4.6	4.6
30	2.3	98	e28	35	---	186	33	13	19	4.7	4.5	4.0
31	2.0	---	e23	32	---	130	---	12	---	4.8	4.6	---
TOTAL	72.0	918.7	1370	8070	3365	7924	4400	2604	1472	388.9	187.4	140.0
MEAN	2.32	30.6	44.2	260	120	256	147	84.0	49.1	12.5	6.05	4.67
MAX	4.3	253	195	2060	403	1020	818	658	223	55	18	7.7
MIN	1.8	1.9	17	30	24	59	33	12	10	4.7	4.5	3.8
CFSM	.04	.51	.74	4.36	2.01	4.28	2.46	1.41	.82	.21	.10	.08
IN.	.04	.57	.85	5.03	2.10	4.94	2.74	1.62	.92	.24	.12	.09

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1998, BY WATER YEAR (WY)**

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
MEAN	14.9	80.6	103	134	103	187	251	69.0	20.2	13.4	18.6	4.64
MAX	39.5	187	292	260	219	268	487	190	49.1	42.4	67.0	7.52
(WY)	1996	1997	1997	1998	1997	1994	1993	1996	1998	1996	1994	1994
MIN	2.32	8.38	44.2	20.1	24.3	81.3	57.9	15.3	7.39	3.19	1.36	2.21
(WY)	1998	1995	1998	1994	1995	1996	1995	1995	1993	1995	1995	1995

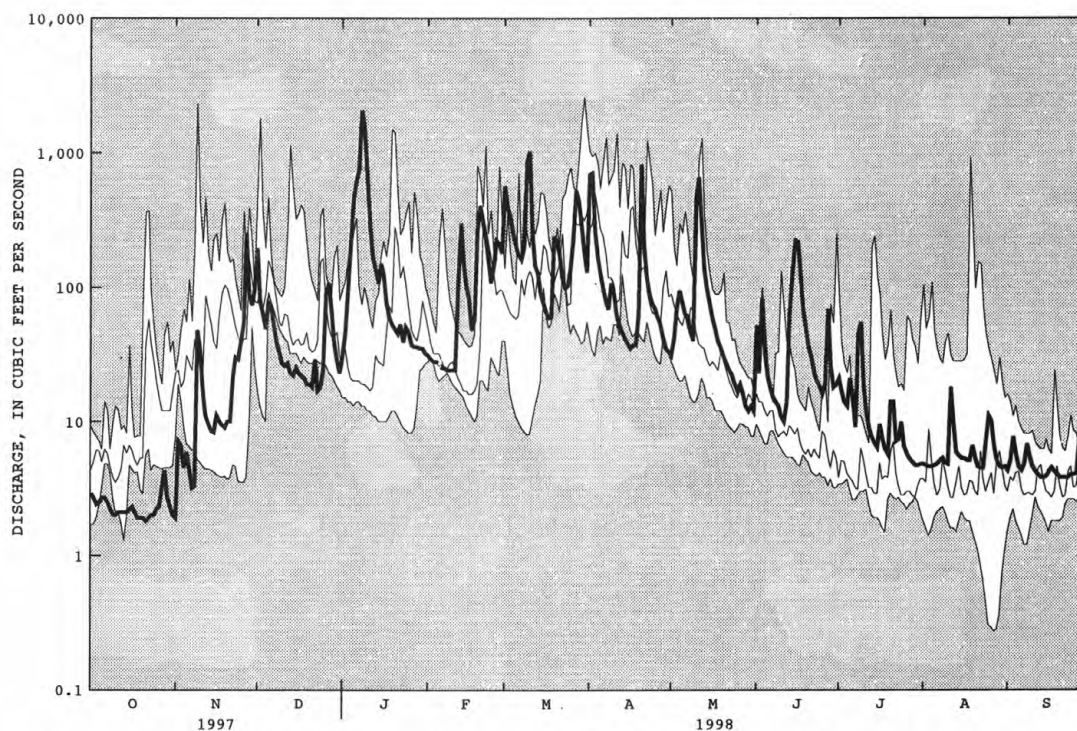
e Estimated



## HUDSON RIVER BASIN

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

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1993 - 1998	
ANNUAL TOTAL	23694.2		30912.0		80.5	
ANNUAL MEAN	64.9		84.7		100	1997
HIGHEST ANNUAL MEAN					38.0	1995
LOWEST ANNUAL MEAN					2600	Mar 30 1993
HIGHEST DAILY MEAN	1120	Feb 22	2060	Jan 8	.27	Aug 27 1995
LOWEST DAILY MEAN	1.8	Oct 21	1.8	Oct 21	.37	Aug 23 1995
ANNUAL SEVEN-DAY MINIMUM	1.9	Oct 18	1.9	Oct 18	1.35	
ANNUAL RUNOFF (CFSM)	1.09		1.42		18.33	
ANNUAL RUNOFF (INCHES)	14.76		19.26		216	
10 PERCENT EXCEEDS	167		213		21	
50 PERCENT EXCEEDS	22		24		2.9	
90 PERCENT EXCEEDS	2.4		3.8			



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



## 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), 1998 (e).

PESTICIDE DATA: 1993 (a), 1994 (d), 1995-98 (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), 1998 (d).

BIOLOGICAL DATA:

Bacteria--1993 (a).

Phytoplankton--1993 (a).

SEDIMENT DATA: 1993 (c), 1994-95 (e), 1996-97 (c), 1998 (d).

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.

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, 30.5°C, Aug. 9; minimum, 0.0°C on many days during winter period.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CAO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
OCT												
07...	1100	2.4	1390	7.4	--	15.1	--	7.6	--	750	240	37
27...	1000	2.8	--	--	--	7.7	--	--	--	--	--	--
NOV												
04...	1010	3.6	1260	7.4	--	8.3	--	9030	--	690	220	34
10...	1230	33	--	--	5.5	6.7	736	--	--	--	--	--
DEC												
02...	1015	69	424	8.3	--	.1	--	13.6	--	170	55	8.1
JAN												
07...	0950	581	E279	E6.9	6.0	3.3	745	E12.2	--	110	37	4.8
FEB												
03...	0930	28	641	6.7	3.5	.1	748	13.1	92	290	94	13
MAR												
05...	0910	189	307	7.5	1.5	1.4	741	--	--	120	39	5.8
APR												
09...	0900	114	395	7.7	8.0	7.2	738	11.7	100	180	58	7.9
MAY												
11...	1130	502	272	7.2	--	12.2	740	7.4	71	130	42	5.8
20...	1240	29	523	7.6	--	22.6	738	8.9	107	--	--	--
26...	1225	19	646	7.6	--	21.9	741	7.2	84	--	--	--
JUN												
01...	1050	64	569	7.6	--	18.5	736	7.3	81	260	86	12
03...	1200	97	462	7.3	11.5	15.4	734	8.7	91	--	--	--
08...	1330	14	660	7.7	17.0	16.4	745	9.1	96	--	--	--
12...	1725	15	721	7.2	20.0	17.9	740	--	--	--	--	--
14...	0950	73	436	7.2	16.5	16.1	731	--	--	--	--	--
14...	1610	80	438	7.2	18.0	17.0	730	--	--	--	--	--
15...	0820	261	330	7.4	22.5	15.5	--	--	--	--	--	--
23...	1410	20	570	7.6	--	27.8	747	10.3	134	--	--	--
30...	0830	18	566	6.9	--	--	--	--	--	--	--	--
JUL												
07...	0850	12	731	6.6	--	22.2	--	--	--	350	110	17
22...	0900	6.0	697	6.5	26.7	25.3	--	--	--	--	--	--
AUG												
05...	1040	5.2	1010	7.4	22.0	24.1	749	7.5	91	500	160	25
26...	1040	10	1110	6.1	22.8	--	--	--	--	--	--	--
SEP												
08...	1445	6.8	1060	7.0	--	20.9	735	8.5	99	550	170	28
22...	1120	3.8	1250	5.4	17.6	21.0	--	--	--	--	--	--

E Estimate.



## WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

[illegible]



## HUDSON RIVER BASIN

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01349150 CANAJOHARIE CREEK NEAR CANAJOHARIE, NY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,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)	ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)
OCT											
07...	<.01	.4	<.2	.04	<.01	<.01	16	56	<.002	<.002	.0138
27...	--	--	--	--	--	--	--	--	<.002	<.002	.0131
NOV											
04...	<.02	.3	.2	.03	<.01	<.01	<10	32	<.002	<.002	.0160
10...	--	--	--	--	--	--	--	--	<.002	<.002	.0645
DEC											
02...	<.02	1.6	.3	.51	.04	.04	110	11	<.002	.0064	.0596
JAN											
07...	<.02	.6	.3	.14	.03	.03	27	7	<.002	.0052	.0332
FEB											
03...	.07	.2	.2	.06	<.01	.03	11	18	<.002	<.002	.0170
MAR											
05...	.02	.3	.3	.04	.01	.02	18	8	<.002	E.0040	.0268
APR											
09...	.03	.3	.2	.02	.02	.01	11	12	<.002	<.002	.0219
MAY											
11...	.08	.7	.4	.11	.03	.02	46	6	<.002	<.002	.0408
20...	--	--	--	--	--	--	--	--	<.002	<.002	.0166
26...	--	--	--	--	--	--	--	--	<.002	<.002	.0293
JUN											
01...	.14	1	.6	.07	.01	<.01	14	14	<.002	<.002	.219
03...	--	--	--	--	--	--	--	--	<.002	<.002	2.40
08...	--	--	--	--	--	--	--	--	<.002	<.002	.129
12...	--	--	--	--	--	--	--	--	<.002	<.002	.0708
14...	--	--	--	--	--	--	--	--	<.002	.0554	7.84
14...	--	--	--	--	--	--	--	--	<.002	.0233	4.44
15...	--	--	--	--	--	--	--	--	<.002	.128	7.98
23...	--	--	--	--	--	--	--	--	<.002	<.002	.228
30...	--	--	--	--	--	--	--	--	<.002	.0091	.801
JUL											
07...	.04	.4	.3	.02	<.01	.02	14	34	<.002	<.002	.642
22...	--	--	--	--	--	--	--	--	<.002	<.002	.646
AUG											
05...	.04	.7	.3	.04	<.01	<.01	<10	95	<.002	<.002	.0602
26...	--	--	--	--	--	--	--	--	<.002	<.002	.0302
SEP											
08...	.03	.4	.3	.04	<.01	<.01	<10	38	<.002	<.002	.0299
22...	--	--	--	--	--	--	--	--	<.002	<.002	.0253

E Estimate.



## HUDSON RIVER BASIN

01349150 CANAJOHARIE CREEK NEAR CANAJOHARIE, NY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	P,P' DDE DISSOLV (UG/L) (34653)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)
OCT											
07...	<.002	<.002	<.003	<.003	<.004	<.004	<.002	<.006	E.0055	<.002	<.001
27...	.0052	<.002	<.003	<.003	<.004	<.004	<.002	<.006	E.0112	<.002	<.001
NOV											
04...	<.002	<.002	<.003	<.003	<.004	<.004	<.002	<.006	E.0056	<.002	<.001
10...	<.002	<.002	<.003	<.003	<.004	.0134	<.002	<.006	E.0386	<.002	<.001
DEC											
02...	<.002	<.002	<.003	<.003	<.004	<.004	<.002	<.006	E.0307	<.002	<.001
JAN											
07...	<.002	<.002	E.0096	<.003	<.004	.0099	<.002	<.006	E.0228	<.002	<.001
FEB											
03...	<.002	<.002	<.003	<.003	<.004	<.004	<.002	<.006	E.0099	<.002	<.001
MAR											
05...	<.002	<.002	<.003	<.003	<.004	<.004	<.002	<.006	E.0188	<.002	<.001
APR											
09...	<.002	<.002	<.003	<.003	<.004	<.004	<.002	<.006	E.0104	<.002	<.001
MAY											
11...	<.002	<.002	<.003	<.003	<.004	.0355	<.002	<.006	E.0217	<.002	<.001
20...	<.002	<.002	<.003	<.003	<.004	<.004	<.002	<.006	E.0127	<.002	<.001
26...	<.002	<.002	<.003	<.003	<.004	.0102	<.002	<.006	E.0149	<.002	<.001
JUN											
01...	<.002	<.002	<.003	<.003	<.004	<.004	<.002	<.006	E.0212	<.002	<.001
03...	<.002	<.002	E.0126	<.003	<.004	.0509	<.002	<.006	E.117	<.002	<.001
08...	<.002	<.002	<.003	<.003	<.004	.0602	<.002	<.006	E.0237	<.002	<.001
12...	<.002	<.002	<.003	<.003	<.004	.0224	<.002	<.006	E.0188	<.002	<.001
14...	<.002	<.002	E.0080	<.003	<.004	2.12	<.002	<.006	E.404	<.002	<.001
14...	<.002	<.002	<.003	<.003	<.004	1.39	<.002	<.006	E.262	<.002	<.001
15...	<.002	<.002	<.003	<.003	<.030	.797	<.002	<.006	E.224	<.002	<.001
23...	<.002	<.002	<.003	<.003	<.004	.0324	<.002	<.006	E.0413	<.002	<.001
30...	<.002	<.002	<.003	<.003	<.010	.0619	<.002	<.006	E.129	<.002	<.001
JUL											
07...	<.002	<.002	<.003	<.003	<.004	.0278	<.002	<.006	E.0383	<.002	<.001
22...	<.002	<.002	<.003	<.003	<.010	<.004	<.002	<.006	E.0556	<.002	<.001
AUG											
05...	<.002	<.002	<.003	<.003	<.004	<.004	<.002	<.006	E.0152	<.002	<.001
26...	<.002	<.002	<.003	<.003	<.004	<.004	<.002	<.006	E.0102	<.002	<.001
SEP											
08...	<.002	<.002	<.003	<.003	<.004	<.004	<.002	<.006	E.0165	<.002	<.001
22...	<.002	<.002	<.003	<.003	<.004	<.004	<.002	<.006	E.0068	<.002	<.001

E Estimate.



## HUDSON RIVER BASIN

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01349150 CANAJOHARIE CREEK NEAR CANAJOHARIE, NY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	PARA- THION, DIS- SOLVED (UG/L) (39542)	FONOFOS WATER DISS REC (UG/L) (04095)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	LINDANE DIS- SOLVED (UG/L) (39341)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA- THION, DIS- SOLVED (UG/L) (39532)
OCT											
07...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
27...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
NOV											
04...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
10...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
DEC											
02...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
JAN											
07...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
FEB											
03...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
MAR											
05...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
APR											
09...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
MAY											
11...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
20...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
26...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
JUN											
01...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
03...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
08...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
12...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
14...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
14...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
15...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
23...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
30...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.010
JUL											
07...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
22...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
AUG											
05...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
26...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
SEP											
08...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
22...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005



## HUDSON RIVER BASIN

01349150 CANAJOHARIE CREEK NEAR CANAJOHARIE, NY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	METHYL- AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL- PARA- THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN WATER DISSOLV (UG/L) (82630)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEB- ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRO- METON, WATER, DISS, REC (UG/L) (04037)
OCT											
07...	<.001	<.006	.0081	<.004	<.004	<.003	<.004	<.004	<.005	<.002	<.018
27...	<.001	<.006	.0059	<.004	<.004	<.003	<.004	<.004	<.005	<.002	<.018
NOV											
04...	<.001	<.006	.0136	<.004	<.004	<.003	<.004	<.004	<.005	<.002	<.018
10...	<.001	<.006	.0773	<.004	<.004	<.003	<.004	<.004	<.005	<.002	<.018
DEC											
02...	<.001	<.006	.0979	<.004	<.004	<.003	<.004	<.004	<.005	<.002	<.018
JAN											
07...	<.001	<.006	.0619	<.004	<.004	<.003	<.004	<.004	<.005	<.002	<.018
FEB											
03...	<.001	<.006	.0127	<.004	<.004	<.003	<.004	<.004	<.005	<.002	<.018
MAR											
05...	<.001	<.006	.0517	<.004	<.004	<.003	<.004	<.004	<.005	<.002	<.018
APR											
09...	<.001	<.006	.0367	<.004	<.004	<.003	<.004	<.004	<.005	<.002	<.018
MAY											
11...	<.001	<.006	.0305	<.004	<.004	<.003	<.004	<.004	<.005	<.002	<.018
20...	<.001	<.006	.0114	<.004	<.004	<.003	<.004	<.004	<.005	<.002	<.018
26...	<.001	<.006	.0182	<.004	<.004	<.003	<.004	<.004	<.005	<.002	<.018
JUN											
01...	<.001	<.006	.330	<.004	<.004	<.003	<.004	<.004	<.005	<.002	<.018
03...	<.001	<.006	3.01	<.004	<.004	<.003	<.004	<.030	<.005	<.002	<.018
08...	<.001	<.006	.112	<.004	<.004	<.003	<.004	<.004	<.005	<.002	<.018
12...	<.001	<.006	.0872	<.004	<.004	<.003	<.004	<.004	<.005	<.002	<.018
14...	<.001	<.006	5.54	<.004	<.004	<.003	<.004	.0242	<.005	<.002	<.018
14...	<.001	<.006	3.08	<.004	<.004	<.003	<.004	.0204	<.005	<.002	<.018
15...	<.001	<.006	5.65	<.004	<.004	<.003	<.004	.0202	<.005	<.002	<.018
23...	<.001	<.006	.118	<.004	<.004	<.003	<.004	<.004	<.005	<.002	<.018
30...	<.001	<.006	.248	<.004	<.004	<.003	<.004	.0149	<.005	<.002	<.018
JUL											
07...	<.001	<.006	.706	<.004	<.004	<.003	<.004	<.004	<.005	<.002	<.018
22...	<.001	<.006	.265	<.004	<.004	<.003	<.004	.0275	<.005	<.002	<.018
AUG											
05...	<.001	<.006	.0364	<.004	<.004	<.003	<.004	<.004	<.005	<.002	<.018
26...	<.001	<.006	.0141	<.004	<.004	<.003	<.004	<.004	<.005	<.002	<.018
SEP											
08...	<.001	<.006	.0116	<.004	<.004	<.003	<.004	<.004	<.005	<.002	<.018
22...	<.001	<.006	.0099	<.004	<.004	<.003	<.004	<.004	<.005	<.002	<.018



## 01349150 CANAJOHARIE CREEK NEAR CANAJOHARIE, NY--Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)
OCT											
07...	<.003	<.007	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
27...	<.003	<.007	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	.0059
NOV											
04...	<.003	<.007	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
10...	<.003	<.007	<.004	<.013	E.0043	<.010	<.007	<.013	<.002	<.001	<.002
DEC											
02...	<.003	<.007	<.004	<.013	E.0048	<.010	<.007	<.013	<.002	<.001	<.002
JAN											
07...	<.003	<.007	.0063	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
FEB											
03...	<.003	<.007	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
MAR											
05...	<.003	<.007	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
APR											
09...	<.003	<.007	<.004	<.060	<.005	<.010	<.007	<.013	<.002	<.001	<.002
MAY											
11...	<.003	<.007	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
20...	<.003	<.007	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
26...	<.003	<.007	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
JUN											
01...	<.003	<.007	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
03...	<.003	<.007	<.004	<.013	.0212	<.010	<.007	<.013	<.002	<.001	<.002
08...	<.003	<.007	<.004	<.013	.0119	<.010	<.007	<.013	<.002	<.001	<.002
12...	<.003	<.007	<.004	<.013	E.0030	<.010	<.007	<.013	<.002	<.001	<.002
14...	<.003	<.007	<.004	<.013	1.49	<.010	<.007	<.013	<.002	<.001	<.002
14...	<.003	<.007	<.004	<.013	.795	<.010	<.007	<.013	<.002	<.001	<.002
15...	<.003	<.007	<.004	<.013	.424	<.010	<.007	<.013	<.002	<.001	<.002
23...	<.003	<.007	<.004	<.013	.0100	<.010	<.007	<.013	<.002	<.001	<.002
30...	<.003	<.007	<.004	<.013	.0448	<.010	<.007	<.013	<.002	<.001	<.002
JUL											
07...	<.003	<.007	<.004	<.013	.0081	<.010	<.007	<.013	<.002	<.001	<.002
22...	<.003	<.007	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
AUG											
05...	<.003	<.007	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
26...	<.003	<.007	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
SEP											
08...	<.003	<.007	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
22...	<.003	<.007	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002

## SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

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)
OCT				
07...	1100	2.4	26	90
NOV				
04...	1010	3.6	39	77
DEC				
02...	1015	69	12	99
JAN				
07...	0950	581	88	91
FEB				
03...	0930	28	16	68
MAR				
05...	0910	189	17	94
APR				
09...	0900	114	9	99
MAY				
11...	1130	502	67	98
JUN				
01...	1050	64	38	99
03...	1200	97	74	100
JUL				
07...	0850	12	18	96
AUG				
05...	1040	5.2	22	99
SEP				
08...	1445	6.8	17	92

E Estimate.



## HUDSON RIVER BASIN

01349150 CANAJOHARIE CREEK NEAR CANAJOHARIE, NY--Continued

## WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	15.0	12.0	13.5	8.5	6.0	7.0	1.5	.5	1.0	.0	.0	.0
2	12.5	9.5	11.0	9.5	8.5	9.0	.5	.0	.0	.0	.0	.0
3	11.0	10.0	10.5	9.5	7.5	8.5	.5	.0	.0	.0	.0	.0
4	14.5	10.0	12.0	9.5	8.0	8.5	1.5	.5	1.0	.5	.0	.0
5	19.5	14.0	16.0	8.0	6.5	7.5	2.5	1.5	2.0	2.0	.5	1.5
6	19.0	14.0	16.5	8.0	5.5	6.5	2.0	1.0	1.5	3.0	1.5	2.5
7	19.0	14.0	16.5	6.0	5.5	6.0	1.5	1.0	1.0	3.5	3.0	3.0
8	16.5	14.0	15.0	6.5	5.5	6.0	2.0	1.0	1.5	3.5	1.5	2.5
9	18.5	13.5	16.0	7.0	6.0	6.5	2.0	.5	1.0	4.0	3.0	3.5
10	22.5	16.5	19.5	7.0	6.0	6.5	.5	.0	.5	4.0	3.5	4.0
11	19.0	14.0	16.0	6.0	4.0	5.5	.5	.0	.0	3.5	2.0	2.5
12	17.0	12.0	14.0	4.0	2.5	3.0	.5	.0	.0	2.0	.0	.5
13	15.0	12.0	13.0	3.0	1.5	2.0	.5	.0	.0	1.5	.5	1.0
14	14.5	12.5	13.5	2.5	.0	.5	.5	.0	.0	.5	.0	.0
15	14.0	12.5	13.5	.5	.0	.5	.5	.0	.0	.0	.0	.0
16	14.5	11.0	12.5	.5	.0	.5	.5	.0	.0	.0	.0	.0
17	12.5	9.0	10.5	.5	.0	.5	.5	.0	.0	.0	.0	.0
18	12.0	8.0	9.0	1.0	.0	.5	.5	.0	.0	.0	.0	.0
19	10.0	7.0	8.5	.5	.0	.5	.5	.0	.0	.0	.0	.0
20	9.5	6.5	8.0	.5	.0	.5	.0	.0	.0	.0	.0	.0
21	9.0	7.5	8.0	.5	.0	.5	.5	.0	.0	.0	.0	.0
22	8.0	6.5	7.0	.5	.0	.0	.5	.0	.0	.0	.0	.0
23	7.0	6.0	6.5	.5	.0	.0	.0	.0	.0	.0	.0	.0
24	7.0	5.5	6.0	.5	.0	.0	.0	.0	.0	.0	.0	.0
25	7.5	6.5	6.5	.5	.0	.0	.0	.0	.0	.0	.0	.0
26	7.0	5.0	6.0	.5	.0	.0	.0	.0	.0	.0	.0	.0
27	7.0	6.0	6.5	1.0	.5	.5	.0	.0	.0	.0	.0	.0
28	6.5	4.5	5.5	1.0	.0	.5	.0	.0	.0	.0	.0	.0
29	5.5	4.0	5.0	2.5	1.0	1.5	.0	.0	.0	.0	.0	.0
30	7.5	4.5	6.0	1.5	1.0	1.0	.0	.0	.0	.0	.0	.0
31	7.5	5.0	6.0	---	---	---	.0	.0	.0	.0	.0	.0
MONTH	22.5	4.0	11.0	9.5	.0	3.0	2.5	.0	.5	4.0	.0	.5

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



## HUDSON RIVER BASIN

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01349150 CANAJOHARIE CREEK NEAR CANAJOHARIE, NY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	21.0	17.0	19.0	24.0	21.5	22.5	27.5	20.5	23.5	24.5	20.0	22.0
2	18.5	14.5	16.5	26.0	19.5	22.5	27.5	20.5	23.5	21.5	18.0	19.5
3	17.5	13.5	15.5	26.5	20.5	24.0	29.0	21.0	24.5	20.5	15.5	18.0
4	16.5	12.5	14.0	26.0	22.0	23.0	28.5	22.5	25.0	22.5	17.5	20.0
5	18.5	11.5	15.0	26.0	20.5	23.0	28.0	23.0	25.0	23.0	18.0	20.0
6	18.5	14.0	16.0	25.0	20.0	23.0	25.0	23.5	24.5	25.0	18.0	21.0
7	17.5	15.0	16.5	25.0	21.5	22.5	25.5	23.0	24.0	22.5	19.5	21.0
8	17.5	14.5	16.0	21.5	18.0	20.0	29.5	23.0	25.5	21.0	18.0	19.5
9	21.5	14.5	18.5	23.5	17.0	20.0	30.5	23.5	26.5	19.0	16.0	17.0
10	23.0	17.0	20.5	25.0	20.5	22.5	28.0	25.0	26.0	19.0	15.5	16.5
11	23.0	18.5	19.5	23.0	19.5	21.5	27.5	24.5	25.5	20.5	15.0	17.5
12	18.5	17.0	17.5	25.5	19.5	22.5	27.0	22.5	24.5	22.0	17.0	19.5
13	18.0	16.5	17.5	27.0	20.5	24.0	28.0	22.5	24.5	24.5	19.0	21.0
14	17.0	16.0	16.5	28.0	23.0	25.5	26.5	21.5	23.5	23.5	19.0	21.0
15	17.5	15.5	16.5	29.0	24.0	26.5	25.5	23.0	24.0	23.0	20.0	21.5
16	19.5	16.5	17.5	28.5	25.5	27.0	28.5	23.0	25.5	22.5	20.0	21.5
17	19.5	17.5	18.5	28.5	24.5	26.5	27.5	24.5	25.5	23.0	18.5	20.0
18	20.5	18.0	19.0	28.5	24.0	26.0	25.0	22.0	23.5	23.5	17.0	19.5
19	24.5	18.0	21.0	28.0	23.0	25.5	23.5	19.5	21.5	23.5	17.5	20.0
20	30.0	21.0	24.0	27.5	24.5	26.0	24.5	18.5	21.0	23.5	19.0	21.0
21	29.0	21.0	25.0	27.5	22.0	25.0	25.0	19.5	21.5	25.0	20.5	22.5
22	28.5	23.5	26.0	30.0	25.0	27.0	27.5	20.0	23.0	22.5	19.0	21.0
23	28.5	24.5	26.5	27.5	24.5	26.0	24.0	22.0	23.0	20.0	15.5	17.5
24	30.0	24.0	27.0	26.0	22.5	24.0	25.5	21.5	23.5	16.0	13.5	15.0
25	27.5	23.5	25.5	26.0	20.5	23.0	24.5	22.0	23.5	16.0	13.0	14.5
26	27.5	24.0	26.0	26.5	21.0	23.5	27.0	22.0	24.5	18.5	14.0	16.0
27	24.5	22.0	23.5	27.5	21.5	24.0	27.5	22.0	24.5	21.0	17.0	19.0
28	27.5	20.5	24.0	29.5	23.5	26.0	28.5	22.5	25.0	20.0	17.0	18.5
29	27.5	23.5	25.0	28.0	24.5	25.5	24.5	22.0	23.0	18.5	14.0	16.0
30	26.0	22.0	24.0	24.5	22.5	23.0	26.0	21.0	23.0	16.0	14.5	15.0
31	---	---	---	27.5	21.0	23.5	26.0	21.5	23.5	---	---	---
MONTH	30.0	11.5	20.5	30.0	17.0	24.0	30.5	18.5	24.0	25.0	13.0	19.0



## HUDSON RIVER BASIN

## 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 mi<sup>2</sup>.

**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 current year.

**GAGE.**--Water-stage recorder and crest-stage gage. Datum of gage is 1,452.26 ft above sea level. Prior to December 1996, crest-stage gage at same site at datum 1456.76 ft above sea level.

**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 ft<sup>3</sup>/s, Jan. 19, 1996, gage height, about 12.5 ft, from floodmark, datum then in use; minimum discharge (since Dec. 1996), 0.84 ft<sup>3</sup>/s, Aug. 13, 1997, gage height, 4.43 ft; minimum gage height, 4.33 ft, Sept. 6, 7, 1998.

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 1,500 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 1	2315	a2,630	8.64	May 10	1830	a3,640	9.14
Mar. 10	0115	a2,430	8.53	June 14	1515	a*4,560	*9.52

a From rating curve extended above 250 ft<sup>3</sup>/s.

Minimum discharge, 1.3 ft<sup>3</sup>/s, Sept. 6, 7, gage height, 4.33 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	334	138	e28	e31	e130	227	56	39	127	4.7	1.5
2	7.5	944	92	31	e30	e130	287	553	26	68	4.4	1.5
3	5.7	335	69	42	e28	122	184	365	46	47	4.0	1.7
4	4.8	162	67	153	e27	94	135	204	29	37	3.8	1.5
5	4.6	111	74	292	e27	78	105	177	22	41	3.6	1.4
6	4.3	75	66	573	e26	68	85	230	18	32	3.5	1.3
7	3.8	60	56	626	e26	65	71	154	16	27	3.3	2.1
8	3.3	149	49	1020	e25	68	66	120	14	91	2.9	2.2
9	3.0	732	46	890	e25	944	115	124	13	125	2.7	2.2
10	3.2	422	58	496	e25	1280	325	2170	12	68	2.6	2.1
11	3.6	195	56	256	e24	e320	158	1420	11	47	3.5	1.8
12	3.8	123	50	168	e120	e150	110	901	12	37	3.7	1.7
13	3.7	89	48	e130	e110	e110	87	312	35	30	3.1	1.6
14	3.7	82	42	e90	e56	e98	75	199	1860	25	2.9	1.5
15	4.8	69	e30	78	e46	e80	67	146	878	23	2.8	1.5
16	6.0	58	e27	e70	e40	e64	60	112	560	20	2.7	2.0
17	5.5	50	e31	e64	e38	e56	56	89	251	19	2.7	1.8
18	5.2	45	e28	61	e84	61	49	73	161	19	3.2	1.6
19	4.9	42	e27	55	e120	106	73	61	110	16	3.6	1.5
20	4.8	39	e23	50	e110	144	534	51	126	14	3.0	1.5
21	4.8	38	e20	e40	89	162	195	44	80	12	2.5	1.4
22	4.6	72	e20	e35	e68	e98	129	38	61	11	2.3	3.0
23	4.6	73	23	36	e50	e74	101	34	50	9.9	2.2	2.8
24	4.4	71	23	57	214	e66	275	30	48	12	2.1	2.6
25	7.4	58	31	e45	e42	e62	145	27	40	10	1.9	2.2
26	10	57	46	e42	e45	109	119	25	33	8.6	1.9	2.0
27	17	101	39	e38	e52	377	117	23	32	7.5	1.8	2.3
28	25	72	e30	e35	64	662	87	20	31	6.7	1.6	2.5
29	21	71	e26	e34	---	534	72	19	28	6.0	1.6	2.2
30	17	71	e25	33	---	312	62	21	129	5.5	1.6	2.1
31	15	---	e27	32	---	220	---	19	---	5.3	1.7	---
TOTAL	228.0	4800	1387	5600	1642	6844	4171	7817	4771	1007.5	87.9	57.1
MEAN	7.35	160	44.7	181	58.6	221	139	252	159	32.5	2.84	1.90
MAX	25	944	138	1020	214	1280	534	2170	1860	127	4.7	3.0
MIN	3.0	38	20	28	24	56	49	19	11	5.3	1.6	1.3
CFSM	.21	4.49	1.26	5.07	1.65	6.20	3.91	7.08	4.47	.91	.08	.05
IN.	.24	5.02	1.45	5.85	1.72	7.15	4.36	8.17	4.99	1.05	.09	.06

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 1998, BY WATER YEAR (WY)**

	1997	1998	1997	1998	1997	1998	1997	1998	1997	1998	1997	1998
MEAN	7.35	160	44.7	112	68.1	145	183	169	85.5	17.6	2.91	6.31
MAX	7.35	160	44.7	181	77.6	221	227	252	159	32.5	2.98	10.7
(WY)	1998	1998	1998	1998	1997	1998	1997	1998	1998	1998	1997	1997
MIN	7.35	160	44.7	44.2	58.6	68.5	139	85.2	12.0	2.79	2.84	1.90
(WY)	1998	1998	1998	1997	1998	1997	1998	1997	1997	1997	1998	1998

e Estimated

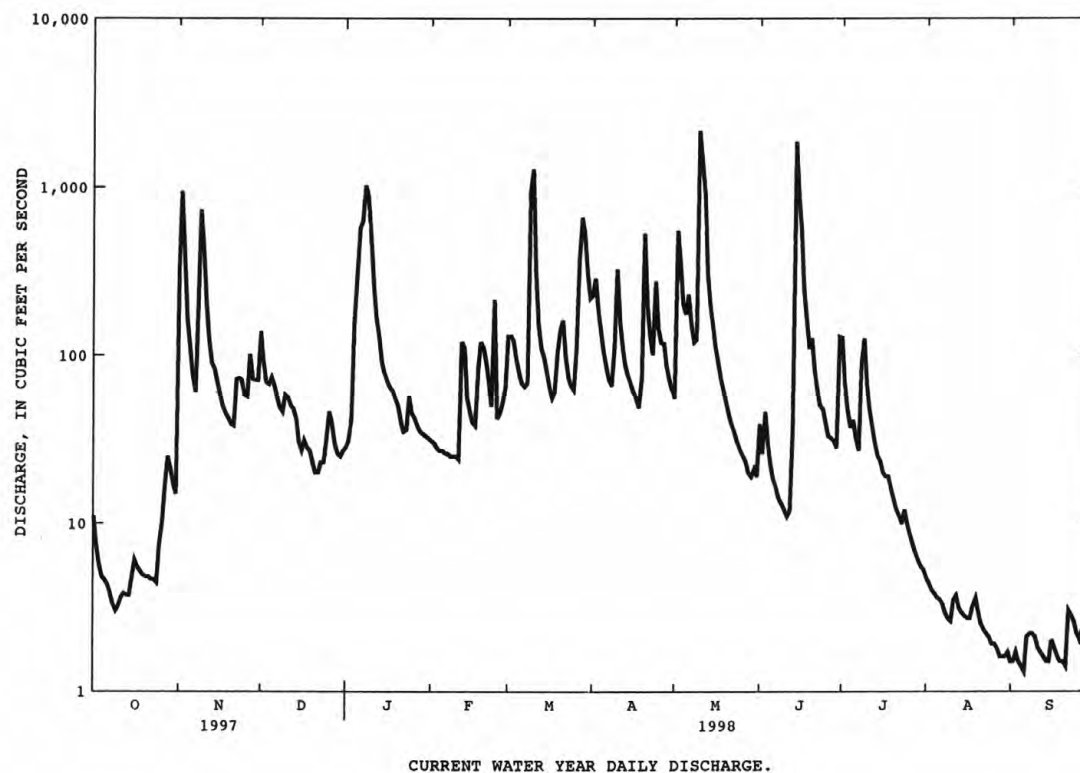


HUDSON RIVER BASIN

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01349700 EAST KILL NEAR JEWETT CENTER, NY--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR	FOR 1998 WATER YEAR	WATER YEARS 1997 <sup>+</sup> - 1998
ANNUAL TOTAL	22406.05	38412.5	
ANNUAL MEAN	61.4	105	105
HIGHEST ANNUAL MEAN			105 1998
LOWEST ANNUAL MEAN			105 1998
HIGHEST DAILY MEAN	966 Apr 6	2170 May 10	2170 May 10 1998
LOWEST DAILY MEAN	.91 Aug 11	1.3 Sep 6	.91 Aug 11 1997
ANNUAL SEVEN-DAY MINIMUM	1.0 Aug 6	1.5 Aug 31	1.0 Aug 6 1997
ANNUAL RUNOFF (CFSM)	1.72	2.96	2.96
ANNUAL RUNOFF (INCHES)	23.41	40.14	40.17
10 PERCENT EXCEEDS	138	216	166
50 PERCENT EXCEEDS	27	40	33
90 PERCENT EXCEEDS	2.2	2.4	2.1





## HUDSON RIVER BASIN

## 01349711 WEST KILL BELOW HUNTER BROOK NEAR SPRUCETON, NY

**LOCATION.**--Lat 42°11'06", long 74°16'38", Greene County, Hydrologic Unit 02020005, on left bank 6 ft upstream from bridge on Spruceton Road, and 6.4 mi east of West Kill. Water-quality sampling site at discharge station.

**DRAINAGE AREA.**--4.97 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

**PERIOD OF RECORD.**--October 1997 to September 1998.

**GAGE.**--Water-stage recorder and crest-stage gage. Elevation of gage is 2,070 ft above sea level, from topographic map.

**REMARKS.**--Records good except those below 5.0 ft<sup>3</sup>/s, which are fair, and those for estimated daily discharges, which are poor. Satellite gage-height telemeter at station.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 597 ft<sup>3</sup>/s, June 14, 1998, gage height, 3.13 ft; minimum, 0.45 ft<sup>3</sup>/s, Sept. 19, 20-21, 22, 30, 1998, gage height, 0.65 ft.

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 100 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 2	1700	132	2.12	Mar. 28	1815	110	2.11
Jan. 8	2015	287	2.59	May 10	1645	415	2.85
Mar. 10	0045	210	2.38	June 14	1315	*597	*3.13

Minimum discharge, 0.45 ft<sup>3</sup>/s, Sept. 19, 20-21, 22, 30, gage height, 0.65 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e9.0	31	11	3.9	e4.2	9.4	63	13	7.2	16	1.9	.58
2	e5.0	85	11	4.0	e4.1	9.2	56	28	5.1	15	1.8	.90
3	e3.5	57	11	5.3	4.3	9.5	39	37	6.4	14	1.7	.88
4	e2.7	31	11	8.8	4.0	9.3	30	37	5.0	13	1.6	.65
5	e2.5	22	11	19	4.0	8.9	26	44	4.6	14	1.6	.58
6	e2.3	18	10	56	e3.3	8.4	21	51	4.2	11	1.5	.54
7	e2.2	16	9.5	88	e3.1	8.1	18	42	4.1	10	1.4	.69
8	e2.1	18	9.1	203	e2.9	8.2	16	34	3.9	18	1.2	.66
9	e2.0	42	8.6	152	e2.7	56	18	30	3.5	26	1.2	.61
10	2.0	45	8.4	73	e2.7	129	21	224	3.2	24	1.3	.58
11	1.9	31	7.9	44	3.1	53	19	180	3.0	21	2.1	.54
12	1.9	23	7.4	30	8.6	34	18	114	5.4	18	1.3	.51
13	1.9	18	7.0	e22	6.3	27	17	66	15	15	1.2	.49
14	2.0	16	6.4	e19	e5.0	22	16	46	241	13	1.1	.48
15	2.2	14	6.1	e16	e4.8	18	16	35	132	12	1.0	.49
16	2.2	13	5.9	15	e5.2	15	16	28	94	10	1.1	.73
17	2.0	11	5.7	13	6.4	12	16	23	63	9.2	1.1	.57
18	2.2	10	5.3	11	9.4	11	15	19	52	7.8	1.3	.50
19	2.6	9.5	5.1	11	9.1	12	17	16	38	6.6	1.5	.48
20	2.7	9.0	4.8	9.8	8.7	13	44	14	33	5.9	1.0	.45
21	2.6	8.4	4.1	8.9	8.2	14	36	12	28	5.1	.91	.45
22	2.6	9.9	e3.8	e7.2	7.8	14	30	11	23	4.5	.86	1.3
23	2.5	8.7	e3.8	e7.0	7.5	13	26	9.7	20	4.2	.83	.75
24	2.5	8.1	4.1	8.9	7.6	12	26	8.6	18	4.2	.79	.57
25	3.9	7.5	6.1	7.4	7.4	11	22	7.9	15	3.5	.75	.52
26	3.4	8.0	5.4	6.7	6.8	12	21	7.1	13	3.1	.80	.51
27	7.6	9.0	4.8	6.2	6.4	23	18	6.0	12	2.8	.70	.53
28	8.2	8.4	4.3	6.0	7.4	77	16	5.4	10	2.6	.65	.61
29	8.3	8.3	e3.9	5.7	---	91	15	5.4	9.6	2.4	.64	.49
30	7.8	9.2	e3.8	5.6	---	69	14	5.3	18	2.2	.62	.47
31	7.4	---	e3.7	5.1	---	63	---	5.9	---	2.1	.63	---
TOTAL	111.7	605.0	210.0	878.5	161.0	872.0	726	1165.3	890.2	316.2	36.08	18.11
MEAN	3.60	20.2	6.77	28.3	5.75	28.1	24.2	37.6	29.7	10.2	1.16	.60
MAX	9.0	85	11	203	9.4	129	63	224	241	26	2.1	1.3
MIN	1.9	7.5	3.7	3.9	2.7	8.1	14	5.3	3.0	2.1	.62	.45
CFSM	.72	4.06	1.36	5.70	1.16	5.66	4.87	7.56	5.97	2.05	.23	.12
IN.	.84	4.53	1.57	6.58	1.21	6.53	5.43	8.72	6.66	2.37	.27	.14

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

MEAN	3.60	20.2	6.77	28.3	5.75	28.1	24.2	37.6	29.7	10.2	1.16	.60
MAX	3.60	20.2	6.77	28.3	5.75	28.1	24.2	37.6	29.7	10.2	1.16	.60
(WY)	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998
MIN	3.60	20.2	6.77	28.3	5.75	28.1	24.2	37.6	29.7	10.2	1.16	.60
(WY)	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998

e Estimated



# HUDSON RIVER BASIN

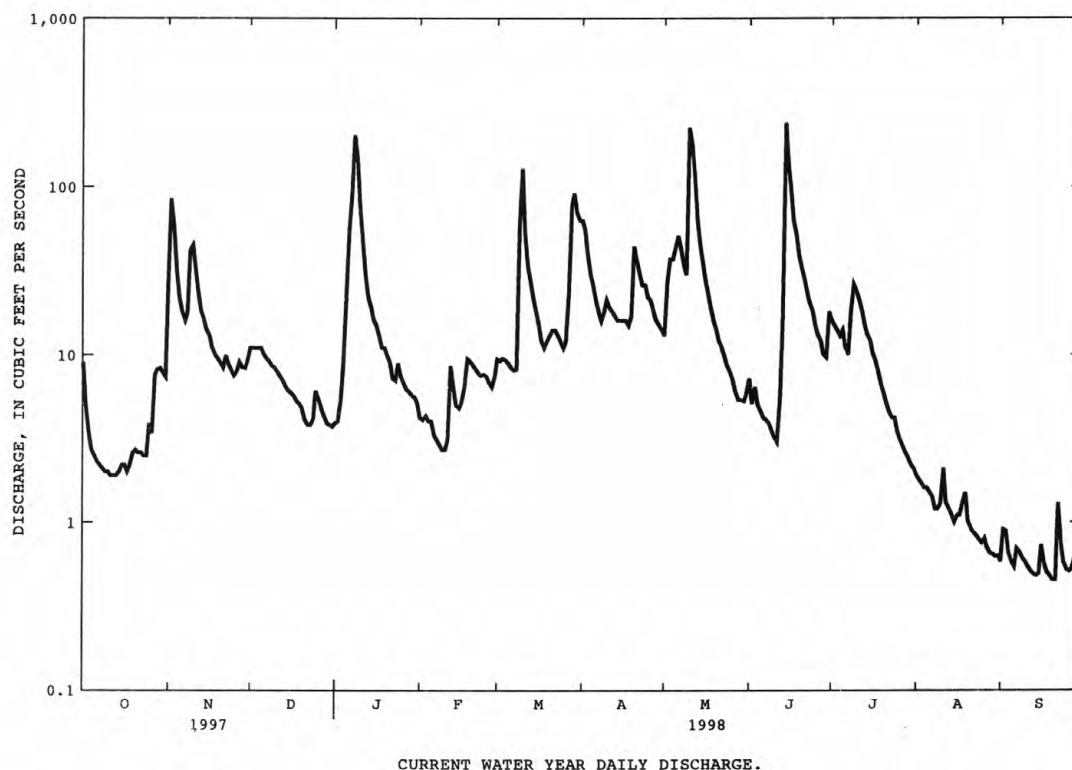
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01349711 WEST KILL BELOW HUNTER BROOK NEAR SPRUCETON, NY--Continued

## SUMMARY STATISTICS

FOR 1998 WATER YEAR

ANNUAL TOTAL	5990.09	
ANNUAL MEAN	16.4	
HIGHEST DAILY MEAN	241	Jun 14
LOWEST DAILY MEAN	.45	Sep 20
ANNUAL SEVEN-DAY MINIMUM	.52	Sep 15
ANNUAL RUNOFF (CFSM)	3.30	
ANNUAL RUNOFF (INCHES)	44.84	
10 PERCENT EXCEEDS	37	
50 PERCENT EXCEEDS	8.2	
90 PERCENT EXCEEDS	.85	





## HUDSON RIVER BASIN

01349711 WEST KILL BELOW HUNTER BROOK NEAR SPRUCETON, NY--Continued

## WATER-QUALITY RECORDS

**PERIOD OF RECORD.**--January to June 1998.

NUTRIENT DATA: 1998 (b).

**REMARKS.**--Provisional chemical minor element and nutrient data for additional samples are available in files of the Geological Survey.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)
JAN		
08...	2145	<.001
JUN		
12...	1100	.007
14...	1215	.015



## HUDSON RIVER BASIN

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## 01349810 WEST KILL NEAR WEST KILL, NY

**LOCATION.**--Lat 42°13'49", long 74°23'36", Greene County, Hydrologic Unit 02020005, on right bank about 400 ft upstream from Beech Ridge Brook, 0.3 mi upstream from State Highway 42 bridge, and 1.4 mi north of West Kill.

**DRAINAGE AREA.**--27.0 mi<sup>2</sup>.

**PERIOD OF RECORD.**--Occasional miscellaneous discharge measurements, water years 1953, 1956, 1987, and 1996. October 1997 to September 1998.

**GAGE.**--Water-stage recorder and crest-stage gage. Elevation of gage is 1,440 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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 2,210 ft<sup>3</sup>/s, June 14, 1998, gage height, 5.50 ft; minimum, 1.8 ft<sup>3</sup>/s, Sept. 13, 14, 15, 20, 21, 22, 1998; minimum gage height, 1.17 ft, Oct. 23, 24, 25, 1997.

**EXTREMES OUTSIDE PERIOD OF RECORD.**--Maximum discharge, 6,500 ft<sup>3</sup>/s, Jan. 19, 1996, on basis of contracted-opening measurement of peak flow.

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 500 ft<sup>3</sup>/s and maximum(\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 8	2230	961	4.10	May 10	1715	1,310	4.57
Mar. 9	2330	1,350	4.62	June 14	1515	*2,210	*5.50
Mar. 28	1815	527	3.35				

Minimum discharge, 1.8 ft<sup>3</sup>/s, Sept. 13, 14, 15, 20, 21, 22; minimum gage height, 1.17 ft, Oct. 23, 24, 25.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.1	45	77	e28	e28	81	252	54	45	93	6.1	2.1
2	6.9	200	63	e30	e27	81	251	150	26	78	5.7	2.3
3	6.9	171	58	32	27	79	184	169	37	69	5.3	3.1
4	6.7	108	58	68	25	74	144	165	26	63	4.9	2.5
5	7.1	80	57	150	25	69	119	191	22	70	4.8	2.2
6	7.0	64	52	323	e24	65	97	198	21	57	4.7	2.0
7	6.5	55	48	389	e23	63	81	160	19	51	4.5	2.5
8	6.5	164	45	668	e22	65	75	131	18	118	4.2	2.7
9	6.5	232	42	622	e21	376	95	125	17	149	4.1	2.5
10	6.3	198	40	391	e20	790	143	740	15	121	4.0	2.4
11	6.3	136	38	253	e20	305	101	719	15	101	5.3	2.1
12	6.1	100	36	173	59	e170	90	467	18	85	4.6	2.0
13	6.1	77	34	139	e50	e130	84	306	47	72	4.0	2.0
14	6.0	70	32	109	e47	117	80	222	928	61	3.7	1.9
15	6.5	58	e30	92	e43	94	72	167	582	51	3.6	1.9
16	6.6	51	e29	e84	e41	79	66	137	365	43	3.5	3.5
17	6.2	46	29	78	e39	e72	61	109	278	37	3.5	2.7
18	6.0	42	27	69	76	66	56	93	253	30	4.1	2.2
19	5.8	39	26	62	74	85	75	78	184	25	4.7	2.0
20	5.8	37	25	57	71	97	237	70	149	22	3.8	1.9
21	5.8	36	e22	50	66	98	165	56	122	18	3.2	1.8
22	5.6	50	e22	e43	61	e82	133	49	103	15	3.1	3.6
23	5.5	47	24	e39	59	e74	109	42	91	14	2.9	3.7
24	5.5	45	23	50	62	e68	123	37	81	15	2.8	2.7
25	8.2	41	28	43	58	e64	94	33	71	12	2.7	2.4
26	9.7	43	33	e37	54	86	88	30	62	11	2.7	2.2
27	16	64	30	e35	e50	174	81	25	56	9.5	2.6	2.3
28	21	51	27	e33	56	420	70	23	49	8.6	2.4	2.7
29	21	51	e26	e32	---	418	63	22	45	8.1	2.3	2.3
30	19	55	e25	e30	---	295	58	23	102	7.4	2.2	2.1
31	18	---	e26	e29	---	245	---	23	---	6.8	2.3	---
TOTAL	262.2	2396	1132	4238	1228	4982	3347	4814	3847	1521.4	118.3	72.3
MEAN	8.46	79.9	36.5	137	43.9	161	112	155	128	49.1	3.82	2.41
MAX	21	232	77	668	76	790	252	740	928	149	6.1	3.7
MIN	5.1	36	22	28	20	63	56	22	15	6.8	2.2	1.8
CFSM	.31	2.96	1.35	5.06	1.62	5.95	4.13	5.75	4.75	1.82	.14	.09
IN.	.36	3.30	1.56	5.84	1.69	6.86	4.61	6.63	5.30	2.10	.16	.10

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

MEAN	8.46	79.9	36.5	137	43.9	161	112	155	128	49.1	3.82	2.41
MAX	8.46	79.9	36.5	137	43.9	161	112	155	128	49.1	3.82	2.41
(WY)	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998
MIN	8.46	79.9	36.5	137	43.9	161	112	155	128	49.1	3.82	2.41
(WY)	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998

e Estimated



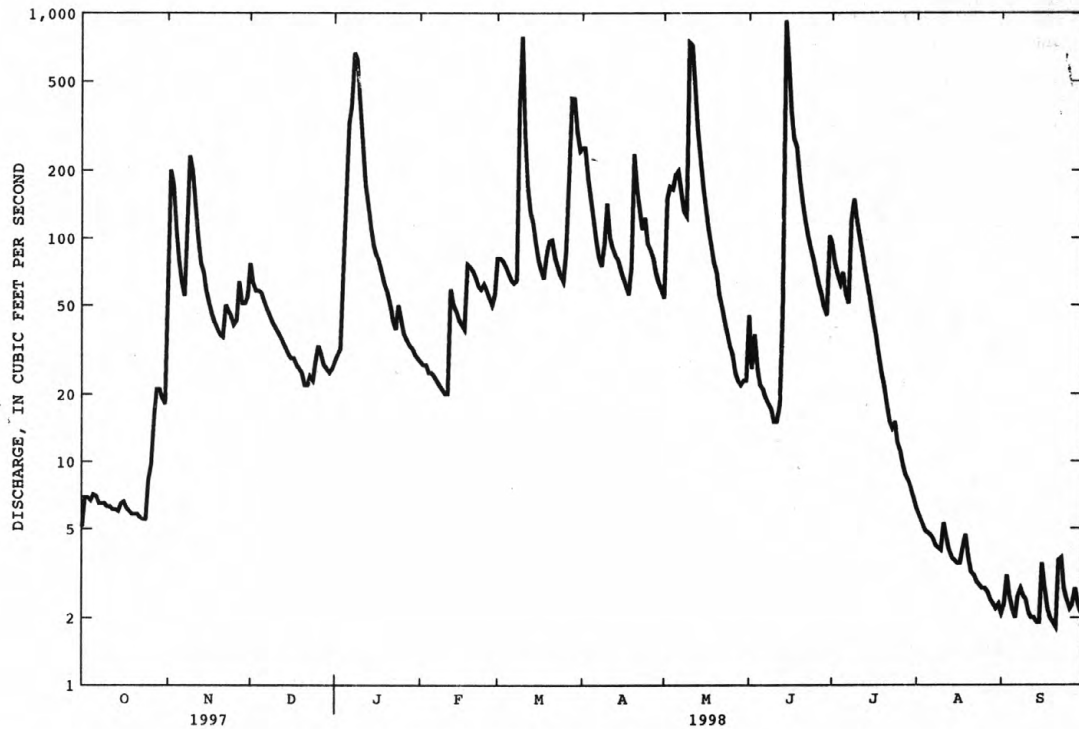
## HUDSON RIVER BASIN

01349810 WEST KILL NEAR WEST KILL, NY--Continued

## SUMMARY STATISTICS

FOR 1998 WATER YEAR

ANNUAL TOTAL	27958.2	
ANNUAL MEAN	76.6	
HIGHEST DAILY MEAN	928	Jun 14
LOWEST DAILY MEAN	1.8	Sep 21
ANNUAL SEVEN-DAY MINIMUM	2.1	Sep 9
ANNUAL RUNOFF (CFSM)	2.84	
ANNUAL RUNOFF (INCHES)	38.52	
10 PERCENT EXCEEDS	170	
50 PERCENT EXCEEDS	43	
90 PERCENT EXCEEDS	3.1	



CURRENT WATER YEAR DAILY DISCHARGE.



## 01349840 BATAVIA KILL NEAR MAPLECREST, NY

**LOCATION.**--Lat 42°17'22", long 74°06'59", Greene County, Hydrologic Unit 02020005, on left bank off County Route 56, 4.1 mi northeast of Maplecrest.

**DRAINAGE AREA.**--2.03 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

**PERIOD OF RECORD.**--October 1997 to September 1998.

**GAGE.**--Water-stage recorder and crest-stage gage. Elevation of gage is 2,160 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, 320 ft<sup>3</sup>/s, June 14, 1998, gage height, 4.89 ft, from rating curve extended above 70 ft<sup>3</sup>/s on basis of step-backwater analysis of peak flow; minimum recorded discharge, 0.24 ft<sup>3</sup>/s, Sept. 6, 1998, gage height, 1.36 ft, but may have been less during periods of estimated record, Aug. 22-31, Sept. 10-30, 1998.

**EXTREMES OUTSIDE PERIOD OF RECORD.**--Maximum discharge, about 600 ft<sup>3</sup>/s, Jan. 19, 1996, gage height, about 6.0 ft, from floodmark, from rating curve extended as explained above.

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 70 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 1	2015	a305	4.82	May 10	1445	a202	4.26
Jan. 8	1545	79	3.31	June 14	1245	a*320	*4.89
May 2	1230	77	3.29				

a From rating curve extended as explained above.

Minimum recorded discharge, 0.24 ft<sup>3</sup>/s, Sept. 6, gage height, 1.36 ft, but may have been less during periods of estimated record, Aug. 22-31, Sept. 10-30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e1.0	59	5.9	e1.2	1.7	3.7	27	4.9	2.4	5.1	.69	.30
2	e.90	55	5.1	1.3	1.7	3.5	24	41	1.9	4.4	.66	.37
3	.80	26	4.9	1.7	1.6	3.5	18	29	2.1	4.0	e.60	.36
4	.78	18	5.0	3.6	1.5	3.4	14	20	1.7	3.8	.59	.31
5	.79	14	4.8	8.6	1.4	3.3	12	17	1.5	3.8	.58	.29
6	.76	11	4.4	22	1.3	3.2	9.9	16	1.4	3.2	.57	.28
7	.75	9.6	4.1	37	1.3	3.1	8.3	14	1.3	3.1	e.54	.46
8	.74	19	3.8	64	1.2	3.1	7.9	12	1.2	4.4	e.50	.36
9	.77	47	3.5	49	1.2	15	8.3	15	1.2	e6.0	e.48	.35
10	.79	32	3.3	32	1.1	32	8.6	123	1.1	e5.0	e.60	e.33
11	.79	21	3.1	22	1.1	e19	7.6	91	1.0	e4.0	.76	e.31
12	.79	16	2.9	16	2.7	e14	7.0	63	1.3	e3.5	.56	e.29
13	.79	13	2.7	13	2.1	e12	6.7	33	2.2	e2.9	.52	e.27
14	.81	11	2.5	9.8	e2.0	10	6.4	22	102	2.5	.49	e.26
15	.90	9.0	2.4	8.3	e1.9	8.4	6.0	17	54	2.3	e.47	e.30
16	.88	7.7	2.2	7.6	1.8	7.1	5.6	14	39	2.2	e.47	e.40
17	.84	6.5	2.1	6.4	1.7	6.2	5.1	11	25	2.0	.48	e.33
18	.82	5.6	2.0	5.6	e3.0	5.8	4.6	9.0	18	1.9	.52	e.29
19	.79	4.9	1.9	4.9	3.3	6.5	6.8	7.5	15	1.7	.58	e.27
20	.80	4.4	1.8	4.4	3.2	6.5	18	6.4	12	1.6	.45	e.26
21	.78	4.1	e1.6	3.8	2.9	6.6	13	5.4	9.5	1.5	.43	e.37
22	.75	4.6	e1.5	3.5	2.8	6.2	12	4.6	8.0	1.4	e.43	e.70
23	.74	4.0	1.6	3.4	2.7	5.6	10	4.0	7.3	1.3	e.42	e.40
24	.74	3.6	1.5	3.6	e2.6	5.2	10	3.5	7.0	1.2	e.41	e.32
25	1.1	3.3	1.9	2.9	e2.4	4.9	8.6	3.1	5.4	1.1	e.39	e.30
26	1.1	3.7	1.9	2.6	e2.3	6.3	8.2	2.8	4.7	1.0	e.38	e.29
27	2.3	4.4	1.6	2.4	e2.4	21	7.2	2.5	4.4	.94	e.36	e.30
28	2.4	3.8	1.5	2.2	2.8	54	6.4	2.2	3.8	.88	e.33	e.37
29	2.4	3.7	e1.4	2.1	---	49	5.8	2.1	3.5	.84	e.33	e.31
30	2.3	4.2	e1.3	2.0	---	37	5.3	2.0	6.4	.79	e.31	e.30
31	2.2	---	e1.2	1.9	---	30	---	2.1	---	.75	e.31	---
TOTAL	33.10	429.1	85.4	348.8	57.7	395.1	298.3	600.1	345.3	79.10	15.21	10.05
MEAN	1.07	14.3	2.75	11.3	2.06	12.7	9.94	19.4	11.5	2.55	.49	.34
MAX	2.4	59	5.9	64	3.3	54	27	123	102	6.0	.76	.70
MIN	.74	3.3	1.2	1.2	1.1	3.1	4.6	2.0	1.0	.75	.31	.26
CFSM	.53	7.05	1.36	5.54	1.02	6.28	4.90	9.54	5.67	1.26	.24	.17
IN.	.61	7.86	1.56	6.39	1.06	7.24	5.47	11.00	6.33	1.45	.28	.18

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

	MEAN	1.07	14.3	2.75	11.3	2.06	12.7	9.94	19.4	11.5	2.55	.49	.34
MAX	1.07	14.3	2.75	11.3	2.06	12.7	9.94	19.4	11.5	2.55	.49	.34	
(WY)	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998
MIN	1.07	14.3	2.75	11.3	2.06	12.7	9.94	19.4	11.5	2.55	.49	.34	
(WY)	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998

e Estimated



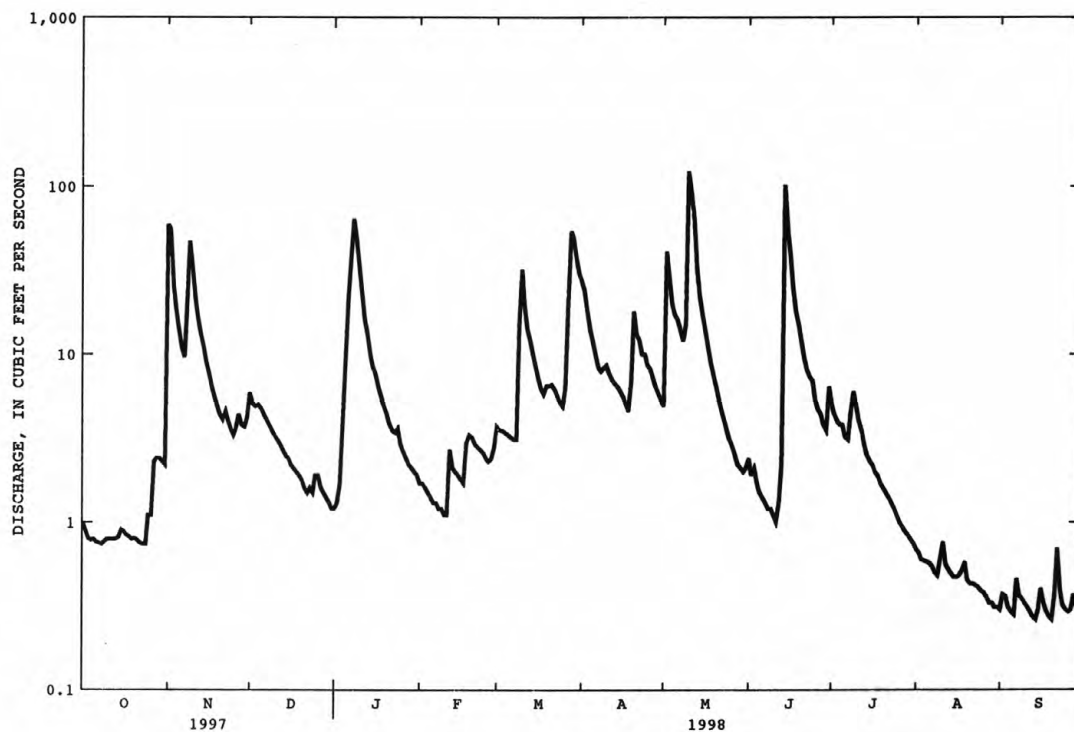
## HUDSON RIVER BASIN

01349840 BATAVIA KILL NEAR MAPLECREST, NY--Continued

## SUMMARY STATISTICS

FOR 1998 WATER YEAR

ANNUAL TOTAL	2697.26	
ANNUAL MEAN	7.39	
HIGHEST DAILY MEAN	123	May 10
LOWEST DAILY MEAN	.26	Sep 14
ANNUAL SEVEN-DAY MINIMUM	.30	Sep 9
ANNUAL RUNOFF (CFSM)	3.64	
ANNUAL RUNOFF (INCHES)	49.43	
10 PERCENT EXCEEDS	18	
50 PERCENT EXCEEDS	2.9	
90 PERCENT EXCEEDS	.42	



CURRENT WATER YEAR DAILY DISCHARGE.



## HUDSON RIVER BASIN

97

01349840 BATAVIA KILL NEAR MAPLECREST, NY--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--March to June 1998.

NUTRIENT DATA: 1998 (b).

REMARKS.--Provisional chemical minor element and nutrient data for additional samples are available in files of the Geological Survey.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)
MAR		
30...	0757	.003
JUN		
13...	1045	.007
14...	1130	.016



## 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 mi<sup>2</sup>.

**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, WDR NY-97-1: 1987 (M).

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

**REMARKS.**--Records fair except those for estimated daily discharges, which are poor. Flow regulated to some extent at high flows by three flood-retardation reservoirs, combined drainage area of 19.2 mi<sup>2</sup>. Seasonal diversion for snowmaking by Ski Windham ski area at Windham.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, about 14,300 ft<sup>3</sup>/s, Jan. 19, 1996, gage height, about 15.5 ft, from rating curve extended above 2,200 ft<sup>3</sup>/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 instantaneous discharge not determined; minimum gage height, 4.22 ft, Aug. 31, Sept. 1, 1993.

**EXTREMES OUTSIDE PERIOD OF RECORD.**--Maximum discharge, 11,500 ft<sup>3</sup>/s, Apr. 4, 1987, gage height, 14.82 ft, from floodmarks, from rating curve extended above 2,200 ft<sup>3</sup>/s on basis of contracted-opening and flow-over-road measurement of peak flow.

**EXTREMES FOR CURRENT YEAR.**--Maximum discharge, 2,870 ft<sup>3</sup>/s, May 10, gage height, 11.21 ft; minimum, 1.4 ft<sup>3</sup>/s, Aug. 28, 29, 30, Sept. 6, 7; minimum gage height, 4.48 ft, all or part of each day, Oct. 10, 12-25, Aug. 28-30, Sept. 6-7.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	59	188	e35	33	155	314	85	168	148	7.1	1.9
2	4.4	446	126	38	e31	160	377	585	51	90	6.6	2.0
3	4.4	260	98	48	e30	143	268	501	70	58	6.0	2.9
4	4.1	140	101	188	e29	121	204	272	41	50	5.3	2.3
5	4.1	113	113	333	e27	105	167	221	29	55	4.4	2.0
6	4.1	83	102	584	e25	94	143	229	23	47	3.5	1.6
7	4.5	72	81	710	e24	92	121	178	21	38	3.2	2.9
8	4.1	139	72	1020	e24	97	114	159	20	78	2.8	3.8
9	4.1	641	57	976	e23	667	183	182	15	149	2.6	3.8
10	3.8	439	54	634	e23	1240	391	1920	13	81	2.5	3.5
11	4.4	227	55	368	24	431	198	1450	11	59	3.3	3.1
12	3.8	161	52	249	78	259	153	1160	13	47	3.1	2.7
13	3.6	121	49	206	87	203	132	803	49	38	2.7	2.5
14	3.6	105	43	146	51	164	117	536	1230	32	2.5	2.2
15	3.6	89	38	115	e37	140	107	341	1160	28	2.6	1.9
16	3.8	76	e37	125	e34	121	98	179	826	25	2.5	2.7
17	3.6	68	e36	107	32	109	92	136	417	23	3.0	2.8
18	3.6	62	e35	93	60	105	82	113	289	21	4.2	2.4
19	3.6	56	e34	83	97	159	102	88	202	19	4.2	2.1
20	3.6	56	e32	74	99	188	614	72	288	17	3.7	2.1
21	3.6	53	e30	63	82	195	264	61	168	17	2.8	2.0
22	3.6	89	26	51	73	144	195	50	124	16	2.6	3.7
23	3.6	91	32	50	e68	120	159	43	114	15	2.6	3.9
24	3.6	88	32	e58	e62	110	224	35	196	14	2.5	3.2
25	4.7	73	40	e52	e60	113	160	30	123	13	2.2	3.2
26	5.6	79	59	e47	e60	160	145	28	89	12	2.1	2.8
27	6.6	147	52	43	e62	444	148	24	75	11	1.8	2.8
28	7.9	104	42	41	78	729	119	20	65	9.5	1.6	3.1
29	8.0	108	35	39	---	644	103	17	57	8.7	1.7	2.7
30	7.7	108	e33	39	---	425	93	22	121	8.1	1.7	2.6
31	7.3	---	e30	37	---	315	---	23	---	7.5	1.9	---
TOTAL	141.4	4353	1814	6652	1413	8152	5587	9563	6068	1234.8	99.3	81.2
MEAN	4.56	145	58.5	215	50.5	263	186	308	202	39.8	3.20	2.71
MAX	8.0	641	188	1020	99	1240	614	1920	1230	149	7.1	3.9
MIN	3.6	53	26	35	23	92	82	17	11	7.5	1.6	1.6

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1998, BY WATER YEAR (WY)**

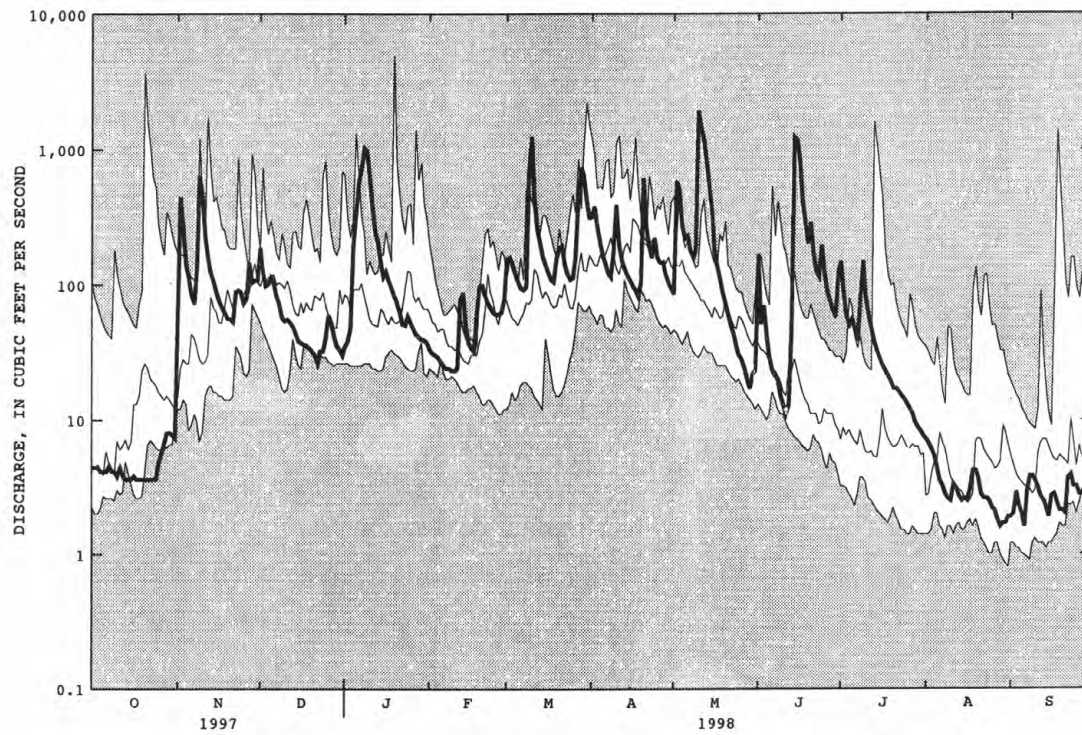
	MEAN	75.8	118	105	160	54.1	156	236	119	60.1	35.2	9.64	22.8
MAX	306	243	216	355	90.0	263	483	308	202	170	34.2	121	
(WY)	1997	1996	1997	1996	1996	1998	1993	1998	1998	1996	1994	1996	
MIN	4.43	31.8	56.1	59.5	23.3	86.7	64.5	29.4	8.34	2.44	1.80	2.19	
(WY)	1994	1995	1996	1997	1993	1997	1995	1995	1993	1993	1993	1995	

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR				FOR 1998 WATER YEAR				WATER YEARS 1991 - 1998			
ANNUAL TOTAL	23864.1				45158.7							
ANNUAL MEAN	65.4				124				96.5			
HIGHEST ANNUAL MEAN									147			1996
LOWEST ANNUAL MEAN									53.3			1995
HIGHEST DAILY MEAN	847				1920				5000			Jan 19 1996
LOWEST DAILY MEAN	2.2				1.6				.80			Aug 31 1995
ANNUAL SEVEN-DAY MINIMUM	2.5				1.8				.99			Aug 25 1995
10 PERCENT EXCEEDS	148				278				204			
50 PERCENT EXCEEDS	35				53				37			
90 PERCENT EXCEEDS	3.4				2.8				3.0			

e Estimated



01349900 BATAVIA KILL NEAR ASHLAND, NY--Continued



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



## HUDSON RIVER BASIN

## 01349950 BATAVIA KILL AT RED FALLS NEAR PRATTSVILLE, NY

**LOCATION.**--Lat 42°18'30", long 74°23'25", Greene County, Hydrologic Unit 02020005, on right bank 200 ft southwest of State Highway 23 at Red Falls, 1.9 mi upstream from mouth, and 2.2 mi southeast of Prattsville.

**DRAINAGE AREA.**--68.6 mi<sup>2</sup>.

**PERIOD OF RECORD.**--October 1997 to September 1998.

**GAGE.**--Water-stage recorder and crest-stage gage. Elevation of gage is 1,260 ft above sea level, from topographic map.

**REMARKS.**--Records good except those for estimated daily discharges, which are poor. Flow regulated to some extent at high flows by three flood-retardation reservoirs, combined drainage area of 19.2 mi<sup>2</sup>. Seasonal diversion for snow-making by Ski Windam ski area at Windham. Telephone gage-height telemeter at station.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 3,350 ft<sup>3</sup>/s, June 14, 1998, recorded gage height, 5.19 ft, outside gage height, 5.84 ft, from crest-stage gage, from rating curve extended above 900 ft<sup>3</sup>/s; minimum discharge, 3.5 ft<sup>3</sup>/s, Sept. 22, 1998, gage height, 1.55 ft.

**EXTREMES OUTSIDE PERIOD OF RECORD.**--Flood of January 19, 1996, reached a stage of about 11.4 ft, from floodmark, discharge, 16,400 ft<sup>3</sup>/s, on basis of step-backwater analysis of peak flow.

**EXTREMES FOR CURRENT YEAR.**--Maximum discharge, 3,350 ft<sup>3</sup>/s, June 14, recorded gage height, 5.19 ft, outside gage height, 5.84 ft, from crest-stage gage, from rating curve extended above 900 ft<sup>3</sup>/s; minimum discharge, 3.5 ft<sup>3</sup>/s, Sept. 22, 1998, gage height, 1.55 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.6	15	243	e60	63	213	458	131	224	180	10	4.0
2	6.4	472	177	e70	e58	228	553	704	89	117	9.3	4.1
3	6.3	322	140	84	e56	209	396	656	111	81	8.7	4.8
4	6.3	165	141	225	e54	183	308	365	76	72	8.1	4.7
5	6.5	137	157	384	e56	162	257	302	59	79	7.7	4.3
6	6.3	105	146	716	e49	148	222	306	50	65	7.4	3.9
7	5.4	91	121	927	e47	144	191	247	44	57	7.1	5.1
8	5.5	131	109	1280	e45	150	180	223	45	122	6.7	5.8
9	5.5	704	92	1330	e44	810	258	232	38	184	6.1	5.7
10	5.3	561	87	904	e43	1680	550	2090	33	107	6.1	5.7
11	4.9	286	87	510	48	635	292	1900	29	81	7.3	5.1
12	5.2	202	82	347	105	352	230	1530	32	68	7.0	4.8
13	5.2	156	79	268	131	285	201	1060	78	58	6.4	4.5
14	5.5	137	e70	218	e74	247	181	698	1680	51	5.8	4.3
15	5.4	120	e68	177	e62	211	165	460	1630	45	5.8	4.2
16	5.4	103	e68	186	e60	182	152	258	1140	42	5.8	5.0
17	5.4	92	e66	161	66	163	144	202	591	38	6.4	4.3
18	5.3	86	e64	143	105	160	129	170	399	34	7.8	4.3
19	5.3	79	e62	130	145	226	157	139	278	30	7.6	4.1
20	5.1	79	e60	119	149	259	866	119	341	28	6.7	3.8
21	5.1	75	e56	105	128	274	385	103	215	27	6.3	3.9
22	5.0	118	e56	91	114	207	288	88	162	24	5.7	4.4
23	4.9	124	62	90	112	176	239	79	147	22	5.4	5.1
24	5.0	122	56	e100	e105	162	310	69	232	20	5.5	4.8
25	6.6	103	65	e90	e105	164	235	61	150	18	5.2	4.7
26	8.1	109	91	e80	e100	209	214	58	115	17	4.9	4.7
27	10	194	84	e78	e100	546	220	51	99	16	4.6	4.7
28	13	146	72	76	120	936	179	45	86	14	4.2	4.7
29	11	149	62	74	---	856	157	41	78	14	4.0	4.5
30	11	147	e56	72	---	558	143	47	170	13	4.1	4.5
31	11	---	e50	69	---	422	---	46	---	12	4.2	---
TOTAL	203.5	5330	2829	9184	2344	11157	8260	12480	8421	1736	197.9	138.5
MEAN	6.56	178	91.3	296	83.7	360	275	403	281	56.0	6.38	4.62
MAX	13	704	243	1330	149	1680	866	2090	1680	184	10	5.8
MIN	4.9	15	50	60	43	144	129	41	29	12	4.0	3.8

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

	1997	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998
MEAN	6.56	178	91.3	296	83.7	360	275	403	281	56.0	6.38	4.62
MAX	6.56	178	91.3	296	83.7	360	275	403	281	56.0	6.38	4.62
(WY)	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998
MIN	6.56	178	91.3	296	83.7	360	275	403	281	56.0	6.38	4.62
(WY)	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998

## SUMMARY STATISTICS

## FOR 1998 WATER YEAR

ANNUAL TOTAL	62280.9
ANNUAL MEAN	171
HIGHEST DAILY MEAN	2090
LOWEST DAILY MEAN	3.8
ANNUAL SEVEN-DAY MINIMUM	4.2
10 PERCENT EXCEEDS	384
50 PERCENT EXCEEDS	82
90 PERCENT EXCEEDS	5.1

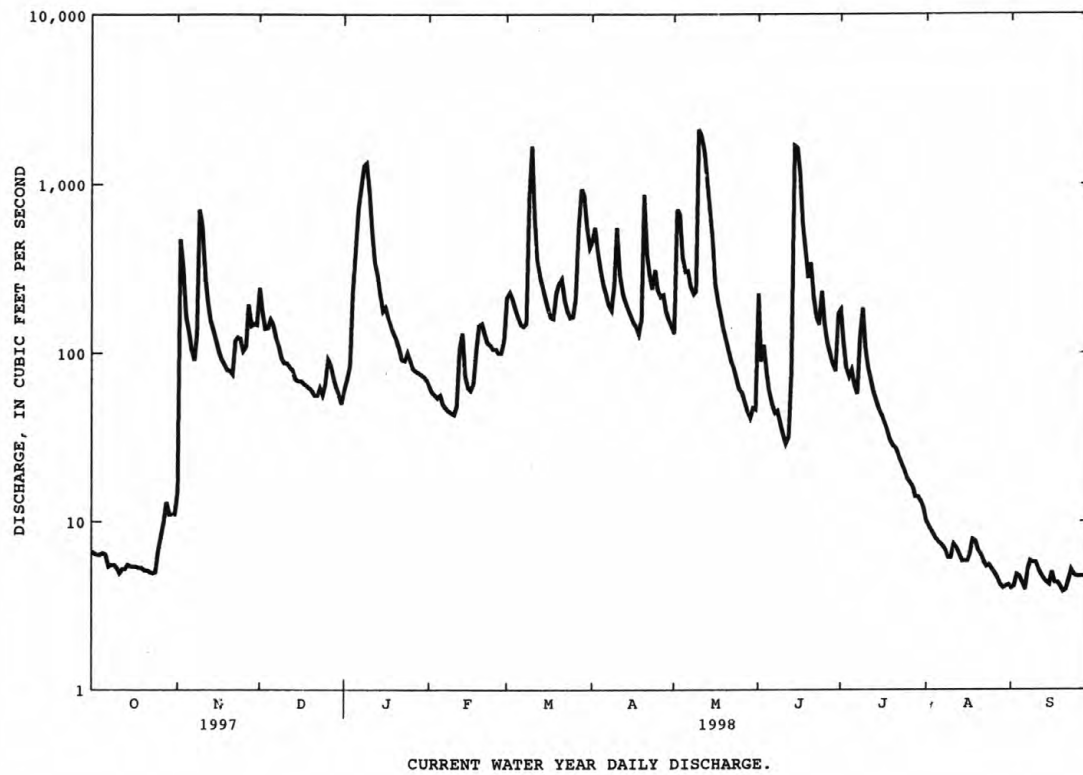
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HUDSON RIVER BASIN

101

01349950 BATAVIA KILL AT RED FALLS NEAR PRATTSVILLE, NY--Continued





## HUDSON RIVER BASIN

## 01350000 SCHOHARIE CREEK AT PRATTSVILLE, NY

**LOCATION.**--Lat 42°19'10", long 74°26'13", Greene County, Hydrologic Unit 02020005, on left bank 100 ft upstream from bridge on State Highway 23 in Prattsville, 0.2 mi upstream from Schoharie Reservoir, 0.2 mi downstream from Huntersfield Creek, and 1.6 mi downstream from Batavia Kill.

**DRAINAGE AREA.**--237 mi<sup>2</sup>.

**PERIOD OF RECORD.**--November 1902 to current year.

**REVISED RECORDS.**--WSP 1432: 1937-38. WDR NY-87-1: 1956(M), 1972(M), 1974-76(M), 1978(P), 1979(M), 1980(P), 1981(M), 1984(M). WDR NY-90-1: Drainage area.

**GAGE.**--Water-stage recorder. Datum of gage is 1,131.57 ft above sea level. Prior to Oct. 1, 1915, nonrecording gage, and Oct. 1, 1915 to July 17, 1936, water-stage recorder, at old highway bridge 80 ft upstream, and July 18, 1936 to July 15, 1954, water-stage recorder at site 0.2 mi downstream, all at datum 1.56 ft lower than present datum.

**REMARKS.**--Records good except those for estimated daily discharges, which are poor. Seasonal diversion for snowmaking by Hunter Mountain ski area near Tannersville and Ski Windham ski area at Windham. Telephone gage-height telemeter at station.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 52,800 ft<sup>3</sup>/s, Jan. 19, 1996, gage height, 19.39 ft, from rating curve extended above 17,800 ft<sup>3</sup>/s on basis of contracted-opening measurements of peak flow at gage heights 18.37 ft and 19.14 ft; maximum gage height, 19.57 ft, Mar. 5, 1979 (ice jam); minimum discharge not determined.

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

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 2	0015	7,280	8.31	May 10	1845	11,000	9.82
Jan. 9	0200	6,820	8.10	June 14	1545	*16,100	*11.52
Mar. 10	0300	9,770	9.36				

Minimum discharge, 15 ft<sup>3</sup>/s, Sept. 6, gage height, 1.64 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	535	866	e230	e200	772	1730	456	476	759	44	19
2	47	3600	633	e260	e190	827	2190	2100	227	456	41	19
3	42	1750	505	e290	192	757	1510	1970	352	327	40	22
4	41	869	505	e700	175	640	1160	1340	220	278	37	22
5	40	650	534	e1500	170	563	942	1290	171	309	37	19
6	38	472	479	2870	e150	502	785	1570	145	248	36	16
7	35	383	404	3390	e150	482	660	1160	130	211	36	22
8	33	645	364	5090	e150	498	616	960	127	668	34	25
9	32	3070	309	5210	e140	3360	850	943	121	951	32	24
10	31	2210	e300	3210	e140	6390	1810	6980	106	565	31	23
11	29	1150	e280	1790	e150	2400	1050	5980	99	418	45	21
12	28	788	282	1210	573	e1300	816	4540	107	336	54	19
13	28	589	271	997	625	e1100	703	2550	417	277	39	18
14	28	525	247	760	372	918	629	1740	8000	235	33	17
15	31	462	e220	e600	e280	759	576	1260	5000	206	31	16
16	31	383	e210	e500	e300	e560	526	894	3600	185	30	23
17	31	328	e200	e480	e330	e520	499	708	2110	173	30	25
18	30	306	e200	464	e400	547	448	583	1580	157	34	20
19	29	279	e200	414	e620	772	591	479	1100	133	40	18
20	28	272	197	373	632	892	2780	404	1050	119	36	17
21	29	265	173	e300	524	1010	1420	342	723	110	31	16
22	28	470	e170	e270	439	763	1060	294	552	99	29	20
23	27	479	221	e270	417	644	874	258	505	89	27	32
24	27	460	206	e260	e370	585	1260	222	557	93	26	25
25	35	373	218	e250	e360	567	915	196	399	81	24	21
26	44	411	342	e240	e360	698	797	187	322	71	23	20
27	61	804	287	e230	e370	1780	806	164	300	64	23	19
28	133	541	236	e230	e400	3290	641	145	255	59	21	21
29	101	540	e180	e220	---	3060	554	133	229	55	20	20
30	87	532	e190	224	---	2090	497	150	735	52	20	18
31	77	---	e210	210	---	1630	---	152	---	50	21	---
TOTAL	1340	24141	9639	33042	9179	40676	29695	40150	29715	7834	1005	617
MEAN	43.2	805	311	1066	328	1312	990	1295	991	253	32.4	20.6
MAX	133	3600	866	5210	632	6390	2780	6980	8000	951	54	32
MIN	27	265	170	210	140	482	448	133	99	50	20	16
CFSM	.18	3.40	1.31	4.50	1.38	5.54	4.18	5.46	4.18	1.07	.14	.09
IN.	.21	3.79	1.51	5.19	1.44	6.38	4.66	6.30	4.66	1.23	.16	.10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903 - 1998, BY WATER YEAR (WY)

	MEAN	302	492	528	478	450	869	1106	595	292	159	121	171
	MAX	2496	1527	1723	2210	1711	2805	3023	1738	1230	981	1190	1153
	(WY)	1956	1928	1974	1978	1981	1936	1958	1989	1972	1935	1955	1960
	MIN	8.50	17.7	72.5	49.2	39.0	247	264	84.2	37.9	11.1	10.6	6.15
	(WY)	1965	1965	1923	1931	1931	1937	1946	1905	1964	1965	1964	1964

e Estimated

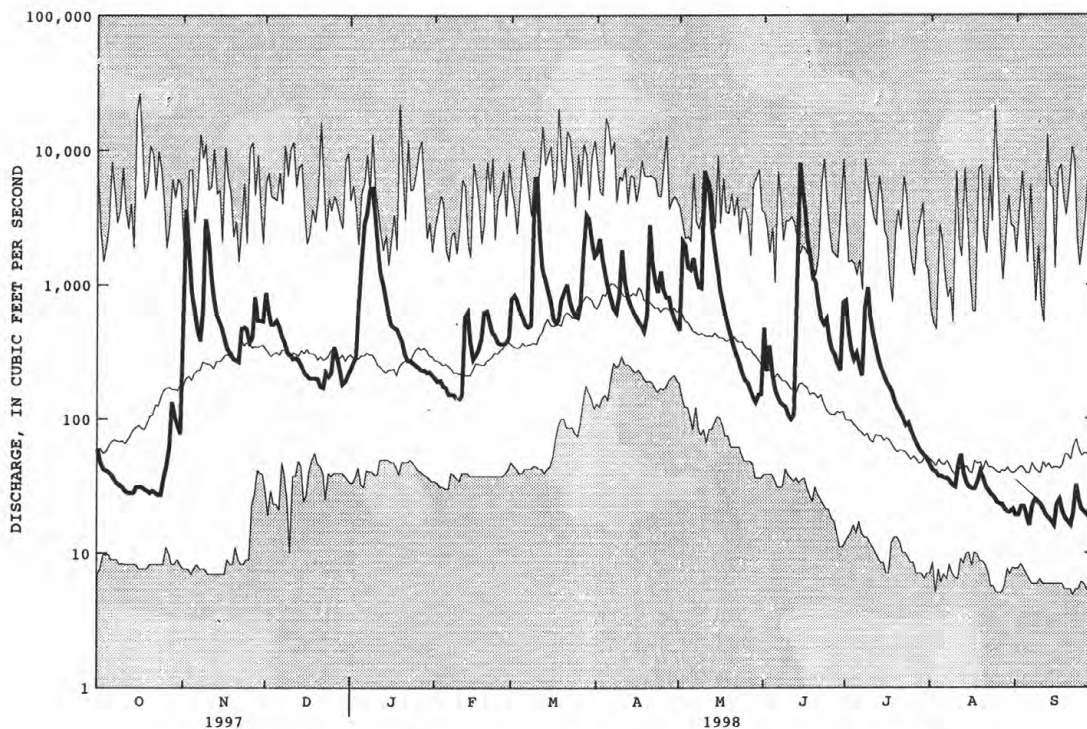


HUDSON RIVER BASIN

103

01350000 SCHOHARIE CREEK AT PRATTSVILLE, NY--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR	FOR 1998 WATER YEAR	WATER YEARS 1903 - 1998
ANNUAL TOTAL	133966	227033	
ANNUAL MEAN	367	622	465
HIGHEST ANNUAL MEAN			873
LOWEST ANNUAL MEAN			202
HIGHEST DAILY MEAN	4220	8000	26200
LOWEST DAILY MEAN	10	16	4.8
ANNUAL SEVEN-DAY MINIMUM	14	19	5.3
ANNUAL RUNOFF (CFSM)	1.55	2.62	1.96
ANNUAL RUNOFF (INCHES)	21.03	35.64	26.66
10 PERCENT EXCEEDS	893	1500	1050
50 PERCENT EXCEEDS	200	290	220
90 PERCENT EXCEEDS	24	26	31



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



## HUDSON RIVER BASIN

## 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 mi<sup>2</sup>.

**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 poor.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 5,050 ft<sup>3</sup>/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 ft<sup>3</sup>/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 ft<sup>3</sup>/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, Sept. 29, 1998.

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 800 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 10	0245	931	3.92	May 10	1945	1,150	4.41
Apr. 1	1930	891	3.83	June 14	1245	*1,870	*5.77

Minimum discharge, 1.9 ft<sup>3</sup>/s, Sept. 29, gage height, 0.37 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	5.5	117	e23	e21	93	310	38	163	70	6.2	2.7
2	2.4	59	71	e28	e20	96	353	143	45	41	5.9	2.9
3	2.4	43	53	39	e19	85	200	149	65	31	5.5	2.8
4	2.4	24	54	150	19	70	155	117	37	27	5.3	2.6
5	2.5	21	62	194	18	59	135	102	30	38	5.1	2.5
6	2.3	16	53	357	e17	52	117	93	26	27	5.0	2.3
7	2.2	14	44	430	e16	52	98	80	23	24	5.0	3.7
8	2.1	40	38	604	e16	61	92	68	22	80	4.6	3.4
9	2.1	208	34	597	e15	327	131	76	20	91	4.2	3.2
10	2.1	135	31	415	e15	580	164	632	18	44	4.2	2.9
11	2.0	78	30	213	15	e170	109	515	16	34	5.2	2.6
12	2.0	52	28	154	e15	e130	89	351	19	29	4.6	2.5
13	2.1	39	26	134	e15	e120	76	207	72	25	4.2	2.4
14	2.1	38	25	110	e16	112	65	172	839	22	4.0	2.4
15	2.2	33	e24	85	e16	94	58	145	574	20	3.9	2.4
16	2.2	28	e23	84	e17	81	51	117	313	21	3.9	2.6
17	2.1	25	23	70	17	72	49	92	216	19	4.1	2.5
18	2.1	24	21	59	27	67	42	72	181	17	4.4	2.4
19	2.1	23	20	52	43	107	67	56	147	15	4.2	2.3
20	2.1	21	21	47	44	121	299	46	130	16	3.8	2.3
21	2.1	21	e18	41	36	114	140	39	94	16	3.6	2.2
22	2.1	38	e18	e39	32	86	115	34	70	13	3.4	2.8
23	2.1	38	18	e38	32	70	98	30	72	12	3.4	2.7
24	2.0	38	16	39	26	65	94	27	91	11	3.5	2.4
25	2.8	33	23	34	36	66	78	24	51	10	3.3	2.3
26	2.9	42	35	e30	33	109	74	23	41	9.0	3.1	2.3
27	3.9	98	30	e28	34	341	72	20	48	8.4	2.9	2.2
28	4.1	56	25	26	39	460	55	17	37	7.9	2.8	2.3
29	3.4	59	e20	e24	---	371	47	17	33	7.3	2.7	2.1
30	3.1	58	e18	23	---	214	42	23	62	7.0	2.7	2.2
31	2.9	---	e20	22	---	163	---	39	---	6.7	2.9	---
TOTAL	75.5	1407.5	1039	4189	669	4608	3475	3564	3555	799.3	127.6	76.9
MEAN	2.44	46.9	33.5	135	23.9	149	116	115	119	25.8	4.12	2.56
MAX	4.1	208	117	604	44	580	353	632	839	91	6.2	3.7
MIN	2.0	5.5	16	22	15	52	42	17	16	6.7	2.7	2.1
CFSM	.08	1.45	1.03	4.17	.74	4.59	3.58	3.55	3.66	.80	.13	.08
IN.	.09	1.62	1.19	4.81	.77	5.29	3.99	4.09	4.08	.92	.15	.09

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 1998, BY WATER YEAR (WY)**

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
MEAN	31.7	54.5	50.6	59.9	39.3	87.8	139	73.2	30.7	16.8	6.85	9.68	
MAX	128	116	153	165	116	149	297	152	119	80.5	15.2	46.2	
(WY)	1997	1997	1997	1996	1990	1998	1993	1989	1998	1996	1996	1987	
MIN	2.44	8.92	14.3	16.0	12.8	38.4	46.0	20.2	5.80	2.75	1.66	1.60	
(WY)	1998	1995	1990	1989	1993	1989	1995	1995	1991	1993	1993	1995	

e Estimated

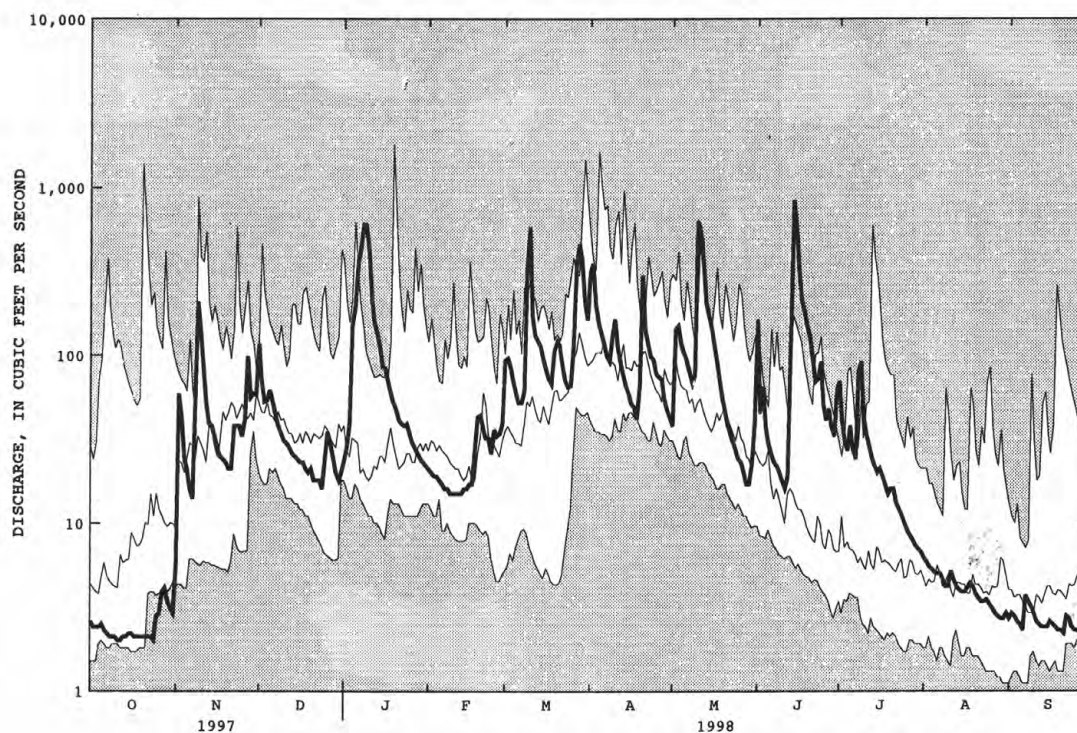


HUDSON RIVER BASIN

105

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

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR	FOR 1998 WATER YEAR	WATER YEARS 1986 - 1998
ANNUAL TOTAL	15217.9	23585.8	
ANNUAL MEAN	41.7	64.6	50.0
HIGHEST ANNUAL MEAN			73.2
LOWEST ANNUAL MEAN			28.0
HIGHEST DAILY MEAN	551 Apr 6	839 Jun 14	1800 Jan 19 1996
LOWEST DAILY MEAN	1.9 Aug 10	2.0 Oct 11	1.1 Aug 30 1993
ANNUAL SEVEN-DAY MINIMUM	2.1 Aug 6	2.1 Oct 8	1.2 Aug 27 1993
ANNUAL RUNOFF (CFSM)	1.29	1.99	1.54
ANNUAL RUNOFF (INCHES)	17.47	27.08	20.97
10 PERCENT EXCEEDS	116	148	117
50 PERCENT EXCEEDS	20	28	23
90 PERCENT EXCEEDS	2.3	2.4	3.2



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



## HUDSON RIVER BASIN

## 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 mi<sup>2</sup>.

**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, 1,132.68 ft, June 14, contents, 20,625 mil gal; minimum elevation, 1,081.22 ft, Nov. 1, contents, 5,259 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 1997 TO SEPTEMBER 1998  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1092.67	1081.27	1128.41	1119.01	1130.01	1130.29	1130.68	1130.31	1129.04	1130.97	1124.00	1112.43
2	1092.45	1087.76	1129.16	1118.40	1130.02	1130.35	1130.88	1130.67	1129.26	1130.79	1123.68	1111.99
3	1092.03	1093.97	1129.43	1117.99	1130.03	1130.34	1130.68	1130.83	1129.37	1130.64	1123.35	1111.57
4	1090.47	1096.76	1129.61	1118.75	1130.02	1130.29	1130.57	1130.66	1129.40	1130.56	1123.02	1111.14
5	1088.79	1098.48	1129.87	1121.31	1130.02	1130.26	1130.50	1130.67	1129.14	1130.61	1122.69	1110.70
6	1087.84	1099.67	1130.01	1125.28	1130.00	1130.23	1130.44	1130.77	1128.27	1130.56	1122.37	1110.26
7	1087.39	1100.54	1129.96	1130.42	1129.98	1130.22	1130.40	1130.68	1127.23	1130.47	1122.03	1109.89
8	1087.01	1101.47	1129.84	1131.30	1129.96	1130.24	1130.37	1130.60	1126.11	1130.53	1121.68	1109.51
9	1086.73	1105.94	1129.64	1131.45	1129.95	1130.77	1130.46	1130.59	1125.40	1131.10	1121.33	1109.09
10	1086.47	1112.42	1129.39	1131.07	1129.95	1131.57	1130.73	1131.55	1124.81	1130.85	1120.98	1108.68
11	1086.19	1115.84	1129.16	1130.72	1129.96	1130.78	1130.54	1131.58	1124.60	1130.67	1120.64	1108.10
12	1085.91	1117.84	1128.86	1130.54	1130.17	1130.50	1130.46	1131.33	1124.58	1130.55	1120.33	1106.59
13	1085.64	1119.25	1128.52	1130.47	1130.27	1130.41	1130.42	1130.91	1124.77	1130.45	1120.00	1104.89
14	1085.38	1120.42	1128.15	1130.38	1130.12	1130.39	1130.39	1130.75	1128.75	1130.38	1119.64	1103.23
15	1085.10	1121.46	1127.61	1130.31	1130.02	1130.34	1130.37	1130.65	1131.59	1130.32	1119.27	1101.96
16	1084.84	1122.26	1127.14	1130.35	1130.00	1130.29	1130.35	1130.54	1131.50	1130.28	1118.91	1101.19
17	1084.55	1122.90	1126.70	1130.30	1130.03	1130.26	1130.34	1130.50	1131.26	1130.09	1118.56	1100.73
18	1084.24	1123.46	1126.23	1130.27	1130.11	1130.27	1130.32	1130.46	1131.28	1129.34	1118.20	1100.29
19	1083.91	1123.96	1125.71	1130.25	1130.25	1130.33	1130.34	1130.42	1131.03	1128.39	1117.83	1099.85
20	1083.60	1124.42	1125.19	1130.22	1130.25	1130.37	1130.97	1130.39	1130.94	1127.25	1117.46	1099.41
21	1083.27	1124.58	1124.62	1130.15	1130.20	1130.41	1130.64	1130.36	1130.80	1126.47	1117.06	1098.98
22	1082.94	1124.72	1123.88	1130.11	1130.17	1130.32	1130.53	1130.34	1130.67	1126.17	1116.66	1098.69
23	1082.61	1125.15	1123.23	1130.12	1130.16	1130.28	1130.48	1130.31	1130.63	1126.03	1116.27	1098.42
24	1082.28	1125.50	1122.64	1130.16	1130.17	1130.26	1130.56	1130.28	1130.74	1125.91	1115.88	1098.17
25	1081.99	1125.71	1122.08	1130.15	1130.16	1130.25	1130.49	1130.26	1130.63	1125.78	1115.46	1097.91
26	1081.72	1125.82	1121.82	1130.11	1130.15	1130.30	1130.44	1130.23	1130.52	1125.63	1115.04	1097.63
27	1081.53	1126.54	1121.60	1130.06	1130.14	1130.58	1130.46	1130.05	1130.35	1125.44	1114.62	1097.34
28	1081.48	1127.10	1121.23	1130.09	1130.16	1130.93	1130.39	1129.62	1130.27	1125.18	1114.18	1097.06
29	1081.48	1127.39	1120.67	1130.06	---	1130.93	1130.36	1129.14	1130.22	1124.91	1113.73	1096.75
30	1081.39	1127.67	1120.21	1130.07	---	1130.71	1130.33	1128.84	1130.44	1124.61	1113.30	1096.46
31	1081.27	---	1119.67	1130.05	---	1130.62	---	1128.55	---	1124.31	1112.87	---
MEAN	1085.26	1115.01	1126.14	1128.38	1130.09	1130.45	1130.50	1130.41	1129.12	1128.56	1118.74	1103.63
MAX	1092.67	1127.67	1130.01	1131.45	1130.27	1131.57	1130.97	1131.58	1131.59	1131.10	1124.00	1112.43
MIN	1081.27	1081.27	1119.67	1117.99	1129.95	1130.22	1130.32	1128.55	1124.58	1124.31	1112.87	1096.46
+	5266	18818	15895	19595	19661	19809	19708	19077	19933	17499	13776	9078
++	-144	+699	-146	+185	+3.65	+7.39	-5.21	-31.5	+44.2	-121	-186	-242

CAL YR 1997 MEAN 1117.96 MAX 1131.64 MIN 1081.27 ++ -16.5  
WTR YR 1998 MEAN 1121.31 MAX 1131.59 MIN 1081.27 ++ +3.95

+ Contents, in million gallons, at 2400 hours on last day of month.  
++ Change in contents, equivalent in cubic feet per second.



## HUDSON RIVER BASIN

107

## 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 mi<sup>2</sup>.

**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 ft<sup>3</sup>/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 mi<sup>2</sup>, 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 ft<sup>3</sup>/s, Jan. 19, 1996, gage height, 30.60 ft, outside gage height, 32.2 ft, from floodmark, from rating curve extended above 14,000 ft<sup>3</sup>/s on basis of flow-over-dam measurement of peak flow; minimum daily discharge, 0.04 ft<sup>3</sup>/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); minimum instantaneous discharge not determined.

**EXTREMES OUTSIDE PERIOD OF RECORD.**--Maximum discharge, about 65,000 ft<sup>3</sup>/s, Oct. 16, 1955, by computation of flow over dam; flood of Mar. 18, 1936, reached a discharge of 32,000 ft<sup>3</sup>/s, from information furnished by Bureau of Water Resources Development, City of New York.

**EXTREMES FOR CURRENT YEAR.**--Maximum discharge, 14,200 ft<sup>3</sup>/s, June 14, gage height, 19.32 ft, outside gage height, 20.80 ft, from crest-stage gage.

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

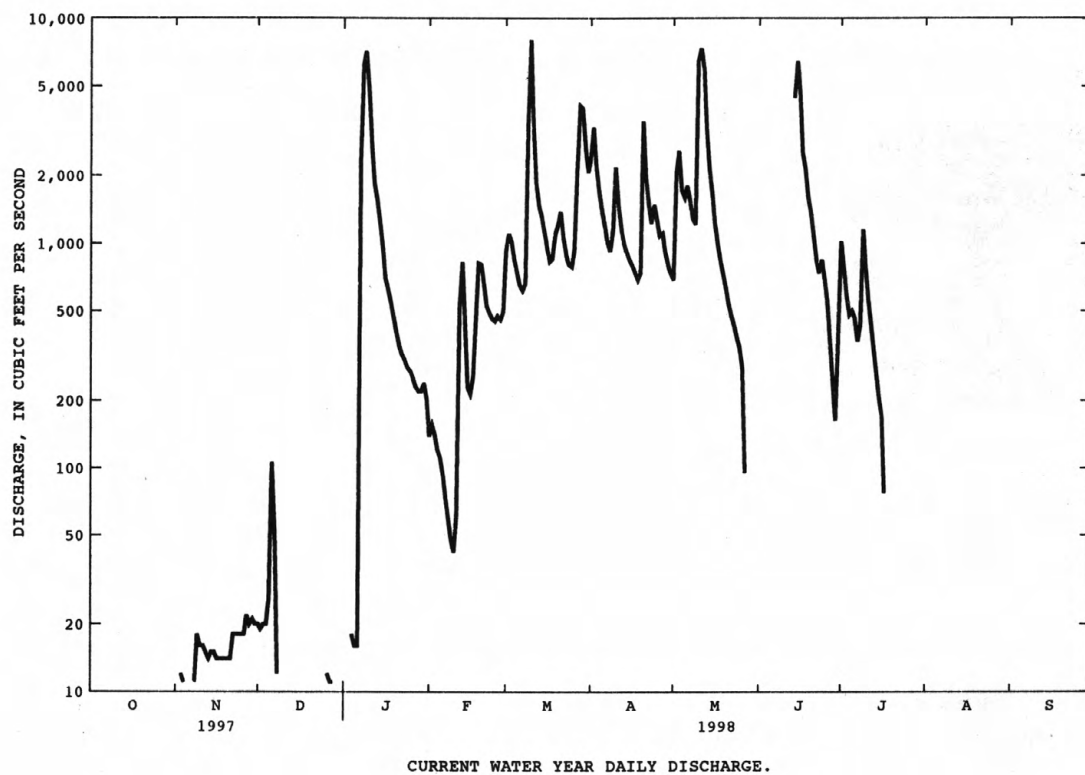
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	20	---	139	920	2400	687	---	1020	---	---
2	---	---	19	---	155	1100	3280	2080	---	776	---	---
3	---	12	20	---	e140	1020	2180	2580	---	581	---	---
4	---	11	20	18	e120	849	1690	1710	---	479	---	---
5	---	---	26	16	e110	738	1420	1590	---	497	---	---
6	---	---	106	16	91	651	1190	1800	---	460	---	---
7	---	---	50	2340	72	617	1010	1540	---	368	---	---
8	---	11	12	6190	59	663	923	1280	---	431	---	---
9	---	18	---	7130	48	3370	1150	1220	---	1150	---	---
10	---	16	---	4820	42	8040	2180	6460	---	772	---	---
11	---	16	---	2680	61	3310	1460	7360	---	552	---	---
12	---	15	---	1840	513	1850	1150	5920	---	425	---	---
13	---	14	---	1550	824	1460	1000	3250	---	334	---	---
14	---	15	---	1220	423	1320	909	2160	4460	256	---	---
15	---	15	---	962	227	1120	837	1670	6440	202	---	---
16	---	14	---	e700	213	945	796	1240	4680	171	---	---
17	---	14	---	e620	254	831	743	992	2540	77	---	---
18	---	14	---	e540	442	852	687	845	2140	---	---	---
19	---	14	---	e470	817	1100	739	726	1590	---	---	---
20	---	14	---	e400	807	1210	3500	625	1380	---	---	---
21	---	14	---	e350	644	1380	1930	536	1080	---	---	---
22	---	18	---	e320	522	1050	1490	475	837	---	---	---
23	---	18	---	e300	489	886	1230	427	737	---	---	---
24	---	18	---	e280	e460	804	1480	381	844	---	---	---
25	---	18	---	e270	e450	785	1270	346	702	---	---	---
26	---	18	12	e250	474	927	1080	284	552	---	---	---
27	---	22	11	e230	458	2110	1110	95	338	---	---	---
28	---	20	11	e220	498	4090	917	---	236	---	---	---
29	---	21	---	220	---	3990	805	---	163	---	---	---
30	---	20	---	239	---	2680	731	---	358	---	---	---
31	---	---	---	203	---	2070	---	---	---	---	---	---
TOTAL	---	---	---	---	9552	52738	41287	---	---	---	---	---
MEAN	---	---	---	---	341	1701	1376	---	---	---	---	---
MAX	---	---	---	---	824	8040	3500	---	---	---	---	---
MIN	---	---	---	---	42	617	687	---	---	---	---	---

e Estimated



## HUDSON RIVER BASIN

01350101 SCHOHARIE CREEK AT GILBOA, NY--Continued





## HUDSON RIVER BASIN

109

## 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 mi<sup>2</sup>.

**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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 1,370 ft<sup>3</sup>/s, Jan. 19, 1996, gage height, about 6.7 ft, from outside floodmark, from rating curve extended above 280 ft<sup>3</sup>/s on basis of flow-through-culvert measurement of peak flow; minimum discharge, 0.32 ft<sup>3</sup>/s, Nov. 18, 1980 (result of freezeup).

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 150 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
June 14	1815	*138	*3.27				

Minimum discharge not determined.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	3.3	14	e6.2	e7.4	18	44	14	19	15	4.7	1.8
2	1.5	5.6	14	e7.2	7.5	20	62	23	13	13	4.5	2.0
3	1.5	4.2	12	e9.4	7.9	20	38	24	12	13	4.3	1.8
4	1.5	3.8	12	16	7.9	18	29	22	11	13	4.0	1.6
5	1.7	3.0	14	23	7.5	16	26	21	8.6	14	3.9	1.5
6	1.5	2.5	12	41	e7.4	14	20	20	7.0	13	3.8	1.5
7	1.5	2.4	11	54	e7.2	14	20	20	6.7	12	3.6	3.0
8	1.5	5.9	10	79	e7.0	18	20	19	6.7	16	3.3	2.0
9	1.5	14	9.0	93	e6.6	54	22	19	6.3	16	3.1	1.8
10	1.5	14	7.8	69	6.5	83	24	42	5.4	13	3.2	1.7
11	1.5	11	8.1	63	6.4	50	22	49	5.1	12	3.8	1.6
12	1.5	7.1	7.8	48	10	e35	23	35	7.2	12	3.1	1.5
13	1.5	6.3	7.0	38	10	e28	22	24	15	12	2.7	1.4
14	1.5	5.1	6.8	30	16	21	21	17	74	12	2.7	1.4
15	1.6	6.3	e6.2	26	e12	15	20	17	76	11	2.6	1.4
16	1.5	5.7	5.8	26	e11	e14	18	16	44	12	2.7	1.7
17	1.5	4.7	6.1	23	e11	e14	18	15	30	12	2.9	1.5
18	1.5	4.4	5.1	20	e10	14	16	14	24	9.5	3.3	1.3
19	1.5	4.7	5.0	18	11	17	21	14	18	7.5	2.8	e1.2
20	1.5	4.7	5.0	17	11	20	48	13	20	7.9	2.4	e1.2
21	1.5	4.7	5.3	14	9.4	19	27	12	14	7.1	2.4	1.3
22	1.5	6.4	e4.9	e13	9.0	15	25	12	14	6.3	2.3	1.8
23	1.5	7.2	e4.8	e12	8.8	14	25	12	15	6.0	2.3	1.4
24	1.5	7.1	4.7	12	8.3	15	25	11	16	5.8	2.4	1.3
25	2.6	5.4	7.3	11	8.8	15	23	9.8	14	5.5	2.1	1.3
26	2.0	7.8	11	9.9	9.5	19	22	9.7	14	5.2	2.0	1.3
27	3.2	14	9.3	e9.4	9.7	44	22	8.5	14	5.3	1.8	e1.2
28	2.1	12	7.3	9.1	11	66	18	7.2	14	6.1	1.8	e1.2
29	1.8	11	e5.8	9.8	---	63	16	7.3	13	5.7	1.8	e1.1
30	1.6	11	e4.8	8.4	---	40	15	9.1	15	5.4	1.8	1.2
31	1.6	---	e5.4	7.7	---	29	---	9.3	---	5.1	2.1	---
TOTAL	51.2	205.3	249.3	823.1	255.8	842	752	545.9	552.0	309.4	90.2	46.0
MEAN	1.65	6.84	8.04	26.6	9.14	27.2	25.1	17.6	18.4	9.98	2.91	1.53
MAX	3.2	14	14	93	16	83	62	49	76	16	4.7	3.0
MIN	1.5	2.4	4.7	6.2	6.4	14	15	7.2	5.1	5.1	1.8	1.1
CFSM	.15	.63	.74	2.44	.84	2.49	2.30	1.62	1.69	.92	.27	.14
IN.	.17	.70	.85	2.81	.87	2.87	2.57	1.86	1.88	1.06	.31	.16

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1998, 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	1998
MEAN	9.28	11.2	12.7	14.2	16.6	29.6	33.7	18.9	9.95	4.96	3.24	4.08												
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												

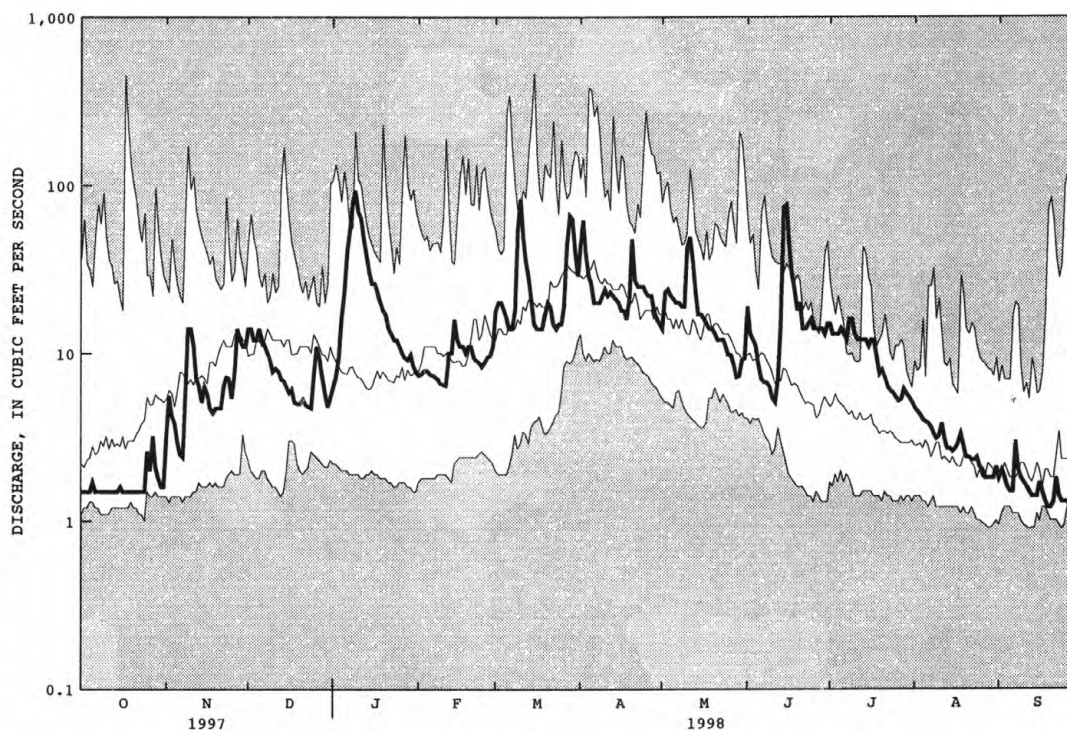
e Estimated



## HUDSON RIVER BASIN

## 01350120 PLATTER KILL AT GILBOA, NY--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1975 - 1998	
ANNUAL TOTAL	3108.9		4722.2		13.9	
ANNUAL MEAN	8.52		12.9		26.6	
HIGHEST ANNUAL MEAN					5.43	
LOWEST ANNUAL MEAN					467	
HIGHEST DAILY MEAN	78	Apr 6	93	Jan 9	Mar 15	1986
LOWEST DAILY MEAN	1.3	Sep 26	1.1	Sep 29	Sep 12	1980
ANNUAL SEVEN-DAY MINIMUM	1.4	Sep 22	1.2	Sep 24	Aug 24	1980
ANNUAL RUNOFF (CFSM)	.78		1.19		1.28	
ANNUAL RUNOFF (INCHES)	10.61		16.12		17.36	
10 PERCENT EXCEEDS	16		25		31	
50 PERCENT EXCEEDS	6.2		9.3		8.0	
90 PERCENT EXCEEDS	1.5		1.5		1.7	



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



## HUDSON RIVER BASIN

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## 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 mi<sup>2</sup>.

**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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 2,550 ft<sup>3</sup>/s, Jan. 19, 1996, gage height, 5.20 ft, from floodmarks, from rating curve extended above 560 ft<sup>3</sup>/s on basis of step-backwater analysis of peak flow; minimum discharge, 0.10 ft<sup>3</sup>/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 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 9	Unknown	a560	b*2.61	June 14	Unknown	a*900	b2.35
May 10	Unknown	a600	b2.46				

a About.

b From crest-stage gage.

Minimum discharge, 0.29 ft<sup>3</sup>/s, Aug. 29, Sept. 6, 7, 24, 25, 26, 27, 28, gage height, 0.48 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	3.0	61	e16	e15	54	e110	18	e90	22	1.5	.52
2	1.1	20	34	20	e15	54	e120	52	29	15	1.3	.47
3	.84	16	28	33	e14	50	63	41	30	11	1.2	.77
4	.83	15	34	103	e13	44	52	33	19	10	1.0	.56
5	1.9	15	38	97	e13	39	46	31	16	21	1.0	.40
6	1.9	9.1	32	e200	e12	36	40	35	14	11	1.0	.31
7	e.94	7.1	26	e240	e12	35	35	35	12	9.3	.94	1.1
8	e.90	28	24	e340	e11	41	35	29	12	42	.82	1.9
9	e.88	58	21	e400	e11	e140	46	32	11	35	.69	1.2
10	e.86	30	18	e170	e12	e250	51	e150	9.5	19	.67	.92
11	e.82	21	20	77	e13	73	36	e120	9.0	15	2.3	.67
12	e.80	16	19	61	e20	53	32	e80	13	12	2.3	.58
13	e.80	14	17	58	e15	55	28	49	53	9.9	1.2	.54
14	e.80	13	16	44	e11	41	26	42	e300	8.4	.96	.45
15	e.84	15	16	37	e12	37	24	35	e200	7.6	1.2	.43
16	e.90	13	e15	42	e14	38	23	31	e90	22	.91	.54
17	e.86	13	e14	36	e20	40	22	27	56	11	.88	.56
18	e.84	13	e14	32	30	29	20	27	50	8.0	1.2	.45
19	e.84	12	e13	29	47	43	37	19	37	6.4	1.4	.36
20	e.86	12	e12	27	43	48	87	17	28	9.0	.83	.36
21	e.84	12	e11	24	34	43	48	15	22	10	.66	.37
22	.76	22	9.9	23	31	34	40	13	17	6.6	.63	.44
23	.72	22	15	22	29	31	35	12	22	6.7	.61	.43
24	.79	22	14	27	28	29	32	10	42	5.6	.65	.35
25	3.3	19	21	23	30	30	28	9.5	20	4.2	.60	.29
26	3.8	27	30	e21	28	49	28	9.2	16	3.5	.52	.31
27	6.4	53	23	e20	29	e110	27	7.8	19	2.9	.42	.34
28	5.2	30	19	e18	33	e150	23	6.9	17	2.6	.37	.35
29	3.1	37	17	e18	---	e120	21	6.6	13	2.3	.33	e.33
30	2.2	36	e12	e17	---	61	19	8.1	26	2.1	.37	e.34
31	1.7	---	e14	e16	---	49	---	e70	---	2.0	.48	---
TOTAL	48.82	623.2	657.9	2291	595	1906	1234	1071.1	1292.5	353.1	28.94	16.64
MEAN	1.57	20.8	21.2	73.9	21.3	61.5	41.1	34.6	43.1	11.4	.93	.55
MAX	6.4	58	61	400	47	250	120	150	300	42	2.3	1.9
MIN	.72	3.0	9.9	16	11	29	19	6.6	9.0	2.0	.33	.29
CFSM	.10	1.28	1.31	4.56	1.31	3.80	2.54	2.13	2.66	.70	.06	.03
IN.	.11	1.43	1.51	5.26	1.37	4.38	2.83	2.46	2.97	.81	.07	.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1998, 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	1998
MEAN	14.1	23.0	25.8	26.7	29.4	54.7	59.2	31.1	14.2	5.93	3.44	5.79												
MAX	67.3	48.6	59.7	74.3	86.5	126	242	76.9	43.1	31.6	12.1	42.3												
(WY)	1978	1978	1978	1979	1981	1977	1993	1984	1998	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

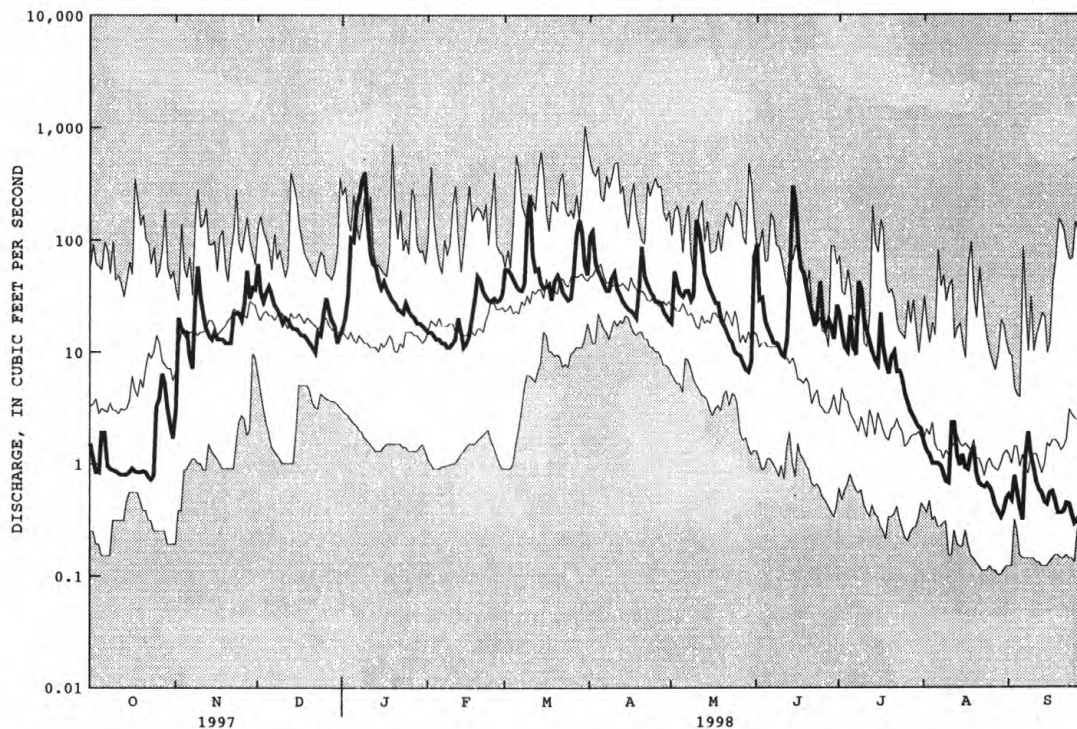
## SUMMARY STATISTICS

FOR 1997 CALENDAR YEAR

FOR 1998 WATER YEAR

WATER YEARS 1975 - 1998

ANNUAL TOTAL	6763.69	10118.20	
ANNUAL MEAN	18.5	27.7	24.4
HIGHEST ANNUAL MEAN			40.9
LOWEST ANNUAL MEAN			12.7
HIGHEST DAILY MEAN	115	400	1030
LOWEST DAILY MEAN	.47	.29	.10
ANNUAL SEVEN-DAY MINIMUM	.66	.33	.11
ANNUAL RUNOFF (CFSM)	1.14	1.71	1.50
ANNUAL RUNOFF (INCHES)	15.53	23.23	20.44
10 PERCENT EXCEEDS	45	53	56
50 PERCENT EXCEEDS	14	16	12
90 PERCENT EXCEEDS	.97	.67	.94



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



## 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 mi<sup>2</sup>.

**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 ft<sup>3</sup>/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 mi<sup>2</sup>, 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 ft<sup>3</sup>/s bypass the gage and therefore records of flows greater than 400 ft<sup>3</sup>/s are furnished by the New York Power Authority.

**COOPERATION.**--Records of flow greater than 400 ft<sup>3</sup>/s provided by the New York Power Authority.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 75,600 ft<sup>3</sup>/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 ft<sup>3</sup>/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, 19,200 ft<sup>3</sup>/s, June 14, from New York Power Authority, gage height, 10.53 ft, outside gage height was 10.95 ft, from crest-stage gage; minimum discharge, 3.6 ft<sup>3</sup>/s, Oct. 14, 19, 20, 21, Sept. 27, 29; minimum gage height, 0.79 ft, Sept. 27, 29.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.5	5.2	146	e27	e100	882	2470	607	394	908	7.3	6.9
2	6.8	5.5	57	e30	e92	1150	3370	2020	98	778	6.7	6.9
3	6.7	5.2	39	31	e80	1060	2270	2770	60	543	6.7	6.7
4	6.9	5.3	51	260	e70	860	1730	1770	41	405	6.8	6.9
5	6.5	5.0	67	265	e60	670	1380	1490	13	328	6.7	7.5
6	6.8	4.9	135	444	e50	697	1240	767	13	387	6.5	7.2
7	7.0	4.9	103	2430	20	569	982	1360	11	316	6.6	7.1
8	7.0	6.5	55	6900	36	547	813	1270	11	564	6.8	6.7
9	7.1	8.5	28	8220	82	3310	1220	1060	32	1060	6.2	6.4
10	7.4	7.2	20	5370	46	9840	2120	7270	24	692	6.5	6.2
11	7.6	7.6	39	2760	42	3480	1410	8300	11	439	7.5	6.3
12	7.0	7.6	30	1830	273	1910	1040	6320	46	280	7.3	6.8
13	6.0	7.6	e28	1250	1000	1430	1020	3130	185	315	7.2	6.2
14	3.9	8.9	e31	970	309	1300	811	2180	5930	151	7.5	6.3
15	3.9	8.0	38	1070	168	1040	885	1620	7440	180	7.8	6.7
16	3.9	8.3	17	856	111	951	711	1080	4760	170	7.1	6.2
17	4.0	14	22	691	246	734	739	913	2440	104	6.9	6.2
18	4.2	16	18	762	488	848	553	824	2300	12	6.8	6.5
19	3.8	16	27	594	782	1090	726	597	1620	8.8	6.5	6.7
20	4.1	16	e25	448	805	1200	3760	584	1300	8.7	6.2	6.2
21	3.8	17	e22	371	557	1390	2050	421	1080	8.4	6.4	6.1
22	3.9	19	e19	228	332	914	1400	435	792	12	6.7	6.3
23	4.3	80	24	293	458	902	1230	295	719	15	6.2	6.4
24	4.4	67	24	328	607	827	1430	240	897	15	6.4	6.2
25	5.1	29	25	429	441	671	1220	260	633	15	6.6	4.4
26	4.3	31	71	258	490	883	977	242	502	13	6.5	4.1
27	5.8	112	44	127	460	2200	1130	108	258	13	6.6	3.8
28	4.4	100	64	263	420	4390	812	21	201	13	6.8	4.7
29	4.3	63	23	129	---	3920	796	20	160	9.1	6.7	3.9
30	4.5	63	e24	e120	---	2950	612	17	308	8.7	6.2	3.8
31	4.5	---	e25	e110	---	2100	---	64	---	7.3	7.6	---
TOTAL	166.4	749.2	1341	37864	8625	54715	40907	48055	32279	7779.0	210.3	182.3
MEAN	5.37	25.0	43.3	1221	308	1765	1364	1550	1076	251	6.78	6.08
MAX	7.6	112	146	8220	1000	9840	3760	8300	7440	1060	7.8	7.5
MIN	3.8	4.9	17	27	20	547	553	17	11	7.3	6.2	3.8

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1998, BY WATER YEAR (WY)

	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	1998
MEAN	184	296	400	368	352	871	1382	742	272	63.4	11.2	19.2																
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																

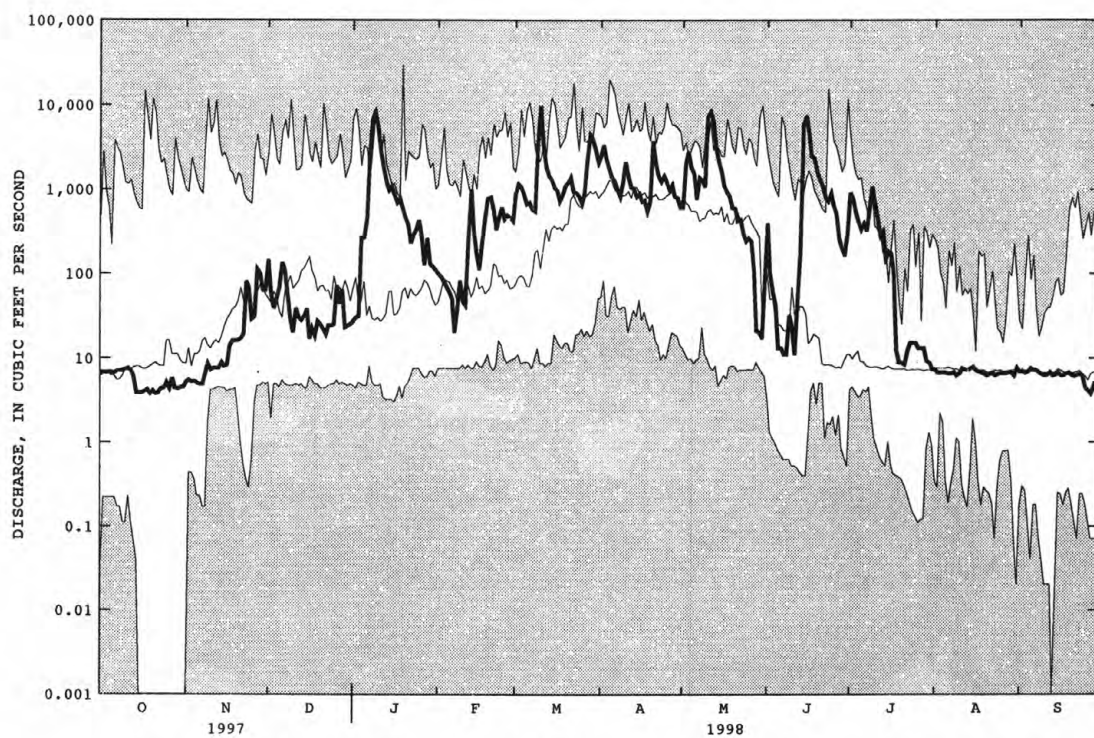
SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR	FOR 1998 WATER YEAR	WATER YEARS 1971 - 1998
ANNUAL TOTAL	144270.7	232873.2	
ANNUAL MEAN	395	638	410
HIGHEST ANNUAL MEAN			834
LOWEST ANNUAL MEAN			21.7
HIGHEST DAILY MEAN	6120	9840	29900
LOWEST DAILY MEAN	3.8	3.8	.00
ANNUAL SEVEN-DAY MINIMUM	4.0	4.0	.00
10 PERCENT EXCEEDS	1200	1620	1130
50 PERCENT EXCEEDS	27	67	29
90 PERCENT EXCEEDS	5.9	6.2	5.0

e Estimated



## HUDSON RIVER BASIN

01350180 SCHOHARIE CREEK AT NORTH BLENHEIM, NY--Continued



CURRENT WATER YEAR DAILY DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD. SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR. ZERO FLOWS ARE PLOTTED AS 0.001 DISCHARGE, WHICH MAY INCLUDE THE DAILY MINIMUM FOR PERIOD OF RECORD.



## 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 mi<sup>2</sup>.

**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 mi<sup>2</sup>, 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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 80,200 ft<sup>3</sup>/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 ft<sup>3</sup>/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 ft<sup>3</sup>/s, Oct. 14, 1980; minimum gage height, 0.25 ft, Sept. 26, 1985.

**EXTREMES FOR CURRENT YEAR.**--Maximum discharge, 19,100 ft<sup>3</sup>/s, June 14, gage height, 10.66 ft; minimum, 7.8 ft<sup>3</sup>/s, Sept. 26, 28, 29, 30, gage height, 1.53 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	20	388	e110	187	1130	3160	773	767	1110	21	11
2	14	57	232	130	221	1580	4480	1990	266	799	19	11
3	14	60	179	138	196	1450	3080	3120	168	599	18	11
4	13	45	186	635	157	1200	2410	2150	131	430	17	10
5	14	52	225	859	e120	955	1880	1850	95	496	17	10
6	15	42	280	1430	e96	929	1700	2180	80	502	16	10
7	15	35	241	3630	79	804	1360	1920	70	397	16	11
8	14	55	177	9220	75	727	1130	1630	66	626	15	12
9	14	230	137	10600	126	3520	1600	1340	62	1280	14	13
10	14	177	118	7020	104	11000	2670	6490	71	851	13	12
11	14	119	131	3890	93	4560	1840	8930	51	557	17	11
12	15	94	117	2740	390	2560	1400	6800	77	356	17	11
13	14	81	e110	2270	1190	1940	1360	3870	395	378	15	10
14	14	84	122	1650	488	1800	1100	2710	5290	231	15	9.5
15	13	81	100	1260	260	1410	1040	2070	8770	219	15	9.7
16	13	74	101	e1100	198	1260	947	1460	5420	214	15	10
17	13	73	98	1140	328	1030	942	1170	3080	177	14	9.8
18	13	74	95	900	535	1090	711	1010	2650	64	15	9.4
19	13	71	91	e740	953	1400	797	808	1990	47	14	9.5
20	12	71	e90	e640	1100	1610	4430	682	1520	52	13	9.4
21	13	70	97	590	746	1810	2640	539	1280	75	12	9.0
22	13	103	64	373	515	1280	1930	483	870	51	12	9.4
23	12	133	91	421	559	1160	1580	382	788	47	12	9.5
24	13	202	93	483	710	1070	1730	302	1120	44	12	9.5
25	15	117	106	515	586	938	1580	309	739	39	12	9.5
26	19	119	183	383	628	1120	1260	303	595	35	11	8.4
27	23	310	152	245	594	2860	1410	188	434	32	9.7	9.0
28	28	250	167	346	537	5280	1090	68	285	30	9.5	8.2
29	22	207	e92	252	---	5060	973	58	240	28	9.4	8.3
30	19	207	e94	e240	---	3740	763	61	422	24	9.5	8.0
31	17	---	e100	232	---	2800	---	148	---	23	9.9	---
TOTAL	469	3313	4457	54182	11771	69093	52993	55794	37792	9813	435.0	299.1
MEAN	15.1	110	144	1748	420	2229	1766	1800	1260	317	14.0	9.97
MAX	28	310	388	10600	1190	11000	4480	8930	8770	1280	21	13
MIN	12	20	64	110	75	727	711	58	51	23	9.4	8.0

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

MEAN	323	483	469	567	477	1193	1752	924	322	110	28.1	48.4
MAX	1973	1909	2494	3311	1698	3354	4522	2206	1260	1145	91.8	341
(WY)	1978	1978	1997	1996	1976	1979	1987	1996	1998	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

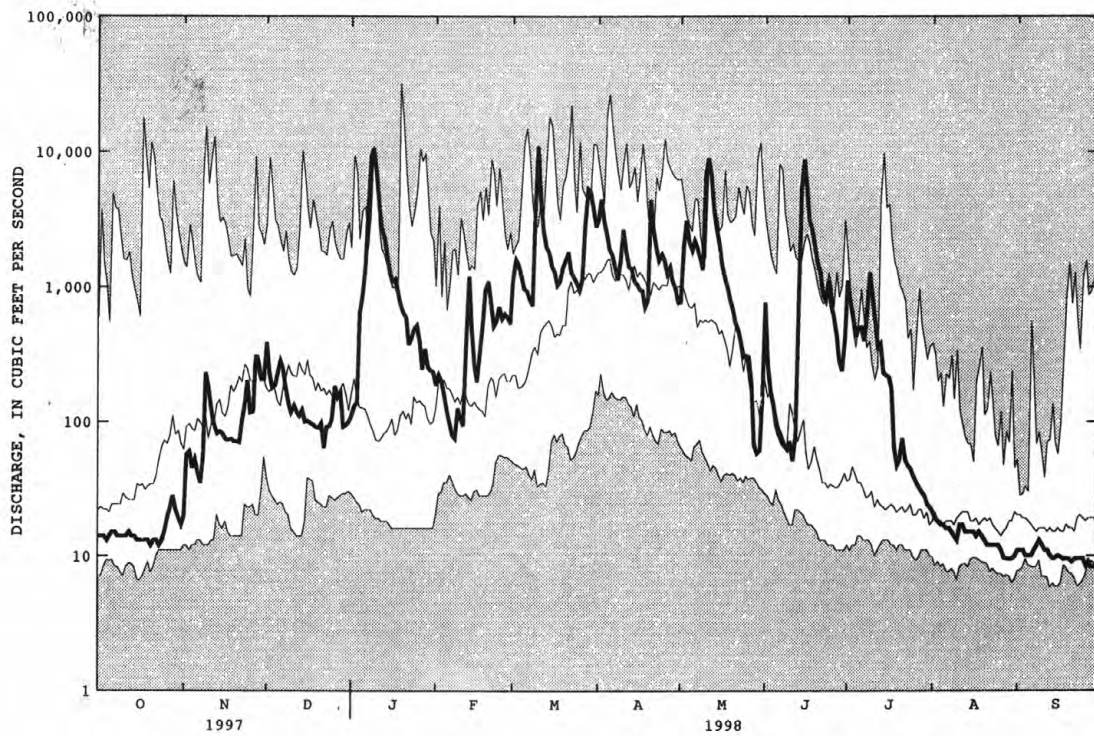
SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1975 - 1998	
ANNUAL TOTAL	198051.1		300411.1			
ANNUAL MEAN	543		823		558	
HIGHEST ANNUAL MEAN					1152	
LOWEST ANNUAL MEAN					89.9	
HIGHEST DAILY MEAN	6900	Apr 7	11000	Mar 10	31600	Jan 19 1996
LOWEST DAILY MEAN	7.6	Aug 7	8.0	Sep 30	5.8	Sep 13 1980
ANNUAL SEVEN-DAY MINIMUM	8.3	Aug 2	8.7	Sep 24	6.3	Sep 11 1980
10 PERCENT EXCEEDS	1670		2100		1500	
50 PERCENT EXCEEDS	117		187		95	
90 PERCENT EXCEEDS	13		12		14	

e Estimated



## HUDSON RIVER BASIN

01350355 SCHOHARIE CREEK AT BREAKABEEN, NY--Continued



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



## HUDSON RIVER BASIN

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## 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 mi<sup>2</sup>.

**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 mi<sup>2</sup>, 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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 81,600 ft<sup>3</sup>/s, Jan. 20, 1996, gage height, 12.88 ft; minimum, 2.4 ft<sup>3</sup>/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, 26,500 ft<sup>3</sup>/s, Jan. 9, gage height, 6.77 ft; minimum, 20 ft<sup>3</sup>/s, Sept. 23, gage height, 0.60 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	86	1870	e400	e560	2690	3910	1210	1200	1440	88	28
2	46	591	1420	e500	e520	3930	8550	1490	929	1390	79	30
3	47	771	1040	e860	e540	3970	5980	4850	724	1070	72	32
4	46	521	985	4130	501	3370	4320	3820	539	869	65	30
5	50	480	1170	4870	536	2870	3250	3030	378	982	61	29
6	52	376	1160	5840	506	2460	2790	2900	293	870	59	27
7	50	292	1040	8530	441	2320	2270	3240	247	794	56	30
8	47	425	902	20600	357	2130	1900	2410	221	2210	57	31
9	45	3770	779	23700	e310	5840	2440	2170	205	3110	51	34
10	44	2940	668	17100	e330	21100	3520	6410	190	1880	47	33
11	41	1400	619	8010	375	9840	3040	17800	186	1290	53	32
12	39	945	648	5120	674	4790	2120	12900	174	917	56	31
13	36	730	587	3810	2230	3320	1780	7060	401	747	54	29
14	37	639	570	3170	1410	3110	1660	4710	5800	724	49	28
15	36	617	443	2240	899	2370	1410	3510	18400	452	47	26
16	37	572	490	e2000	e660	1990	1400	2750	9590	468	50	26
17	36	522	502	e1800	e700	1860	1290	1900	6300	641	43	25
18	36	496	490	1630	950	1580	1220	1610	4340	434	44	24
19	36	461	430	1540	1720	2270	1140	1390	3400	266	45	24
20	36	445	435	1480	2570	2910	7640	1160	2680	223	46	23
21	35	410	e420	e1100	1980	2920	5190	1070	2040	255	43	22
22	35	614	e390	e1000	1500	2470	3390	853	1380	235	40	21
23	35	822	419	1070	e1400	1830	2690	851	1390	209	38	21
24	35	929	425	1180	e1400	1700	2450	683	1530	196	49	21
25	39	799	440	1100	1480	1710	2600	563	1300	179	45	21
26	42	914	902	e900	1590	2050	1890	601	1070	152	39	21
27	63	2440	1010	e800	1620	4990	1920	560	1050	134	36	28
28	96	1530	e700	e720	1600	8800	1640	352	835	120	34	31
29	116	1250	e520	e700	---	8900	1370	244	668	109	31	29
30	114	1260	e400	658	---	6260	1290	225	758	104	30	26
31	87	---	e350	e600	---	4570	---	217	---	97	29	---
TOTAL	1541	28047	22224	127158	29359	130920	86060	92539	68218	22567	1536	813
MEAN	49.7	935	717	4102	1049	4223	2869	2985	2274	728	49.5	27.1
MAX	116	3770	1870	23700	2570	21100	8550	17800	18400	3110	88	34
MIN	35	86	350	400	310	1580	1140	217	174	97	29	21

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

MEAN	427	785	1014	1038	1055	2368	3124	1605	647	237	113	151
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

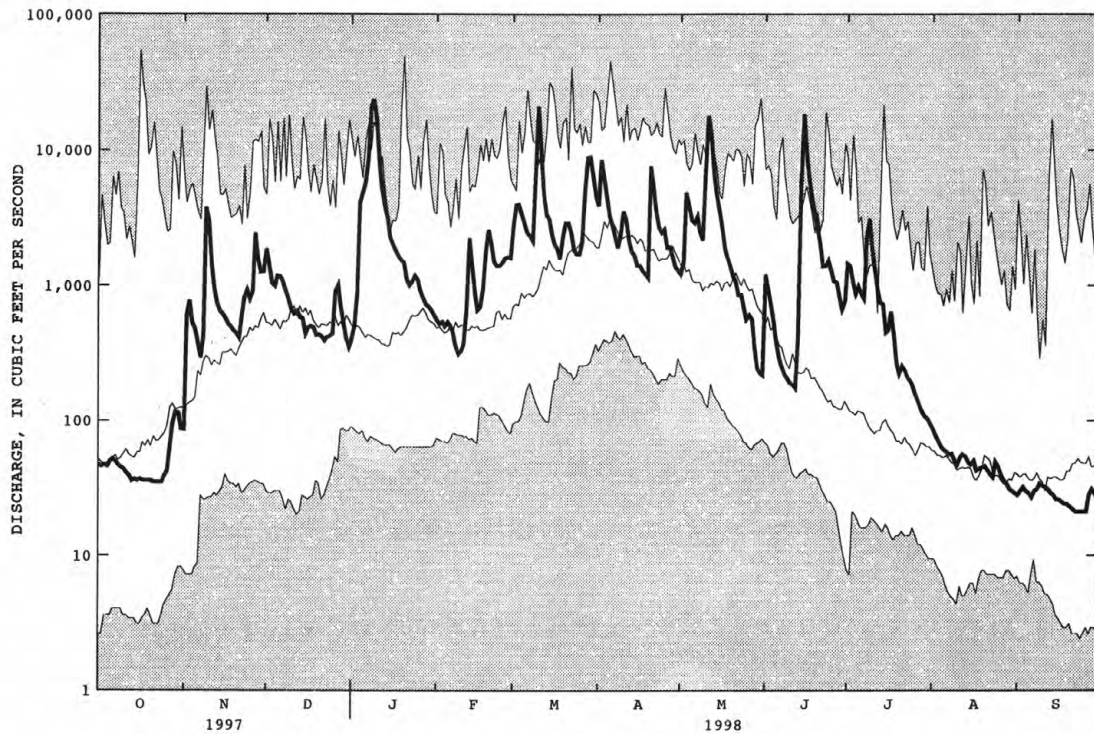
SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR				FOR 1998 WATER YEAR				WATER YEARS 1940 - 1998			
ANNUAL TOTAL	412456				610982							
ANNUAL MEAN	1130				1674				1046			
HIGHEST ANNUAL MEAN									2014			
LOWEST ANNUAL MEAN									320			
HIGHEST DAILY MEAN	11500				23700				54100			
LOWEST DAILY MEAN	21				21				2.4			
ANNUAL SEVEN-DAY MINIMUM	23				21				2.6			
10 PERCENT EXCEEDS	2960				3920				2710			
50 PERCENT EXCEEDS	570				700				320			
90 PERCENT EXCEEDS	40				35				31			

e Estimated



## HUDSON RIVER BASIN

01351500 SCHOHARIE CREEK AT BURTONSVILLE, NY--Continued



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



**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 mi<sup>2</sup>.

**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.**--No estimated daily discharges. Records fair. 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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 143,000 ft<sup>3</sup>/s, Mar. 6, 1964, result of release from ice jam, gage height, 23.15 ft, from rating curve extended above 110,000 ft<sup>3</sup>/s; minimum discharge (water years 1918-90), 6 ft<sup>3</sup>/s, Sept. 18, 1941, gage height, 3.40 ft.

**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 ft<sup>3</sup>/s (from New York State Museum Bulletin 85).

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 41,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 9	0800	*86,800	*20.39	Mar. 10	1830	49,600	17.62

Minimum discharge not determined.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1150	1880	10100	2100	3770	11800	18400	3470	2330	2760	905	1300
2	1060	2630	10700	2360	3510	18200	29200	3350	3080	4510	1060	998
3	1250	3090	7290	2660	3240	18700	29100	7000	2700	3530	762	669
4	970	4180	5450	5740	3150	16900	24300	7820	2140	2710	1190	752
5	1440	3200	4980	15100	3440	14900	18300	7870	2590	2970	539	900
6	1750	3140	5570	18100	3170	12800	14400	7870	1280	4530	1040	676
7	1500	3140	5370	28600	2750	10900	11600	7230	1430	2950	1150	1620
8	948	2570	4520	57200	3140	9600	9330	4900	1390	5780	538	2860
9	1620	6200	3940	81800	2690	14100	8610	5190	1360	10100	1170	1470
10	1370	9560	3420	65900	2740	39100	9380	6820	1420	4880	697	804
11	980	5730	2950	45200	2680	35600	9360	29900	1340	3160	2320	1350
12	1230	3310	2930	30800	3800	21500	7690	22200	1370	2390	2690	1580
13	1210	2740	2870	21500	6640	14900	6530	15600	2350	3100	2700	1240
14	1090	3080	2810	16500	9720	12100	4080	8620	14100	1710	1550	1000
15	940	2900	2640	11700	6750	10200	1200	6590	35800	1900	921	1450
16	1030	3170	2380	9530	4640	9010	3270	5310	26400	1390	1350	1190
17	958	2950	2270	8800	3520	8180	4510	4370	23100	1750	1400	1230
18	972	3600	2180	9070	3790	7640	3950	4010	16700	1480	1230	989
19	1320	1840	2390	8220	5580	8060	3750	3460	14500	1700	1010	820
20	928	3070	2290	7930	10100	11800	10200	2740	10700	1370	908	952
21	1050	2730	2730	7220	13000	13200	17800	2470	7950	1780	1070	974
22	1060	3030	2020	5840	11100	12300	9390	2290	8880	1450	805	1070
23	1020	5580	1630	4860	9400	10300	7250	1550	4500	1590	934	1050
24	1100	6380	2330	5450	8020	8840	6010	1790	5000	1850	1140	596
25	1310	8560	2830	6070	7390	7790	2400	1840	5050	2450	1660	504
26	925	7700	3240	6280	8330	7900	5210	1750	4170	1800	1910	498
27	1550	7700	4750	5370	10500	11700	4980	1660	4540	1650	1460	1520
28	1470	9090	4850	4800	10100	22400	2290	1440	5270	1340	1110	1060
29	1890	6830	3950	5090	---	26400	2980	1690	3710	708	1350	1110
30	1670	5200	3580	4680	---	26200	3690	1170	1810	1120	1330	1140
31	1570	---	2710	3850	---	21000	---	1380	---	965	1140	---
TOTAL	38331	134780	121670	508320	166660	474020	289160	183350	216960	81373	39039	33372
MEAN	1236	4493	3925	16400	5952	15290	9639	5915	7232	2625	1259	1112
MAX	1890	9560	10700	81800	13000	39100	29200	29900	35800	10100	2700	2860
MIN	925	1840	1630	2100	2680	7640	1200	1170	1280	708	538	498

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

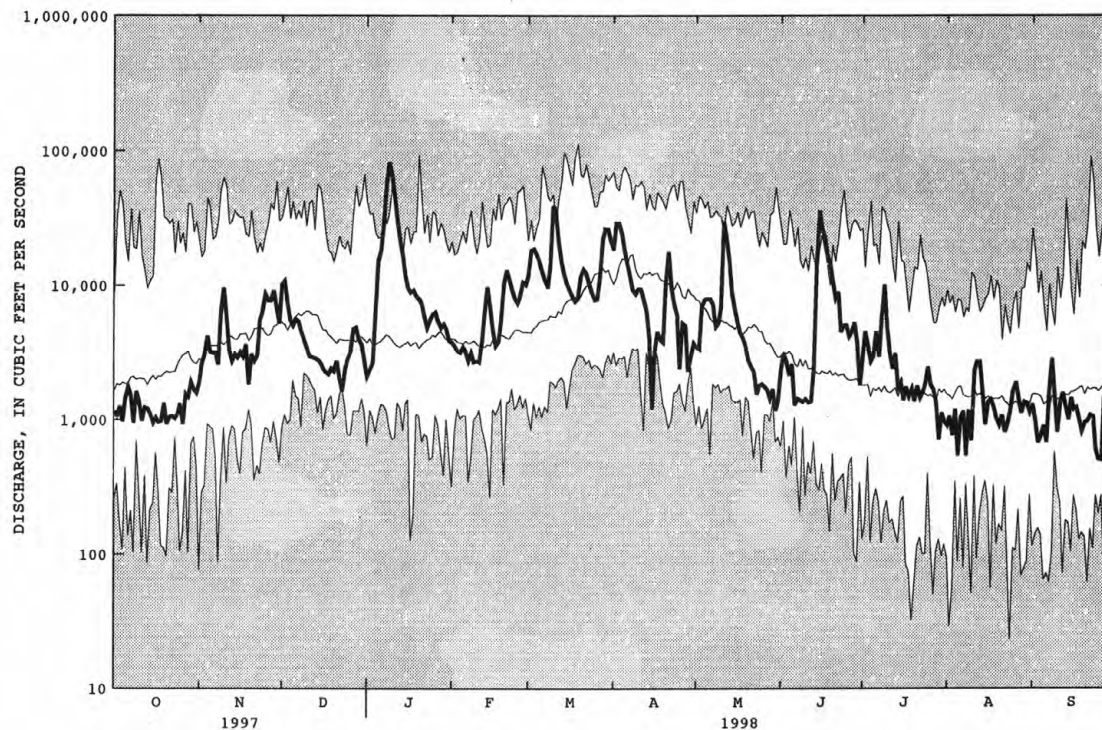
	3354	5537	6361	5773	5711	11130	13820	6838	3507	2341	1705	2259
MEAN	3354	5537	6361	5773	5711	11130	13820	6838	3507	2341	1705	2259
MAX	13950	14090	16340	16400	15810	28580	32280	17320	14290	8779	4089	9345
(WY)	1978	1928	1997	1998	1976	1936	1993	1943	1972	1935	1986	1938
MIN	731	842	1841	1017	1314	3723	3530	1835	1121	671	605	740
(WY)	1965	1931	1931	1931	1931	1940	1995	1995	1941	1941	1941	1995



## HUDSON RIVER BASIN

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

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1926 - 1998	
ANNUAL TOTAL	1830922		2287035		5688	
ANNUAL MEAN	5016		6266		8270	
HIGHEST ANNUAL MEAN					3017	
LOWEST ANNUAL MEAN					112000	
HIGHEST DAILY MEAN	28700	Feb 23	81800	Jan 9	Mar 19	1936
LOWEST DAILY MEAN	550	Jul 29	498	Sep 26	Aug 24	1941
ANNUAL SEVEN-DAY MINIMUM	714	Aug 8	806	Sep 20	Aug 24	1995
10 PERCENT EXCEEDS	12100		14400		13100	
50 PERCENT EXCEEDS	3060		3140		3330	
90 PERCENT EXCEEDS	894		1040		1140	



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



## 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.

Statistics and hydrograph for Diversion (01357499) located on next page

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	109	79	79	3.0	3.0	3.0	3.0	73	127	121	157	127
2	103	79	73	3.0	3.0	3.0	3.0	73	109	151	175	115
3	109	91	73	3.0	3.0	3.0	3.0	73	109	145	121	133
4	133	73	73	3.0	3.0	3.0	3.0	127	121	175	121	163
5	133	73	3.0	3.0	3.0	3.0	3.0	121	109	157	121	151
6	127	97	3.0	3.0	3.0	3.0	3.0	133	139	139	103	187
7	97	103	3.0	3.0	3.0	3.0	3.0	121	127	115	145	151
8	115	85	3.0	3.0	3.0	3.0	3.0	121	103	109	127	115
9	103	73	3.0	3.0	3.0	3.0	3.0	127	133	145	169	127
10	109	85	3.0	3.0	3.0	3.0	3.0	97	157	169	133	109
11	127	85	3.0	3.0	3.0	3.0	3.0	85	139	133	103	139
12	115	79	3.0	3.0	3.0	3.0	3.0	91	121	163	115	139
13	109	103	3.0	3.0	3.0	3.0	3.0	85	133	139	145	139
14	103	85	3.0	3.0	3.0	3.0	3.0	115	103	145	121	139
15	109	79	3.0	3.0	3.0	3.0	3.0	127	91	139	127	127
16	103	73	3.0	3.0	3.0	3.0	3.0	109	121	151	169	115
17	103	79	3.0	3.0	3.0	3.0	3.0	133	103	157	109	139
18	103	79	3.0	3.0	3.0	3.0	73	103	121	145	145	157
19	97	103	3.0	3.0	3.0	3.0	73	121	115	157	109	139
20	97	79	3.0	3.0	3.0	3.0	91	121	157	139	151	169
21	91	85	3.0	3.0	3.0	3.0	85	121	115	121	121	139
22	79	79	3.0	3.0	3.0	3.0	73	139	115	127	139	109
23	79	79	3.0	3.0	3.0	3.0	73	139	127	109	133	121
24	91	79	3.0	3.0	3.0	3.0	73	121	115	151	115	115
25	85	91	3.0	3.0	3.0	3.0	73	121	133	139	97	115
26	91	91	3.0	3.0	3.0	3.0	73	133	139	163	139	115
27	91	73	3.0	3.0	3.0	3.0	73	121	127	115	139	139
28	79	85	3.0	3.0	3.0	3.0	79	109	127	133	121	109
29	97	73	3.0	3.0	---	3.0	79	127	133	127	139	79
30	79	73	3.0	3.0	---	3.0	85	157	139	145	157	91
31	73	---	3.0	3.0	---	3.0	---	163	---	151	85	---
TOTAL	3139	2490	379.0	93.0	84.0	93.0	1054.0	3607	3708	4375	4051	3912
MEAN	101	83.0	12.2	3.00	3.00	3.00	35.1	116	124	141	131	130
MAX	133	103	79	3.0	3.0	3.0	91	163	157	175	175	187
MIN	73	73	3.0	3.0	3.0	3.0	3.0	73	91	109	85	79

Statistics and hydrograph for Diversion (01357499) located on next page

## 01357500 MOHAWK RIVER AT COHOES, NY

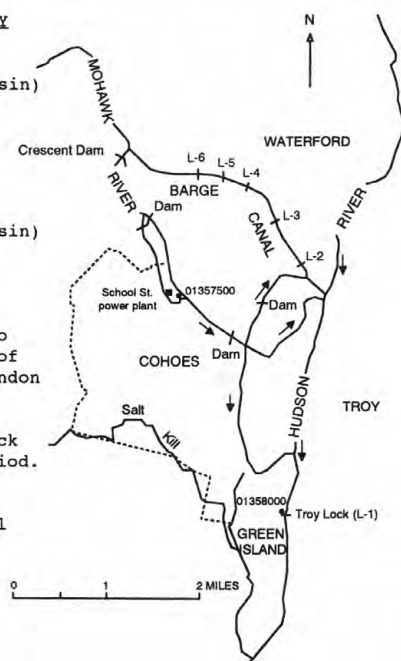
REGULATION  
(see Reservoirs in Hudson River Basin)Delta Dam.  
Hinckley Reservoir.  
Schoharie Reservoir.DIVERSIONS  
(see Reservoirs in Hudson River Basin)

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 Conklinville (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

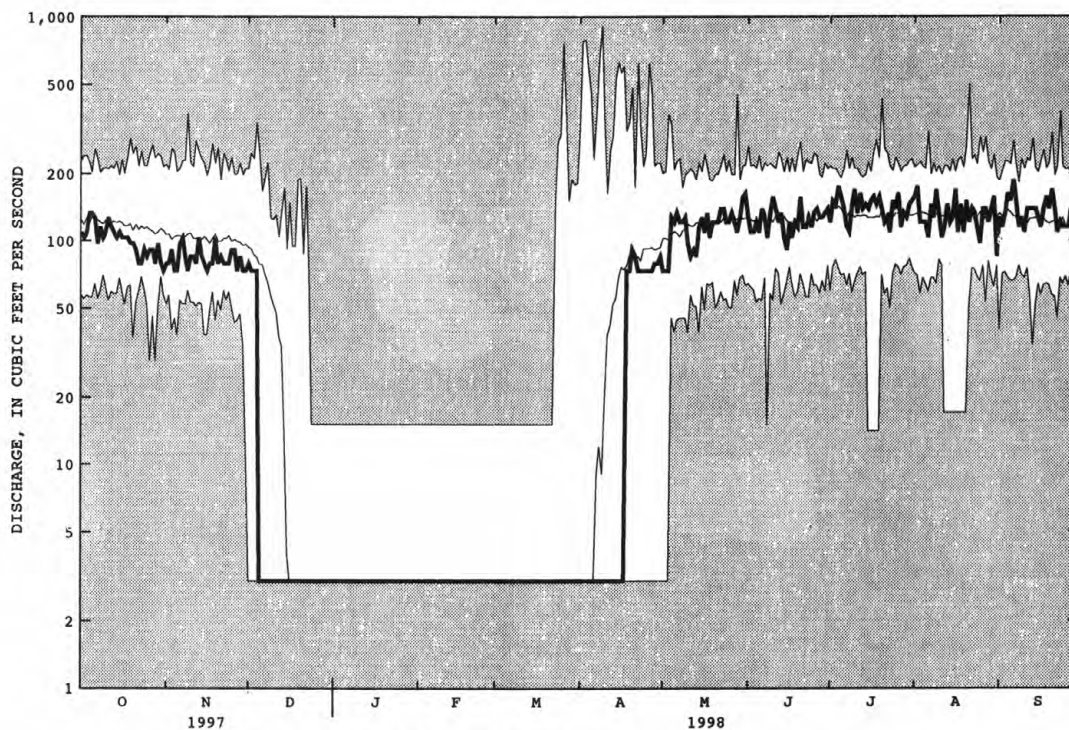
## 01357500 MOHAWK RIVER AT COHOES, NY--Continued

## Statistics and hydrograph for Diversion (01357499)

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

MEAN	121	110	34.0	3.41	3.41	7.25	68.4	119	127	133	130	126
MAX	203	180	73.0	15.0	15.0	35.9	141	175	186	186	196	203
(WY)	1937	1939	1977	1934	1934	1965	1951	1939	1937	1936	1936	1936
MIN	75.4	66.0	3.00	3.00	3.00	3.00	3.00	70.4	85.8	92.2	93.2	81.2
(WY)	1963	1993	1997	1935	1935	1936	1992	1963	1960	1927	1962	1962

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR			FOR 1998 WATER YEAR			WATER YEARS 1926 - 1998		
ANNUAL TOTAL	26699.0			26985.0					
ANNUAL MEAN	73.1			73.9			82.3		
HIGHEST ANNUAL MEAN							122		
LOWEST ANNUAL MEAN							57.8		
HIGHEST DAILY MEAN	175		Jul 5	187		Sep 6	913		Apr 9 1967
LOWEST DAILY MEAN	3.0		Jan 1	3.0		Dec 5	3.0		Dec 18 1934
ANNUAL SEVEN-DAY MINIMUM	3.0		Jan 1	3.0		Dec 5	3.0		Dec 18 1934
10 PERCENT EXCEEDS	139			139			156		
50 PERCENT EXCEEDS	85			85			95		
90 PERCENT EXCEEDS	3.0			3.0			3.0		



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



## 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), 1997-98 (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), 1997-98 (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), 1996-98 (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), 1997-98 (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.

**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.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE 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 SATUR- ATION (MG/L) (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												
07...	1400	146	345	--	--	16.8	--	9.9	--	120	37	7.1
NOV												
05...	1050	2810	305	7.6	--	10.3	--	10.9	--	110	35	6.3
DEC												
02...	1000	10500	340	5.2	2.5	1.5	758	14.5	104	120	36	6.2
JAN												
08...	1410	65500	215	7.2	--	2.1	746	17.2	127	82	26	4.2
FEB												
05...	1030	3640	271	6.2	-2.5	.4	761	--	--	95	30	4.9
MAR												
09...	1050	12900	264	7.3	--	3.6	746	14.2	110	99	31	5.3
APR												
08...	1100	9240	187	7.4	--	7.9	757	11.8	100	71	23	3.6
MAY												
07...	1350	7950	208	7.3	--	16.4	758	9.6	99	79	25	4.0
11...	1545	31500	219	7.4	15.5	15.6	752	9.0	92	--	--	--
19...	1100	3840	210	7.3	24.0	19.3	757	9.0	98	--	--	--
JUN												
02...	1045	3610	272	7.2	--	21.0	751	8.4	95	98	30	5.6
10...	1130	1340	291	7.6	22.0	19.8	764	8.0	88	--	--	--
15...	1510	40300	282	7.4	--	--	--	--	--	110	34	6.2
16...	1647	19800	183	7.3	--	--	--	--	--	--	--	--
22...	1400	8730	192	7.1	--	22.5	763	8.7	101	--	--	--
JUL												
01...	1057	2420	222	7.4	--	24.2	--	6.9	--	--	--	--
07...	1410	3390	259	6.8	--	--	--	--	--	98	31	4.9
21...	1040	1910	290	6.9	--	--	--	--	--	--	--	--
AUG												
05...	1500	706	343	7.5	--	26.9	766	7.8	97	120	35	7.1
26...	1237	1830	346	6.4	--	--	--	--	--	--	--	--
SEP												
10...	1037	725	337	7.1	--	20.9	760	7.1	79	110	33	6.3
24...	1517	1870	343	5.7	--	--	--	--	--	--	--	--



## 01357500 MOHAWK RIVER AT COHOES, NY--Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	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)	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												
07...	21	27	.8	1.8	31	30	.1	3.4	193	190	.02	.84
NOV												
05...	17	24	.7	1.6	28	26	.1	4.0	179	174	.02	.64
DEC												
02...	21	28	.9	1.8	25	35	<.1	5.0	194	188	<.01	.85
JAN												
08...	11	22	.5	1.7	13	18	<.1	4.8	137	133	<.01	.90
FEB												
05...	15	25	.7	1.0	17	24	.1	4.9	165	146	.01	.86
MAR												
09...	13	22	.6	1.1	15	22	<.1	4.1	164	146	<.01	.82
APR												
08...	8.3	20	.4	.9	12	13	<.1	3.9	120	103	<.01	.58
MAY												
07...	10	22	.5	.9	13	15	<.1	3.2	127	113	.01	.40
11...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
02...	14	24	.6	1.3	17	21	<.1	2.2	160	146	.04	.38
10...	--	--	--	--	--	--	--	--	--	--	--	--
15...	13	20	.5	1.9	20	19	<.1	3.8	175	160	.02	1.2
16...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
01...	--	--	--	--	--	--	--	--	--	--	--	--
07...	12	20	.5	.9	14	16	<.1	4.4	153	138	.01	.61
21...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
05...	17	24	.7	1.5	--	--	--	3.0	--	--	.02	.20
26...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
10...	16	24	.7	1.5	23	26	.1	4.0	181	166	.02	.69
24...	--	--	--	--	--	--	--	--	--	--	--	--

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)	ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)
OCT											
07...	.08	.3	.4	.08	.06	.06	21	36	<.002	<.002	.0103
NOV											
05...	.06	.3	.3	.06	.04	.05	43	23	<.002	<.002	.0100
DEC											
02...	<.02	.3	.3	.03	.02	.05	74	21	<.002	<.002	.0133
JAN											
08...	.04	2.0	.3	.77	.03	.03	160	20	<.002	<.002	.0216
FEB											
05...	.10	.3	<.1	.02	.01	.02	51	34	<.002	<.002	.0044
MAR											
09...	.04	.2	.2	.03	.02	.03	27	19	<.002	<.002	.0073
APR											
08...	.04	.2	.2	.03	.02	.02	46	24	<.002	<.002	.0046
MAY											
07...	.03	.3	.2	.04	<.01	<.01	47	32	<.002	<.002	.0076
11...	--	--	--	--	--	--	--	--	<.002	<.002	.0806
19...	--	--	--	--	--	--	--	--	<.002	<.002	.0122
JUN											
02...	.17	.4	.3	.04	<.01	.01	19	17	<.002	E.0037	.0225
10...	--	--	--	--	--	--	--	--	<.002	.0044	.0333
15...	.09	1	.5	.25	.04	.02	21	<4	<.002	.0740	1.39
16...	--	--	--	--	--	--	--	--	<.002	.0222	.652
22...	--	--	--	--	--	--	--	--	<.002	<.002	.178
JUL											
01...	--	--	--	--	--	--	--	--	<.002	<.002	.146
07...	.09	.4	.3	.03	<.01	.02	49	25	<.002	<.002	.244
21...	--	--	--	--	--	--	--	--	<.002	<.002	.103
AUG											
05...	.14	.5	.4	.03	<.01	.02	21	11	<.002	<.002	.0558
26...	--	--	--	--	--	--	--	--	<.002	<.002	.0224
SEP											
10...	.12	.5	.4	.05	.05	.04	44	47	<.002	<.002	.0154
24...	--	--	--	--	--	--	--	--	<.002	<.002	.0108

E Estimate.



## 01357500 MOHAWK RIVER AT COHOES, NY--Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	P,P' DDE DISSOLV (UG/L) (34653)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)
OCT											
07...	<.002	<.002	<.003	<.003	<.004	<.004	E.00036	<.006	E.0042	.0081	<.001
NOV											
05...	<.002	<.002	E.0073	<.003	<.004	<.004	<.002	<.006	E.0041	.0077	<.001
DEC											
02...	<.002	<.002	E.0033	<.003	<.004	<.004	<.002	<.006	E.0047	E.0034	<.001
JAN											
08...	<.002	<.002	E.0144	<.003	<.004	<.009	<.002	<.006	E.0158	<.002	<.001
FEB											
05...	<.002	<.002	<.003	<.003	<.004	<.004	<.002	<.006	E.0039	<.002	<.001
MAR											
09...	<.002	<.002	<.003	<.003	<.004	<.004	<.002	<.006	E.0079	<.002	<.001
APR											
08...	<.002	<.002	<.003	<.003	<.004	<.004	<.002	<.006	E.0044	<.002	<.001
MAY											
07...	<.002	<.002	<.003	<.003	<.004	<.004	<.002	<.006	E.0031	<.002	<.001
11...	<.002	<.002	<.003	<.003	<.004	.0306	<.002	<.006	E.0056	E.0037	<.001
19...	<.002	<.002	<.003	<.003	<.004	<.004	<.002	<.006	E.0042	<.002	<.001
JUN											
02...	<.002	<.002	<.003	<.003	<.004	<.004	<.002	<.006	E.0063	<.002	<.001
10...	<.002	<.002	<.003	<.003	<.004	E.0184	<.002	<.006	E.0110	.0047	<.001
15...	<.002	<.002	E.0116	<.003	<.004	.318	<.002	<.006	E.0943	<.002	<.001
16...	<.002	<.002	<.003	<.003	<.010	.207	<.002	<.006	E.0427	<.002	<.001
22...	<.002	<.002	<.003	<.003	<.004	.0201	<.002	<.006	E.0240	<.002	<.001
JUL											
01...	<.002	<.002	<.003	<.003	<.004	.0093	<.002	<.006	E.0203	<.002	<.001
07...	<.002	<.002	<.003	<.003	<.004	.0303	<.002	<.006	E.0311	<.002	<.001
21...	<.002	<.002	<.003	<.003	<.004	<.010	<.002	<.006	E.0265	<.002	<.001
AUG											
05...	<.002	<.002	<.003	<.003	<.004	<.004	<.002	<.006	E.0106	<.002	<.001
26...	<.002	<.002	<.003	<.003	<.004	<.004	<.002	<.006	E.0072	.0110	<.001
SEP											
10...	<.002	<.002	<.003	<.003	<.004	<.004	<.002	<.006	E.0079	.0057	<.001
24...	<.002	<.002	<.003	<.003	<.004	<.004	<.002	<.006	E.0059	<.002	<.001
DATE	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	PARA- THION, DIS- SOLVED (UG/L) (39542)	FONOFOS WATER DISS REC (UG/L) (04095)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	LINDANE DIS- SOLVED (UG/L) (39341)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA- THION, DIS- SOLVED (UG/L) (39532)
OCT											
07...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
NOV											
05...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
DEC											
02...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
JAN											
08...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
FEB											
05...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
MAR											
09...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
APR											
08...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
MAY											
07...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
11...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
19...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
JUN											
02...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
10...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
15...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
16...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
22...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
JUL											
01...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
07...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
21...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
AUG											
05...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
26...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
SEP											
10...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005
24...	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	<.004	<.002	<.005

E Estimate.



## 01357500 MOHAWK RIVER AT COHOES, NY--Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA- THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEB- ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRO- METON, WATER, DISS, REC (UG/L) (04037)
OCT											
07...	<.001	<.006	.0093	<.004	<.004	<.003	<.004	<.004	<.005	<.002	E.0075
NOV											
05...	<.001	<.006	.0062	<.004	<.004	<.003	<.004	<.004	<.005	<.002	E.0040
DEC											
02...	<.001	<.006	.0148	<.004	<.004	<.003	<.004	<.004	<.005	<.002	E.0037
JAN											
08...	<.001	<.006	.0483	<.004	<.004	<.003	<.004	<.004	<.005	<.002	<.018
FEB											
05...	<.001	<.006	.0057	<.004	<.004	<.003	<.004	<.004	<.005	<.002	<.018
MAR											
09...	<.001	<.006	.0144	<.004	<.004	<.003	<.004	<.004	<.005	<.002	<.018
APR											
08...	<.001	<.006	.0052	<.004	<.004	<.003	<.004	<.004	<.005	<.002	<.018
MAY											
07...	<.001	<.006	.0077	<.004	<.004	<.003	<.004	<.004	<.005	<.002	<.018
11...	<.001	<.006	.114	<.004	<.004	<.003	<.004	<.004	<.005	<.002	<.018
19...	<.001	<.006	.0148	<.004	<.004	<.003	<.004	<.004	<.005	<.002	<.018
JUN											
02...	<.001	<.006	.0156	<.004	<.004	<.003	<.004	<.004	<.005	<.002	<.018
10...	<.001	<.006	.0306	<.004	<.004	<.003	<.004	<.004	<.005	<.002	<.018
15...	<.001	<.006	.959	<.004	<.004	<.003	<.004	.0189	<.005	<.002	E.0156
16...	<.001	<.006	.656	<.004	<.004	<.003	<.004	.0172	<.005	<.002	E.0031
22...	<.001	<.006	.121	<.004	<.004	<.003	<.004	<.004	<.005	<.002	<.018
JUL											
01...	<.001	<.006	.111	<.004	<.004	<.003	<.004	<.004	<.005	<.002	<.018
07...	<.001	<.006	.144	<.004	<.004	<.003	<.004	<.004	<.005	<.002	<.018
21...	<.001	<.006	.0629	<.004	<.004	<.003	<.004	<.004	<.005	<.002	<.018
AUG											
05...	<.001	<.006	.0271	<.004	<.004	<.003	<.004	<.004	<.005	<.002	<.018
26...	<.001	<.006	.0132	<.004	<.004	<.003	<.004	<.004	<.005	<.002	E.0087
SEP											
10...	<.001	<.006	.0091	<.004	<.004	<.003	<.004	<.004	<.005	<.002	E.0046
24...	<.001	<.006	.0060	<.004	<.004	<.003	<.004	<.004	<.005	<.002	<.018
DATE	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROP- CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)
OCT											
07...	<.003	<.007	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
NOV											
05...	<.003	<.007	<.004	<.013	E.0032	<.010	<.007	<.013	<.002	<.001	<.002
DEC											
02...	<.003	<.007	<.004	<.013	E.0032	<.010	<.007	<.013	<.002	<.001	<.002
JAN											
08...	<.003	<.007	<.004	<.013	.0061	<.010	<.007	<.013	<.002	<.001	<.002
FEB											
05...	<.003	<.007	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
MAR											
09...	<.003	<.007	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
APR											
08...	<.003	<.007	<.004	<.060	<.005	<.010	<.007	<.013	<.002	<.001	<.002
MAY											
07...	<.003	<.007	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
11...	<.003	<.007	<.004	<.013	.0136	<.010	<.007	<.013	<.002	<.001	<.002
19...	<.003	<.007	<.004	<.013	.0150	<.010	<.007	<.013	<.002	<.001	<.002
JUN											
02...	<.003	<.007	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
10...	<.003	<.007	<.004	<.013	.0099	<.010	<.007	<.013	<.002	<.001	<.002
15...	<.003	<.007	<.004	<.013	.118	<.010	<.007	<.013	<.002	<.001	<.002
16...	<.003	<.007	<.004	<.013	.0398	<.010	<.007	<.013	<.002	<.001	<.002
22...	<.003	<.007	<.004	<.013	.0107	<.010	<.007	<.013	<.002	<.001	<.002
JUL											
01...	<.003	<.007	<.004	<.013	.0089	<.010	<.007	<.013	<.002	<.001	<.002
07...	<.003	<.007	<.004	<.013	.0296	<.010	<.007	<.013	<.002	<.001	<.002
21...	<.003	<.007	<.004	<.013	<.010	<.010	<.007	<.013	<.002	<.001	<.002
AUG											
05...	<.003	<.007	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
26...	<.003	<.007	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
SEP											
10...	<.003	<.007	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
24...	<.003	<.007	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002

E Estimate.



01357500 MOHAWK RIVER AT COHOES, NY--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

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)
OCT				
07...	1400	146	1	82
NOV				
05...	1050	2810	6	98
DEC				
02...	1000	10500	5	97
JAN				
07...	1307	30900	97	98
08...	0957	52400	328	96
08...	1406	65300	514	97
08...	1410	65500	522	96
08...	2027	76800	621	92
09...	1026	85300	603	90
09...	1045	85800	683	87
FEB				
05...	1030	3640	4	88
MAR				
09...	1040	12900	7	98
09...	1050	12900	7	99
10...	1415	45400	193	96
30...	1330	26000	63	96
APR				
03...	1315	29100	92	98
08...	1100	9240	10	92
MAY				
07...	1350	7950	13	96
11...	1545	31500	55	98
19...	1100	3840	14	98
JUN				
02...	1045	3610	9	98
15...	1510	40300	176	98
JUL				
07...	1410	3390	10	96
AUG				
05...	1500	706	12	88
SEP				
10...	1037	725	3	62



## HUDSON RIVER BASIN

## 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 mi<sup>2</sup>, approximately (including that above site of former auxiliary gage).

**PERIOD OF RECORD.**--February 1946 to current year (since October 1997, discharges only for days when inflatable rubber dam was considered to have been collapsed; see REMARKS).

**GAGE.**--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.**--No estimated daily discharges. 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. August 1991 through September 1997, 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. Since October 1997, discharges only for days when inflatable rubber dam was considered to have been collapsed. 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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 181,000 ft<sup>3</sup>/s, Dec. 31, 1948, gage height, 27.05 ft, from high-water mark in gage well; minimum discharge not determined; 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 ft<sup>3</sup>/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 140,000 ft<sup>3</sup>/s, Jan. 9, gage height, 24.77 ft; minimum discharge not determined; minimum gage height, 14.36 ft, Sept. 24.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	12300	25600	55400	---	---	---	---	---
2	---	---	---	---	12100	32700	69900	---	---	---	---	---
3	---	---	---	---	11300	33600	70000	---	---	---	---	---
4	---	---	---	---	9390	31400	57400	---	---	---	---	---
5	---	---	---	23500	10900	29900	44700	---	---	---	---	---
6	---	---	---	28100	10700	27900	36200	---	---	---	---	---
7	---	---	---	41000	10300	25700	30500	---	---	---	---	---
8	---	---	---	85300	11000	23900	26200	---	---	---	---	---
9	---	---	---	134000	10500	30100	23700	---	---	---	---	---
10	---	---	---	123000	---	64000	23700	---	---	---	---	---
11	---	---	---	93700	---	62100	---	42400	---	---	---	---
12	---	---	---	62600	---	40300	---	34600	---	---	---	---
13	---	---	---	41800	---	30400	---	26400	---	---	---	---
14	---	---	---	33900	---	29800	---	18600	---	---	---	---
15	---	---	---	24100	---	27900	---	16700	---	---	---	---
16	---	---	---	25000	---	---	---	13700	---	---	---	---
17	---	---	---	23700	---	---	---	12900	---	---	---	---
18	---	---	---	23100	---	---	---	12500	---	---	---	---
19	---	---	---	21400	---	---	---	11200	---	---	---	---
20	---	---	---	20900	---	---	---	---	---	---	---	---
21	---	---	---	19300	---	---	---	---	---	---	---	---
22	---	---	---	17200	---	---	---	---	---	---	---	---
23	---	---	---	14400	---	---	---	---	---	---	---	---
24	---	---	---	15300	---	---	---	---	---	---	---	---
25	---	---	---	16300	---	---	---	---	---	---	---	---
26	---	---	---	16300	---	---	---	---	---	---	---	---
27	---	---	---	14600	---	---	---	---	---	---	---	---
28	---	---	---	13600	---	39200	---	---	---	---	---	---
29	---	---	---	14200	---	48900	---	---	---	---	---	---
30	---	---	---	13600	---	57200	---	---	---	---	---	---
31	---	---	---	12600	---	54000	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---
MEAN	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 1998, 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



HUDSON RIVER BASIN

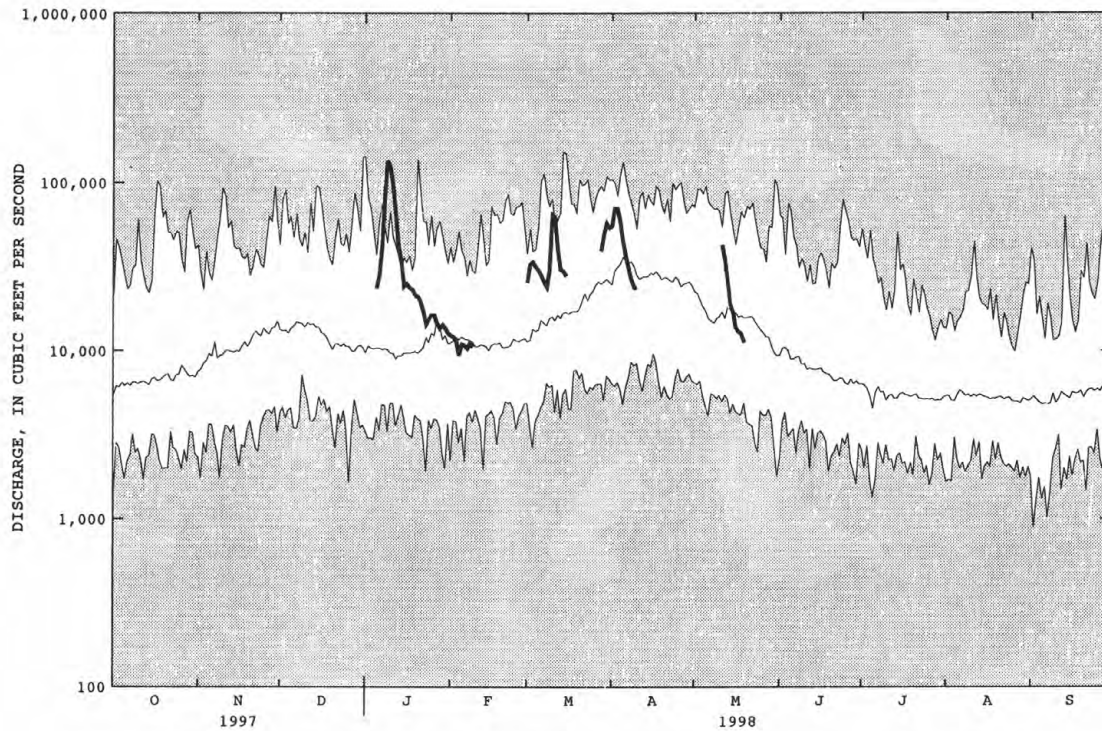
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01358000 HUDSON RIVER AT GREEN ISLAND, NY--Continued

SUMMARY STATISTICS

WATER YEARS 1946 - 1998

ANNUAL MEAN	13820	
HIGHEST ANNUAL MEAN	22100	1976
LOWEST ANNUAL MEAN	6386	1965
HIGHEST DAILY MEAN	152000	Mar 14 1977
LOWEST DAILY MEAN	882	Sep 2 1968
ANNUAL SEVEN-DAY MINIMUM	2110	Aug 23 1995
10 PERCENT EXCEEDS	29200	
50 PERCENT EXCEEDS	9430	
90 PERCENT EXCEEDS	4300	



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



## HUDSON RIVER BASIN

## 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 mi<sup>2</sup>.

**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 ft<sup>3</sup>/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 1997 TO SEPTEMBER 1998

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
<u>Maximum high tide</u>												
Elevation	5.26	5.86	5.78	11.46	5.95	6.80	7.04	7.21	7.29	5.59	5.06	5.26
Date	20	2	30	9	28	31	2	12	15	9	11	3
<u>Minimum low tide</u>												
Elevation	-2.37	-3.40	-2.86	-3.30	-1.65	-0.93	-2.02	-2.13	-2.45	-1.88	-2.52	-2.23
Date	28	27	31	1	4	15	29	22	5	18	19	10
Mean high tide	4.27	4.68	4.26	5.66	4.91	5.32	5.20	5.19	5.31	4.76	4.53	4.43
Mean water level	1.43	1.84	1.46	3.19	2.28	2.96	2.55	2.30	2.56	1.78	1.55	1.55
Mean low tide	-1.57	-1.10	-1.43	0.64	-0.46	0.45	-0.27	-0.70	-0.44	-1.34	-1.50	-1.45



## 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 mi<sup>2</sup>.

**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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 738 ft<sup>3</sup>/s, Jan. 19, 1996, gage height, 5.85 ft; minimum discharge, 0.08 ft<sup>3</sup>/s, Aug. 31, Sept. 6, 7, 8, 1995, gage height, 0.76 ft.

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 130 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 1	0300	160	3.39	June 15	0500	158	3.38
Jan. 9	0430	*225	*3.82				

Minimum discharge, 0.29 ft<sup>3</sup>/s, Sept. 12, 19, gage height, 0.87 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	1.1	111	e5.0	e5.6	56	17	5.7	34	6.6	1.3	e.46
2	.76	7.2	49	e7.0	e5.4	48	27	24	14	8.1	1.3	.46
3	.68	15	28	12	5.5	37	27	22	17	6.6	.97	.53
4	.73	8.0	23	30	5.6	28	20	14	7.6	5.2	.85	.46
5	1.0	7.0	22	60	5.4	24	17	12	4.8	5.4	.96	.39
6	1.1	4.9	19	67	e5.2	23	14	34	3.4	4.2	.83	.39
7	.84	3.8	16	63	e5.0	20	12	33	2.9	3.7	.79	.49
8	.70	3.8	13	114	e4.6	19	12	21	2.8	8.4	.66	.59
9	.50	34	e11	171	e4.2	53	17	19	3.3	14	.60	.82
10	.44	49	e9.5	98	e4.0	83	15	65	2.6	8.2	.68	1.0
11	.41	23	8.7	52	e4.1	e35	11	69	2.1	5.2	2.5	.72
12	.42	14	8.1	32	46	e25	9.8	40	4.5	4.0	e1.3	.60
13	.41	9.7	7.6	26	e30	e18	8.7	30	17	3.4	e.80	.47
14	.41	7.8	e6.2	e20	e17	16	7.6	17	85	3.0	e.64	.48
15	.68	8.4	e5.2	e17	e10	14	7.1	13	112	2.6	e.56	.50
16	1.6	8.2	5.5	15	e8.0	14	6.9	9.9	88	2.4	e.52	.49
17	1.5	8.1	5.4	13	10	15	6.7	8.8	95	2.2	e.56	.43
18	1.3	8.3	4.8	12	19	13	6.7	7.5	71	2.3	e.62	.41
19	1.2	e7.0	4.7	11	27	37	7.8	6.2	53	2.1	e.80	.35
20	1.2	6.1	e4.5	10	27	36	67	5.3	31	4.7	e.74	.35
21	1.3	5.9	e4.0	9.2	23	29	33	4.6	22	5.2	e.64	.36
22	1.2	22	3.3	e8.2	20	e21	20	4.0	16	3.4	e.60	.43
23	1.3	23	3.7	7.5	17	e18	16	3.6	12	2.7	e.60	.44
24	1.2	21	3.9	e7.2	16	e17	14	3.2	11	2.4	e.76	.41
25	2.6	18	6.0	e7.0	16	e20	11	3.0	8.4	2.5	e1.1	.39
26	3.3	14	9.3	e6.8	25	28	9.8	3.1	6.9	2.1	e1.0	.40
27	3.8	31	9.3	e6.6	e28	38	9.4	2.7	7.6	1.9	e.80	.89
28	2.9	19	e10	6.5	35	30	7.9	2.3	5.9	1.7	e.64	.85
29	1.9	15	e8.0	5.9	---	24	6.9	2.0	5.3	1.6	e.56	.59
30	1.4	27	e6.0	5.9	---	19	6.2	2.0	7.0	1.5	e.52	.51
31	1.2	---	e5.2	5.7	---	16	---	7.4	---	1.3	e.50	---
TOTAL	38.98	430.3	430.9	911.5	428.6	874	451.5	494.3	753.1	128.6	25.70	15.66
MEAN	1.26	14.3	13.9	29.4	15.3	28.2	15.1	15.9	25.1	4.15	.83	.52
MAX	3.8	49	111	171	46	83	67	69	112	14	2.5	1.0
MIN	.41	1.1	3.3	5.0	4.0	13	6.2	2.0	2.1	1.3	.50	.35
CFSM	.13	1.51	1.47	3.10	1.61	2.97	1.59	1.68	2.65	.44	.09	.06
IN.	.15	1.69	1.69	3.58	1.68	3.43	1.77	1.94	2.96	.50	.10	.06

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1998, BY WATER YEAR (WY)**

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	6.56	15.0	17.8	16.7	10.0	27.0	30.2	15.6	6.77	3.51	2.05	2.04
MAX	16.6	26.5	39.2	40.1	15.3	44.0	52.7	41.7	25.1	14.8	6.34	7.89
(WY)	1992	1992	1997	1996	1998	1994	1993	1996	1998	1994	1994	1996
MIN	1.26	1.75	5.55	4.88	3.44	13.1	12.6	4.05	1.13	.32	.43	.49
(WY)	1998	1995	1996	1994	1993	1992	1995	1995	1995	1991	1993	1995

**SUMMARY STATISTICS FOR 1997 CALENDAR YEAR FOR 1998 WATER YEAR WATER YEARS 1991 - 1998**

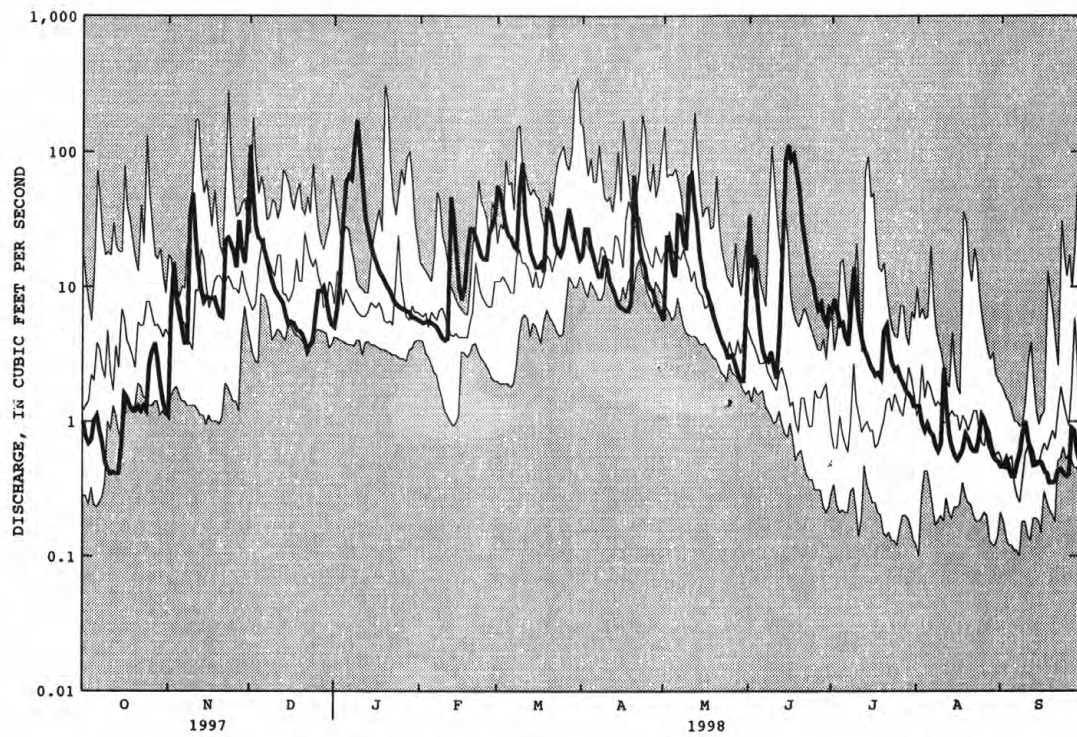
ANNUAL TOTAL	3808.05	4983.14	
ANNUAL MEAN	10.4	13.7	12.8
HIGHEST ANNUAL MEAN			19.9
LOWEST ANNUAL MEAN			7.45
HIGHEST DAILY MEAN	111	171	344
LOWEST DAILY MEAN	.30	.35	.10
ANNUAL SEVEN-DAY MINIMUM	.46	.39	.13
ANNUAL RUNOFF (CFSM)	1.10	1.44	1.35
ANNUAL RUNOFF (INCHES)	14.94	19.55	18.32
10 PERCENT EXCEEDS	25	32	31
50 PERCENT EXCEEDS	5.2	6.8	5.6
90 PERCENT EXCEEDS	.65	.60	.56

e Estimated



## HUDSON RIVER BASIN

01360640 VALATIE KILL NEAR NASSAU, NY--Continued



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



## HUDSON RIVER BASIN

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## 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 mi<sup>2</sup>.

**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 ft<sup>3</sup>/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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 16,100 ft<sup>3</sup>/s, Apr. 4, 1987, gage height, 13.70 ft, from floodmarks, site and datum then in use, from rating curve extended above 3,000 ft<sup>3</sup>/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 ft<sup>3</sup>/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 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 1	2130	1,550	6.44	Mar. 28	2115	1,380	6.22
Jan. 8	2000	2,440	7.47	May 10	1900	*3,700	*8.68
Mar. 10	0145	2,420	7.45	June 14	1645	3,600	8.59

Minimum discharge, 9.3 ft<sup>3</sup>/s, Sept. 30, gage height, 2.64 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	315	210	e70	81	170	614	154	112	214	33	12
2	19	700	194	e74	78	190	613	211	80	180	31	14
3	18	467	185	83	76	197	496	250	101	160	29	15
4	18	326	184	141	74	197	404	291	82	145	27	13
5	19	266	183	295	73	189	343	347	76	148	26	12
6	18	217	163	759	69	172	298	427	71	125	26	12
7	17	180	147	1090	67	163	259	389	68	115	24	13
8	16	244	135	1930	64	162	233	362	66	205	22	13
9	16	492	123	1700	62	587	242	344	63	251	21	13
10	14	438	120	1060	60	1820	309	1920	59	235	21	12
11	14	344	115	645	59	860	276	2280	57	218	23	11
12	14	292	106	447	121	531	264	1490	62	196	22	11
13	14	241	101	345	134	396	248	799	103	170	20	11
14	14	220	94	292	e124	333	232	515	1650	145	19	11
15	14	180	88	265	e120	287	216	374	1570	128	18	10
16	15	151	83	255	e116	248	195	290	873	116	18	13
17	15	132	81	223	122	216	178	256	560	105	22	11
18	14	119	77	200	180	200	158	224	426	95	23	10
19	14	108	74	180	197	216	173	196	325	85	21	9.9
20	14	102	72	154	200	214	416	172	264	78	19	9.9
21	14	96	67	139	191	231	372	151	234	72	17	9.6
22	13	138	66	127	177	219	345	134	208	66	17	13
23	13	135	66	124	e175	209	312	121	183	60	16	11
24	13	132	60	131	173	202	287	109	158	57	15	10
25	19	123	73	120	153	188	251	103	137	53	14	9.9
26	21	123	83	105	140	196	236	94	122	48	14	9.9
27	31	167	81	97	133	322	220	85	115	45	13	11
28	36	154	78	96	135	982	199	78	101	42	13	13
29	33	156	e74	93	---	1170	179	75	94	39	12	10
30	31	163	e72	91	---	832	165	73	211	37	12	9.6
31	31	---	e70	86	---	638	---	76	---	34	13	---
TOTAL	574	6921	3325	11417	3354	12537	8733	12390	8231	3667	621	343.8
MEAN	18.5	231	107	368	120	404	291	400	274	118	20.0	11.5
MAX	36	700	210	1930	200	1820	614	2280	1650	251	33	15
MIN	13	96	60	70	59	162	158	73	57	34	12	9.6
CFSM	.29	3.62	1.68	5.78	1.88	6.35	4.57	6.27	4.31	1.86	.31	.18
IN.	.34	4.04	1.94	6.67	1.96	7.32	5.10	7.24	4.81	2.14	.36	.20

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1998, BY WATER YEAR (WY)**

	MEAN	85.6	147	168	153	142	249	333	203	102	56.5	30.2	39.8
	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

## 01362200 ESOPUS CREEK AT ALLABEN, NY--Continued

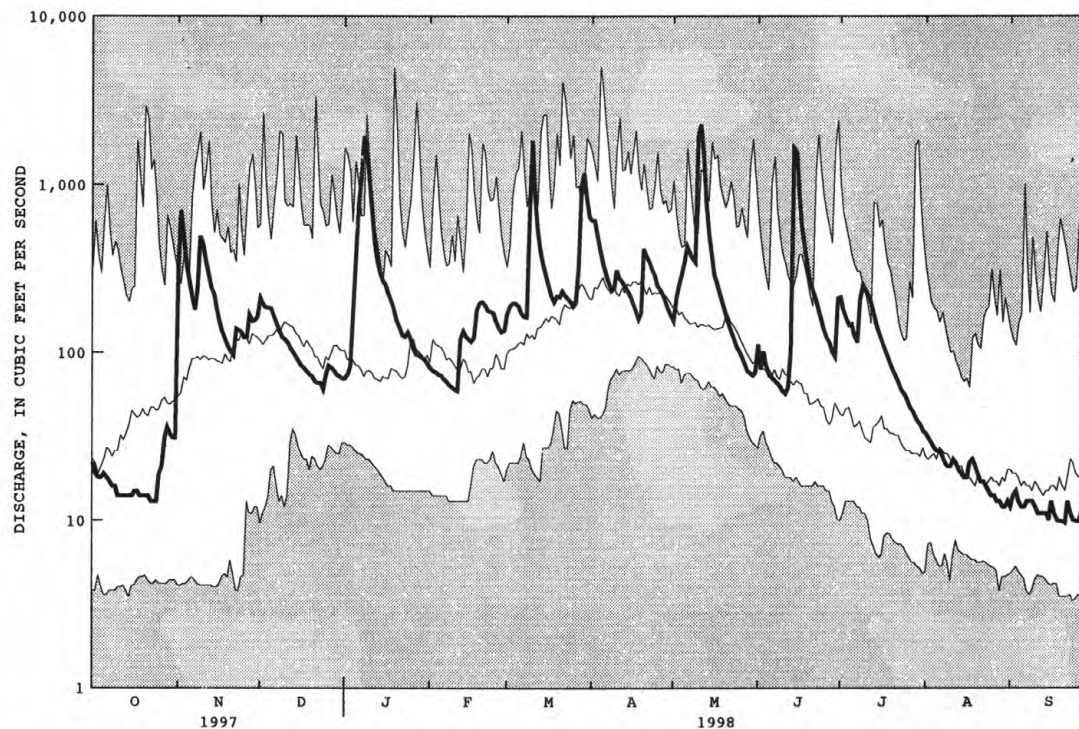
## SUMMARY STATISTICS

## FOR 1997 CALENDAR YEAR

## FOR 1998 WATER YEAR

## WATER YEARS 1964 - 1998

ANNUAL TOTAL	46735.7	72113.8	142	
ANNUAL MEAN	128	198	224	1996
HIGHEST ANNUAL MEAN			59.8	1965
LOWEST ANNUAL MEAN			5000	Apr 4 1987
HIGHEST DAILY MEAN	853	2280	3.3	Sep 24 1964
LOWEST DAILY MEAN	8.3	9.6	3.5	Sep 22 1964
ANNUAL SEVEN-DAY MINIMUM	9.2	10	2.24	
ANNUAL RUNOFF (CFSM)	2.01	3.10	30.38	
ANNUAL RUNOFF (INCHES)	27.29	42.11	312	
10 PERCENT EXCEEDS	314	392	78	
50 PERCENT EXCEEDS	86	121	13	
90 PERCENT EXCEEDS	14	14		



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



## 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.**--February 1924 to September 1950 and October 1960 to September 1996 (monthly and yearly discharge only), December 1996 to current year. (Prior to October 1950, published in WSP 1302, October 1960 to September 1970, in WSP 2102.) Records for October 1950 to September 1960 are unpublished and available in files of the Geological Survey.

**GAGE.**--Water-stage recorder. Concrete control since May 8, 1998. Elevation of gage is 800 ft above sea level, from topographic map.

**REMARKS.**--Records good except those below 15 ft<sup>3</sup>/s prior to May 8, and those for estimated daily discharges, which are poor. Flow completely regulated by Schoharie Reservoir. Records prior to October 1996 provided by Department of Environmental Protection, City of New York. Telephone gage-height and temperature telemeter at station.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 906 ft<sup>3</sup>/s, June 7, 8, July 19, 1998, gage height, 5.53 ft; minimum daily discharge, 0.22 ft<sup>3</sup>/s, Jan. 3, 5, 15, 1997; minimum instantaneous discharge not determined.

**EXTREMES FOR CURRENT YEAR.**--Maximum discharge, 906 ft<sup>3</sup>/s, June 7, 8, July 19, gage height, 5.53 ft; minimum daily discharge, 1.1 ft<sup>3</sup>/s, Jan. 13-19; minimum instantaneous discharge not determined.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	134	111	572	550	152	168	1.7	e6.0	361	29	226	235
2	135	121	574	549	151	168	1.7	e4.5	362	1.8	226	234
3	364	133	576	551	152	168	1.8	e1.8	362	1.7	226	233
4	715	122	570	554	152	169	2.2	e1.8	362	1.8	225	233
5	620	120	566	568	151	168	2.6	e1.8	517	1.7	224	234
6	305	114	567	582	151	168	3.3	2.0	783	1.7	224	230
7	193	112	567	583	152	168	e1.8	1.9	834	55	224	228
8	171	110	567	322	151	168	e1.9	1.9	735	147	225	227
9	e160	117	565	5.9	156	169	e2.1	1.9	526	148	224	226
10	e160	121	564	1.8	164	70	e1.8	6.7	e300	147	228	229
11	e160	116	561	1.5	164	2.2	e1.8	4.2	e200	147	232	457
12	e160	111	558	1.2	164	1.5	e1.8	2.8	146	147	230	830
13	e160	102	556	1.1	165	1.4	e1.8	2.3	204	147	227	824
14	e150	105	556	1.1	165	1.3	e1.8	2.0	144	147	227	732
15	e160	106	554	1.1	164	1.2	e1.8	1.9	2.8	146	226	507
16	e160	106	552	1.1	165	1.3	e1.8	1.8	2.4	171	225	302
17	e160	107	550	1.1	164	1.4	e1.8	1.8	2.2	398	229	218
18	e160	108	554	1.1	165	1.4	e1.8	1.7	2.1	736	233	216
19	e160	104	558	1.1	171	6.7	1.4	1.7	1.9	794	231	214
20	e150	138	555	34	177	34	2.2	1.7	1.9	799	232	212
21	e150	363	551	106	177	49	e1.8	1.7	1.9	485	235	193
22	141	454	553	111	178	49	e1.8	1.7	13	255	234	147
23	139	456	556	118	176	49	e2.0	1.7	50	195	232	140
24	142	458	552	117	177	49	e1.8	1.7	59	187	235	127
25	144	460	549	118	177	53	e1.9	1.7	2.1	182	238	134
26	142	504	551	131	177	58	e1.8	64	46	181	236	144
27	140	595	552	151	173	59	e1.8	287	225	204	236	144
28	140	571	550	137	169	58	e1.8	477	225	228	240	142
29	144	570	551	136	---	58	e1.8	444	225	227	239	140
30	145	571	555	143	---	43	e1.8	362	225	227	238	139
31	129	---	553	151	---	1.6	---	360	---	226	237	---
TOTAL	6093	7286	17315	5730.1	4600	2163.0	57.2	2054.7	6921.3	6763.7	7144	8271
MEAN	197	243	559	185	164	69.8	1.91	66.3	231	218	230	276
MAX	715	595	576	583	178	169	3.3	477	834	799	240	830
MIN	129	102	549	1.1	151	1.2	1.4	1.7	1.9	1.7	224	127

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 1998, BY WATER YEAR (WY)

	1997	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998
MEAN	197	243	559	94.8	109	35.3	1.45	42.2	235	239	184	230
MAX	197	243	559	185	164	69.8	1.91	66.3	240	260	230	276
(WY)	1998	1998	1998	1998	1998	1998	1998	1998	1997	1997	1998	1998
MIN	197	243	559	4.66	54.6	.86	.99	18.1	231	218	138	184
(WY)	1998	1998	1998	1997	1997	1997	1997	1997	1998	1998	1997	1997

## SUMMARY STATISTICS

## FOR 1997 CALENDAR YEAR

## FOR 1998 WATER YEAR

## WATER YEARS 1997 - 1998

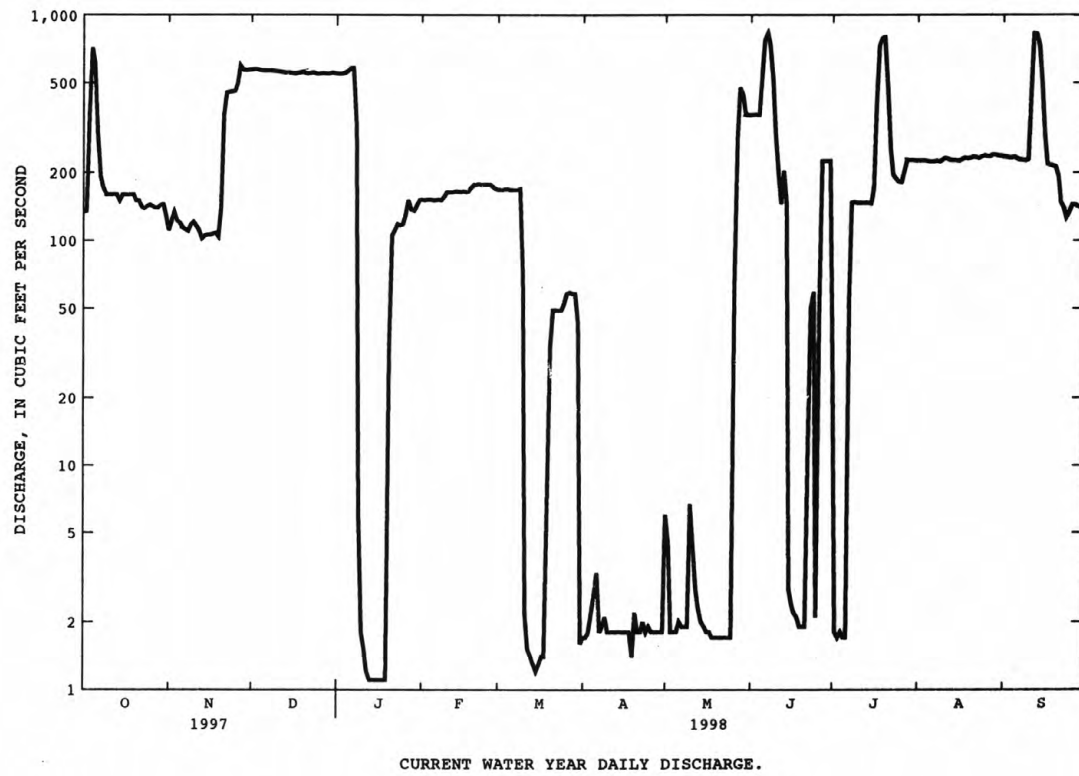
ANNUAL TOTAL	58025.20	74399.0	
ANNUAL MEAN	159	204	204
HIGHEST ANNUAL MEAN			204
LOWEST ANNUAL MEAN			204
HIGHEST DAILY MEAN	715	Oct 4	834
LOWEST DAILY MEAN	.22	Jan 3	1.1
ANNUAL SEVEN-DAY MINIMUM	.23	Jan 1	1.1
10 PERCENT EXCEEDS	552		554
50 PERCENT EXCEEDS	121		156
90 PERCENT EXCEEDS	.54		1.8
			.68

e Estimated



## HUDSON RIVER BASIN

01362230 DIVERSION FROM SCHOHARIE RESERVOIR, NY--Continued





## HUDSON RIVER BASIN

137

01362230 DIVERSION FROM SCHOHARIE RESERVOIR, NY--Continued

## WATER-QUALITY RECORDS

## PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: July 1997 to current year.

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

REMARKS.--Interruptions of record were due to decreases in the release from the diversion and shutdowns during periods of construction, exposing the water-temperature probe.

## EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 21.5°C, Sept. 3, 4, 1997; minimum (water year 1998), 1.0°C, Jan. 5, 1998, but may have been lower during period of missing record.

## EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 20.5°C, Sept. 12; minimum, 1.0°C, Jan. 5, 1998, but may have been lower during period of missing record.

## WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	15.5	15.0	15.5	9.0	8.5	8.5	4.0	3.5	4.0	1.5	1.5	1.5
2	15.5	14.5	15.0	10.0	8.5	9.5	3.5	3.0	3.0	2.0	1.5	1.5
3	15.0	14.5	14.5	10.0	8.5	9.5	3.5	3.0	3.0	2.0	1.5	1.5
4	15.0	14.5	14.5	9.0	8.5	9.0	4.0	3.5	3.5	2.0	1.5	1.5
5	15.5	14.5	15.0	9.0	8.5	9.0	4.0	3.0	3.5	1.5	1.0	1.5
6	16.0	15.0	15.0	9.0	8.0	8.5	3.5	3.0	3.0	2.0	1.5	2.0
7	16.0	15.0	15.5	9.0	8.5	8.5	3.5	3.0	3.5	2.5	2.0	2.5
8	16.0	15.0	15.0	8.5	8.5	8.5	3.0	3.0	3.0	---	---	---
9	---	---	---	8.5	8.0	8.5	3.5	3.0	3.0	---	---	---
10	---	---	---	8.5	8.0	8.5	3.5	3.0	3.5	---	---	---
11	---	---	---	8.0	8.0	8.0	3.0	2.5	2.5	---	---	---
12	---	---	---	8.0	7.5	7.5	3.0	2.5	2.5	---	---	---
13	---	---	---	7.5	7.0	7.5	3.5	2.5	3.0	---	---	---
14	---	---	---	7.5	7.0	7.0	3.5	2.5	3.0	---	---	---
15	---	---	---	7.0	6.5	6.5	2.5	2.0	2.5	---	---	---
16	---	---	---	6.5	6.5	6.5	3.0	2.5	2.5	---	---	---
17	---	---	---	6.5	6.0	6.5	3.0	2.5	3.0	---	---	---
18	---	---	---	6.5	6.0	6.0	2.5	2.0	2.5	---	---	---
19	---	---	---	6.0	5.5	6.0	3.0	2.5	2.5	---	---	---
20	---	---	---	6.0	5.5	5.5	2.5	2.5	2.5	---	---	---
21	---	---	---	5.5	5.0	5.5	2.5	2.0	2.0	3.5	3.0	3.5
22	12.0	11.0	11.5	5.5	5.0	5.0	2.5	2.0	2.5	3.0	2.5	3.0
23	11.0	9.5	10.5	5.5	5.0	5.0	2.5	2.0	2.5	3.0	3.0	3.0
24	10.0	9.5	9.5	5.0	5.0	5.0	2.0	2.0	2.0	3.5	3.0	3.0
25	10.0	9.5	9.5	5.0	4.5	5.0	2.5	2.0	2.5	3.5	3.0	3.0
26	10.0	9.5	9.5	4.5	3.5	4.0	2.5	2.0	2.5	3.0	2.5	2.5
27	10.0	9.5	9.5	4.0	3.5	3.5	2.5	2.0	2.0	3.0	2.5	2.5
28	10.0	8.0	9.0	4.0	3.5	4.0	2.0	2.0	2.0	3.0	2.5	3.0
29	8.0	7.5	8.0	4.5	4.0	4.5	2.0	2.0	2.0	3.0	3.0	3.0
30	9.0	7.5	8.5	4.5	4.0	4.0	2.0	1.5	2.0	3.0	2.5	3.0
31	9.0	8.5	9.0	---	---	---	2.0	1.5	1.5	3.0	2.5	3.0
MONTH	---	---	---	10.0	3.5	6.5	4.0	1.5	2.5	---	---	---



## HUDSON RIVER BASIN

## 01362230 DIVERSION FROM SCHOHARIE RESERVOIR, NY--Continued

## WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	2.5	2.5	2.5	3.0	2.5	3.0	---	---	---	---	---	---
2	3.0	2.5	2.5	3.0	3.0	3.0	---	---	---	---	---	---
3	3.0	3.0	3.0	3.0	3.0	3.0	---	---	---	---	---	---
4	3.0	3.0	3.0	3.0	3.0	3.0	---	---	---	---	---	---
5	3.0	2.5	2.5	3.0	2.5	3.0	---	---	---	---	---	---
6	3.0	2.5	2.5	3.0	2.5	3.0	---	---	---	---	---	---
7	3.0	2.5	2.5	3.0	2.5	2.5	---	---	---	---	---	---
8	3.0	2.5	3.0	3.0	2.5	3.0	---	---	---	---	---	---
9	3.0	2.5	2.5	3.0	3.0	3.0	---	---	---	---	---	---
10	3.0	2.5	3.0	---	---	---	---	---	---	---	---	---
11	3.0	3.0	3.0	---	---	---	---	---	---	---	---	---
12	3.0	3.0	3.0	---	---	---	---	---	---	---	---	---
13	3.0	3.0	3.0	---	---	---	---	---	---	---	---	---
14	3.0	3.0	3.0	---	---	---	---	---	---	---	---	---
15	3.0	3.0	3.0	---	---	---	---	---	---	---	---	---
16	3.0	3.0	3.0	---	---	---	---	---	---	---	---	---
17	3.0	3.0	3.0	---	---	---	---	---	---	---	---	---
18	3.0	3.0	3.0	---	---	---	---	---	---	---	---	---
19	3.0	3.0	3.0	---	---	---	---	---	---	---	---	---
20	3.0	3.0	3.0	4.0	3.0	3.5	---	---	---	---	---	---
21	3.0	3.0	3.0	3.0	2.5	2.5	---	---	---	---	---	---
22	3.0	3.0	3.0	3.0	3.0	3.0	---	---	---	---	---	---
23	3.0	2.5	3.0	3.0	2.5	3.0	---	---	---	---	---	---
24	3.0	2.5	3.0	2.5	2.5	2.5	---	---	---	---	---	---
25	3.0	2.5	3.0	2.5	2.5	2.5	---	---	---	---	---	---
26	2.5	2.5	2.5	3.0	2.5	2.5	---	---	---	---	---	---
27	2.5	2.5	2.5	3.0	2.5	2.5	---	---	---	10.0	7.5	8.5
28	2.5	2.5	2.5	3.5	3.0	3.0	---	---	---	9.5	8.5	9.0
29	---	---	---	4.5	3.0	4.0	---	---	---	9.5	8.5	9.0
30	---	---	---	---	---	---	---	---	---	9.5	9.0	9.0
31	---	---	---	---	---	---	---	---	---	9.5	8.0	9.0
MONTH	3.0	2.5	3.0	---	---	---	---	---	---	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	11.0	8.5	9.0	---	---	---	13.5	11.0	12.0	16.5	12.5	14.5
2	10.0	8.5	9.0	---	---	---	13.0	10.0	12.0	16.5	13.0	14.5
3	9.5	8.5	9.0	---	---	---	13.0	11.5	12.0	16.0	14.0	15.0
4	10.5	8.5	9.0	---	---	---	13.0	11.0	12.0	16.5	14.5	15.5
5	13.0	8.5	10.0	---	---	---	13.0	11.0	12.0	19.0	14.5	16.0
6	12.5	10.0	11.5	---	---	---	13.0	11.5	12.5	17.0	13.5	15.5
7	13.0	10.5	12.0	---	---	---	13.5	11.5	12.5	17.5	14.5	16.0
8	13.0	10.5	12.0	11.0	10.0	10.5	12.5	11.5	12.0	18.0	16.0	16.5
9	11.5	9.5	10.5	10.5	9.0	9.5	13.5	11.5	12.5	18.5	15.0	17.0
10	---	---	---	12.0	10.0	11.0	13.5	10.5	12.5	19.0	16.0	17.5
11	---	---	---	12.0	8.5	10.0	13.5	11.5	12.5	20.0	16.0	18.0
12	9.5	8.0	8.5	11.5	8.5	10.0	13.5	11.5	12.5	20.5	19.0	19.5
13	11.5	8.5	9.0	11.5	9.0	10.0	13.5	11.5	12.5	20.0	19.5	19.5
14	9.5	8.0	9.0	11.5	9.5	10.5	13.5	11.5	12.5	20.0	19.5	19.5
15	---	---	---	11.5	9.5	10.5	13.0	12.5	12.5	19.5	19.0	19.0
16	---	---	---	11.5	10.0	10.5	14.0	12.0	12.5	19.5	18.0	18.5
17	---	---	---	13.5	11.0	12.0	14.0	12.5	13.0	19.0	16.5	17.5
18	---	---	---	14.0	12.5	13.0	13.5	12.0	13.0	19.0	17.5	18.0
19	---	---	---	14.5	12.5	13.5	15.0	12.0	13.5	18.5	17.0	18.0
20	---	---	---	14.5	13.0	14.0	14.5	11.5	13.0	19.0	17.0	18.5
21	---	---	---	14.0	11.5	13.0	14.5	11.5	13.0	19.0	17.0	18.0
22	---	---	---	12.5	11.5	12.0	14.5	12.0	13.5	18.5	16.0	17.5
23	8.5	8.0	8.5	12.5	10.5	11.5	14.5	12.0	13.0	19.5	16.5	18.5
24	9.0	8.0	8.5	12.5	10.5	11.5	14.0	12.5	13.5	19.5	15.0	17.0
25	---	---	---	12.5	10.5	11.5	15.5	12.0	13.5	18.0	16.5	17.5
26	---	---	---	12.5	10.0	11.5	15.5	12.5	14.0	18.0	16.5	17.5
27	11.5	9.5	10.5	12.5	9.5	11.5	15.0	13.0	14.5	18.0	17.0	17.5
28	12.0	9.5	10.5	12.0	11.0	12.0	15.0	13.0	14.0	19.0	16.5	18.0
29	11.5	9.0	10.5	12.5	10.5	12.0	16.0	12.5	14.0	19.0	16.0	17.5
30	11.5	10.0	10.5	13.0	10.5	12.0	15.5	13.0	14.0	18.0	17.0	17.5
31	---	---	---	12.5	11.0	12.0	15.5	12.5	14.5	---	---	---
MONTH	---	---	---	---	---	---	16.0	10.0	13.0	20.5	12.5	17.5



## 01362342 HOLLOW TREE BROOK AT LANESVILLE, NY

**LOCATION.**--Lat 42°08'32", long 74°15'55", Greene County, Hydrologic Unit 02020006, on left bank downstream from bridge on Diamond Notch Road, about 1.0 mi upstream from mouth, and about 1.0 mi north of Lanesville.

**DRAINAGE AREA.**--1.95 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

**PERIOD OF RECORD.**--October 1997 to September 1998.

**GAGE.**--Water-stage recorder and crest-stage gage. Elevation of gage is 1,480 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, 99 ft<sup>3</sup>/s, June 14, 1998, gage height, 2.71 ft, from rating curve extended above 25 ft<sup>3</sup>/s on basis of step-backwater analysis; minimum recorded discharge, 0.58 ft<sup>3</sup>/s, Sept. 18, 19, 20, 21, 22, 26, 27, 29, 30, gage height, 1.26 ft, but may have been less during period of estimated record, Oct. 6-31.

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 40 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 9	0200	a91	2.65	May 10	1745	a83	2.58
Mar. 10	0200	a78	2.54	June 14	1515	a*99	*2.71
Mar. 28	2200	47	2.24				

a From rating curve extended as explained above.

Minimum recorded discharge, 0.58 ft<sup>3</sup>/s, Sept. 18, 19, 20, 21, 22, 26, 27, 29, 30, gage height, 1.26 ft, but may have been less during period of estimated record, Oct. 6-31.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.93	5.0	3.2	e1.8	2.7	5.1	25	4.8	3.8	5.2	1.7	.76
2	.92	21	3.5	1.7	2.7	5.5	27	7.0	3.6	5.2	1.7	.81
3	.91	22	3.5	1.9	2.6	6.1	20	11	3.8	5.1	1.6	.76
4	.88	13	3.5	3.0	2.5	6.1	15	15	3.5	4.8	1.6	.74
5	.94	8.8	3.4	8.5	2.4	6.0	11	19	3.4	4.6	1.5	.71
6	e.90	6.9	3.3	23	2.4	5.7	9.3	25	3.3	4.1	1.5	.70
7	e.84	5.8	3.2	37	2.3	5.4	7.6	21	3.2	3.9	1.4	.76
8	e.80	7.0	3.0	65	2.4	5.3	6.6	16	3.1	5.6	1.4	.71
9	e.76	16	2.9	66	2.3	20	6.8	13	3.0	7.8	1.3	.71
10	e.72	19	2.9	42	2.3	59	7.7	48	2.9	8.2	1.4	.69
11	e.70	14	2.7	26	e2.2	32	7.8	55	2.9	7.0	1.3	.67
12	e.70	11	2.6	17	e2.8	21	7.7	37	3.5	5.9	1.1	.67
13	e.70	7.9	2.5	13	3.0	15	7.3	26	5.0	5.2	1.1	.65
14	e.70	6.7	2.4	e9.2	e3.0	11	6.9	19	51	4.7	1.0	.64
15	e.80	5.4	2.3	e8.0	e3.3	8.9	6.3	15	48	4.2	1.0	.65
16	e.82	4.6	2.3	e7.0	3.4	7.3	5.7	12	44	3.8	1.0	.71
17	e.80	4.0	2.2	e6.2	3.5	6.2	5.4	10	36	3.6	1.0	.64
18	e.80	3.6	2.1	e5.6	4.0	5.6	5.0	8.6	36	3.4	1.0	.64
19	e.86	3.3	2.0	e5.0	4.2	5.6	5.7	7.6	26	3.1	.98	.64
20	e.94	3.1	2.0	e4.7	4.7	5.5	12	6.6	18	3.0	.93	.63
21	e1.0	2.9	1.9	e4.2	4.9	5.9	13	6.1	14	2.8	.93	.62
22	e.98	3.2	1.9	3.5	5.1	5.9	11	5.5	11	2.6	.90	.76
23	e.96	2.9	1.9	3.5	5.0	5.7	9.5	5.1	8.7	2.5	.87	.66
24	e.94	2.8	1.8	3.6	5.2	5.4	9.2	4.9	7.0	2.4	.85	.64
25	e1.4	2.7	2.0	3.4	4.9	5.1	8.0	4.7	5.7	2.3	.85	.64
26	e1.3	2.7	2.0	3.2	4.7	5.1	7.4	4.4	5.1	2.2	.83	.64
27	e1.9	2.8	1.9	3.1	4.5	11	6.7	4.1	4.7	2.1	.81	.68
28	e2.0	2.7	1.9	3.0	4.6	36	6.0	4.0	4.2	2.0	.78	.67
29	e2.1	2.7	1.9	2.9	---	41	5.5	4.0	3.9	1.9	.78	.64
30	e2.0	2.8	e1.8	2.9	---	33	5.1	3.8	5.2	1.8	.76	.64
31	e1.9	---	e1.7	2.7	---	27	---	3.8	---	1.8	.78	---
TOTAL	32.90	216.3	76.2	387.6	97.6	423.4	287.2	427.0	373.5	122.8	34.65	20.48
MEAN	1.06	7.21	2.46	12.5	3.49	13.7	9.57	13.8	12.4	3.96	1.12	.68
MAX	2.1	22	3.5	66	5.2	59	27	55	51	8.2	1.7	.81
MIN	.70	2.7	1.7	1.7	2.2	5.1	5.0	3.8	2.9	1.8	.76	.62
CFSM	.54	3.70	1.26	6.41	1.79	7.00	4.91	7.06	6.38	2.03	.57	.35
IN.	.63	4.13	1.45	7.39	1.86	8.08	5.48	8.15	7.13	2.34	.66	.39

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

	MEAN	1.06	7.21	2.46	12.5	3.49	13.7	9.57	13.8	12.4	3.96	1.12	.68
MAX	1.06	7.21	2.46	12.5	3.49	13.7	9.57	13.8	12.4	3.96	1.12	.68	
(WY)	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998
MIN	1.06	7.21	2.46	12.5	3.49	13.7	9.57	13.8	12.4	3.96	1.12	.68	
(WY)	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998

e Estimated



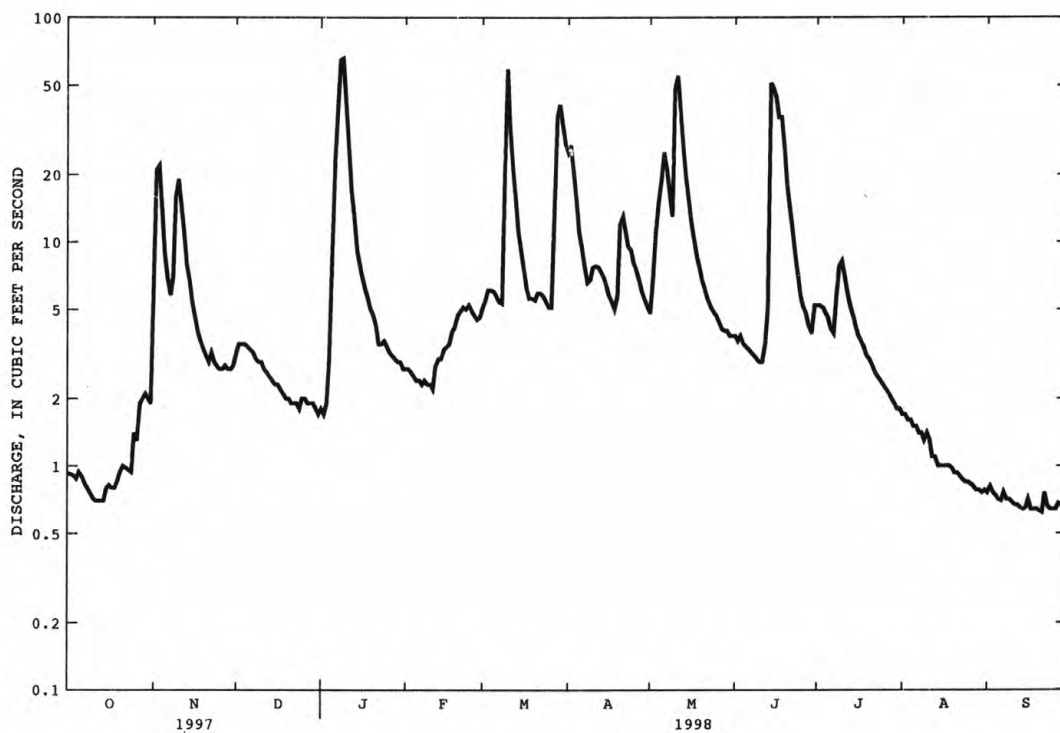
## HUDSON RIVER BASIN

01362342 HOLLOW TREE BROOK AT LANESVILLE, NY--Continued

## SUMMARY STATISTICS

FOR 1998 WATER YEAR

ANNUAL TOTAL	2499.63	
ANNUAL MEAN	6.85	
HIGHEST DAILY MEAN	66	Jan 9
LOWEST DAILY MEAN	.62	Sep 21
ANNUAL SEVEN-DAY MINIMUM	.65	Sep 15
ANNUAL RUNOFF (CFSM)	3.51	
ANNUAL RUNOFF (INCHES)	47.69	
10 PERCENT EXCEEDS	16	
50 PERCENT EXCEEDS	3.5	
90 PERCENT EXCEEDS	.77	



CURRENT WATER YEAR DAILY DISCHARGE.



## HUDSON RIVER BASIN

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01362342 HOLLOW TREE BROOK AT LANESVILLE, NY--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--January to June 1998.

NUTRIENT DATA: 1998 (b).

REMARKS.--Provisional chemical minor element and nutrient data for additional samples are available in files of the Geological Survey.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)
JAN		
04...	2000	.003
08...	1818	.001
JUN		
13...	1015	.013
14...	1700	.014



## 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 mi<sup>2</sup>.

**PERIOD OF RECORD.**--December 1996 to January 1997 (annual maximum only), February 1997 to current year.

**GAGE.**--Water-stage recorder and crest-stage gage. Elevation of gage is 900 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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 3,570 ft<sup>3</sup>/s, Dec. 2, 1996, gage height, 7.36 ft, from crest-stage gage, from rating curve extended above 1,200 ft<sup>3</sup>/s on basis of slope-conveyance study; minimum discharge, 4.5 ft<sup>3</sup>/s, Aug. 10, 11, 12, 13, 1997, gage height, 2.07 ft.

**EXTREMES OUTSIDE PERIOD OF RECORD.**--Maximum discharge, 7,600 ft<sup>3</sup>/s, Apr. 4, 1987, by computation of slope-area measurement at site 0.5 mi upstream (drainage area, 26.9 mi<sup>2</sup>). Discharges for other floods by computation of slope-area measurements at site 1.3 mi downstream (drainage area, 33.3 mi<sup>2</sup>), are as follows: 6,560 ft<sup>3</sup>/s, Nov. 25, 1950, and 4,460 ft<sup>3</sup>/s, Apr. 5, 1952.

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 500 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 2	1745	724	4.16	May 10	1745	1,600	5.08
Jan. 8	2330	1,560	5.04	June 14	1530	a*3,190	b*6.47
Mar. 10	0045	1,630	5.11				

a From rating curve extended as explained above.

b Recorded, outside gage height was 6.99 ft, from crest-stage gage.

Minimum discharge, 4.9 ft<sup>3</sup>/s, Sept. 9, gage height, 2.16 ft.

**REVISIONS.**--The maximum discharge for the water year 1997 has been revised to 3,570 ft<sup>3</sup>/s, Dec. 2, 1996, gage height, 7.36 ft, from crest-stage gage, from rating curve extended above 1,200 ft<sup>3</sup>/s on basis of slope-conveyance study. This discharge figure supersedes that published in the report for 1997.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	117	85	e41	e42	135	254	89	e60	e80	9.8	6.5
2	14	461	79	e45	e40	140	272	138	e35	e64	9.2	7.0
3	14	301	76	49	39	141	204	179	e50	e52	8.8	7.7
4	13	170	77	85	38	132	169	179	e37	e45	8.4	6.5
5	14	126	76	158	e37	121	151	268	31	e47	8.2	6.0
6	13	102	73	286	e36	109	129	321	29	e43	8.1	5.8
7	12	90	68	435	e35	100	116	242	28	e40	7.7	7.0
8	12	154	63	989	e34	103	106	199	26	e70	7.1	7.4
9	12	355	59	e900	e33	560	115	187	24	e110	7.9	6.6
10	11	264	58	e540	e32	1020	155	868	22	81	11	6.4
11	11	179	55	e340	e31	398	129	837	22	70	19	5.9
12	11	141	52	e250	83	225	119	561	49	63	12	5.7
13	11	113	50	e190	80	e170	115	363	194	56	10	5.5
14	11	106	47	e150	e68	e150	108	e270	1360	49	9.8	5.4
15	12	91	e45	e120	e66	139	102	e230	867	44	9.5	5.4
16	11	83	43	111	e64	122	95	e170	740	42	9.1	6.8
17	11	75	43	96	e62	113	94	e140	400	39	9.3	5.9
18	10	68	40	87	108	106	84	e110	264	35	12	5.6
19	10	64	39	80	107	119	97	e94	162	33	11	5.4
20	10	60	38	73	109	123	197	e80	e140	29	9.0	5.2
21	10	57	35	66	106	129	162	e70	e110	25	8.6	5.2
22	9.6	91	e34	62	98	123	e150	e62	e90	23	8.3	7.1
23	9.6	89	e33	60	94	113	e130	e56	e70	21	8.1	6.7
24	9.6	83	32	74	107	105	e150	e50	e60	20	7.7	5.7
25	14	75	49	64	98	99	e140	e45	e52	17	7.3	5.5
26	12	73	55	57	e92	101	e130	e40	e45	15	7.4	5.5
27	27	80	50	e52	e92	137	e120	e37	e42	14	6.9	6.0
28	25	74	46	51	e96	312	106	e33	e40	13	6.6	7.0
29	22	71	e44	49	---	354	102	e31	e40	12	6.5	5.9
30	21	73	e40	48	---	259	94	e33	e100	12	6.5	5.7
31	21	---	e38	45	---	216	---	e30	---	11	7.6	---
TOTAL	418.8	3886	1622	5653	1927	6174	4095	6012	5189	1275	278.4	184.0
MEAN	13.5	130	52.3	182	68.8	199	137	194	173	41.1	8.98	6.13
MAX	27	461	85	989	109	1020	272	868	1360	110	19	7.7
MIN	9.6	57	32	41	31	99	84	30	22	11	6.5	5.2
CFM	.43	4.11	1.66	5.79	2.18	6.32	4.33	6.16	5.49	1.31	.29	.19
IN.	.49	4.59	1.92	6.68	2.28	7.29	4.84	7.10	6.13	1.51	.33	.22

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 1998, BY WATER YEAR (WY)**

	1997	1998	1998	1998	1998	1997	1998	1997	1998	1997	1998	1998
MEAN	13.5	130	52.3	182	69.3	144	147	146	98.3	24.5	8.35	16.6
MAX	13.5	130	52.3	182	69.7	199	157	194	173	41.1	8.98	27.2
(WY)	1998	1998	1998	1998	1997	1998	1997	1998	1998	1998	1998	1997
MIN	13.5	130	52.3	182	68.8	88.7	137	98.4	23.6	7.94	7.73	6.13
(WY)	1998	1998	1998	1998	1998	1997	1998	1997	1997	1997	1997	1998

e Estimated



HUDSON RIVER BASIN

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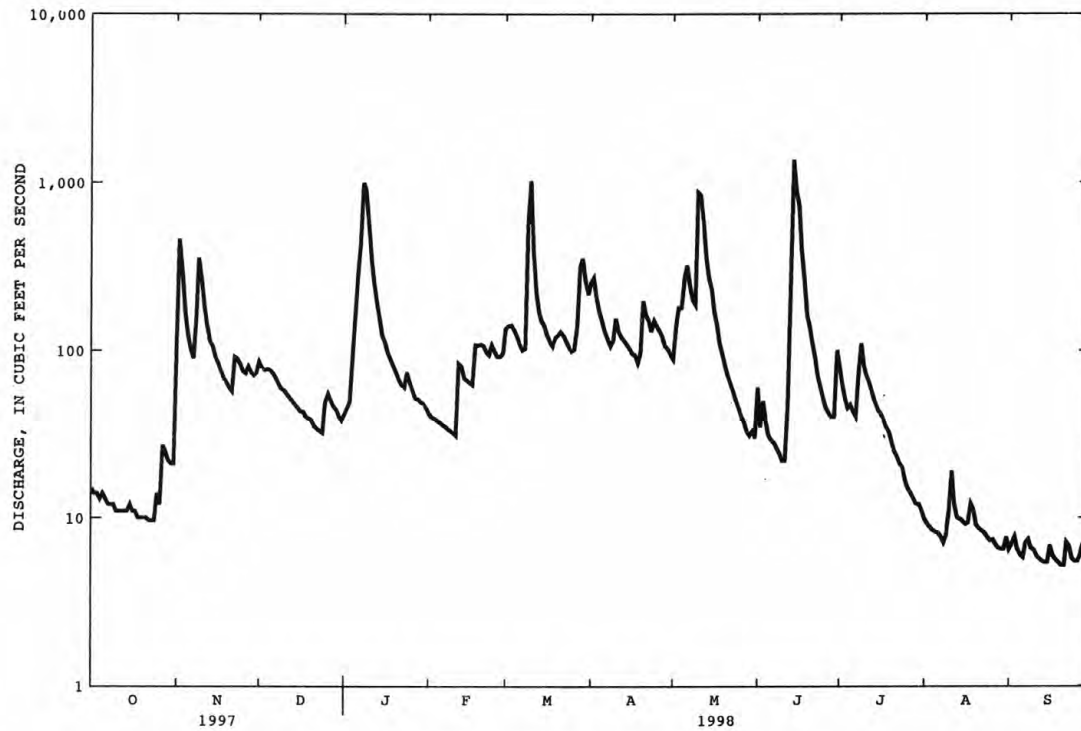
01362380 STONY CLOVE CREEK NEAR PHOENICIA, NY--Continued

SUMMARY STATISTICS

FOR 1998 WATER YEAR

WATER YEARS 1997 - 1998

ANNUAL TOTAL	36714.2			
ANNUAL MEAN	101			
HIGHEST ANNUAL MEAN			101	1998
LOWEST ANNUAL MEAN			101	1998
HIGHEST DAILY MEAN	1360	Jun 14	1360	Jun 14 1998
LOWEST DAILY MEAN	5.2	Sep 20	4.7	Aug 12 1997
ANNUAL SEVEN-DAY MINIMUM	5.6	Sep 15	5.0	Aug 6 1997
ANNUAL RUNOFF (CFSM)	3.19		3.19	
ANNUAL RUNOFF (INCHES)	43.36		43.39	
10 PERCENT EXCEEDS	201		173	
50 PERCENT EXCEEDS	57		49	
90 PERCENT EXCEEDS	7.5		6.8	



CURRENT WATER YEAR DAILY DISCHARGE.



## HUDSON RIVER BASIN

## 01362497 LITTLE BEAVER KILL AT BEECHFORD NEAR MOUNT TREMPER, NY

**LOCATION.**--Lat 42°01'10", long 74°16'00", Ulster County, Hydrologic Unit 02020005, on right bank 950 ft upstream from State Highway 28, at Beechford, and 1.8 mi southeast of Mount Tremper.

**DRAINAGE AREA.**--16.5 mi<sup>2</sup>.

**PERIOD OF RECORD.**--October 1997 to September 1998.

**GAGE.**--Water-stage recorder and crest-stage gage. Elevation of gage is 660 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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 1,090 ft<sup>3</sup>/s, June 14, 1998, gage height, 6.47 ft, from rating curve extended above 100 ft<sup>3</sup>/s on basis of step-backwater analysis; minimum discharge, 1.0 ft<sup>3</sup>/s, Sept. 14, 15, 19, 21, 1998, gage height, 1.58 ft.

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 300 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 1	2215	a473	4.86	May 10	1800	a370	4.50
Nov. 9	0645	a380	4.54	June 14	1615	a*1,090	*6.47
Jan. 8	1800	a604	5.26	June 30	2000	a937	6.12
Mar. 9	2400	a403	4.62				

a From rating curve extended as explained above.

Minimum discharge, 1.0 ft<sup>3</sup>/s, Sept. 14, 15, 19, 21, gage height, 1.58 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.8	120	41	e45	23	51	77	26	34	290	2.7	1.5
2	8.1	323	33	e43	e21	46	98	94	15	134	2.5	1.6
3	7.7	167	30	41	e21	42	77	90	18	87	2.3	1.9
4	7.8	99	46	70	22	38	63	87	13	64	2.2	1.7
5	7.9	70	49	90	e22	34	53	104	11	55	2.1	1.5
6	7.9	52	33	103	e22	31	44	118	10	43	2.2	1.4
7	7.2	41	27	126	e20	28	38	86	9.3	36	2.0	1.8
8	7.2	123	23	383	e19	34	35	69	8.7	e31	1.8	1.7
9	6.8	330	21	377	e18	231	54	78	8.3	e23	1.7	1.5
10	6.6	220	20	209	18	285	98	221	7.6	e18	5.4	1.4
11	5.6	118	20	124	18	142	59	235	7.1	e15	12	1.3
12	5.2	78	19	85	e82	e84	50	195	43	e13	4.1	1.3
13	5.2	58	18	69	e72	e62	44	123	205	e12	3.0	1.2
14	5.3	56	17	e54	e54	e54	39	85	651	e11	2.6	1.1
15	6.1	48	e16	e50	e43	50	35	65	519	e10	2.6	1.1
16	6.2	40	16	61	e38	42	33	50	365	9.2	2.5	1.4
17	6.0	34	16	48	37	e36	31	41	203	8.9	2.5	1.3
18	5.8	31	16	39	87	39	28	33	124	8.0	2.6	1.2
19	5.7	29	15	35	89	64	39	28	81	7.0	2.6	1.1
20	5.7	27	16	31	81	68	140	24	60	6.2	2.1	1.2
21	6.0	27	15	28	74	78	76	20	49	5.8	2.1	1.2
22	5.6	102	e14	25	64	68	63	17	37	5.2	2.0	2.8
23	5.7	89	e13	27	56	58	53	15	32	e4.8	1.9	2.6
24	6.0	72	14	47	77	52	50	14	28	e5.0	1.8	1.8
25	8.2	56	34	41	71	48	41	13	21	4.3	1.6	1.4
26	8.3	51	40	33	59	51	42	13	17	e3.8	1.5	1.3
27	22	48	38	30	53	64	42	11	15	3.4	1.4	1.6
28	14	41	34	28	48	61	35	9.6	13	e3.3	1.3	1.9
29	12	37	31	27	---	53	31	9.1	13	e3.0	1.3	1.6
30	11	36	68	26	---	46	28	9.6	225	e2.9	1.3	1.4
31	10	---	47	25	---	40	---	16	---	3.0	1.7	---
TOTAL	241.6	2623	840	2420	1309	2080	1596	1999.3	2843.0	925.8	79.4	45.8
MEAN	7.79	87.4	27.1	78.1	46.8	67.1	53.2	64.5	94.8	29.9	2.56	1.53
MAX	22	330	68	383	89	285	140	235	651	290	12	2.8
MIN	5.2	27	13	25	18	28	28	9.1	7.1	2.9	1.3	1.1
CFSM	.47	5.30	1.64	4.73	2.83	4.07	3.22	3.91	5.74	1.81	.16	.09
IN.	.54	5.91	1.89	5.46	2.95	4.69	3.60	4.51	6.41	2.09	.18	.10

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

	MEAN	7.79	87.4	27.1	78.1	46.8	67.1	53.2	64.5	94.8	29.9	2.56	1.53
MAX	7.79	87.4	27.1	78.1	46.8	67.1	53.2	64.5	94.8	29.9	2.56	1.53	
(WY)	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	
MIN	7.79	87.4	27.1	78.1	46.8	67.1	53.2	64.5	94.8	29.9	2.56	1.53	
(WY)	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	

e Estimated

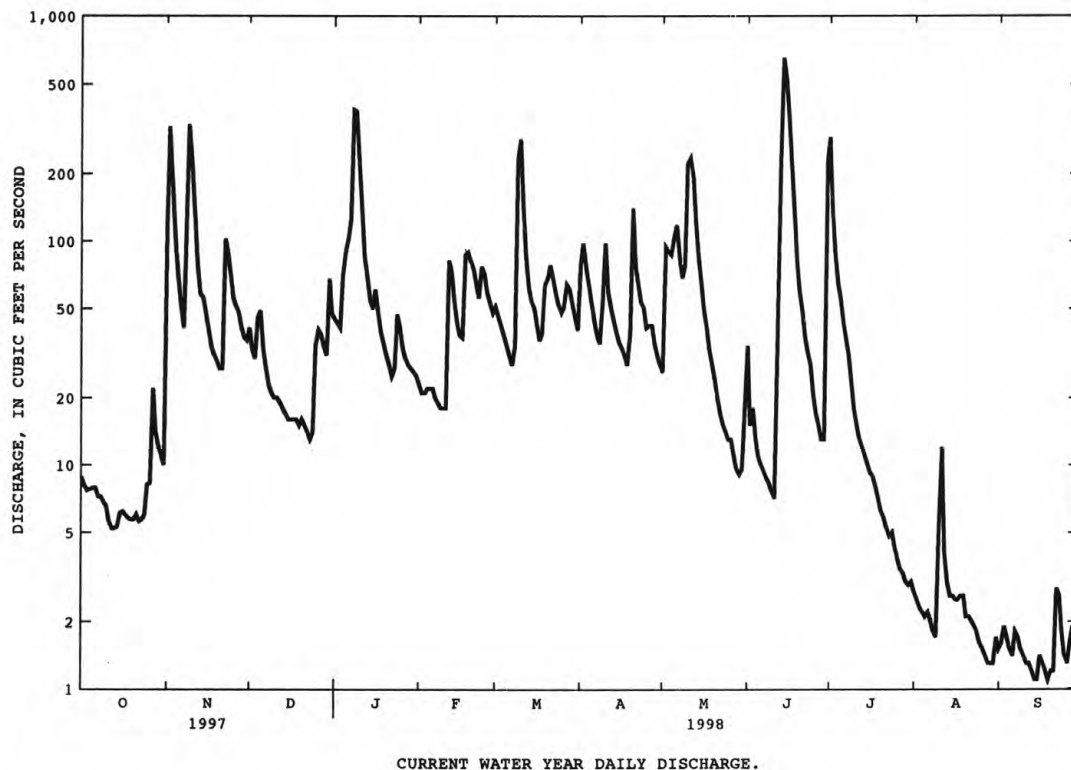


## 01362497 LITTLE BEAVER KILL AT BEECHFORD NEAR MOUNT TREMPER, NY--Continued

## SUMMARY STATISTICS

## FOR 1998 WATER YEAR

ANNUAL TOTAL	17002.9	
ANNUAL MEAN	46.6	
HIGHEST DAILY MEAN	651	Jun 14
LOWEST DAILY MEAN	1.1	Sep 14
ANNUAL SEVEN-DAY MINIMUM	1.2	Sep 13
ANNUAL RUNOFF (CFSM)	2.82	
ANNUAL RUNOFF (INCHES)	38.33	
10 PERCENT EXCEEDS	96	
50 PERCENT EXCEEDS	28	
90 PERCENT EXCEEDS	1.9	





## HUDSON RIVER BASIN

## 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 mi<sup>2</sup>.

## 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 ft<sup>3</sup>/s, Mar. 21, 1980, gage height 21.94 ft, from rating curve extended above 13,000 ft<sup>3</sup>/s, on basis of slope-area measurements at gage heights 12.39 ft, 15.15 ft, and 20.70 ft; minimum discharge not determined.

**EXTREMES FOR CURRENT YEAR.**--Maximum discharge, 13,900 ft<sup>3</sup>/s, June 14, gage height, 12.46 ft; minimum, 123 ft<sup>3</sup>/s, Sept. 25, gage height, 3.82 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	223	1020	1050	e740	391	789	1410	407	671	1010	257	220
2	212	2980	990	796	383	804	1590	773	527	591	251	223
3	334	1870	971	862	380	801	1200	888	590	477	247	228
4	727	1140	983	1090	375	764	988	945	524	409	243	220
5	681	846	966	1470	379	720	832	1250	587	410	241	217
6	381	701	928	2240	370	675	710	1550	832	331	240	213
7	252	598	895	2900	359	644	612	1250	857	320	237	219
8	240	1250	868	5320	351	651	558	1040	814	699	233	220
9	196	2270	846	4650	347	2350	629	982	605	870	226	214
10	191	1580	843	2700	353	4750	1010	5010	525	702	239	210
11	188	1120	823	1720	352	2180	741	5420	337	614	315	338
12	184	883	805	1220	720	1390	675	3550	407	552	247	724
13	182	727	789	975	698	1040	625	2030	1160	497	237	724
14	182	699	773	778	611	888	579	1400	6790	453	235	673
15	189	601	755	648	e520	735	539	1060	4690	419	230	501
16	187	544	748	683	e490	628	497	846	3310	404	232	321
17	188	495	747	577	e500	558	469	725	1990	537	243	207
18	196	465	742	503	832	532	422	604	1450	839	251	200
19	193	435	738	454	866	644	453	514	1070	848	247	197
20	193	448	732	428	856	695	1310	448	842	878	235	195
21	193	619	713	475	808	785	971	394	680	619	235	188
22	190	1050	706	445	745	709	857	345	564	385	232	154
23	187	943	722	447	707	651	754	310	524	299	226	147
24	187	880	708	e450	795	614	748	277	489	285	227	127
25	210	821	851	e440	751	590	631	259	356	262	228	128
26	210	873	867	e430	718	605	607	263	313	249	226	138
27	291	1010	835	430	695	846	580	426	487	256	223	140
28	277	969	804	421	683	1990	510	606	452	285	225	144
29	256	956	823	409	---	2280	468	584	434	277	223	137
30	251	980	e700	408	---	1730	433	497	1200	270	222	135
31	238	---	e760	405	---	1350	---	507	---	266	225	---
TOTAL	7809	29773	25481	35514	16035	34388	22408	35160	34077	15313	7378	7702
MEAN	252	992	822	1146	573	1109	747	1134	1136	494	238	257
MAX	727	2980	1050	5320	866	4750	1590	5420	6790	1010	315	724
MIN	182	435	700	405	347	532	422	259	313	249	222	127

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1998, BY WATER YEAR (WY)

	MEAN	468	787	886	822	781	1168	1377	885	600	493	387	385
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 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1932 - 1998	
ANNUAL TOTAL	187884		271038		753	
ANNUAL MEAN	515		743		1035	
HIGHEST ANNUAL MEAN					419	
LOWEST ANNUAL MEAN					1985	
HIGHEST DAILY MEAN	2980	Nov 2	6790	Jun 14	24400	Aug 24 1933
LOWEST DAILY MEAN	147	Jul 25	127	Sep 24	9.3	Aug 27 1949
ANNUAL SEVEN-DAY MINIMUM	154	Jul 19	136	Sep 24	16	Sep 24 1943
10 PERCENT EXCEEDS	960		1230		1460	
50 PERCENT EXCEEDS	390		590		539	
90 PERCENT EXCEEDS	180		216		167	

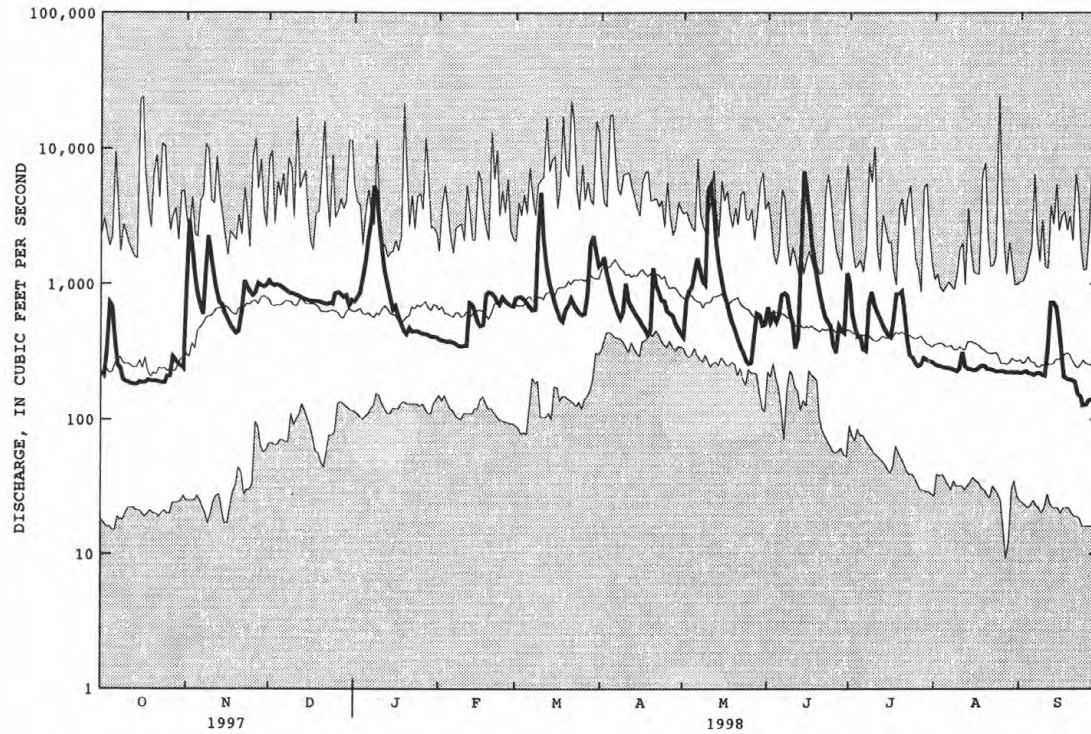
e Estimated



HUDSON RIVER BASIN

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01362500 ESOPUS CREEK AT COLDBROOK, NY--Continued



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



## 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 1997-98), 0.0°C on many days during winter period.

## EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 21.5°C, Sept. 13, 20; minimum, 0.0°C on many days during winter period.

## WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	14.0	10.5	12.0	9.5	7.5	8.5	3.0	.5	2.0	.0	.0	.0
2	13.5	9.0	11.0	9.0	8.5	9.0	2.0	.5	1.0	1.0	.0	.5
3	13.0	11.0	12.0	8.5	7.0	8.0	2.5	1.0	2.0	2.0	.0	1.5
4	15.5	12.5	13.5	8.0	6.0	7.5	3.5	2.0	3.0	2.0	1.5	2.0
5	16.0	13.5	14.0	8.0	6.0	6.5	3.0	1.5	2.5	2.0	1.5	2.0
6	17.0	13.0	14.5	7.5	5.5	6.5	2.0	1.5	2.0	4.0	2.0	3.0
7	16.5	12.0	14.0	7.0	5.5	6.5	2.5	2.0	2.0	4.0	3.0	3.5
8	15.5	12.5	14.0	7.0	6.5	7.0	2.5	.5	1.5	5.5	3.5	4.5
9	16.5	12.5	14.5	7.5	6.5	7.0	2.0	.5	1.5	5.5	5.0	5.5
10	17.5	13.5	15.0	7.0	5.5	6.5	2.0	.5	1.0	5.0	3.5	4.0
11	15.0	11.5	13.0	6.5	4.0	5.5	1.5	.5	1.0	3.5	2.0	3.0
12	14.0	10.0	12.0	5.0	3.0	4.0	2.0	1.0	1.5	2.0	1.0	2.0
13	14.5	10.5	12.5	4.0	2.5	3.5	2.0	1.0	1.5	3.0	1.0	2.0
14	14.0	13.0	13.5	3.5	.5	1.5	2.0	.0	1.0	---	---	---
15	13.5	12.0	12.0	3.0	1.5	2.5	1.0	.0	.5	---	---	---
16	13.5	10.0	11.5	3.0	1.5	2.5	2.0	.0	1.0	1.5	.0	1.0
17	12.0	8.0	10.5	3.0	1.5	2.0	2.5	.5	1.5	1.5	1.0	1.0
18	12.0	8.5	10.0	4.0	.5	2.5	2.0	.5	1.0	1.0	1.0	1.0
19	10.5	8.0	9.5	3.0	.5	2.0	2.5	.5	1.5	1.0	.5	1.0
20	11.5	8.0	9.5	4.0	2.0	2.5	2.0	.0	1.5	1.5	.0	1.0
21	10.5	8.0	9.5	4.0	2.0	3.0	1.0	.0	.5	1.0	.0	.5
22	9.5	7.0	8.0	3.5	3.0	3.0	.5	.0	.0	.0	.0	.0
23	8.0	5.5	7.0	4.0	3.0	3.5	1.0	.0	.5	.0	.0	.0
24	8.0	7.0	7.5	3.5	1.5	2.5	1.5	.5	1.0	1.0	.0	.5
25	8.0	7.5	8.0	2.5	1.5	2.0	1.5	.5	1.0	1.0	.0	.5
26	7.5	6.0	7.0	3.5	2.0	3.0	2.0	1.0	1.5	1.5	.0	.5
27	8.5	7.0	7.5	3.0	2.0	2.0	2.0	.5	1.5	.0	.0	.0
28	7.0	5.5	6.0	3.0	2.0	2.5	1.5	.0	.5	1.0	.0	.5
29	7.5	4.5	6.0	4.0	2.0	3.0	.5	.0	.0	2.0	.0	1.0
30	8.5	5.5	7.0	3.0	2.0	2.5	.5	.0	.0	2.0	1.0	1.5
31	8.5	5.0	7.0	---	---	---	.0	.0	.0	2.0	.0	1.0
MONTH	17.5	4.5	10.5	9.5	.5	4.5	3.5	.0	1.0	---	---	---



## HUDSON RIVER BASIN

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01362500 ESOPUS CREEK AT COLDBROOK, NY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	2.0	.0	.5	4.5	3.0	3.5	9.5	8.0	9.0	12.0	10.0	11.0
2	2.0	.0	1.0	4.0	2.0	3.0	9.5	7.0	8.0	11.5	10.5	11.0
3	2.5	1.0	1.5	4.0	2.0	3.0	7.5	6.0	6.5	11.5	9.5	10.5
4	2.0	1.0	1.5	3.5	1.5	2.5	6.5	4.5	5.5	10.5	9.5	10.0
5	2.0	1.0	1.5	3.5	2.0	2.5	6.5	3.5	5.0	10.5	9.5	10.0
6	2.0	.0	1.0	4.0	1.5	2.5	8.0	3.5	5.5	12.0	9.0	10.5
7	1.5	.0	.5	4.0	1.5	2.5	9.5	3.5	6.5	12.5	9.5	10.5
8	2.0	.0	.5	2.5	1.5	2.0	7.5	5.0	6.0	10.5	9.0	10.0
9	2.0	.0	1.0	3.5	2.0	2.5	6.5	5.5	6.0	10.5	9.0	10.0
10	2.5	.0	1.0	3.5	1.5	2.5	8.5	4.5	6.5	10.0	8.5	9.5
11	2.5	.0	1.5	1.5	.0	.5	9.0	4.0	6.5	9.0	8.0	8.5
12	2.5	1.0	2.0	.0	.0	.0	10.0	4.0	7.0	10.5	7.5	9.0
13	2.5	.5	1.5	1.0	.0	.5	10.5	5.0	8.0	11.5	7.0	9.0
14	1.0	.0	.0	.5	.0	.0	11.0	6.0	8.5	12.5	7.5	10.0
15	.5	.0	.0	2.5	.0	1.0	10.0	7.5	9.0	14.5	8.5	11.5
16	1.0	.0	.0	3.0	.0	1.0	10.0	7.5	9.0	15.5	10.0	13.0
17	1.0	.0	.5	3.0	.0	1.0	11.0	9.0	9.5	15.5	11.5	13.0
18	1.0	.0	.5	1.5	.5	1.0	11.5	6.5	9.0	15.0	10.5	13.0
19	2.0	1.0	1.5	1.8	---	---	9.5	7.5	8.0	16.5	11.0	13.5
20	2.5	1.5	2.0	4.5	1.5	3.0	8.5	6.5	7.5	17.0	12.0	14.5
21	3.0	1.5	2.0	3.0	.0	1.5	10.0	5.5	7.5	16.0	11.5	13.5
22	4.0	1.5	2.5	1.5	.0	.5	11.5	6.0	8.5	13.5	9.5	11.5
23	3.5	1.0	2.0	3.0	.0	1.5	9.5	7.5	8.5	15.5	9.0	12.0
24	2.0	.5	1.0	4.0	.0	2.0	11.5	7.0	9.0	16.5	9.5	13.0
25	2.0	1.0	1.5	5.0	.0	2.5	11.5	7.5	9.5	15.0	11.5	13.5
26	4.5	1.0	2.5	6.5	1.5	3.5	9.0	6.0	7.0	16.5	12.0	14.0
27	4.5	1.0	2.5	8.5	3.5	6.0	9.5	5.0	7.0	16.0	10.0	12.5
28	4.5	2.0	3.0	8.5	4.5	6.5	11.0	5.0	8.0	13.5	9.0	11.5
29	---	---	---	9.0	5.5	7.0	12.5	6.0	9.0	15.0	9.5	11.5
30	---	---	---	10.5	5.0	7.5	13.5	8.5	11.0	16.0	10.5	13.0
31	---	---	---	11.5	6.5	9.0	---	---	---	14.0	10.0	12.0
MONTH	4.5	.0	1.5	11.5	---	---	13.5	3.5	7.5	17.0	7.0	11.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	15.5	10.5	13.0	17.0	14.5	16.0	19.5	12.5	16.0	18.5	14.5	16.5
2	13.2	---	---	19.0	14.5	16.5	19.0	12.5	15.5	16.0	14.5	15.5
3	13.5	9.5	11.5	20.0	14.5	17.0	19.0	13.0	16.0	19.5	14.5	16.5
4	12.0	8.0	10.0	18.0	14.5	16.5	19.0	13.5	16.0	19.5	14.5	17.0
5	13.5	8.5	10.5	20.0	15.0	17.0	17.0	14.0	15.5	19.0	14.5	16.5
6	13.5	9.0	11.0	19.5	14.5	17.0	17.5	14.0	16.0	20.5	15.0	17.5
7	11.5	10.0	10.5	18.0	15.5	16.5	19.5	14.0	16.5	18.0	16.0	17.0
8	13.0	10.0	11.5	15.5	14.0	14.0	20.0	14.0	17.0	18.0	15.0	16.0
9	14.5	9.5	11.5	17.5	13.5	15.0	19.5	14.0	16.5	17.0	14.0	15.0
10	15.5	10.0	12.5	18.0	13.5	15.5	18.5	14.5	16.5	18.5	14.5	16.0
11	12.5	10.0	11.0	17.5	12.5	15.0	20.0	16.5	18.0	19.5	14.0	16.5
12	13.0	11.0	12.0	17.0	12.5	15.0	19.5	14.5	17.0	20.5	17.5	18.5
13	13.0	12.0	12.5	18.5	13.0	15.5	19.5	13.0	16.0	21.5	18.0	19.0
14	13.0	11.5	12.0	19.0	14.0	16.5	17.5	14.0	16.0	20.5	18.0	19.0
15	13.0	11.5	12.0	19.0	15.0	17.0	19.5	14.5	16.5	20.5	18.0	19.5
16	14.0	11.5	12.5	17.5	15.0	16.5	19.5	14.5	16.5	20.0	18.0	19.0
17	13.5	12.0	12.5	19.0	14.5	16.0	17.0	15.5	16.0	20.5	16.0	18.5
18	15.0	12.0	13.0	18.5	14.0	15.5	17.5	14.5	16.0	19.5	14.5	17.0
19	16.5	12.0	14.0	18.5	13.0	15.0	19.0	14.0	16.0	20.0	15.0	17.5
20	17.0	13.0	15.0	17.0	14.0	15.5	19.0	13.0	15.5	21.5	15.5	18.5
21	19.0	13.5	16.0	17.0	14.0	15.5	18.0	13.5	15.5	20.5	17.0	18.5
22	19.5	14.5	16.5	19.5	14.5	16.5	19.0	14.0	16.5	19.0	16.5	17.5
23	17.5	14.5	16.0	19.0	15.5	17.0	18.0	15.0	16.5	16.5	12.5	15.0
24	19.5	14.0	16.5	19.0	14.5	16.5	19.5	15.0	17.0	16.5	11.0	14.0
25	19.0	15.0	17.0	19.0	13.5	16.0	20.0	15.0	17.5	16.0	12.0	14.0
26	19.0	16.5	18.0	19.0	12.5	16.0	21.0	14.5	17.5	19.0	14.5	16.5
27	18.5	14.5	16.5	18.5	13.5	16.0	21.0	14.5	17.5	20.5	16.5	18.0
28	19.5	13.0	16.0	19.0	14.0	16.5	20.5	14.5	17.0	18.5	15.0	16.5
29	17.5	13.5	15.0	19.0	14.0	16.5	17.5	15.0	16.0	17.5	12.5	15.0
30	17.5	14.5	16.0	19.0	13.5	16.0	19.5	15.5	17.0	18.0	13.0	15.5
31	---	---	---	19.5	14.0	16.5	19.0	15.5	17.0	---	---	---
MONTH	19.5	---	---	20.0	12.5	16.0	21.0	12.5	16.5	21.5	11.0	17.0



## 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 mi<sup>2</sup>.

**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 mi<sup>2</sup> 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 mi<sup>2</sup>, together with spillage during high stages from the upstream reservoirs.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge observed, 28,000 ft<sup>3</sup>/s, Apr. 26, 1910, gage height, 25.10 ft, datum then in use; maximum discharge since March 1970, 22,500 ft<sup>3</sup>/s, Apr. 5, 1987, gage height, 24.78 ft; minimum discharge, 7.9 ft<sup>3</sup>/s, July 17, 18, 1993, gage height, 11.64 ft.

**EXTREMES FOR CURRENT YEAR.**--Maximum discharge, 10,500 ft<sup>3</sup>/s, May 12, gage height, 21.31 ft, 21.51 ft from crest-stage gage; minimum discharge not determined.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	104	444	440	236	445	408	286	e150	1400	47	e24
2	71	1440	420	388	221	419	1450	658	e120	956	44	e22
3	62	1060	355	358	221	376	1890	1060	e160	789	41	e23
4	58	681	329	434	229	336	1580	1130	152	592	39	e22
5	58	528	307	745	e220	304	1200	1300	125	446	38	e21
6	57	395	293	971	e210	276	887	2000	107	337	37	e20
7	51	317	269	1210	e200	254	632	2210	97	247	36	e20
8	48	423	235	2410	e195	253	457	2040	90	234	34	e28
9	45	1730	220	3400	194	1020	428	1890	85	441	32	e37
10	43	1890	201	2090	186	2380	1090	3170	79	311	36	e30
11	40	1110	199	1230	184	1240	1010	7760	73	247	99	e30
12	38	721	186	812	488	759	791	9730	127	217	84	e27
13	38	524	181	623	739	556	627	6850	1130	176	61	e25
14	38	460	174	511	594	493	506	4260	4190	142	49	e22
15	39	422	161	412	e390	436	411	2780	7540	126	43	e20
16	42	372	152	497	e350	393	346	1990	9600	115	40	e19
17	42	334	150	491	e330	354	313	1440	6930	126	38	e18
18	39	293	145	394	551	357	300	885	4370	163	40	e18
19	39	269	141	350	713	568	283	622	2840	118	41	e17
20	42	250	139	320	674	722	1040	450	1950	100	40	e17
21	39	238	136	292	582	732	835	304	1590	91	38	e16
22	36	543	123	261	494	669	645	140	1100	83	35	e17
23	35	914	131	245	428	552	613	168	789	77	33	e18
24	33	758	132	369	559	504	853	138	573	74	32	e19
25	39	590	194	e400	700	464	689	80	452	68	30	e19
26	53	482	361	e370	589	438	601	e88	352	63	29	e17
27	120	438	418	329	515	469	527	e96	273	60	28	e18
28	136	384	401	302	452	559	451	e86	212	56	27	e25
29	110	346	346	277	---	517	372	e82	176	53	26	e28
30	89	321	767	264	---	421	316	e90	827	50	26	e26
31	79	---	e640	253	---	361	---	e84	---	49	e26	---
TOTAL	1744	18337	8350	21448	11444	17627	21551	53867	46259	8007	1249	663
MEAN	56.3	611	269	692	409	569	718	1738	1542	258	40.3	22.1
MAX	136	1890	767	3400	739	2380	1890	9730	9600	1400	99	37
MIN	33	104	123	245	184	253	283	80	73	49	26	16

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 1998, BY WATER YEAR (WY)**

	MEAN	237	449	534	494	503	795	1263	758	387	189	91.8	125
	MAX	855	1978	2775	1887	1745	2049	3306	1738	1773	1163	426	609
	(WY)	1997	1914	1997	1978	1976	1977	1987	1998	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 1997 CALENDAR YEAR	FOR 1998 WATER YEAR	WATER YEARS 1914 - 1998
ANNUAL TOTAL	180307	210546	
ANNUAL MEAN	494	577	479
HIGHEST ANNUAL MEAN			908
LOWEST ANNUAL MEAN			98.5
HIGHEST DAILY MEAN	4610	9730	17800
LOWEST DAILY MEAN	14	16	8.1
ANNUAL SEVEN-DAY MINIMUM	18	17	8.5
10 PERCENT EXCEEDS	1300	1160	1250
50 PERCENT EXCEEDS	220	283	174
90 PERCENT EXCEEDS	28	31	32

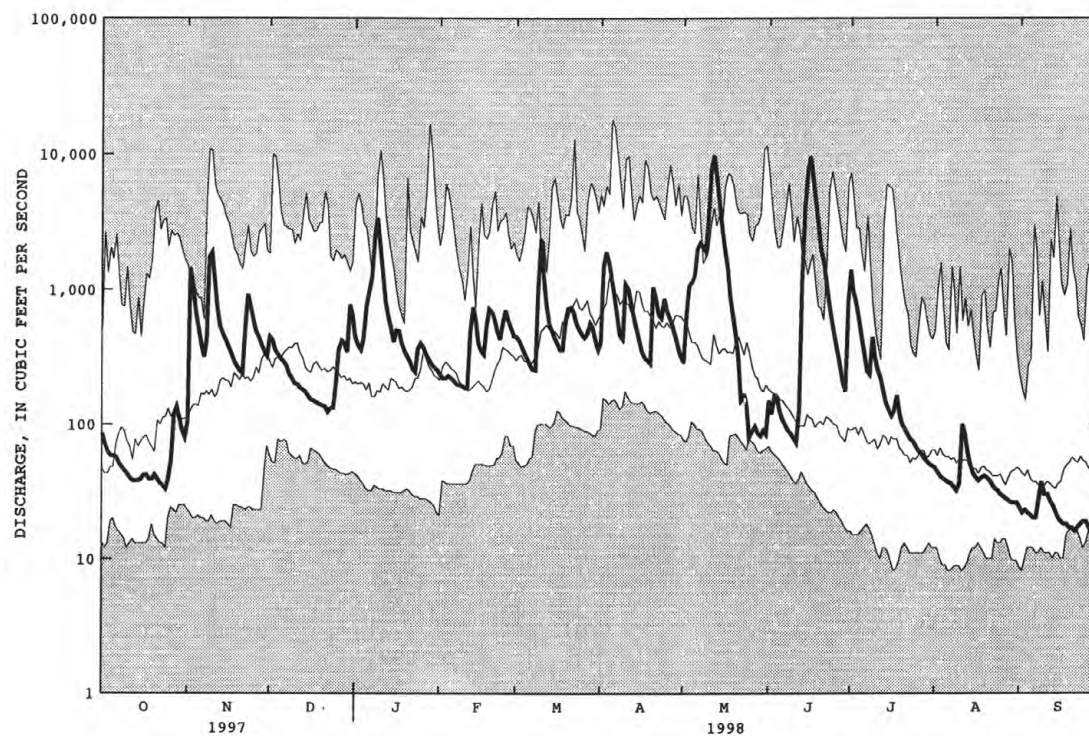
e Estimated



HUDSON RIVER BASIN

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01364500 ESOPUS CREEK AT MOUNT MARION, NY--Continued



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



## HUDSON RIVER BASIN

01364959 RONDOUT CREEK ABOVE RED BROOK AT PEEKAMOOSE, 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 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

**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 good except those above 400 ft<sup>3</sup>/s and those for estimated daily discharges, which are poor.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 803 ft<sup>3</sup>/s, Oct. 20, 1996, gage height, 4.13 ft; minimum, 1.6 ft<sup>3</sup>/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 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 1	1900	593	3.73	May 10	1530	*652	*3.85
Jan. 8	1545	416	3.31	June 14	1500	534	3.60
Mar. 9	2400	261	2.83				

Minimum discharge, 1.8 ft<sup>3</sup>/s, Sept. 26, 27, 29, 30; minimum gage height, 0.45 ft, Sept. 20, 21, 26, 27, 29, 30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.5	129	21	e7.0	9.0	20	69	14	12	39	4.3	2.4
2	5.8	131	15	e7.6	8.7	18	55	29	9.1	22	4.1	3.0
3	5.7	57	14	e8.4	8.5	17	37	27	11	18	4.0	2.8
4	5.5	34	15	17	8.2	16	31	32	8.2	17	3.9	2.4
5	6.7	26	15	27	8.5	15	28	41	7.5	16	4.0	2.3
6	5.6	22	14	75	7.7	14	25	47	7.0	15	3.9	2.3
7	5.2	20	13	103	7.3	14	23	37	6.6	14	3.8	2.8
8	5.1	39	12	261	7.0	15	22	32	6.4	23	3.5	2.5
9	5.0	77	12	138	6.8	103	31	43	6.0	20	3.6	2.3
10	5.1	43	12	64	6.7	123	38	356	5.7	15	9.6	2.3
11	5.0	32	11	42	6.7	47	26	190	5.6	13	8.1	2.2
12	4.9	27	11	32	21	34	23	106	17	12	4.1	2.2
13	4.9	24	10	28	13	29	22	56	55	11	3.7	2.2
14	5.1	23	9.9	23	10	26	21	42	237	11	3.7	2.2
15	5.9	20	9.4	21	e9.4	23	20	35	104	10	4.1	2.2
16	5.3	18	9.6	23	e9.4	21	19	30	107	9.6	3.9	2.3
17	4.9	17	9.5	19	e9.4	19	19	28	51	9.4	3.8	2.2
18	4.7	15	8.8	17	19	18	17	24	39	8.5	4.1	2.1
19	4.6	15	8.5	16	19	25	21	22	30	7.8	3.5	2.1
20	4.5	14	8.3	15	16	25	41	20	25	7.8	3.1	2.1
21	4.4	13	7.7	14	14	24	24	18	21	7.2	3.0	2.1
22	4.4	23	7.7	13	14	20	22	16	19	6.7	3.0	5.8
23	4.3	17	e7.0	14	14	18	21	15	18	6.5	2.9	2.4
24	4.3	15	e6.8	15	17	17	20	14	16	6.4	2.9	2.0
25	6.7	13	14	13	14	17	18	13	14	5.8	2.8	1.9
26	5.1	14	11	11	13	19	19	12	14	5.6	2.8	1.9
27	14	15	9.0	11	14	45	18	11	13	5.3	2.6	2.2
28	7.6	13	8.3	10	15	95	16	10	12	5.1	2.6	2.3
29	6.2	13	8.1	10	---	85	15	11	12	4.9	2.5	1.9
30	6.0	16	e7.6	10	---	62	15	9.9	53	4.6	2.5	1.8
31	5.9	---	e7.0	9.4	---	53	---	10	---	4.7	2.5	---
TOTAL	174.9	935	333.2	1074.4	326.3	1077	776	1350.9	942.1	361.9	116.9	71.2
MEAN	5.64	31.2	10.7	34.7	11.7	34.7	25.9	43.6	31.4	11.7	3.77	2.37
MAX	14	131	21	261	21	123	69	356	237	39	9.6	5.8
MIN	4.3	13	6.8	7.0	6.7	14	15	9.9	5.6	4.6	2.5	1.8
CFSM	1.05	5.81	2.01	6.47	2.17	6.48	4.83	8.13	5.86	2.18	.70	.44
IN.	1.21	6.49	2.31	7.46	2.26	7.47	5.39	9.38	6.54	2.51	.81	.49

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 1998, BY WATER YEAR (WY)

	1996	1997	1998	1996	1997	1998	1996	1997	1998	1996	1997	1998
MEAN	21.0	27.3	26.6	24.7	11.8	28.9	28.3	30.7	18.9	14.6	4.89	10.7
MAX	36.4	31.2	42.5	34.7	11.9	34.7	30.7	43.6	31.4	29.0	7.96	20.1
(WY)	1997	1998	1997	1998	1997	1998	1997	1998	1998	1996	1996	1996
MIN	5.64	23.5	10.7	14.8	11.7	23.0	25.9	21.7	6.47	3.08	2.95	2.37
(WY)	1998	1997	1998	1997	1998	1997	1998	1997	1997	1997	1997	1998

e Estimated

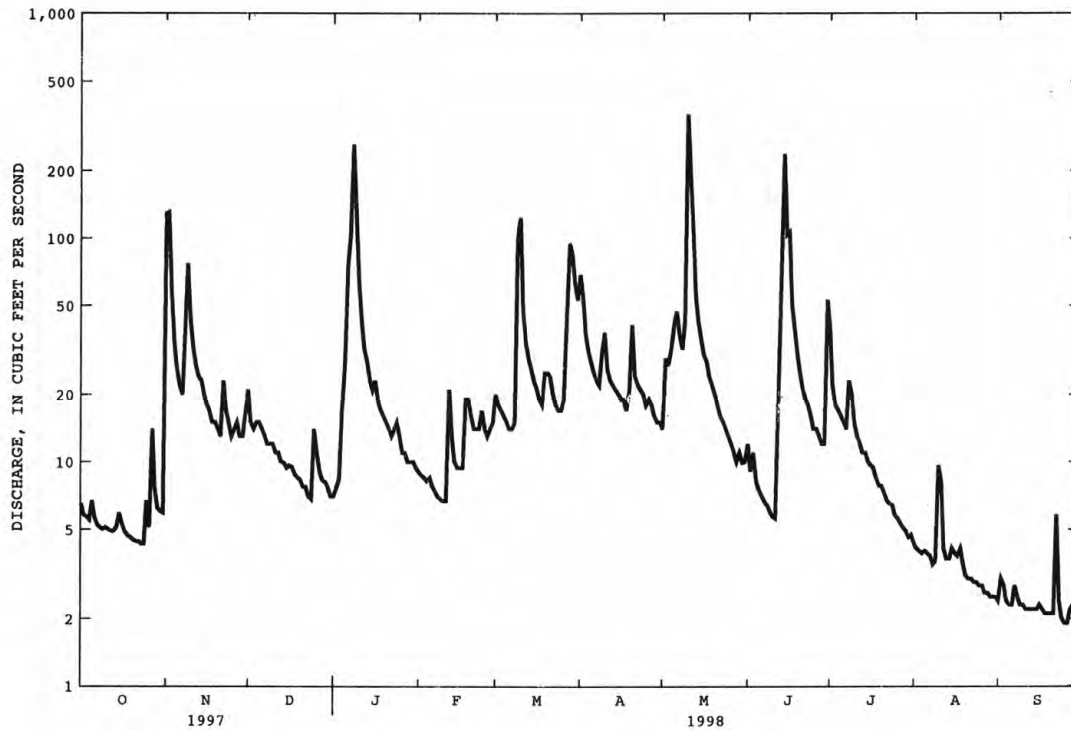


HUDSON RIVER BASIN

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01364959 RONDOUT CREEK ABOVE RED BROOK AT PEEKAMOOSE, NY--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1996 - 1998	
ANNUAL TOTAL	5213.1		7539.8		19.8	
ANNUAL MEAN	14.3		20.7		20.7	
HIGHEST ANNUAL MEAN					19.0	
LOWEST ANNUAL MEAN					19.0	
HIGHEST DAILY MEAN	131	Nov 2	356	May 10	356	May 10 1998
LOWEST DAILY MEAN	1.7	Aug 9	1.8	Sep 30	1.7	Aug 9 1997
ANNUAL SEVEN-DAY MINIMUM	1.8	Aug 6	2.0	Sep 24	1.8	Aug 6 1997
ANNUAL RUNOFF (CFSM)	2.66		3.85		3.70	
ANNUAL RUNOFF (INCHES)	36.18		52.33		50.21	
10 PERCENT EXCEEDS	28		40		39	
50 PERCENT EXCEEDS	9.9		13		13	
90 PERCENT EXCEEDS	2.6		2.9		2.9	



CURRENT WATER YEAR DAILY DISCHARGE.



## HUDSON RIVER BASIN

01364959 RONDOUT CREEK ABOVE RED BROOK AT PEEKAMOOSE, NY--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--January 1998.

NUTRIENT DATA: 1998 (b).

REMARKS.--Provisional chemical minor element and nutrient data for additional samples are available in files of the Geological Survey.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)
JAN		
04...	0120	.003
10...	1409	<.001
08...	1555	.002



## 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 mi<sup>2</sup>.

**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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge observed, 7,600 ft<sup>3</sup>/s, July 22, 1938, from rating curve extended above 2,600 ft<sup>3</sup>/s; maximum gage height, 10.6 ft, Apr. 4, 1987, from floodmarks; minimum discharge, 3.3 ft<sup>3</sup>/s, Sept. 16, 17, Oct. 17, 18, 1980.

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

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 1	2000	1,270	6.27	May 10	1730	1,890	6.92
Jan. 8	1745	1,920	6.95	June 14	1500	*3,370	*8.06

Minimum discharge, 6.6 ft<sup>3</sup>/s, Sept. 20, 21, 22; minimum gage height, 3.07 ft, Oct. 22, 23, 24, 25.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	269	154	e54	72	178	282	82	81	225	24	9.5
2	24	449	116	e60	69	170	288	129	50	130	22	11
3	23	295	108	70	69	164	227	148	75	103	22	14
4	22	197	109	108	67	150	196	177	47	90	20	11
5	24	153	107	173	73	141	172	221	41	85	19	9.4
6	21	128	100	307	68	131	152	293	36	73	19	8.7
7	19	111	92	466	63	125	135	260	34	70	18	11
8	18	191	85	1150	60	128	129	227	32	113	17	12
9	18	363	80	855	58	406	169	229	30	115	16	9.8
10	17	276	79	474	57	683	260	1100	28	80	26	9.0
11	16	210	76	326	57	364	180	896	27	69	55	8.3
12	16	173	72	254	144	265	160	594	113	63	22	7.9
13	16	144	69	221	118	219	147	402	399	58	19	7.6
14	16	138	65	186	98	196	137	323	1620	54	18	7.4
15	21	120	61	167	e80	168	130	272	755	51	18	7.4
16	19	108	60	196	e76	148	120	235	664	48	19	8.8
17	17	98	61	162	e80	135	115	215	355	47	18	8.5
18	16	89	58	143	138	131	102	185	250	44	24	7.5
19	16	83	55	133	146	186	120	161	181	40	23	7.2
20	15	79	54	122	136	190	251	144	138	39	16	6.9
21	15	76	51	111	129	199	166	127	111	38	14	6.8
22	14	145	47	103	120	167	152	114	95	35	13	35
23	14	122	52	103	117	149	143	103	85	34	13	19
24	14	107	48	124	197	139	131	91	77	33	14	11
25	22	96	88	109	168	131	121	86	67	30	13	9.2
26	20	93	84	96	149	134	125	79	61	28	13	8.7
27	44	101	73	88	144	177	117	69	59	27	12	16
28	31	88	67	84	146	273	104	61	52	27	11	30
29	23	85	64	82	---	292	94	61	51	26	11	14
30	21	103	e60	81	---	248	87	63	254	26	10	11
31	20	---	e56	77	---	219	---	53	---	26	9.9	---
TOTAL	620	4690	2351	6685	2899	6406	4712	7200	5868	1927	568.9	343.6
MEAN	20.0	156	75.8	216	104	207	157	232	196	62.2	18.4	11.5
MAX	44	449	154	1150	197	683	288	1100	1620	225	55	35
MIN	14	76	47	54	57	125	87	53	27	26	9.9	6.8
CFSM	.52	4.08	1.98	5.63	2.70	5.40	4.10	6.06	5.11	1.62	.48	.30
IN.	.60	4.56	2.28	6.49	2.82	6.22	4.58	6.99	5.70	1.87	.55	.33

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

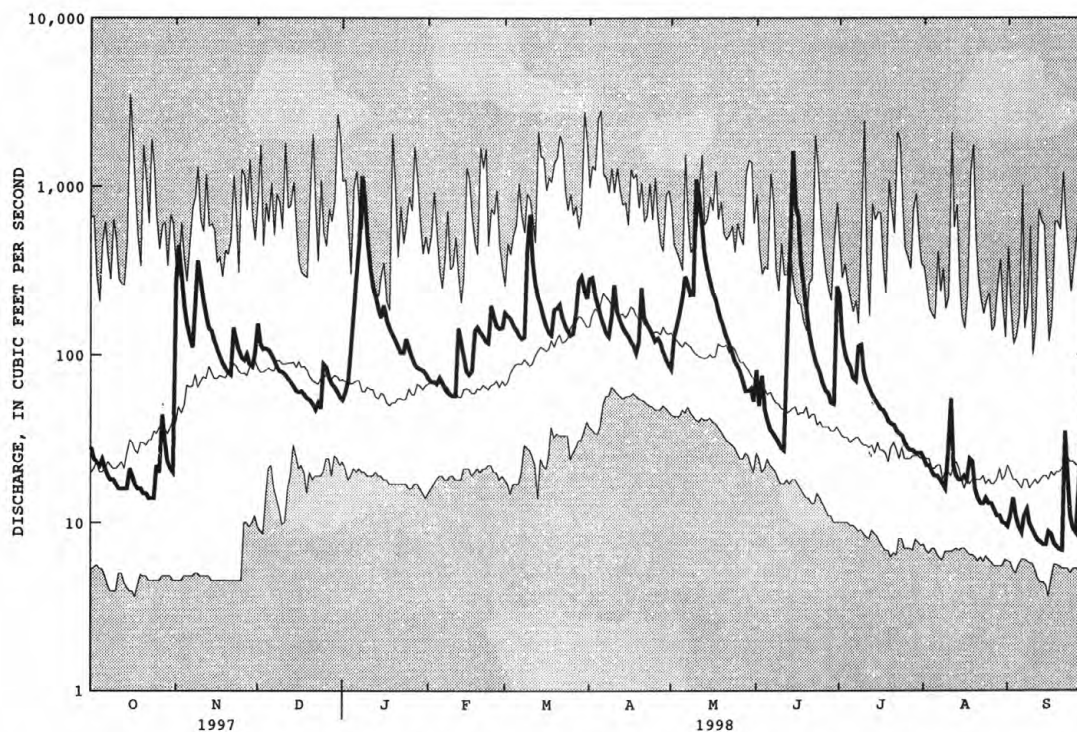
	MEAN	MAX	MIN	WY	MEAN	MAX	MIN	WY	MEAN	MAX	MIN	WY
1937	65.1	403	4.92	1937	103	295	5.88	1937	117	338	29.8	1937
1938	65.1	403	4.92	1938	103	295	5.88	1938	117	338	29.8	1938
1939	65.1	403	4.92	1939	103	295	5.88	1939	117	338	29.8	1939
1940	65.1	403	4.92	1940	103	295	5.88	1940	117	338	29.8	1940
1941	65.1	403	4.92	1941	103	295	5.88	1941	117	338	29.8	1941
1942	65.1	403	4.92	1942	103	295	5.88	1942	117	338	29.8	1942
1943	65.1	403	4.92	1943	103	295	5.88	1943	117	338	29.8	1943
1944	65.1	403	4.92	1944	103	295	5.88	1944	117	338	29.8	1944
1945	65.1	403	4.92	1945	103	295	5.88	1945	117	338	29.8	1945
1946	65.1	403	4.92	1946	103	295	5.88	1946	117	338	29.8	1946
1947	65.1	403	4.92	1947	103	295	5.88	1947	117	338	29.8	1947
1948	65.1	403	4.92	1948	103	295	5.88	1948	117	338	29.8	1948
1949	65.1	403	4.92	1949	103	295	5.88	1949	117	338	29.8	1949
1950	65.1	403	4.92	1950	103	295	5.88	1950	117	338	29.8	1950
1951	65.1	403	4.92	1951	103	295	5.88	1951	117	338	29.8	1951
1952	65.1	403	4.92	1952	103	295	5.88	1952	117	338	29.8	1952
1953	65.1	403	4.92	1953	103	295	5.88	1953	117	338	29.8	1953
1954	65.1	403	4.92	1954	103	295	5.88	1954	117	338	29.8	1954
1955	65.1	403	4.92	1955	103	295	5.88	1955	117	338	29.8	1955
1956	65.1	403	4.92	1956	103	295	5.88	1956	117	338	29.8	1956
1957	65.1	403	4.92	1957	103	295	5.88	1957	117	338	29.8	1957
1958	65.1	403	4.92	1958	103	295	5.88	1958	117	338	29.8	1958
1959	65.1	403	4.92	1959	103	295	5.88	1959	117	338	29.8	1959
1960	65.1	403	4.92	1960	103	295	5.88	1960	117	338	29.8	1960
1961	65.1	403	4.92	1961	103	295	5.88	1961	117	338	29.8	1961
1962	65.1	403	4.92	1962	103	295	5.88	1962	117	338	29.8	1962
1963	65.1	403	4.92	1963	103	295	5.88	1963	117	338	29.8	1963
1964	65.1	403	4.92	1964	103	295	5.88	1964	117	338	29.8	1964
1965	65.1	403	4.92	1965	103	295	5.88	1965	117	338	29.8	1965
1966	65.1	403	4.92	1966	103	295	5.88	1966	117	338	29.8	1966
1967	65.1	403	4.92	1967	103	295	5.88	1967	117	338	29.8	1967
1968	65.1	403	4.92	1968	103	295	5.88	1968	117	338	29.8	1968
1969	65.1	403	4.92	1969	103	295	5.88	1969	117	338	29.8	1969
1970	65.1	403	4.92	1970	103	295	5.88	1970	117	338	29.8	1970
1971	65.1	403	4.92	1971	103	295	5.88	1971	117	338	29.8	1971
1972	65.1	403	4.92	1972	103	295	5.88	1972	117	338	29.8	1972
1973	65.1	403	4.92	1973	103	295	5.88	1973	117	338	29.8	1973
1974	65.1	403	4.92	1974	103	295	5.88	1974	117	338	29.8	1974
1975	65.1	403	4.92	1975	103	295	5.88	1975	117	338	29.8	1975
1976	65.1	403	4.92	1976	103	295	5.88	1976	117	338	29.8	1976
1977	65.1	403	4.92	1977	103	295	5.88	1977	117	338	29.8	1977
1978	65.1	403	4.92	1978	103	295	5.88	1978	117	338	29.8	1978
1979	65.1	403	4.92	1979	103	295	5.88	1979	117	338	29.8	1979
1980	65.1	403	4.92	1980	103	295	5.88	1980	117	338	29.8	1980
1981	65.1	403	4.92	1981	103	295	5.88	1981	117	338	29.8	1981
1982	65.1	403	4.92	1982	103	295	5.88	1982	117	338	29.8	1982
1983	65.1	403	4.92	1983	103	295	5.88	1983	117	338	29.8	1983
1984	65.1	403	4.92	1984	103	295	5.88	1984	117	338	29.8	1984
1985	65.1	403	4.92	1985	103	295	5.88	1985	117	338	29.8	1985
1986	65.1	403	4.92	1986	103	295	5.88	1986	117	338	29.8	1986
1987	65.1	403	4.92	1987	103	295	5.88	1987	117	338	29.8	1987
1988	65.1	403	4.92	1988	103	295	5.88	1988	117	338	29.8	1988
1989	65.1	403	4.92	1989	103	295	5.88	1989	117	338	29.8	1989
1990	65.1	403	4.92	1990	103	295	5.88	1990	117	338	29.8	1990
1991	65.1	403	4.92	1991	103	295	5.88	1991	117	338	29.8	1991
1992	65.1	403	4.92	1992	103	295	5.88	1992	117	338	29.8	1992
1993	65.1	403	4.92	1993	103	295	5.88	1993	117	338	29.8	1993
1994	65.1	403	4.92	1994	103	295	5.88	1994	117	338	29.8	19



## HUDSON RIVER BASIN

## 01365000 RONDOUT CREEK NEAR LOWES CORNERS, NY--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1937 - 1998	
ANNUAL TOTAL	30146.4		44270.5			
ANNUAL MEAN	82.6		121		99.0	
HIGHEST ANNUAL MEAN					152	
LOWEST ANNUAL MEAN					49.1	
HIGHEST DAILY MEAN	469	Mar 31	1620	Jun 14	3500	Oct 15 1955
LOWEST DAILY MEAN	6.8	Aug 12	6.8	Sep 21	3.6	Sep 16 1980
ANNUAL SEVEN-DAY MINIMUM	8.5	Jul 29	7.6	Sep 15	4.1	Oct 13 1980
ANNUAL RUNOFF (CFSM)	2.16		3.17		2.58	
ANNUAL RUNOFF (INCHES)	29.28		43.00		35.11	
10 PERCENT EXCEEDS	184		250		212	
50 PERCENT EXCEEDS	61		82		59	
90 PERCENT EXCEEDS	13		14		14	



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



## HUDSON RIVER BASIN

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## 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 mi<sup>2</sup>.

**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 mi<sup>2</sup> together with spillage during high flow from Rondout Reservoir. Telephone gage-height telemeter at station.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 35,800 ft<sup>3</sup>/s, Oct. 16, 1955, gage height, 36.6 ft, present datum, from floodmarks, from rating curve extended above 17,500 ft<sup>3</sup>/s, on basis of contracted-opening measurement at gage height 33.93 ft, present datum; minimum discharge, 2.2 ft<sup>3</sup>/s, July 16, 1965.

**EXTREMES FOR CURRENT YEAR.**--Maximum discharge, 11,900 ft<sup>3</sup>/s, June 15, gage height, 17.51 ft; minimum, 30 ft<sup>3</sup>/s, Oct. 13, gage height, 8.59 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	134	183	1140	e450	486	1100	628	461	319	4950	99	60
2	112	1920	892	e440	460	1040	1500	1170	288	1820	91	58
3	102	1330	728	462	480	906	1040	1510	343	1050	85	63
4	98	831	663	654	493	747	855	1490	342	751	83	62
5	97	632	635	1230	524	661	710	1440	270	646	80	61
6	97	500	597	1760	511	599	634	1810	229	506	78	59
7	91	433	494	2370	454	551	570	1430	208	391	78	63
8	87	560	447	4040	418	535	524	1130	198	419	75	76
9	85	2230	409	5270	394	1760	593	1240	196	718	71	73
10	90	2150	393	3170	387	3420	2560	5190	187	490	72	66
11	82	1210	402	1900	386	1880	1540	7890	179	366	178	61
12	77	861	376	1380	1250	1290	1120	4760	230	319	132	60
13	69	690	370	1130	1360	1000	890	2450	1410	274	94	59
14	80	651	361	975	952	916	768	1600	4590	225	84	57
15	90	619	345	813	712	789	689	1210	9220	217	82	57
16	106	561	336	1100	638	731	646	911	5960	204	80	61
17	107	490	340	927	621	670	563	790	3270	193	79	59
18	106	448	331	745	1190	686	598	704	1920	179	84	59
19	95	405	317	676	1520	1310	543	601	1240	180	98	59
20	92	381	320	632	1370	1340	2110	534	913	164	91	58
21	88	372	315	564	1160	1280	1450	483	751	196	79	59
22	87	802	272	515	987	1190	1060	421	540	147	73	64
23	84	1060	280	480	876	1010	886	374	454	137	69	72
24	80	879	282	799	1240	959	849	343	406	153	70	72
25	90	706	480	854	1670	834	658	318	359	141	68	60
26	112	620	820	677	1270	783	596	337	314	113	68	59
27	260	674	724	586	1130	812	749	304	339	107	69	61
28	293	573	613	545	1000	786	620	277	248	104	67	79
29	190	529	515	507	---	719	539	252	225	99	66	82
30	157	536	778	508	---	642	494	270	1690	98	64	68
31	136	---	e500	517	---	583	---	257	---	98	62	---
TOTAL	3474	23836	15475	36676	23939	31529	26982	41957	36838	15455	2569	1907
MEAN	112	795	499	1183	855	1017	899	1353	1228	499	82.9	63.6
MAX	293	2230	1140	5270	1670	3420	2560	7890	9220	4950	178	82
MIN	69	183	272	440	386	535	494	252	179	98	62	57

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 1998, BY WATER YEAR (WY)

	MEAN	345	568	702	646	718	1151	1175	738	429	223	185	218
	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

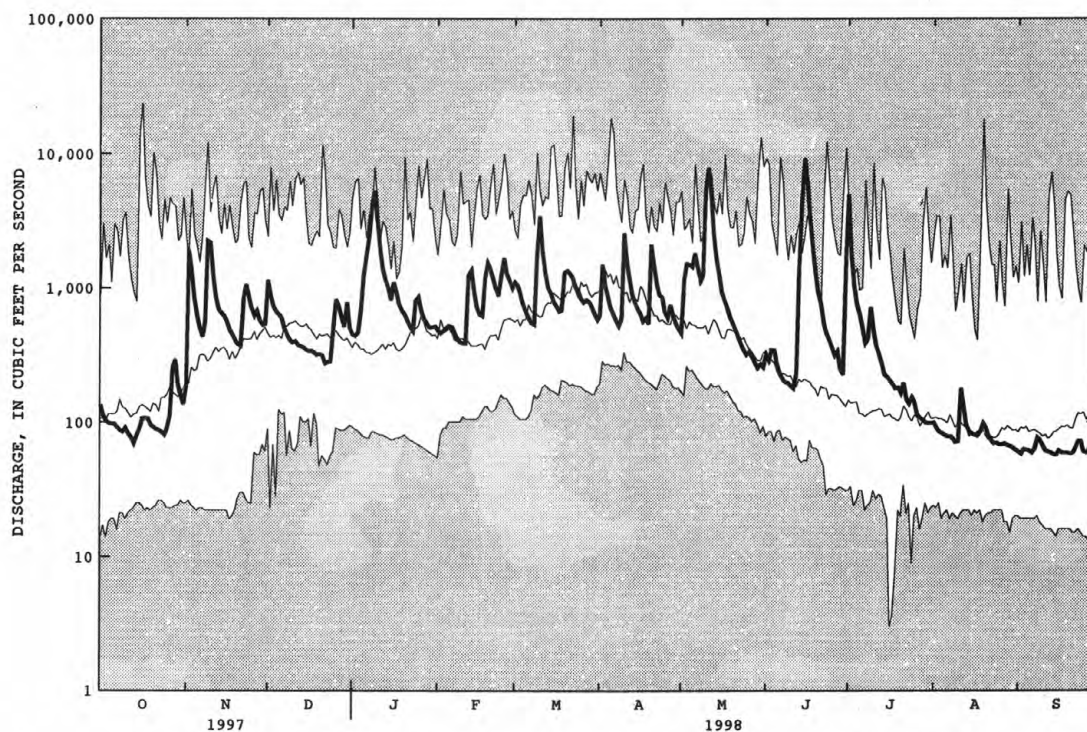
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## HUDSON RIVER BASIN

## 01367500 RONDOUT CREEK AT ROSENDALE, NY--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1952 - 1998	
ANNUAL TOTAL	179112		260637		591	
ANNUAL MEAN	491		714		892	1952
HIGHEST ANNUAL MEAN					255	1965
LOWEST ANNUAL MEAN					23500	Oct 16 1955
HIGHEST DAILY MEAN	4890	Apr 1	9220	Jun 15	3.0	Jul 16 1965
LOWEST DAILY MEAN	50	Aug 12	57	Sep 14	15	Sep 21 1964
ANNUAL SEVEN-DAY MINIMUM	53	Aug 8	59	Sep 14		
10 PERCENT EXCEEDS	1000		1430		1360	
50 PERCENT EXCEEDS	372		490		306	
90 PERCENT EXCEEDS	73		72		65	



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



## HUDSON RIVER BASIN

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## 01371500 WALLKILL RIVER AT GARDINER, NY

**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.

**DRAINAGE AREA.**--695 mi<sup>2</sup>.

**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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 30,800 ft<sup>3</sup>/s, Oct. 16, 1955, gage height, 19.81 ft; minimum, 9.5 ft<sup>3</sup>/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 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Apr. 10	1115	6,780	7.68	June 16	1600	*10,400	*9.80
May 11	0345	9,630	9.34				

Minimum discharge, 41 ft<sup>3</sup>/s, Sept. 19, 20, gage height, 1.87 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	185	258	1280	1110	1170	2610	1220	868	2750	3830	126	115
2	166	750	1210	1010	1060	2430	2970	1720	3330	1350	113	110
3	155	897	952	1050	1060	2140	2220	2380	2610	904	112	103
4	145	762	815	1280	1060	1860	1730	2080	1900	631	104	98
5	131	605	836	2130	1170	1620	1460	1900	1160	497	102	98
6	91	479	879	2320	1410	1420	1250	2350	773	463	99	97
7	115	389	807	2430	1310	1280	1120	2430	618	401	95	102
8	108	525	707	4430	1150	1200	999	2320	522	379	91	106
9	108	2280	624	5370	1000	3070	1050	2840	490	441	89	114
10	128	2520	583	4100	919	4660	5500	6750	453	417	92	161
11	112	1520	582	2810	896	3260	4750	9070	363	363	133	139
12	108	1070	584	2210	2190	2430	3410	7980	449	302	137	115
13	128	830	608	1830	2760	1920	2750	6650	1430	266	123	104
14	124	771	593	1590	2120	1650	2270	5770	5260	248	119	96
15	132	805	565	1290	1630	1610	1860	4890	7390	209	112	87
16	168	858	521	1700	1300	1520	1650	3790	9120	208	101	82
17	159	842	521	1780	1150	1350	1510	2760	8170	206	98	79
18	149	763	520	1470	2140	1300	1580	2080	6280	213	104	75
19	166	697	511	1290	2900	2690	1360	1620	4760	233	111	66
20	126	651	502	1210	2700	3420	2850	1340	3120	244	130	47
21	145	633	498	1110	2280	2800	2420	1120	2110	201	127	46
22	136	1080	470	1010	1920	2960	1800	892	1550	192	116	60
23	136	1690	454	896	1630	2570	1470	821	1210	168	104	86
24	128	1450	503	1800	2360	2480	1360	708	946	194	93	80
25	143	1130	1320	2400	4290	2120	1180	653	886	183	87	85
26	207	920	2150	2090	3350	1830	1100	762	773	135	93	80
27	303	867	1790	1730	2730	1650	1530	757	631	145	236	82
28	500	781	1400	1460	2400	1510	1400	645	583	139	374	84
29	388	713	1070	1290	---	1380	1160	539	536	134	260	113
30	302	704	1730	1230	---	1250	965	574	1840	147	181	71
31	266	---	e1700	1240	---	1140	---	684	---	131	137	---
TOTAL	5358	28240	27285	58666	52055	65130	57894	79743	72013	13574	3999	2781
MEAN	173	941	880	1892	1859	2101	1930	2572	2400	438	129	92.7
MAX	500	2520	2150	5370	4290	4660	5500	9070	9120	3830	374	161
MIN	91	258	454	896	896	1140	965	539	363	131	87	46
CFSM	.25	1.35	1.27	2.72	2.67	3.02	2.78	3.70	3.45	.63	.19	.13
IN.	.29	1.51	1.46	3.14	2.79	3.49	3.10	4.27	3.85	.73	.21	.15

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1998, BY WATER YEAR (WY)**

	MEAN	538	1000	1209	1229	1434	2311	1932	1170	734	480	443	475
	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

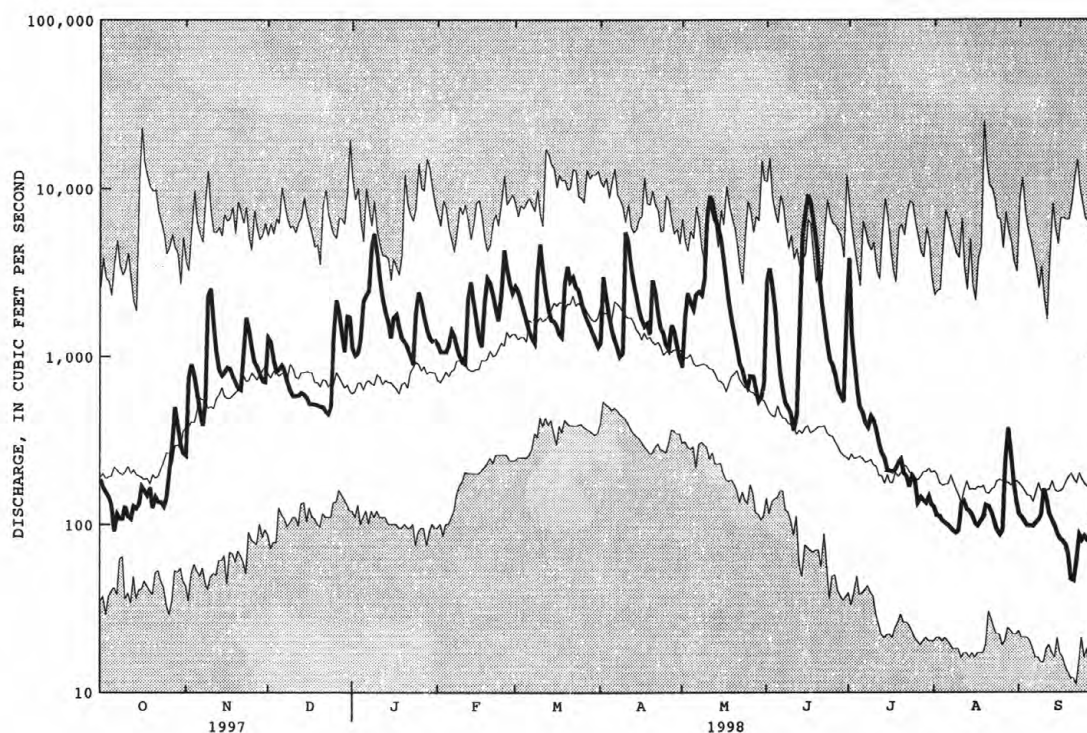
e Estimated



## HUDSON RIVER BASIN

## 01371500 WALLKILL RIVER AT GARDINER, NY--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1925 - 1998	
ANNUAL TOTAL	323768		466738		1077	
ANNUAL MEAN	887		1279		1900	
HIGHEST ANNUAL MEAN					390	
LOWEST ANNUAL MEAN					1928	
HIGHEST DAILY MEAN	9160	Apr 1	9120	Jun 16	25200	Aug 19 1955
LOWEST DAILY MEAN	65	Aug 12	46	Sep 21	10	Sep 28 1964
ANNUAL SEVEN-DAY MINIMUM	71	Aug 6	65	Sep 16	13	Sep 17 1964
ANNUAL RUNOFF (CFSM)	1.28		1.84		1.55	
ANNUAL RUNOFF (INCHES)	17.33		24.98		21.06	
10 PERCENT EXCEEDS	1910		2760		2680	
50 PERCENT EXCEEDS	624		886		572	
90 PERCENT EXCEEDS	95		104		110	



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



## HUDSON RIVER BASIN

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## 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 mi<sup>2</sup>.

## ELEVATION RECORDS

**PERIOD OF RECORD.**--May 1992 to current year.

**REVISED RECORDS.**--WDR NY-97-1: 1996.

**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, 4.98 ft, May 13; minimum, -3.27 ft, Nov. 27.

## ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	2.55	-.99	.69	3.94	-.29	1.98	2.97	-1.20	1.00	2.12	-2.50	-.15
2	2.71	-.81	.95	4.39	.86	2.52	2.14	-1.85	.01	2.12	-1.88	.11
3	2.78	-.70	1.11	3.56	---	---	1.93	---	---	2.52	-1.33	.50
4	3.07	-.56	1.28	3.54	-.12	1.56	3.24	-.79	1.09	2.26	-1.35	.60
5	3.12	-.40	1.30	2.69	-.86	.84	3.33	-.88	1.36	2.73	-1.33	1.10
6	2.91	-.50	1.12	2.80	-.69	1.02	2.76	-1.08	.95	2.96	-.64	1.22
7	2.67	-.63	.97	4.09	.01	2.06	1.84	-1.35	.31	3.14	-.55	1.47
8	2.95	-.44	1.15	4.02	.87	2.54	1.97	-1.60	.33	4.29	.02	2.50
9	3.37	-.09	1.52	3.72	.50	2.18	2.72	-1.32	1.01	4.82	1.04	2.97
10	2.85	-.21	1.38	3.25	-.12	1.58	3.17	-1.02	1.23	4.83	1.19	2.73
11	2.99	-.88	.99	3.24	-.66	1.33	3.76	-.74	1.59	4.35	.60	2.31
12	3.25	-.62	1.26	3.43	-.87	1.25	3.61	-.68	1.34	3.67	-.12	1.69
13	3.46	-.57	1.40	3.13	-1.17	1.02	3.36	-1.09	1.05	3.84	-.13	1.62
14	3.70	-.40	1.66	4.32	-.56	1.98	2.75	-1.71	.33	2.23	-1.49	.41
15	3.48	-.68	1.43	4.27	-.10	1.95	2.58	-2.24	.27	2.91	-.74	.97
16	3.40	-.91	1.31	3.44	-1.03	1.30	2.63	-1.55	.62	3.37	-.09	1.66
17	3.60	-.70	1.46	2.74	-1.45	.53	3.12	-.73	1.08	3.97	.72	2.22
18	3.62	-.66	1.49	2.97	-1.17	.84	2.98	-.76	1.03	3.79	.51	2.21
19	3.82	-.27	1.81	3.14	-.58	1.19	2.44	-1.06	.85	3.39	.24	1.86
20	4.22	.26	2.24	2.39	-.81	.98	2.30	-1.03	.64	---	-.50	---
21	3.53	.09	1.79	2.71	-.81	1.09	1.81	-1.06	.53	2.81	-.52	1.43
22	2.57	-.68	1.06	2.24	-.50	1.04	1.78	-.89	.67	3.14	.13	1.46
23	2.72	-.73	1.17	2.91	-.31	1.71	3.09	-.27	1.47	3.75	-.44	2.09
24	2.36	-.58	.89	2.58	-.73	.67	2.62	-.31	1.32	3.36	-.04	1.70
25	2.29	-.69	1.05	2.77	-2.15	.56	3.72	.40	1.86	3.10	-1.34	.72
26	3.36	-.28	1.51	2.52	-1.00	.68	2.85	-.49	1.12	2.78	-1.54	.52
27	3.88	.64	2.17	1.92	-3.27	-.68	2.94	-.74	.99	2.95	-1.54	.82
28	1.87	-1.57	.34	3.30	-1.37	1.11	3.45	-.59	1.38	4.19	-.34	1.85
29	2.46	-1.27	.68	2.89	-.82	.98	3.71	-.26	1.70	4.60	.06	2.18
30	2.59	-1.13	.81	3.44	-.68	1.30	4.46	-.72	2.01	4.42	.15	2.26
31	2.94	-.57	1.23	---	---	---	1.34	-2.54	-.69	3.51	-.64	1.44
MONTH	4.22	-1.57	1.27	4.39	---	---	4.46	---	---	---	-2.50	---



## HUDSON RIVER BASIN

01372058 HUDSON RIVER BELOW POUGHKEEPSIE, NY--Continued

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	3.41	-.43	1.49	4.20	.03	2.13	3.75	-.08	1.76	3.25	-.54	1.31
2	3.44	-.34	1.58	4.05	.12	2.07	3.94	.58	2.23	3.55	.06	1.80
3	3.28	-.79	1.31	4.21	.26	2.19	3.58	.36	1.82	3.34	.06	1.77
4	2.91	-.79	1.34	3.88	-.09	1.90	3.41	.28	1.94	2.78	-.12	1.47
5	4.33	.99	2.78	3.21	-.32	1.36	2.83	.13	1.49	2.95	-.19	1.43
6	4.48	1.01	2.62	2.99	-.39	1.39	3.15	-.03	1.62	2.94	-.29	1.41
7	3.45	.05	1.75	3.01	-.16	1.36	2.86	-.37	1.38	3.13	-.31	1.40
8	3.82	.21	1.96	3.81	-.47	1.65	3.16	-.13	1.47	3.67	.05	1.65
9	3.99	.12	1.93	---	.98	---	3.85	.01	1.77	3.51	.12	1.73
10	3.06	-.58	1.18	---	-.53	---	3.90	.31	2.03	4.44	.42	2.12
11	3.23	-.59	1.30	1.99	-1.31	.40	3.90	-.36	1.65	4.73	1.16	2.76
12	3.83	-.07	1.82	2.53	-1.41	.42	3.31	-.37	1.36	4.86	1.44	3.02
13	2.52	-1.03	.70	2.92	-1.52	.53	3.37	-.20	1.51	4.98	1.01	2.72
14	2.56	-.89	.82	3.76	-.38	1.52	3.71	.13	1.84	4.41	.59	2.23
15	2.31	-.88	.74	2.22	-1.32	.35	3.72	-.11	1.69	3.92	.23	1.82
16	2.59	-.66	.92	2.15	-1.06	.53	3.29	-.17	1.51	3.53	.00	1.66
17	2.65	-.15	1.55	2.53	-.69	.81	3.50	-.23	1.54	3.68	.00	1.77
18	4.04	.54	2.19	2.60	-.52	.97	2.31	-.99	.70	3.38	-.30	1.46
19	3.46	.55	2.04	2.68	-.21	1.19	2.36	-.77	.86	3.17	-.24	1.58
20	2.90	.43	1.50	3.07	.26	1.60	3.19	-.58	1.13	3.50	-.16	1.91
21	2.80	-.31	1.02	4.01	.56	2.88	2.97	-.45	1.27	3.27	-.46	1.61
22	2.64	-.68	1.08	4.24	.65	2.43	3.09	-.73	1.20	3.20	-1.09	1.03
23	3.25	-.41	1.54	2.96	-.38	1.22	3.64	-.38	1.63	3.51	-.92	1.24
24	4.73	.43	2.33	2.54	-.93	.88	3.86	-.60	1.58	3.68	-.94	1.23
25	3.55	-.60	1.36	2.76	-1.02	.92	3.45	-1.00	1.34	3.91	-.80	1.35
26	3.75	-.64	1.53	2.96	-.85	1.04	3.90	-.80	1.42	3.92	-.83	1.42
27	4.02	-.19	1.93	2.96	-1.08	.90	3.98	-1.11	1.28	3.72	-.72	1.37
28	4.25	.09	2.13	3.80	-.96	1.28	3.50	-1.24	.98	3.75	-.64	1.32
29	---	---	---	3.94	-.55	1.56	3.23	-1.07	.98	3.46	-.62	1.33
30	---	---	---	3.62	-.45	1.63	3.17	-.86	1.03	3.09	-.76	1.12
31	---	---	---	4.05	-.11	1.79	---	---	---	2.94	-.50	1.48
MONTH	4.73	-1.03	1.59	---	-1.52	---	3.98	-1.24	1.47	4.98	-1.09	1.66
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	3.07	-.31	1.42	2.96	-.15	1.48	2.48	-.57	1.05	3.27	.20	1.59
2	3.28	-.05	1.67	2.69	-.30	1.32	2.86	-.50	1.12	4.05	.32	1.89
3	2.80	-1.11	1.16	2.85	-.45	1.24	2.92	-.49	1.14	3.87	-.09	1.70
4	2.14	-.84	.88	3.35	-.11	1.46	3.19	-.40	1.15	3.80	-.13	1.70
5	2.10	-1.35	.51	3.00	-.34	1.24	3.41	-.37	1.30	3.37	-.82	1.29
6	2.81	-.85	.77	3.52	-.28	1.27	3.53	-.44	1.27	3.34	-.76	1.25
7	2.83	-.75	.95	3.61	-.29	1.39	3.56	-.53	1.33	3.43	-.85	1.26
8	2.96	-.85	.73	3.72	-.32	1.41	3.56	-.59	1.34	3.76	-.52	1.74
9	3.47	-.62	1.13	3.88	-.21	1.60	3.54	-.60	1.42	3.45	-.81	1.33
10	3.47	-.60	1.18	3.92	-.51	1.52	3.58	-.65	1.51	2.93	-.98	1.06
11	3.36	-.58	1.24	3.54	-.60	1.32	3.67	-.46	1.59	3.23	-.76	1.29
12	3.45	-.37	1.61	3.53	-.45	1.56	3.30	-.65	1.39	3.44	-.44	1.52
13	3.82	-.18	1.75	3.68	-.43	1.64	3.43	-.41	1.68	3.39	-.57	1.44
14	3.99	.35	2.25	3.62	-.41	1.62	3.31	-.59	1.54	3.44	-.19	1.60
15	4.34	.67	2.54	3.19	-.63	1.47	3.38	-.51	1.53	3.25	-.14	1.50
16	4.36	.79	2.58	3.21	-.69	1.49	3.30	-.54	1.42	2.69	-.72	1.07
17	3.76	.37	2.21	3.53	-.62	1.55	3.36	-.50	1.36	3.27	-.78	1.18
18	3.56	-.03	1.90	3.28	-.79	1.38	3.33	-.58	1.30	3.51	-.54	1.31
19	3.89	-.06	1.94	3.59	-.87	1.33	3.19	-1.02	.94	3.36	-.20	1.63
20	3.97	-.19	1.90	3.49	-.58	1.46	3.33	-.62	1.21	3.36	-.37	1.48
21	4.20	-.21	1.85	3.56	-.72	1.27	3.20	-.79	1.11	3.36	-.33	1.62
22	4.17	-.25	1.82	3.58	-.74	1.34	3.40	-.70	1.33	3.30	-.32	1.53
23	4.13	-.29	1.78	3.75	-.50	1.49	3.49	-.30	1.59	2.65	-.76	1.02
24	4.12	-.31	1.72	3.75	-.65	1.35	3.55	-.13	1.61	2.95	-.37	1.32
25	4.03	-.31	1.62	3.38	-.64	1.29	3.03	-.59	1.26	2.84	-.49	1.20
26	3.91	-.19	1.64	3.22	-.76	1.10	2.97	-.48	1.33	2.74	-.36	1.20
27	3.89	-.21	1.62	3.08	-.58	1.47	2.68	-.64	1.18	3.15	.05	1.45
28	3.86	.37	2.07	3.27	-.31	1.53	3.11	-.23	1.52	2.20	-.52	.92
29	3.60	.02	1.91	2.96	-.30	1.47	3.22	.28	1.74	3.02	-.52	1.20
30	3.25	.24	1.84	2.68	-.51	1.31	3.28	.26	1.65	3.09	-.15	1.32
31	---	---	---	2.98	-.21	1.45	2.94	.10	1.42	---	---	---
MONTH	4.36	-1.35	1.61	3.92	-.87	1.41	3.67	-1.02	1.37	4.05	-.98	1.39



## HUDSON RIVER BASIN

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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  $\mu\text{S}/\text{cm}$ , Sept. 26, 1995; minimum, 96  $\mu\text{S}/\text{cm}$ , Jan. 30, 1995.

WATER TEMPERATURE: Maximum, 28.0°C, Aug. 4, 5, 1995; minimum (water years 1993-98), 0.0°C on many days during winter periods.

## EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 521  $\mu\text{S}/\text{cm}$ , Feb. 24; minimum, 101  $\mu\text{S}/\text{cm}$ , Jan. 16.

WATER TEMPERATURE: Maximum, 27.0°C on several days in August; minimum, 0.0°C on several days during winter period.

## SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	279	234	253	260	215	229	267	206	229	312	228	257
2	276	236	255	284	214	237	269	208	235	304	229	259
3	263	236	249	289	---	---	---	208	---	287	229	250
4	273	237	255	280	240	252	270	209	228	392	219	266
5	277	234	255	293	238	257	268	207	223	278	224	244
6	274	230	254	294	238	255	273	207	226	301	218	246
7	275	230	249	300	235	251	259	211	226	294	213	244
8	265	223	243	275	190	240	278	212	234	291	220	242
9	281	219	248	283	226	246	273	217	237	305	235	254
10	296	230	252	315	236	257	278	220	236	287	188	239
11	295	224	246	303	231	252	344	222	249	244	137	181
12	289	225	247	291	226	248	295	226	245	212	110	155
13	288	222	242	283	222	248	304	227	248	173	116	136
14	280	228	244	293	222	241	298	228	249	182	112	140
15	267	223	241	290	221	243	282	228	253	177	106	138
16	276	225	244	277	217	241	283	227	251	431	101	183
17	273	227	249	281	217	239	286	227	248	198	112	140
18	274	226	247	299	214	242	283	227	248	172	112	134
19	266	227	247	278	214	237	282	227	242	200	108	134
20	279	231	258	290	212	236	267	226	241	---	118	---
21	292	230	258	284	214	230	307	210	248	215	145	163
22	285	228	249	335	213	236	292	214	240	233	147	171
23	278	220	241	274	209	227	333	226	249	370	151	173
24	262	221	234	296	206	229	343	228	255	420	164	212
25	257	222	234	261	200	220	321	232	256	448	166	218
26	266	221	238	281	198	225	291	222	247	275	172	205
27	274	211	241	287	201	224	284	232	247	282	176	208
28	269	216	232	254	199	214	304	233	258	262	182	205
29	261	215	231	275	199	227	281	231	248	256	184	210
30	260	216	235	306	205	224	437	233	275	238	184	203
31	261	215	234	---	---	---	323	228	266	286	189	212
MONTH	296	211	245	335	---	---	---	206	---	---	101	---



## HUDSON RIVER BASIN

01372058 HUDSON RIVER BELOW POUGHKEEPSIE, NY--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	265	194	220	299	226	251	499	194	235	272	180	211
2	299	196	221	287	226	250	308	198	227	249	178	203
3	246	199	216	313	230	260	276	180	216	350	183	208
4	272	205	223	323	236	263	231	139	181	261	189	210
5	316	205	231	315	238	262	216	112	148	324	190	215
6	275	207	229	304	223	260	227	104	140	291	195	219
7	284	211	233	308	243	265	248	102	146	293	199	223
8	274	211	234	318	248	268	182	105	135	254	196	217
9	279	211	235	---	---	---	234	111	140	275	190	215
10	268	213	235	---	---	---	244	111	158	277	187	215
11	294	215	235	334	221	270	246	114	165	326	188	220
12	342	216	248	306	206	250	235	119	163	297	186	218
13	284	221	250	325	204	250	276	107	172	277	186	215
14	314	230	265	363	205	247	207	107	156	253	166	206
15	318	226	258	304	203	245	205	107	146	237	155	191
16	286	226	248	323	202	252	207	126	153	235	146	185
17	317	217	245	294	204	242	283	128	171	223	159	184
18	275	216	242	295	204	232	270	138	181	257	156	179
19	269	222	238	315	193	229	252	133	164	344	153	180
20	256	219	234	280	190	225	261	132	174	237	142	177
21	299	215	238	315	176	215	281	147	183	230	153	178
22	299	211	237	333	180	217	293	152	193	263	151	189
23	266	213	230	335	184	222	222	163	182	243	151	182
24	521	214	291	323	190	237	243	159	190	245	159	189
25	357	220	260	323	192	241	257	154	192	218	162	185
26	336	221	257	363	192	238	209	146	173	292	165	190
27	321	229	259	321	186	231	236	165	203	225	161	196
28	309	223	253	308	186	231	239	168	199	226	166	194
29	---	---	---	296	189	232	312	171	207	308	165	203
30	---	---	---	309	200	237	252	176	207	240	170	193
31	---	---	---	340	196	240	---	---	---	233	169	189
MONTH	521	194	242	---	---	---	499	102	177	350	142	199
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	260	176	196	200	144	164	270	141	178	266	217	232
2	285	142	197	201	132	164	241	153	177	254	212	228
3	246	149	187	245	144	161	218	154	173	369	223	259
4	355	169	220	201	142	158	216	154	179	305	223	240
5	299	168	219	206	123	156	217	170	190	268	226	240
6	300	173	221	203	144	159	281	165	194	278	231	249
7	323	186	217	233	143	154	279	171	201	261	235	243
8	240	189	203	201	134	165	243	165	190	290	229	261
9	366	166	207	263	132	164	218	168	190	275	227	245
10	231	178	198	192	134	156	231	179	199	280	228	250
11	209	176	190	176	136	153	229	179	204	279	228	255
12	209	173	182	211	134	156	261	169	208	302	238	263
13	203	173	184	279	134	160	295	171	208	309	240	269
14	214	136	184	217	124	158	327	192	232	294	243	268
15	225	178	191	223	138	156	310	194	213	303	244	277
16	314	177	213	240	147	165	271	190	212	309	239	272
17	278	169	206	247	132	160	267	184	197	442	252	310
18	301	164	183	218	136	159	267	186	202	480	247	318
19	297	161	186	235	133	160	241	189	206	394	245	290
20	235	162	191	223	138	155	316	189	212	394	273	321
21	245	175	199	184	121	151	343	195	214	392	309	342
22	240	172	194	178	124	151	363	197	219	387	239	326
23	213	165	182	179	128	152	231	197	213	406	241	288
24	217	160	183	201	142	158	243	206	220	296	244	269
25	204	158	176	198	144	161	245	206	218	288	236	264
26	268	147	176	193	141	161	405	205	224	365	246	276
27	199	157	169	227	124	159	263	207	225	306	214	263
28	203	154	172	185	144	160	258	198	223	301	238	261
29	199	143	161	191	149	164	408	203	236	295	231	261
30	191	128	158	198	149	164	269	213	227	270	232	249
31	---	---	---	196	148	162	264	210	227	---	---	---
MONTH	366	128	192	279	121	159	408	141	207	480	212	270



## 01372058 HUDSON RIVER BELOW Poughkeepsie, NY--Continued

## WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	20.5	19.5	20.0	14.0	13.5	14.0	4.5	3.5	4.0	.5	.0	.5
2	20.0	19.5	19.5	14.0	13.5	14.0	4.0	3.5	3.5	1.0	.0	.5
3	19.5	19.5	19.5	14.0	---	---	3.5	---	---	1.0	.5	.5
4	19.5	19.0	19.5	13.5	12.5	13.0	4.0	3.5	3.5	1.0	.5	.5
5	20.0	19.0	19.5	13.0	12.0	12.5	3.5	3.0	3.5	1.0	.5	.5
6	20.0	19.5	19.5	12.5	12.0	12.0	3.0	3.0	3.0	1.0	.5	.5
7	19.5	19.0	19.5	12.5	12.0	12.0	3.0	3.0	3.0	2.5	.5	1.0
8	19.5	19.0	19.5	12.0	10.5	11.5	3.0	2.5	3.0	2.0	.5	1.0
9	19.5	19.0	19.5	11.5	11.0	11.5	3.0	2.5	2.5	2.5	1.0	1.5
10	19.5	19.0	19.5	11.0	10.5	11.0	3.0	2.5	2.5	2.5	2.0	2.0
11	19.0	19.0	19.0	10.5	10.0	10.5	2.5	2.0	2.5	3.0	2.5	2.5
12	19.5	18.5	19.0	10.5	10.0	10.0	2.5	2.0	2.5	3.0	2.5	2.5
13	19.0	18.5	19.0	10.0	9.5	9.5	2.5	2.0	2.0	2.5	2.0	2.5
14	19.0	18.5	19.0	9.5	9.0	9.0	2.5	2.0	2.0	2.5	2.0	2.0
15	19.0	18.0	18.5	9.0	9.0	9.0	2.0	1.5	2.0	2.0	2.0	2.0
16	18.5	18.0	18.0	9.0	8.0	8.5	2.5	1.5	2.0	2.0	1.5	2.0
17	18.0	17.5	17.5	8.5	8.0	8.0	2.0	1.5	2.0	2.0	1.5	1.5
18	17.5	17.0	17.5	8.0	7.5	8.0	2.0	1.5	2.0	1.5	1.5	1.5
19	17.5	17.0	17.0	8.0	7.5	8.0	2.0	1.5	2.0	1.5	1.0	1.5
20	17.5	17.0	17.0	8.0	7.5	7.5	2.0	1.5	1.5	---	---	---
21	17.0	16.5	17.0	7.5	7.0	7.5	1.5	1.5	1.5	1.0	.5	1.0
22	16.5	16.0	16.5	7.5	6.0	7.0	1.5	1.0	1.5	1.0	.5	1.0
23	16.5	15.5	16.0	7.0	6.5	7.0	1.5	1.0	1.5	.5	.5	.5
24	16.0	15.5	15.5	7.0	5.5	6.5	1.5	1.0	1.5	1.5	.5	.5
25	15.5	15.0	15.5	6.0	5.5	5.5	2.0	1.0	1.5	1.0	.0	.5
26	15.0	15.0	15.0	6.0	5.0	5.5	1.5	1.0	1.5	1.0	.0	.0
27	15.0	14.0	15.0	5.5	4.5	5.0	1.5	1.0	1.0	.5	.0	.0
28	15.0	14.0	14.5	5.0	4.5	4.5	1.5	1.0	1.0	.5	.0	.0
29	14.5	14.0	14.0	5.0	4.5	4.5	1.5	1.0	1.0	.5	.0	.0
30	14.5	14.0	14.0	5.0	4.5	4.5	1.0	.5	1.0	.5	.0	.0
31	14.5	13.5	14.0	---	---	---	1.0	.5	.5	.5	.0	.0
MONTH	20.5	13.5	17.5	14.0	---	---	4.5	---	---	---	---	---

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



## HUDSON RIVER BASIN

01372058 HUDSON RIVER BELOW POUGHKEEPSIE, NY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	21.0	20.0	20.5	24.0	23.0	23.5	26.0	25.5	25.5	26.0	25.5	25.5
2	21.0	19.5	20.5	24.0	23.0	23.5	26.5	25.5	26.0	26.0	25.5	25.5
3	21.0	19.5	20.5	24.5	23.5	24.0	26.5	25.5	26.0	26.0	25.0	25.5
4	21.0	20.0	20.5	24.5	23.5	24.0	26.5	25.5	26.0	26.0	25.0	25.5
5	21.0	20.0	20.5	24.0	23.5	24.0	26.5	26.0	26.0	25.5	25.0	25.0
6	21.0	20.0	20.5	25.0	23.5	24.0	27.0	26.0	26.0	25.5	24.5	25.0
7	21.0	20.0	20.5	24.0	23.5	24.0	27.0	26.0	26.5	25.5	24.5	25.0
8	20.5	20.0	20.5	24.0	23.5	23.5	27.0	26.0	26.5	25.0	24.5	25.0
9	21.5	20.0	20.5	25.0	23.5	24.0	27.0	26.0	26.5	24.5	24.0	24.5
10	21.5	20.0	20.5	24.5	23.5	24.0	27.0	26.0	26.5	24.0	23.5	24.0
11	21.0	20.5	20.5	24.5	23.5	24.0	27.0	26.0	26.5	24.5	23.5	24.0
12	20.5	20.5	20.5	24.5	23.5	24.0	26.5	26.0	26.5	24.0	23.5	24.0
13	20.5	20.5	20.5	24.5	23.5	24.0	26.5	26.0	26.0	24.0	23.5	24.0
14	20.5	19.5	20.5	25.0	24.0	24.5	26.5	26.0	26.0	24.0	23.5	24.0
15	20.5	19.5	20.0	25.0	24.0	24.5	26.5	26.0	26.0	24.0	23.5	24.0
16	20.0	19.0	19.5	25.0	24.5	24.5	26.5	25.5	26.0	24.0	23.5	24.0
17	19.5	19.0	19.5	25.5	24.5	25.0	26.5	26.0	26.0	24.5	23.5	23.5
18	20.0	19.0	19.0	25.5	24.5	25.0	26.5	25.5	26.0	24.5	23.5	23.5
19	20.0	19.0	19.5	25.5	24.5	25.0	25.5	25.0	25.5	24.0	23.5	23.5
20	20.5	19.5	20.0	25.5	25.0	25.0	26.0	25.0	25.5	24.0	23.5	23.5
21	21.5	20.0	20.5	26.0	25.0	25.5	26.0	25.0	25.5	24.0	23.5	23.5
22	21.5	20.5	20.5	26.0	25.0	25.5	26.0	25.0	25.5	24.0	23.0	23.5
23	21.5	20.5	21.0	26.0	25.0	25.5	26.0	25.5	25.5	23.5	22.5	23.0
24	22.5	20.5	21.5	26.0	25.5	25.5	26.5	25.5	26.0	23.0	22.5	22.5
25	22.5	21.0	21.5	26.0	25.0	25.5	26.0	25.5	25.5	22.5	22.0	22.5
26	22.5	21.5	22.0	26.0	25.0	25.5	26.0	25.5	25.5	23.0	22.0	22.5
27	23.0	22.0	22.5	26.0	25.5	25.5	26.0	25.5	25.5	23.0	22.0	22.5
28	23.5	22.0	22.5	26.0	25.5	25.5	26.0	25.5	25.5	22.5	22.0	22.5
29	23.5	22.5	23.0	26.0	25.5	26.0	26.0	25.5	26.0	22.5	22.0	22.0
30	23.5	22.5	23.0	26.0	25.5	26.0	26.5	25.5	26.0	22.0	21.5	22.0
31	---	---	---	26.0	25.5	26.0	26.0	25.5	25.5	---	---	---
MONTH	23.5	19.0	20.5	26.0	23.0	24.5	27.0	25.0	26.0	26.0	21.5	24.0



## 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 mi<sup>2</sup>.

**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.

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

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 18,600 ft<sup>3</sup>/s, Aug. 19, 1955, gage height, 19.60 ft, from floodmarks in gage shelter, from rating curve extended above 6,000 ft<sup>3</sup>/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 ft<sup>3</sup>/s, Sept. 20, 21, 1964, gage height, 2.05 ft; minimum gage height, 1.96 ft, Sept. 9, 1995.

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 1,500 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
May 11	1200	*2,100	*6.74	June 16	1900	1,670	6.14

Minimum discharge, 9.2 ft<sup>3</sup>/s, Oct. 12, gage height, 2.26 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	23	305	331	328	556	386	245	236	1130	56	19
2	16	58	310	339	306	532	491	450	200	686	49	18
3	15	125	255	302	298	486	466	666	243	470	44	19
4	14	90	238	324	293	440	410	618	203	359	39	18
5	15	87	241	392	300	400	372	536	164	310	37	17
6	16	71	231	419	288	370	341	586	142	263	35	16
7	14	57	208	463	261	345	317	741	127	224	34	17
8	13	77	187	649	242	336	297	664	119	222	31	25
9	12	212	172	772	228	592	306	680	113	287	29	26
10	12	415	163	736	221	780	609	1260	106	236	28	24
11	11	299	164	625	218	633	563	2030	98	193	32	21
12	9.6	204	159	530	374	532	474	1790	106	169	40	18
13	11	156	157	478	473	463	422	1290	142	148	38	17
14	12	148	153	446	404	462	386	966	352	133	32	16
15	12	157	136	384	e280	477	354	790	422	123	30	15
16	14	144	144	501	e250	452	337	672	1120	113	29	15
17	14	133	138	498	e270	418	328	588	943	107	29	15
18	15	122	129	422	335	409	394	527	626	135	37	14
19	16	113	124	383	398	637	362	471	489	125	57	14
20	16	108	123	361	394	746	466	419	390	111	47	13
21	15	103	121	333	353	669	454	370	303	103	36	12
22	15	153	100	302	315	658	399	311	248	94	31	14
23	15	275	121	291	289	607	370	277	217	90	30	14
24	14	280	118	530	369	600	380	250	199	97	27	14
25	17	254	167	611	508	580	345	239	178	85	25	14
26	21	218	282	520	555	546	326	233	158	76	31	13
27	36	236	291	443	525	521	375	206	147	66	30	13
28	40	232	264	414	491	487	320	184	146	59	27	20
29	33	214	225	384	---	455	282	169	134	56	23	22
30	28	206	510	366	---	417	257	178	471	53	23	21
31	24	---	e475	358	---	397	---	168	---	55	21	---
TOTAL	533.6	4970	6411	13907	9566	16003	11589	18574	8542	6378	1057	514
MEAN	17.2	166	207	449	342	516	386	599	285	206	34.1	17.1
MAX	40	415	510	772	555	780	609	2030	1120	1130	57	26
MIN	9.6	23	100	291	218	336	257	168	98	53	21	12
CFSM	.10	.92	1.14	2.48	1.89	2.85	2.13	3.31	1.57	1.14	.19	.09
IN.	.11	1.02	1.32	2.86	1.97	3.29	2.38	3.82	1.76	1.31	.22	.11

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1998, BY WATER YEAR (WY)**

MEAN	119	197	272	306	337	568	503	314	189	119	83.7	93.2
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

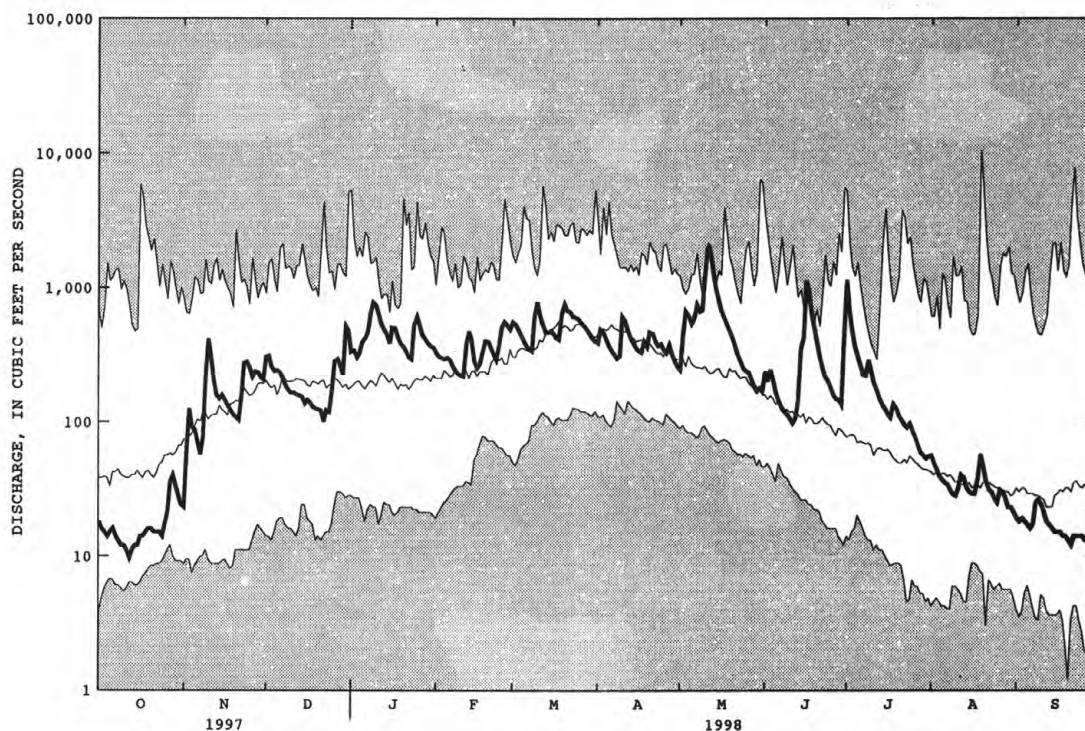
e Estimated



## HUDSON RIVER BASIN

01372500 WAPPINGER CREEK NEAR WAPPINGERS FALLS, NY--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1928 - 1998	
ANNUAL TOTAL	82842.6		98044.6		258	
ANNUAL MEAN	227		269		438	1973
HIGHEST ANNUAL MEAN					65.7	1965
LOWEST ANNUAL MEAN					10500	Aug 19 1955
HIGHEST DAILY MEAN	1690	Apr 1	2030	May 11	1.2	Sep 20 1964
LOWEST DAILY MEAN	9.6	Oct 12	9.6	Oct 12	2.4	Sep 24 1964
ANNUAL SEVEN-DAY MINIMUM	11	Sep 22	11	Oct 9	1.42	
ANNUAL RUNOFF (CFSM)	1.25		1.48		19.34	
ANNUAL RUNOFF (INCHES)	17.03		20.15		608	
10 PERCENT EXCEEDS	492		559		150	
50 PERCENT EXCEEDS	157		225		23	
90 PERCENT EXCEEDS	16		16			



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



## HUDSON RIVER BASIN

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## 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 mi<sup>2</sup>.

## 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 sea level.

**REMARKS.**--Telephone 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, 6.79 ft, Dec. 11, 1992; minimum, -4.26 ft, Mar. 14, 1993.

**EXTREMES FOR CURRENT YEAR.**--Maximum elevation, 4.78 ft, Feb. 24; minimum, -3.16 ft, Nov. 27.

## ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	3.96	-.42	1.84	2.71	-1.07	.89	1.77	-2.54	-.25
2	---	---	---	4.05	.66	2.23	1.98	-1.80	-.07	1.89	-1.93	-.07
3	2.34	---	---	3.14	-.43	1.32	1.60	-2.31	-.32	2.26	-1.47	.32
4	2.62	-.73	1.02	3.18	-.33	1.30	2.94	-.99	.92	2.05	-1.38	.44
5	2.73	-.54	1.03	2.32	-1.04	.64	3.09	-.86	1.14	2.49	-.79	.95
6	2.47	-.76	.85	2.46	-.82	.84	2.50	-1.18	.77	2.67	-.71	1.04
7	2.31	-.86	.72	3.87	.30	1.97	1.69	-1.66	.16	2.83	-.72	1.32
8	2.53	-.65	.89	3.89	.44	2.48	1.78	-1.66	.23	3.84	-.17	2.23
9	2.90	-.34	1.24	3.52	.43	2.06	2.48	-1.41	.93	4.38	.86	2.65
10	2.52	-.76	1.15	3.03	-.31	1.39	2.93	-1.09	1.19	4.42	.97	2.43
11	2.64	-.95	.83	2.92	-.86	1.17	3.44	-.81	1.53	3.97	.52	2.05
12	2.82	-.77	1.06	3.04	-.97	1.11	3.34	-.77	1.23	3.29	-.10	1.49
13	3.02	-.75	1.17	2.79	-1.25	.93	3.02	-1.17	.92	3.44	-.18	1.37
14	3.33	-.55	1.44	4.12	-.63	1.97	2.40	-1.64	.20	1.93	-1.45	.28
15	3.18	-.69	1.28	3.98	-.13	1.80	2.22	-2.27	.16	2.71	-.85	.87
16	3.10	-.91	1.18	3.23	-.98	1.12	2.32	-1.63	.46	3.22	-.19	1.64
17	3.23	-.77	1.26	2.35	-1.55	.34	2.91	-.82	.93	3.86	.53	2.13
18	3.25	-.75	1.28	2.64	-1.28	.68	2.72	-.89	.89	3.66	.41	2.07
19	3.47	-.40	1.61	2.80	-.70	1.03	2.21	-1.11	.67	3.22	.16	1.73
20	3.85	.16	2.00	2.17	-.84	.80	2.10	-1.00	.52	2.94	-.52	1.36
21	3.23	-.04	1.55	2.46	-.47	.94	1.70	-.85	.47	2.73	-.40	1.39
22	2.37	-.81	.84	2.18	-.45	1.00	1.64	-.79	.65	3.17	-.34	1.42
23	2.46	-.70	.96	2.74	-.37	1.62	2.92	-.37	1.42	3.71	-.52	2.10
24	2.06	-.65	.71	2.48	-1.42	.56	2.45	-.44	1.26	3.34	-.06	1.62
25	2.15	-.79	.96	2.46	-2.24	.48	3.61	.10	1.74	3.00	-1.27	.61
26	3.04	-.49	1.40	2.17	-1.20	.53	2.63	-.69	.97	2.45	-1.69	.39
27	3.66	.48	1.97	.85	-3.16	-.79	2.69	-.94	.88	2.76	-1.58	.78
28	1.58	-1.66	.17	2.89	-1.60	1.00	3.13	-.72	1.30	4.04	-.38	1.86
29	2.08	-1.42	.49	2.62	-.88	.87	3.50	-.43	1.62	4.39	.00	2.09
30	2.29	-1.26	.64	3.11	-.80	1.18	4.17	-.71	1.78	4.21	.12	2.09
31	2.65	-.70	1.05	---	---	---	1.08	-2.48	-.82	3.38	-.72	1.30
MONTH	---	---	---	4.12	-3.16	1.15	4.17	-2.48	.79	4.42	-2.54	1.35



## HUDSON RIVER BASIN

01374019 HUDSON RIVER AT SOUTH DOCK AT WEST POINT, NY--Continued

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	3.19	-.56	1.34	3.97	-.17	1.91	3.34	-.27	1.41	2.88	-.61	1.08
2	3.20	-.49	1.39	3.80	-.09	1.84	3.53	.36	1.89	3.28	-.04	1.58
3	3.04	-.87	1.15	3.96	.07	1.99	3.25	.23	1.54	3.07	-.14	1.52
4	2.80	-.70	1.39	3.65	-.24	1.68	3.11	.28	1.81	2.57	-.32	1.26
5	4.37	.99	2.88	2.99	-.56	1.19	2.57	.14	1.37	2.69	-.38	1.24
6	4.47	1.00	2.58	2.77	-.44	1.24	2.88	-.10	1.47	2.60	-.53	1.20
7	3.32	-.06	1.70	2.78	-.37	1.21	2.58	-.60	1.19	2.81	-.59	1.18
8	3.67	.03	1.89	3.60	-.61	1.62	2.99	-.39	1.31	3.32	-.20	1.48
9	3.77	-.03	1.79	3.87	.72	2.43	3.68	-.27	1.66	3.35	-.08	1.62
10	2.82	-.72	1.03	3.22	-.61	1.33	3.72	.07	1.91	4.12	.19	1.95
11	2.96	-.76	1.15	1.76	-1.26	.22	3.38	-.57	1.45	4.50	.80	2.52
12	3.52	-.12	1.61	2.27	-1.45	.24	3.06	-.53	1.17	4.77	1.16	2.78
13	2.49	-1.13	.54	2.79	-1.67	.38	3.37	-.37	1.33	4.77	.69	2.46
14	2.38	-.96	.72	3.41	-.51	1.26	3.41	-.04	1.62	4.11	.26	1.96
15	2.16	-.97	.65	2.15	-1.40	.22	3.46	-.34	1.48	3.58	-.04	1.56
16	2.40	-.87	.77	1.93	-1.22	.40	3.00	-.37	1.29	3.18	-.14	1.39
17	2.49	-.31	1.48	2.28	-.95	.64	3.20	-.35	1.28	3.30	-.16	1.47
18	3.93	.37	2.08	2.32	-.70	.79	2.10	-1.14	.49	3.14	-.48	1.20
19	3.29	.36	1.90	2.45	-.43	1.05	2.15	-.86	.72	2.84	-.44	1.36
20	2.81	.15	1.39	2.83	.28	1.45	2.93	-.69	.93	3.24	-.35	1.68
21	2.62	-.55	.90	3.96	1.16	2.84	2.64	-.68	1.07	3.09	-.65	1.42
22	2.38	-.79	.98	4.23	.09	2.31	2.79	-.98	1.02	2.84	-1.16	.92
23	3.11	-.62	1.49	2.75	-.54	1.06	3.51	-.52	1.51	3.21	-1.06	1.08
24	4.78	.43	2.34	2.34	-1.12	.76	3.47	-.81	1.42	3.28	-1.19	1.03
25	3.43	-.78	1.28	2.55	-1.21	.77	3.20	-1.12	1.19	3.51	-1.05	1.14
26	3.56	-.73	1.43	2.71	-1.10	.84	3.65	-.93	1.25	3.36	-1.02	1.21
27	3.95	-.36	1.78	2.66	-1.31	.70	3.56	-1.21	1.11	3.33	-.87	1.13
28	4.05	-.09	1.94	3.55	-1.20	1.03	3.16	-1.37	.78	3.37	-.88	1.07
29	----	----	----	3.51	-.76	1.27	2.91	-1.14	.75	3.11	-.77	1.05
30	----	----	----	3.39	-.65	1.30	2.82	-1.02	.79	2.76	-.86	.87
31	----	----	----	3.69	-.39	1.45	----	----	----	2.55	-.70	1.20
MONTH	4.78	-1.13	1.48	4.23	-1.67	1.21	3.72	-1.37	1.27	4.77	-1.19	1.44
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	2.83	-.45	1.18	2.72	-.44	1.19	2.16	-.73	.88	2.95	-.10	1.39
2	2.82	-.26	1.45	2.31	-.49	1.09	2.51	-.72	.93	3.64	.01	1.68
3	2.73	-1.02	.98	2.47	-.70	1.02	2.58	-.75	.94	3.46	-.34	1.49
4	1.93	-.96	.71	2.99	-.42	1.26	2.81	-.72	.96	3.44	-.37	1.51
5	1.80	-1.42	.35	2.62	-.56	1.06	3.00	-.63	1.08	2.91	-.94	1.08
6	2.47	-.99	.62	3.05	-.61	1.06	3.11	-.78	1.03	2.92	-.95	.99
7	2.53	-.92	.77	3.19	-.56	1.15	3.13	-.77	1.08	3.33	-1.03	1.03
8	2.58	-1.03	.56	3.29	-.58	1.19	3.09	-.81	1.08	3.34	-.60	1.49
9	3.06	-.73	.91	3.50	-.55	1.35	3.11	-.73	1.13	3.10	-.92	1.08
10	2.98	-.85	.92	3.35	-.75	1.28	3.12	-.77	1.20	2.63	-1.05	.83
11	3.00	-.72	1.00	3.12	-.78	1.08	3.24	-.60	1.29	2.82	-.88	1.02
12	3.28	-.51	1.33	3.12	-.58	1.30	2.92	-.73	1.14	3.05	-.62	1.27
13	3.43	-.29	1.50	3.29	-.57	1.35	3.03	-.53	1.38	2.96	-.76	1.25
14	3.53	.17	1.93	3.26	-.55	1.28	2.83	-.76	1.25	3.00	-.45	1.37
15	3.91	.36	2.13	2.83	-.79	1.14	2.90	-.71	1.26	2.86	-.45	1.26
16	3.92	.53	2.19	2.76	-.83	1.20	2.85	-.75	1.18	2.33	-.82	.91
17	3.42	.05	1.87	2.94	-.82	1.30	2.92	-.73	1.16	2.89	-.87	1.02
18	3.20	-.30	1.63	2.86	-1.00	1.17	3.06	-.80	1.11	3.09	-.64	1.13
19	3.48	-.35	1.68	3.05	-1.07	1.10	2.79	-.95	.83	3.01	-.39	1.41
20	3.70	-.49	1.65	3.09	-.86	1.21	2.92	-.82	1.02	3.01	-.48	1.26
21	3.71	-.58	1.59	3.10	-.96	1.04	2.65	-.93	.89	3.00	-.48	1.37
22	3.72	-.64	1.53	3.08	-1.01	1.08	3.09	-.76	1.12	2.98	-.45	1.33
23	3.70	-.62	1.49	3.34	-.66	1.23	3.17	-.40	1.35	2.51	-.83	.88
24	3.59	-.62	1.42	3.22	-.82	1.13	3.17	-.38	1.31	2.63	-.52	1.11
25	3.54	-.64	1.31	2.97	-.75	1.05	2.69	-.71	.96	2.44	-.66	.98
26	3.43	-.54	1.31	2.88	-.91	.87	2.54	-.70	1.06	2.43	-.53	.98
27	3.50	-.47	1.34	2.70	-.68	1.20	2.32	-.80	.95	2.82	-.22	1.20
28	3.39	.14	1.75	2.93	-.46	1.25	2.71	-.37	1.29	2.05	-.68	.73
29	3.25	-.23	1.56	2.69	-.48	1.20	2.92	.06	1.50	2.68	-.52	1.04
30	2.95	-.05	1.56	2.32	-.71	1.07	2.99	.08	1.44	2.73	-.39	1.14
31	----	----	----	2.63	-.36	1.27	2.64	-.10	1.25	----	----	----
MONTH	3.92	-1.42	1.34	3.50	-1.07	1.17	3.24	-.95	1.13	3.64	-1.05	1.17



## HUDSON RIVER BASIN

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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  $\mu\text{S}/\text{cm}$ , Sept. 23, 1995; minimum, 102  $\mu\text{S}/\text{cm}$ , May 30, 1996.

WATER TEMPERATURE: Maximum, 28.0°C on several days in water year 1995; minimum, 0.0°C on many days during winter periods, except 1998.

## EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 6,750  $\mu\text{S}/\text{cm}$ , Nov. 2, Sept. 5; minimum, 154  $\mu\text{S}/\text{cm}$ , Apr. 11.

WATER TEMPERATURE: Maximum, 27.0°C, Aug. 4, 7, 8, 9; minimum, 0.5°C, Feb. 7, 8.

## SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	6550	3840	5130	491	264	346	2770	793	1620
2	---	---	---	6750	3790	5490	290	253	270	2530	941	1660
3	---	2490	---	5460	2690	4030	271	248	259	2210	948	1470
4	5070	2600	3590	4420	2220	3490	293	250	261	1670	769	1200
5	4400	2440	3500	3160	1470	2440	273	252	261	1370	636	938
6	3900	2140	3160	2870	1430	2090	270	253	260	847	402	582
7	3710	1930	2870	3500	1520	2400	271	253	261	456	312	357
8	3910	2010	2920	3440	1960	2530	---	254	---	320	288	300
9	4660	2410	3350	2720	1450	1980	283	257	262	293	280	285
10	4090	2300	3270	1890	546	1000	271	256	259	299	282	292
11	4660	2100	3080	1450	363	649	265	255	259	300	256	279
12	5380	2550	3750	1420	327	586	263	254	257	264	209	229
13	5520	2830	4090	809	305	427	262	254	256	225	186	203
14	5930	2930	4350	1450	327	604	260	254	256	196	174	182
15	5610	2950	4030	979	359	550	260	255	257	185	172	178
16	5340	2770	3780	584	308	405	261	255	257	183	174	178
17	5340	2810	3910	378	294	328	260	256	258	182	175	178
18	4710	2780	3770	417	295	325	262	257	259	181	173	178
19	5410	2880	3960	417	295	328	263	258	260	180	170	174
20	5590	3080	4220	342	296	314	264	259	261	176	168	172
21	5030	2780	3860	335	285	305	265	260	262	270	165	180
22	4260	2750	3540	315	282	295	267	262	264	567	167	240
23	4460	2580	3620	312	280	294	924	263	456	1320	170	693
24	4490	2850	3580	293	270	281	1850	306	911	1730	326	899
25	4830	2810	3840	1050	267	471	4570	1270	2270	1690	219	745
26	6040	3430	4460	1340	294	648	4430	1340	2500	2570	222	1010
27	6060	3890	5080	1480	261	451	4870	1610	3030	2760	313	1390
28	5620	2870	3800	1710	274	749	5030	2080	3530	3060	823	1780
29	5660	3160	4390	935	325	514	5300	2660	3990	2590	882	1560
30	5630	3150	4470	838	315	446	5140	2020	3830	2100	647	1250
31	6050	3470	4810	---	---	---	2520	859	1650	1090	351	632
MONTH	---	---	---	6750	261	1320	---	248	---	3060	165	679



## HUDSON RIVER BASIN

01374019 HUDSON RIVER AT SOUTH DOCK AT WEST POINT, NY--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	683	308	452	287	242	256	231	216	222	186	177	180
2	551	270	371	253	242	248	240	222	229	187	180	183
3	396	224	290	264	244	250	245	228	235	195	184	189
4	304	218	251	279	247	254	240	228	232	202	190	195
5	520	249	307	257	246	251	248	230	238	208	195	200
6	397	236	276	264	250	257	247	220	231	213	200	206
7	1220	221	502	289	254	267	229	192	212	231	208	213
8	2450	476	1200	302	264	275	209	179	192	248	209	218
9	2680	768	1590	299	267	280	196	172	182	243	216	223
10	2160	544	1300	295	247	267	195	164	177	247	218	224
11	2250	540	1330	271	252	261	186	154	170	234	221	225
12	2020	562	1280	267	248	257	180	155	165	234	216	222
13	829	249	426	260	243	250	180	156	165	225	211	215
14	333	231	258	254	239	246	182	156	166	219	209	212
15	248	227	233	244	224	232	181	157	164	228	207	210
16	245	228	231	232	222	226	182	158	165	224	208	211
17	259	228	232	228	214	220	176	157	165	216	207	209
18	257	229	234	222	208	215	188	162	170	227	207	212
19	245	230	234	218	207	210	178	163	168	222	204	210
20	386	235	268	213	208	210	182	164	171	225	204	210
21	934	255	406	217	211	213	186	157	170	212	200	205
22	1460	249	645	232	215	217	184	157	168	209	198	202
23	1900	453	1080	232	209	216	183	162	167	210	197	200
24	2830	751	1620	411	206	233	182	163	168	210	196	201
25	1750	329	827	273	204	216	182	165	170	208	197	200
26	1270	278	500	226	201	209	184	166	172	208	197	202
27	815	262	370	212	199	204	193	167	172	214	195	201
28	415	250	286	209	201	205	176	169	173	204	192	196
29	---	---	---	214	205	209	178	171	175	202	191	195
30	---	---	---	222	209	214	181	174	178	204	193	197
31	---	---	---	225	213	218	---	---	---	205	192	198
MONTH	2830	218	607	411	199	235	248	154	184	248	177	205
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	202	194	197	210	196	201	688	230	306	4680	1700	2730
2	200	194	196	204	195	198	2140	235	722	6090	2240	3830
3	199	194	196	207	193	197	3140	451	1420	6470	2940	4570
4	203	196	198	203	193	197	3910	890	2180	6530	3500	5030
5	204	198	201	200	193	196	4730	2020	3100	6750	3540	5110
6	408	199	208	674	194	217	4990	2470	3630	6520	3680	4960
7	850	203	278	1000	197	346	5830	2800	4090	6260	3560	4790
8	1470	216	468	1400	224	522	5830	2750	4150	6230	3700	4960
9	1960	340	1020	1340	217	470	5700	2870	4150	5470	3380	4390
10	2700	671	1530	1070	212	383	5400	2920	4080	5000	3170	4020
11	2810	866	1690	645	207	298	5090	2680	3910	5090	2990	3980
12	2950	1090	1920	724	220	336	4480	2300	3370	5340	2850	3980
13	3040	955	1800	782	227	350	4130	2410	3300	5170	2720	3880
14	2510	543	1430	607	230	333	3830	2220	3010	5050	2770	3900
15	828	240	418	450	224	299	3780	2040	2850	4640	2800	3840
16	272	227	248	493	224	299	3610	1760	2660	4640	2360	3460
17	293	230	256	531	229	305	3580	1640	2520	4430	2420	3510
18	294	248	268	525	224	291	3390	1600	2360	4860	2550	3430
19	271	230	247	625	224	291	3180	1530	2070	4670	2900	3710
20	249	224	234	625	235	315	3430	1520	2230	4510	2650	3490
21	241	210	223	565	230	302	3270	1460	2120	4390	2630	3500
22	228	209	214	615	242	320	3000	1540	2180	4160	2600	3320
23	224	210	217	594	256	339	3090	1590	2350	3580	2380	2890
24	231	213	221	653	257	348	3100	1610	2360	4030	2380	3140
25	243	212	220	572	251	328	2610	1490	2050	4020	2400	3130
26	224	215	218	459	245	306	2500	1440	1930	3950	2380	3060
27	229	216	221	465	251	318	2150	1150	1660	4220	2380	3200
28	231	216	221	502	256	321	2460	1150	1750	3500	2140	2890
29	228	210	217	421	250	308	2540	1230	1850	4460	2210	3080
30	223	201	211	382	238	281	2810	1270	1820	5570	2890	3740
31	---	---	---	425	241	284	3610	1320	2010	---	---	---
MONTH	3040	194	506	1400	193	306	5830	230	2520	6750	1700	3780



## 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 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	---	---	---	14.5	14.5	14.5	6.5	5.5	6.0	2.0	1.0	1.5
2	---	---	---	14.5	14.0	14.5	6.0	5.0	5.5	2.0	1.0	1.5
3	20.0	19.5	---	14.5	14.0	14.0	5.0	5.0	5.0	2.0	1.0	1.5
4	20.0	19.5	20.0	14.0	14.0	14.0	5.5	5.0	5.0	1.5	1.5	1.5
5	20.5	19.5	20.0	14.0	13.5	14.0	5.0	4.5	5.0	1.5	1.5	1.5
6	20.0	19.5	19.5	14.0	13.5	13.5	4.5	4.5	4.5	1.5	1.5	1.5
7	20.0	19.5	19.5	14.0	13.5	13.5	4.5	4.0	4.5	2.0	1.5	1.5
8	20.0	19.5	19.5	13.5	13.0	13.5	4.5	4.0	4.0	2.0	1.5	1.5
9	20.0	19.5	19.5	13.5	13.0	13.0	4.5	4.0	4.0	1.5	1.0	1.5
10	20.0	19.5	20.0	13.0	12.5	12.5	4.5	3.5	4.0	2.0	1.0	1.5
11	20.0	19.0	19.5	12.5	12.0	12.0	4.0	3.5	3.5	2.5	2.0	2.0
12	19.5	19.0	19.5	12.5	11.5	12.0	4.0	3.5	3.5	2.5	2.0	2.5
13	19.5	19.0	19.5	11.5	11.0	11.5	3.5	3.5	3.5	2.5	2.5	2.5
14	19.5	19.0	19.5	11.5	10.5	11.0	3.5	3.0	3.5	2.5	2.0	2.5
15	19.5	19.0	19.0	11.0	10.0	10.5	3.5	3.0	3.0	2.5	2.0	2.5
16	19.0	18.5	19.0	10.0	9.0	9.5	3.5	3.0	3.0	2.0	2.0	2.0
17	19.0	18.0	18.5	9.5	8.5	9.0	3.5	3.0	3.0	2.0	2.0	2.0
18	18.5	18.0	18.0	9.0	8.5	8.5	3.0	3.0	3.0	2.0	2.0	2.0
19	18.5	17.5	18.0	9.0	8.0	8.5	3.0	2.5	3.0	2.0	2.0	2.0
20	18.0	17.5	17.5	8.5	8.0	8.5	3.0	2.5	3.0	2.0	2.0	2.0
21	17.5	17.0	17.5	8.5	8.0	8.0	2.5	2.5	2.5	2.0	2.0	2.0
22	17.0	16.5	17.0	8.0	8.0	8.0	2.5	2.5	2.5	2.0	1.5	2.0
23	16.5	16.0	16.5	8.0	7.5	8.0	3.0	2.5	2.5	2.0	1.5	2.0
24	16.5	16.0	16.0	7.5	7.0	7.5	3.0	2.5	2.5	2.0	1.5	2.0
25	16.0	15.0	16.0	7.5	7.0	7.0	3.0	2.5	2.5	2.0	1.5	1.5
26	16.0	15.0	15.5	7.5	7.0	7.0	3.0	2.5	3.0	2.0	1.5	1.5
27	15.5	15.0	15.5	7.5	6.5	7.0	3.0	2.5	3.0	2.0	1.5	1.5
28	15.5	14.5	14.5	7.0	6.5	7.0	3.0	2.5	3.0	2.0	1.5	1.5
29	15.0	14.0	14.5	7.0	6.5	6.5	3.0	2.5	3.0	2.0	1.0	1.5
30	14.5	14.0	14.5	6.5	6.5	6.5	3.0	2.0	2.5	1.5	1.0	1.5
31	14.5	14.0	14.5	---	---	---	2.5	1.5	2.0	1.5	1.0	1.0
MONTH	---	---	---	14.5	6.5	10.5	6.5	1.5	3.5	2.5	1.0	2.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	1.5	1.0	1.0	2.5	2.5	2.5	7.0	6.0	6.5	12.5	12.0	12.0
2	1.0	1.0	1.0	3.0	2.5	2.5	7.5	7.0	7.0	12.5	12.0	12.5
3	1.0	1.0	1.0	3.0	3.0	3.0	8.5	7.5	8.0	13.0	12.5	12.5
4	1.0	1.0	1.0	3.5	3.0	3.0	9.0	8.0	8.5	13.5	13.0	13.0
5	1.0	1.0	1.0	3.5	3.0	3.5	9.5	9.0	9.0	14.0	13.5	13.5
6	1.0	1.0	1.0	4.0	3.5	3.5	10.0	9.0	9.5	14.0	13.5	14.0
7	1.5	.5	1.0	4.0	3.5	4.0	10.5	9.5	10.0	14.5	14.0	14.0
8	1.5	.5	1.0	4.0	4.0	4.0	10.5	10.0	10.0	14.5	14.0	14.5
9	1.5	1.0	1.0	4.5	4.0	4.0	10.0	10.0	10.0	14.5	14.5	14.5
10	1.5	1.0	1.0	5.0	4.5	4.5	10.5	9.5	10.0	14.5	14.5	14.5
11	1.5	1.0	1.5	4.5	4.0	4.5	10.0	9.5	9.5	14.5	14.5	14.5
12	1.5	1.5	1.5	4.5	4.0	4.0	10.0	9.5	9.5	15.5	14.5	15.0
13	2.0	1.5	1.5	4.0	3.5	4.0	10.0	9.5	9.5	16.0	14.5	15.0
14	1.5	1.0	1.5	4.0	4.0	4.0	10.5	9.5	10.0	16.0	15.0	15.5
15	1.5	1.0	1.0	4.0	3.5	4.0	10.0	9.5	10.0	16.5	15.5	16.0
16	1.0	1.0	1.0	4.0	3.5	4.0	10.0	10.0	10.0	17.0	16.0	16.0
17	1.0	1.0	1.0	4.0	3.5	4.0	10.5	10.0	10.0	16.5	16.0	16.5
18	1.0	1.0	1.0	4.0	4.0	4.0	10.5	10.0	10.0	17.0	16.5	16.5
19	1.0	1.0	1.0	4.0	4.0	4.0	10.5	10.0	10.5	17.5	16.5	17.0
20	1.5	1.0	1.5	4.5	4.0	4.0	10.5	10.5	10.5	17.5	17.0	17.0
21	2.0	1.5	1.5	4.0	4.0	4.0	---	10.5	10.5	17.5	17.0	17.5
22	2.5	2.0	2.0	4.0	3.5	3.5	11.0	10.5	10.5	18.0	17.0	17.5
23	2.0	2.0	2.0	3.5	3.0	3.5	11.0	10.5	10.5	18.5	17.5	17.5
24	2.0	2.0	2.0	3.5	3.0	3.0	11.5	10.5	11.0	18.5	17.5	18.0
25	2.5	2.0	2.0	3.5	3.0	3.0	12.0	11.0	11.0	18.0	18.0	18.0
26	2.5	2.0	2.0	3.5	3.0	3.5	11.0	11.0	11.0	19.0	18.0	18.0
27	2.5	2.0	2.5	4.0	3.5	3.5	11.5	11.0	11.0	19.5	18.0	18.5
28	2.5	2.5	2.5	4.5	4.0	4.0	11.5	11.0	11.5	19.5	18.5	18.5
29	---	---	---	5.5	4.5	5.0	12.0	11.0	11.5	19.5	18.5	19.0
30	---	---	---	6.0	5.0	5.0	12.0	11.5	12.0	19.5	19.0	19.5
31	---	---	---	6.0	5.5	6.0	---	---	---	20.0	19.5	19.5
MONTH	2.5	.5	1.5	6.0	2.5	4.0	---	6.0	10.0	20.0	12.0	16.0



## HUDSON RIVER BASIN

01374019 HUDSON RIVER AT SOUTH DOCK AT WEST POINT, NY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	20.5	19.5	20.0	23.0	23.0	23.0	26.0	25.5	26.0	26.5	26.0	26.0
2	20.5	20.0	20.0	23.0	23.0	23.0	26.5	26.0	26.0	26.0	25.5	26.0
3	20.5	20.0	20.0	24.0	23.0	23.5	26.5	25.5	26.0	26.0	25.5	26.0
4	20.5	20.0	20.0	24.0	23.0	23.5	27.0	26.0	26.0	26.0	25.5	26.0
5	20.5	20.0	20.0	24.0	23.5	23.5	26.5	26.0	26.0	26.0	25.5	26.0
6	20.5	19.5	20.0	24.5	23.5	24.0	26.5	26.0	26.5	26.0	25.5	26.0
7	20.0	19.5	20.0	24.5	23.5	24.0	27.0	26.0	26.5	26.0	25.5	25.5
8	20.0	19.5	19.5	24.0	23.5	24.0	27.0	26.0	26.5	25.5	25.0	25.5
9	21.0	19.5	19.5	24.5	23.5	24.0	27.0	26.0	26.5	25.5	24.5	25.0
10	20.5	19.5	20.0	24.5	23.5	24.0	26.5	26.0	26.5	25.0	24.0	24.5
11	20.0	19.5	20.0	24.5	23.5	24.0	26.5	26.5	26.5	24.5	24.0	24.5
12	20.0	19.5	19.5	24.5	24.0	24.0	26.5	26.0	26.5	24.5	24.0	24.5
13	20.0	19.5	19.5	24.5	24.0	24.0	26.5	26.0	26.5	24.5	24.0	24.5
14	20.0	19.5	20.0	24.5	24.0	24.5	26.5	26.0	26.5	24.5	24.0	24.5
15	20.5	20.0	20.5	24.5	24.5	24.5	26.0	26.0	26.0	24.5	24.0	24.5
16	21.0	20.5	20.5	25.0	24.5	25.0	26.5	26.0	26.0	24.5	24.0	24.0
17	21.0	20.5	20.5	25.0	25.0	25.0	26.5	26.0	26.0	24.5	24.0	24.0
18	21.0	20.5	20.5	26.0	25.0	25.0	26.5	25.5	26.0	24.5	24.0	24.0
19	21.0	20.5	20.5	25.5	25.0	25.5	26.0	25.5	26.0	24.5	24.0	24.0
20	21.5	20.5	20.5	25.5	25.0	25.5	26.0	25.5	25.5	24.5	24.0	24.0
21	22.0	20.5	21.0	26.0	25.0	25.5	26.0	25.5	25.5	24.5	24.0	24.0
22	21.5	21.0	21.0	26.0	25.5	26.0	26.0	25.5	25.5	24.5	24.0	24.0
23	21.5	21.0	21.5	26.0	25.5	26.0	26.0	25.5	26.0	24.0	23.5	23.5
24	22.0	21.5	21.5	26.5	26.0	26.0	26.0	25.5	26.0	23.5	23.0	23.5
25	22.5	21.5	22.0	26.0	26.0	26.0	26.0	25.5	26.0	23.5	22.5	23.0
26	22.5	22.0	22.5	26.5	26.0	26.0	26.0	25.5	26.0	23.5	22.5	23.0
27	23.0	22.5	22.5	26.0	26.0	26.0	26.0	25.5	26.0	23.5	22.5	23.0
28	23.0	22.5	22.5	26.0	26.0	26.0	26.0	25.5	26.0	23.0	22.5	23.0
29	23.0	22.5	23.0	26.0	26.0	26.0	26.0	25.5	26.0	23.0	22.0	22.5
30	23.0	23.0	23.0	26.5	26.0	26.0	26.5	25.5	26.0	23.0	22.0	22.5
31	---	---	---	26.0	26.0	26.0	26.5	26.0	26.0	---	---	---
MONTH	23.0	19.5	20.5	26.5	23.0	25.0	27.0	25.5	26.0	26.5	22.0	24.5



## HUDSON RIVER BASIN

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## 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 mi<sup>2</sup>.

## ELEVATION RECORDS

**PERIOD OF RECORD.**--December 1996 to current year.

**GAGE.**--Water-stage recorder. Datum of gage is 10.00 ft below sea level (Orange and Rockland Utilities, Inc. benchmark).

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. All data are collected, stored, and reported in Eastern Standard Time.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum elevation, 5.30 ft, Dec. 13, 1996; minimum, -2.89 ft, Nov. 27, 1997.

**EXTREMES FOR CURRENT YEAR.**--Maximum elevation, 5.26 ft, Feb. 24; minimum, -2.89 ft, Nov. 27.

## ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	2.36	-.91	.72	4.31	-.27	2.07	3.05	-.90	1.11	2.15	-2.32	-.01
2	2.65	-.83	.94	4.37	.72	2.39	2.36	-1.64	.17	2.18	-1.69	.12
3	2.69	-.66	1.06	3.49	-.29	1.53	2.00	-2.06	-.05	2.58	-1.29	.54
4	2.98	-.57	1.22	3.50	-.19	1.47	3.30	-.81	1.16	2.39	-1.15	.66
5	3.05	-.38	1.22	2.67	-.87	.85	3.46	-.58	1.35	2.86	-.63	1.16
6	2.83	-.61	1.03	2.81	-.64	1.06	2.84	-.96	1.00	3.08	-.52	1.25
7	2.66	-.71	.91	4.21	.43	2.20	2.13	-1.43	.41	3.17	-.51	1.55
8	2.87	-.49	1.08	4.24	.60	2.70	2.16	-1.30	.51	4.11	.02	2.44
9	3.17	-.18	1.43	3.86	.25	2.25	2.87	-1.19	1.21	4.62	1.03	2.80
10	2.89	-.75	1.34	3.41	-.21	1.55	3.31	-.84	1.48	4.59	1.20	2.62
11	3.05	-.80	1.05	3.28	-.78	1.37	3.77	-.52	1.82	4.26	.78	2.25
12	3.23	-.60	1.29	3.39	-.80	1.34	3.74	-.49	1.52	3.59	.16	1.74
13	3.36	-.62	1.38	3.18	-1.11	1.19	3.39	-.86	1.19	3.84	.01	1.59
14	3.62	-.45	1.66	4.45	-.45	2.25	2.80	-1.35	.47	2.38	-1.15	.55
15	3.64	-.53	1.52	4.42	.04	2.03	2.60	-1.99	.44	3.11	-.62	1.13
16	3.52	-.71	1.42	3.43	-.78	1.32	2.74	-1.39	.72	3.55	.05	1.92
17	3.65	-.60	1.47	2.72	-1.29	.58	3.36	-.57	1.19	4.29	.72	2.40
18	3.60	-.59	1.49	2.93	-1.09	.92	3.10	-.68	1.16	3.98	.60	2.32
19	3.86	-.25	1.80	3.21	-.48	1.26	2.56	-.85	.90	3.58	.39	1.97
20	4.23	.26	2.18	2.54	-.63	1.02	2.40	-.75	.77	3.31	-.29	1.60
21	3.64	.08	1.72	2.76	-.23	1.18	2.07	-.64	.75	3.07	.04	1.63
22	2.70	-.68	1.02	2.58	-.17	1.26	2.04	-.35	.91	3.56	-.35	1.64
23	2.77	-.55	1.14	3.07	-.14	1.86	3.25	-.26	1.65	4.12	-.35	2.36
24	2.38	-.60	.91	2.88	-1.50	.77	2.81	-.37	1.49	3.76	.03	1.84
25	2.51	-.68	1.20	2.75	-2.04	.72	3.99	.11	1.96	3.43	-1.20	.80
26	3.38	-.36	1.64	2.50	-1.06	.73	3.02	-.59	1.17	2.83	-1.66	.62
27	3.99	.48	2.15	.87	-2.89	-.54	3.07	-.77	1.12	3.21	-1.36	1.06
28	1.89	-1.53	.37	3.13	-1.47	1.23	3.52	-.52	1.56	4.53	-.18	2.14
29	2.40	-1.31	.69	3.01	-.74	1.11	3.86	-.27	1.86	4.83	.20	2.35
30	2.66	-1.09	.86	3.44	-.61	1.42	4.62	-.50	1.93	4.62	.24	2.31
31	3.03	-.57	1.26	---	---	---	1.35	-2.28	-.59	3.83	-.51	1.54
MONTH	4.23	-1.53	1.26	4.45	-2.89	1.37	4.62	-2.28	1.04	4.83	-2.32	1.58



## HUDSON RIVER BASIN

01374349 HUDSON RIVER AT TOMKINS COVE, NY--Continued

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	3.57	-.38	1.58	4.35	.07	2.15	3.78	-.01	1.70	3.30	-.40	1.36
2	3.58	-.30	1.61	4.21	.15	2.08	3.90	.58	2.15	3.66	.19	1.84
3	3.41	-.60	1.38	4.30	.32	2.23	3.63	.49	1.82	3.47	.09	1.77
4	3.20	-.20	1.70	4.00	.01	1.91	3.51	.50	2.12	2.98	-.07	1.53
5	4.75	1.29	3.19	3.38	-.29	1.45	2.97	.36	1.69	3.04	-.15	1.51
6	4.87	.81	2.82	3.15	-.13	1.51	3.32	.14	1.79	2.99	-.27	1.48
7	3.75	.06	1.96	3.18	-.13	1.49	3.03	-.32	1.51	3.21	-.38	1.46
8	4.07	.17	2.14	3.93	-.30	1.94	3.45	-.13	1.63	3.71	.02	1.77
9	4.14	.12	2.02	4.24	.90	2.67	4.00	.00	2.01	3.71	.22	1.93
10	3.26	-.61	1.29	3.54	-.33	1.56	4.18	.35	2.23	4.43	.40	2.22
11	3.35	-.57	1.39	2.12	-.97	.50	3.53	-.27	1.75	4.87	.94	2.77
12	3.88	-.02	1.82	2.62	-1.20	.52	3.49	-.28	1.48	5.14	1.33	3.04
13	2.71	-.89	.78	3.17	-1.38	.67	3.83	-.13	1.64	5.02	.89	2.70
14	2.79	-.73	.97	3.86	-.27	1.56	3.85	.18	1.92	4.54	.44	2.21
15	2.53	-.78	.92	2.58	-.98	.60	3.89	-.09	1.76	3.94	.17	1.82
16	2.76	-.65	1.03	2.51	-.85	.78	3.44	-.14	1.57	3.57	.06	1.66
17	3.00	-.12	1.76	2.73	-.61	1.00	3.57	-.18	1.55	3.69	.01	1.72
18	4.26	.59	2.32	2.74	-.36	1.13	2.56	-.89	.76	3.54	-.27	1.46
19	3.64	.51	2.11	2.91	-.12	1.40	2.56	-.60	1.02	3.25	-.23	1.64
20	3.16	.20	1.59	3.26	.54	1.80	3.29	-.48	1.19	3.69	-.14	1.96
21	3.03	-.56	1.10	4.45	1.88	3.20	3.02	-.37	1.35	3.54	-.39	1.72
22	2.73	-.64	1.22	4.72	.24	2.60	3.26	-.74	1.33	3.33	-.85	1.25
23	3.44	-.46	1.77	3.22	-.41	1.36	3.97	-.31	1.83	3.75	-.77	1.42
24	5.26	.57	2.61	2.81	-.85	1.09	3.91	-.53	1.73	3.76	-.89	1.38
25	3.73	-.68	1.50	3.00	-.94	1.10	3.66	-.80	1.51	3.98	-.77	1.48
26	3.97	-.56	1.69	3.18	-.83	1.17	4.08	-.70	1.57	3.85	-.72	1.53
27	4.37	-.15	2.03	3.16	-1.01	1.04	3.62	-.89	1.42	3.87	-.61	1.44
28	4.45	.10	2.17	4.00	-.90	1.37	3.54	-1.09	1.08	3.85	-.61	1.36
29	---	---	---	3.80	-.45	1.58	3.37	-.89	1.03	3.59	-.48	1.33
30	---	---	---	4.02	-.36	1.60	3.26	-.77	1.06	3.22	-.60	1.15
31	---	---	---	4.12	-.13	1.73	---	---	---	2.98	-.43	1.49
MONTH	5.26	-.89	1.73	4.72	-1.38	1.51	4.18	-1.09	1.57	5.14	-.89	1.72

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	3.23	-.21	1.45	3.09	-.20	1.46	2.52	-.55	1.12	3.31	-.01	1.59
2	3.21	-.04	1.73	2.71	-.21	1.39	2.91	-.54	1.16	3.93	.10	1.88
3	3.15	-.78	1.26	2.86	-.43	1.32	2.97	-.61	1.17	3.78	-.19	1.69
4	2.35	-.70	1.00	3.37	-.16	1.56	3.20	-.57	1.21	3.83	-.25	1.73
5	2.21	-1.10	.64	3.00	-.29	1.36	3.37	-.49	1.33	3.27	-.79	1.28
6	2.90	-.78	.92	3.40	-.46	1.33	3.53	-.61	1.27	3.37	-.87	1.19
7	2.95	-.71	1.04	3.62	-.38	1.41	3.56	-.58	1.33	3.71	-.86	1.24
8	3.00	-.83	.83	3.69	-.40	1.45	3.50	-.66	1.30	3.67	-.51	1.66
9	3.47	-.58	1.17	3.90	-.35	1.61	3.51	-.68	1.34	3.50	-.84	1.26
10	3.37	-.67	1.17	3.57	-.54	1.53	3.63	-.61	1.40	3.00	-.91	1.01
11	3.39	-.55	1.22	3.57	-.56	1.34	3.63	-.42	1.49	3.16	-.78	1.18
12	3.85	-.34	1.58	3.64	-.44	1.54	3.34	-.60	1.34	3.41	-.50	1.43
13	3.90	-.13	1.75	3.71	-.42	1.59	3.43	-.39	1.57	3.30	-.58	1.44
14	3.93	.28	2.13	3.70	-.37	1.52	3.19	-.61	1.44	3.34	-.30	1.55
15	4.19	.49	2.32	3.27	-.60	1.38	3.25	-.56	1.47	3.20	-.32	1.44
16	4.23	.77	2.39	3.19	-.61	1.45	3.26	-.54	1.41	2.64	-.66	1.11
17	3.83	.26	2.11	3.43	-.59	1.58	3.31	-.55	1.39	3.24	-.75	1.24
18	3.61	-.01	1.90	3.30	-.72	1.46	3.32	-.61	1.34	3.42	-.51	1.34
19	3.92	-.11	1.97	3.45	-.78	1.41	3.14	-.74	1.09	3.39	-.28	1.60
20	4.08	-.21	1.95	3.59	-.62	1.50	3.33	-.64	1.26	3.31	-.35	1.45
21	4.16	-.31	1.89	3.52	-.72	1.33	3.09	-.75	1.12	3.35	-.36	1.55
22	4.15	-.41	1.83	3.53	-.77	1.37	3.50	-.62	1.35	3.34	-.32	1.49
23	4.18	-.38	1.80	3.77	-.43	1.52	3.56	-.28	1.57	2.80	-.68	1.05
24	4.03	-.37	1.72	3.41	-.59	1.40	3.44	-.23	1.50	2.96	-.40	1.26
25	3.89	-.38	1.61	3.31	-.55	1.31	3.11	-.57	1.16	2.77	-.56	1.13
26	3.86	-.27	1.59	3.31	-.68	1.13	2.88	-.56	1.26	2.73	-.45	1.13
27	3.89	-.17	1.63	3.14	-.52	1.45	2.68	-.66	1.16	3.09	-.13	1.34
28	3.77	.30	2.02	3.35	-.24	1.49	3.05	-.20	1.50	2.38	-.58	.88
29	3.65	-.03	1.81	3.08	-.26	1.45	3.26	.19	1.68	2.96	-.23	1.21
30	3.42	.21	1.82	2.71	-.49	1.32	3.32	.17	1.62	3.03	-.28	1.30
31	---	---	---	3.00	-.09	1.52	2.98	.01	1.44	---	---	---
MONTH	4.23	-1.10	1.61	3.90	-.78	1.43	3.63	-.75	1.35	3.93	-.91	1.36



## 01374349 HUDSON RIVER AT TOMKINS COVE, NY--Continued

## WATER-QUALITY RECORDS

## PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: December 1996 to current year.

WATER TEMPERATURE: December 1996 to current year.

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 PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 11,700  $\mu$ S/cm, Oct. 14, 1997; minimum recorded, 163  $\mu$ S/cm, Dec. 15, 16, 1996, but may have been less during period of instrument malfunction.

WATER TEMPERATURE: Maximum, 29.0°C, July 18, 1997; minimum, 0.0°C on many days during winter periods, except 1998.

## EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 11,700  $\mu$ S/cm, Oct. 14; minimum, 164  $\mu$ S/cm, Jan. 17.

WATER TEMPERATURE: Maximum, 28.5°C on several days during July and August; minimum, 1.5°C on several days during winter period.

## SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	9950	6820	8230	11500	8380	9840	3970	1150	2540	7050	3800	5090
2	9950	7080	8470	11500	8400	9920	3140	548	1340	6910	3690	5210
3	9830	7180	8460	10200	7140	8460	1640	433	763	6610	3650	4900
4	9740	7110	8450	9630	6410	7850	2110	445	1060	5760	3130	4420
5	9740	6980	8280	8300	5130	6630	1680	474	926	5610	2930	4040
6	9400	6460	7900	7920	4780	6250	803	362	531	4470	1940	2850
7	9160	6020	7630	8110	5330	6620	453	318	365	3150	947	1670
8	9170	6050	7660	8140	5760	6740	353	284	313	2060	353	811
9	9410	6340	7950	8520	4860	6490	448	270	310	353	255	283
10	9420	6590	8110	8290	3960	5810	470	271	309	267	252	259
11	10100	6480	8130	7480	3470	5390	538	264	313	271	263	267
12	10700	7370	8950	6930	3350	5020	774	254	328	266	230	252
13	11200	7970	9580	6030	2740	4130	1000	254	402	241	206	225
14	11700	8580	9940	6260	2890	4360	508	252	312	210	180	195
15	11400	8140	9690	5550	2530	4040	723	248	312	189	175	183
16	10900	7800	9220	4650	1440	3090	622	251	344	183	168	177
17	10900	7790	9190	3330	1120	2060	780	279	379	177	164	173
18	10800	7420	9030	3410	1060	2070	574	276	346	439	166	192
19	10900	7640	9170	3290	1140	1890	401	275	318	1230	173	505
20	11200	7900	9420	2450	1040	1620	427	269	304	1750	290	887
21	10500	7190	8720	2600	911	1610	910	255	402	3080	455	1650
22	10100	6820	8140	2090	905	1440	2370	345	1110	3950	1470	2450
23	9620	6450	8140	3290	849	1720	4030	826	2480	4410	1640	3220
24	9580	6730	8000	3520	1240	2170	6450	2810	4310	6810	3210	4390
25	9720	6900	8280	4980	1360	3110	7650	4070	5830	7270	3760	5010
26	10200	7270	8460	5290	2950	4060	8900	5520	7140	7770	3500	5550
27	10800	8270	9260	5250	1640	3390	9650	6360	7840	7430	3960	5730
28	10900	7260	8720	5670	2240	3970	10200	6800	8460	7640	4400	6100
29	11200	7590	9380	5170	2510	3710	10300	7030	8630	7000	4160	5610
30	11200	7750	9410	5030	2260	3330	10200	5790	8370	6540	3350	5050
31	11300	8290	9640	---	---	---	6960	3930	5280	5390	2220	3610
MONTH	11700	6020	8700	11500	849	4560	10300	248	2310	7770	164	2610



## HUDSON RIVER BASIN

01374349 HUDSON RIVER AT TOMKINS COVE, NY--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	4860	1980	3250	3720	652	1860	222	209	216	330	242	285
2	4360	1720	2840	2330	399	1010	222	214	219	321	192	252
3	3680	1240	2180	1130	330	499	247	217	227	262	191	217
4	2740	986	1740	354	279	312	247	224	231	257	194	223
5	3220	1330	2370	298	278	286	239	224	232	259	190	218
6	5490	1700	3290	286	266	277	281	229	241	490	194	221
7	6220	2520	4180	279	265	273	258	230	240	918	216	334
8	7420	4020	5530	278	255	271	246	220	237	1470	226	565
9	7630	4820	6100	277	247	262	836	222	261	2040	337	803
10	7400	4260	5620	---	260	---	2080	255	583	2190	441	1110
11	7090	4090	5440	271	264	266	2080	273	922	2460	255	703
12	6790	3660	5240	274	265	268	2170	265	856	917	227	291
13	4970	1960	3270	271	255	265	1830	220	633	244	215	230
14	3390	1240	2200	267	253	263	1550	228	539	252	213	224
15	2610	793	1450	267	255	260	782	216	349	228	212	221
16	2110	574	1120	285	249	255	363	182	248	232	213	221
17	1900	574	1040	262	238	248	309	182	226	253	217	225
18	2110	644	1190	249	236	243	208	167	183	236	216	226
19	2840	581	1550	266	236	246	204	171	186	233	216	226
20	3580	1270	2400	260	226	236	381	178	229	244	216	227
21	5230	1980	3190	688	225	351	1120	191	550	247	219	230
22	5480	2260	4000	3150	476	1550	1550	195	611	233	213	225
23	5960	3240	4640	3610	1330	2340	1660	221	689	237	213	224
24	7680	4410	5830	4160	1370	2730	1290	220	499	243	213	225
25	7180	3520	5120	4220	1540	2780	895	208	358	254	218	234
26	6480	2910	4490	3690	919	2110	678	202	315	294	227	250
27	6040	2110	3840	2520	462	1230	603	196	268	309	229	257
28	5100	1190	2820	1430	316	638	351	217	272	347	247	268
29	---	---	---	831	234	371	305	186	242	322	241	273
30	---	---	---	290	212	236	298	189	234	323	245	283
31	---	---	---	232	210	219	---	---	---	344	244	282
MONTH	7680	574	3430	---	210	---	2170	167	370	2460	190	315
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	328	241	278	238	219	231	4530	1630	2890	8620	4950	6730
2	335	236	266	260	221	240	6200	2530	3780	9730	6560	8140
3	651	218	299	258	218	238	6380	3920	4980	10800	7950	9280
4	1500	256	609	811	207	315	7640	4520	5980	11500	8100	9760
5	2330	382	1140	2320	361	822	8990	6070	7200	10700	7110	8800
6	4010	995	2190	3290	1030	1910	9400	6530	7950	11400	7340	9240
7	5200	2030	3350	4380	1960	---	10000	7280	8640	11000	7260	9050
8	6110	2730	4210	5310	2710	3940	10000	7190	8410	10900	7650	9160
9	6630	3770	5080	5680	2200	4050	10100	7050	8560	10400	7240	8770
10	7170	4400	5700	5640	2080	3870	10800	7180	8550	9870	6600	8350
11	7450	4560	5920	5660	1900	3650	10400	6420	8270	9840	6510	8120
12	7410	4890	6100	5300	2420	3720	10100	6170	7710	10000	6810	8310
13	7970	4420	5960	5250	2280	3650	9110	6180	7580	9500	6370	8110
14	7770	3180	5410	4940	2140	3380	8630	5610	7230	9340	6040	7970
15	5420	702	2620	4420	1820	3060	8510	5330	6950	9100	6150	7640
16	1220	299	550	4110	1800	2880	8280	4880	6640	8920	6130	7510
17	316	246	279	3850	1800	2770	8250	4780	6570	9230	5790	7580
18	260	231	248	3630	1570	2450	7970	4460	6160	9100	6320	7610
19	282	238	258	3790	1490	2330	7400	4520	5770	9150	6360	7810
20	269	233	248	3760	1460	2390	7800	4790	6070	9280	5980	7550
21	252	222	238	3780	1340	2240	7810	4660	6080	9090	6120	7760
22	258	226	245	3790	1320	2370	7550	5050	6190	9270	5980	7530
23	267	217	236	4010	1390	2520	7810	5240	6330	8680	5610	7140
24	268	224	239	4150	1320	2460	7710	5110	6330	8970	5860	7160
25	249	216	231	3800	1320	2460	7340	4360	5730	8710	5780	7090
26	240	219	231	3770	1240	2190	6990	4320	5560	8750	5540	7100
27	244	218	232	3640	1420	2480	6780	3790	5210	8430	5710	7140
28	239	217	227	3600	1520	2500	6750	3790	5220	7940	5530	6680
29	237	216	228	3380	1530	2380	6940	3940	5530	8300	4960	6490
30	238	222	231	3520	1400	2290	7310	4010	5460	8610	5580	7020
31	---	---	---	3900	1520	2580	7040	4410	5640	---	---	---
MONTH	7970	216	1770	5680	207	---	10800	1630	6420	11500	4950	7890



## HUDSON RIVER BASIN

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01374349 HUDSON RIVER AT TOMKINS COVE, NY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

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



## HUDSON RIVER BASIN

01374349 HUDSON RIVER AT TOMKINS COVE, NY--Continued

## WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	22.0	20.5	21.5	24.0	23.0	23.5	27.5	26.5	27.0	28.0	26.0	26.5
2	22.5	21.0	21.5	24.5	23.0	23.5	27.5	26.0	26.5	27.0	26.0	26.5
3	22.5	20.0	21.0	25.5	23.5	24.0	28.0	26.0	26.5	27.5	25.5	26.0
4	21.5	20.0	21.0	26.0	24.0	24.5	28.0	26.0	27.0	27.5	25.5	26.0
5	21.5	20.0	20.5	25.0	24.0	24.5	28.0	26.0	27.0	27.0	25.5	26.0
6	21.5	20.0	20.5	25.5	23.5	24.5	28.0	26.0	27.0	27.0	25.5	26.0
7	21.0	20.0	20.0	26.0	23.5	24.5	28.5	26.5	27.0	27.0	26.0	26.0
8	21.0	19.5	20.0	25.5	23.5	24.0	28.0	26.0	26.5	27.0	25.5	26.0
9	21.5	19.5	20.0	25.5	23.5	24.0	28.5	26.5	27.0	26.5	25.0	25.5
10	21.5	19.5	20.5	25.5	24.0	24.5	28.0	26.5	27.0	26.5	24.5	25.5
11	21.5	20.0	20.5	25.5	24.0	24.5	28.0	26.5	27.0	26.5	24.0	25.0
12	21.0	20.0	20.5	26.0	24.0	24.5	28.5	26.5	27.0	27.0	24.0	25.0
13	21.5	20.0	20.5	26.5	24.0	25.0	28.5	26.5	27.0	27.0	24.5	25.5
14	21.5	20.0	20.5	26.5	24.5	25.5	28.0	26.5	27.0	27.0	24.5	25.5
15	21.0	20.0	20.5	26.5	25.0	25.5	27.5	26.5	27.0	27.5	25.0	25.5
16	21.5	20.0	21.0	27.0	25.5	26.0	28.0	26.5	27.0	27.0	25.0	25.5
17	22.0	21.0	21.0	27.5	25.5	26.5	28.0	26.5	27.0	27.5	25.0	25.5
18	22.0	21.0	21.5	27.5	25.5	26.5	28.5	26.5	27.0	26.5	24.5	25.5
19	23.5	21.0	21.5	27.5	25.5	26.5	27.5	26.0	26.5	26.0	24.5	25.0
20	23.0	21.0	22.0	28.0	26.0	26.5	27.0	25.5	26.0	26.5	24.5	25.5
21	23.5	21.0	22.0	27.5	26.0	26.5	28.0	25.5	26.0	26.0	24.5	25.5
22	23.5	21.5	22.0	28.0	26.5	27.0	27.5	25.5	26.0	26.0	25.0	25.5
23	23.0	21.5	22.0	28.5	26.5	27.0	27.5	25.5	26.5	26.0	24.5	25.0
24	24.0	21.5	22.5	28.0	26.5	27.0	28.0	26.0	26.5	26.0	23.5	24.5
25	24.0	22.0	22.5	27.5	26.5	27.0	28.0	26.5	27.0	25.5	23.0	24.5
26	24.5	22.5	23.0	28.0	26.5	27.0	28.5	26.5	27.0	26.0	23.5	24.5
27	24.5	22.5	23.5	28.0	26.5	27.0	28.5	26.5	27.0	26.5	24.0	25.0
28	24.5	23.0	23.5	28.5	26.5	27.5	27.5	26.5	27.0	25.5	24.0	24.5
29	24.5	23.0	23.5	28.5	27.0	27.5	28.0	26.5	27.0	25.5	23.0	24.0
30	24.5	23.0	23.5	28.5	27.0	27.5	27.5	26.5	27.0	25.0	23.0	24.0
31	---	---	---	28.5	27.0	27.5	27.5	26.5	26.5	---	---	---
MONTH	24.5	19.5	21.5	28.5	23.0	25.5	28.5	25.5	27.0	28.0	23.0	25.5



## HUDSON RIVER BASIN

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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 mi<sup>2</sup>.

## GAGE-HEIGHT RECORDS

**PERIOD OF RECORD.**--April 1997 to current year.

**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 PERIOD OF RECORD.**--Maximum gage height, 14.67 ft, Feb. 24, 1998; minimum, 6.38 ft, Nov. 27, 1997.

**EXTREMES FOR CURRENT YEAR.**--Maximum gage height, 14.67 ft, Feb. 24; minimum, 6.38 ft, Nov. 27.

## GAGE HEIGHT (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	11.79	8.39	10.03	13.64	8.99	11.34	12.47	8.35	10.40	11.51	6.75	9.22
2	12.00	8.43	10.23	13.69	9.85	11.62	11.71	7.67	9.44	11.57	7.59	9.41
3	12.07	8.54	10.34	12.81	8.92	10.77	11.34	7.19	9.23	12.19	8.20	10.03
4	12.33	8.70	10.50	12.83	9.05	10.73	12.63	8.42	10.44	12.04	8.45	10.23
5	12.40	8.86	10.50	11.98	8.38	10.12	12.80	8.65	10.62	12.47	8.93	10.73
6	12.19	8.67	10.32	12.12	8.60	10.33	12.19	8.26	10.26	12.71	9.02	10.83
7	11.99	8.58	10.21	13.52	9.64	11.47	11.47	7.80	9.69	12.80	9.17	11.14
8	12.21	8.76	10.38	13.59	9.80	11.97	11.49	8.05	9.79	13.72	9.54	12.00
9	12.51	9.07	10.72	13.20	9.28	11.52	12.22	8.02	10.51	14.21	10.44	12.34
10	12.26	8.51	10.62	12.74	8.81	10.81	12.67	8.40	10.78	14.19	10.68	12.16
11	12.40	8.50	10.36	12.60	8.48	10.64	13.09	8.70	11.11	13.88	10.27	11.79
12	12.52	8.57	10.57	12.74	8.46	10.62	13.08	8.73	10.79	13.24	9.59	11.29
13	12.71	8.61	10.66	12.54	8.21	10.48	12.72	8.39	10.46	13.46	9.45	11.13
14	13.00	8.81	10.93	13.80	8.75	11.55	12.13	7.92	9.72	12.03	8.33	10.11
15	13.02	8.73	10.81	13.77	9.29	11.30	11.94	7.21	9.69	12.74	8.87	10.70
16	12.92	8.54	10.72	12.80	8.50	10.58	12.07	7.84	9.97	13.20	9.52	11.48
17	13.03	8.67	10.76	12.05	7.93	9.84	12.65	8.63	10.43	13.89	10.20	11.96
18	13.00	8.69	10.77	12.26	8.16	10.20	12.37	8.53	10.39	13.57	10.12	11.86
19	13.22	9.01	11.09	12.50	8.77	10.53	11.87	8.37	10.13	13.18	9.89	11.50
20	13.61	9.52	11.47	11.89	8.65	10.30	11.69	8.47	10.01	12.90	9.21	11.13
21	13.01	9.34	11.00	12.08	9.02	10.46	11.33	8.52	9.97	12.64	9.74	11.17
22	12.05	8.61	10.30	11.90	9.10	10.56	11.33	8.90	10.13	13.13	9.13	11.16
23	12.14	8.71	10.43	12.40	9.29	11.14	12.55	8.81	10.86	13.70	9.13	11.89
24	11.72	8.59	10.21	12.21	7.51	10.03	12.04	8.77	10.70	13.37	9.47	11.34
25	11.90	8.57	10.52	12.10	7.20	10.01	13.26	9.12	11.14	12.96	8.28	10.28
26	12.69	8.88	10.96	11.79	8.12	10.00	12.26	8.54	10.36	12.33	7.77	10.10
27	13.38	9.46	11.44	10.30	6.38	8.75	12.27	8.36	10.30	12.74	8.09	10.56
28	11.29	7.69	9.67	12.44	7.76	10.53	12.73	8.66	10.74	14.06	9.27	11.63
29	11.71	7.89	9.95	12.37	8.50	10.39	13.12	8.88	11.05	14.41	9.65	11.83
30	12.03	8.18	10.15	12.78	8.63	10.71	13.82	8.63	11.05	14.17	9.69	11.77
31	12.39	8.71	10.54	---	---	---	10.65	6.85	8.58	13.37	8.95	11.00
MONTH	13.61	7.69	10.55	13.80	6.38	10.64	13.82	6.85	10.28	14.41	6.75	11.09



## HUDSON RIVER BASIN

0137448595 HUDSON RIVER NEAR CONGERS, NY--Continued

GAGE HEIGHT (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	13.09	9.07	11.04	13.75	9.38	11.48	13.11	9.15	10.94	12.63	8.80	10.63
2	13.13	9.12	11.06	13.61	9.45	11.42	13.18	9.74	11.38	12.97	9.41	11.11
3	12.93	8.86	10.84	13.72	9.62	11.57	12.93	9.68	11.06	12.82	9.32	11.04
4	12.71	9.30	11.18	13.39	9.31	11.24	12.81	9.66	11.34	12.32	9.15	10.81
5	14.28	10.83	12.65	12.77	8.99	10.77	12.23	9.46	10.92	12.36	9.06	10.79
6	14.43	9.94	12.26	12.54	9.14	10.84	12.60	9.30	11.01	12.32	8.97	10.76
7	13.28	9.42	11.40	12.55	9.12	10.81	12.32	8.79	10.73	12.52	8.86	10.73
8	13.57	9.52	11.58	13.30	8.96	11.29	12.73	9.01	10.86	13.00	9.24	11.04
9	13.64	9.49	11.44	13.62	10.17	11.96	13.33	9.18	11.23	13.06	9.40	11.21
10	12.74	8.82	10.71	12.90	8.89	10.82	13.43	9.54	11.44	13.72	9.60	11.48
11	12.80	8.83	10.81	11.48	8.15	9.77	12.79	8.89	10.95	14.16	10.15	12.01
12	13.39	9.38	11.20	11.98	8.00	9.78	12.76	8.79	10.68	14.47	10.49	12.28
13	12.06	8.47	10.18	12.48	7.85	9.95	13.10	9.03	10.85	14.24	10.04	11.93
14	12.23	8.60	10.35	13.08	8.86	10.72	13.15	9.37	11.11	13.82	9.65	11.44
15	11.98	8.60	10.31	11.77	8.13	9.78	13.16	9.08	10.97	13.28	9.41	11.07
16	12.23	8.69	10.43	11.79	8.24	9.95	12.69	8.99	10.77	12.93	9.18	10.93
17	12.53	9.27	11.17	11.95	8.45	10.17	12.82	8.98	10.74	13.05	9.21	10.96
18	13.76	9.97	11.71	12.00	8.72	10.31	11.87	8.27	9.96	12.89	8.91	10.72
19	13.04	9.83	11.48	12.11	9.04	10.58	11.83	8.58	10.23	12.60	8.99	10.91
20	12.58	9.56	10.97	12.48	9.69	10.97	12.54	8.71	10.38	13.03	9.06	11.22
21	12.45	8.71	10.47	13.66	11.15	12.37	12.25	8.75	10.54	12.87	8.78	10.99
22	12.17	8.70	10.60	13.95	9.29	11.74	12.50	8.41	10.53	12.69	8.28	10.51
23	12.85	8.89	11.15	12.38	8.54	10.51	13.35	8.86	11.04	13.09	8.36	10.66
24	14.67	9.92	11.98	12.04	8.27	10.25	13.16	8.60	10.92	13.12	8.22	10.61
25	13.10	8.67	10.86	12.22	8.16	10.24	12.96	8.38	10.71	13.33	8.40	10.72
26	13.37	8.79	11.05	12.40	8.24	10.31	13.36	8.45	10.77	13.19	8.43	10.77
27	13.78	9.16	11.37	12.50	8.20	10.28	12.97	8.30	10.63	13.22	8.51	10.67
28	13.88	9.39	11.52	13.31	8.32	10.60	12.80	8.12	10.33	13.13	8.27	10.59
29	---	---	---	13.13	8.74	10.83	12.71	8.32	10.28	12.92	8.69	10.56
30	---	---	---	13.42	8.85	10.84	12.60	8.43	10.32	12.57	8.62	10.42
31	---	---	---	13.43	9.01	10.96	---	---	---	12.33	8.78	10.75
MONTH	14.67	8.47	11.14	13.95	7.85	10.75	13.43	8.12	10.79	14.47	8.22	10.98

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	12.61	9.01	10.72	12.36	9.00	10.70	11.89	8.73	10.43	12.72	9.28	10.94
2	12.44	9.13	10.95	12.03	8.99	10.64	12.23	8.67	10.45	13.38	9.40	11.21
3	12.47	8.49	10.50	12.22	8.80	10.59	12.34	8.66	10.48	13.20	9.06	11.01
4	11.62	8.49	10.24	12.67	9.07	10.83	12.56	8.69	10.51	13.20	9.04	11.06
5	11.51	8.11	9.88	12.34	8.61	10.63	12.74	8.77	10.62	12.66	8.50	10.59
6	12.18	8.30	10.16	12.71	8.72	10.58	12.83	8.57	10.56	12.76	8.38	10.50
7	12.23	8.42	10.27	12.90	8.77	10.63	12.89	8.63	10.60	13.10	8.38	10.56
8	12.29	8.35	10.05	12.98	8.77	10.68	12.83	8.55	10.58	13.08	8.78	10.97
9	12.72	8.53	10.38	13.21	8.82	10.83	12.86	8.62	10.61	12.90	8.50	10.56
10	12.61	8.43	10.36	12.87	8.70	10.77	13.00	8.64	10.67	12.39	8.37	10.31
11	12.64	8.56	10.42	12.88	8.66	10.59	13.00	8.81	10.78	12.52	8.50	10.47
12	13.13	8.80	10.76	13.01	8.79	10.79	12.74	8.67	10.64	12.79	8.79	10.73
13	13.20	9.08	10.96	13.05	8.81	10.83	12.81	8.85	10.84	12.69	8.73	10.77
14	13.20	9.45	11.32	13.00	8.86	10.75	12.56	8.67	10.70	12.69	9.02	10.87
15	13.46	9.65	11.51	12.59	8.63	10.63	12.59	8.69	10.75	12.60	8.93	10.78
16	13.48	9.90	11.59	12.57	8.62	10.70	12.60	8.67	10.70	12.07	8.71	10.47
17	13.09	9.44	11.32	12.74	8.67	10.84	12.67	8.74	10.71	12.65	8.56	10.58
18	12.91	9.16	11.13	12.65	8.53	10.74	12.69	8.70	10.67	12.76	8.75	10.66
19	13.26	9.08	11.22	12.75	8.44	10.68	12.53	8.55	10.42	12.78	8.96	10.92
20	13.39	8.93	11.21	12.93	8.63	10.77	12.69	8.62	10.56	12.72	8.94	10.76
21	13.47	8.83	11.15	12.87	8.53	10.62	12.44	8.50	10.41	12.76	8.91	10.87
22	13.46	8.76	11.07	12.88	8.50	10.67	12.83	8.64	10.64	12.80	8.98	10.84
23	13.50	8.79	11.03	13.14	8.81	10.81	12.92	8.99	10.86	12.25	8.56	10.39
24	13.38	8.83	10.96	12.75	8.67	10.70	12.68	9.00	10.80	12.31	8.86	10.56
25	13.22	8.83	10.86	12.68	8.68	10.59	12.40	8.74	10.47	12.15	8.73	10.44
26	13.22	8.93	10.85	12.65	8.57	10.42	12.29	8.72	10.58	12.10	8.86	10.45
27	13.22	9.05	10.89	12.54	8.74	10.71	12.05	8.69	10.50	12.46	9.18	10.68
28	13.09	9.47	11.25	12.69	9.02	10.77	12.47	9.11	10.84	11.82	8.72	10.24
29	12.97	9.13	11.03	12.43	9.01	10.75	12.68	9.52	11.03	12.36	9.13	10.54
30	12.74	9.39	11.05	12.08	8.82	10.64	12.72	9.48	10.96	12.39	9.03	10.64
31	---	---	---	12.37	9.19	10.83	12.40	9.34	10.80	---	---	---
MONTH	13.50	8.11	10.84	13.21	8.44	10.70	13.00	8.50	10.65	13.38	8.37	10.68



## HUDSON RIVER BASIN

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0137448595 HUDSON RIVER NEAR CONGERS, NY--Continued

## WATER-QUALITY RECORDS

## PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 1997 to current year.

WATER TEMPERATURE: April 1997 to current year.

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 PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 15,200  $\mu\text{S}/\text{cm}$ , Aug. 17, 1997; minimum, 182  $\mu\text{S}/\text{cm}$ , May 13, 1997.

WATER TEMPERATURE: Maximum, 29.0°C, July 30, 1998; minimum, 1.0°C, Feb. 15, 1998.

## EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 14,600  $\mu\text{S}/\text{cm}$ , Nov. 2; minimum, 211  $\mu\text{S}/\text{cm}$ , Jan. 17.

WATER TEMPERATURE: Maximum, 29.0°C, July 30; minimum, 1.0°C, Feb. 15.

## SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	11700	8760	10500	14500	11100	12500	6810	3830	5040	9480	6580	8370
2	12700	9140	10900	14600	10900	12600	5700	2760	4170	9920	6840	8450
3	12800	9000	10700	12700	9550	11000	4040	1720	3070	9360	6610	7990
4	12100	8350	10500	11900	9460	10400	4170	2300	3150	9060	5790	7140
5	12000	8310	10200	10100	7770	9110	3840	1920	2790	8040	5110	6520
6	11200	8740	9810	9550	7470	8280	2970	1340	2230	7000	3830	5350
7	10300	8540	9300	10100	7480	8450	2500	1010	1580	5340	2590	3960
8	11000	8140	9060	9030	7470	7980	2230	840	1480	4300	1330	2700
9	11700	7710	9250	8700	7100	7600	2270	843	1560	1330	334	739
10	10100	7710	8970	8770	7130	7720	2710	866	1490	464	330	368
11	11200	8050	9490	8390	6200	7500	2980	678	1490	358	311	329
12	11900	8850	10400	9010	6580	7630	3730	845	2030	339	319	327
13	14100	9680	11200	8520	5940	7080	4340	1210	2260	328	302	317
14	13900	10100	12000	8340	5300	6790	3270	828	1940	306	283	294
15	13500	9580	11800	7690	5190	6370	3050	922	1910	298	252	279
16	12800	10700	11600	7000	4040	5680	2730	1080	1860	283	223	255
17	13500	10400	11600	6400	3230	4800	3020	987	1910	271	211	230
18	13300	10100	11500	5770	3110	4470	2630	996	1650	725	239	393
19	13900	9400	11800	5340	3090	4180	2100	849	1450	1050	363	766
20	13600	10100	11800	4540	2870	3580	2130	824	1460	2440	823	1510
21	13100	9110	11600	3780	2640	3190	1910	981	1360	2880	1680	2430
22	12500	9410	10800	3180	2390	2600	3270	970	1600	3670	2340	3040
23	12200	8610	10700	4620	2110	2700	5850	1500	2970	7220	3440	4220
24	11700	8330	9880	4550	2100	3270	8420	3310	4920	6300	3880	4900
25	10700	8000	9190	6040	3600	4750	8150	5430	6240	7840	5670	6790
26	11200	8510	9950	5890	4250	5070	9090	7560	8330	8380	6780	7490
27	10800	8510	9830	6480	4480	5600	9540	8600	9130	9140	6480	7760
28	13100	9570	10800	8080	5490	6350	10400	8940	9670	9920	7260	8300
29	14200	10700	12200	6400	4650	5800	11500	9840	10400	9710	7370	8140
30	13700	10000	12000	6990	4570	5440	12500	8780	10900	10100	6350	7810
31	13700	11100	11900	---	---	---	9340	6840	8310	8120	4980	6380
MONTH	14200	7710	10700	14600	2100	6620	12500	678	3820	10100	211	3990



## HUDSON RIVER BASIN

0137448595 HUDSON RIVER NEAR CONGERS, NY--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	7100	4510	5800	6470	2930	4610	692	264	407	1630	541	1010
2	6850	4000	5490	5050	1730	3250	470	229	296	1480	470	904
3	5750	3060	4450	3810	1000	2190	251	221	234	1250	350	698
4	4810	3010	3850	2250	586	1220	238	214	222	786	267	452
5	5250	3300	3910	1160	416	676	248	219	231	1170	283	629
6	5190	3170	4060	808	356	502	262	229	236	975	372	671
7	6380	4160	5240	736	319	430	702	230	271	1400	613	928
8	8190	5480	6370	548	299	401	828	241	462	1760	943	1300
9	9120	6870	7380	872	284	435	1400	426	735	3810	1210	1560
10	8080	6890	7480	446	261	301	2520	456	1330	3810	1430	2020
11	9800	6580	7610	291	255	266	2570	1540	1910	2740	1260	1800
12	9090	7160	7830	281	262	274	3020	1720	2220	1530	548	922
13	7420	4880	6180	303	270	282	4030	1410	2170	1010	297	501
14	6190	3440	4530	302	270	281	3140	1360	2120	663	260	354
15	5050	2420	3610	294	278	287	2900	976	1600	639	229	304
16	4500	2180	3060	302	284	292	2260	830	1390	444	221	272
17	3660	2070	2760	315	275	292	2070	649	1180	427	221	274
18	4390	1610	2680	298	287	293	1160	425	646	354	223	255
19	4430	1490	2390	298	279	288	1210	347	763	326	223	256
20	3980	2320	2850	566	280	364	1560	471	1120	972	222	326
21	5490	3130	4200	801	325	638	2270	883	1480	931	232	435
22	5570	4800	5140	3440	567	1930	2800	1150	1760	1510	228	604
23	5830	4630	5310	3840	2780	3230	3070	1590	2140	1940	348	921
24	8020	5360	6500	4660	3230	3780	3730	1670	2520	2160	470	1090
25	9280	7370	8210	6330	3750	4500	3540	1530	2350	2120	554	1240
26	9950	6180	7900	6080	3670	4760	3020	1060	1950	2080	541	1250
27	8290	5110	6830	5010	2440	3800	2800	746	1390	2270	681	1280
28	7800	4300	5770	4300	1770	3020	2150	552	1150	2320	573	1340
29	----	----	----	4190	895	1930	1700	613	1060	2530	661	1500
30	----	----	----	1970	471	989	1730	589	1080	1930	565	1190
31	----	----	----	1340	397	624	----	----	----	2390	512	1330
MONTH	9950	1490	5260	6470	255	1490	4030	214	1210	3810	221	891

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	1610	589	919	291	232	244	6380	3460	4110	9830	6760	7940
2	2910	507	1260	285	230	238	7400	4000	5150	9980	7690	8750
3	2190	785	1310	1070	224	337	7690	5170	5830	12000	8320	10200
4	2370	1310	1750	2720	264	718	8710	6170	6900	13800	10500	11200
5	2960	1940	2420	3630	849	1320	9670	7580	8280	13800	11000	12000
6	4340	2710	3440	5580	1500	2920	11800	8700	9590	13600	10700	12100
7	5470	3910	4390	6260	3620	4430	13200	9710	10600	13800	10500	12200
8	6950	5090	5680	6660	4770	5470	12800	9790	11100	13900	10700	12300
9	8100	6010	6700	7070	4890	5720	13300	9520	11500	13400	10300	12000
10	9170	6460	7670	7210	4770	5850	13200	9230	11400	13000	9390	11400
11	9650	7270	8340	8010	5250	6440	13100	9240	11100	13000	9470	11400
12	10500	7060	9090	8300	4980	6310	11700	8600	10200	12900	9760	11300
13	10500	7220	8550	7780	4940	6000	11900	9190	10500	12600	8760	10300
14	8670	6680	7540	7510	3990	5740	12000	8680	10200	12700	8390	10500
15	7140	2780	5180	6880	4160	5510	11800	8260	10000	11700	7560	9580
16	3110	1010	2040	6780	3900	5300	11300	7230	9310	11200	8200	9490
17	1370	565	879	6740	3630	4950	10800	7550	8900	12300	8350	9830
18	627	299	459	6330	3680	4640	9850	7380	8410	12500	8580	10100
19	467	263	333	6810	3140	4670	10900	7430	8270	12900	9560	10700
20	368	254	287	7120	3730	4910	11300	6970	8770	12700	9310	10700
21	334	246	262	7570	3660	4890	10200	7320	8680	12700	9140	10600
22	318	254	275	7520	3690	4900	10600	7030	8640	12300	9020	10000
23	367	252	270	6970	3680	5090	10600	7040	8640	10700	8910	9800
24	305	247	264	7400	3720	4770	10700	7450	8960	11900	8840	10300
25	306	240	255	6820	3800	4880	10800	7300	8690	11800	8400	9660
26	299	235	252	6730	3490	4520	10300	6850	8120	11300	8240	9390
27	318	238	269	6870	3680	5080	9040	6490	7410	11100	8450	9480
28	275	233	245	6840	3370	5030	9430	6340	7240	10000	8310	8910
29	282	232	245	6330	3080	4680	8630	6530	7270	11500	8090	9250
30	292	230	244	5240	2960	3830	9080	6270	7280	10800	7960	8900
31	----	----	----	6210	3320	3900	10100	6590	7380	----	----	----
MONTH	10500	230	2690	8300	224	4300	13300	3460	8660	13900	6760	10300



## HUDSON RIVER BASIN

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0137448595 HUDSON RIVER NEAR CONGERS, NY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

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



## HUDSON RIVER BASIN

0137448595 HUDSON RIVER NEAR CONGERS, NY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	22.5	21.5	22.0	24.0	23.0	23.5	27.0	26.0	26.5	27.5	26.5	26.5
2	22.0	21.5	21.5	24.5	23.0	24.0	27.0	26.0	26.5	26.5	26.0	26.5
3	21.5	21.0	21.0	25.5	23.5	24.5	27.5	25.5	26.5	26.5	25.5	26.0
4	21.0	20.0	20.5	25.5	24.0	24.5	28.0	26.5	26.5	26.5	25.5	26.0
5	21.0	19.5	20.0	25.0	24.0	24.5	28.0	26.0	27.0	26.0	25.0	25.5
6	20.5	19.5	20.0	25.5	24.0	24.5	27.5	26.5	26.5	26.0	25.0	25.5
7	20.0	19.0	19.5	25.0	24.0	24.5	27.5	26.0	26.5	25.5	24.5	25.5
8	19.5	19.0	19.0	24.0	23.5	24.0	27.0	26.0	26.5	25.0	24.0	25.0
9	21.0	19.0	19.5	25.5	23.5	24.0	27.0	26.0	26.5	24.5	23.5	24.0
10	21.0	19.0	20.0	25.0	24.0	24.5	26.5	26.5	26.5	24.5	23.0	23.5
11	20.5	19.5	20.0	24.5	23.5	24.0	27.0	26.5	26.5	24.5	22.5	23.5
12	20.0	19.5	19.5	25.0	23.5	24.0	27.5	26.5	27.0	25.0	22.5	23.5
13	20.5	19.0	20.0	25.5	24.0	24.5	28.0	26.5	26.5	25.0	23.5	24.0
14	21.0	20.0	20.5	25.5	24.5	25.0	27.0	26.0	26.5	25.0	23.5	24.0
15	20.5	20.0	20.5	26.0	24.5	25.5	27.0	26.0	26.5	25.5	23.5	24.5
16	21.5	20.0	20.5	26.5	25.0	26.0	27.5	26.0	26.5	26.0	24.0	25.0
17	22.5	20.5	21.5	27.0	25.5	26.0	27.0	26.5	26.5	25.5	24.0	24.5
18	22.5	21.5	22.0	27.5	26.0	26.5	28.0	26.5	27.0	25.0	24.0	24.5
19	23.0	22.0	22.5	27.5	26.0	26.5	27.0	25.5	26.0	25.0	23.5	24.0
20	23.5	22.0	22.5	27.5	26.0	26.5	26.5	24.5	25.5	25.0	23.5	24.5
21	24.0	22.5	23.0	27.5	26.0	26.5	26.5	25.0	25.5	25.5	24.0	24.5
22	23.0	22.5	23.0	28.0	26.0	27.0	26.5	25.0	25.5	25.0	24.0	24.5
23	23.0	22.5	22.5	27.5	26.5	27.0	26.5	25.0	26.0	24.0	23.0	23.5
24	23.5	22.5	23.0	28.0	26.5	27.0	26.5	25.5	26.0	23.5	22.0	23.0
25	24.0	23.0	23.0	27.5	26.5	27.0	27.0	26.0	26.5	23.5	22.0	23.0
26	24.5	23.0	23.5	27.5	26.5	27.0	27.5	26.0	26.5	24.0	22.5	23.5
27	24.5	23.5	24.0	27.0	26.5	26.5	27.5	26.5	27.0	24.5	23.0	23.5
28	24.5	23.5	24.0	27.5	26.0	26.5	27.5	26.5	27.0	24.5	23.0	24.0
29	23.5	23.5	23.5	28.0	26.0	27.0	28.0	26.5	27.0	23.5	22.5	23.0
30	23.5	23.5	23.5	29.0	27.0	27.5	28.0	27.0	27.0	23.0	22.0	23.0
31	---	---	---	28.0	27.0	27.5	27.5	26.5	27.0	---	---	---
MONTH	24.5	19.0	21.5	29.0	23.0	25.5	28.0	24.5	26.5	27.5	22.0	24.5



## 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 mi<sup>2</sup>.

**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 fair except those for estimated daily discharges, which are poor. Telephone gage-height telemeter at station.

**EXTREMES FOR PERIOD OF RECORD.**---Maximum discharge, 1,420 ft<sup>3</sup>/s, Jan. 28, 1996, gage height, 9.82 ft; minimum, 3.1 ft<sup>3</sup>/s, Aug. 12, 13, 1997; minimum gage height, 2.41 ft, Aug. 16, 17, 1998.

**EXTREMES FOR CURRENT YEAR.**---Peak discharges greater than base discharge of 500 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 11	0315	502	7.37	July 2	2130	508	7.40
May 12	0945	*657	*8.08				

Minimum discharge, 7.8 ft<sup>3</sup>/s, Aug. 16, 17, gage height, 2.41 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	25	97	e230	131	227	126	104	115	322	19	19
2	22	41	99	212	122	221	202	127	122	481	18	18
3	21	61	97	163	114	214	275	190	133	479	17	21
4	22	72	92	140	110	194	276	225	133	376	15	21
5	24	67	88	147	126	169	238	205	118	284	14	20
6	26	47	88	160	137	145	196	190	85	204	13	18
7	27	27	84	174	139	130	163	192	52	142	12	17
8	26	27	78	212	129	120	139	195	37	101	11	21
9	26	94	70	258	114	216	132	224	33	86	11	24
10	25	168	63	282	101	419	231	321	28	76	9.8	23
11	24	205	61	268	92	490	322	524	25	66	11	22
12	24	196	64	236	128	416	328	647	27	53	13	20
13	23	156	66	203	176	329	278	591	55	42	11	17
14	24	122	e60	174	201	275	225	494	129	37	9.8	15
15	24	104	55	145	e140	246	181	401	214	34	9.0	14
16	26	e90	e50	156	e120	225	152	324	265	32	8.4	14
17	26	e82	47	171	116	207	137	264	268	30	8.4	14
18	27	e72	46	178	159	195	134	214	288	28	15	12
19	26	e66	44	166	208	245	132	169	262	27	29	11
20	23	e60	43	146	239	333	166	138	220	25	30	11
21	17	54	42	127	236	372	199	122	173	27	24	11
22	16	74	44	114	208	346	204	106	131	28	18	26
23	14	119	45	104	177	305	180	91	100	29	15	49
24	15	158	59	149	191	273	155	77	80	35	13	56
25	20	159	83	224	248	246	136	68	64	33	12	40
26	29	145	117	262	288	224	131	74	52	28	24	25
27	34	131	141	238	275	205	140	74	42	25	36	18
28	33	116	143	205	241	186	146	67	34	23	34	18
29	30	106	131	176	---	168	138	55	29	21	28	18
30	28	97	e160	153	---	147	120	56	86	19	24	16
31	24	---	e200	140	---	130	---	51	---	19	21	---
TOTAL	747	2941	2557	5713	4666	7618	5582	6580	3400	3212	533.4	629
MEAN	24.1	98.0	82.5	184	167	246	186	212	113	104	17.2	21.0
MAX	34	205	200	282	288	490	328	647	288	481	36	56
MIN	14	25	42	104	92	120	120	51	25	19	8.4	11
CFSM	.39	1.58	1.33	2.97	2.68	3.96	3.00	3.42	1.83	1.67	.28	.34
IN.	.45	1.76	1.53	3.42	2.80	4.56	3.34	3.94	2.04	1.92	.32	.38

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 1998, BY WATER YEAR (WY)**

	1996	1997	1998	1996	1997	1998	1996	1997	1998	1996	1997	1998
MEAN	130	182	196	226	191	193	253	186	68.7	99.7	24.8	31.1
MAX	277	248	445	349	256	246	307	212	113	160	39.0	60.9
(WY)	1997	1996	1997	1996	1996	1998	1997	1998	1998	1996	1996	1996
MIN	24.1	98.0	60.6	143	148	148	186	169	24.5	35.7	17.2	11.4
(WY)	1998	1998	1996	1997	1997	1997	1998	1996	1997	1997	1998	1997

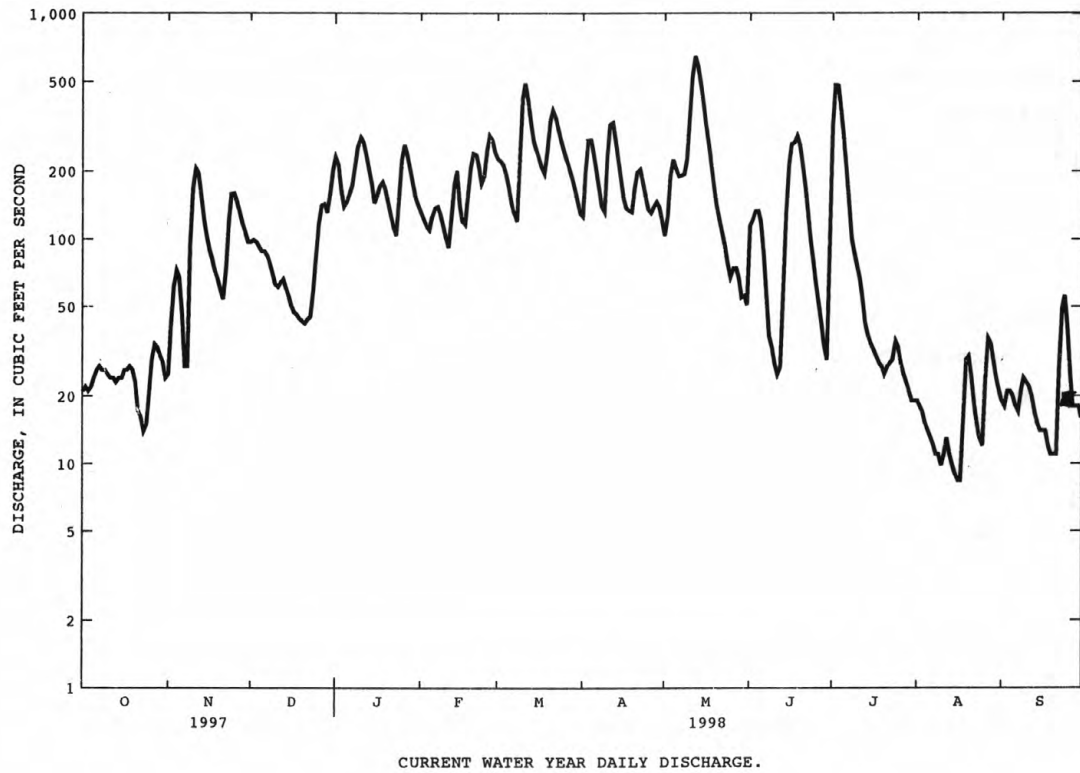
SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR	FOR 1998 WATER YEAR	WATER YEARS 1996 - 1998
ANNUAL TOTAL	36847.0	44178.4	
ANNUAL MEAN	101	121	148
HIGHEST ANNUAL MEAN			162
LOWEST ANNUAL MEAN			121
HIGHEST DAILY MEAN	552	647	1320
LOWEST DAILY MEAN	3.4	8.4	3.4
ANNUAL SEVEN-DAY MINIMUM	5.0	10	5.0
ANNUAL RUNOFF (CFSM)	1.63	1.95	2.39
ANNUAL RUNOFF (INCHES)	22.07	26.46	32.43
10 PERCENT EXCEEDS	223	262	320
50 PERCENT EXCEEDS	72	100	113
90 PERCENT EXCEEDS	10	18	16

e Estimated



## HUDSON RIVER BASIN

0137449480 EAST BRANCH CROTON RIVER NEAR PUTNAM LAKE, NY--Continued





## 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 mi<sup>2</sup>.

**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.**--Records good except those for estimated daily discharges, which are fair. Flow regulated by East Branch Reservoir. Telephone gage-height telemeter at station.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 1,320 ft<sup>3</sup>/s, Jan. 29, 1996, gage height, 6.21 ft; minimum, 50 ft<sup>3</sup>/s, Sept. 24, 1998, gage height, 3.10 ft.

**EXTREMES FOR CURRENT YEAR.**--Maximum discharge, 674 ft<sup>3</sup>/s, May 12, gage height, 5.10 ft; minimum, 50 ft<sup>3</sup>/s, Sept. 24, gage height, 3.10 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	61	55	53	176	296	201	152	280	217	61	54
2	63	58	55	53	165	274	304	200	196	288	60	54
3	63	55	55	53	156	263	284	206	219	351	60	53
4	64	55	54	54	152	248	306	229	183	330	60	53
5	64	55	54	55	190	228	289	239	163	304	59	53
6	64	55	55	55	185	206	254	245	140	224	59	52
7	65	54	55	58	179	188	221	236	113	176	58	54
8	65	69	55	62	172	181	197	225	92	148	58	53
9	65	69	54	58	160	412	197	289	80	130	58	52
10	65	60	54	56	147	453	352	437	73	109	59	52
11	65	56	54	55	137	502	332	535	69	93	60	52
12	65	55	55	55	207	483	357	649	73	81	58	52
13	65	56	54	55	207	407	337	643	89	72	58	51
14	65	59	53	56	217	360	296	555	164	68	58	51
15	120	58	52	56	211	318	248	461	213	68	58	51
16	159	56	52	64	186	283	218	383	264	68	58	51
17	160	56	52	59	173	259	204	321	273	68	59	51
18	159	57	52	59	263	254	192	272	282	67	59	51
19	158	56	52	61	267	368	184	229	276	66	57	51
20	157	55	52	61	275	382	237	198	250	65	57	51
21	157	55	52	62	280	407	229	177	217	65	57	51
22	158	63	52	63	261	414	234	150	182	64	57	60
23	157	58	e52	69	242	374	231	134	151	71	56	52
24	157	56	52	81	302	341	217	120	129	66	56	52
25	159	55	e52	74	331	307	189	122	111	65	56	87
26	156	55	54	129	318	281	183	129	96	64	66	126
27	104	55	53	210	320	261	193	116	84	63	57	127
28	53	55	52	224	303	243	181	107	74	62	56	127
29	53	55	e52	217	---	225	176	102	70	62	56	126
30	53	55	e52	203	---	206	165	106	139	62	56	126
31	53	---	55	190	---	188	---	113	---	61	55	---
TOTAL	3074	1717	1652	2660	6182	9612	7208	8080	4745	3698	1802	1976
MEAN	99.2	57.2	53.3	85.8	221	310	240	261	158	119	58.1	65.9
MAX	160	69	55	224	331	502	357	649	282	351	66	127
MIN	53	54	52	53	137	181	165	102	69	61	55	51

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1998, BY WATER YEAR (WY)

	1994	1995	1996	1997	1998
MEAN	121	118	224	191	207
MAX	221	238	510	264	281
(WY)	1997	1997	1997	1995	1996
MIN	77.6	57.2	53.3	85.8	123
(WY)	1995	1998	1998	1998	1995

## SUMMARY STATISTICS

## FOR 1997 CALENDAR YEAR

## FOR 1998 WATER YEAR

## WATER YEARS 1994 - 1998

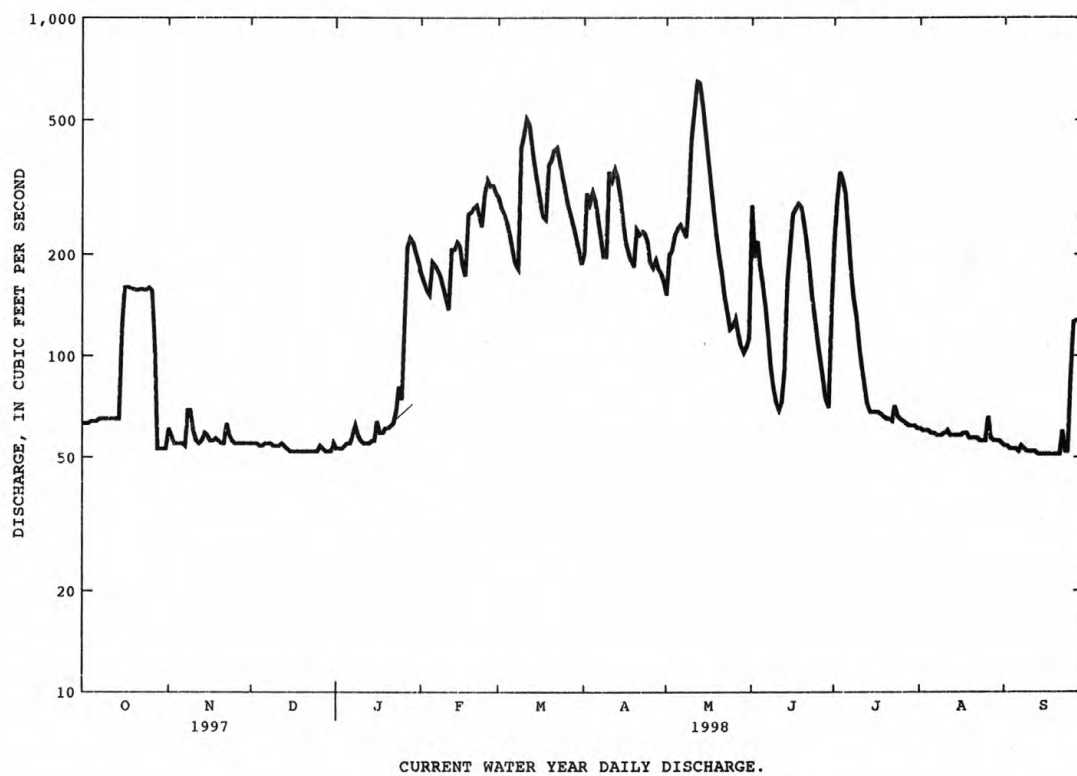
	1997	1998	1999
ANNUAL TOTAL	48971	52406	
ANNUAL MEAN	134	144	160
HIGHEST ANNUAL MEAN			198
LOWEST ANNUAL MEAN			124
HIGHEST DAILY MEAN	569	Apr 3	649
LOWEST DAILY MEAN	52	Dec 15	51
ANNUAL SEVEN-DAY MINIMUM	52	Dec 15	51
10 PERCENT EXCEEDS	265		298
50 PERCENT EXCEEDS	78		80
90 PERCENT EXCEEDS	55		53

e Estimated



## HUDSON RIVER BASIN

01374505 EAST BRANCH CROTON RIVER AT BREWSTER, NY--Continued





## HUDSON RIVER BASIN

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## 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 mi<sup>2</sup>.

**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, those less than 10 ft<sup>3</sup>/s, and those greater than 300 ft<sup>3</sup>/s, which are poor. Records include flow over spillway equal to or greater than 10 ft<sup>3</sup>/s and flow through release structure. Telephone gage-height telemeter at station.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, about 3,000 ft<sup>3</sup>/s, Jan. 27, 1996, gage height, 6.17 ft, from rating curve extended above 380 ft<sup>3</sup>/s; minimum daily discharge, 63 ft<sup>3</sup>/s, Jan. 24, 1997; minimum instantaneous discharge not determined.

**EXTREMES FOR CURRENT YEAR.**--Maximum discharge, about 1,200 ft<sup>3</sup>/s, May 12, gage height, 4.94 ft, from rating curve extended above 380 ft<sup>3</sup>/s; minimum daily discharge, 75 ft<sup>3</sup>/s, Aug. 16, 18-23; minimum instantaneous discharge not determined.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e78	e82	80	79	116	253	163	119	e400	270	76	80
2	e78	e82	80	79	112	214	287	196	196	346	76	80
3	e78	e82	80	79	107	198	226	181	234	327	76	80
4	e78	e82	80	79	106	184	222	184	161	277	76	92
5	e78	e81	80	81	129	169	187	193	134	250	76	103
6	e78	e81	80	82	113	155	177	213	112	184	76	102
7	e78	e81	80	90	112	140	156	217	97	147	76	102
8	e78	e81	79	113	106	138	140	228	86	130	76	102
9	e78	e81	79	105	101	e540	151	300	81	119	76	102
10	e79	e81	79	95	105	470	345	551	79	100	76	102
11	e79	e81	79	89	107	448	288	e840	78	87	76	100
12	e79	e81	79	83	190	421	289	e1100	92	83	76	101
13	e79	81	79	86	162	340	267	e960	142	84	76	101
14	e79	83	79	82	137	313	224	665	211	82	77	101
15	e79	81	79	83	134	265	190	469	298	80	77	101
16	e80	81	79	103	130	222	165	349	e480	77	75	100
17	e80	81	79	83	128	205	160	279	e470	76	76	100
18	e80	80	79	83	223	208	146	226	405	76	75	100
19	e80	80	79	84	217	372	142	185	353	77	75	100
20	e80	80	79	82	204	353	203	165	285	77	75	100
21	e80	80	78	79	200	347	176	152	222	76	75	99
22	e81	84	78	79	183	349	171	107	161	76	75	99
23	e82	82	78	88	169	307	169	103	133	78	75	97
24	e82	82	78	125	248	283	152	98	118	79	76	98
25	e82	80	78	94	257	238	144	108	105	77	76	98
26	e82	80	78	99	235	203	151	116	94	77	79	98
27	e82	83	78	136	243	183	145	101	85	77	80	98
28	e82	80	78	143	236	167	128	94	78	76	80	99
29	e82	80	79	136	---	153	130	99	78	76	79	98
30	e81	80	99	144	---	141	124	107	197	76	80	99
31	e81	---	84	122	---	133	---	115	---	76	80	---
TOTAL	2473	2434	2473	2985	4510	8112	5618	8820	5665	3793	2373	2932
MEAN	79.8	81.1	79.8	96.3	161	262	187	285	189	122	76.5	97.7
MAX	82	84	99	144	257	540	345	1100	480	346	80	103
MIN	78	80	78	79	101	133	124	94	78	76	75	80

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1998, BY WATER YEAR (WY)

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
MEAN	110	102	229	217	160	189	173	112	109	104	89.6	
MAX	217	171	524	327	235	262	274	285	189	156	128	
(WY)	1997	1997	1997	1996	1996	1998	1997	1998	1998	1996	1994	1996
MIN	69.1	68.5	67.2	96.3	101	143	95.7	78.5	73.3	72.2	70.2	70.0
(WY)	1996	1996	1996	1998	1995	1995	1995	1995	1997	1997	1997	1997

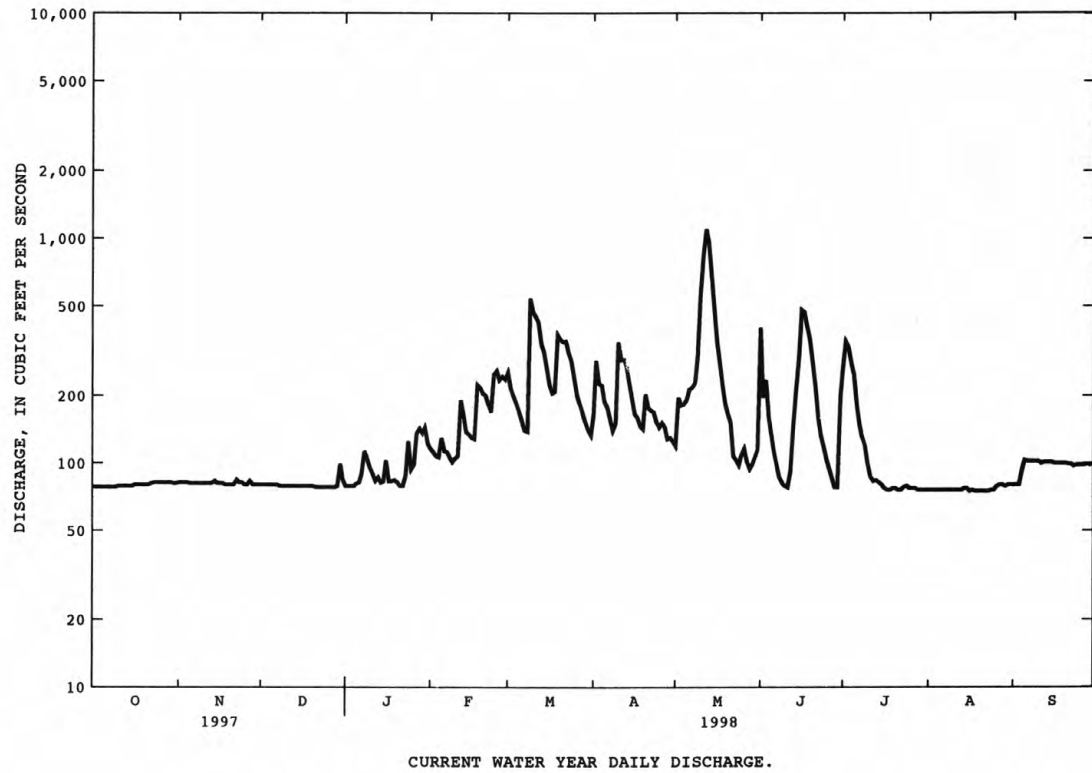
SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR	FOR 1998 WATER YEAR	WATER YEARS 1994 - 1998
ANNUAL TOTAL	42759	52188	
ANNUAL MEAN	117	143	146
HIGHEST ANNUAL MEAN			174
LOWEST ANNUAL MEAN			120
HIGHEST DAILY MEAN	500	1100	1900
LOWEST DAILY MEAN	63	75	63
ANNUAL SEVEN-DAY MINIMUM	69	75	67
10 PERCENT EXCEEDS	208	268	279
50 PERCENT EXCEEDS	80	98	99
90 PERCENT EXCEEDS	70	77	70

e Estimated



## HUDSON RIVER BASIN

01374531 EAST BRANCH CROTON RIVER NEAR CROTON FALLS, NY--Continued





## 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 mi<sup>2</sup>.

**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 ft<sup>3</sup>/s, those above 100 ft<sup>3</sup>/s, and those for estimated daily discharges, which are poor. Telephone gage-height telemeter at station.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 512 ft<sup>3</sup>/s, Jan. 28, 1996, gage height, 3.68 ft; minimum, 0.01 ft<sup>3</sup>/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 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
May 11	0615	*210	*2.84	July 1	1215	107	2.47

Minimum discharge, 0.05 ft<sup>3</sup>/s, Oct. 4, 5, 6, gage height, 0.36 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.15	15	18	23	22	30	24	15	24	91	.58	.46
2	.09	19	18	20	21	29	37	42	20	59	.45	.86
3	.07	17	16	19	21	28	37	56	25	31	.37	2.1
4	.06	15	16	21	21	27	31	39	19	19	.32	1.2
5	.08	14	16	23	24	25	27	33	11	18	.31	.79
6	4.1	13	16	24	24	25	23	37	7.5	14	.32	.54
7	18	12	15	25	22	24	21	36	5.9	11	.27	.75
8	9.4	17	15	34	20	24	17	30	5.1	10	.22	1.5
9	5.5	26	14	35	19	42	16	39	4.5	12	.19	1.2
10	3.7	26	14	31	18	51	40	99	4.0	10	.18	.94
11	2.4	24	15	28	19	44	57	183	3.5	7.5	.52	.61
12	1.6	20	15	26	29	38	44	126	6.8	5.5	1.8	.47
13	1.1	16	14	26	30	33	35	76	18	4.5	.74	.41
14	.86	17	14	25	26	32	29	55	40	3.7	.46	.39
15	.70	17	11	24	e21	32	27	44	41	3.1	.37	.37
16	.47	17	9.0	29	e20	30	25	36	65	2.8	.30	.38
17	.26	15	8.2	29	e19	28	24	29	58	2.6	.96	.31
18	.19	14	7.6	26	27	28	24	26	40	2.2	3.0	.28
19	.15	13	7.2	24	31	38	22	23	27	1.7	1.6	.25
20	.14	13	e6.9	23	29	46	35	20	20	1.5	.84	.21
21	.12	13	e6.5	22	27	43	32	23	16	1.4	.57	.22
22	.11	17	6.2	21	25	42	24	19	13	1.2	.46	1.8
23	.11	19	7.9	22	24	38	21	14	11	2.0	.43	1.2
24	.10	19	9.0	31	30	36	24	12	11	2.8	.44	.61
25	2.4	17	15	33	38	32	21	13	10	1.9	.38	.48
26	16	16	21	28	35	25	19	18	8.3	1.4	5.2	.49
27	16	17	20	25	31	26	26	14	6.5	.96	4.1	.53
28	15	16	18	24	29	27	22	10	5.2	.75	2.5	1.1
29	14	16	18	23	---	25	17	8.6	4.6	.67	1.5	.75
30	14	16	e19	22	---	24	15	10	25	.55	.97	.51
31	13	---	e20	22	---	22	---	8.8	---	.74	.64	---
TOTAL	139.86	506	426.5	788	702	994	816	1194.4	555.9	324.47	30.99	21.71
MEAN	4.51	16.9	13.8	25.4	25.1	32.1	27.2	38.5	18.5	10.5	1.00	.72
MAX	18	26	21	35	38	51	57	183	65	91	5.2	2.1
MIN	.06	12	6.2	19	18	22	15	8.6	3.5	.55	.18	.21
CFSM	.41	1.53	1.25	2.31	2.28	2.91	2.47	3.50	1.68	.95	.09	.07
IN.	.47	1.71	1.44	2.66	2.37	3.36	2.76	4.04	1.88	1.10	.10	.07

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 1998, BY WATER YEAR (WY)**

	MEAN	25.8	32.8	31.2	35.3	28.6	30.4	41.2	28.3	11.3	13.3	2.61	5.40
MAX	40.2	53.2	65.4	62.5	40.8	35.1	51.2	38.5	18.5	28.2	5.28	15.3	
(WY)	1997	1996	1997	1996	1996	1996	1997	1998	1998	1996	1996	1996	
MIN	4.51	16.9	13.8	17.9	19.6	24.1	27.2	20.0	2.81	1.38	1.00	.19	
(WY)	1998	1998	1998	1997	1997	1997	1998	1997	1997	1997	1998	1997	

**SUMMARY STATISTICS FOR 1997 CALENDAR YEAR FOR 1998 WATER YEAR WATER YEARS 1996 - 1998**

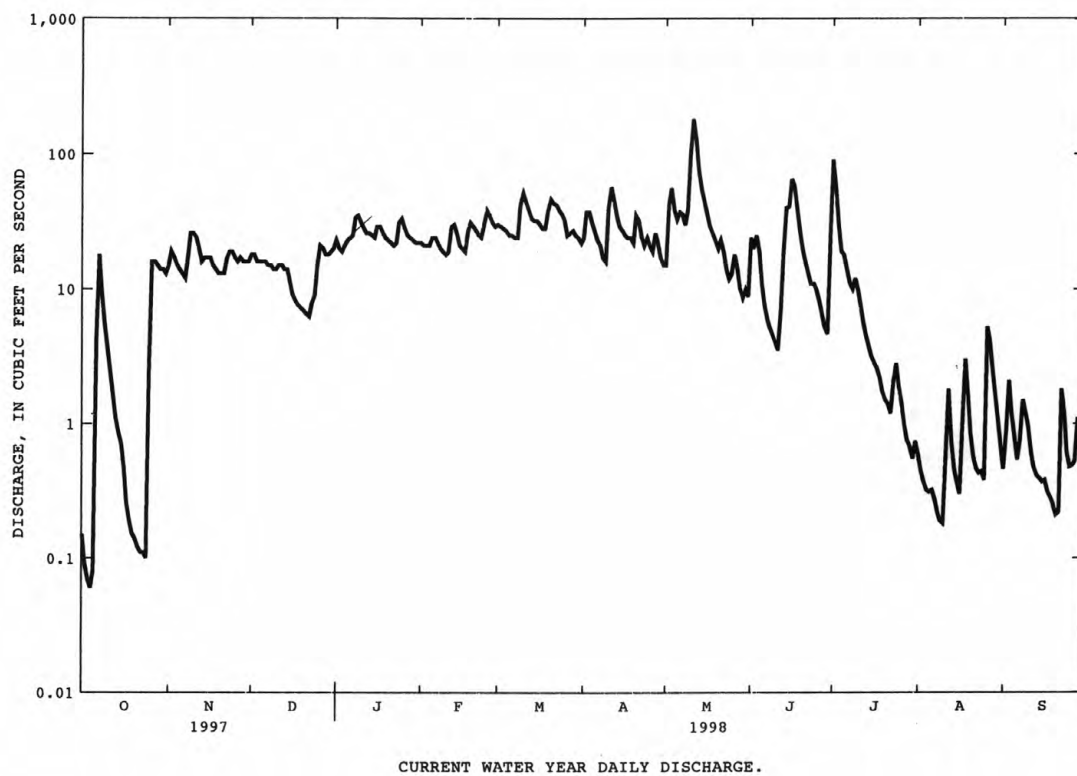
ANNUAL TOTAL	5260.78	6499.83	
ANNUAL MEAN	14.4	17.8	
HIGHEST ANNUAL MEAN			23.8
LOWEST ANNUAL MEAN			30.9
HIGHEST DAILY MEAN	117	183	381
LOWEST DAILY MEAN	.01	.06	.01
ANNUAL SEVEN-DAY MINIMUM	.02	.13	.02
ANNUAL RUNOFF (CFSM)	1.31	1.62	2.17
ANNUAL RUNOFF (INCHES)	17.79	21.98	29.45
10 PERCENT EXCEEDS	32	35	49
50 PERCENT EXCEEDS	13	16	18
90 PERCENT EXCEEDS	.11	.46	.50

e Estimated



## HUDSON RIVER BASIN

01374559 WEST BRANCH CROTON RIVER AT RICHARDSVILLE, NY--Continued





## 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 mi<sup>2</sup>.

**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 ft<sup>3</sup>/s, those above 40 ft<sup>3</sup>/s, and those for estimated daily discharges, which are poor.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 103 ft<sup>3</sup>/s, Dec. 2, 1996, gage height, 2.67 ft; minimum daily, about 0.08 ft<sup>3</sup>/s, Aug. 12, 1997; minimum instantaneous discharge not determined.

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 45 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 9	1245	50	*2.14	May 11	0045	*52	2.05

Minimum discharge, 0.14 ft<sup>3</sup>/s, Aug. 9, 10, 16, 17, gage height, 0.23 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.45	3.5	8.5	e15	9.2	14	12	6.9	13	18	.71	.54
2	.42	8.6	6.2	e12	8.8	12	17	20	6.3	8.9	.57	.93
3	.45	5.8	5.6	10	8.7	11	11	13	11	7.3	.50	1.4
4	.49	2.5	6.1	11	8.4	9.7	10	12	5.2	6.7	.43	.75
5	.53	1.2	6.4	12	e8.0	9.2	9.2	12	4.2	8.8	.39	.57
6	.49	.89	6.2	11	e7.6	8.7	8.7	13	3.6	5.8	.37	.49
7	.47	.76	5.5	12	e6.6	8.3	8.2	12	3.2	5.3	.27	.81
8	.44	6.9	5.2	19	e6.2	8.4	7.8	10	2.9	5.5	.21	1.7
9	.47	15	4.9	18	e5.8	33	9.6	17	2.6	5.5	.19	1.4
10	.47	9.7	5.0	16	5.8	25	27	29	2.3	4.4	.20	.93
11	.39	5.9	5.2	15	5.8	e18	16	42	2.1	3.7	.54	.64
12	.42	5.0	5.1	13	16	e16	14	35	5.7	3.2	.60	.50
13	.75	4.5	5.2	e12	9.4	15	12	26	15	2.9	.34	.43
14	.64	5.2	5.4	11	8.3	e14	11	21	16	2.4	.27	.39
15	.63	5.8	e5.0	9.8	e8.0	e13	10	17	12	2.1	.23	.44
16	.78	5.4	e4.0	17	e7.8	e12	9.4	14	21	2.0	.19	.48
17	.65	4.8	e3.0	11	8.3	e11	9.4	13	13	1.7	.62	.46
18	.57	4.5	4.9	10	15	13	8.6	11	11	1.4	4.2	.41
19	.58	e4.3	4.8	9.8	13	24	7.9	8.9	9.0	1.3	3.8	.35
20	.57	4.2	4.8	9.2	11	17	15	8.8	10	1.3	1.3	.23
21	.54	4.3	e4.4	8.4	10	16	9.3	8.7	12	1.2	.78	.22
22	.52	9.9	e4.0	7.8	9.5	15	8.3	6.0	8.1	1.1	.59	4.1
23	.51	8.3	5.4	10	9.2	14	8.7	5.3	7.1	2.7	.54	2.7
24	.53	e7.2	5.2	22	17	13	9.7	5.0	6.4	2.5	.49	1.3
25	1.7	6.6	12	15	16	11	7.7	6.1	5.3	1.4	.45	1.1
26	2.0	6.6	9.8	13	14	10	9.2	6.9	4.6	1.1	4.7	1.0
27	3.3	7.9	8.8	12	13	9.7	10	5.2	4.1	.98	2.0	1.0
28	2.5	6.8	8.2	12	12	9.0	7.9	4.6	3.6	.92	1.2	2.5
29	1.6	6.5	e7.0	11	---	8.4	7.3	4.3	3.5	.86	.92	1.3
30	1.4	6.7	e6.4	11	---	7.9	7.0	4.3	26	.77	.78	.89
31	1.3	---	e8.6	9.9	---	7.5	---	4.3	---	.93	.64	---
TOTAL	26.56	175.25	186.8	385.9	278.4	413.8	318.9	402.3	249.8	112.66	29.02	29.96
MEAN	.86	5.84	6.03	12.4	9.94	13.3	10.6	13.0	8.33	3.63	.94	1.00
MAX	3.3	15	12	22	17	33	27	42	26	18	4.7	4.1
MIN	.39	.76	3.0	7.8	5.8	7.5	7.0	4.3	2.1	.77	.19	.22
CFSM	.17	1.18	1.22	2.52	2.01	2.70	2.15	2.63	1.69	.74	.19	.20
IN.	.20	1.32	1.41	2.91	2.10	3.12	2.40	3.03	1.88	.85	.22	.23

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 1998, BY WATER YEAR (WY)**

	1996	1997	1998	1996	1997	1998	1996	1997	1998	1996	1997	1998
MEAN	8.68	8.94	15.2	9.75	8.44	12.7	14.5	11.0	5.02	2.32	.89	2.58
MAX	16.5	12.0	24.4	12.4	9.94	13.3	18.3	13.0	8.33	3.63	.94	6.36
(WY)	1997	1997	1997	1998	1998	1998	1997	1998	1998	1998	1998	1996
MIN	.86	5.84	6.03	7.05	6.94	12.0	10.6	9.12	1.72	1.00	.85	.37
(WY)	1998	1998	1998	1997	1997	1997	1998	1997	1997	1997	1997	1997

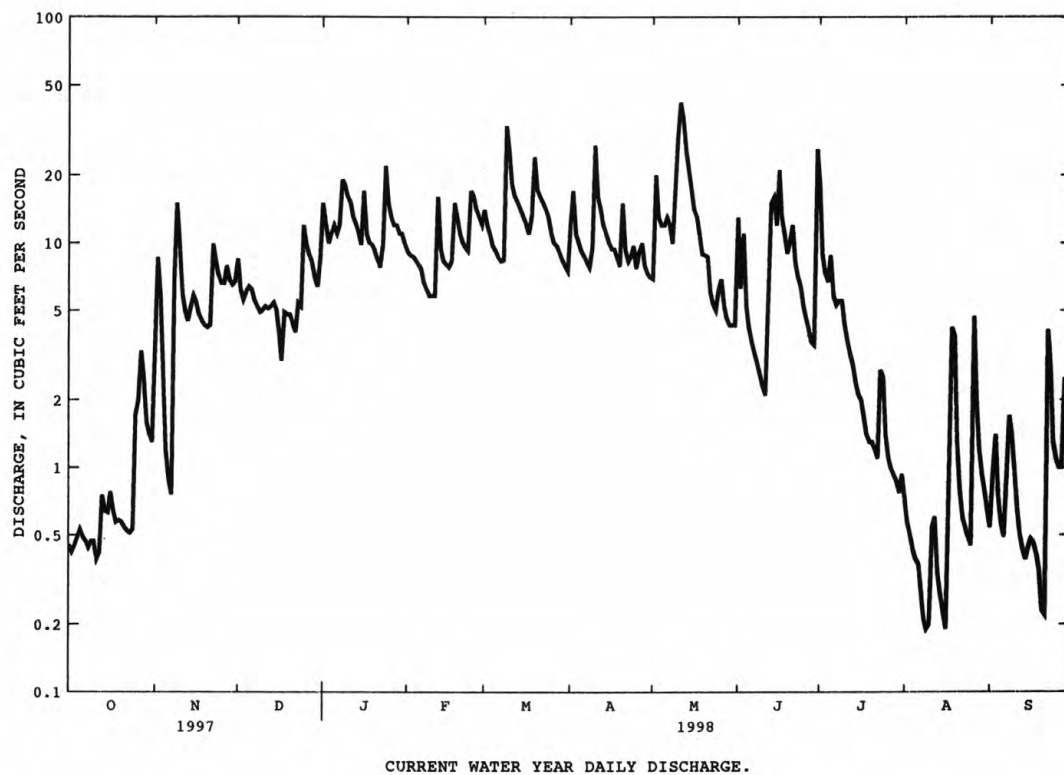
SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR	FOR 1998 WATER YEAR	WATER YEARS 1996 - 1998
ANNUAL TOTAL	2125.37	2609.35	
ANNUAL MEAN	5.82	7.15	8.18
HIGHEST ANNUAL MEAN			9.22
LOWEST ANNUAL MEAN			7.15
HIGHEST DAILY MEAN	34	42	76
LOWEST DAILY MEAN	.08	.19	.08
ANNUAL SEVEN-DAY MINIMUM	.11	.29	.11
ANNUAL RUNOFF (CFSM)	1.18	1.45	1.66
ANNUAL RUNOFF (INCHES)	16.00	19.65	22.51
10 PERCENT EXCEEDS	13	15	17
50 PERCENT EXCEEDS	4.6	6.2	6.6
90 PERCENT EXCEEDS	.40	.51	.49

e Estimated



## HUDSON RIVER BASIN

01374598 HORSE POUND BROOK NEAR LAKE CARMEL, NY--Continued





## 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 mi<sup>2</sup>.

**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.**--Records good except those below 20 ft<sup>3</sup>/s, which are fair, and those for estimated daily discharges, which are poor. Flow regulated by West Branch Reservoir. Telephone gage-height telemeter at station.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 436 ft<sup>3</sup>/s, June 16, 1998, gage height, 3.27 ft; minimum daily, about 0.30 ft<sup>3</sup>/s, Feb. 8, 1998; minimum instantaneous discharge not determined.

**EXTREMES FOR CURRENT YEAR.**--Maximum discharge, 436 ft<sup>3</sup>/s, June 16, gage height, 3.27 ft; minimum daily, about 0.30 ft<sup>3</sup>/s, Feb. 8; minimum instantaneous discharge not determined.

**REVISIONS.**--Revised maximum, daily, monthly, and yearly discharges for the 1997 water year and statistical summaries for period of record through the 1997 water year are given below. These figures supercede those published in the report for 1997.

Maximum discharge, 389 ft<sup>3</sup>/s, Dec. 8, 1996, gage height, 3.15 ft.

Daily discharges, in cubic feet per second:

Dec. 6	80	Dec. 8	367	Dec. 10	162	Dec. 12	101	Dec. 14	141
Dec. 7	215	Dec. 9	312	Dec. 11	103	Dec. 13	108	Dec. 15	111
MONTH	TOTAL	MEAN	MAX	MIN					
December 1996	2285	73.7	367	25					

Statistics of monthly mean data for water years 1994-97:

MONTH	MEAN	MAX (YR)	MIN (WY)
December	52.7	73.7 (1997)	31.5 (1996)
SUMMARY STATISTICS			
	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR
ANNUAL TOTAL	11565		11124
ANNUAL MEAN	31.6		30.5
HIGHEST ANNUAL MEAN			31.1
LOWEST ANNUAL MEAN			26.6
HIGHEST DAILY MEAN	367	Dec 8	367
LOWEST DAILY MEAN	21	Apr 5	11
ANNUAL SEVEN-DAY MINIMUM	21	Apr 5	11
10 PERCENT EXCEEDS	32		31
50 PERCENT EXCEEDS	28		27
90 PERCENT EXCEEDS	23		24
			15

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	31	34	20	20	37	30	35	30	104	34	33
2	32	31	33	20	20	37	31	35	30	161	34	33
3	32	31	32	20	20	37	31	36	31	57	34	33
4	32	31	32	20	19	37	31	36	32	36	34	34
5	33	31	32	20	18	37	31	37	32	36	34	34
6	32	31	32	20	9.9	37	31	36	32	35	34	34
7	31	31	32	20	2.7	37	31	46	33	35	34	34
8	32	31	25	19	e.30	37	31	104	33	35	34	34
9	32	31	19	17	e.80	38	31	68	33	35	34	34
10	32	31	19	11	47	38	31	108	34	37	34	34
11	31	31	19	3.9	50	39	31	279	33	43	34	34
12	31	31	19	1.4	51	40	31	346	33	46	34	33
13	31	31	19	5.6	47	40	31	257	34	56	34	33
14	31	31	19	13	42	40	31	134	58	50	34	32
15	31	31	19	19	42	39	32	73	174	43	34	32
16	31	32	19	19	42	38	32	38	383	36	34	32
17	31	32	19	19	42	38	32	35	310	35	34	31
18	31	32	19	19	42	38	32	34	240	34	34	31
19	31	33	19	19	42	39	31	34	187	34	34	31
20	31	33	19	19	42	38	32	34	117	34	34	30
21	31	32	20	20	42	38	32	34	64	34	34	30
22	31	32	20	20	42	38	32	33	39	34	34	30
23	31	33	19	19	42	38	31	33	36	34	34	30
24	31	33	19	19	42	40	31	32	36	34	34	30
25	31	32	19	19	42	40	31	32	36	34	35	30
26	31	32	19	19	42	39	31	32	36	34	35	30
27	31	33	19	19	39	38	31	32	36	34	35	30
28	31	33	19	20	37	37	34	32	35	34	34	31
29	31	33	19	20	---	37	36	31	35	34	34	31
30	31	33	19	20	---	37	35	30	36	34	34	31
31	31	---	19	20	---	32	---	30	---	34	34	---
TOTAL	970	953	691	539.9	927.70	1175	948	2156	2278	1356	1057	959
MEAN	31.3	31.8	22.3	17.4	33.1	37.9	31.6	69.5	75.9	43.7	34.1	32.0
MAX	33	33	34	20	51	40	36	346	383	161	35	34
MIN	31	31	19	1.4	.30	32	30	30	30	34	34	30

e Estimated



## HUDSON RIVER BASIN

0137462010 WEST BRANCH CROTON RIVER NEAR CARMEL, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1998, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	29.7	32.1	45.1	32.7	33.2	34.6	38.2	41.3	39.4	34.6	29.4	28.2
MAX	43.3	44.2	73.7	55.5	48.6	48.5	54.0	69.5	75.9	55.2	51.2	46.5
(WY)	1995	1995	1997	1995	1995	1995	1994	1998	1998	1994	1994	1994
MIN	15.7	24.1	22.3	17.4	25.4	25.9	22.5	26.2	13.2	13.0	11.9	15.0
(WY)	1996	1996	1998	1998	1997	1997	1996	1997	1995	1995	1995	1995

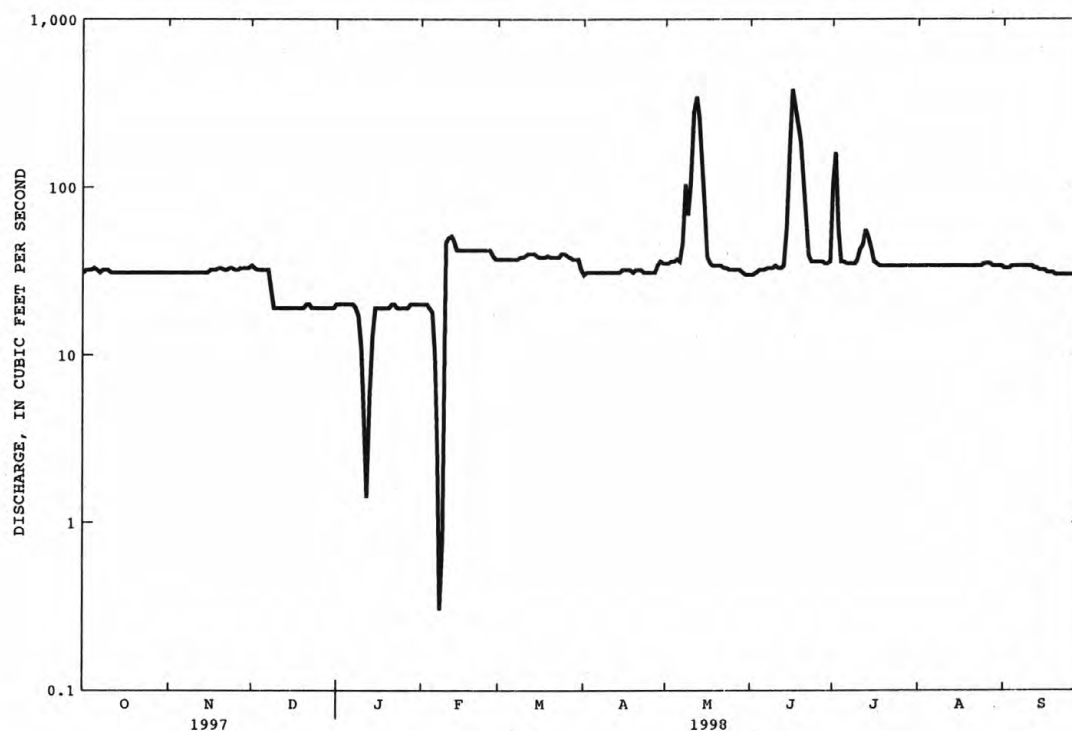
## SUMMARY STATISTICS

FOR 1997 CALENDAR YEAR

FOR 1998 WATER YEAR

WATER YEARS 1994 - 1998

ANNUAL TOTAL	9710	14010.60	
ANNUAL MEAN	26.6	38.4	32.9
HIGHEST ANNUAL MEAN			38.4
LOWEST ANNUAL MEAN			26.6
HIGHEST DAILY MEAN	50	Apr 7	383
LOWEST DAILY MEAN	11	Sep 7	.30
ANNUAL SEVEN-DAY MINIMUM	11	Sep 5	10
10 PERCENT EXCEEDS	32		42
50 PERCENT EXCEEDS	27		33
90 PERCENT EXCEEDS	19		19



CURRENT WATER YEAR DAILY DISCHARGE.



## HUDSON RIVER BASIN

199

## 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 mi<sup>2</sup>.

**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 fair except those for estimated daily discharges, which are poor. Flow regulated by Lake Carmel.

Telephone gage-height telemeter at station.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 428 ft<sup>3</sup>/s, Jan. 28, 1996, gage height, 5.19 ft; maximum gage height, 5.58 ft, Nov. 9, 1996 (backwater from debris); minimum discharge, 1.5 ft<sup>3</sup>/s, July 19, 20, 21, 23, 1997; minimum gage height, 1.42 ft, Aug. 28, 29, 30, 31, Sept. 1, 2, 1998.

**EXTREMES FOR CURRENT YEAR.**--Maximum discharge, 159 ft<sup>3</sup>/s, May 11, gage height, 3.57 ft; minimum, 1.7 ft<sup>3</sup>/s, Aug. 28, 29, 30, 31, Sept. 1, 2, gage height, 1.42 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	4.7	13	e12	28	50	33	23	34	84	4.8	1.8
2	2.8	5.7	13	22	28	49	64	49	19	75	4.8	1.9
3	2.8	2.9	13	28	28	49	53	54	27	46	4.8	1.9
4	2.8	2.3	13	28	28	48	43	47	19	34	4.8	1.9
5	2.9	2.1	13	44	28	48	36	41	14	37	4.7	1.8
6	2.8	2.0	13	53	28	41	32	46	11	27	4.7	1.9
7	2.9	16	13	53	28	29	29	47	9.4	21	4.6	2.3
8	2.8	30	19	55	28	29	28	43	8.5	19	4.6	2.1
9	2.8	29	24	53	22	55	31	53	7.6	19	4.5	1.9
10	3.0	26	24	53	18	60	78	91	7.0	16	4.6	1.9
11	3.1	26	24	53	18	59	72	138	6.6	13	6.0	1.9
12	3.2	26	26	53	23	59	55	123	10	11	6.5	1.9
13	3.1	26	30	52	27	58	46	92	30	10	6.5	1.9
14	14	26	30	52	34	59	41	73	58	9.2	6.4	1.9
15	26	26	20	45	34	58	37	51	51	8.4	4.7	2.0
16	26	26	3.5	36	34	58	35	41	76	7.8	2.2	1.9
17	26	25	5.0	34	34	57	35	39	65	7.1	3.6	14
18	26	25	10	34	30	45	34	36	48	6.4	2.8	35
19	26	25	10	34	22	47	31	32	36	5.7	2.2	26
20	12	25	10	33	25	50	48	28	30	5.4	2.0	26
21	2.8	25	10	33	25	37	43	26	34	5.2	2.0	11
22	2.8	27	10	33	24	37	35	21	27	5.1	2.0	17
23	2.9	25	11	24	32	60	32	18	23	7.5	2.0	24
24	3.0	20	10	15	44	40	33	16	20	6.8	2.0	18
25	3.5	13	12	12	47	5.2	30	17	17	5.8	2.0	2.3
26	3.1	13	11	32	54	4.9	29	18	15	5.3	4.4	2.2
27	3.6	13	11	43	56	4.7	34	15	13	5.1	1.9	2.4
28	3.1	13	11	43	50	4.6	30	14	11	5.1	1.8	11
29	3.0	13	12	43	---	11	27	13	10	5.0	1.8	16
30	3.0	13	e12	38	---	22	25	13	44	4.9	1.7	14
31	3.0	---	12	28	---	25	---	14	---	5.0	1.8	---
TOTAL	227.6	551.7	448.5	1171	877	1259.4	1179	1332	781.1	522.8	113.2	249.8
MEAN	7.34	18.4	14.5	37.8	31.3	40.6	39.3	43.0	26.0	16.9	3.65	8.33
MAX	26	30	30	55	56	60	78	138	76	84	6.5	35
MIN	2.8	2.0	3.5	12	18	4.6	25	13	6.6	4.9	1.7	1.8

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 1998, BY WATER YEAR (WY)

	1996	1997	1998	1996	1997	1998	1996	1997	1998	1996	1997	1998
MEAN	32.0	27.9	50.9	44.9	37.6	39.7	49.8	37.1	16.8	19.8	6.85	12.1
MAX	56.7	37.3	87.3	77.8	49.7	40.6	58.4	43.0	26.0	38.3	12.4	24.5
(WY)	1997	1997	1997	1996	1996	1996	1996	1998	1998	1996	1996	1996
MIN	7.34	18.4	14.5	19.0	31.3	37.8	39.3	31.6	6.10	4.37	3.65	3.47
(WY)	1998	1998	1998	1997	1998	1997	1998	1997	1997	1997	1998	1997

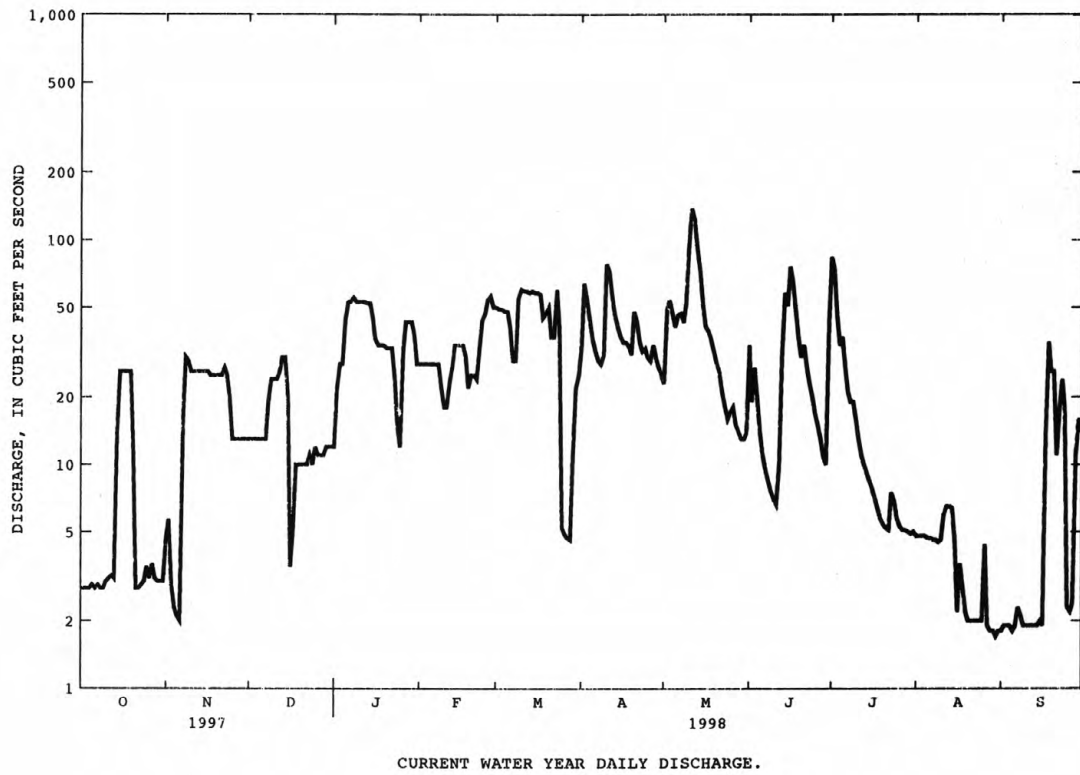
SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR	FOR 1998 WATER YEAR	WATER YEARS 1996 - 1998
ANNUAL TOTAL	6963.1	8713.1	
ANNUAL MEAN	19.1	23.9	27.4
HIGHEST ANNUAL MEAN			31.0
LOWEST ANNUAL MEAN			23.9
HIGHEST DAILY MEAN	113	138	345
LOWEST DAILY MEAN	1.9	1.7	1.7
ANNUAL SEVEN-DAY MINIMUM	2.1	1.8	1.8
10 PERCENT EXCEEDS	44	52	62
50 PERCENT EXCEEDS	12	21	24
90 PERCENT EXCEEDS	2.5	2.8	2.9

e Estimated



## HUDSON RIVER BASIN

01374654 MIDDLE BRANCH CROTON RIVER NEAR CARMEL, NY--Continued





## HUDSON RIVER BASIN

201

## 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 mi<sup>2</sup>.

**PERIOD OF RECORD.**--January 1994 to current year.

**GAGE.**--Water-stage recorder, crest-stage gage, and concrete control. Elevation of gage is 210 ft above sea level, from topographic map.

**REMARKS.**--Records fair except those for estimated daily discharges, which are poor. Flow regulated by Croton Falls Reservoir. Telephone gage-height telemeter at station.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 1,160 ft<sup>3</sup>/s, Jan. 27, 1996, gage height, 3.79 ft, from rating curve extended above 580 ft<sup>3</sup>/s; minimum discharge not determined.

**EXTREMES FOR CURRENT YEAR.**--Maximum discharge, 711 ft<sup>3</sup>/s, May 12, gage height, 3.12 ft; minimum, 33 ft<sup>3</sup>/s, Sept. 17, gage height, 1.28 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	42	113	68	146	262	188	143	318	211	41	41
2	41	42	67	62	141	236	289	217	164	257	40	40
3	41	42	45	64	141	226	243	200	196	227	40	40
4	41	42	45	72	146	212	265	202	144	190	40	40
5	41	42	47	84	e150	201	238	210	120	185	39	40
6	41	42	49	95	e140	188	207	223	106	135	39	40
7	41	42	52	114	e135	175	187	224	87	109	39	40
8	40	43	55	150	e130	174	172	234	81	97	39	40
9	40	43	44	138	125	427	189	294	64	91	39	40
10	40	44	50	122	136	398	359	439	60	87	39	40
11	40	48	55	109	137	e350	287	597	56	74	40	39
12	40	53	50	98	216	e320	279	678	79	60	40	39
13	40	59	53	e90	196	305	263	605	130	57	40	39
14	40	115	e48	e92	e180	e280	238	469	182	55	40	39
15	41	88	44	98	e170	269	212	365	245	51	40	39
16	40	e78	44	162	164	246	193	282	408	47	40	39
17	40	69	46	122	164	226	190	237	384	44	40	39
18	40	66	43	98	245	231	176	208	331	50	41	39
19	40	66	43	98	238	344	169	177	284	41	41	39
20	40	66	44	e92	226	324	230	160	233	41	41	39
21	41	63	47	e88	221	322	203	160	183	40	40	39
22	41	108	42	83	209	321	194	148	133	41	40	39
23	42	97	43	99	203	283	221	104	111	46	40	39
24	42	e86	43	187	326	276	186	98	98	60	40	39
25	41	70	45	143	307	246	174	108	88	44	40	39
26	41	66	59	124	263	221	166	120	77	46	42	39
27	41	106	71	167	255	204	193	96	79	40	42	39
28	42	45	e70	205	246	191	165	87	55	40	42	39
29	42	54	60	184	---	179	154	93	53	41	42	39
30	42	50	e60	173	---	170	148	99	157	40	42	39
31	42	---	e65	e160	---	162	---	98	---	42	41	---
TOTAL	1265	1877	1642	3641	5356	7969	6378	7375	4706	2589	1249	1181
MEAN	40.8	62.6	53.0	117	191	257	213	238	157	83.5	40.3	39.4
MAX	42	115	113	205	326	427	359	678	408	257	42	41
MIN	40	42	42	62	125	162	148	87	53	40	39	39

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1998, BY WATER YEAR (WY)

	1994	1995	1996	1997	1998
MEAN	87.2	102	203	194	177
MAX	196	201	460	250	232
(WY)	1997	1997	1997	1995	1994
MIN	40.8	50.0	53.0	117	135
(WY)	1998	1996	1998	1998	1995

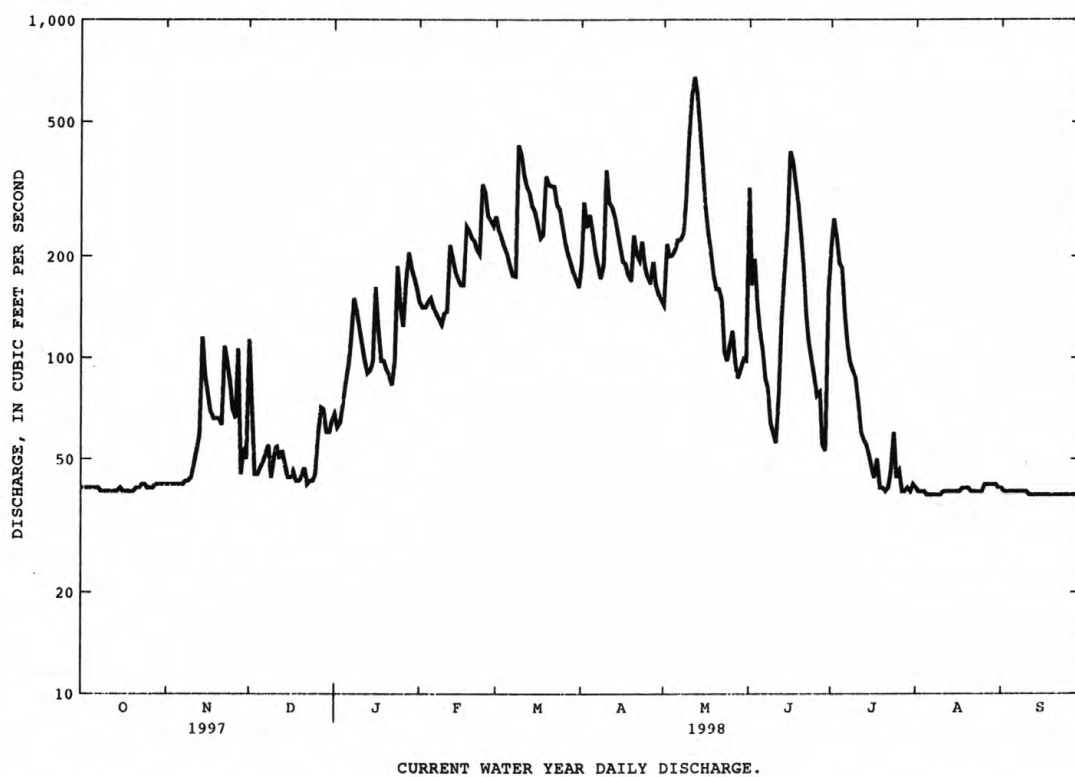
SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR	FOR 1998 WATER YEAR	WATER YEARS 1994 - 1998
ANNUAL TOTAL	40503	45228	
ANNUAL MEAN	111	124	141
HIGHEST ANNUAL MEAN			170
LOWEST ANNUAL MEAN			124
HIGHEST DAILY MEAN	511	678	954
LOWEST DAILY MEAN	39	39	15
ANNUAL SEVEN-DAY MINIMUM	39	39	16
10 PERCENT EXCEEDS	243	259	286
50 PERCENT EXCEEDS	59	86	114
90 PERCENT EXCEEDS	41	40	42

e Estimated



## HUDSON RIVER BASIN

01374701 WEST BRANCH CROTON RIVER NEAR CROTON FALLS, NY--Continued





## HUDSON RIVER BASIN

203

## 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 mi<sup>2</sup>.

**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 ft<sup>3</sup>/s, Jan. 28, 1996, gage height, 5.23 ft, from rating curve extended above 120 ft<sup>3</sup>/s; minimum discharge, 1.5 ft<sup>3</sup>/s, Sept. 3, 6, 1996; minimum gage height, 1.18 ft, Oct. 4, 5, 1995.

**EXTREMES FOR CURRENT YEAR.**--Maximum discharge, 135 ft<sup>3</sup>/s, May 31, gage height, 3.06 ft; minimum, 4.9 ft<sup>3</sup>/s, Oct. 29, 30, gage height, 1.62 ft; minimum gage height, 1.38 ft, Oct. 1, 2, 3, 4, 5, 6.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.1	6.9	8.0	6.3	59	77	50	54	94	19	11	8.1
2	6.3	6.7	8.3	6.1	59	77	43	55	93	19	11	8.4
3	6.3	5.5	8.2	6.1	58	76	42	55	93	19	11	8.3
4	6.2	5.3	8.2	6.0	59	76	42	55	92	19	11	8.3
5	6.3	5.5	8.2	6.0	58	76	42	55	92	19	11	8.3
6	6.4	5.5	7.4	6.1	67	76	42	56	92	19	11	8.2
7	6.6	5.6	7.0	6.4	71	76	42	56	91	19	11	8.2
8	6.4	8.2	6.9	6.6	70	76	41	56	91	19	11	8.2
9	6.2	8.8	6.8	6.3	69	81	53	57	78	19	11	8.3
10	6.4	8.2	6.8	6.1	68	78	93	60	68	14	9.7	8.3
11	6.9	8.0	6.7	6.1	68	88	104	60	68	10	8.3	8.2
12	6.8	8.1	6.6	6.1	69	118	104	59	69	10	8.3	8.1
13	6.6	8.2	6.4	9.4	69	126	103	81	69	10	8.3	8.1
14	6.6	8.6	6.3	21	69	126	103	93	69	11	8.2	8.1
15	7.0	8.2	6.3	32	68	126	103	92	68	11	8.0	8.1
16	6.8	8.1	6.3	43	68	125	102	92	68	10	8.0	8.2
17	6.6	8.1	6.3	45	68	124	101	92	54	10	8.0	8.2
18	6.1	7.9	6.2	44	69	124	101	92	40	10	8.0	8.0
19	5.7	7.7	6.1	44	69	126	101	92	39	10	8.0	8.1
20	5.5	7.6	6.1	44	68	125	88	92	38	10	8.1	8.1
21	5.5	7.4	6.0	43	68	125	69	91	38	10	8.0	8.1
22	5.4	8.4	6.0	43	68	124	69	91	38	10	8.0	8.6
23	5.6	7.7	6.3	57	74	124	69	91	30	11	8.0	8.4
24	5.7	7.5	6.0	62	80	123	69	91	20	10	8.0	8.6
25	7.0	7.5	6.6	61	78	123	69	91	19	10	8.0	8.5
26	6.9	7.2	6.1	61	78	122	69	91	19	10	9.4	8.5
27	7.3	7.8	5.8	60	78	121	70	91	19	10	8.2	8.7
28	7.1	8.2	5.8	60	77	120	69	90	19	10	8.2	8.5
29	6.5	8.1	7.0	59	---	119	69	91	19	10	8.2	8.5
30	5.2	8.0	7.6	59	---	119	62	90	20	10	8.1	8.5
31	5.7	---	6.5	59	---	86	---	93	---	11	8.1	---
TOTAL	195.7	224.5	208.8	980.6	1924	3283	2184	2405	1707	399	280.1	248.7
MEAN	6.31	7.48	6.74	31.6	68.7	106	72.8	77.6	56.9	12.9	9.04	8.29
MAX	7.3	8.8	8.3	62	80	126	104	93	94	19	11	8.7
MIN	5.2	5.3	5.8	6.0	58	76	41	54	19	10	8.0	8.0

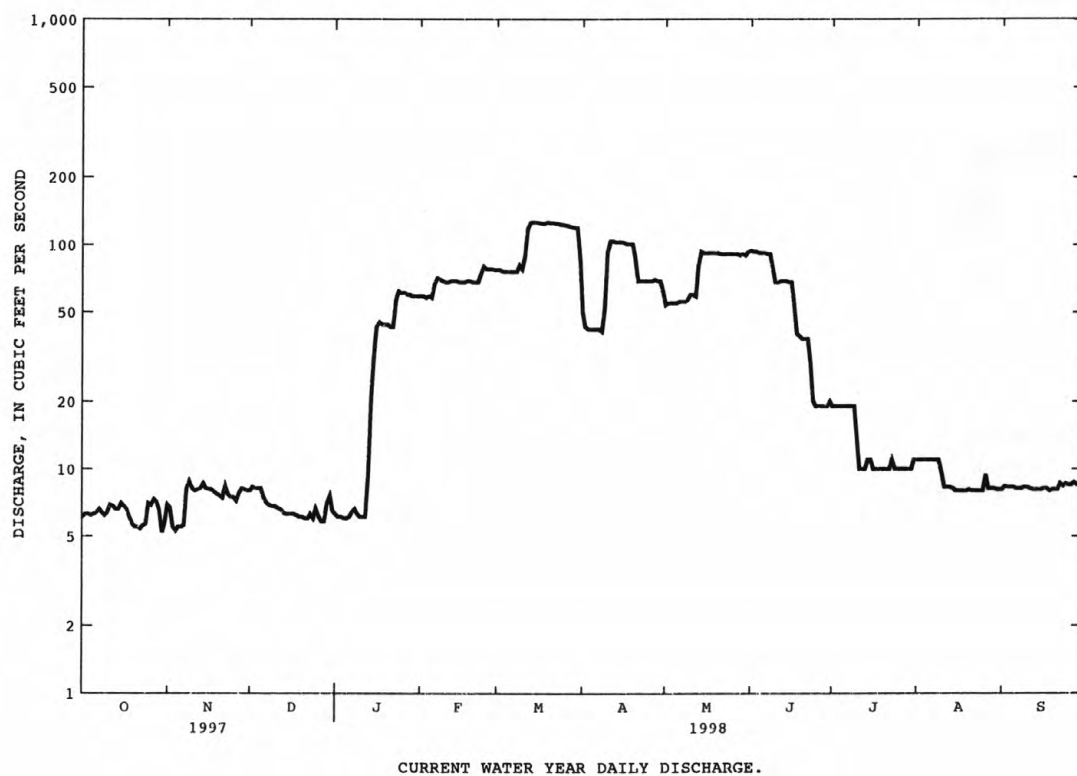
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1998, BY WATER YEAR (WY)

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
MEAN	27.6	34.4	53.3	66.9	61.7	69.3	72.6	58.6	37.6	47.5	16.1	12.4
MAX	81.3	64.3	133	109	73.7	106	89.1	88.8	56.9	113	37.1	22.9
(WY)	1997	1997	1997	1996	1996	1998	1996	1997	1998	1997	1994	1996
MIN	6.31	7.48	6.74	31.6	45.0	49.5	32.5	22.5	13.1	12.8	6.37	6.33
(WY)	1998	1998	1998	1998	1995	1995	1995	1995	1995	1995	1997	1995

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR	FOR 1998 WATER YEAR	WATER YEARS 1994 - 1998
ANNUAL TOTAL	16133.0	14040.4	
ANNUAL MEAN	44.2	38.5	45.8
HIGHEST ANNUAL MEAN			66.0
LOWEST ANNUAL MEAN			28.6
HIGHEST DAILY MEAN	214	Jul 15	492
LOWEST DAILY MEAN	4.7	Aug 5	3.5
ANNUAL SEVEN-DAY MINIMUM	4.9	Aug 4	4.0
10 PERCENT EXCEEDS	99		99
50 PERCENT EXCEEDS	30		33
90 PERCENT EXCEEDS	5.9	6.3	7.8



HUDSON RIVER BASIN  
01374821 TITICUS RIVER AT PURDYS STATION, NY--Continued





## 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 mi<sup>2</sup>.

**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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 676 ft<sup>3</sup>/s, Jan. 27, 1996, gage height, 5.87 ft, from rating curve extended above 230 ft<sup>3</sup>/s; minimum discharge, 0.62 ft<sup>3</sup>/s, Aug. 25, 1998, gage height, 1.27 ft.

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 250 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 9	1630	*308	*4.43	No other peak greater than base discharge.			

Minimum discharge, 0.62 ft<sup>3</sup>/s, Aug. 25, gage height, 1.27 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	16	25	e70	40	66	47	29	69	24	2.3	1.4
2	1.6	38	20	e60	37	63	76	56	47	14	1.8	1.4
3	1.6	30	18	46	35	59	59	46	51	9.5	1.5	1.8
4	1.6	22	19	44	35	52	51	41	38	6.1	1.3	1.4
5	1.6	14	19	44	55	48	45	31	21	10	1.2	1.2
6	1.7	9.9	20	42	50	44	41	38	14	7.1	1.1	1.1
7	1.5	7.6	17	45	43	41	38	42	14	5.9	1.0	1.5
8	1.5	38	16	60	38	40	36	33	15	5.7	.95	2.8
9	1.5	83	15	54	34	198	40	61	14	6.7	.89	1.8
10	1.5	73	16	49	31	182	127	123	12	5.5	.88	1.6
11	1.5	56	17	43	30	135	87	171	12	4.4	1.2	1.4
12	1.5	41	17	39	79	100	71	162	24	3.6	3.7	1.2
13	2.5	30	17	37	65	83	59	123	44	3.1	1.6	1.1
14	4.9	32	16	33	54	80	52	98	47	2.8	1.4	1.0
15	3.9	38	e15	30	e40	79	49	80	40	2.5	1.3	.98
16	3.6	35	e11	55	e38	70	46	68	36	2.3	1.2	1.0
17	3.0	29	13	47	40	62	47	60	27	2.2	1.3	1.1
18	2.5	23	13	42	98	63	47	57	22	2.1	1.7	.97
19	2.2	20	12	38	91	113	43	51	16	1.8	1.7	.86
20	2.0	18	12	35	81	109	64	35	14	1.8	1.2	.79
21	1.9	17	12	31	70	92	51	33	13	1.8	1.1	.74
22	1.7	35	18	28	60	85	45	25	12	1.6	.97	2.1
23	1.7	33	24	39	54	77	43	23	11	9.1	.89	1.9
24	1.7	29	26	113	91	73	44	21	11	18	.86	1.3
25	3.9	24	43	94	114	66	38	26	9.4	9.5	.73	1.2
26	4.6	22	45	78	85	60	39	37	8.3	6.3	13	1.1
27	8.1	22	40	64	71	56	43	29	7.3	4.4	6.3	1.2
28	6.5	19	37	56	63	51	37	22	6.4	3.4	4.1	2.1
29	5.0	18	40	50	---	48	33	22	5.5	2.4	3.0	1.6
30	4.3	22	103	47	---	44	30	36	14	1.9	2.2	1.4
31	3.8	---	75	43	---	41	---	26	---	2.3	1.7	---
TOTAL	86.7	894.5	791	1556	1622	2380	1528	1705	674.9	181.8	64.07	41.04
MEAN	2.80	29.8	25.5	50.2	57.9	76.8	50.9	55.0	22.5	5.86	2.07	1.37
MAX	8.1	83	103	113	114	198	127	171	69	24	13	2.8
MIN	1.5	7.6	11	28	30	40	30	21	5.5	1.6	.73	.74
CFSM	.16	1.74	1.49	2.94	3.39	4.49	2.98	3.22	1.32	.34	.12	.08
IN.	.19	1.95	1.72	3.38	3.53	5.18	3.32	3.71	1.47	.40	.14	.09

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 1998, BY WATER YEAR (WY)**

MEAN	32.0	40.6	68.5	61.2	54.8	56.7	61.2	44.2	16.2	17.4	5.66	6.54
MAX	61.2	51.3	111	89.7	59.8	76.8	72.9	55.0	22.5	35.9	7.55	15.7
(WY)	1997	1997	1997	1996	1996	1998	1996	1998	1998	1996	1996	1996
MIN	2.80	29.8	25.5	43.6	46.5	39.0	50.9	35.5	10.1	5.86	2.07	1.37
(WY)	1998	1998	1998	1997	1997	1997	1998	1996	1997	1998	1998	1998

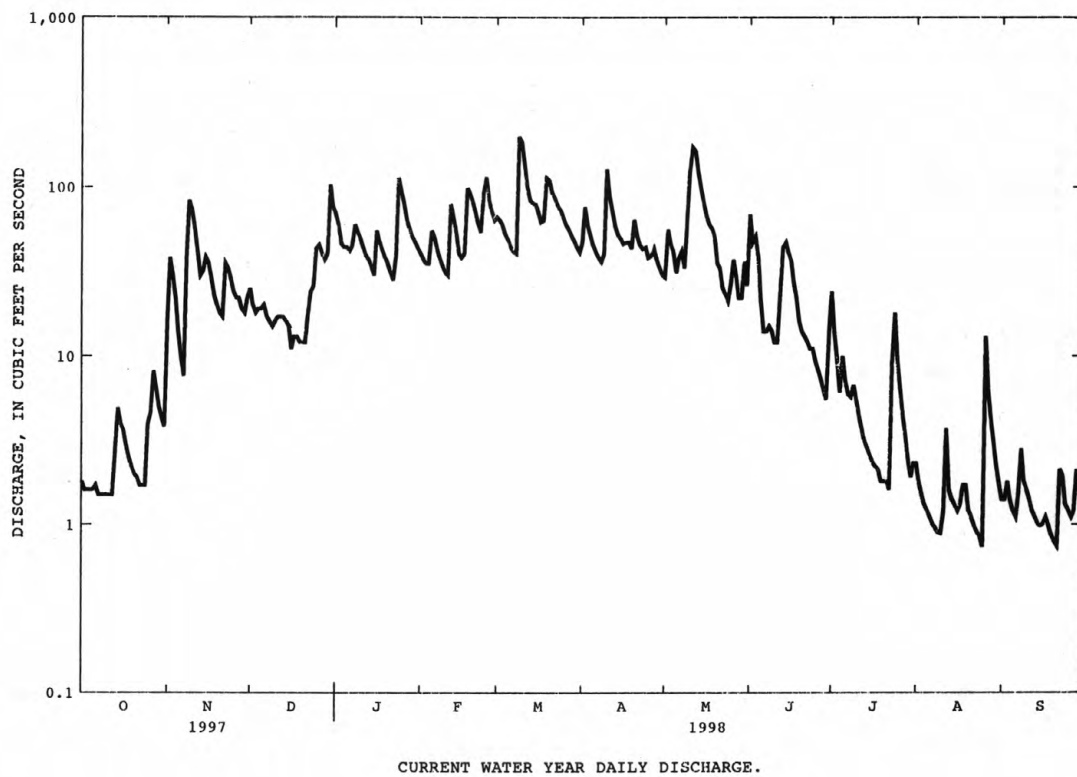
SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1996 - 1998	
ANNUAL TOTAL	9670.1		11525.01			
ANNUAL MEAN	26.5		31.6		36.0	
HIGHEST ANNUAL MEAN					40.5	
LOWEST ANNUAL MEAN					31.6	
HIGHEST DAILY MEAN	140	Jan 25	198	Mar 9	362	Jan 28 1996
LOWEST DAILY MEAN	1.3	Aug 12	.73	Aug 25	.73	Aug 25 1998
ANNUAL SEVEN-DAY MINIMUM	1.4	Sep 22	.92	Sep 15	.92	Sep 15 1998
ANNUAL RUNOFF (CFSM)	1.55		1.85		2.11	
ANNUAL RUNOFF (INCHES)	21.04		25.07		28.64	
10 PERCENT EXCEEDS	59		72		81	
50 PERCENT EXCEEDS	21		24		29	
90 PERCENT EXCEEDS	2.0		1.4		2.1	

e Estimated



## HUDSON RIVER BASIN

01374890 CROSS RIVER NEAR CROSS RIVER, NY--Continued





## HUDSON RIVER BASIN

207

## 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 mi<sup>2</sup>.

**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. Mar. 16, 1994 to Feb. 3, 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 ft<sup>3</sup>/s, Mar. 29, 1994, gage height, 1.92 ft, site and datum then in use, from rating curve extended above 120 ft<sup>3</sup>/s; maximum gage height, 4.54 ft, May 11, 1998 (present site); minimum recorded discharge, 0.01 ft<sup>3</sup>/s, part or all of each day, Oct. 7-9, 14-18, 27-28, Nov. 3-4, 1997, gage height, 1.53 ft, but may have been less during these days.

**EXTREMES FOR CURRENT YEAR.**--Maximum discharge, 339 ft<sup>3</sup>/s, May 11, gage height, 4.54 ft, from rating curve extended above 120 ft<sup>3</sup>/s; minimum recorded discharge, 0.01 ft<sup>3</sup>/s, part or all of each day, Oct. 7-9, 14-18, 27-28, Nov. 3-4, gage height, 1.53 ft, but may have been less during these days.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	.51	.50	1.3	.41	1.9	80	65	98	27	19	11
2	3.6	.51	.54	1.5	.41	2.1	148	101	64	24	19	11
3	3.8	e.15	.61	1.5	.41	2.1	106	92	58	20	19	12
4	4.0	e.03	.61	1.6	.45	9.2	85	79	47	17	19	11
5	4.0	.06	.66	1.6	.68	23	73	71	37	18	19	11
6	3.9	.06	.70	1.7	.45	23	67	78	30	17	19	11
7	e5.0	.03	.72	1.7	.49	23	64	83	27	15	18	11
8	e5.0	.59	.72	1.5	.50	23	63	73	26	15	18	11
9	e1.5	.27	.72	1.3	.54	23	73	104	27	14	17	11
10	5.0	.17	.72	1.3	.53	20	274	242	26	15	14	11
11	.24	.13	.72	1.3	.52	21	186	324	25	15	12	11
12	.30	.10	.73	1.3	1.2	21	126	274	35	15	12	12
13	.37	.11	.72	1.3	.72	21	98	190	50	15	12	12
14	e.15	.20	.72	1.3	e.70	21	91	145	59	15	11	12
15	e.01	.17	.78	1.4	e.66	21	81	112	49	15	11	12
16	e.01	.20	.84	1.5	.73	21	77	93	43	15	11	e12
17	e.02	.17	.84	.98	.87	22	77	77	37	15	11	e12
18	e.02	.14	.84	.98	1.5	22	77	70	33	15	11	e12
19	.02	.15	.84	.97	1.2	50	74	67	31	15	11	e12
20	.93	.15	.87	.46	1.1	160	112	58	28	15	11	e12
21	.04	.16	.84	.18	1.1	153	93	54	28	15	11	e12
22	.08	.34	1.1	.37	1.1	151	74	45	24	15	10	e12
23	.16	.26	1.1	.99	1.1	129	69	42	20	15	11	e12
24	.20	.24	.94	1.1	2.3	119	74	40	20	15	11	e12
25	.32	.24	1.3	.72	1.8	107	63	43	19	14	11	e12
26	.29	.24	.98	.72	1.6	96	69	51	19	14	11	e12
27	e.15	.24	.98	.72	1.8	89	86	47	17	14	11	e12
28	e.20	.26	.98	.72	1.9	84	74	41	16	15	11	e12
29	.20	.26	1.4	.50	---	78	68	40	16	15	11	e12
30	.20	.37	e1.3	.36	---	74	65	52	22	18	11	e12
31	.22	---	e1.2	.41	---	71	---	46	---	19	11	---
TOTAL	43.53	6.51	26.52	33.28	26.77	1681.3	2767	2899	1031	501	414	350
MEAN	1.40	.22	.86	1.07	.96	54.2	92.2	93.5	34.4	16.2	13.4	11.7
MAX	5.0	.59	1.4	1.7	2.3	160	274	324	98	27	19	12
MIN	.01	.03	.50	.18	.41	1.9	63	40	16	14	10	11

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1998, BY WATER YEAR (WY)**

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
MEAN	22.8	26.7	55.1	68.2	70.3	79.0	89.6	79.0	42.5	40.4	38.4	25.9
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	1.40	.22	.86	1.07	.96	54.2	38.2	25.9	14.6	12.4	5.12	4.55
(WY)	1998	1998	1998	1998	1998	1998	1995	1995	1995	1997	1997	1997

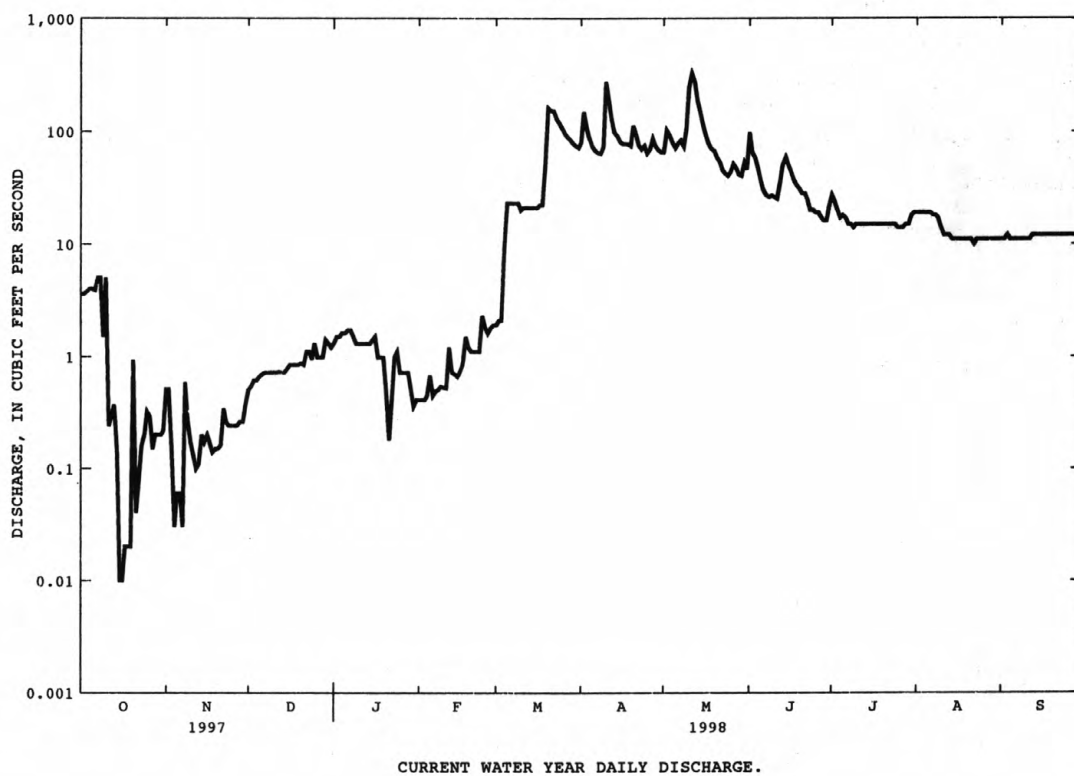
**SUMMARY STATISTICS FOR 1997 CALENDAR YEAR FOR 1998 WATER YEAR WATER YEARS 1994 - 1998**

	1997	1998	1999	2000	2001	2002	2003	2004	2005
ANNUAL TOTAL	20285.01	9779.91							
ANNUAL MEAN	55.6	26.8							
HIGHEST ANNUAL MEAN			52.0						
LOWEST ANNUAL MEAN			71.4						
HIGHEST DAILY MEAN	208	Jan 25	324	May 11					
LOWEST DAILY MEAN	.01	Oct 15	.01	Oct 15					
ANNUAL SEVEN-DAY MINIMUM	.09	Oct 13	.09	Oct 13					
10 PERCENT EXCEEDS	184		78						
50 PERCENT EXCEEDS	18		11						
90 PERCENT EXCEEDS	.20		.24						

e Estimated



HUDSON RIVER BASIN  
01374901 CROSS RIVER AT KATONAH, NY--Continued





## 01374930 MUSCOT 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 mi<sup>2</sup>.

**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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 449 ft<sup>3</sup>/s, Jan. 20, 1996, gage height, 6.79 ft; minimum, 0.39 ft<sup>3</sup>/s, Aug. 13, 1997, gage height, 3.63 ft.

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 130 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
May 11	0345	146	5.58	June 1	0815	*210	*5.93

Minimum discharge, 0.79 ft<sup>3</sup>/s, Aug. 16, 17, gage height, 3.69 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	4.1	16	e30	39	33	33	18	161	54	1.6	1.6
2	12	22	16	25	36	27	74	51	86	26	1.4	1.6
3	12	38	14	24	35	24	50	46	79	19	1.3	5.1
4	12	21	14	24	34	21	40	36	64	16	1.2	2.2
5	12	15	15	26	45	20	36	33	49	15	1.1	1.8
6	11	13	16	25	43	19	33	40	41	13	1.1	1.5
7	11	12	15	27	e35	18	32	47	35	13	1.0	2.4
8	11	17	14	41	e33	18	31	39	31	13	.98	5.6
9	11	44	13	41	e32	76	32	50	28	15	.95	2.5
10	7.0	37	13	36	32	81	96	96	26	13	.98	2.0
11	3.3	24	14	31	31	48	66	136	24	11	1.9	1.7
12	3.1	21	14	27	46	33	49	115	24	10	2.1	1.5
13	3.2	18	13	26	34	e28	43	91	54	9.8	1.1	1.4
14	3.3	19	13	e24	23	27	39	75	81	9.0	.97	1.3
15	3.4	22	e13	e23	e22	30	39	62	58	4.7	.92	1.3
16	3.8	19	e12	37	e20	27	38	52	65	3.1	.84	1.3
17	3.9	18	12	34	18	23	37	46	60	2.8	.96	1.2
18	3.8	16	12	28	40	25	37	41	51	2.6	6.9	1.1
19	4.0	15	11	25	38	52	25	35	44	2.3	3.9	1.1
20	4.0	15	e11	24	32	51	43	32	36	2.2	2.2	1.1
21	3.1	15	e10	e23	27	36	31	51	31	2.1	1.8	1.1
22	2.4	24	e12	23	24	35	25	40	28	2.1	1.6	5.9
23	2.4	25	14	37	22	34	23	33	26	5.2	1.4	6.2
24	2.5	20	15	85	33	35	30	24	25	5.4	1.4	4.2
25	4.4	17	26	74	46	34	24	25	23	2.7	1.2	3.9
26	4.7	16	30	60	32	31	23	33	21	2.3	19	3.8
27	7.7	16	21	55	26	29	33	24	14	1.9	9.7	3.8
28	5.4	13	18	52	24	26	24	21	12	1.8	3.6	6.3
29	3.3	11	e20	49	---	31	21	19	11	1.8	2.7	9.3
30	2.9	10	50	47	---	32	19	24	37	1.6	2.1	11
31	2.7	---	38	45	---	31	---	21	---	1.7	1.8	---
TOTAL	188.3	577.1	525	1128	902	1035	1126	1456	1325	283.1	79.70	94.8
MEAN	6.07	19.2	16.9	36.4	32.2	33.4	37.5	47.0	44.2	9.13	2.57	3.16
MAX	12	44	50	85	46	81	96	136	161	54	19	11
MIN	2.4	4.1	10	23	18	18	19	18	11	1.6	.84	1.1
CFSM	.45	1.42	1.25	2.70	2.39	2.47	2.78	3.48	3.27	.68	.19	.23
IN.	.52	1.59	1.45	3.11	2.49	2.85	3.10	4.01	3.65	.78	.22	.26

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 1998, BY WATER YEAR (WY)**

	1996	1997	1998	1996	1997	1998	1996	1997	1998	1996	1997	1998
MEAN	22.4	38.0	39.4	44.5	36.3	34.0	46.8	43.4	21.3	22.6	4.29	6.78
MAX	33.3	53.1	80.4	61.9	49.8	37.6	56.8	47.0	44.2	55.3	6.14	14.3
(WY)	1997	1996	1997	1996	1996	1996	1997	1998	1998	1996	1996	1996
MIN	6.07	19.2	16.9	35.1	26.4	30.9	37.5	39.7	6.65	3.26	2.57	2.93
(WY)	1998	1998	1998	1997	1997	1997	1998	1996	1997	1997	1998	1997

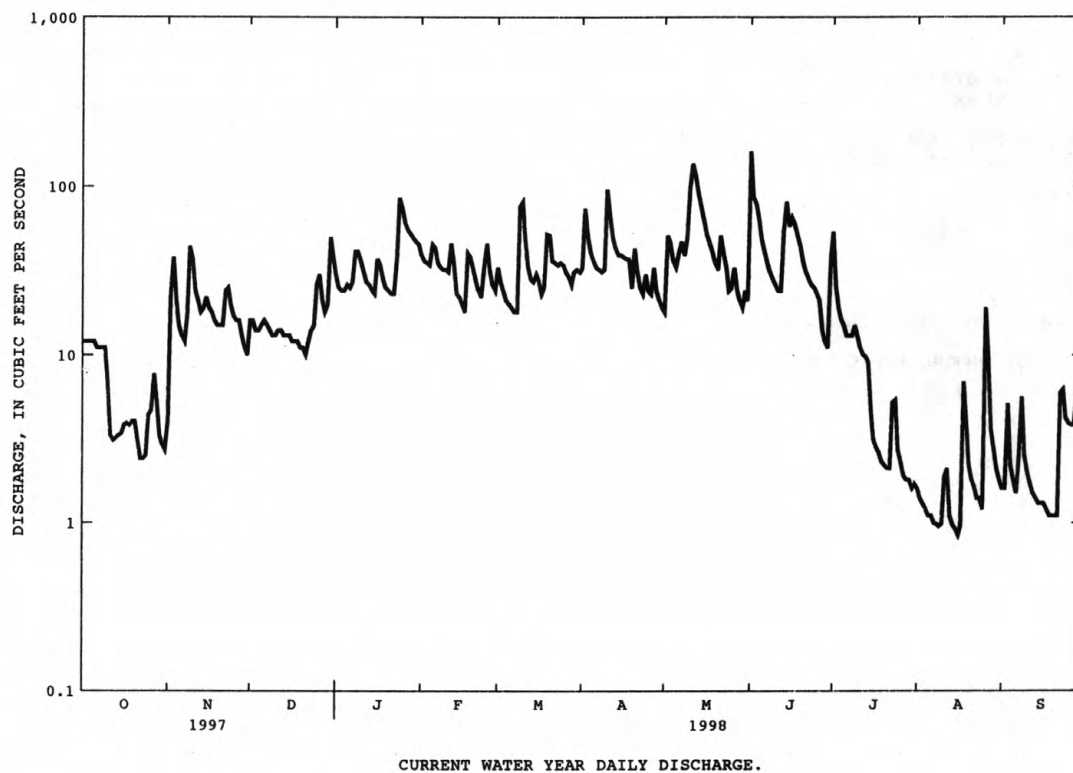
SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR	FOR 1998 WATER YEAR	WATER YEARS 1996 - 1998
ANNUAL TOTAL	7643.49	8720.00	
ANNUAL MEAN	20.9	23.9	29.9
HIGHEST ANNUAL MEAN			35.4
LOWEST ANNUAL MEAN			23.9
HIGHEST DAILY MEAN	166 May 4	161 Jun 1	317 Jan 20 1996
LOWEST DAILY MEAN	.45 Aug 12	.84 Aug 16	.45 Aug 12 1997
ANNUAL SEVEN-DAY MINIMUM	.53 Aug 6	1.0 Aug 4	.53 Aug 6 1997
ANNUAL RUNOFF (CFSM)	1.55	1.77	2.22
ANNUAL RUNOFF (INCHES)	21.06	24.03	30.14
10 PERCENT EXCEEDS	45	49	64
50 PERCENT EXCEEDS	15	21	24
90 PERCENT EXCEEDS	1.9	1.8	2.2

e Estimated



HUDSON RIVER BASIN

01374930 MUSCOOT RIVER AT BALDWIN PLACE, NY--Continued





## HUDSON RIVER BASIN

211

## 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 mi<sup>2</sup>.

**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 poor. Flow regulated by Amawalk Reservoir. Telephone gage-height telemeter at station.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 283 ft<sup>3</sup>/s, July 16, 1996, gage height, 10.02 ft, from rating curve extended above 120 ft<sup>3</sup>/s; minimum discharge not determined.

**EXTREMES FOR CURRENT YEAR.**--Maximum discharge, 90 ft<sup>3</sup>/s, June 2, gage height, 9.39 ft; minimum discharge not determined.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.9	9.7	10	e11	e12	e25	e25	e25	75	31	26	20
2	e8.0	9.7	10	e11	e12	e25	e25	e25	84	32	26	20
3	9.5	9.7	10	e11	e12	e25	e25	e25	80	31	26	20
4	9.5	9.7	e10	e11	e12	e25	e25	e25	73	30	26	20
5	9.5	9.6	e10	e11	e12	e25	e25	e25	64	30	25	20
6	9.5	9.6	e10	e11	e12	e25	e25	e25	56	29	24	20
7	9.5	9.5	e10	e11	e12	e25	e25	e25	49	27	24	20
8	9.6	9.6	e10	e11	e12	e25	e25	e25	42	26	24	21
9	9.6	9.5	e10	e11	e12	e25	e25	e25	29	25	24	21
10	9.5	9.6	e10	e11	e12	e25	e25	e25	24	25	21	21
11	9.5	9.5	e10	e11	e20	e25	e25	e25	24	26	20	21
12	9.5	9.4	e10	e11	e20	e25	e25	e35	25	26	20	21
13	9.7	9.4	e10	e11	e20	e25	e25	e40	39	26	20	21
14	9.7	9.4	e10	e11	e20	e25	e25	e60	63	26	20	20
15	9.7	9.4	e10	e11	e20	e25	e25	e55	67	26	20	20
16	9.7	9.4	e10	e11	e20	e25	e25	e50	69	26	19	21
17	9.8	9.4	e10	e11	e20	e25	e25	e45	66	26	19	21
18	10	9.4	e10	e11	e20	e25	e25	e40	63	26	20	20
19	10	9.4	e10	e11	e20	e25	e25	e40	63	25	20	20
20	10	9.4	e10	e11	e20	e25	e25	e40	59	25	20	20
21	10	9.4	e10	e12	e20	e25	e25	39	52	25	20	20
22	10	9.4	e10	e12	e20	e25	e25	48	43	26	20	20
23	10	9.4	e10	e12	e20	e25	e25	48	36	26	20	20
24	10	9.4	e10	e12	e20	e25	e25	41	33	26	20	20
25	10	9.5	e10	e12	e20	e25	e25	37	31	26	20	20
26	10	9.6	e10	e12	e20	e25	e25	39	29	26	20	21
27	9.7	9.7	e10	e12	e20	e25	e25	37	28	26	20	21
28	9.5	10	e10	e12	e25	e25	e25	33	27	26	20	21
29	9.4	10	e10	e12	---	e25	e25	31	26	27	20	21
30	9.4	10	e10	e12	---	e25	e25	31	27	27	20	21
31	9.5	---	e11	e12	---	e25	---	31	---	26	20	---
TOTAL	298.2	286.7	311	352	485	775	750	1095	1446	831	664	613
MEAN	9.62	9.56	10.0	11.4	17.3	25.0	25.0	35.3	48.2	26.8	21.4	20.4
MAX	10	10	11	12	25	25	25	60	84	32	26	21
MIN	8.0	9.4	10	11	12	25	25	25	24	25	19	20

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1998, BY WATER YEAR (WY)**

	1994	1995	1996	1997	1998
MEAN	23.2	25.3	45.3	40.5	42.3
MAX	51.0	54.1	112	65.7	65.9
(WY)	1997	1997	1997	1995	1996
MIN	9.62	9.56	10.0	11.4	17.3
(WY)	1998	1998	1998	1998	1998

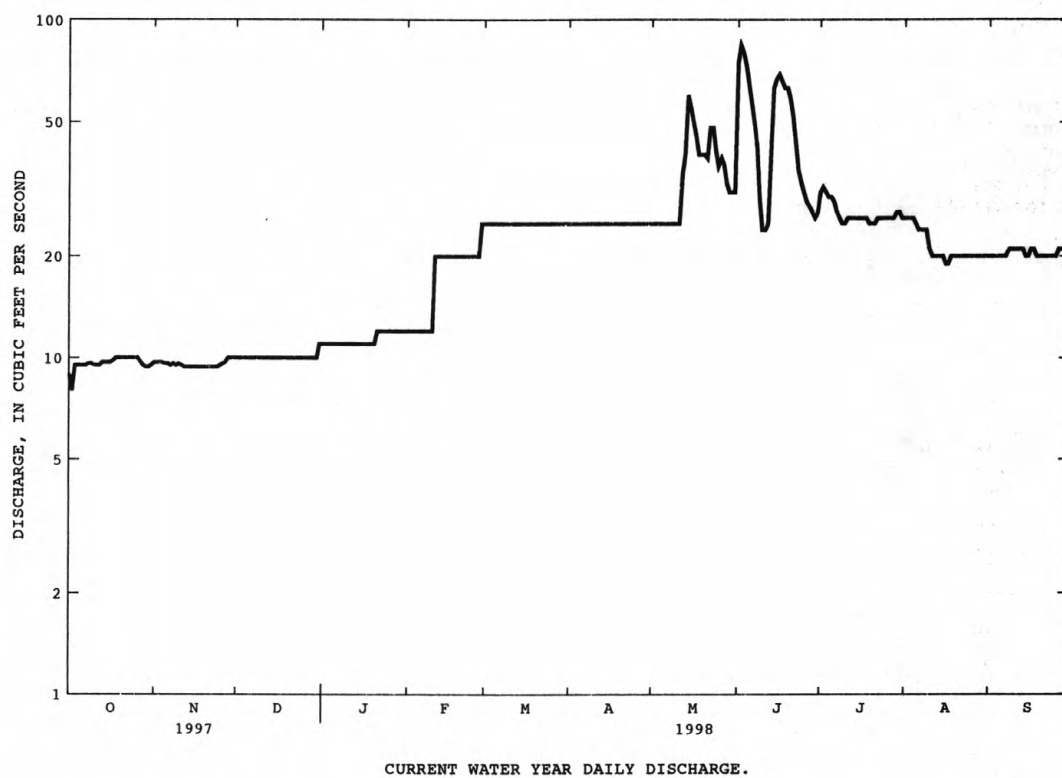
SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR	FOR 1998 WATER YEAR	WATER YEARS 1994 - 1998
ANNUAL TOTAL	10185.2	7906.9	
ANNUAL MEAN	27.9	21.7	34.4
HIGHEST ANNUAL MEAN			44.2
LOWEST ANNUAL MEAN			21.7
HIGHEST DAILY MEAN	137	May 10	269
LOWEST DAILY MEAN	6.7	Sep 24	2.9
ANNUAL SEVEN-DAY MINIMUM	8.1	Sep 24	4.2
10 PERCENT EXCEEDS	70		74
50 PERCENT EXCEEDS	14		25
90 PERCENT EXCEEDS	9.4	9.6	12

e Estimated



## HUDSON RIVER BASIN

01374941 MUSCOOT RIVER BELOW DAM AT AMAWALK, NY--Continued





## HUDSON RIVER BASIN

213

## 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 mi<sup>2</sup>.

**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 fair except those for estimated daily discharges and those below 1.0 ft<sup>3</sup>/s, which are poor. Telephone gage-height telemeter at station.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 200 ft<sup>3</sup>/s, July 15, 1996, gage height, 4.20 ft, present datum; minimum discharge, no flow, part or all of many days during July to October 1997, July to September 1998.

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 80 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 9	0745	127	3.44	May 31	2345	*156	*3.76

Minimum discharge, no flow, part or all of many days during October, July to September.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	3.1	2.4	e3.5	4.4	8.8	12	4.0	37	3.9	.00	.00
2	.00	7.4	1.8	3.7	4.2	7.0	18	17	6.9	1.5	.00	.02
3	.00	5.7	1.4	4.4	4.1	6.3	8.4	7.8	14	1.1	.00	.10
4	.00	1.9	1.5	5.1	4.5	5.5	7.1	6.5	5.0	.92	.00	.00
5	.03	1.1	2.1	4.7	9.5	5.0	6.5	7.0	3.8	1.2	.00	.00
6	.00	.77	2.3	4.5	6.1	4.6	6.0	7.9	3.1	.79	.00	.00
7	.00	.66	1.7	6.4	e4.2	4.5	5.5	7.7	2.8	.72	.00	.84
8	.00	9.5	1.5	12	e3.8	6.0	5.2	6.1	2.5	.91	.00	.70
9	.00	16	1.3	8.8	e3.5	60	8.6	15	2.2	1.0	.00	.18
10	.00	8.4	1.3	6.7	3.5	22	32	36	1.8	.72	.00	.07
11	.00	3.2	1.5	5.2	3.7	e11	11	33	1.6	.52	.09	.00
12	.00	1.8	1.7	4.5	16	e9.0	8.0	20	6.6	.37	.00	.00
13	.00	1.3	1.6	e4.2	6.7	8.1	7.2	13	11	.28	.00	.00
14	.00	3.5	1.5	4.0	e3.5	10	6.7	11	13	.20	.00	.00
15	.00	4.4	1.3	3.9	e3.0	9.3	6.6	9.0	8.5	.17	.00	.00
16	.11	3.8	1.2	13	3.3	7.6	6.3	7.9	8.1	.16	.00	.00
17	.03	2.8	1.3	6.9	4.8	6.7	7.2	7.5	4.4	.17	.00	.00
18	.00	2.2	1.2	5.4	16	8.3	6.3	6.8	3.6	.08	.11	.00
19	.00	1.8	1.2	5.1	11	29	6.0	5.8	2.8	.00	.10	.00
20	.00	1.6	1.3	4.6	7.6	15	14	6.8	2.8	.00	.60	.00
21	.00	1.5	e1.1	4.0	6.6	11	7.0	7.6	4.0	.00	.00	.00
22	.00	7.7	e.96	3.6	5.7	11	5.5	4.5	2.4	.00	.00	1.1
23	.00	4.6	3.2	8.8	5.4	11	6.4	3.7	2.4	3.1	.00	.18
24	.00	2.7	3.1	22	16	11	6.7	3.0	2.2	1.2	.00	.00
25	2.1	1.9	11	9.8	12	9.1	4.9	4.8	1.7	.35	.00	.00
26	1.1	1.9	7.3	6.9	7.5	8.1	6.7	5.5	1.4	.14	7.5	.00
27	4.6	2.1	4.4	6.0	6.6	7.5	7.0	3.1	1.2	.01	.78	.16
28	1.7	1.7	e3.3	6.0	6.6	7.0	4.9	2.4	1.1	.00	.18	.40
29	.69	1.5	e6.2	5.5	---	6.4	4.3	3.9	1.1	.00	.06	.02
30	.47	1.7	18	5.2	---	5.9	4.0	5.3	5.4	.00	.00	.00
31	.42	---	e4.5	4.9	---	5.5	---	7.8	---	.06	.00	---
TOTAL	11.25	108.23	94.16	199.3	189.8	337.2	246.0	287.4	164.4	19.57	8.82	3.77
MEAN	.36	3.61	3.04	6.43	6.78	10.9	8.20	9.27	5.48	.63	.28	.13
MAX	4.6	16	18	22	16	60	32	36	37	3.9	7.5	1.1
MIN	.00	.66	.96	3.5	3.0	4.5	4.0	2.4	1.1	.00	.00	.00
CFSM	.12	1.20	1.01	2.14	2.25	3.61	2.72	3.08	1.82	.21	.09	.04
IN.	.14	1.34	1.16	2.46	2.35	4.17	3.04	3.55	2.03	.24	.11	.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 1998, BY WATER YEAR (WY)

	1996	1997	1998	1996	1997	1998	1996	1997	1998	1996	1997	1998
MEAN	4.49	4.91	10.0	9.58	7.37	8.56	9.61	7.39	3.40	4.70	.99	1.09
MAX	8.61	6.21	17.1	14.6	8.72	10.9	10.8	9.27	5.48	12.7	1.42	3.02
(WY)	1997	1997	1997	1996	1996	1998	1996	1998	1998	1996	1997	1996
MIN	.36	3.61	3.04	6.43	6.58	6.41	8.20	6.21	1.53	.63	.28	.12
(WY)	1998	1998	1998	1998	1997	1997	1998	1996	1997	1998	1998	1997

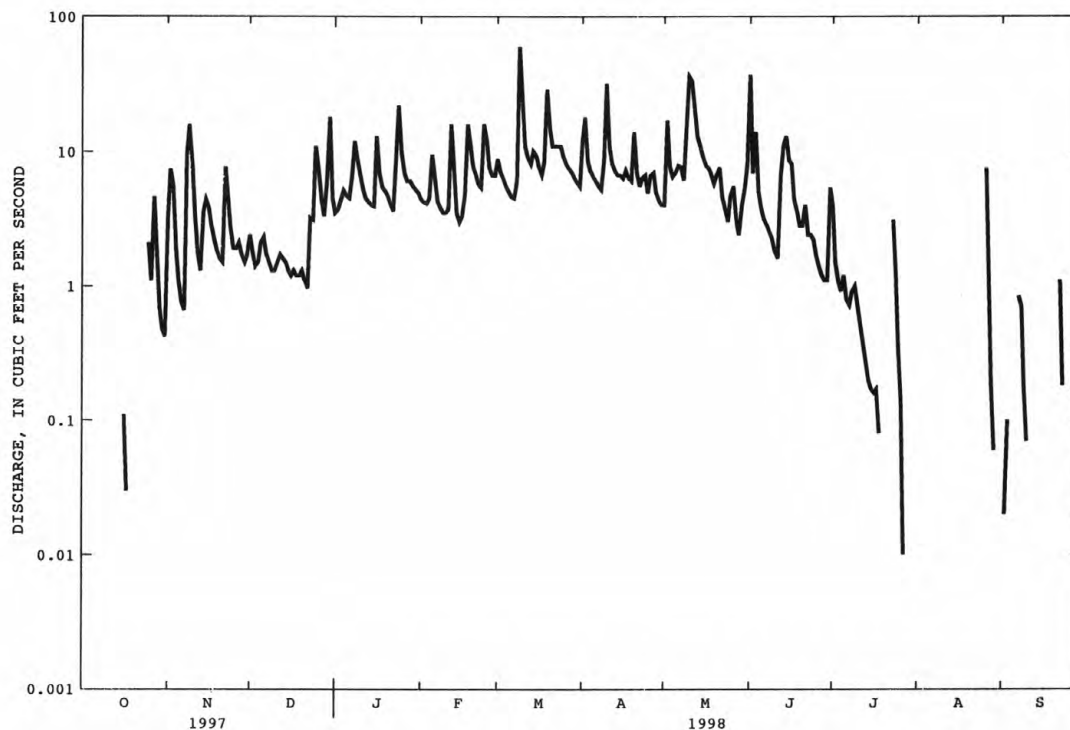
e Estimated



## HUDSON RIVER BASIN

## 01374976 ANGLE FLY BROOK AT WHITEHALL CORNERS, NY--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1996 - 1998	
ANNUAL TOTAL	1455.64		1669.90			
ANNUAL MEAN	3.99		4.58		5.33	
HIGHEST ANNUAL MEAN					6.09	
LOWEST ANNUAL MEAN					4.58	
HIGHEST DAILY MEAN	40	Jan 16	60	Mar 9	85	Jul 13 1996
LOWEST DAILY MEAN	.00	Jul 20	.00	Oct 1	.00	Jul 20 1997
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 16	.00	Oct 6	.00	Sep 16 1997
ANNUAL RUNOFF (CFSM)	1.32		1.52		1.77	
ANNUAL RUNOFF (INCHES)	17.99		20.64		24.08	
10 PERCENT EXCEEDS	8.3		10		12	
50 PERCENT EXCEEDS	2.4		3.2		4.0	
90 PERCENT EXCEEDS	.00		.00		.04	



CURRENT WATER YEAR DAILY DISCHARGE. ZERO FLOWS ARE PLOTTED AS 0.001 DISCHARGE, WHICH MAY INCLUDE THE DAILY MINIMUM FOR PERIOD OF RECORD.



## 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 Yeshiya Nitra Road off Pines Bridge Road, and 0.8 mi northwest of Mount Kisco.

**DRAINAGE AREA.**--17.6 mi<sup>2</sup>.

**PERIOD OF RECORD.**--Occasional low-flow and/or miscellaneous discharge measurements, water years 1974, 1976-77. October 1995 to current year.

**REVISED RECORDS.**--WDR NY-97-1: Drainage area.

**GAGE.**--Water-stage recorder and crest-stage gage. Elevation of gage is 250 ft above sea level, from topographic map.

**REMARKS.**--No estimated daily discharges. Records good. Telephone gage-height telemeter at station.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 710 ft<sup>3</sup>/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 ft<sup>3</sup>/s; minimum discharge, 0.79 ft<sup>3</sup>/s, Aug. 25, 1998, gage height, 1.05 ft.

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 300 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 9	1715	*360	*4.20	No other peak greater than base discharge.			

Minimum discharge, 0.79 ft<sup>3</sup>/s, Aug. 25, gage height, 1.05 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.9	19	15	43	29	44	47	26	76	19	2.5	1.4
2	3.6	58	13	28	28	40	138	88	32	10	1.8	2.1
3	3.5	51	11	29	27	40	63	54	31	7.6	1.6	9.1
4	3.2	18	12	31	28	36	46	36	20	6.5	1.5	4.1
5	3.3	11	14	29	59	33	41	35	16	9.6	1.7	2.4
6	2.8	8.3	16	26	51	30	38	41	14	7.8	1.6	1.7
7	2.3	7.2	13	33	32	29	35	37	13	6.4	1.4	2.8
8	2.1	34	12	59	28	31	33	32	12	6.5	1.2	9.7
9	2.3	112	11	44	26	224	37	61	12	7.7	1.1	5.0
10	2.3	70	11	37	25	164	169	144	11	6.3	1.0	2.9
11	2.2	27	13	29	25	76	79	189	10	4.9	2.5	2.2
12	2.3	17	13	26	98	58	51	144	22	4.3	3.3	2.1
13	2.5	13	13	26	64	51	45	86	57	4.0	1.8	1.6
14	2.7	24	12	25	37	58	41	67	63	3.8	1.5	1.3
15	3.7	31	11	23	30	63	40	57	34	3.6	1.3	1.3
16	5.3	23	10	70	28	47	39	49	32	3.5	1.1	1.4
17	4.1	18	11	48	31	42	41	49	29	3.6	1.7	1.3
18	3.5	15	11	33	115	46	45	44	43	3.4	4.9	1.0
19	3.3	13	10	30	82	134	37	37	21	2.9	7.6	.98
20	3.2	12	11	28	56	113	76	35	16	2.9	3.0	.98
21	2.7	12	11	26	47	72	46	32	15	2.8	2.0	.97
22	2.5	35	11	24	41	71	35	25	13	2.5	1.6	12
23	2.4	29	25	36	38	65	36	22	13	9.6	1.3	6.2
24	2.6	18	28	152	82	65	44	21	13	11	1.1	2.8
25	12	14	49	80	98	56	33	26	11	4.5	.87	2.0
26	13	13	50	50	55	50	34	62	9.8	3.0	32	2.0
27	22	13	28	42	46	46	46	28	8.8	2.4	15	2.6
28	15	12	24	40	43	42	32	21	7.9	2.2	4.6	12
29	8.2	12	28	37	---	39	28	21	7.7	2.0	2.8	5.0
30	6.7	12	113	35	---	38	26	40	16	1.9	2.3	3.0
31	5.8	---	55	32	---	35	---	23	---	3.0	1.9	---
TOTAL	156.0	751.5	665	1251	1349	1938	1501	1632	679.2	169.2	109.57	103.93
MEAN	5.03	25.0	21.5	40.4	48.2	62.5	50.0	52.6	22.6	5.46	3.53	3.46
MAX	22	112	113	152	115	224	169	189	76	19	32	12
MIN	2.1	7.2	10	23	25	29	26	21	7.7	1.9	.87	.97
CFSM	.29	1.42	1.22	2.29	2.74	3.55	2.84	2.99	1.29	.31	.20	.20
IN.	.33	1.59	1.41	2.64	2.85	4.10	3.17	3.45	1.44	.36	.23	.22

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 1998, BY WATER YEAR (WY)**

	1996	1997	1998	1996	1997	1998	1996	1997	1998	1996	1997	1998
MEAN	34.3	35.7	43.9	56.7	47.1	49.8	58.6	40.5	19.0	22.6	8.22	9.93
MAX	63.6	45.0	96.0	83.1	52.0	62.5	66.5	52.6	22.6	43.7	11.6	22.3
(WY)	1997	1996	1997	1996	1996	1998	1996	1998	1998	1996	1997	1998
MIN	5.03	25.0	14.2	40.4	41.1	35.2	50.0	31.7	13.9	5.46	3.53	3.46
(WY)	1998	1998	1996	1998	1997	1997	1998	1996	1997	1998	1998	1998

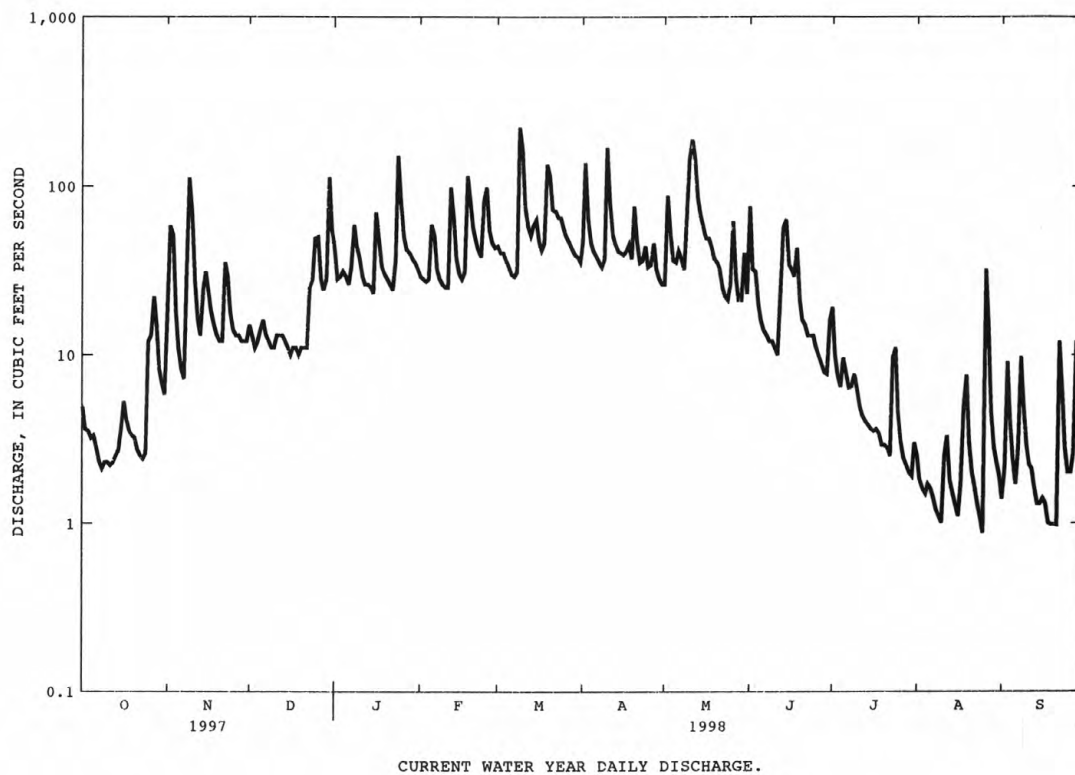
**SUMMARY STATISTICS FOR 1997 CALENDAR YEAR FOR 1998 WATER YEAR WATER YEARS 1996 - 1998**

ANNUAL TOTAL	9657.8	10305.40	
ANNUAL MEAN	26.5	28.2	33.5
HIGHEST ANNUAL MEAN			38.8
LOWEST ANNUAL MEAN			28.2
HIGHEST DAILY MEAN	248	224	505
LOWEST DAILY MEAN	1.9	.87	.87
ANNUAL SEVEN-DAY MINIMUM	2.2	1.1	1.1
ANNUAL RUNOFF (CFSM)	1.50	1.60	1.90
ANNUAL RUNOFF (INCHES)	20.41	21.78	25.86
10 PERCENT EXCEEDS	52	61	75
50 PERCENT EXCEEDS	19	21	26
90 PERCENT EXCEEDS	3.3	2.1	3.5



## HUDSON RIVER BASIN

01374987 KISCO RIVER BELOW MOUNT KISCO, NY--Continued





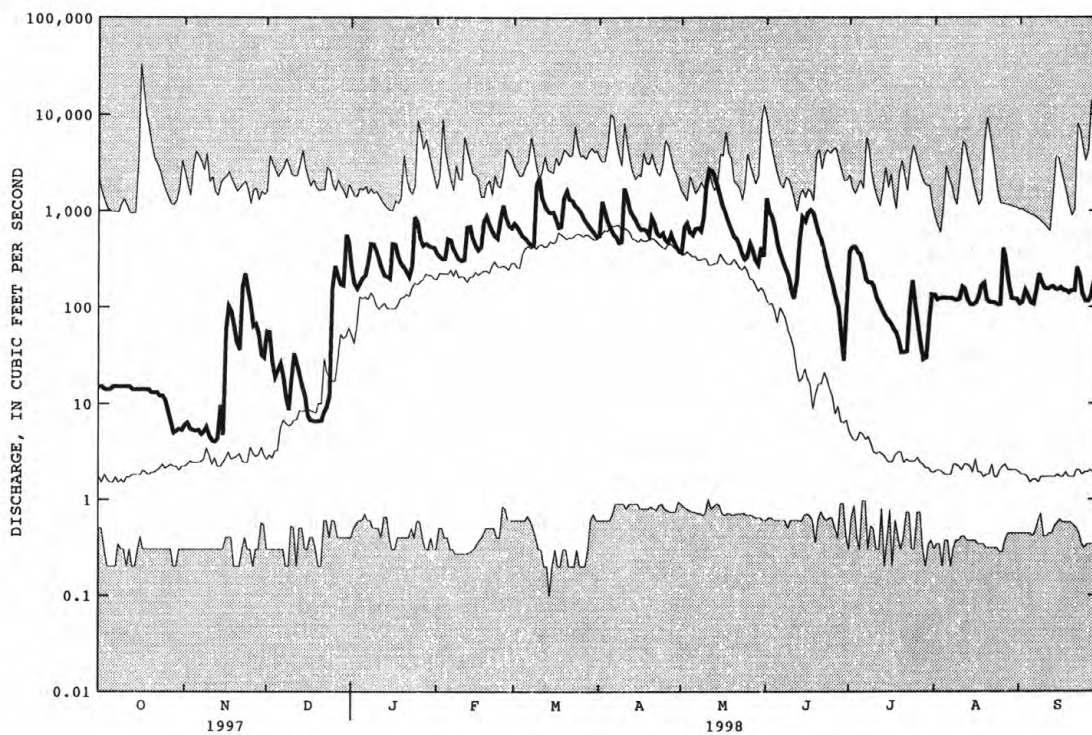
## 217

ANNUAL TOTAL	127878.5			134729.5					
ANNUAL MEAN	350			369			305		
HIGHEST ANNUAL MEAN							849		1956
LOWEST ANNUAL MEAN							.90		1965
HIGHEST DAILY MEAN	2160	Apr 1		2720	May 11		33000		Oct 16 1955
LOWEST DAILY MEAN	4.0	Nov 12		4.0	Nov 12		.10		Mar 14 1965
ANNUAL SEVEN-DAY MINIMUM	4.7	Nov 7		4.7	Nov 7		.20		Mar 12 1965
10 PERCENT EXCEEDS	928			867			918		
50 PERCENT EXCEEDS	176			205			19		
90 PERCENT EXCEEDS	13			13			.99		



## HUDSON RIVER BASIN

01375000 CROTON RIVER AT NEW CROTON DAM, NEAR CROTON-ON-HUDSON, NY--Continued



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



## HUDSON RIVER BASIN

219

## 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 mi<sup>2</sup>.

## 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 recorded elevation, 5.46 ft, Feb. 24; minimum recorded, -3.03 ft, Nov. 27.

## ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	2.70	-1.21	.81	4.38	-.57	2.10	3.45	-1.14	1.18	2.37	-2.78	-.08
2	2.87	-1.11	.92	4.43	.26	2.20	2.73	-2.14	.15	2.26	-2.35	-.12
3	2.85	-1.07	.98	3.63	-.61	1.40	2.27	-2.54	-.12	2.71	-1.81	.38
4	3.20	-.91	1.17	3.63	-.50	1.35	3.43	-1.23	1.07	2.55	-1.59	.50
5	3.24	-.70	1.16	2.95	-1.18	.76	3.55	-1.03	1.20	2.87	-1.21	1.00
6	3.02	-.80	.99	3.00	-.91	1.01	2.99	-1.51	.82	3.13	-1.03	1.06
7	2.80	-.87	.89	4.44	.28	2.24	2.27	-1.93	.30	3.23	-.63	1.39
8	3.01	-.67	1.05	4.52	.43	2.69	2.32	-1.65	.44	4.15	-.30	2.18
9	3.25	-.35	1.38	4.09	-.34	2.21	3.06	-1.28	1.15	4.38	-.06	2.37
10	3.08	-.91	1.27	3.48	-1.19	1.48	3.43	-1.28	1.44	4.42	.26	2.25
11	3.18	-.83	1.09	3.40	-1.19	1.33	3.99	-.82	1.81	4.17	-.25	1.87
12	3.33	-.90	1.29	3.67	-1.36	1.26	3.87	-.90	1.43	3.66	-.83	1.47
13	3.82	-1.00	1.37	3.48	-1.68	1.14	3.61	-1.31	1.08	3.93	-.95	1.30
14	3.87	-.85	1.62	4.91	-.92	2.37	3.09	-1.85	.37	2.52	-1.81	.40
15	3.99	-.90	1.59	4.66	-.54	1.95	2.94	-2.56	.37	3.28	-1.17	1.02
16	3.99	-1.03	1.52	3.74	-1.38	1.16	2.93	-1.99	.60	3.80	-.35	1.88
17	4.06	-.98	1.49	3.07	-1.85	.48	3.45	-.90	1.09	4.37	.53	2.35
18	3.98	-.95	1.47	3.16	-1.49	.84	3.16	-.93	1.06	3.97	.32	2.18
19	4.21	-.58	1.85	3.65	-.87	1.15	2.59	-1.12	.74	3.60	.17	1.83
20	4.42	.07	2.21	2.65	-.91	.93	2.46	-.96	.71	3.34	-.54	1.50
21	3.76	-.12	1.69	2.79	-.45	1.13	2.12	-.82	.72	3.20	.23	1.64
22	2.88	-.82	1.01	2.74	-.32	1.30	2.12	-.58	.88	3.61	-.58	1.53
23	2.91	-.83	1.07	3.13	-.23	1.79	3.45	-.59	1.60	4.12	-.33	2.33
24	2.69	-.98	.87	3.06	-2.22	.72	2.83	-.40	1.44	3.93	-.24	1.80
25	2.77	-.76	1.33	2.71	-2.23	.70	4.05	-.62	1.85	3.58	-1.45	.72
26	3.43	-.46	1.71	2.47	-1.40	.63	2.98	-.94	1.06	2.79	-2.00	.49
27	4.12	-.35	2.10	1.22	-3.03	-.45	3.05	-1.05	1.06	3.32	-1.77	1.04
28	2.24	-1.55	.45	3.35	-1.72	1.24	3.67	-.68	1.57	4.83	-.50	2.23
29	2.51	-1.66	.63	3.17	-1.08	1.05	4.22	-.61	1.89	5.06	-.01	2.34
30	2.81	-1.37	.87	4.77	-.92	1.39	4.47	-1.29	1.55	4.77	-.31	2.14
31	3.18	-.87	1.25	---	---	---	1.72	-2.86	-.65	3.92	-1.07	1.43
MONTH	4.42	-1.66	1.26	4.91	-3.03	1.32	4.47	-2.86	.96	5.06	-2.78	1.43



## HUDSON RIVER BASIN

01376304 HUDSON RIVER SOUTH OF HASTINGS-ON-HUDSON, NY--Continued

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	3.75	-.92	1.43	4.42	-.63	1.91	3.78	-1.01	1.32	3.47	-1.08	1.18
2	3.76	-.86	1.42	4.33	-.54	1.84	3.91	-.28	1.77	3.86	-.20	1.68
3	3.59	-.97	1.21	4.45	-.22	2.01	3.52	-.24	1.52	3.44	-.34	1.57
4	3.41	-.47	1.77	4.11	-.58	1.68	3.57	-.01	1.89	2.97	-.42	1.37
5	5.02	1.45	3.32	3.47	-.71	1.25	3.01	-.10	1.59	3.05	-.50	1.37
6	5.17	-.03	2.79	3.25	-.57	1.33	3.24	-.34	1.61	3.01	-.60	1.35
7	3.90	-.26	1.92	3.17	-.67	1.31	2.97	-.83	1.31	3.18	-.68	1.33
8	4.17	-.09	2.10	---	---	---	3.44	-.56	1.46	3.78	-.37	1.68
9	4.19	-.28	1.91	---	---	---	4.45	-.41	1.96	3.84	.02	1.93
10	3.33	-.99	1.20	---	---	---	4.09	.03	2.14	4.41	.04	2.13
11	3.47	-.94	1.32	---	---	---	3.44	-.72	1.55	4.87	.50	2.62
12	3.94	-.59	1.61	---	---	---	3.46	-.85	1.29	5.13	.83	2.87
13	2.66	-1.39	.67	---	---	---	3.88	-.68	1.49	4.60	.38	2.45
14	3.03	-1.11	.91	---	---	---	3.91	-.36	1.71	4.26	-.03	1.95
15	2.77	-1.21	.82	---	---	---	3.79	-.49	1.56	3.95	-.47	1.58
16	2.84	-1.01	.90	---	---	---	3.47	-.62	1.40	3.65	-.62	1.44
17	3.54	-.35	1.72	---	---	---	3.57	-.51	1.35	3.69	-.67	1.47
18	4.39	.41	2.22	---	---	---	2.75	-1.26	.61	3.54	-.88	1.23
19	3.63	.28	1.96	---	---	---	2.52	-.92	.90	3.30	-.71	1.46
20	3.15	-.02	1.46	---	---	---	3.25	-.79	1.00	3.67	-.65	1.74
21	3.03	-.83	1.01	---	---	---	2.92	-.84	1.13	3.74	-1.13	1.60
22	2.73	-.69	1.13	---	---	---	3.20	-1.18	1.18	3.60	-1.38	1.22
23	3.55	-.71	1.76	---	---	---	4.53	-.81	1.85	3.93	-1.42	1.31
24	5.46	.46	2.72	---	---	---	4.04	-1.21	1.61	3.96	-1.59	1.22
25	3.78	-.92	1.53	2.91	-1.55	.85	3.91	-1.44	1.40	4.16	-1.42	1.33
26	4.12	-.97	1.61	3.18	-1.79	.84	4.29	-1.47	1.43	4.04	-1.40	1.35
27	4.49	-.76	1.89	3.20	-1.98	.72	3.95	-1.62	1.28	3.97	-1.23	1.25
28	4.58	-.65	1.97	3.95	-1.78	1.03	3.64	-1.83	.87	3.64	-1.19	1.15
29	---	---	---	3.88	-1.44	1.19	3.46	-1.73	.79	3.59	-1.16	1.09
30	---	---	---	4.12	-1.40	1.23	3.43	-1.55	.83	3.26	-1.21	.97
31	---	---	---	4.05	-1.06	1.29	---	---	---	3.03	-.88	1.31
MONTH	5.46	-1.39	1.65	---	---	---	4.53	-1.83	1.39	5.13	-1.59	1.55

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	3.15	-.48	1.31	3.06	-.61	1.27	2.69	-.70	1.09	3.43	-.14	1.59
2	3.08	-.36	1.51	2.72	-.60	1.22	2.84	-.83	1.06	4.18	-.04	1.86
3	3.10	-1.06	1.16	2.87	-.72	1.18	3.06	-.80	1.11	3.91	-.37	1.69
4	2.43	-.97	.91	3.29	-.42	1.41	3.26	-.76	1.17	4.01	-.46	1.76
5	2.27	-1.37	.56	3.13	-.52	1.29	3.48	-.73	1.27	3.57	-1.15	1.26
6	2.94	-1.08	.88	3.37	-.78	1.19	3.57	-.97	1.20	3.56	-1.40	1.10
7	2.96	-1.02	.94	3.53	-.80	1.24	3.69	-1.01	1.27	3.99	-1.45	1.20
8	3.02	-1.16	.77	3.68	-.76	1.32	3.68	-1.13	1.24	3.98	-.96	1.61
9	3.42	-1.01	1.05	3.95	-.78	1.48	3.70	-1.08	1.24	3.80	-1.24	1.22
10	3.40	-1.09	1.01	3.71	-.89	1.43	3.84	-1.09	---	3.33	-1.36	.96
11	3.40	-1.07	1.05	3.73	-1.00	1.26	3.77	-.86	1.42	3.41	-1.21	1.10
12	3.89	-.88	1.39	3.81	-.96	1.40	3.60	-.98	1.34	3.62	-.84	1.34
13	3.94	-.58	1.60	3.77	-.98	1.39	3.70	-.76	1.52	3.49	-.83	1.41
14	4.01	-.23	1.91	3.74	-.99	1.27	3.36	-.97	1.32	3.40	-.58	1.47
15	4.08	-.20	2.00	3.33	-1.17	1.16	3.45	-.89	1.36	3.34	-.65	1.37
16	4.14	-.03	2.05	3.28	-1.14	1.25	3.41	-.88	1.35	2.88	-.93	1.12
17	3.77	-.44	1.76	3.47	-1.02	1.40	3.50	-.76	1.41	3.38	-1.02	1.25
18	3.65	-.74	1.62	3.41	-1.10	1.34	3.71	-.86	1.39	3.52	-.80	1.33
19	3.98	-.84	1.72	3.54	-1.20	1.32	3.43	-.84	1.27	3.47	-.63	1.55
20	4.11	-.94	1.73	3.72	-1.03	1.38	---	-.96	---	3.45	-.72	1.40
21	4.23	-1.07	1.67	3.64	-1.15	1.24	3.34	-1.18	1.13	3.48	-.69	1.49
22	4.23	-1.21	1.56	3.70	-1.18	1.29	3.71	-.90	---	3.49	-.63	1.50
23	4.27	-1.14	1.54	3.89	-.97	1.43	3.80	-.55	---	---	---	---
24	4.17	-1.13	1.46	3.57	-.91	1.33	3.37	-.52	1.47	---	---	---
25	4.01	-1.12	1.36	3.46	-1.05	1.21	2.90	-.93	1.07	2.98	-.77	1.09
26	3.96	-1.08	1.34	3.20	-1.08	1.05	3.04	-.94	1.17	2.86	-.60	1.09
27	3.92	-.91	1.41	3.31	-.94	1.26	2.87	-.82	1.13	3.15	-.35	1.28
28	3.86	-.38	1.75	3.30	-.65	1.30	3.23	-.35	1.48	2.62	-.64	.94
29	3.64	-.68	1.52	3.08	-.64	1.30	3.34	-.01	1.60	3.00	-.27	1.18
30	3.38	-.31	1.59	2.77	-.71	1.24	3.37	-.02	1.55	3.06	-.42	1.25
31	---	---	---	3.22	-.25	1.47	3.15	-.09	1.44	---	---	---
MONTH	4.27	-1.37	1.40	3.95	-1.20	1.30	---	-1.18	---	---	---	---



## 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 (water years 1992-97), 31,100  $\mu\text{S}/\text{cm}$ , Dec. 11, 1992; minimum (water years 1992-97), 76  $\mu\text{S}/\text{cm}$ , Jan. 30, 31, 1996.

WATER TEMPERATURE: Maximum, 28.5°C, July 27, Aug. 4, 5, 1995; minimum (water years 1993-98), 0.0°C on many days during winter periods, except 1998.

**EXTREMES FOR CURRENT YEAR.**--

SPECIFIC CONDUCTANCE: Maximum recorded, 28,600  $\mu\text{S}/\text{cm}$ , Jan. 23; minimum recorded, 263  $\mu\text{S}/\text{cm}$ , Jan. 15, but may have been less during period of instrument malfunction.

WATER TEMPERATURE: Maximum, 27.5°C, Aug. 5, 6; minimum, 1.5°C, Jan. 12, 14, 15.

## SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	19500	15400	17300	24300	18000	20800	16200	10100	12600	14800	11300	12300
2	20800	15700	17900	26000	17600	20800	12400	7720	9670	16300	11100	12800
3	21100	15900	18400	21100	15900	18100	11300	6670	8380	16300	11300	12900
4	22300	16600	19000	19500	13900	17000	17700	7970	10700	15000	10400	12700
5	21900	16100	18500	17700	14100	15500	16400	8310	10800	15200	10100	12700
6	21200	15600	17700	18100	14100	15500	13100	7080	9100	15200	9280	11700
7	22200	15500	17500	25400	14500	17700	9880	5530	7650	13400	8290	10300
8	21600	15200	18000	22700	15500	19500	10600	5400	7250	13100	6090	8810
9	24800	16600	19300	19900	14000	17000	16600	6060	9910	6120	1800	4180
10	23400	15600	19000	17800	12100	14200	16000	7130	10600	1800	392	832
11	24000	14600	17800	15900	12000	13800	18400	8020	11800	475	324	380
12	22600	15500	18000	15400	12000	13100	17400	8250	10900	396	284	319
13	23500	14900	18300	14200	11000	12400	15600	8030	10300	337	279	307
14	23900	16300	19800	19100	11500	14200	12500	5490	8050	318	266	284
15	23700	15200	19100	18200	11700	13900	11700	4920	7510	3050	263	699
16	22700	15400	18300	15700	9310	12100	14300	5400	8570	9070	1370	3960
17	23400	15400	18400	12400	8510	10100	15800	6900	9810	10000	3200	6770
18	23000	15800	18500	14700	8690	10400	16300	7140	9770	12900	3650	8040
19	23900	16000	19600	15800	8790	11000	13400	6030	8980	12500	4150	8120
20	25000	17500	19800	13700	8610	10400	16300	6070	9120	13100	4480	8050
21	22100	15400	18300	17100	8640	11500	14500	6440	10600	16500	3540	9060
22	20000	14700	16800	15700	9090	12700	21600	7470	12700	16700	6540	10700
23	21200	13700	17100	20300	9120	14500	20700	8070	15400	28600	6320	16000
24	19800	14400	16800	19900	6310	11100	25100	8220	16400	20700	9550	13700
25	21000	14500	17700	19700	7310	11100	25400	10100	17400	13900	9240	11000
26	24700	15900	19000	15200	8230	10900	19900	9360	13900	15900	9090	12100
27	26800	16800	21800	12300	8050	10100	18200	10600	13900	16400	11400	13500
28	18600	14600	16000	23200	10700	15000	20000	13400	15400	21000	12100	15300
29	20300	15200	17700	17200	10700	13600	21000	14500	16600	19300	13000	15400
30	20900	16900	18600	18600	12000	14400	21200	13000	16300	18000	11900	14500
31	22100	17400	19400	---	---	---	13400	11300	12000	14900	10700	12400
MONTH	26800	13700	18400	26000	6310	14100	25400	4920	11400	28600	263	9030



## HUDSON RIVER BASIN

01376304 HUDSON RIVER SOUTH OF HASTINGS-ON-HUDSON, NY--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	13600	10200	11800	12300	8380	10300	---	---	---	5290	3310	3960
2	13500	9440	11300	10600	6960	8720	---	---	---	8830	4240	5710
3	12900	7970	10300	9160	5370	7320	---	---	---	6230	3810	4880
4	14400	7970	10800	7160	3790	5560	---	---	---	5390	3310	4350
5	19300	11200	15300	5220	2740	3970	---	---	---	6370	3630	4820
6	17800	10700	13900	5770	2480	3520	---	---	---	8270	3950	5280
7	16100	9110	11900	4780	2010	3460	---	---	---	7010	3800	5090
8	21600	9930	13400	---	---	---	---	---	---	7780	4480	6100
9	20700	10700	13900	---	---	---	---	---	---	12000	6110	8260
10	16700	11500	13100	---	---	---	---	---	---	10600	5600	7280
11	16200	11800	13400	---	---	---	---	---	---	8450	6140	6830
12	17100	11400	13400	---	---	---	---	---	---	6960	4570	6000
13	12800	9290	10500	---	---	---	---	---	---	4950	3180	4070
14	10900	8650	9740	---	---	---	---	---	---	3290	1660	2540
15	11000	7880	9160	---	---	---	---	---	---	2510	911	1470
16	12500	7820	9720	---	---	---	---	---	---	1420	667	931
17	21100	8530	12100	---	---	---	---	---	---	3030	799	1700
18	22300	7720	14800	---	---	---	---	---	---	3520	1200	2220
19	18800	6170	13400	---	---	---	---	---	---	4290	2000	3230
20	18000	5900	10400	---	---	---	---	---	---	6150	3380	4810
21	15400	5370	8940	---	---	---	---	---	---	7480	4040	5600
22	15100	6260	9560	---	---	---	---	---	---	10400	4960	6530
23	18800	7730	12200	---	---	---	12300	5910	8630	9660	4970	6600
24	22200	11200	14800	---	---	---	9940	7260	8120	10800	5370	7010
25	14300	11100	13000	---	---	---	9680	5930	7590	10900	5250	7280
26	15000	12000	13300	---	---	---	8170	5890	6560	11000	5580	7140
27	14300	11100	12600	---	---	---	8130	4760	6060	10500	5840	6860
28	13700	9860	11600	---	---	---	8710	4070	5240	10600	6040	7260
29	---	---	---	---	---	---	5160	3510	4120	11200	6400	7390
30	---	---	---	---	---	---	5210	3360	3960	9050	5670	7010
31	---	---	---	---	---	---	---	---	---	9340	5940	7390
MONTH	22300	5370	12100	---	---	---	---	---	---	12000	667	5340
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	10300	5410	7220	2930	1550	2090	13100	7610	10700	16700	11400	14100
2	8930	4540	6290	4870	2000	3000	13200	9520	11400	17200	12800	14900
3	8430	4680	7050	5430	2520	3920	13600	11000	12000	18500	13700	15800
4	8860	4770	6490	7020	3910	5000	13800	11600	12500	19300	16000	17400
5	8330	5450	6590	10700	4870	6950	18200	12200	14000	20000	16600	17600
6	10000	6620	8330	9810	6070	7550	17300	13200	14600	19800	16300	17500
7	11100	8550	9520	10200	6980	8770	18300	14200	16100	20100	16200	17400
8	11500	9090	10100	12200	8650	10400	19300	16100	17000	21000	16600	17700
9	19900	10200	12300	13200	10100	11400	19300	16200	17100	19400	16000	17100
10	19800	12800	14100	13500	10700	11700	---	---	---	18000	15600	16400
11	16900	13700	15300	14400	10900	12000	19500	15900	16800	19700	15500	16600
12	17800	15000	16600	14700	11000	12100	18400	15200	16400	21200	15700	17000
13	17800	15700	16600	13900	11100	12100	19500	15300	16300	21200	15700	17100
14	18200	13500	15700	12500	10800	11700	18100	14700	16200	18900	14800	16600
15	14700	10600	12700	12600	10300	11300	19500	14300	16100	18500	15100	16600
16	10900	6640	9060	12400	10000	11100	19000	14400	15900	18100	15400	16300
17	6640	3700	5180	14900	10100	11600	16100	14200	15100	18600	15400	16600
18	3700	2160	2940	14000	9800	11800	17800	14200	15500	22100	15700	17300
19	2550	1180	1870	13900	8950	11500	17100	14200	15400	21500	16300	18100
20	1850	718	1190	13200	10600	12000	---	---	---	21500	16600	18000
21	2910	545	857	15800	10800	12500	---	---	---	21400	17100	18300
22	4120	492	835	13900	10100	12400	---	---	---	20800	16700	17800
23	2320	451	775	15000	11400	12500	---	---	---	---	---	---
24	1930	472	753	15200	11400	12400	17000	14400	15500	---	---	---
25	1700	416	689	14300	10500	12300	17500	14400	15300	17700	13700	16300
26	2710	391	787	14200	9900	11800	17300	14600	15400	18500	14900	16600
27	3210	384	1000	14300	10200	11900	15500	13800	14600	19300	14700	16800
28	3880	529	1710	14100	9750	11700	16600	13500	14900	17100	13700	15200
29	2320	1060	1730	13300	9300	11300	17800	13300	15300	16000	13200	14400
30	2950	1630	2200	13700	8940	11400	18000	11900	14400	16200	13000	14500
31	---	---	---	14700	8700	11700	16200	12300	14000	---	---	---
MONTH	19900	384	6550	15800	1550	10300	---	---	---	---	---	---



## HUDSON RIVER BASIN

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01376304 HUDSON RIVER SOUTH OF HASTINGS-ON-HUDSON, NY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	19.5	18.5	19.0	13.5	13.0	13.0	7.5	6.5	7.0	3.5	2.5	3.0
2	19.0	18.0	18.5	13.5	13.0	13.5	7.0	5.5	6.0	3.5	2.0	2.5
3	18.5	18.0	18.5	13.5	13.0	13.0	6.5	5.5	6.0	3.5	2.5	3.0
4	18.5	18.0	18.5	13.5	13.0	13.0	7.0	6.0	6.5	3.5	2.5	3.0
5	19.0	18.0	18.5	13.0	12.5	13.0	7.0	6.0	6.0	3.5	2.5	3.0
6	19.5	18.5	19.0	13.0	12.5	13.0	6.5	5.0	5.5	3.5	2.5	3.0
7	19.0	18.5	19.0	13.0	12.5	12.5	6.0	5.0	5.5	3.5	2.0	3.0
8	19.5	19.0	19.0	12.5	12.0	12.5	5.5	5.0	5.5	3.5	3.0	3.0
9	19.5	18.5	19.0	12.5	12.0	12.0	6.0	5.0	5.5	4.0	3.0	3.5
10	20.0	19.0	19.5	12.5	12.0	12.0	6.0	5.0	5.5	3.0	2.0	2.5
11	19.5	18.5	19.0	12.0	11.5	12.0	6.0	5.0	5.5	2.5	2.0	2.0
12	19.5	18.5	19.0	12.0	11.5	11.5	5.5	4.5	5.0	2.0	1.5	2.0
13	19.0	18.5	18.5	11.5	11.0	11.0	5.5	4.5	5.0	2.5	2.0	2.0
14	18.5	18.5	18.5	11.0	10.0	10.5	5.0	4.5	4.5	2.0	1.5	2.0
15	18.5	18.0	18.0	10.5	9.5	10.0	5.0	4.0	4.5	2.0	1.5	2.0
16	18.0	17.5	17.5	10.0	9.0	9.5	5.0	4.0	4.5	2.5	2.0	2.0
17	17.5	17.0	17.0	9.0	8.5	8.5	5.0	4.0	4.5	3.0	2.0	2.5
18	17.0	16.5	16.5	9.0	8.0	8.5	5.0	4.0	4.5	3.0	2.0	2.5
19	16.5	16.0	16.5	9.0	8.0	8.5	5.0	4.0	4.5	3.0	2.5	2.5
20	16.5	15.5	16.0	8.5	7.5	8.0	5.0	4.0	4.5	3.5	2.5	3.0
21	16.0	15.0	15.5	8.5	8.0	8.0	5.0	3.5	4.5	3.5	2.5	3.0
22	15.5	14.5	15.0	8.5	8.0	8.0	5.0	3.5	4.0	3.5	2.5	3.0
23	15.5	14.0	14.5	8.5	8.0	8.5	5.0	3.5	4.5	4.5	2.5	3.5
24	15.0	13.5	14.0	8.5	8.0	8.5	5.5	3.5	4.5	4.0	3.0	3.5
25	14.5	13.5	14.0	8.5	7.0	7.5	5.5	4.0	4.5	3.5	3.0	3.0
26	14.5	13.5	13.5	8.0	7.0	7.5	5.0	4.0	4.5	3.5	2.5	3.0
27	14.5	13.5	14.0	7.5	7.0	7.5	5.0	4.0	4.5	3.5	3.0	3.0
28	13.5	13.0	13.5	8.0	7.0	7.5	5.0	4.0	4.5	3.5	3.0	3.0
29	13.5	12.5	13.0	7.5	7.0	7.5	5.0	4.0	4.5	3.5	2.5	3.0
30	13.0	12.5	13.0	7.5	7.0	7.5	5.0	3.5	4.0	3.5	3.0	3.0
31	13.5	12.5	13.0	---	---	---	4.0	3.0	3.5	3.0	3.0	3.0
MONTH	20.0	12.5	16.5	13.5	7.0	10.0	7.5	3.0	5.0	4.5	1.5	3.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	3.0	3.0	3.0	4.0	4.0	4.0	---	---	---	13.0	12.5	12.5
2	3.0	3.0	3.0	4.5	4.0	4.0	---	---	---	14.5	12.5	13.5
3	3.0	3.0	3.0	4.5	4.0	4.5	---	---	---	14.0	13.5	13.5
4	3.5	3.0	3.0	5.0	4.0	4.5	---	---	---	14.0	13.5	14.0
5	3.5	3.0	3.0	4.5	4.0	4.5	---	---	---	14.0	13.5	14.0
6	3.5	3.0	3.0	4.5	4.0	4.5	---	---	---	14.5	13.5	14.0
7	3.5	2.5	3.0	4.5	4.0	4.5	---	---	---	15.0	14.0	14.0
8	3.5	2.5	3.0	---	4.0	---	---	---	---	14.5	14.0	14.0
9	3.5	2.5	3.0	---	---	---	---	---	---	14.0	13.5	14.0
10	3.5	3.0	3.0	---	---	---	---	---	---	14.0	14.0	14.0
11	3.5	3.0	3.5	---	---	---	---	---	---	14.0	14.0	14.0
12	4.0	3.5	3.5	---	---	---	---	---	---	14.5	14.0	14.0
13	4.0	3.5	3.5	---	---	---	---	---	---	15.5	14.0	14.5
14	3.5	3.0	3.5	---	---	---	---	---	---	15.5	14.5	15.0
15	3.5	3.0	3.0	---	---	---	---	---	---	16.0	15.0	15.5
16	3.0	2.5	3.0	---	---	---	---	---	---	16.0	15.5	16.0
17	3.5	2.5	3.0	---	---	---	---	---	---	17.0	15.5	16.0
18	3.5	2.5	3.0	---	---	---	---	---	---	18.0	16.0	17.0
19	3.5	3.0	3.0	---	---	---	---	---	---	18.0	17.0	17.5
20	3.5	3.0	3.0	---	---	---	---	---	---	18.5	17.0	18.0
21	3.5	3.0	3.0	---	---	---	---	---	---	19.0	17.5	18.0
22	4.0	3.0	3.5	---	---	---	13.0	---	---	18.0	17.0	17.5
23	4.0	3.0	3.5	---	---	---	12.0	11.5	12.0	18.5	17.0	17.5
24	4.0	3.0	3.5	---	---	---	12.5	11.5	11.5	19.0	17.5	18.0
25	3.5	3.0	3.5	---	---	---	12.5	12.0	12.0	18.5	17.5	18.0
26	4.0	3.0	3.5	---	---	---	12.0	12.0	12.0	19.5	17.5	18.5
27	4.0	3.5	3.5	---	---	---	12.0	11.5	12.0	20.0	18.0	19.0
28	4.0	4.0	4.0	---	---	---	12.0	11.5	12.0	21.0	18.5	19.5
29	---	---	---	---	---	---	13.0	12.0	12.0	20.5	18.5	19.5
30	---	---	---	---	---	---	13.0	12.0	12.5	21.0	19.5	20.5
31	---	---	---	---	---	---	---	---	---	21.0	20.0	20.5
MONTH	4.0	2.5	3.5	---	---	---	---	---	---	21.0	12.5	16.0



## HUDSON RIVER BASIN

01376304 HUDSON RIVER SOUTH OF HASTINGS-ON-HUDSON, NY--Continued

## WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	21.5	20.5	21.0	24.0	23.5	23.5	26.0	25.0	25.5	26.5	25.5	26.0
2	21.5	20.5	21.0	24.0	23.0	23.5	26.5	25.0	25.5	25.5	25.0	25.5
3	21.0	20.0	20.5	24.5	23.5	24.0	26.0	24.5	25.5	26.0	25.0	25.0
4	20.0	19.5	20.0	25.0	23.5	24.0	26.5	25.0	25.5	25.5	25.0	25.0
5	19.5	19.0	19.0	24.5	23.5	24.0	27.5	25.0	26.0	25.5	24.5	25.0
6	19.5	18.5	19.0	25.0	23.0	24.0	27.5	25.0	26.0	25.5	24.5	25.0
7	19.0	18.0	18.5	24.5	22.5	23.5	26.5	24.5	25.5	25.0	24.5	24.5
8	18.5	18.0	18.0	23.0	22.0	23.0	26.0	25.0	25.5	24.5	24.0	24.5
9	19.5	17.5	18.0	24.0	22.0	23.0	26.5	25.0	25.5	24.0	23.5	23.5
10	20.5	17.5	18.5	24.0	22.5	23.0	26.0	25.0	25.5	23.5	23.0	23.0
11	19.0	17.5	18.5	23.5	22.5	23.0	26.5	25.5	26.0	23.0	22.5	23.0
12	18.5	17.5	18.0	23.5	22.5	23.0	26.0	25.5	26.0	23.0	22.5	23.0
13	19.0	17.5	18.0	24.0	22.5	23.5	26.0	25.5	25.5	23.5	22.5	23.0
14	20.0	18.0	19.0	24.0	23.0	23.5	26.0	25.5	25.5	23.5	23.0	23.0
15	20.0	19.0	19.5	24.5	23.5	24.0	26.0	25.5	25.5	23.5	23.0	23.0
16	21.0	19.5	20.5	24.5	23.5	24.0	26.0	25.5	25.5	24.0	23.0	23.5
17	21.5	20.5	21.0	25.0	24.0	24.5	26.0	25.5	25.5	24.0	23.0	23.5
18	22.0	21.0	21.5	25.5	24.0	24.5	26.5	25.5	26.0	23.5	22.5	23.0
19	22.5	21.5	22.0	25.5	24.0	25.0	25.5	24.5	25.0	24.0	22.5	23.0
20	23.0	22.0	22.5	25.5	24.5	25.0	25.0	24.5	24.5	24.0	23.0	23.0
21	23.5	22.5	23.0	26.5	24.5	25.0	25.5	24.0	24.5	24.0	23.0	23.0
22	23.5	22.5	23.0	26.5	24.5	25.5	25.5	24.5	25.0	23.5	23.0	23.0
23	23.5	22.5	23.0	26.5	25.0	25.5	25.5	24.5	25.0	23.0	---	---
24	24.0	22.5	23.5	26.5	25.0	25.5	25.5	25.0	25.0	22.5	---	---
25	24.0	23.0	23.5	26.5	25.5	25.5	25.5	25.0	25.5	21.5	21.5	21.5
26	24.5	23.0	24.0	26.0	25.5	25.5	26.0	25.0	25.5	22.5	21.0	21.5
27	24.5	23.5	24.0	26.0	25.5	25.5	26.5	25.5	26.0	22.5	21.5	22.0
28	25.0	23.5	24.0	25.5	25.0	25.5	26.0	25.5	26.0	22.5	22.0	22.0
29	24.0	23.5	23.5	26.5	25.0	25.5	26.5	25.0	26.0	22.0	21.0	21.5
30	24.0	23.5	23.5	26.5	25.5	26.0	26.5	25.5	26.0	21.5	21.0	21.0
31	---	---	---	26.0	25.5	26.0	26.5	26.0	26.0	---	---	---
MONTH	25.0	17.5	21.0	26.5	22.0	24.5	27.5	24.0	25.5	26.5	---	---



## 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 mi<sup>2</sup>. **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 ft<sup>3</sup> 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 (1951-97).**--Maximum contents observed, 3,136 mil ft<sup>3</sup>, June 22, 1972, Apr. 17, 1994, Jan. 9, 1998, elevation, 552.8 ft; minimum observed, 2.0 mil ft<sup>3</sup>, 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, 3,136 mil ft<sup>3</sup>, Jan. 9, elevation, 552.8 ft; minimum observed, 1,386 mil ft<sup>3</sup>, Sept. 30, elevation, 535.7 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 mi<sup>2</sup>. **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 ft<sup>3</sup> 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 mi<sup>2</sup>. Telephone gage-height telemeter at station. Records provided by New York Power Authority.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum contents observed, 4,041 mil ft<sup>3</sup>, Oct. 2, 1945, elevation, 1,230.2 ft; minimum observed (after initial filling), not determined.

**EXTREMES FOR CURRENT YEAR.**--Maximum contents, 3,720 mil ft<sup>3</sup>, Jan. 10, elevation, 1,228.0 ft; minimum, 1,057 mil ft<sup>3</sup>, Oct. 26, 27, elevation, 1,199.4 ft.

**01350100 SCHOHARIE 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 mi<sup>2</sup>. **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, 51,260 mil gal, May 11, elevation, 591.74 ft, in East basin, 83,597 mil gal, May 11, elevation, 588.84 ft; minimum observed, in West basin, 29,055 mil gal, Oct. 31, elevation, 567.03 ft, in East basin, 52,413 mil gal, Nov. 6, elevation, 568.69 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 mi<sup>2</sup>. **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-Grahamville 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, 53,099 mil gal, June 15, elevation, 840.97 ft; minimum observed, 46,265 mil gal, Sept. 27, elevation, 830.68 ft.



## HUDSON RIVER BASIN

## RESERVOIRS IN HUDSON RIVER BASIN--Continued

## MONTH-END ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

Date	Elevation (feet) †	Contents (million ft <sup>3</sup> )	Change in contents (equivalent in ft <sup>3</sup> /s)	Elevation (feet) *	Contents (million ft <sup>3</sup> )	Change in contents (equivalent in ft <sup>3</sup> /s)
<b>01335900 Delta Reservoir</b>				<b>01343900 Hinckley Reservoir</b>		
Sept. 30	541.2	1,860		1,203.6	1,340	
Oct. 31	540.3	1,777	- 31.0	1,201.0	1,163	- 66.1
Nov. 30	541.7	1,910	+ 51.3	1,202.9	1,291	+ 49.4
Dec. 31	542.0	1,940	+ 11.2	1,201.2	1,176	- 42.9
CAL YR 1997	-	-	- 2.85	-	-	- 64.9
Jan. 31	541.4	1,880	- 22.4	1,214.8	2,242	+398
Feb. 28	541.9	1,930	+ 20.7	1,203.2	1,312	-384
Mar. 31	548.3	2,603	+251	1,220.4	2,794	+553
Apr. 30	549.8	2,776	+ 66.7	1,222.1	2,981	+ 72.1
May 31	548.8	2,658	- 44.1	1,220.1	2,761	- 82.1
June 30	549.1	2,692	+ 13.1	1,224.0	3,200	+169
July 31	545.3	2,273	-156	1,220.3	2,783	-156
Aug. 31	540.7	1,813	-172	1,216.6	2,410	-139
Sept. 30	535.6	1,378	-168	1,206.9	1,583	-319
WTR YR 1998	-	-	- 15.3	-	-	+ 7.70

Date	Elevation (feet) ††	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)	Elevation (feet) ††	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)	Elevation (feet) **	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)
<b>01363398 Ashokan Reservoir West Basin</b>				<b>01363399 Ashokan Reservoir East Basin</b>			<b>01366400 Rondout Reservoir</b>		
Sept. 30	580.80	40,542		568.48	52,130		832.76	47,609	
Oct. 31	567.03	29,055	-573	569.75	53,839	+ 85.3	836.89	50,334	+136
Nov. 30	574.67	35,168	+315	573.19	58,769	+254	837.05	50,441	+ 5.5
Dec. 31	575.43	35,814	+ 32.2	574.65	60,872	+105	835.47	49,389	- 52.5
CAL YR 1997	-	-	- 58.9	-	-	- 86.9	-	-	+ 1.3
Jan. 31	581.62	41,302	+274	581.11	70,876	+499	836.41	50,014	+ 31.2
Feb. 28	582.84	42,434	+ 62.6	582.02	72,345	+ 81.2	835.54	49,435	- 32.0
Mar. 31	590.50	49,947	+375	587.00	80,510	+408	838.13	51,166	+ 86.4
Apr. 30	589.88	49,298	- 33.5	587.10	80,678	+ 8.66	839.22	51,904	+ 38.1
May 31	589.95	49,368	+ 3.49	586.42	79,537	- 56.9	839.14	51,849	- 2.7
June 30	590.14	49,566	+ 10.2	586.73	80,057	+ 26.8	839.62	52,177	+ 16.9
July 31	588.72	48,143	- 71.0	584.76	76,768	-164	838.77	51,605	- 28.5
Aug. 31	580.10	39,892	-412	582.01	72,329	-222	837.60	50,810	- 39.7
Sept. 30	577.28	37,427	-127	576.07	63,026	-480	831.01	46,476	-224
WTR YR 1998	-	-	- 13.2	-	-	+ 46.2	-	-	- 4.8

† 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

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## 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 1997 TO SEPTEMBER 1998

Month	01343899 <u>Hinckley Reservoir</u>	01363401 <u>Ashokan Reservoir</u>	01366399 <u>Rondout Reservoir</u>
October.....	29.9	752	1,087
November.....	29.2	848	967
December.....	29.4	893	746
CAL YR 1997	30.0	637	1,192
January.....	29.7	801	844
February.....	30.5	655	897
March.....	29.7	685	842
April.....	29.4	866	730
May.....	30.0	584	1,011
June.....	31.6	773	1,129
July.....	30.3	829	1,333
August.....	31.7	887	1,413
September.....	30.5	890	1,345
WTR YR 1998	30.2	789	1,030



## HACKENSACK RIVER BASIN

## 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 mi<sup>2</sup>.

**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. --No estimated daily discharges. Records fair. 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 ft<sup>3</sup>/s, Feb. 3, 1973, gage height, 9.38 ft, from floodmarks, from rating curve extended above 840 ft<sup>3</sup>/s; maximum gage height, 10.52 ft, May 30, 1984; minimum discharge not determined.

**EXTREMES FOR CURRENT YEAR.**--Maximum discharge, 525 ft<sup>3</sup>/s, May 11, gage height, 6.80 ft; minimum discharge, 9.4 ft<sup>3</sup>/s, Jan. 20, 21, Feb. 19; minimum gage height, 2.48 ft, June 7.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	43	14	12	13	29	55	27	41	15	14	33
2	38	58	12	12	13	29	262	71	28	14	14	36
3	40	29	12	13	13	32	110	67	29	13	13	32
4	39	25	13	13	13	29	75	60	19	13	13	31
5	38	21	14	13	22	29	60	63	15	15	14	34
6	37	21	14	13	13	26	42	109	13	13	14	34
7	37	17	13	15	15	24	36	71	14	13	14	39
8	36	30	12	21	15	28	32	56	15	13	12	45
9	36	26	14	16	15	277	45	143	14	13	12	36
10	37	16	13	14	15	208	358	364	14	13	15	35
11	37	14	14	13	15	87	146	435	15	14	26	33
12	38	19	14	13	33	60	74	271	23	14	32	33
13	37	31	13	13	16	48	64	120	58	14	31	34
14	37	20	13	15	13	49	54	80	266	14	33	34
15	37	16	12	14	13	53	51	69	147	14	36	34
16	37	13	12	28	13	47	47	60	146	14	34	35
17	37	13	12	14	14	37	49	52	93	14	33	36
18	37	24	13	13	30	39	58	45	101	14	35	36
19	37	15	13	12	12	177	50	40	56	14	35	36
20	32	13	12	11	14	173	114	33	40	14	34	35
21	35	13	13	11	15	112	76	37	28	14	33	34
22	36	19	12	12	13	112	58	31	20	14	32	42
23	37	13	19	31	16	84	55	21	15	16	31	35
24	36	15	14	39	36	79	52	17	24	14	30	35
25	39	13	29	14	28	67	42	20	19	13	31	35
26	35	13	15	17	20	58	41	34	20	14	40	35
27	44	13	13	18	23	52	58	27	35	15	32	35
28	31	13	13	17	23	47	44	21	28	14	28	37
29	34	13	18	15	---	43	32	18	15	14	29	37
30	34	13	37	14	---	38	28	21	15	14	29	36
31	37	---	14	13	---	34	---	17	---	15	31	---
TOTAL	1140	602	456	489	494	2207	2268	2500	1366	432	810	1062
MEAN	36.8	20.1	14.7	15.8	17.6	71.2	75.6	80.6	45.5	13.9	26.1	35.4
MAX	44	58	37	39	36	277	358	435	266	16	40	45
MIN	31	13	12	11	12	24	28	17	13	13	12	33

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1998, BY WATER YEAR (WY)

MEAN	31.2	31.1	38.5	43.4	49.4	70.0	73.5	52.6	34.9	33.6	27.9	33.4
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 1997 CALENDAR YEAR

FOR 1998 WATER YEAR

## WATER YEARS 1959 - 1998

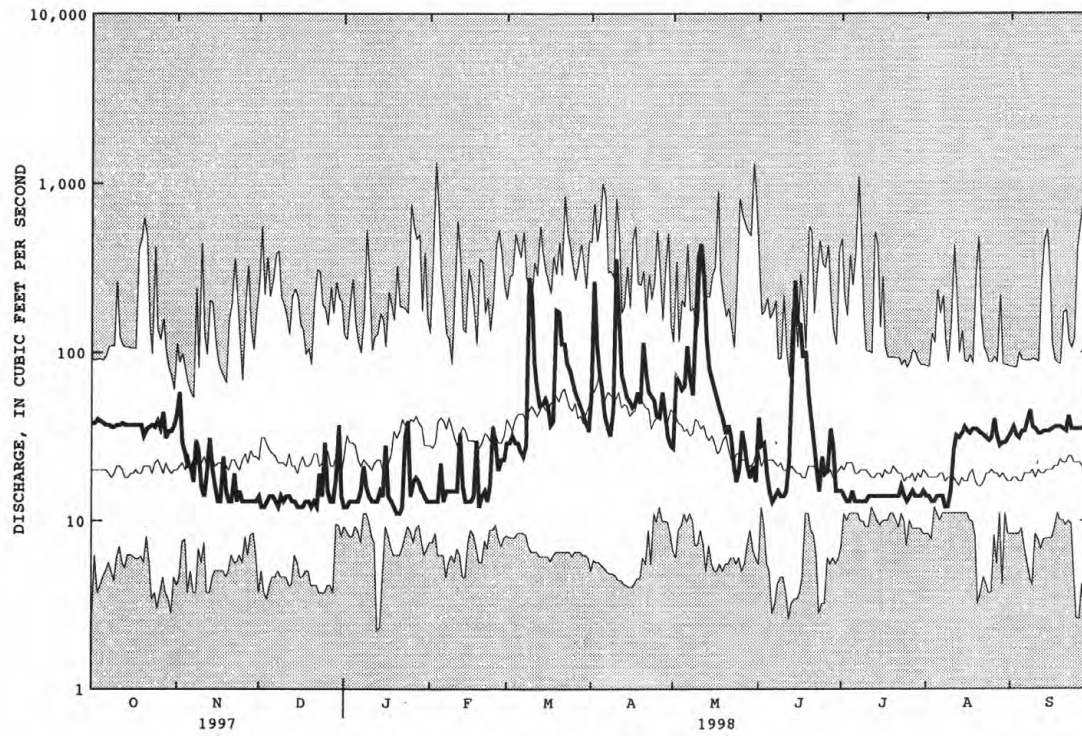
ANNUAL TOTAL	12733		13826				
ANNUAL MEAN	34.9		37.9		43.5		
HIGHEST ANNUAL MEAN					74.1		1984
LOWEST ANNUAL MEAN					13.4		1981
HIGHEST DAILY MEAN	445	Apr 1	435	May 11	1320	Feb 3	1973
LOWEST DAILY MEAN	11	Jul 23	11	Jan 20	2.2	Jan 13	1996
ANNUAL SEVEN-DAY MINIMUM	12	Dec 14	12	Dec 14	3.1	Sep 25	1966
10 PERCENT EXCEEDS	57		61		86		
50 PERCENT EXCEEDS	25		28		24		
90 PERCENT EXCEEDS	13		13		12		



# HACKENSACK RIVER BASIN

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01376800 HACKENSACK RIVER AT WEST NYACK, NY--Continued



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



## 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 mi<sup>2</sup>.

**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 1997 TO SEPTEMBER 1998  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	40	29	34	44	73	110	68	105	61	63	69
2	21	75	28	34	43	74	522	140	76	47	63	66
3	20	43	28	34	41	85	250	138	70	39	62	69
4	20	28	29	34	43	74	150	126	58	34	61	65
5	20	28	30	33	107	68	119	130	47	35	61	65
6	20	27	30	32	89	63	93	179	40	32	61	65
7	19	28	28	42	65	59	79	156	35	31	64	70
8	19	48	26	55	57	65	72	127	34	29	74	73
9	19	50	23	42	50	405	91	242	32	29	74	64
10	19	35	24	37	48	473	725	737	32	29	74	51
11	19	26	23	35	47	187	373	934	31	29	76	46
12	19	25	26	34	133	131	161	620	62	29	74	44
13	20	25	26	34	108	105	126	268	196	29	74	44
14	38	36	25	34	76	100	109	163	386	28	74	44
15	79	35	54	34	59	104	101	135	323	43	74	44
16	76	28	94	59	50	94	97	115	231	70	74	44
17	22	26	94	39	52	83	95	100	179	80	74	41
18	21	26	94	33	135	82	104	90	157	80	74	40
19	21	25	94	32	112	253	99	80	120	80	74	40
20	21	25	93	32	87	347	175	73	92	100	73	40
21	21	25	84	31	75	199	158	67	73	108	72	40
22	22	41	51	31	62	193	123	60	58	60	72	42
23	24	28	63	54	59	168	107	52	50	66	72	41
24	25	26	51	169	137	150	115	48	51	64	72	45
25	35	25	69	135	180	125	93	47	57	63	72	74
26	28	25	39	91	117	106	94	65	51	63	71	80
27	47	25	35	73	87	97	124	60	49	63	33	79
28	30	26	36	68	74	88	99	53	47	63	32	78
29	28	27	40	55	---	83	81	48	42	63	40	78
30	28	27	93	50	---	76	71	51	59	63	72	71
31	28	---	40	48	---	70	---	47	---	64	72	---
TOTAL	855	954	1499	1548	2237	4280	4716	5219	2843	1674	2078	1712
MEAN	27.6	31.8	48.4	49.9	79.9	138	157	168	94.8	54.0	67.0	57.1
MAX	79	75	94	169	180	473	725	934	386	108	76	80
MIN	19	25	23	31	41	59	71	47	31	28	32	40

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

	MEAN	59.1	69.7	80.4	89.1	92.3	136	140	103	74.6	78.2	70.4	63.7
MAX	312	240	248	251	221	379	438	310	319	339	197	177	
(WY)	1956	1956	1997	1949	1951	1953	1983	1989	1972	1945	1955	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	
(WY)	1942	1996	1981	1982	1967	1981	1981	1981	1957	1954	1944	1953	

## SUMMARY STATISTICS

## FOR 1997 CALENDAR YEAR

## FOR 1998 WATER YEAR

## WATER YEARS 1942 - 1998

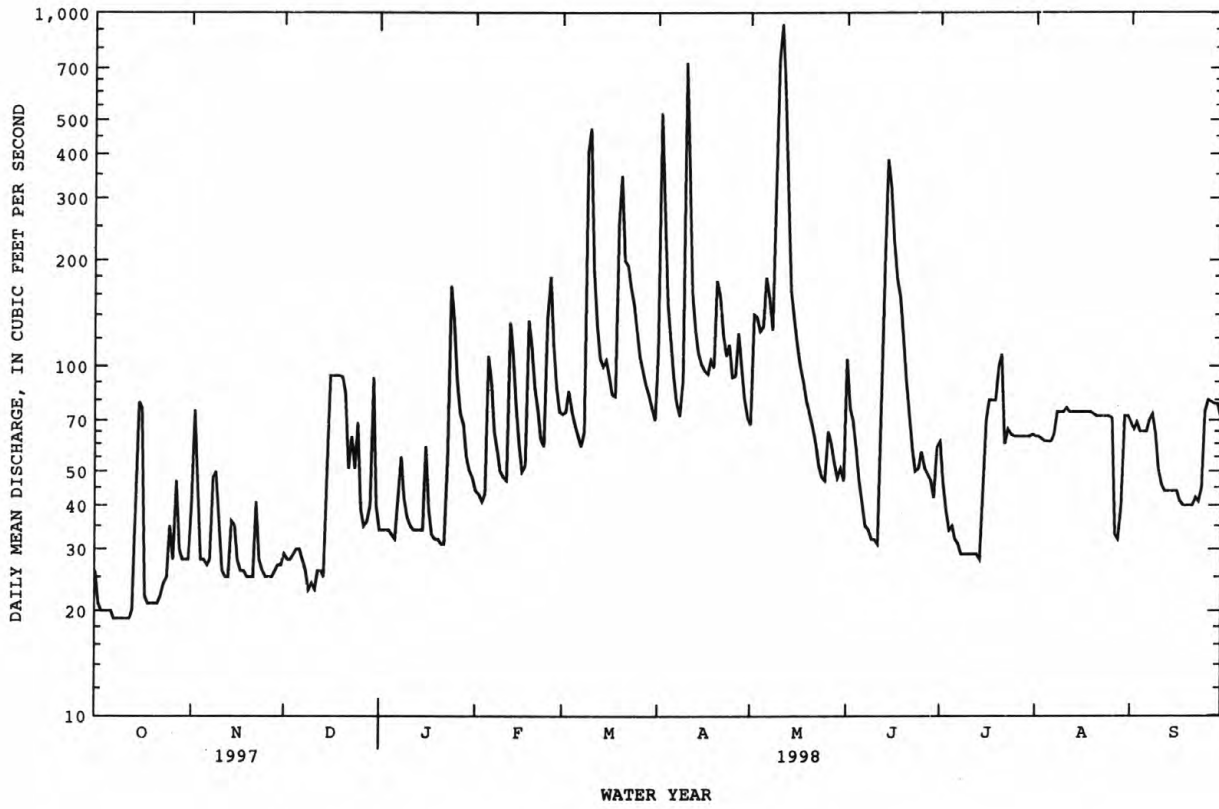
ANNUAL TOTAL	27852	29615	
ANNUAL MEAN	76.3	81.1	88.1
HIGHEST ANNUAL MEAN			156
LOWEST ANNUAL MEAN			30.9
HIGHEST DAILY MEAN	1170	934	2190
LOWEST DAILY MEAN	19	19	4.4
ANNUAL SEVEN-DAY MINIMUM	19	19	5.0
INSTANTANEOUS PEAK FLOW		1070	2530
INSTANTANEOUS PEAK STAGE		4.43	8.08
INSTANTANEOUS LOW FLOW		19	.00
10 PERCENT EXCEEDS	126	136	170
50 PERCENT EXCEEDS	64	62	60
90 PERCENT EXCEEDS	25	26	21



HACKENSACK RIVER BASIN

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01377000 HACKENSACK RIVER AT RIVERVALE, NJ--Continued





## HACKENSACK RIVER BASIN

## 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 mi<sup>2</sup>. **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 mi<sup>2</sup>. **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°00'46", long 74°02'58", Bergen County, Hydrologic Unit 02030103, at dam on Pascack Brook, 0.7 mi north of Hillsdale. **DRAINAGE AREA**, 19.4 mi<sup>2</sup>. **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°57'22", long 74°01'46", Bergen County, Hydrologic Unit 02030103, at dam on Hackensack River at Oradell. **DRAINAGE AREA**, 113 mi<sup>2</sup>. **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 1997 TO SEPTEMBER 1998

Date	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)
01376700 DE FOREST LAKE				01376950 LAKE TAPPAN		
Sept. 30.....	81.01	4,420	--	49.93	2,185	--
Oct. 31.....	78.07	3,550	-43.4	51.39	2,630	+22.2
Nov. 30.....	79.71	4,032	+24.9	53.72	3,399	+39.7
Dec. 31.....	80.89	4,384	+17.6	54.10	3,533	+6.7
CAL YR 1997			-5.8			-1.8
Jan. 31.....	83.12	5,069	+34.2	55.15	3,906	+18.6
Feb. 28.....	83.78	5,327	+14.3	55.23	3,938	+1.8
Mar. 31.....	85.21	5,740	+20.6	55.31	3,966	+1.4
Apr. 30.....	85.22	5,744	+2	55.33	3,970	+2
May 31.....	85.22	5,742	-1	55.29	3,956	-7
June 30.....	85.07	5,697	-2.3	55.20	3,926	-1.5
July 31.....	84.14	5,392	-15.2	54.53	3,686	-12.0
Aug. 31.....	81.73	4,640	-37.5	52.02	2,833	-42.6
Sept. 30.....	79.08	3,847	-40.9	50.43	2,336	-25.6
WTR YR 1998			-2.4			+1.6
Date	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)
01377450 WOODCLIFF LAKE				01378480 ORADELL RESERVOIR		
Sept. 30.....	90.42	622	--	19.87	2,670	--
Oct. 31.....	89.48	574	-2.4	18.70	2,397	-13.6
Nov. 30.....	90.70	637	+3.2	19.67	2,623	+11.7
Dec. 31.....	91.12	659	+1.1	20.70	2,871	+12.4
CAL YR 1997			0			-1.2
Jan. 31.....	90.23	612	-2.3	20.95	2,932	+3.0
Feb. 28.....	89.68	585	-1.5	21.24	3,004	+4.0
Mar. 31.....	89.79	591	+3	21.41	3,047	+2.1
Apr. 30.....	91.14	660	+3.6	22.86	3,425	+19.5
May 31.....	93.22	772	+5.6	22.89	3,435	+5
June 30.....	91.81	697	-3.9	22.44	3,315	-6.2
July 31.....	89.53	577	-6.0	19.66	2,625	-34.4
Aug. 31.....	87.89	497	-4.0	18.04	2,248	-18.8
Sept. 30.....	86.99	454	-2.2	18.48	2,347	+5.1
WTR YR 1998			-7			-1.4

† Elevation at 2400 of the last day of each month.



# HACKENSACK RIVER BASIN

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## 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.
- 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 1997 TO SEPTEMBER 1998

MONTH	01376699 UNITED WATER NEW YORK.	01376810 WEST NYACK, NY	01378490 UNITED WATER NEW JERSEY
October .....	12.76	2.74	143
November .....	8.66	2.38	130
December .....	7.78	2.36	119
CAL YR 1997	12.74	2.45	142
January .....	11.73	2.43	134
February .....	13.14	2.60	127
March .....	11.57	2.65	120
April .....	12.71	2.71	123
May .....	13.90	2.81	142
June .....	15.34	2.67	154
July .....	19.71	3.29	175
August .....	21.97	3.40	186
September .....	17.64	3.25	164
WTR YR 1998	13.91	2.77	143

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)	01388981 POMPTON RIVER (PASSAIC RIVER BASIN)	01390520 SADDLE RIVER (PASSAIC RIVER BASIN)	WELLS TO SURFACE SUPPLY
October .....	0	0	52.60	13.8	.43
November .....	0	0	10.06	.67	.43
December .....	0	0	0	0	.46
CAL YR 1997	0	0	12.77	2.97	.37
January .....	0	0	0	0	.47
February .....	0	0	0	0	.46
March .....	0	0	0	0	.47
April .....	0	0	0	0	.50
May .....	0	0	0	0	.37
June .....	0	0	4.11	0	.35
July .....	0	0	37.14	5.83	.53
August .....	0	3.56	64.09	5.96	.77
September .....	0	2.33	63.05	4.11	.71
WTR YR 1998	0	.49	18.41	2.53	.50



**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.

**PERIOD OF RECORD.**--Occasional low-flow and/or miscellaneous discharge measurements, water years 1936, 1952, 1956-58, 1977. June 1979 to current year.

**GAGE.**--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 297.00 ft above sea level.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 10,700 ft<sup>3</sup>/s, Apr. 5, 1984, gage height, 13.82 ft, from rating

**EXTREMES OUTSIDE PERIOD OF RECORD.**--Maximum discharge, 6,100 ft<sup>3</sup>/s, Mar. 12, 1936, by computation of flow over dam.

**EXTREMES FOR CURRENT YEAR.--**Peak discharges greater than base discharge of 1.050 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Apr. 10	2030	1,080	4.35	May 11	0915	*2,320	*6.26

Minimum discharge, 11 ft<sup>3</sup>/s, Sept. 28, gage height, 1.49 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	37	127	278	179	525	216	139	254	130	17	23
2	22	228	121	224	166	446	491	232	241	90	16	24
3	21	215	102	207	158	373	372	240	189	69	15	26
4	20	131	96	230	159	318	298	213	140	55	16	23
5	18	93	98	239	253	271	252	202	104	48	16	20
6	18	75	111	232	232	238	216	260	84	42	16	19
7	17	64	104	250	197	211	192	255	71	37	16	22
8	17	103	96	410	176	201	176	224	63	35	15	32
9	18	332	89	503	162	407	193	349	56	37	15	26
10	19	405	87	433	155	514	899	1310	52	34	17	21
11	18	271	91	345	156	366	745	2200	47	30	17	21
12	18	187	91	282	438	287	459	1720	68	27	18	21
13	18	150	91	244	517	240	359	1010	190	26	17	20
14	18	145	88	217	365	232	307	631	397	24	18	19
15	18	150	81	178	277	227	273	488	488	23	19	19
16	18	129	76	281	225	204	252	388	445	22	18	19
17	18	115	74	257	215	182	226	316	355	22	18	19
18	18	103	74	212	531	183	204	250	475	18	21	18
19	18	96	73	190	554	348	186	196	361	22	32	18
20	18	92	70	175	455	407	257	175	245	22	22	17
21	19	90	72	158	381	351	216	174	181	21	19	16
22	18	143	69	145	319	359	180	150	141	20	17	16
23	18	197	81	169	273	318	163	131	116	21	17	25
24	17	171	93	467	616	298	195	115	110	25	18	19
25	22	145	160	488	838	290	171	114	102	20	19	15
26	30	129	226	362	709	283	163	154	94	17	88	13
27	40	124	196	295	595	290	221	130	84	17	68	12
28	47	110	174	257	496	271	179	106	73	17	34	13
29	33	103	178	229	---	244	155	96	64	18	26	16
30	27	98	548	211	---	214	143	116	88	17	22	13
31	25	---	416	198	---	192	---	94	---	17	21	---
TOTAL	670	4431	4053	8366	9797	9290	8359	12178	5378	1023	708	585
MEAN	21.6	148	131	270	350	300	279	393	179	33.0	22.8	19.5
MAX	47	405	548	503	838	525	899	2200	488	130	88	32
MIN	17	37	69	145	155	182	143	94	47	17	15	12
CFSM	.25	1.70	1.50	3.11	4.03	3.45	3.21	4.52	2.06	.38	.26	.22
IN.	.29	1.90	1.74	3.58	4.19	3.98	3.58	5.21	2.30	.44	.30	.22

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 1998, BY WATER YEAR (WY)

MEAN	101	173	215	187	206	303	339	215	110	62.6	49.4	55.5
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

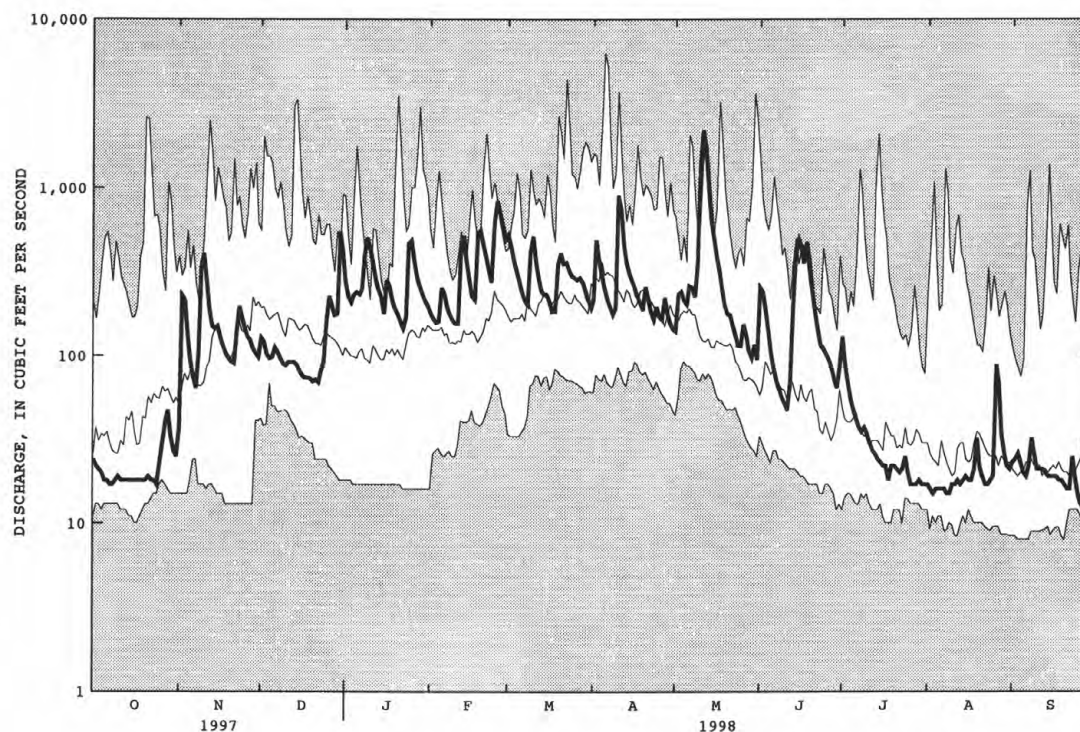


## PASSAIC RIVER BASIN

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## 01387400 RAMAPO RIVER AT RAMAPO, NY--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1979 - 1998	
ANNUAL TOTAL	43772		64838		168	
ANNUAL MEAN	120		178		284	1984
HIGHEST ANNUAL MEAN					80.4	1985
LOWEST ANNUAL MEAN					6300	Apr 5 1984
HIGHEST DAILY MEAN	1090	Apr 1	2200	May 11	7.9	Sep 20 1983
LOWEST DAILY MEAN	15	Aug 7	12	Sep 27	8.1	Sep 1 1981
ANNUAL SEVEN-DAY MINIMUM	15	Aug 6	14	Sep 24	1.93	
ANNUAL RUNOFF (CFSM)	1.38		2.04		26.22	
ANNUAL RUNOFF (INCHES)	18.74		27.76		357	
10 PERCENT EXCEEDS	236		400		92	
50 PERCENT EXCEEDS	96		129		17	
90 PERCENT EXCEEDS	18		18			



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



## PASSAIC RIVER BASIN

## 01387420 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 mi<sup>2</sup>.

**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.**--No estimated daily discharges. Records fair. Flow affected by diversion from United Water New York well field upstream from station and by occasional regulation by Lake Sebago.

**COOPERATION.**--Figures of pumpage from well field provided by United Water New York.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 12,300 ft<sup>3</sup>/s, Apr. 5, 1984, gage height, 15.38 ft, from rating curve extended above 5,400 ft<sup>3</sup>/s; minimum discharge, 1.7 ft<sup>3</sup>/s, Sept. 7, 1995, gage height, 1.04 ft.

**EXTREMES OUTSIDE PERIOD OF RECORD.**--Maximum discharge, 6,600 ft<sup>3</sup>/s, Mar. 12, 1936, by computation of flow over dam at site 0.65 mi upstream, drainage area, 90.6 mi<sup>2</sup>.

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 1,100 ft<sup>3</sup>/s and maximum(\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Apr. 10	1745	1,120	5.65	May 11	0815	*2,440	*8.26

Minimum discharge, 5.7 ft<sup>3</sup>/s, Sept. 30, gage height, 1.29 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	35	121	312	196	578	240	138	278	111	13	16
2	16	252	113	255	176	490	546	268	224	78	14	18
3	14	234	95	229	166	411	413	282	166	58	13	19
4	13	130	90	258	166	348	333	248	124	45	14	17
5	12	91	94	269	296	304	289	228	91	39	14	15
6	12	72	107	252	268	272	248	301	73	34	14	15
7	12	60	96	272	220	239	215	298	60	29	14	17
8	12	112	88	444	192	226	194	257	54	28	14	25
9	13	373	81	545	172	471	216	421	48	29	13	20
10	13	453	79	467	163	574	967	1380	43	26	15	15
11	12	307	87	370	163	407	806	2310	39	22	15	16
12	12	205	85	308	489	323	514	1790	60	19	15	15
13	12	154	84	270	570	277	401	1040	189	17	15	15
14	12	153	81	235	402	268	341	657	405	16	15	15
15	12	155	75	189	312	262	309	484	506	15	16	13
16	13	129	71	313	260	228	285	379	461	14	15	13
17	13	113	70	290	244	198	257	310	370	16	16	13
18	12	101	69	238	594	200	222	263	489	12	19	13
19	12	93	66	211	615	388	195	209	374	15	27	13
20	13	88	67	193	503	447	292	178	253	15	20	14
21	13	86	67	172	421	385	236	175	179	14	16	14
22	13	151	63	154	351	391	187	145	137	14	14	12
23	12	214	80	190	310	349	165	114	114	14	14	17
24	12	180	86	533	683	334	203	99	102	18	15	13
25	17	145	180	551	913	326	176	100	89	14	15	12
26	24	126	258	408	777	318	167	146	78	13	71	9.6
27	37	119	216	335	656	322	243	114	70	13	60	8.2
28	38	104	186	298	550	304	189	90	61	14	30	9.0
29	27	96	192	267	---	275	158	84	52	14	21	13
30	22	93	643	242	---	236	143	95	76	13	17	10
31	19	---	468	222	---	209	---	80	---	14	16	---
TOTAL	491	4624	4158	9292	10828	10360	9150	12683	5265	793	600	434.8
MEAN	15.8	154	134	300	387	334	305	409	176	25.6	19.4	14.5
MAX	38	453	643	551	913	578	967	2310	506	111	71	25
MIN	12	35	63	154	163	198	143	80	39	12	13	8.2
†	9.6	12	13	11	11	12	12	12	13	12	8.8	7.8

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 1998, BY WATER YEAR (WY)**

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
MEAN	104	187	224	200	218	316	354	227	107	60.1	49.1	55.9								
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								

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1979 - 1998	
ANNUAL TOTAL	44927		68678.8			
ANNUAL MEAN	123		188		175	
ANNUAL MEAN (†)	10.9		11.2			
HIGHEST ANNUAL MEAN					295	
LOWEST ANNUAL MEAN					78.2	
HIGHEST DAILY MEAN	1090	Apr 1	2310	May 11	7110	Apr 5 1984
LOWEST DAILY MEAN	11	Jul 6	8.2	Sep 27	2.3	Sep 7 1995
ANNUAL SEVEN-DAY MINIMUM	11	Aug 2	11	Sep 24	3.1	Sep 7 1995
10 PERCENT EXCEEDS	265		430		376	
50 PERCENT EXCEEDS	88		114		90	
90 PERCENT EXCEEDS	12		13		13	

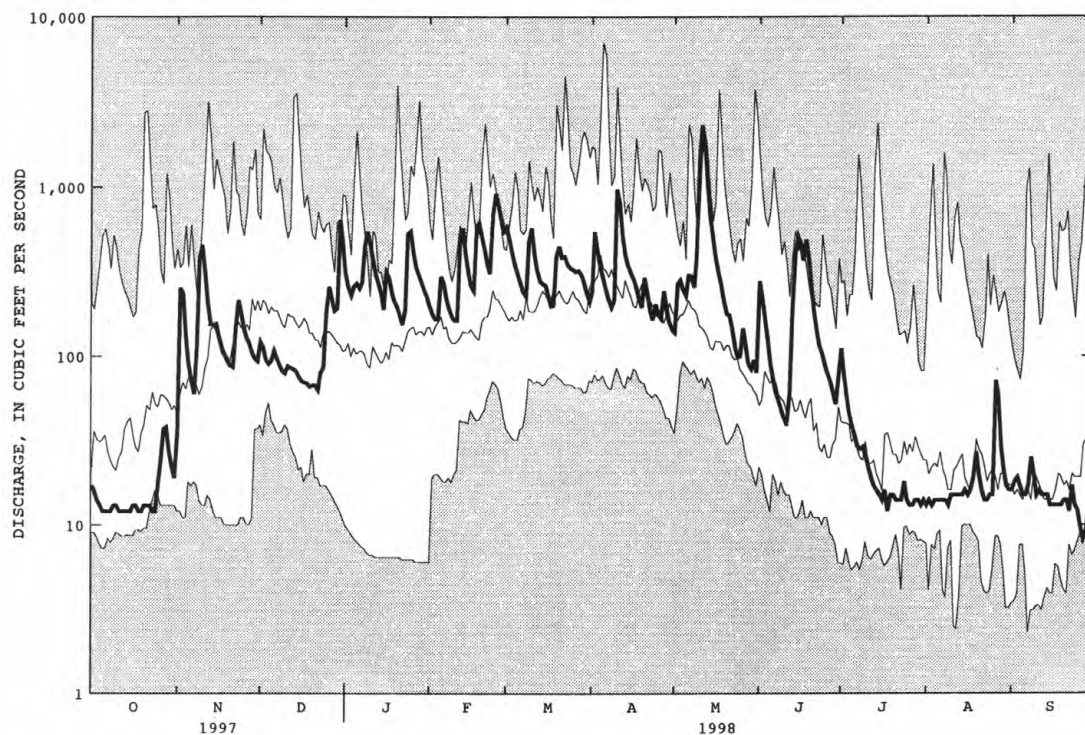
† Diversion, in cubic feet per second, by pumpage from well field upstream of station.



PASSAIC RIVER BASIN

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01387420 RAMAPO RIVER AT SUFFERN, NY--Continued



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



## PASSAIC RIVER BASIN

## 01387500 RAMAPO RIVER NEAR MAHWAH, NJ

**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.

**DRAINAGE AREA.**--120 mi<sup>2</sup>.

**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.

**REVISED RECORDS.**--WSP 781: 1904(M). WSP 1031: 1938, 1940. WSP 1552: 1923(M), 1924, 1925-26(M), 1927-28, 1933, 1937. WRD-NJ 1971: 1968(M). WDR NJ-82-1: Drainage area. WDR-NJ-87-1: 1986.

**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 good. 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.

**PEAK DISCHARGES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 1,400 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Apr. 10	1430	1,580	6.36	May 11	0915	*3,340	*8.01

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	79	159	393	252	686	355	203	353	156	21	22
2	24	347	148	321	233	587	790	376	267	103	20	30
3	22	306	122	294	222	492	530	359	221	76	20	33
4	21	167	116	316	222	414	416	311	166	61	20	25
5	20	115	125	321	405	361	358	301	125	57	20	22
6	19	88	142	305	338	321	311	388	101	49	20	22
7	18	72	124	332	280	290	282	372	84	44	20	35
8	18	181	112	555	251	290	261	319	76	42	19	49
9	19	477	103	653	229	668	309	587	69	43	19	29
10	20	556	101	558	218	755	1450	1870	63	39	28	23
11	19	368	115	441	217	510	1070	3190	59	34	30	22
12	19	253	112	364	619	397	648	2480	123	31	21	21
13	18	196	110	320	676	337	504	1390	323	28	20	21
14	19	213	103	287	474	332	426	846	586	28	20	21
15	21	215	95	247	364	324	387	612	634	28	20	18
16	21	177	89	413	304	290	355	476	617	25	21	18
17	20	150	88	357	296	260	328	384	475	31	29	18
18	20	132	88	295	758	264	297	326	588	27	36	18
19	19	119	84	266	760	529	274	274	446	24	33	18
20	19	113	84	245	607	568	420	241	298	25	27	18
21	19	110	84	222	503	489	318	232	228	23	22	19
22	18	212	79	203	417	492	263	202	183	23	20	24
23	18	267	134	286	367	434	244	168	158	25	19	24
24	18	229	125	719	913	413	288	146	142	26	21	20
25	50	188	277	688	1210	394	250	156	124	23	21	19
26	39	165	348	496	971	380	252	214	106	21	130	16
27	93	158	295	400	795	383	318	164	104	21	75	14
28	61	135	258	355	662	361	258	134	85	21	37	15
29	43	124	286	320	---	327	224	128	70	21	29	18
30	35	123	920	294	---	292	207	148	128	20	25	16
31	32	---	608	275	---	268	---	122	---	22	23	---
TOTAL	831	6035	5634	11541	13563	12908	12393	17119	7002	1197	886	668
MEAN	26.8	201	182	372	484	416	413	552	233	38.6	28.6	22.3
MAX	93	556	920	719	1210	755	1450	3190	634	156	130	49
MIN	18	72	79	203	217	260	207	122	59	20	19	14
CFSM	.22	1.68	1.51	3.10	4.04	3.47	3.44	4.60	1.94	.32	.24	.19
IN.	.26	1.87	1.75	3.58	4.20	4.00	3.84	5.31	2.17	.37	.27	.21

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903 - 1998, BY WATER YEAR (WY)**

	144	227	276	268	281	441	405	261	152	99.0	99.5	106
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



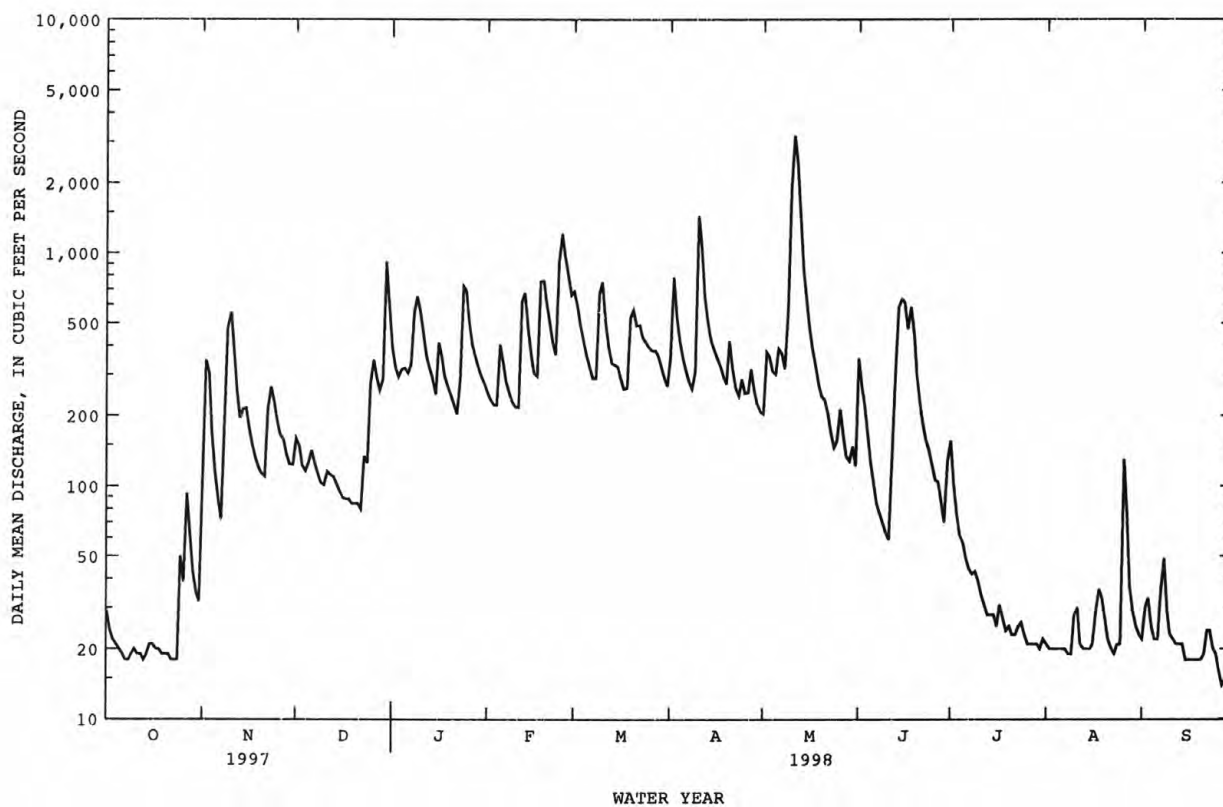
PASSAIC RIVER BASIN

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01387500 RAMAPO RIVER NEAR MAHWAH, NJ--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1903 - 1998	
ANNUAL TOTAL	57079		89777		230	
ANNUAL MEAN	156		246		461	
HIGHEST ANNUAL MEAN					99.5	
LOWEST ANNUAL MEAN					1903	
HIGHEST DAILY MEAN	1330	Apr 1	3190	May 11	8920	Oct 9 1903
LOWEST DAILY MEAN	15	Aug 12	14	Sep 27	1.2	Aug 12 1993
ANNUAL SEVEN-DAY MINIMUM	17	Aug 6	17	Sep 24	3.7	Sep 7 1995
INSTANTANEOUS PEAK FLOW			3340	May 11	15500a	Apr 5 1984
INSTANTANEOUS PEAK STAGE			8.01	May 11	13.35	Apr 5 1984
INSTANTANEOUS LOW FLOW			13	Sep 30	.20	Aug 11 1993
ANNUAL RUNOFF (CFSM)	1.30		2.05		1.91	
ANNUAL RUNOFF (INCHES)	17.69		27.83		26.01	
10 PERCENT EXCEEDS	317		557		510	
50 PERCENT EXCEEDS	116		164		138	
90 PERCENT EXCEEDS	20		20		27	

a From rating curve extended above 6,500 ft<sup>3</sup>/s





## DELAWARE RIVER BASIN

01413398 BUSH KILL NEAR ARKVILLE, NY

**LOCATION.**---Lat 42°09'03", long 74°36'06", Delaware County, Hydrologic Unit 02040102, on left bank 60 ft upstream from private bridge, 0.7 mi upstream from mouth, and 2.35 mi east of Margaretville.

**DRAINAGE AREA.**---46.7 mi<sup>2</sup>.

**PERIOD OF RECORD.**---October 1997 to September 1998.

**GAGE.**---Water-stage recorder and crest-stage gage. Elevation of gage is 1,380 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, 1,670 ft<sup>3</sup>/s, June 14, 1998, gage height, 7.05 ft; minimum, 3.7 ft<sup>3</sup>/s, Sept. 14, 22, 1998, gage height, 3.28 ft.

**EXTREMES OUTSIDE PERIOD OF RECORD.**---Maximum discharge, 7,600 ft<sup>3</sup>/s, Jan. 19, 1996, on basis of contracted-opening measurement of peak flow at site 0.2 mi downstream, drainage area, 47.0 mi<sup>2</sup>.

**EXTREMES FOR CURRENT YEAR.**---Peak discharges greater than base discharge of 700 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 9	1815	1,580	6.97	May 11	2330	831	6.10
Mar. 10	0200	1,570	6.96	June 14	1815	*1,670	*7.05
Apr. 1	1915	1,070	6.43	July 8	1845	1,160	6.54

Minimum discharge, 3.7 ft<sup>3</sup>/s, Sept. 14, 22, gage height, 3.28 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e10	34	126	e32	e50	128	351	103	115	127	15	5.4
2	e9.2	75	96	e40	e47	123	387	163	61	99	14	5.8
3	e8.8	69	88	45	47	121	313	204	93	84	14	7.9
4	e8.6	59	92	85	45	113	256	194	63	78	13	6.6
5	e9.2	55	92	169	44	105	216	202	57	90	13	5.4
6	e9.4	47	83	380	e41	100	189	219	53	72	13	5.1
7	e8.8	44	75	590	e40	100	165	201	50	66	12	6.6
8	e8.4	66	69	1000	e39	101	156	188	48	311	11	8.3
9	e8.0	112	63	1180	e38	350	184	193	47	230	10	7.1
10	e7.6	95	61	706	e37	905	239	461	43	168	11	6.4
11	e7.6	80	58	386	e36	387	176	632	41	131	14	5.4
12	e7.4	70	55	263	77	253	164	533	46	109	12	5.1
13	e7.4	61	52	e200	69	198	154	354	100	90	8.5	4.6
14	e7.6	62	49	e160	e56	174	145	273	773	77	7.8	4.2
15	e8.0	54	e47	146	e56	149	137	220	717	68	8.2	4.4
16	e8.2	50	e44	159	e54	130	125	188	488	60	8.1	9.7
17	e8.2	46	e42	132	54	118	117	174	421	54	7.8	7.6
18	e8.0	43	41	116	87	118	104	145	381	47	8.9	5.4
19	e7.8	41	39	104	106	155	131	127	293	41	8.4	4.6
20	e7.6	39	39	96	93	151	307	113	229	39	7.0	4.4
21	e7.4	38	36	86	84	149	209	99	186	36	6.6	4.3
22	e7.4	61	e35	e72	80	131	193	87	155	32	6.7	7.2
23	e7.0	59	e35	76	79	123	177	79	143	30	6.6	8.0
24	e6.8	57	35	83	82	118	174	70	126	31	6.6	5.9
25	e10	52	41	74	79	113	151	68	103	26	6.2	4.8
26	e13	54	48	e64	75	125	151	64	93	24	6.7	4.8
27	e16	84	44	e60	76	155	142	57	88	22	6.0	5.9
28	e19	67	40	60	85	238	123	51	76	21	5.4	7.7
29	e15	69	41	e56	---	277	114	50	71	20	5.1	6.4
30	e14	81	e41	57	---	229	108	52	165	18	5.3	5.5
31	e13	---	e36	53	---	193	---	60	---	17	5.7	---
TOTAL	294.4	1824	1743	6730	1756	5830	5558	5624	5325	2318	283.6	180.5
MEAN	9.50	60.8	56.2	217	62.7	188	185	181	178	74.8	9.15	6.02
MAX	19	112	126	1180	106	905	387	632	773	311	15	9.7
MIN	6.8	34	35	32	36	100	104	50	41	17	5.1	4.2
CFSM	.20	1.30	1.20	4.65	1.34	4.03	3.97	3.88	3.80	1.60	.20	.13
IN.	.23	1.45	1.39	5.36	1.40	4.64	4.43	4.48	4.24	1.85	.23	.14

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

MEAN	9.50	60.8	56.2	217	62.7	188	185	181	178	74.8	9.15	6.02
MAX	9.50	60.8	56.2	217	62.7	188	185	181	178	74.8	9.15	6.02
(WY)	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998
MIN	9.50	60.8	56.2	217	62.7	188	185	181	178	74.8	9.15	6.02
(WY)	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998

e Estimated



DELAWARE RIVER BASIN

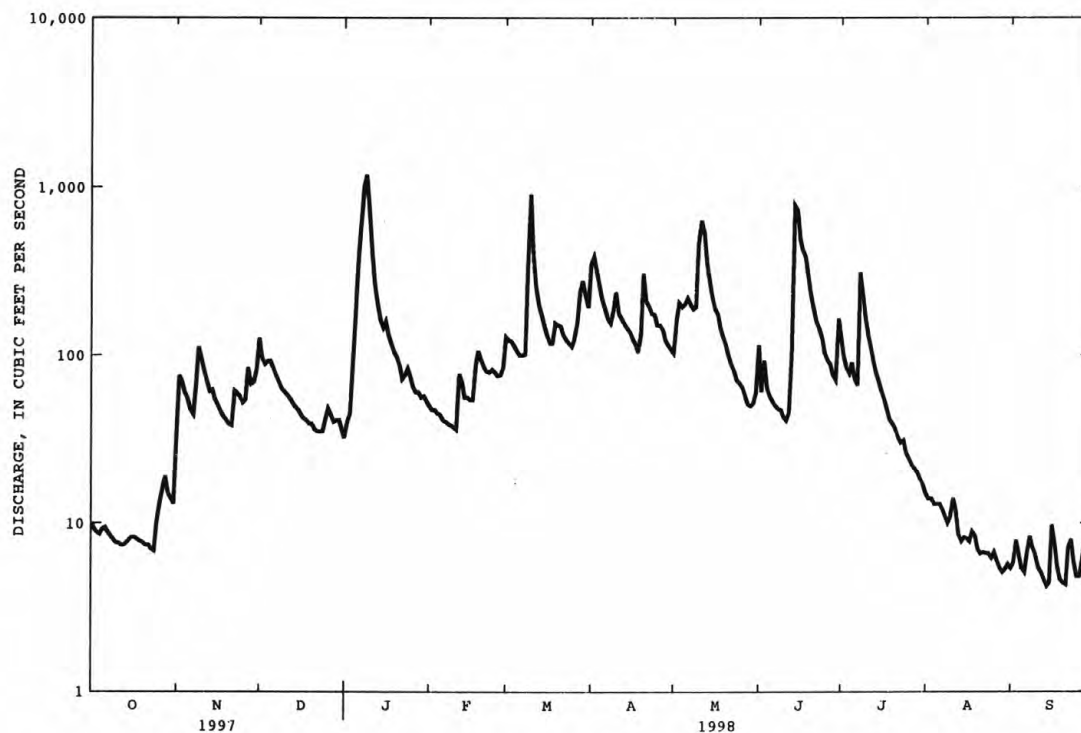
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01413398 BUSH KILL NEAR ARKVILLE, NY--Continued

SUMMARY STATISTICS

FOR 1998 WATER YEAR

ANNUAL TOTAL	37466.5	
ANNUAL MEAN	103	
HIGHEST DAILY MEAN	1180	Jan 9
LOWEST DAILY MEAN	4.2	Sep 14
ANNUAL SEVEN-DAY MINIMUM	5.3	Sep 9
ANNUAL RUNOFF (CFSM)	2.20	
ANNUAL RUNOFF (INCHES)	29.84	
10 PERCENT EXCEEDS	217	
50 PERCENT EXCEEDS	61	
90 PERCENT EXCEEDS	7.1	



CURRENT WATER YEAR DAILY DISCHARGE.



## 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 mi<sup>2</sup>.

**PERIOD OF RECORD.**--October to December 1996 (maximum only), December 1996 to current year.

**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 ft<sup>3</sup>/s, Nov. 9, 1996, gage height, 12.01 ft, from crest-stage gage, from rating curve extended above 800 ft<sup>3</sup>/s on basis of runoff comparison with nearby stations; minimum discharge, 9.0 ft<sup>3</sup>/s, Aug. 12, 13, 1997, gage height, 1.26 ft.

**EXTREMES OUTSIDE PERIOD OF RECORD.**--Maximum discharge, about 12,000 ft<sup>3</sup>/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 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 8	1730	a2,600	7.19	May 10	1915	a1,770	6.20
Mar. 10	0115	a*3,380	*8.00	June 14	1915	a3,180	7.80
Apr. 1	1930	1,590	5.97	July 8	1900	1,530	5.88

a From rating curve extended as explained above.

Minimum discharge, 9.7 ft<sup>3</sup>/s, Sept. 21, 22, gage height, 1.29 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	58	274	e60	e80	219	655	160	197	239	32	13
2	16	245	214	86	e78	221	753	238	99	178	30	14
3	15	246	193	94	80	220	595	319	162	150	29	20
4	15	185	197	187	76	205	477	316	115	136	27	16
5	16	160	195	433	74	191	389	358	103	164	26	13
6	16	132	176	1040	e64	179	320	459	95	129	25	11
7	15	115	159	1370	e60	175	268	425	89	116	24	14
8	14	181	145	2170	e56	178	247	377	85	471	23	18
9	14	362	133	2100	e54	921	297	366	80	536	21	16
10	13	312	129	1410	e56	2060	433	1010	72	398	21	14
11	13	242	122	847	61	910	308	1300	68	301	26	13
12	13	199	114	586	172	e600	282	1030	75	244	23	11
13	13	167	107	e450	156	e430	259	698	163	199	19	11
14	13	162	101	349	e110	359	238	526	1500	169	17	11
15	14	140	e88	284	e100	291	222	407	1430	147	17	11
16	14	124	e86	330	e110	244	199	323	911	130	17	18
17	14	111	e84	259	114	216	184	289	735	116	17	16
18	13	102	82	222	158	211	164	232	650	103	18	13
19	13	95	78	198	193	287	203	196	492	90	19	11
20	13	89	77	178	172	293	654	175	375	82	16	10
21	13	87	71	159	157	305	433	154	290	77	15	10
22	13	142	e56	142	147	269	368	135	234	70	15	13
23	12	137	e64	138	143	243	318	120	207	64	16	16
24	12	132	68	155	152	228	295	106	183	65	15	13
25	18	119	85	136	146	215	253	101	153	56	15	12
26	22	122	103	120	135	234	252	93	135	51	15	11
27	28	184	92	109	133	343	236	82	128	47	14	11
28	33	149	86	106	146	664	200	73	110	43	13	15
29	27	151	80	100	---	747	182	70	102	41	12	13
30	25	171	e72	99	---	586	170	75	294	38	12	12
31	23	---	e64	93	---	478	---	82	---	35	13	---
TOTAL	511	4821	3595	14010	3183	12722	9854	10295	9332	4685	602	400
MEAN	16.5	161	116	452	114	410	328	332	311	151	19.4	13.3
MAX	33	362	274	2170	193	2060	753	1300	1500	536	32	20
MIN	12	58	56	60	54	175	164	70	68	35	12	10
CFSM	.20	1.95	1.41	5.50	1.38	4.99	4.00	4.04	3.78	1.84	.24	.16
IN.	.23	2.18	1.63	6.34	1.44	5.76	4.46	4.66	4.22	2.12	.27	.18

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 1998, BY WATER YEAR (WY)**

MEAN	16.5	161	116	294	142	326	357	293	183	84.0	17.1	20.3
MAX	16.5	161	116	452	171	410	385	332	311	151	19.4	27.2
(WY)	1998	1998	1998	1998	1997	1998	1997	1998	1998	1998	1998	1997
MIN	16.5	161	116	136	114	242	328	254	54.2	16.9	14.9	13.3
(WY)	1998	1998	1998	1997	1998	1997	1998	1997	1997	1997	1997	1998

e Estimated

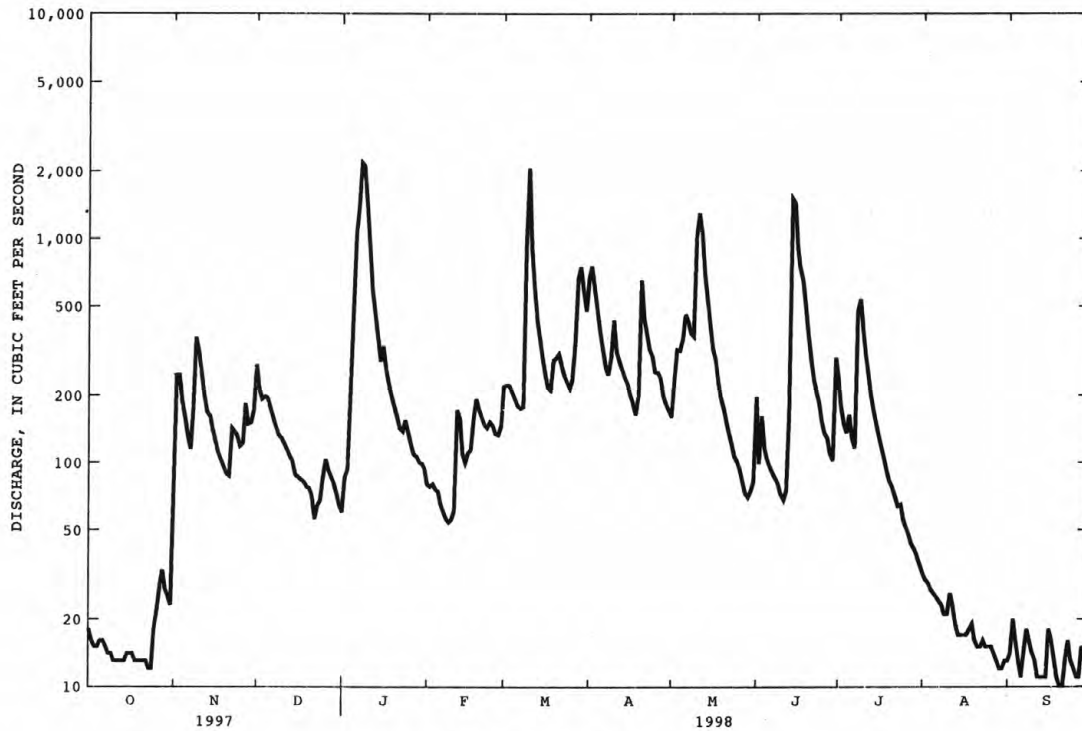


DELAWARE RIVER BASIN

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01413408 DRY BROOK AT ARKVILLE, NY--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1997 - 1998	
ANNUAL TOTAL	48306.7		74010		203	
ANNUAL MEAN	132		203		203	
HIGHEST ANNUAL MEAN					203	
LOWEST ANNUAL MEAN					203	
HIGHEST DAILY MEAN	1040	Apr 7	2170	Jan 8	2170	Jan 8 1998
LOWEST DAILY MEAN	9.3	Aug 12	10	Sep 20	9.3	Aug 12 1997
ANNUAL SEVEN-DAY MINIMUM	11	Aug 7	12	Sep 19	11	Aug 7 1997
ANNUAL RUNOFF (CFSM)	1.61		2.47		2.47	
ANNUAL RUNOFF (INCHES)	21.86		33.49		33.52	
10 PERCENT EXCEEDS	310		433		422	
50 PERCENT EXCEEDS	86		122		116	
90 PERCENT EXCEEDS	13		14		13	



CURRENT WATER YEAR DAILY DISCHARGE.





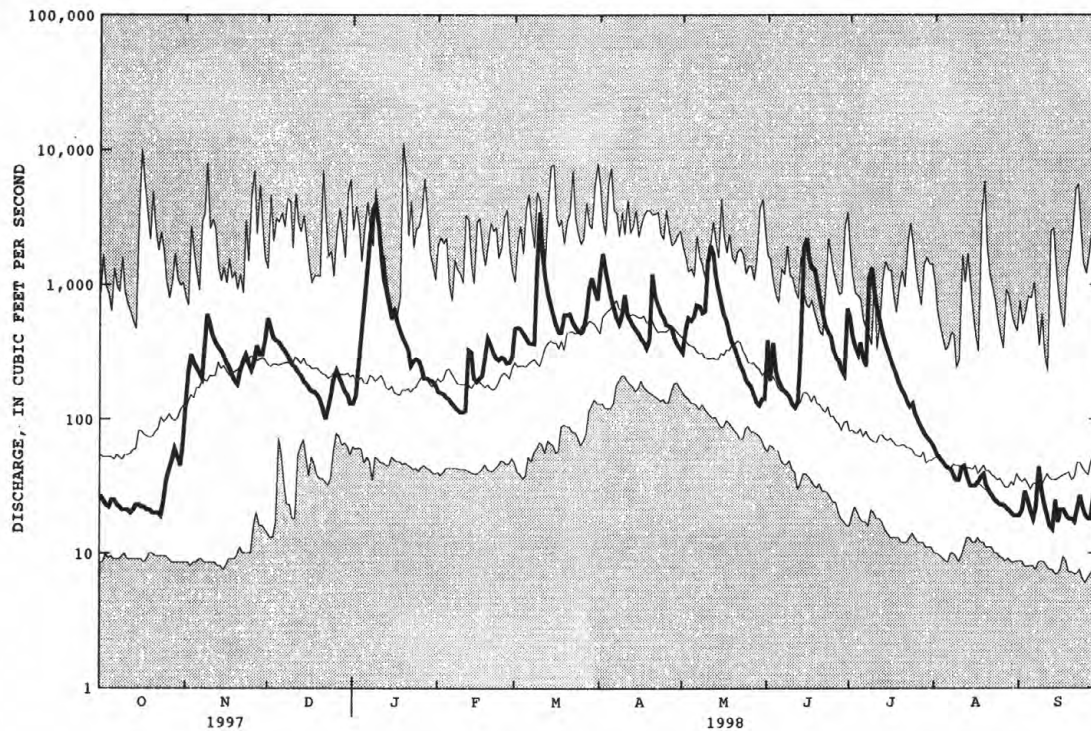


DELAWARE RIVER BASIN

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01413500 EAST BRANCH DELAWARE RIVER AT MARGARETVILLE, NY--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1937 - 1998	
ANNUAL TOTAL	92449		137340		308	
ANNUAL MEAN	253		376		489	
HIGHEST ANNUAL MEAN					138	
LOWEST ANNUAL MEAN					1978	
HIGHEST DAILY MEAN	1650	Apr 7	4010	Jan 9	11300	Jan 19 1996
LOWEST DAILY MEAN	15	Aug 12	15	Sep 13	6.0	Sep 25 1964
ANNUAL SEVEN-DAY MINIMUM	19	Aug 7	19	Sep 15	6.8	Sep 21 1964
ANNUAL RUNOFF (CFSM)	1.55		2.31		1.89	
ANNUAL RUNOFF (INCHES)	21.10		31.34		25.71	
10 PERCENT EXCEEDS	570		825		704	
50 PERCENT EXCEEDS	180		242		170	
90 PERCENT EXCEEDS	23		22		29	



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



## DELAWARE RIVER BASIN

## 01414000 PLATTE KILL AT DUNRAVEN, NY

**LOCATION.**--Lat 42°07'59", long 74°41'45", Delaware County, Hydrologic Unit 02040102, on right bank 200 ft upstream from bridge on Route 28 in Dunraven, 2.5 mi southeast of Margaretville.

**DRAINAGE AREA.**--34.9 mi<sup>2</sup>.

**PERIOD OF RECORD.**--October 1941 to September 1962, December 1996 to current year. Water year 1996 (annual maximum only), November 1996 (maximum only).

**REVISED RECORDS.**--WDR NY-97-1: Drainage area.

**GAGE.**--Water-stage recorder and crest-stage gage. Datum of gage is 1,294.68 ft above sea level. Prior to November 1996, at site 100 ft upstream at datum 1.55 ft higher.

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

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 5,690 ft<sup>3</sup>/s, Jan. 19, 1996, gage height, 9.60 ft, from floodmark, present site and datum (11.20 ft, from floodmark in gage well, site and datum then in use), from rating curve extended above 500 ft<sup>3</sup>/s on basis of contracted-opening measurement; minimum discharge, 0.60 ft<sup>3</sup>/s, Sept. 10, 1997; minimum gage height, 1.86 ft, Aug. 25, 27, 1962, site and datum then in use; minimum gage height since December 1996, 2.20 ft, Sept. 10, 1997.

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

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 9	1845	a1,380	5.45	June 17	1315	661	4.41
Mar. 10	0030	a1,030	4.97	June 30	1145	864	4.73
Apr. 1	1745	a1,160	5.15	July 8	1715	a*1,830	*6.00
June 14	1800	838	4.69				

a From rating curve extended as explained above.

Minimum discharge, 1.8 ft<sup>3</sup>/s, Oct. 21, 22; minimum gage height, 2.33 ft, Oct. 1, 21, 22.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	6.8	146	e27	e30	143	353	59	97	219	7.9	3.6
2	3.1	25	101	e29	e29	140	457	87	46	147	7.7	5.8
3	2.9	27	85	e40	28	131	359	75	147	116	7.0	6.5
4	2.5	30	89	141	26	117	274	72	69	97	6.3	4.3
5	3.9	33	84	298	25	102	207	74	58	115	6.3	3.5
6	4.0	24	73	542	e25	90	161	93	60	73	5.6	3.2
7	3.1	21	65	630	e25	83	129	88	98	64	5.5	4.8
8	2.9	52	58	917	e24	88	119	89	73	564	4.8	6.7
9	2.7	89	53	1070	e24	300	148	112	51	642	4.4	5.3
10	2.7	71	50	772	e24	705	194	182	41	402	5.0	5.4
11	2.7	60	46	490	e23	e390	131	216	26	260	8.2	4.3
12	2.8	54	43	310	84	e230	117	197	38	188	6.2	3.7
13	2.6	47	41	246	69	e170	103	155	127	137	4.5	3.5
14	3.1	48	38	162	e56	146	92	127	366	107	4.1	3.1
15	3.5	41	e35	126	e50	118	84	104	525	87	4.5	3.2
16	4.2	38	e33	199	e52	e92	75	88	367	71	4.4	6.3
17	3.3	34	e31	131	55	e80	72	85	407	60	9.2	4.8
18	3.1	32	e30	108	71	88	62	73	351	48	7.8	3.7
19	2.9	e30	e28	93	98	137	113	63	240	38	7.3	3.4
20	3.5	28	e27	81	76	127	295	56	166	33	5.6	3.1
21	3.1	28	e26	69	69	e120	208	47	121	29	5.0	3.2
22	2.7	67	e25	e62	64	e110	173	42	92	26	5.3	7.8
23	2.9	63	28	59	60	e100	142	34	82	23	5.7	7.6
24	3.0	59	25	64	64	e94	118	33	66	26	4.1	4.6
25	7.4	49	40	54	60	e90	103	29	50	20	e4.0	3.8
26	7.0	58	52	49	57	102	108	27	43	17	3.9	3.7
27	12	100	47	e44	58	108	95	24	46	15	3.6	5.3
28	9.9	70	43	39	75	141	77	25	36	13	3.2	8.3
29	6.9	74	e37	e36	---	193	70	23	33	12	3.1	5.1
30	5.6	96	e33	35	---	177	64	27	291	11	3.3	4.2
31	4.9	---	e30	32	---	147	---	41	---	10	3.7	---
TOTAL	128.5	1454.8	1542	6955	1401	4859	4703	2447	4213	3670	167.2	141.8
MEAN	4.15	48.5	49.7	224	50.0	157	157	78.9	140	118	5.39	4.73
MAX	12	100	146	1070	98	705	457	216	525	642	9.2	8.3
MIN	2.5	6.8	25	27	23	80	62	23	26	10	3.1	3.1
CFSM	.12	1.39	1.43	6.43	1.43	4.49	4.49	2.26	4.02	3.39	.15	.14
IN.	.14	1.55	1.64	7.41	1.49	5.18	5.01	2.61	4.49	3.91	.18	.15

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

	MEAN	32.8	68.8	73.6	77.5	67.1	126	148	83.0	42.3	23.0	15.5	20.4
MAX	175	154	137	224	126	246	323	164	140	118	111	135	
(WY)	1956	1960	1958	1998	1951	1948	1958	1947	1998	1998	1955	1960	
MIN	3.86	20.2	27.9	9.28	23.1	50.8	37.3	30.1	11.5	3.13	2.91	2.14	
(WY)	1962	1958	1961	1961	1958	1958	1946	1955	1959	1959	1949	1943	

e Estimated

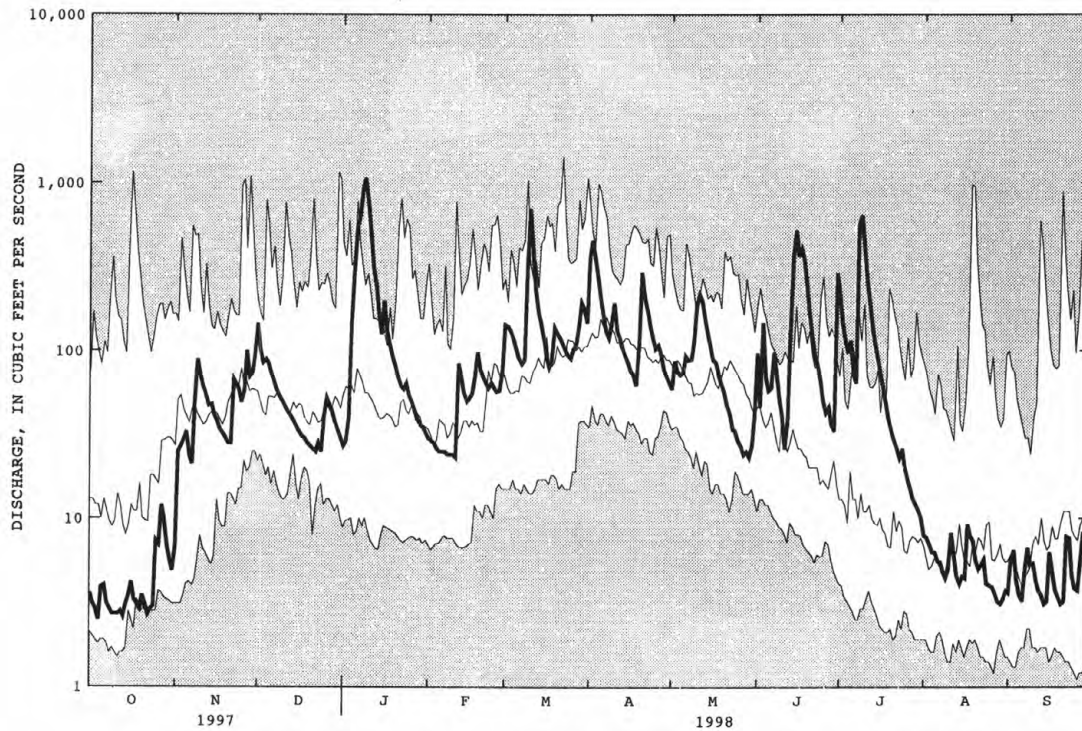


DELAWARE RIVER BASIN

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01414000 PLATTE KILL AT DUNRAVEN, NY--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR	FOR 1998 WATER YEAR	WATER YEARS 1942 - 1998
ANNUAL TOTAL	17971.2	31682.3	
ANNUAL MEAN	49.2	86.8	65.2
HIGHEST ANNUAL MEAN			90.7
LOWEST ANNUAL MEAN			42.4
HIGHEST DAILY MEAN	393 Feb 22	1070 Jan 9	1430 Mar 22 1948
LOWEST DAILY MEAN	1.9 Sep 10	2.5 Oct 4	1.1 Sep 26 1943
ANNUAL SEVEN-DAY MINIMUM	2.6 Jul 27	2.8 Oct 7	1.2 Sep 23 1943
ANNUAL RUNOFF (CFSM)	1.41	2.49	1.87
ANNUAL RUNOFF (INCHES)	19.16	33.77	25.37
10 PERCENT EXCEEDS	121	193	148
50 PERCENT EXCEEDS	31	50	36
90 PERCENT EXCEEDS	2.9	3.7	4.4



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



## DELAWARE RIVER BASIN

## 01414500 MILL BROOK NEAR DUNRAVEN, NY

**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 mi<sup>2</sup>.

**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.

**EXTREMES FOR PERIOD OF RECORD.**---Maximum discharge, 5,380 ft<sup>3</sup>/s, Jan. 19, 1996, gage height, 12.56 ft, from rating curve extended above 2,740 ft<sup>3</sup>/s on basis of flow-through-curve measurement of peak flow; minimum discharge observed, 1.2 ft<sup>3</sup>/s, Sept. 25, 26, 1939.

**EXTREMES FOR CURRENT YEAR.**---Peak discharges greater than base discharge of 740 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 9	2400	*1,080	*7.31	June 14	1900	745	6.56

Minimum recorded discharge, 2.3 ft<sup>3</sup>/s, Sept. 27, gage height, 2.93 ft, but may have been less during period of estimated record, Aug. 23 to Sept. 23.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.0	14	97	e22	29	83	169	47	73	69	11	e3.6
2	6.9	41	74	e25	28	84	220	58	41	59	10	e4.0
3	6.4	57	65	35	27	81	166	68	68	49	9.2	e5.2
4	6.0	52	64	73	26	75	133	71	52	43	8.6	e4.0
5	6.9	48	62	168	e24	69	109	79	45	60	8.2	e3.5
6	6.7	41	56	329	e23	65	91	109	39	45	7.7	e3.0
7	6.2	37	52	363	23	62	78	100	35	41	7.5	e4.0
8	5.9	61	47	544	22	62	73	92	32	133	6.8	e5.0
9	5.7	107	43	507	22	274	85	89	29	178	6.3	e4.1
10	5.6	96	e40	327	21	563	119	133	26	128	6.3	e3.7
11	5.7	75	39	204	21	245	92	175	24	94	8.0	e3.4
12	5.6	64	36	145	68	164	83	152	26	76	6.9	e3.1
13	5.5	55	35	120	e52	119	77	124	60	64	6.0	e3.0
14	5.6	53	32	94	e47	97	70	101	282	54	5.7	e2.9
15	6.3	46	29	79	e44	81	66	85	351	47	5.5	e3.1
16	6.2	41	29	112	e45	70	59	73	247	41	5.3	e4.5
17	5.9	37	27	87	48	e64	55	76	215	36	5.3	e4.0
18	5.8	34	26	75	58	e74	49	60	192	31	5.8	e3.5
19	5.7	32	25	69	68	e90	65	52	146	27	5.4	e3.1
20	5.6	30	24	62	62	e96	178	45	110	27	5.0	e2.8
21	5.5	30	22	56	59	e90	128	38	86	24	4.5	e2.9
22	5.3	54	e18	50	55	e84	106	34	71	22	4.2	e4.5
23	5.2	53	24	49	53	e78	90	30	61	20	e4.4	e3.5
24	5.2	49	21	e47	56	e70	80	27	53	20	e4.3	3.0
25	8.6	43	31	e45	53	e66	71	26	45	17	e4.1	2.9
26	10	46	40	42	49	e80	73	24	39	16	e4.0	2.7
27	12	63	36	38	48	92	69	21	37	15	e3.8	3.1
28	14	52	32	37	54	152	59	19	32	14	e3.6	3.7
29	14	51	e28	35	---	162	54	19	29	13	e3.4	2.9
30	12	61	e25	35	---	132	50	21	72	12	e3.3	2.9
31	12	---	e24	32	---	111	---	27	---	12	e3.5	---
TOTAL	226.0	1523	1203	3906	1185	3635	2817	2075	2618	1487	183.6	105.6
MEAN	7.29	50.8	38.8	126	42.3	117	93.9	66.9	87.3	48.0	5.92	3.52
MAX	14	107	97	544	68	563	220	175	351	178	11	5.2
MIN	5.2	14	18	22	21	62	49	19	24	12	3.3	2.7
CFSM	.29	2.01	1.54	5.00	1.68	4.65	3.73	2.66	3.46	1.90	.24	.14
IN.	.33	2.25	1.78	5.77	1.75	5.37	4.16	3.06	3.86	2.20	.27	.16

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

	MEAN	33.9	64.9	67.9	55.1	55.6	94.0	127	72.1	35.3	22.7	14.9	19.9
MAX	128	158	210	171	206	216	294	171	87.3	136	87.9	116	
(WY)	1978	1960	1974	1996	1981	1948	1940	1940	1998	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

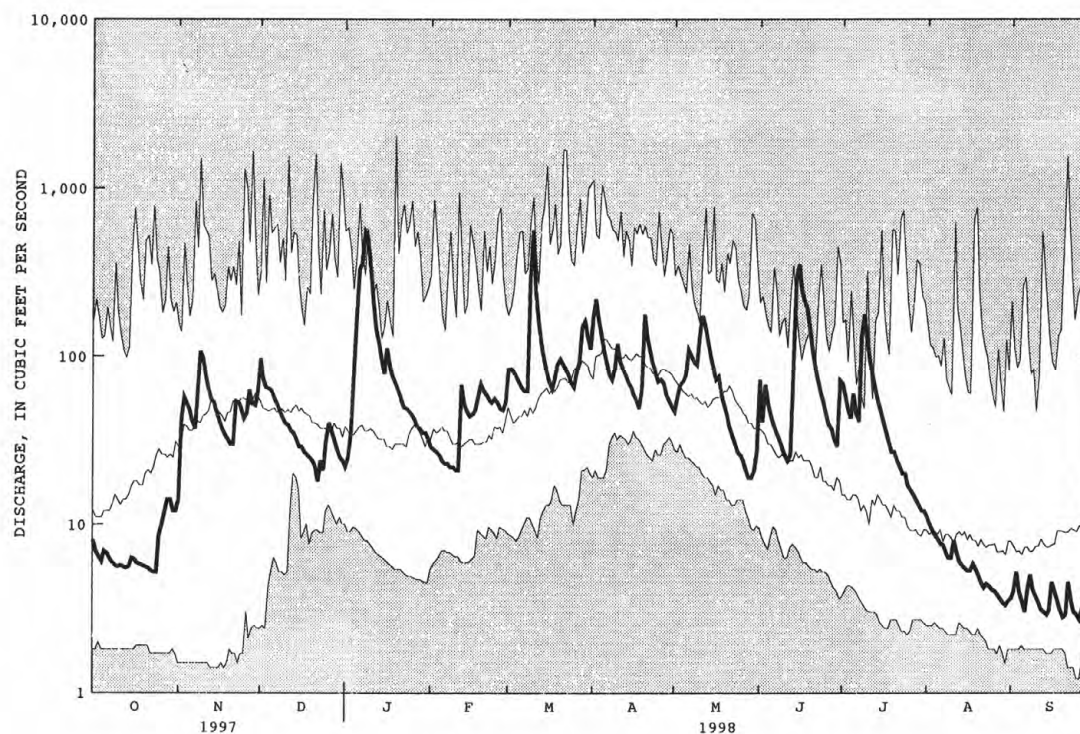


DELAWARE RIVER BASIN

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01414500 MILL BROOK NEAR DUNRAVEN, NY--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1937 - 1998	
ANNUAL TOTAL	15397.4		20964.2		55.1	
ANNUAL MEAN	42.2		57.4		83.3	
HIGHEST ANNUAL MEAN					28.1	
LOWEST ANNUAL MEAN					2080	
HIGHEST DAILY MEAN	241	Apr 7	563	Mar 10	1.2	Jan 19 1996
LOWEST DAILY MEAN	2.2	Aug 9	2.7	Sep 26	1.4	Sep 25 1939
ANNUAL SEVEN-DAY MINIMUM	2.3	Aug 6	3.0	Sep 24	2.19	Nov 12 1964
ANNUAL RUNOFF (CFSM)	1.67		2.28		29.70	
ANNUAL RUNOFF (INCHES)	22.73		30.95		120	
10 PERCENT EXCEEDS	99		119		32	
50 PERCENT EXCEEDS	32		41		5.8	
90 PERCENT EXCEEDS	4.2		4.5			



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



## DELAWARE RIVER BASIN

## 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 mi<sup>2</sup>.

**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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 5,000 ft<sup>3</sup>/s, Jan. 19, 1996, gage height, 7.69 ft, from floodmark in gage well, from rating curve extended above 2,900 ft<sup>3</sup>/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 ft<sup>3</sup>/s, Sept. 17, 21, 22, 1964.

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 700 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 9	1630	1,100	4.94	June 14	1915	1,600	5.37
Mar. 10	0145	890	4.72	July 8	1915	*2,170	*5.81

Minimum discharge, 2.3 ft<sup>3</sup>/s, Sept. 21, gage height, 2.29 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.3	7.6	124	e26	e32	136	158	41	81	150	8.4	3.1
2	4.2	15	88	e32	e30	131	193	57	40	122	7.9	4.5
3	3.9	24	80	e36	29	123	172	63	147	96	7.4	6.3
4	3.7	23	84	e100	27	109	149	69	76	89	7.0	4.0
5	6.1	27	80	231	27	95	127	72	60	126	6.8	3.3
6	5.7	21	68	342	e25	82	107	79	49	80	6.6	2.8
7	4.7	19	60	406	e24	73	88	72	42	68	6.1	5.2
8	4.3	48	52	674	e22	76	82	68	38	553	5.2	6.4
9	4.1	87	46	785	e20	223	103	79	34	452	4.9	5.5
10	3.8	67	44	494	e19	554	136	120	29	268	5.0	7.7
11	3.5	52	42	276	e20	290	100	137	27	169	10	4.8
12	3.4	43	38	177	76	190	92	123	42	123	7.5	3.9
13	3.4	38	36	140	64	140	82	104	132	95	5.7	3.5
14	3.3	38	e33	107	e48	117	74	85	476	73	5.2	3.2
15	3.7	34	e28	86	e42	96	69	70	529	59	6.0	3.1
16	4.2	31	e29	151	e40	77	62	58	326	49	5.3	6.1
17	3.9	28	e28	108	e45	68	54	73	296	42	5.1	4.3
18	3.8	27	e26	93	59	74	47	50	239	35	6.4	3.4
19	3.6	25	e25	83	82	117	80	40	178	29	6.2	3.0
20	3.5	24	e24	73	67	117	216	35	136	27	4.8	2.8
21	3.5	23	e22	64	61	127	148	31	104	24	4.4	2.5
22	3.5	56	e20	51	56	121	125	27	79	22	4.1	8.9
23	3.2	59	27	54	53	107	104	24	65	19	3.9	6.9
24	3.2	55	24	61	56	97	84	21	57	20	3.8	4.1
25	7.4	47	36	53	54	93	75	21	46	16	3.5	3.6
26	8.9	49	47	45	51	111	79	19	42	15	3.4	3.3
27	12	84	45	38	52	128	73	17	42	13	3.1	4.9
28	12	63	e40	40	64	131	55	15	35	12	2.8	9.8
29	9.3	66	e34	41	---	133	48	15	31	12	2.8	5.1
30	8.2	81	e36	37	---	121	44	17	173	11	3.0	4.0
31	7.0	---	e31	34	---	107	---	35	---	9.6	3.3	---
TOTAL	160.3	1261.6	1397	4938	1245	4164	3026	1737	3651	2878.6	165.6	140.0
MEAN	5.17	42.1	45.1	159	44.5	134	101	56.0	122	92.9	5.34	4.67
MAX	12	87	124	785	82	554	216	137	529	553	10	9.8
MIN	3.2	7.6	20	26	19	68	44	15	27	9.6	2.8	2.5
CFSM	.16	1.27	1.36	4.80	1.34	4.05	3.04	1.69	3.67	2.80	.16	.14
IN.	.18	1.41	1.57	5.53	1.39	4.67	3.39	1.95	4.09	3.23	.19	.16

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

	MEAN	35.2	64.5	72.3	63.7	65.3	111	128	71.5	36.4	21.1	16.7	24.0
MAX	158	170	196	181	186	260	284	178	122	92.9	91.6	152	
(WY)	1978	1997	1997	1996	1981	1977	1956	1984	1998	1998	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

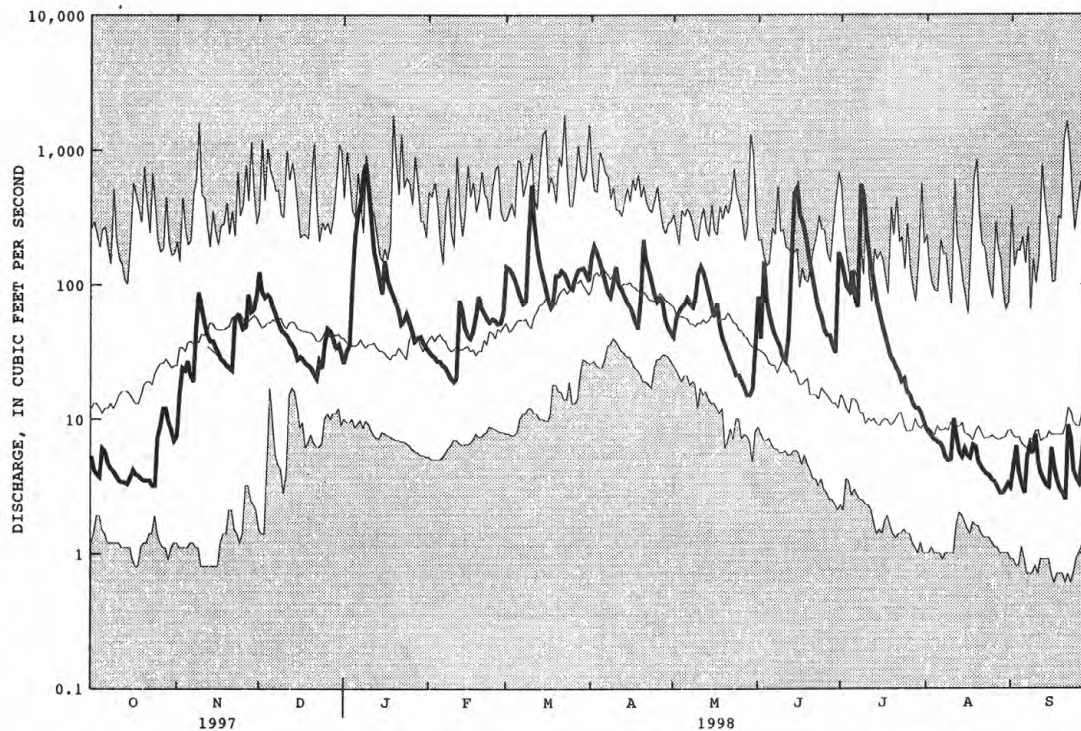


DELAWARE RIVER BASIN

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01415000 TREMPER KILL NEAR ANDES, NY--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR	FOR 1998 WATER YEAR	WATER YEARS 1937 - 1998
ANNUAL TOTAL	17081.4	24764.1	
ANNUAL MEAN	46.8	67.8	59.0
HIGHEST ANNUAL MEAN			89.6
LOWEST ANNUAL MEAN			26.6
HIGHEST DAILY MEAN	394 Feb 22	785 Jan 9	1830 Mar 22 1948
LOWEST DAILY MEAN	1.9 Aug 11	2.5 Sep 21	.60 Sep 17 1964
ANNUAL SEVEN-DAY MINIMUM	2.5 Aug 6	3.1 Aug 26	.66 Sep 17 1964
ANNUAL RUNOFF (CFSM)	1.41	2.04	1.78
ANNUAL RUNOFF (INCHES)	19.14	27.75	24.13
10 PERCENT EXCEEDS	120	136	135
50 PERCENT EXCEEDS	27	42	33
90 PERCENT EXCEEDS	3.5	3.9	5.2



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



**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.

**PERIOD OF RECORD.**--July 1941 to current year.

**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 ft<sup>3</sup>/s, Nov. 26, 1950, gage height, 14.52 ft, site and datum then in use, from rating curve extended above 12,000 ft<sup>3</sup>/s; minimum discharge, 0.3 ft<sup>3</sup>/s, Oct. 11, 1954; minimum gage height, 1.39 ft, Jan. 17, 1964.

**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, 4,190 ft<sup>3</sup>/s, June 15, gage height, 6.08 ft; minimum, 5.8 ft<sup>3</sup>/s, Jan. 14, 15, gage height, 2.00 ft.

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

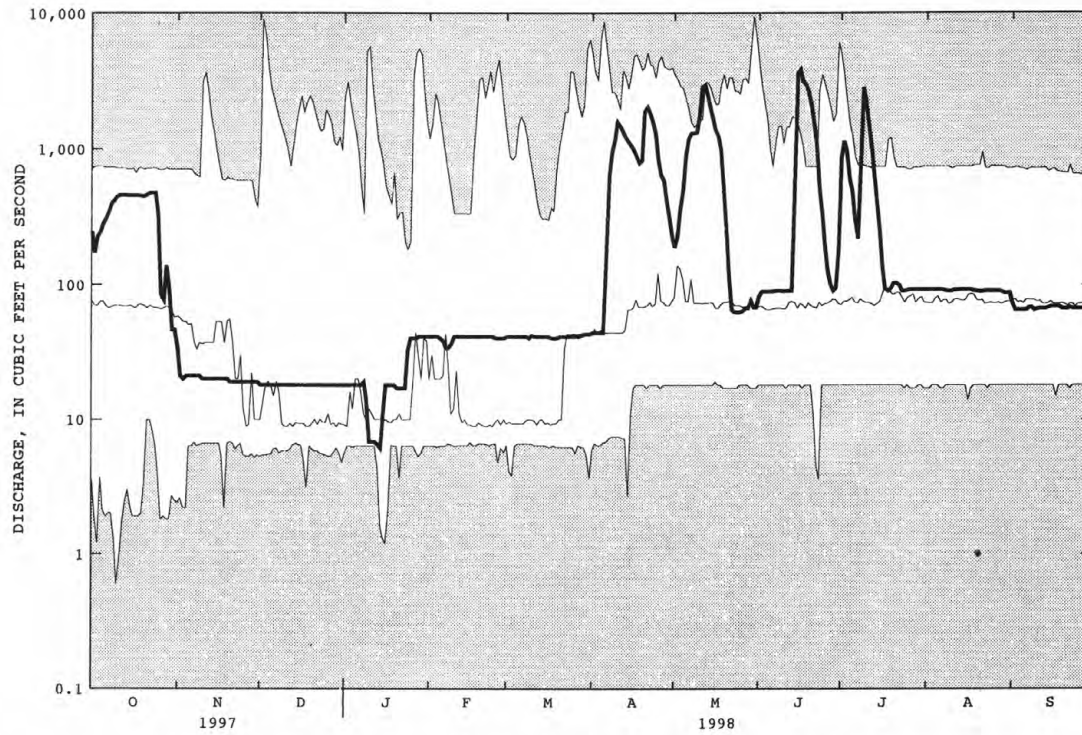
SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR			FOR 1998 WATER YEAR			WATER YEARS 1955 - 1998		
ANNUAL TOTAL	106082			111256.0					
ANNUAL MEAN	291			305			199		
HIGHEST ANNUAL MEAN							507 1956		
LOWEST ANNUAL MEAN							65.3 1992		
HIGHEST DAILY MEAN	2880	Apr	6	3840	Jun	16	9340	May	30 1984
LOWEST DAILY MEAN	18	Dec	1	6.1	Jan	14	.60	Oct	10 1954
ANNUAL SEVEN-DAY MINIMUM	18	Dec	1	8.3	Jan	9	1.5	Oct	6 1954
10 PERCENT EXCEEDS	650			1020			593		
50 PERCENT EXCEEDS	99			67			54		
90 PERCENT EXCEEDS	19			18			7.4		



DELAWARE RIVER BASIN

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01417000 EAST BRANCH DELAWARE RIVER AT DOWNSVILLE, NY--Continued



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



## 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 mi<sup>2</sup>.

### 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 mi<sup>2</sup> 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 ft<sup>3</sup>/s, Sept. 22, 1938, gage height, 16.93 ft, site and datum then in use, from rating curve extended above 10,000 ft<sup>3</sup>/s, on basis of slope-area measurement at gage height 15.58 ft; minimum discharge, 7.2 ft<sup>3</sup>/s, Oct. 13, 1954, gage height, 1.63 ft, site and datum then in use.

**EXTREMES FOR CURRENT YEAR.**--Maximum discharge, 4,710 ft<sup>3</sup>/s, June 16, gage height, 8.12 ft; minimum, 38 ft<sup>3</sup>/s, Dec. 22, gage height, 2.01 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	343	61	296	88	117	431	401	366	277	1200	114	96
2	161	64	257	112	114	477	507	371	196	1400	110	78
3	235	95	220	114	113	470	454	650	304	1240	110	78
4	253	81	208	169	109	407	404	779	239	903	108	76
5	280	76	207	486	108	355	356	1030	216	863	106	74
6	325	69	187	805	104	311	324	1240	197	683	106	74
7	337	65	167	1070	94	276	681	1360	186	514	104	81
8	411	68	150	1850	88	253	938	1350	177	807	101	88
9	436	129	136	2580	86	393	1140	1350	169	3360	98	89
10	462	154	128	1450	92	1040	1620	1660	160	2930	99	88
11	487	129	125	833	94	830	1540	2940	156	1930	108	85
12	487	115	114	562	208	601	1410	3330	192	1310	103	84
13	487	104	107	426	292	452	1290	2780	413	933	100	82
14	487	103	100	337	253	383	1180	2190	598	712	99	80
15	488	99	83	265	e210	322	1090	1740	3480	521	102	79
16	487	89	88	374	e190	271	1020	1430	4510	344	101	83
17	487	81	89	347	e200	237	941	1250	3700	236	100	84
18	485	76	83	302	216	230	874	1080	3440	199	101	81
19	482	71	81	273	274	269	868	735	2850	178	104	80
20	482	67	79	243	272	281	1910	475	2450	179	102	80
21	484	65	73	213	261	325	2240	296	1760	175	100	79
22	503	101	59	187	246	364	1990	192	1240	167	98	93
23	505	154	76	175	234	321	1690	162	805	147	98	95
24	509	145	76	173	236	292	1410	148	614	139	98	87
25	491	130	85	181	230	272	1030	144	430	133	98	84
26	180	116	116	162	210	285	839	145	300	131	100	83
27	68	171	125	148	210	393	811	135	245	127	97	94
28	151	161	124	143	222	521	679	130	201	122	97	119
29	156	160	113	135	---	567	546	137	222	120	96	97
30	73	178	129	135	---	492	438	138	549	118	94	90
31	61	---	110	129	---	414	---	132	---	115	101	---
TOTAL	11283	3177	3991	14467	5083	12535	30621	29865	30276	21936	3153	2561
MEAN	364	106	129	467	182	404	1021	963	1009	708	102	85.4
MAX	509	178	296	2580	292	1040	2240	3330	4510	3360	114	119
MIN	61	61	59	88	86	230	324	130	156	115	94	74

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

MEAN	291	336	295	245	210	348	777	505	278	245	265	286
MAX	745	949	2327	1558	725	761	2477	1670	1009	767	770	653
(WY)	1962	1997	1997	1978	1981	1986	1993	1984	1998	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 1997 CALENDAR YEAR	FOR 1998 WATER YEAR	WATER YEARS 1955 - 1998
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ANNUAL TOTAL	140379		168948			
ANNUAL MEAN	385		463		335	
HIGHEST ANNUAL MEAN					688	1956
LOWEST ANNUAL MEAN					178	1985
HIGHEST DAILY MEAN	3120	Apr 6	4510	Jun 16	10800	May 30 1984
LOWEST DAILY MEAN	59	Dec 22	59	Dec 22	7.6	Oct 13 1954
ANNUAL SEVEN-DAY MINIMUM	72	Oct 31	72	Oct 31	8.6	Oct 8 1954
10 PERCENT EXCEEDS	887		1240		720	
50 PERCENT EXCEEDS	164		200		171	
90 PERCENT EXCEEDS	94		83		78	

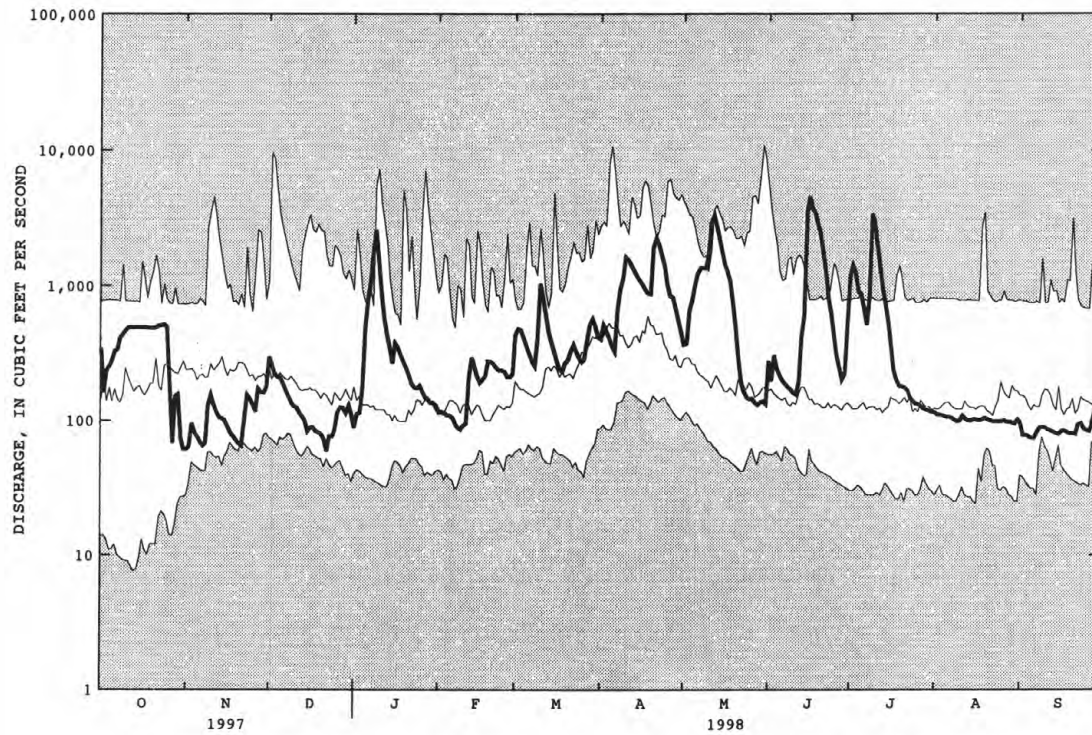
e Estimated



DELAWARE RIVER BASIN

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01417500 EAST BRANCH DELAWARE RIVER AT HARVARD, NY--Continued



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



## DELAWARE RIVER BASIN

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, 1984-98), 28.0°C, June 30, 1981; minimum (water years 1979-87, 1989-98), 0.0°C on many days during winter periods, except 1989, 1998.

## EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 23.0°C, July 18; minimum, 0.5°C on many days during winter period.

## WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

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



## DELAWARE RIVER BASIN

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## 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	2.5	.5	1.5	5.0	4.0	4.5	12.0	10.5	11.0	12.0	11.0	11.5
2	3.0	.5	1.5	5.0	3.5	4.5	11.5	9.0	10.5	12.0	10.5	11.5
3	3.0	2.0	2.5	5.0	3.5	4.0	9.0	7.5	8.0	12.5	10.5	11.5
4	3.0	2.0	2.5	4.5	3.0	3.5	7.5	6.0	7.0	12.0	10.5	11.0
5	4.0	2.5	3.0	4.5	3.0	4.0	7.0	5.0	6.0	12.5	11.0	12.0
6	3.5	1.0	2.0	4.5	3.0	3.5	8.5	5.0	6.5	14.0	12.0	12.5
7	3.0	.5	1.5	5.5	3.0	4.0	8.0	4.5	6.5	15.5	12.5	13.5
8	3.0	.5	1.5	4.5	3.0	4.0	7.0	4.5	5.5	13.5	12.5	13.0
9	3.0	.5	1.5	6.0	3.5	5.0	5.5	5.0	5.0	14.0	13.0	13.5
10	3.5	1.0	2.0	5.5	2.5	4.5	7.0	4.5	5.5	13.5	13.0	13.5
11	3.5	1.5	2.5	2.5	1.0	1.5	7.5	4.0	5.5	13.5	13.0	13.5
12	4.0	3.0	3.5	1.0	.5	.5	8.0	4.0	6.0	14.5	12.5	13.0
13	3.0	1.5	2.5	2.0	.5	1.0	9.0	4.5	6.5	15.0	12.0	13.5
14	1.5	.5	1.0	1.5	.5	1.0	10.0	6.0	8.0	15.5	12.0	13.5
15	1.0	.5	.5	3.5	1.0	2.0	9.0	8.0	8.0	16.5	12.5	14.5
16	.5	.5	.5	5.0	1.0	3.0	10.0	7.0	8.5	18.5	14.5	16.0
17	2.0	.5	1.0	5.0	1.0	3.0	10.0	9.0	9.5	19.0	16.0	17.0
18	4.0	2.0	3.0	4.0	3.0	3.5	10.0	6.5	8.5	17.0	13.0	15.5
19	4.0	3.5	3.5	4.0	3.0	3.5	9.0	6.0	7.0	16.5	12.5	15.0
20	4.0	3.5	3.5	6.0	3.5	4.5	7.5	6.5	7.0	18.5	14.5	16.5
21	4.0	3.0	3.5	5.5	2.0	4.5	8.5	6.0	7.0	18.0	14.5	16.5
22	4.0	3.0	3.5	2.0	.5	1.5	9.5	6.0	8.0	15.0	13.0	14.0
23	3.5	2.5	3.0	4.0	1.5	2.5	9.5	7.5	8.5	18.0	11.5	14.5
24	3.5	1.0	2.0	5.5	1.5	3.5	11.0	8.0	9.5	19.5	12.5	16.0
25	3.0	1.5	2.0	6.5	2.0	4.0	10.5	7.5	9.0	18.5	14.5	16.5
26	5.0	1.5	3.0	8.0	4.0	6.0	---	---	---	19.5	15.0	17.0
27	5.5	2.0	4.0	9.0	5.5	7.0	9.7	---	---	20.5	14.5	17.5
28	5.5	3.5	4.5	10.5	6.5	8.5	10.5	6.0	8.5	21.0	15.0	18.0
29	---	---	---	12.0	8.5	10.0	12.0	7.0	9.5	21.5	16.0	---
30	---	---	---	12.5	8.0	10.0	13.0	9.5	11.5	22.0	16.5	19.5
31	---	---	---	14.0	9.5	11.5	---	---	---	21.0	17.0	19.0
MONTH	5.5	.5	2.5	14.0	.5	4.5	---	---	---	22.0	10.5	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	18.0	15.5	17.0	16.5	14.0	15.5	21.0	15.0	18.0	18.5	15.0	17.0
2	16.5	13.5	15.0	18.5	14.5	16.5	21.0	15.5	18.5	17.0	14.5	15.5
3	15.5	12.0	14.0	20.5	17.0	18.5	21.5	16.0	19.0	19.0	14.5	16.5
4	14.5	11.0	13.0	19.0	17.0	18.0	20.5	16.5	19.0	19.5	14.5	17.5
5	16.0	10.5	13.0	19.5	16.5	18.0	20.0	16.5	18.5	19.5	16.0	17.5
6	15.5	11.5	13.5	19.5	16.0	17.5	18.5	16.5	17.5	21.0	15.5	18.0
7	13.5	11.0	12.5	18.0	16.0	16.5	19.5	15.5	17.0	19.5	16.0	17.5
8	12.5	10.5	11.5	16.0	14.5	15.0	22.0	16.0	18.5	17.0	15.0	16.0
9	17.0	10.5	13.5	20.0	14.5	18.5	20.5	18.0	19.5	15.0	12.5	13.5
10	19.0	13.0	16.0	20.0	17.5	19.0	20.0	17.5	18.5	15.0	12.5	13.5
11	17.5	14.0	15.0	19.5	16.5	17.5	20.5	16.5	18.5	17.0	12.0	14.5
12	14.0	12.5	13.0	20.0	16.0	17.5	20.0	16.5	18.0	18.5	14.5	16.0
13	14.5	12.0	13.0	21.0	16.5	18.5	20.0	15.5	18.0	19.5	16.0	17.5
14	13.5	12.5	13.0	20.5	16.5	18.5	18.5	16.5	17.0	19.5	16.0	17.5
15	16.5	11.0	15.0	20.0	18.0	19.0	17.0	15.5	16.5	19.0	17.0	18.0
16	18.0	16.0	17.0	20.5	18.0	19.0	20.5	15.5	17.5	19.0	17.0	18.0
17	17.0	16.0	16.5	21.5	18.0	19.5	19.0	16.0	17.5	19.5	16.0	17.5
18	17.0	16.0	16.5	23.0	17.5	20.0	16.0	15.0	15.5	18.5	14.5	16.5
19	19.0	15.5	17.0	22.0	16.5	19.5	17.5	13.0	15.0	18.5	15.5	17.0
20	18.5	15.5	17.0	20.5	17.5	19.0	18.5	13.5	15.5	18.5	16.0	17.0
21	19.0	15.5	17.0	19.5	16.0	18.0	19.0	14.5	16.5	18.5	16.0	17.5
22	20.5	17.0	18.5	20.5	16.0	18.0	19.5	15.5	17.5	17.5	15.0	16.5
23	19.5	17.0	18.5	19.0	17.0	18.0	18.5	16.0	17.5	15.0	12.5	14.0
24	21.0	17.5	19.5	19.0	16.0	17.5	19.0	15.5	17.0	14.0	10.5	12.5
25	20.5	17.5	19.0	19.0	14.5	17.0	19.5	16.0	18.0	13.0	11.5	12.5
26	20.0	18.0	19.0	20.0	14.5	17.5	22.0	17.5	19.5	15.5	12.5	14.0
27	19.5	17.0	18.0	20.0	15.5	18.0	22.0	17.5	19.5	18.0	14.5	16.0
28	22.0	16.0	19.0	21.0	16.5	18.5	21.0	17.0	19.0	16.5	14.0	15.5
29	20.0	17.0	18.5	20.0	17.0	18.5	19.5	16.5	17.5	15.0	12.0	13.5
30	18.0	15.5	16.0	20.0	15.5	18.0	19.0	15.5	17.0	15.5	12.0	13.5
31	---	---	---	21.0	16.0	18.5	19.0	15.5	17.5	---	---	---
MONTH	22.0	10.5	16.0	23.0	14.0	18.0	22.0	13.0	17.5	21.0	10.5	16.0



## DELAWARE RIVER BASIN

## 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 mi<sup>2</sup>.

## 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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 42,900 ft<sup>3</sup>/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 ft<sup>3</sup>/s on basis of slope-area measurement at gage height 15.52 ft; minimum discharge, 16 ft<sup>3</sup>/s, Nov. 22, 23, 1964.

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 4,700 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 8	2115	*11,900	*10.88	June 14	2230	4,800	7.69
Mar. 10	0345	11,200	10.64	June 30	1515	6,170	8.47

Minimum discharge, 45 ft<sup>3</sup>/s, Sept. 20, gage height, 0.76 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	167	145	1320	222	297	1170	1680	446	541	2600	123	59
2	129	754	882	310	295	1150	2790	549	323	1330	114	64
3	110	1080	693	327	284	1030	1790	1730	615	890	109	88
4	104	684	641	401	268	883	1350	2020	389	687	104	75
5	100	605	647	1070	265	773	1100	1800	301	762	101	63
6	101	488	594	2260	253	684	917	2080	260	585	99	58
7	93	425	527	4050	237	625	776	2080	234	495	96	60
8	91	544	473	8300	222	615	693	1480	224	784	91	73
9	88	1530	424	7700	216	2160	843	1290	214	1520	85	71
10	85	1160	409	4080	214	7200	1620	2310	204	937	86	72
11	81	817	407	2310	211	2770	1110	3250	192	714	99	68
12	80	659	371	1530	736	1630	906	2240	347	585	94	61
13	78	565	351	1200	893	1190	789	1530	1040	501	83	55
14	78	561	333	952	573	1020	707	1190	2100	441	79	53
15	83	531	282	767	431	858	682	979	2980	396	81	52
16	90	460	299	1350	428	719	637	814	2530	359	79	54
17	87	409	299	1190	410	633	590	737	1840	333	76	54
18	81	375	293	934	504	612	536	634	1520	332	82	51
19	78	345	262	801	761	815	571	537	1080	280	96	49
20	76	333	257	703	753	1060	2440	471	830	260	82	47
21	76	312	244	613	669	1380	1390	414	659	301	72	47
22	75	496	166	538	581	1140	1070	367	548	246	68	70
23	73	662	263	510	542	912	903	338	480	226	65	95
24	71	564	252	572	655	791	794	309	439	215	65	68
25	89	478	313	541	637	727	702	294	379	191	63	57
26	127	429	433	455	577	768	663	295	347	173	70	54
27	155	525	388	403	568	1070	704	257	336	161	66	64
28	218	472	348	388	623	1480	585	231	303	153	61	266
29	168	475	297	361	---	1530	522	222	311	144	58	118
30	145	590	392	352	---	1230	478	273	3140	137	59	82
31	133	---	320	333	---	1040	---	230	---	131	60	---
TOTAL	3210	17473	13180	45523	13103	39665	30338	31397	24706	16869	2566	2148
MEAN	104	582	425	1468	468	1280	1011	1013	824	544	82.8	71.6
MAX	218	1530	1320	8300	893	7200	2790	3250	3140	2600	123	266
MIN	71	145	166	222	211	612	478	222	192	131	58	47
CFSM	.43	2.42	1.76	6.09	1.94	5.31	4.20	4.20	3.42	2.26	.34	.30
IN.	.50	2.70	2.03	7.03	2.02	6.12	4.68	4.85	3.81	2.60	.40	.33

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

	MEAN	382	611	634	528	494	970	1285	695	384	281	214	238
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	

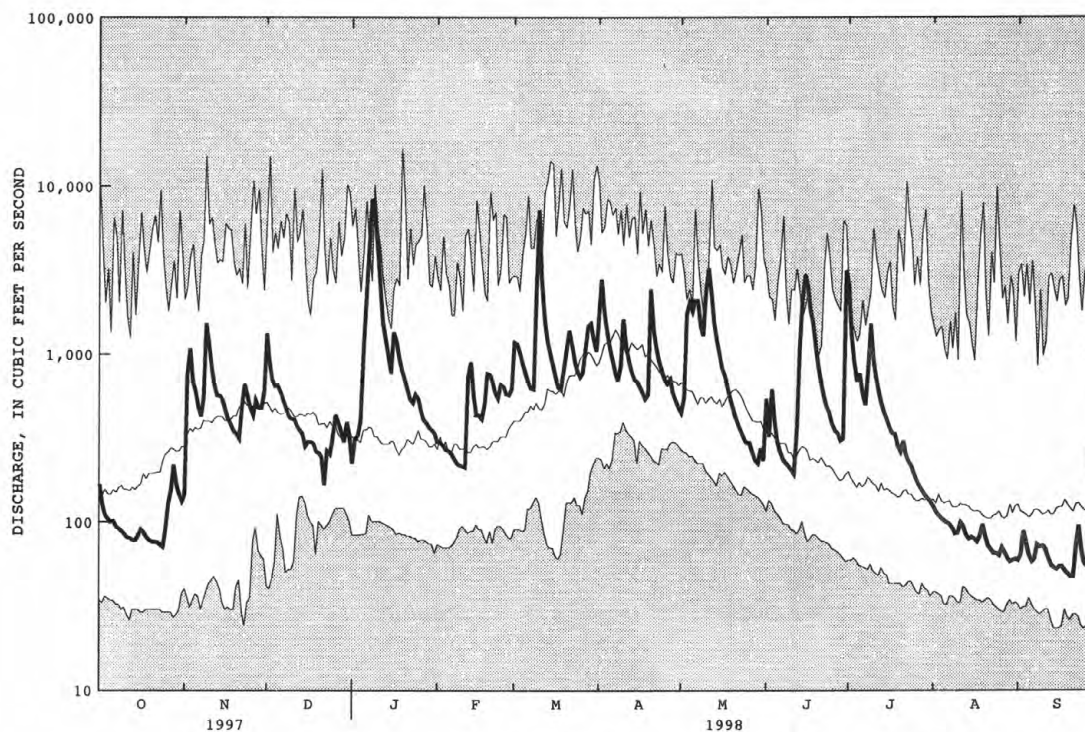


## DELAWARE RIVER BASIN

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## 01420500 BEAVER KILL AT COOKS FALLS, NY--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1913 - 1998	
ANNUAL TOTAL	172207		240178		559	
ANNUAL MEAN	472		658		937	
HIGHEST ANNUAL MEAN					277	
LOWEST ANNUAL MEAN					1928	
HIGHEST DAILY MEAN	3410	Mar 31	8300	Jan 8	16700	Jan 19 1996
LOWEST DAILY MEAN	40	Aug 11	47	Sep 20	23	Sep 14 1913
ANNUAL SEVEN-DAY MINIMUM	43	Aug 6	51	Sep 15	26	Sep 21 1964
ANNUAL RUNOFF (CFSM)	1.96		2.73		2.32	
ANNUAL RUNOFF (INCHES)	26.58		37.07		31.50	
10 PERCENT EXCEEDS	1070		1480		1240	
50 PERCENT EXCEEDS	319		414		320	
90 PERCENT EXCEEDS	67		73		84	



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



## DELAWARE RIVER BASIN

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 recorded, 26.5°C, Aug. 28, 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 1997 TO SEPTEMBER 1998

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



## 01420500 BEAVER KILL AT COOKS FALLS, NY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	1.5	.0	.5	4.5	3.5	3.5	11.0	9.5	10.0	13.0	11.0	12.0
2	1.5	.0	.5	4.5	2.5	3.5	9.5	7.5	9.0	13.0	11.0	12.0
3	2.0	.5	1.5	4.0	2.0	3.0	7.5	6.5	7.0	12.0	11.0	11.5
4	2.0	1.0	1.5	3.5	2.0	3.0	6.5	5.0	5.5	11.5	10.5	10.5
5	3.0	1.5	2.0	3.5	2.0	3.0	5.5	4.0	5.0	11.5	10.0	10.5
6	2.0	.0	1.0	3.5	1.5	2.5	7.0	4.0	5.5	12.0	10.0	11.0
7	2.0	.0	.5	4.5	2.5	3.5	8.5	4.0	6.5	13.5	10.0	11.5
8	1.5	.0	.5	3.5	2.5	3.0	7.5	5.5	6.0	12.5	10.5	11.0
9	2.0	.0	.5	4.0	3.0	3.5	6.0	5.5	6.0	12.0	10.5	11.0
10	2.0	.0	1.0	4.0	1.0	2.5	8.0	4.5	6.0	11.5	10.5	11.0
11	2.5	.0	1.0	1.5	.0	.5	8.0	4.0	6.0	11.5	10.0	10.5
12	2.5	2.0	2.5	.5	.0	.0	9.0	4.5	7.0	13.0	9.5	11.0
13	2.0	.5	1.5	1.5	.0	.5	10.0	5.0	7.5	13.5	9.0	11.0
14	.5	.0	.0	1.0	.0	.5	11.0	6.5	8.5	14.5	9.0	12.0
15	.0	.0	.0	2.5	.5	1.0	10.0	8.5	8.5	15.5	11.0	13.5
16	.0	.0	.0	3.0	.0	1.5	10.5	7.5	9.0	17.5	12.5	15.0
17	1.0	.0	.5	3.5	.0	1.5	11.5	9.5	10.5	18.0	13.5	15.5
18	3.0	1.0	2.0	2.5	1.5	2.0	11.0	7.5	9.5	16.5	13.0	15.0
19	2.5	2.0	2.5	3.0	2.0	2.5	9.5	7.0	8.0	18.0	13.0	15.5
20	3.0	2.5	2.5	6.0	2.0	4.0	7.5	6.5	7.0	19.5	14.5	16.5
21	3.0	2.0	2.5	4.5	.5	2.5	10.0	5.5	7.5	17.5	14.0	16.0
22	3.5	2.0	2.5	1.5	.0	.5	10.5	6.0	8.5	14.5	12.0	13.0
23	3.0	1.5	2.5	3.0	.5	1.5	9.5	8.0	8.5	---	---	---
24	3.0	.0	1.0	4.0	.5	2.0	11.0	7.0	9.0	---	---	---
25	2.0	.0	1.0	4.5	.5	2.5	11.5	8.0	9.5	---	---	---
26	4.0	1.0	2.5	6.5	2.5	4.5	9.5	6.5	7.5	18.0	14.0	16.0
27	4.0	1.0	2.5	7.5	3.5	5.5	9.0	5.0	7.0	19.0	14.0	16.5
28	4.5	2.5	4.0	9.0	5.0	7.0	10.5	5.5	8.0	---	---	---
29	---	---	---	9.5	6.5	8.0	12.0	6.5	9.0	---	---	---
30	---	---	---	11.0	6.5	8.5	14.0	9.5	12.0	---	---	---
31	---	---	---	12.0	8.0	10.0	---	---	---	---	---	---
MONTH	4.5	.0	1.5	12.0	.0	3.0	14.0	4.0	8.0	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	---	---	---	---	---	---	22.5	17.0	19.5	23.0	17.5	20.0
2	---	---	---	---	---	---	22.0	17.0	19.5	20.0	17.5	18.5
3	---	---	---	---	---	---	23.0	17.5	20.5	21.5	17.0	18.5
4	14.5	11.0	12.5	---	---	---	23.0	18.5	20.5	22.0	17.0	19.0
5	15.5	10.5	13.0	---	---	---	22.5	19.5	21.0	22.0	17.0	19.0
6	15.5	11.5	13.5	---	---	---	22.5	19.5	21.0	23.0	16.5	19.5
7	14.0	11.5	12.5	---	---	---	23.5	19.0	21.0	20.5	18.0	19.5
8	12.0	11.0	11.5	---	---	---	25.0	19.0	22.0	19.5	16.0	17.5
9	17.0	11.0	13.5	---	---	---	24.0	20.5	22.0	16.5	14.5	15.5
10	18.5	13.0	16.0	---	---	---	23.0	21.0	21.5	---	---	---
11	17.0	14.0	15.0	---	---	---	25.0	20.5	22.5	---	---	---
12	14.0	13.5	14.0	---	---	---	23.5	20.0	21.5	---	---	---
13	14.5	13.0	13.5	---	---	---	23.5	18.5	20.5	---	---	---
14	14.0	13.0	13.5	---	---	---	20.5	19.0	20.0	---	---	---
15	13.5	12.5	13.0	---	---	---	21.0	18.5	19.5	---	---	---
16	15.5	13.0	14.0	---	---	---	24.5	19.0	21.5	22.5	20.0	21.0
17	15.0	13.5	14.5	---	---	---	22.5	20.5	21.5	23.5	18.5	20.5
18	16.0	13.5	14.5	---	---	---	22.0	19.5	20.5	22.0	16.0	19.0
19	17.5	13.5	15.5	---	---	---	21.5	17.0	19.0	21.5	17.5	19.0
20	19.0	14.5	16.5	---	---	---	22.0	16.0	18.5	22.5	17.5	19.5
21	19.5	16.0	18.0	---	---	---	22.5	17.0	19.5	22.5	19.0	20.5
22	20.5	16.5	18.5	---	---	---	23.5	18.5	20.5	21.0	17.0	19.5
23	19.5	17.5	18.0	---	---	---	22.5	19.5	20.5	17.0	14.0	15.5
24	21.0	16.5	18.5	---	---	---	23.5	18.5	21.0	15.5	11.5	13.5
25	21.0	17.5	19.0	---	---	---	23.5	20.0	21.5	14.5	12.0	13.5
26	21.0	18.5	19.5	---	---	---	25.5	20.5	22.5	18.5	14.0	16.0
27	20.5	18.0	19.0	---	---	---	26.0	20.5	23.0	---	---	---
28	22.0	17.0	19.5	---	---	---	26.5	20.5	23.0	---	---	---
29	---	---	---	22.0	19.0	20.5	22.5	20.0	21.0	---	---	---
30	---	---	---	21.5	18.0	20.0	24.0	19.0	21.0	---	---	---
31	---	---	---	23.5	19.0	20.5	23.5	19.5	21.0	---	---	---
MONTH	---	---	---	---	---	---	26.5	16.0	21.0	---	---	---



**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 mi<sup>2</sup>.

e Estimated

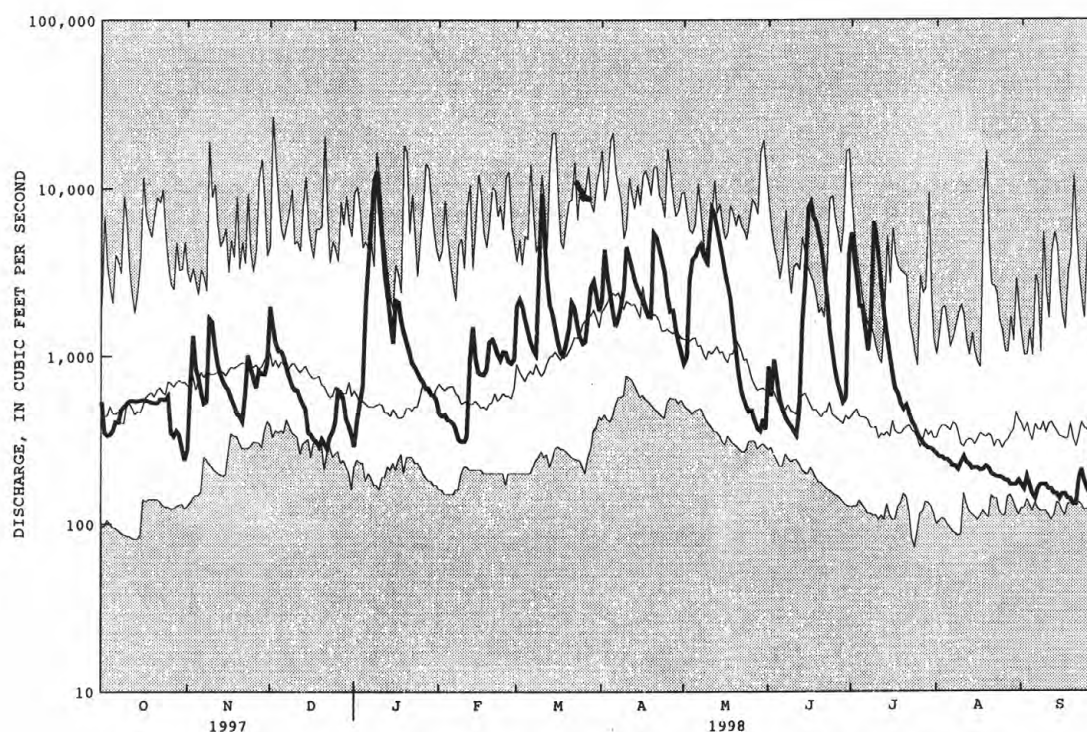


DELAWARE RIVER BASIN

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01421000 EAST BRANCH DELAWARE RIVER AT FISHS EDDY, NY--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1955 - 1998	
ANNUAL TOTAL	353392		500040		1094	
ANNUAL MEAN	968		1370		1586	
HIGHEST ANNUAL MEAN					1973	
LOWEST ANNUAL MEAN					1965	
HIGHEST DAILY MEAN	6400	Apr 7	12600	Jan 9	26500	Dec 2 1996
LOWEST DAILY MEAN	150	Aug 8	130	Sep 20	72	Jul 24 1964
ANNUAL SEVEN-DAY MINIMUM	156	Aug 6	140	Sep 15	84	Oct 9 1954
10 PERCENT EXCEEDS	2460		3770		2420	
50 PERCENT EXCEEDS	560		650		640	
90 PERCENT EXCEEDS	210		203		233	



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



## DELAWARE RIVER BASIN

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. Prior to June 1993, water-temperature digital recorder since October 1975, provided one-hour-interval punches. Prior to October 1975, water-temperature recorder provided continuous recordings.**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, 1981-98), 0.0°C on many days during winter periods, except 1978.

**EXTREMES FOR CURRENT YEAR.**--

WATER TEMPERATURES: Maximum recorded, 30.0°C, Sept. 21, 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 1997 TO SEPTEMBER 1998

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



## DELAWARE RIVER BASIN

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01421000 EAST BRANCH DELAWARE RIVER AT FISHS EDDY, NY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	2.0	.0	1.0	5.0	4.0	4.0	11.5	10.5	11.0	13.0	11.5	12.5
2	2.0	.0	1.0	5.0	3.0	4.0	10.5	9.0	10.0	13.0	11.5	12.5
3	2.0	1.0	1.5	4.5	3.0	3.5	9.0	7.5	8.0	12.5	11.5	12.0
4	2.5	1.0	2.0	4.0	3.0	3.5	7.5	6.0	7.0	12.0	11.0	11.5
5	3.0	1.5	2.0	4.5	3.0	3.5	6.5	5.5	6.0	12.5	11.0	12.0
6	3.0	.5	1.5	4.0	2.5	3.5	8.0	5.0	6.5	13.5	11.0	12.5
7	2.5	.0	1.0	5.0	3.0	4.0	10.0	5.5	7.5	15.0	12.0	13.5
8	2.5	.0	1.0	4.0	3.0	3.5	8.5	7.0	7.5	14.0	12.5	13.0
9	3.0	.0	1.0	5.5	3.5	4.5	7.5	7.0	7.5	14.0	12.0	13.5
10	3.0	.0	1.5	5.0	2.0	4.0	9.5	6.5	7.5	13.5	13.0	13.5
11	2.5	.5	1.5	2.0	.5	1.5	9.5	6.0	8.0	13.5	12.5	13.0
12	3.0	2.5	2.5	1.0	.0	.5	10.0	6.5	8.5	15.0	12.5	13.5
13	2.5	1.0	2.0	2.0	.0	1.0	11.0	7.0	9.0	15.5	12.5	14.0
14	1.0	.0	.5	1.5	.5	1.0	11.5	8.0	10.0	16.0	12.5	14.5
15	.5	.0	.0	3.5	1.0	2.0	11.0	9.5	10.0	17.0	13.5	15.5
16	.5	.0	.0	4.0	1.0	2.5	11.5	9.0	10.5	19.0	14.5	17.0
17	1.0	.0	.5	4.5	1.0	2.5	12.5	11.0	11.5	19.5	16.5	18.0
18	3.0	1.0	2.5	3.0	2.5	3.0	11.5	9.0	10.5	18.0	15.5	17.0
19	3.0	2.5	3.0	3.5	3.0	3.0	10.5	8.0	9.0	19.0	15.5	17.0
20	3.5	2.5	3.0	5.5	3.0	4.5	9.0	8.0	8.5	20.5	16.5	18.5
21	3.0	2.5	3.0	5.5	1.5	4.0	10.5	7.0	8.5	19.5	16.5	18.0
22	3.5	2.5	2.5	1.5	.5	1.0	11.0	7.5	9.0	16.5	14.5	15.5
23	3.0	2.0	2.5	3.5	1.0	2.0	10.5	8.5	9.5	18.5	13.5	16.0
24	3.0	.5	1.5	4.5	1.0	2.5	12.0	8.5	10.0	20.0	14.5	17.0
25	2.0	.5	1.5	5.0	1.0	3.0	11.5	9.0	10.5	19.5	16.5	18.0
26	4.5	1.0	2.5	7.0	3.0	4.5	10.0	7.0	8.0	21.0	16.5	18.5
27	5.0	1.5	3.0	8.0	4.0	6.0	10.0	6.5	8.0	21.5	17.0	19.0
28	5.0	3.0	4.0	9.5	5.5	7.5	11.0	7.0	9.0	22.5	17.5	20.0
29	---	---	---	10.5	7.5	9.0	12.5	7.5	10.0	23.5	18.5	20.5
30	---	---	---	11.5	7.5	9.5	14.5	10.5	12.0	24.0	19.0	21.5
31	---	---	---	13.0	9.0	11.0	---	---	---	23.0	19.0	21.0
MONTH	5.0	.0	2.0	13.0	.0	4.0	14.5	5.0	9.0	24.0	11.0	16.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	20.0	17.5	19.0	17.5	16.5	17.0	23.5	18.5	21.0	26.0	18.0	20.5
2	18.5	16.0	17.5	19.0	15.5	17.5	23.5	18.5	21.0	22.5	17.0	18.5
3	17.5	15.5	16.5	21.0	17.5	19.0	24.5	19.0	21.5	24.0	17.5	20.0
4	16.5	14.0	15.5	20.0	17.5	19.0	24.0	19.5	21.5	25.5	17.5	20.5
5	18.0	13.5	15.5	20.5	17.5	19.0	23.0	18.5	21.5	26.5	17.0	20.5
6	18.0	14.5	16.0	20.5	17.5	19.0	23.0	20.0	21.5	29.0	16.0	22.0
7	16.5	14.5	15.5	19.0	17.5	18.0	23.0	19.5	21.0	21.0	18.5	20.0
8	15.5	14.5	15.0	18.0	16.0	17.0	25.0	19.5	22.0	21.5	17.0	18.5
9	20.5	14.0	17.0	19.5	16.0	18.0	25.5	20.5	22.0	18.5	15.5	16.5
10	22.0	17.0	19.5	20.5	18.5	19.5	23.5	20.5	21.5	19.5	15.0	16.5
11	20.0	17.5	18.5	20.0	17.0	18.5	24.0	20.0	21.5	22.5	14.0	17.5
12	17.5	17.0	17.5	20.5	16.5	19.0	---	---	---	25.0	16.0	20.0
13	18.0	16.5	17.5	21.5	17.5	19.5	---	---	---	28.0	17.5	21.5
14	17.5	16.0	17.0	21.5	19.0	20.5	---	---	---	29.5	18.0	22.5
15	18.0	15.5	17.0	22.0	20.0	21.0	---	---	---	27.5	20.0	23.0
16	20.0	18.0	19.0	22.5	19.5	21.0	---	---	---	26.5	20.0	22.5
17	19.5	18.0	18.5	23.0	20.0	21.5	---	---	---	29.5	18.0	22.0
18	19.5	18.0	18.5	24.5	20.5	22.0	---	---	---	29.0	16.0	21.0
19	20.5	17.5	19.0	24.0	20.0	22.0	23.0	17.5	20.0	27.5	17.5	21.0
20	20.5	18.0	19.5	23.5	21.0	22.0	23.0	16.5	19.5	29.0	18.0	21.5
21	21.5	18.0	20.0	22.5	20.5	21.5	24.5	17.0	20.5	30.0	19.5	23.0
22	22.5	19.5	21.0	23.5	20.5	22.0	26.0	18.5	21.0	22.0	19.0	20.5
23	21.5	20.0	21.0	23.0	21.5	22.0	23.5	19.0	20.5	20.0	15.5	17.5
24	23.0	20.0	21.5	22.0	20.0	21.0	24.0	17.5	20.5	---	---	---
25	23.0	20.5	21.5	22.0	18.5	20.5	24.0	17.5	20.0	---	---	---
26	23.0	21.0	22.0	22.5	18.0	20.5	28.5	18.0	22.0	---	---	---
27	22.5	20.5	21.5	23.0	19.0	21.0	29.0	20.0	24.0	---	---	---
28	24.5	19.5	22.0	24.0	19.5	22.0	29.5	20.0	24.0	---	---	---
29	23.0	20.0	21.5	23.5	20.5	21.5	23.5	20.0	21.5	---	---	---
30	21.0	17.5	19.0	23.0	19.5	21.5	26.5	19.5	22.0	---	---	---
31	---	---	---	24.0	20.0	21.5	26.0	19.5	21.5	---	---	---
MONTH	24.5	13.5	18.5	24.5	15.5	20.0	---	---	---	---	---	---



## DELAWARE RIVER BASIN

## 01421618 TOWN BROOK SOUTHEAST OF HOBART, NY

**LOCATION.**--Lat 42°21'40", long 74°39'45", Delaware County, Hydrologic Unit 02040102, on left bank 10 ft downstream from bridge on Clove Road, 0.9 mi southeast of Hobart, and 1.4 mi upstream from mouth.

**DRAINAGE AREA.**--14.3 mi<sup>2</sup>.

**PERIOD OF RECORD.**--October 1997 to September 1998.

**GAGE.**--Water-stage recorder and crest-stage gage. Elevation of gage is 1,670 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, 871 ft<sup>3</sup>/s, Mar. 9, 1998, gage height, 4.90 ft, from rating curve extended above 400 ft<sup>3</sup>/s on basis of step-backwater analysis, outside gage height was 5.37 ft, from crest-stage gage; minimum discharge, 1.1 ft<sup>3</sup>/s, Sept. 6, 15, 1998, gage height, 1.24 ft.

**EXTREMES OUTSIDE PERIOD OF RECORD.**--Maximum discharge, 3,100 ft<sup>3</sup>/s, Jan. 19, 1996, gage height, 7.42 ft, from floodmark, from rating curve extended as explained above.

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 400 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 8	2145	755	4.70	May 10	1745	414	4.00
Mar. 9	2400	a*871	b*4.90	June 18	0215	448	4.08
Apr. 1	1730	547	4.30	July 8	1615	606	4.42

a From rating curve extended as explained above.

b Recorded; outside gage height was 5.37 ft, from crest-stage gage.

Minimum discharge, 1.1 ft<sup>3</sup>/s, Sept. 6, 15, gage height, 1.24 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	16	67	e15	e10	64	127	17	27	28	2.5	1.3
2	1.7	30	38	e22	e9.6	50	115	57	8.9	18	2.4	1.5
3	1.7	20	33	e40	e9.0	40	89	33	14	14	2.3	1.7
4	1.7	28	47	e110	e8.6	34	70	35	7.5	18	2.2	1.4
5	2.6	23	40	149	e8.0	29	54	34	6.3	28	2.1	1.2
6	2.1	17	32	238	e7.2	26	43	51	5.5	14	2.1	1.1
7	1.8	16	27	247	e6.6	27	35	41	5.3	13	2.0	4.9
8	1.7	76	24	495	e6.2	55	43	38	5.6	143	1.8	2.8
9	1.6	97	21	480	e6.0	341	76	57	5.0	61	1.7	2.0
10	1.5	64	19	250	e7.0	329	66	219	4.2	47	1.7	1.9
11	1.5	47	20	143	e8.0	e140	37	192	4.2	35	2.6	1.6
12	1.4	37	17	e80	e40	e72	33	139	6.5	27	2.1	1.5
13	1.4	30	16	e60	e25	e60	30	88	68	21	1.8	1.4
14	1.4	27	15	e41	e14	51	27	62	172	17	1.9	1.3
15	1.6	25	e14	39	e13	42	26	46	127	15	2.1	1.3
16	1.8	21	e13	e45	e15	e35	23	36	81	17	1.8	1.7
17	1.6	19	e13	34	17	e33	23	28	115	12	1.8	1.6
18	1.5	17	12	29	39	32	19	23	173	10	2.3	1.4
19	1.5	e16	11	26	57	84	67	19	86	8.1	2.4	1.3
20	1.5	15	e10	23	32	84	127	16	60	7.8	1.8	1.2
21	1.6	17	e9.0	e19	24	49	62	14	41	7.1	1.7	1.2
22	1.6	33	e9.0	e18	23	40	51	12	30	6.1	1.6	1.4
23	1.5	26	e9.4	17	21	37	43	11	32	5.5	1.5	1.6
24	1.6	24	9.7	e20	19	e41	37	8.9	37	5.0	1.5	1.3
25	3.6	e22	27	18	23	e40	33	8.0	20	4.4	1.5	1.2
26	2.7	48	29	16	20	66	38	7.4	17	3.8	1.3	1.2
27	5.0	60	19	14	22	77	30	6.4	16	3.4	1.3	1.2
28	3.3	33	e14	13	26	111	23	5.6	13	3.2	1.2	1.2
29	2.6	41	e12	12	---	116	20	6.3	12	3.0	1.2	1.2
30	2.3	54	e10	e11	---	86	18	7.4	43	2.9	1.2	1.2
31	2.2	---	e9.0	e10	---	63	---	17	---	2.7	1.3	---
TOTAL	61.6	999	646.1	2734	516.2	2354	1485	1335.0	1243.0	601.0	56.7	46.8
MEAN	1.99	33.3	20.8	88.2	18.4	75.9	49.5	43.1	41.4	19.4	1.83	1.56
MAX	5.0	97	67	495	57	341	127	219	173	143	2.6	4.9
MIN	1.4	15	9.0	10	6.0	26	18	5.6	4.2	2.7	1.2	1.1
CFSM	.14	2.33	1.46	6.17	1.29	5.31	3.46	3.01	2.90	1.36	.13	.11
IN.	.16	2.60	1.68	7.11	1.34	6.12	3.86	3.47	3.23	1.56	.15	.12

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

	MEAN	1.99	33.3	20.8	88.2	18.4	75.9	49.5	43.1	41.4	19.4	1.83	1.56
MAX	1.99	33.3	20.8	88.2	18.4	75.9	49.5	43.1	41.4	19.4	1.83	1.56	
(WY)	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998
MIN	1.99	33.3	20.8	88.2	18.4	75.9	49.5	43.1	41.4	19.4	1.83	1.56	
(WY)	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998

e Estimated

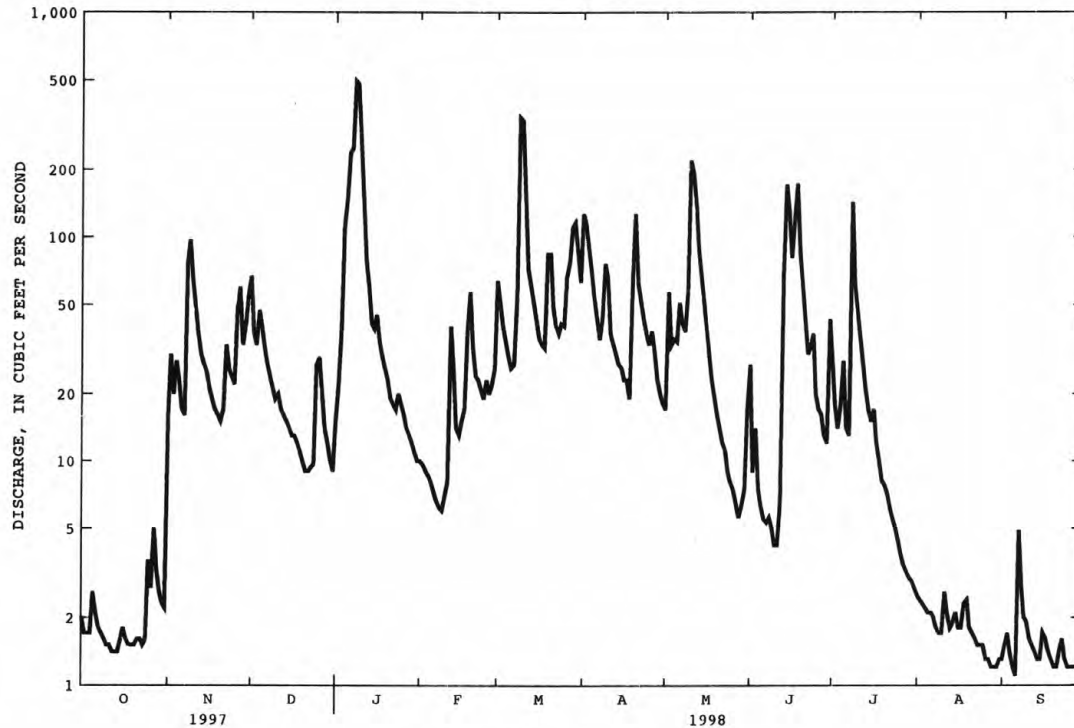


## 01421618 TOWN BROOK SOUTHEAST OF HOBART, NY--Continued

## SUMMARY STATISTICS

FOR 1998 WATER YEAR

ANNUAL TOTAL	12078.4	
ANNUAL MEAN	33.1	
HIGHEST DAILY MEAN	495	Jan 8
LOWEST DAILY MEAN	1.1	Sep 6
ANNUAL SEVEN-DAY MINIMUM	1.2	Sep 24
ANNUAL RUNOFF (CFSM)	2.31	
ANNUAL RUNOFF (INCHES)	31.42	
10 PERCENT EXCEEDS	74	
50 PERCENT EXCEEDS	17	
90 PERCENT EXCEEDS	1.5	



CURRENT WATER YEAR DAILY DISCHARGE.



## DELAWARE RIVER BASIN

## 01421900 WEST BRANCH DELAWARE RIVER UPSTREAM FROM DELHI, NY

**LOCATION.**--Lat 42°16'49", long 74°54'27", Delaware County, Hydrologic Unit 02040101, on left bank along County Highway 18, 0.6 mi upstream from State Route 28 bridge, and 1.9 mi upstream from Little Delaware River.

**DRAINAGE AREA.**--134 mi<sup>2</sup>.

**PERIOD OF RECORD.**--February 1937 to September 1970, December 1996 to current year. Water years 1972-74, 1996 (annual maximum only), November 1996 (maximum only). Prior to November 1996, published as West Branch Delaware River at Delhi (01422000).

**GAGE.**--Water-stage recorder and crest-stage gage. Elevation of gage is 1,360 ft above sea level, from topographic map. Prior to October 1996, at site 0.9 mi downstream at datum 1,345.29 ft above sea level.

**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 13,000 ft<sup>3</sup>/s, Jan. 19, 1996, gage height, 9.8 ft, from floodmark, from rating curve extended above 4,500 ft<sup>3</sup>/s on basis of velocity-area studies, at site and datum then in use; minimum discharge, 2.6 ft<sup>3</sup>/s, Sept. 25, 1964; minimum gage height since December 1996, 1.80 ft, Aug. 13, 1997.

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 1,900 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 9	0200	a*4,600	*9.10	July 8	2200	a2,350	6.50
Mar. 10	0930	a3,340	7.71				

a From rating curve extended above 700 ft<sup>3</sup>/s by runoff comparison with nearby stations.

Minimum discharge, 11 ft<sup>3</sup>/s, Oct. 12, 15, 18, 20, 21, Sept. 29, 30; minimum gage height, 1.81 ft, Oct. 20, 21.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	18	561	e78	e110	612	578	174	334	513	41	15
2	17	61	326	e92	e100	570	874	266	123	329	38	16
3	16	93	276	e150	e96	519	643	325	128	246	36	18
4	15	67	315	e400	e90	437	552	316	92	216	34	18
5	21	106	342	e900	e86	384	473	299	77	394	33	16
6	24	74	282	e1200	e76	337	398	304	67	232	31	15
7	19	61	243	e1500	e72	312	334	344	62	196	30	22
8	17	125	216	3360	e68	330	309	285	62	1100	28	35
9	16	335	195	3860	e66	1330	407	319	60	1280	26	26
10	15	260	183	2520	e64	2640	575	632	53	718	25	25
11	14	187	178	1380	e70	e1200	340	802	50	521	33	21
12	13	153	164	921	414	e700	300	672	61	405	33	19
13	13	131	155	e740	311	e600	274	506	248	314	27	17
14	12	129	145	549	e160	541	253	415	736	256	25	17
15	12	123	e130	421	e130	447	238	347	1040	216	25	16
16	13	108	e125	587	e140	e330	222	292	727	197	25	17
17	13	97	e115	432	e150	e290	206	244	795	175	23	17
18	12	90	111	354	243	329	192	208	944	149	25	16
19	12	83	105	312	432	539	251	181	674	125	28	14
20	12	81	105	278	342	610	986	160	502	113	25	14
21	12	77	e84	241	265	522	533	138	386	109	22	13
22	12	150	e60	206	229	413	456	122	311	96	21	13
23	12	e155	e72	199	222	367	401	110	353	e87	20	13
24	12	e150	91	244	216	e310	350	95	527	e78	20	12
25	15	141	135	209	217	e300	312	86	289	72	19	12
26	20	150	223	e160	e190	472	310	82	242	65	18	12
27	23	423	181	e140	e180	617	321	72	230	60	16	13
28	35	246	154	e135	227	641	241	64	212	54	16	12
29	28	272	133	e130	---	689	208	62	181	51	15	11
30	23	288	e110	e130	---	593	188	75	474	47	15	11
31	20	---	e92	e120	---	493	---	68	---	45	16	---
TOTAL	516	4434	5607	21948	4966	18474	11725	8065	10040	8459	789	496
MEAN	16.6	148	181	708	177	596	391	260	335	273	25.5	16.5
MAX	35	423	561	3860	432	2640	986	802	1040	1280	41	35
MIN	12	18	60	78	64	290	188	62	50	45	15	11
CFSM	.12	1.10	1.35	5.28	1.32	4.45	2.92	1.94	2.50	2.04	.19	.12
IN.	.14	1.23	1.56	6.09	1.38	5.13	3.26	2.24	2.79	2.35	.22	.14

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

	MEAN	89.3	228	266	260	270	479	551	278	147	77.7	60.2	78.3
	MAX	492	534	536	708	583	897	1322	637	382	273	427	544
	(WY)	1956	1952	1951	1998	1939	1945	1958	1943	1968	1998	1955	1938
	MIN	6.14	6.83	64.7	40.9	80.9	137	146	95.2	25.8	15.5	8.52	4.03
	(WY)	1965	1965	1965	1961	1940	1965	1946	1939	1964	1962	1964	1964

e Estimated

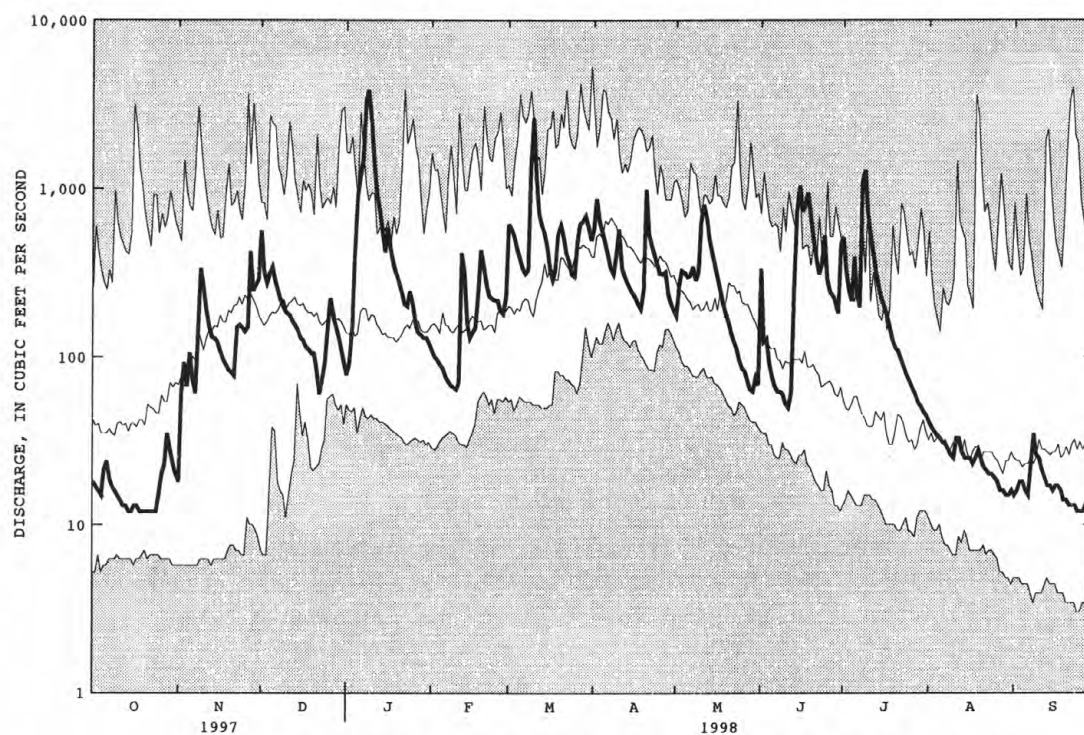


DELAWARE RIVER BASIN

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01421900 WEST BRANCH DELAWARE RIVER UPSTREAM FROM DELHI, NY--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1937 - 1998	
ANNUAL TOTAL	69113		95519		231	
ANNUAL MEAN	189		262		328	
HIGHEST ANNUAL MEAN					112	
LOWEST ANNUAL MEAN					1956	
HIGHEST DAILY MEAN	1510	Feb 22	3860	Jan 9	5320	Mar 31 1940
LOWEST DAILY MEAN	11	Aug 12	11	Sep 29	3.0	Sep 24 1964
ANNUAL SEVEN-DAY MINIMUM	12	Oct 18	12	Sep 24	3.3	Sep 20 1964
ANNUAL RUNOFF (CFSM)	1.41		1.95		1.72	
ANNUAL RUNOFF (INCHES)	19.19		26.52		23.39	
10 PERCENT EXCEEDS	464		582		543	
50 PERCENT EXCEEDS	110		150		122	
90 PERCENT EXCEEDS	15		16		19	



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



## DELAWARE RIVER BASIN

## 01422389 COULTER BROOK NEAR BOVINA CENTER, NY

**LOCATION.**--Lat 42°14'19", long 74°44'11", Delaware County, Hydrologic Unit 02040101, on right bank downstream from culvert on Seedorf Road, 2.5 mi upstream from mouth, and 2.5 mi southeast of Bovina Center.

**DRAINAGE AREA.**--0.76 mi<sup>2</sup>.

**PERIOD OF RECORD.**--October 1997 to September 1998.

**GAGE.**--Water-stage recorder and crest-stage gage. Elevation of gage is 2,000 ft above sea level, from topographic map.

**REMARKS.**--Records poor. Satellite gage-height telemeter at station.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 21 ft<sup>3</sup>/s, Jan. 8, 1998, gage height, 1.75 ft; minimum, 0.01 ft<sup>3</sup>/s, Sept. 18, 19, 20, 1998, gage height, 0.32 ft.

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 15 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 8	1400	*21	*1.75	June 14	2300	18	1.70
Mar. 10	0430	16	1.64				

Minimum discharge, 0.01 ft<sup>3</sup>/s, Sept. 18, 19, 20, gage height, 0.32 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.04	.56	2.4	e.80	e.56	1.7	6.6	1.3	.47	4.1	.19	.02
2	.03	.82	2.1	e.86	.54	1.8	7.9	1.4	.81	3.9	.17	.04
3	.03	.86	1.7	.95	.54	1.8	6.8	1.3	1.4	3.1	.15	.02
4	.03	.97	1.7	1.8	.54	1.7	5.3	1.4	1.2	2.8	.13	.02
5	.07	.95	1.7	4.4	.54	1.6	4.1	1.5	1.1	2.8	.12	.02
6	.04	.87	1.6	e8.0	.53	1.5	3.2	1.6	.98	2.2	.10	.02
7	.04	.83	1.5	11	.51	1.4	2.6	1.7	.89	2.0	.09	.04
8	.03	1.4	1.4	16	.49	1.4	2.4	1.8	.82	6.5	.07	.02
9	.03	2.5	1.3	15	.46	5.2	2.4	1.9	.73	9.7	.07	.03
10	.03	3.1	1.2	e13	.42	14	2.6	2.5	.66	6.5	.07	.03
11	.03	2.7	1.1	9.3	.43	8.7	2.5	3.8	.62	4.3	.18	.02
12	.03	2.3	1.1	6.0	1.2	5.8	2.3	3.8	.85	3.1	.07	.02
13	.03	2.0	1.0	4.3	e1.0	4.1	2.1	3.1	3.6	2.3	.06	.02
14	.03	1.8	.94	3.2	e.86	3.3	1.9	2.6	11	1.8	.06	.02
15	.04	1.6	.91	2.6	e.80	e2.4	1.7	2.2	14	1.5	.05	.02
16	.04	1.4	.82	2.8	e.90	e2.0	1.5	1.8	8.6	1.3	.03	.03
17	.04	1.3	.80	2.2	1.1	e1.7	1.4	1.6	7.4	1.1	.04	.02
18	.03	1.2	.74	1.8	1.3	1.7	1.2	1.3	6.2	.92	.05	.02
19	.03	1.1	.73	1.6	1.5	2.2	1.9	1.2	4.8	.75	.03	.01
20	.03	1.0	.69	1.4	1.5	2.4	4.8	1.0	3.5	.65	.03	.01
21	.04	.95	.67	1.3	1.4	2.9	4.7	.86	2.6	.56	.03	.01
22	.03	1.3	e.66	1.1	1.4	2.8	3.7	.74	2.0	.49	.02	.10
23	.03	1.2	e.64	e1.0	1.3	2.5	3.0	.64	1.7	.46	.02	.02
24	.03	1.2	.62	e.92	1.3	2.2	2.5	.54	1.4	.41	.02	.02
25	.31	1.1	1.0	e.84	1.2	2.0	2.2	.49	1.2	.36	.02	.02
26	.16	1.2	1.1	e.74	1.1	2.1	2.1	.42	1.1	.33	.02	.02
27	.52	1.5	1.1	e.68	1.1	3.6	1.8	.36	1.0	.29	.02	.03
28	.40	1.3	1.0	e.62	1.2	8.0	1.6	.31	.83	.27	.02	.02
29	.37	1.3	1.0	e.62	---	9.9	1.5	.33	.77	.25	.02	.02
30	.37	1.6	e.90	e.60	---	8.3	1.4	.26	3.4	.22	.02	.02
31	.35	---	e.80	e.56	---	6.4	---	.40	---	.21	.03	---
TOTAL	3.31	41.91	34.92	115.99	25.72	117.1	89.7	44.15	85.63	65.17	2.00	0.73
MEAN	.11	1.40	1.13	3.74	.92	3.78	2.99	1.42	2.85	2.10	.065	.024
MAX	.52	3.1	2.4	16	1.5	14	7.9	3.8	14	9.7	.19	.10
MIN	.03	.56	.62	.56	.42	1.4	1.2	.26	.47	.21	.02	.01
CFSM	.14	1.84	1.48	4.92	1.21	4.97	3.93	1.87	3.76	2.77	.08	.03
IN.	.16	2.05	1.71	5.68	1.26	5.73	4.39	2.16	4.19	3.19	.10	.04

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

	MEAN	MAX	MIN	(WY)	1998	1998	1998	1998	1998	1998	1998	1998
MEAN	.11	1.40	1.13	3.74	.92	3.78	2.99	1.42	2.85	2.10	.065	.024
MAX	.11	1.40	1.13	3.74	.92	3.78	2.99	1.42	2.85	2.10	.065	.024
(WY)	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998
MIN	.11	1.40	1.13	3.74	.92	3.78	2.99	1.42	2.85	2.10	.065	.024
(WY)	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998

## SUMMARY STATISTICS

## FOR 1998 WATER YEAR

ANNUAL TOTAL	626.33
ANNUAL MEAN	1.72
HIGHEST DAILY MEAN	16
LOWEST DAILY MEAN	.01
ANNUAL SEVEN-DAY MINIMUM	.02
ANNUAL RUNOFF (CFSM)	2.26
ANNUAL RUNOFF (INCHES)	30.66
10 PERCENT EXCEEDS	4.0
50 PERCENT EXCEEDS	1.0
90 PERCENT EXCEEDS	.03

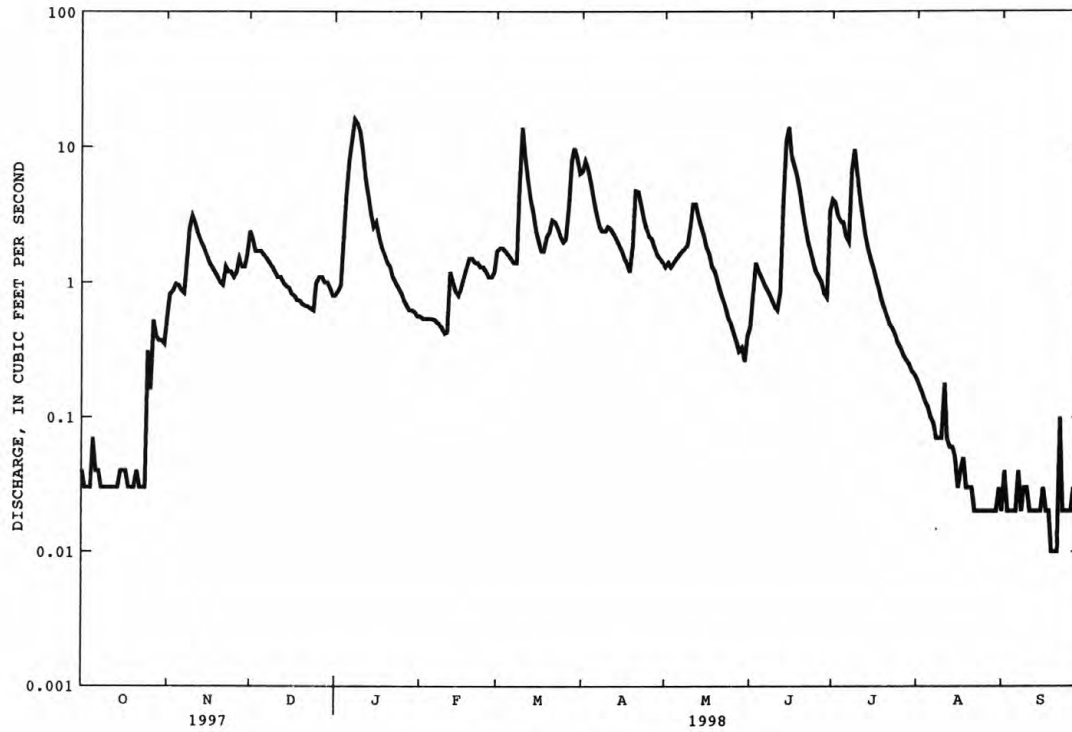
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DELAWARE RIVER BASIN

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01422389 COULTER BROOK NEAR BOVINA CENTER, NY--Continued



CURRENT WATER YEAR DAILY DISCHARGE.



**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.

**PERIOD OF RECORD.**--October 1937 to September 1970, January 1997 to current year. 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.

**EXTREMES FOR PERIOD OF RECORD:**--Maximum discharge, 6,100 ft<sup>3</sup>/s, Jan. 19, 1996, gage height, 8.51 ft, from floodmark, from rating curve extended above 1,600 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; minimum discharge, 0.8 ft<sup>3</sup>/s, Aug. 10, 11, 12, Sept. 24, 25, 1964; minimum gage height, 1.29 ft, Sept. 24, 25, 1964.

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 1,300 ft<sup>3</sup>/s and maximum (\*):

Minimum recorded discharge, 2.2 ft<sup>3</sup>/s, Aug. 28, 29, Sept. 6, 19, 26, 27, but may have been less during period of estimated record, Oct. 3-31; minimum gage height, 2.44 ft, Oct. 10.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.5	e25	189	e42	e50	214	210	74	89	192	13	3.7
2	8.7	e50	121	e90	e47	199	230	102	38	155	12	5.2
3	e7.2	e42	105	e150	42	185	202	120	124	122	11	8.7
4	e6.2	e50	118	238	39	164	183	113	53	116	10	4.9
5	e8.0	e60	126	439	37	145	162	113	43	168	10	3.5
6	e10	e40	115	632	e36	129	141	122	36	107	10	2.8
7	e8.4	57	103	694	e34	116	121	112	32	95	9.6	6.2
8	e7.0	74	92	1080	e33	126	119	110	32	872	8.7	13
9	e6.2	115	84	1120	e31	397	146	128	29	962	7.8	9.4
10	e4.8	106	80	705	e31	698	184	191	24	606	7.8	11
11	e4.8	82	76	465	e31	423	134	203	23	420	22	6.5
12	e4.9	70	70	318	144	e300	125	180	35	315	13	4.7
13	e5.0	63	67	e250	106	e220	115	158	165	236	8.3	3.7
14	e5.2	e60	e64	e200	e80	186	107	138	488	182	7.8	3.2
15	e5.2	e66	e60	168	e70	154	102	120	599	143	9.9	2.8
16	e5.4	e54	e58	238	e74	e120	92	103	405	117	7.2	5.1
17	e5.4	e48	e56	176	e84	e110	86	88	473	95	6.8	5.1
18	e5.2	e45	e54	148	105	119	75	74	390	76	9.6	3.4
19	e5.2	e43	e52	133	150	176	113	64	290	59	10	2.8
20	e5.0	e40	e45	117	119	184	292	58	221	51	6.8	2.6
21	e5.0	e44	e43	102	103	e160	204	52	170	44	5.9	2.6
22	e5.0	e80	e42	98	96	e150	183	44	132	38	5.4	3.2
23	e5.0	e84	e50	86	91	e130	162	38	112	33	4.8	5.5
24	e6.0	e80	e45	e82	96	e120	141	32	95	35	4.3	3.3
25	e10	e76	74	e78	91	e110	127	29	77	28	3.7	2.6
26	e14	90	88	e76	81	164	131	32	68	23	3.3	2.5
27	e17	174	78	e74	80	186	122	25	68	20	3.0	2.8
28	e20	114	72	60	98	203	97	21	56	18	2.5	5.0
29	e16	126	e60	e56	---	219	86	21	50	17	2.5	3.7
30	e13	138	e54	56	---	199	79	28	287	16	2.9	2.8
31	e11	---	e46	52	---	173	---	24	---	15	3.6	---
TOTAL	249.3	2196	2387	8223	2079	6179	4271	2717	4704	5376	243.2	142.3
MEAN	8.04	73.2	77.0	265	74.3	199	142	87.6	157	173	7.85	4.74
MAX	20	174	189	1120	150	698	292	203	599	962	22	13
MIN	4.8	25	42	42	31	110	75	21	23	15	2.5	2.5
CFSM	.16	1.47	1.55	5.33	1.49	4.00	2.86	1.76	3.15	3.48	.16	.10
IN.	.19	1.64	1.78	6.14	1.55	4.62	3.19	2.03	3.51	4.02	.18	.11

MEAN	38.1	92.0	103	97.9	98.1	176	210	106	54.3	34.7	20.4	31.0
MAX	203	227	200	265	224	346	490	240	157	173	139	235
(WY)	1956	1960	1951	1998	1939	1945	1958	1943	1998	1998	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

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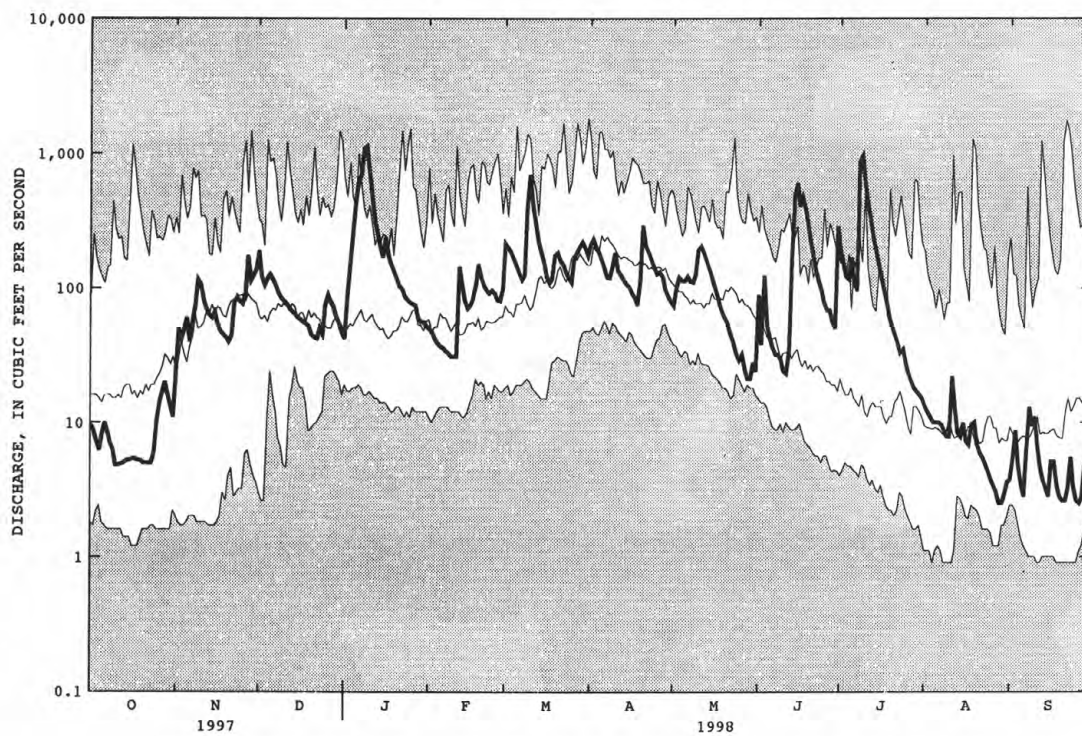
01422500 LITTLE DELAWARE RIVER NEAR DELHI, NY--Continued

SUMMARY STATISTICS

FOR 1998 WATER YEAR

WATER YEARS 1938 - 1998

ANNUAL TOTAL	38766.8		
ANNUAL MEAN	106		88.5
HIGHEST ANNUAL MEAN			131
LOWEST ANNUAL MEAN			42.2
HIGHEST DAILY MEAN	1120	Jan 9	1820
LOWEST DAILY MEAN	2.5	Aug 28	.90
ANNUAL SEVEN-DAY MINIMUM	3.1	Aug 25	.90
ANNUAL RUNOFF (CFSM)	2.13		1.78
ANNUAL RUNOFF (INCHES)	28.96		24.13
10 PERCENT EXCEEDS	203		205
50 PERCENT EXCEEDS	72		45
90 PERCENT EXCEEDS	5.0		6.0



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



## DELAWARE RIVER BASIN

## 01423000 WEST BRANCH DELAWARE RIVER AT WALTON, NY

**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 mi<sup>2</sup>.

**PERIOD OF RECORD.**--October 1950 to current year.

**REVISED RECORDS.**--WDR NY-82-1: Drainage area.

**GAGE.**--Water-stage recorder. Datum of gage is 1,190.30 ft above sea level.

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

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 25,000 ft<sup>3</sup>/s, Jan. 19, 1996, gage height, 16.36 ft, from rating curve extended above 8,800 ft<sup>3</sup>/s on basis of runoff comparison of peak flow from contracted-opening measurement at site 4.7 mi downstream; minimum discharge, 12 ft<sup>3</sup>/s, Sept. 15, Nov. 22, 1964; minimum gage height, 1.86 ft, Nov. 22, 1964.

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 4,600 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 9	0500	*11,300	*11.94	July 9	0100	8,530	10.71
Mar. 10	0900	6,610	9.73				

Minimum discharge, 25 ft<sup>3</sup>/s, Oct. 24, gage height, 2.23 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	45	1070	e200	318	1560	1330	449	596	1570	106	34
2	37	68	789	e250	306	1610	1970	526	345	1160	97	40
3	36	158	659	397	300	1500	1560	773	602	849	90	44
4	34	134	680	1050	275	1280	1330	712	352	706	84	41
5	38	145	760	2440	263	1120	1160	734	279	1000	79	36
6	43	138	662	3160	232	986	984	715	236	706	75	34
7	44	113	579	3740	221	881	833	728	208	559	72	44
8	39	121	512	7410	209	862	753	662	194	3070	67	57
9	36	491	456	10200	202	2130	940	711	184	5430	61	72
10	34	541	426	6510	199	5760	1300	1210	163	2650	58	71
11	32	375	414	3420	207	3240	908	1820	147	1750	68	62
12	32	303	379	2280	701	1990	806	1600	187	1310	83	52
13	30	259	355	1830	884	1540	737	1270	703	1010	67	45
14	30	253	334	1450	e450	1350	675	1060	1350	817	59	42
15	30	240	e250	1120	e380	1110	630	888	2920	679	58	39
16	29	215	e250	1510	e420	892	584	748	2060	582	56	45
17	30	194	e260	1260	477	758	526	694	1910	512	54	44
18	29	181	265	1030	607	774	474	554	2170	432	60	41
19	29	167	246	918	982	1030	536	459	1670	361	60	39
20	28	167	243	826	939	1250	2090	397	1240	321	58	36
21	27	157	228	724	769	1240	1440	351	965	292	52	36
22	27	244	e140	627	683	1070	1220	304	755	263	49	38
23	26	365	e170	599	653	926	1060	272	702	234	46	37
24	26	354	222	662	653	829	919	238	771	228	44	37
25	31	316	276	610	639	798	814	216	587	200	42	35
26	38	306	496	503	597	1040	776	211	473	177	39	33
27	48	718	472	429	575	1560	850	185	448	159	37	37
28	57	578	e350	439	657	1570	640	164	395	146	36	47
29	57	570	e280	380	---	1620	550	158	353	134	34	39
30	51	633	e250	400	---	1430	490	188	1440	126	34	36
31	46	---	e220	371	---	1210	---	196	---	116	35	---
TOTAL	1113	8549	12693	56745	13798	44916	28885	19193	24405	27549	1860	1293
MEAN	35.9	285	409	1830	493	1449	963	619	814	889	60.0	43.1
MAX	57	718	1070	10200	982	5760	2090	1820	2920	5430	106	72
MIN	26	45	140	200	199	758	474	158	147	116	34	33
CFSM	.11	.86	1.23	5.51	1.48	4.36	2.90	1.86	2.45	2.68	.18	.13
IN.	.12	.96	1.42	6.36	1.55	5.03	3.24	2.15	2.73	3.09	.21	.14

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1998, BY WATER YEAR (WY)**

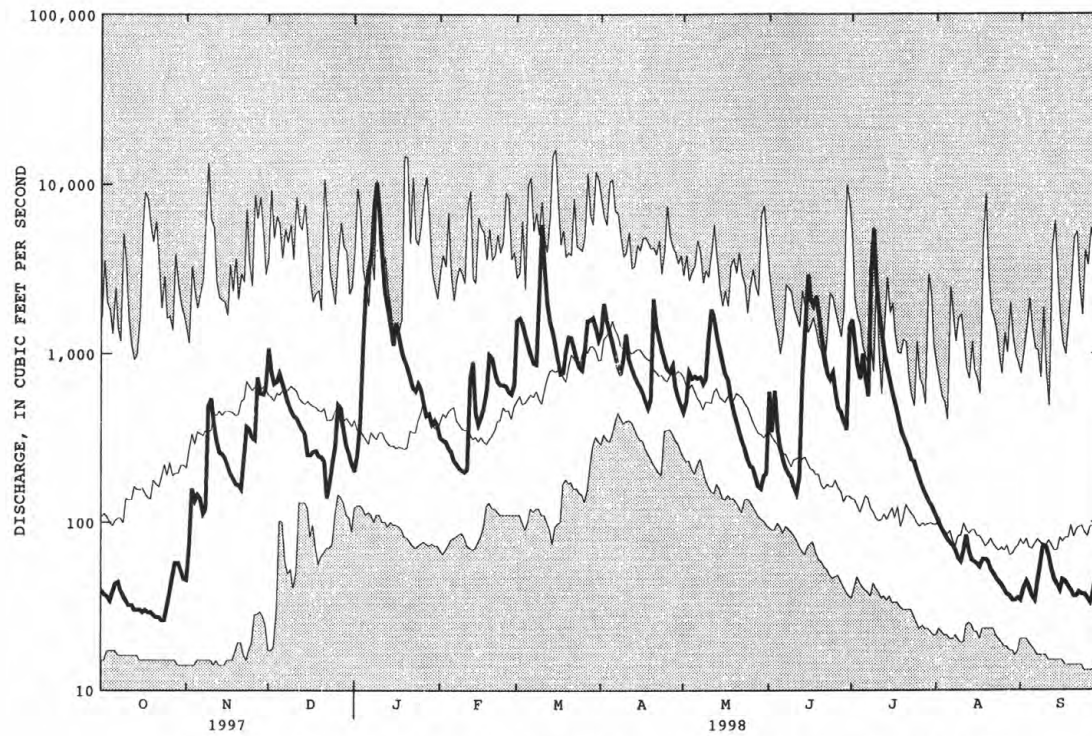
MEAN	344	640	738	642	673	1114	1281	681	351	204	148	194
MAX	2013	1605	2002	1980	2052	2935	2953	1564	1111	889	942	1332
(WY)	1978	1997	1974	1996	1981	1977	1958	1984	1968	1998	1955	1977
MIN	15.4	17.3	163	94.6	147	371	452	190	70.6	38.9	24.2	15.8
(WY)	1965	1965	1965	1961	1980	1965	1986	1987	1964	1965	1964	1964

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR	FOR 1998 WATER YEAR	WATER YEARS 1951 - 1998
ANNUAL TOTAL	161642	240999	
ANNUAL MEAN	443	660	583
HIGHEST ANNUAL MEAN			833
LOWEST ANNUAL MEAN			263
HIGHEST DAILY MEAN	3620	Feb 22	16000
LOWEST DAILY MEAN	24	Aug 12	13
ANNUAL SEVEN-DAY MINIMUM	27	Oct 18	13
ANNUAL RUNOFF (CFSM)	1.33	1.99	1.76
ANNUAL RUNOFF (INCHES)	18.11	27.00	23.87
10 PERCENT EXCEEDS	1100	1470	1340
50 PERCENT EXCEEDS	250	379	310
90 PERCENT EXCEEDS	33	38	56

e Estimated



01423000 WEST BRANCH DELAWARE RIVER AT WALTON, NY--Continued



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



## 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 mi<sup>2</sup>.

**PERIOD OF RECORD.**--June 1952 to June 1967, December 1996 to current year. 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. Datum of gage is 1,158.61 ft above sea level. Prior to November 1996, at site 0.3 mi upstream at datum 1165.70 ft above sea level (levels and benchmark, Board of Water Supply, City of New York).

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

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 2,800 ft<sup>3</sup>/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 ft<sup>3</sup>/s on basis of contracted-opening measurement at gage height 7.03 ft (site and datum then in use); minimum discharge, 0.1 ft<sup>3</sup>/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.**--Peak discharges greater than base discharge of 700 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
July 8	1630	*701	*5.08	No other peak greater than base discharge.			

Minimum discharge, 0.64 ft<sup>3</sup>/s, Aug. 28, 30, Sept. 6, 7; minimum gage height, 0.89 ft, Oct. 4, 5, 9, 10, 11, 12.

**REVISIONS.**--Peak discharges for the 1997 water year have been revised as shown in the following table. They supercede figures published in WDR NY-97-1. The peak discharge for Dec. 2, 1996, was revised to about 550 ft<sup>3</sup>/s which is now below the base discharge of 700 ft<sup>3</sup>/s.

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 9	unknown	a*800	b*5.50	No other peak greater than base discharge.			

a About.

\* Denotes maximum for year.

b From crest-stage gage.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	e3.5	e110	e17	e21	160	129	32	34	152	3.6	.96
2	2.4	e13	e70	e15	e21	132	123	34	18	95	3.3	1.3
3	1.9	e12	e35	e19	e20	111	105	149	27	68	3.0	2.9
4	1.6	e8.6	e43	e45	e20	93	87	105	16	55	2.7	2.2
5	4.0	e7.6	e39	e94	e20	80	73	90	14	63	2.5	1.4
6	2.7	e6.0	e35	e150	e17	68	62	75	11	43	2.4	.82
7	2.0	e5.0	e31	254	e16	61	53	62	10	37	2.3	3.2
8	1.7	e5.8	e26	448	e15	67	54	56	9.6	227	2.2	7.0
9	1.6	e33	e23	372	e15	182	72	54	8.8	183	1.8	16
10	1.5	e28	e20	230	e15	279	84	123	7.5	130	1.7	9.7
11	e1.4	e17	e18	152	e17	e140	64	127	7.0	95	2.6	3.7
12	e1.4	e12	e17	110	59	e96	58	104	28	72	2.1	1.5
13	e1.5	e9.6	e15	e90	e41	e74	53	82	38	56	1.8	1.2
14	e1.6	e8.6	e14	70	e34	69	48	68	35	47	1.7	1.0
15	e1.9	e8.0	e13	58	e33	59	47	56	39	37	1.6	1.0
16	e1.6	e7.6	e12	92	e30	e46	42	47	45	31	1.4	2.1
17	e1.4	e7.0	e12	67	35	e43	38	40	51	27	1.4	1.5
18	e1.4	e6.8	e11	58	60	e45	34	34	61	25	1.9	1.2
19	e1.5	e6.5	e10	53	84	e50	65	30	46	18	2.0	1.0
20	e1.5	e6.4	e9.8	48	66	59	155	26	40	16	1.5	.99
21	e1.5	e6.4	e9.6	43	62	80	99	23	33	14	1.3	.93
22	e1.6	e10	e9.4	39	56	70	82	21	27	12	1.2	1.1
23	e1.7	e21	e9.2	37	52	60	69	20	25	11	1.1	1.0
24	e1.7	e20	e9.8	38	e49	e52	57	18	26	11	1.0	1.0
25	e3.0	e16	e14	e32	e47	e50	51	17	22	8.0	.94	.93
26	e2.5	e19	e29	e27	e45	e66	55	17	21	6.8	.90	.86
27	e3.8	e35	e27	e26	e44	e88	50	13	20	6.0	.87	1.1
28	e3.5	e28	e25	e26	64	101	41	11	17	5.3	.82	2.3
29	e3.1	e32	e23	e24	---	97	37	11	39	5.1	.78	1.4
30	e2.8	e45	e25	e25	---	81	34	12	224	4.8	.73	1.2
31	e2.6	---	e21	e23	---	67	---	18	---	4.2	.93	---
TOTAL	65.6	444.4	765.8	2782	1058	2726	2021	1575	999.9	1565.2	54.07	72.49
MEAN	2.12	14.8	24.7	89.7	37.8	87.9	67.4	50.8	33.3	50.5	1.74	2.42
MAX	4.0	45	110	448	84	279	155	149	224	227	3.6	16
MIN	1.4	3.5	9.2	15	15	43	34	11	7.0	4.2	.73	.82
CFSM	.10	.73	1.22	4.44	1.87	4.35	3.33	2.52	1.65	2.50	.09	.12
IN.	.12	.82	1.41	5.12	1.95	5.02	3.72	2.90	1.84	2.88	.10	.13

e Estimated



## 0142400103 TROUT CREEK NEAR TROUT CREEK, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 1998, BY WATER YEAR (WY)

MEAN	12.9	27.1	33.6	36.5	37.4	66.5	80.1	32.4	16.4	7.44	4.68	8.77
MAX	63.9	102	68.0	89.7	74.8	131	181	56.4	36.2	50.5	29.1	52.8
(WY)	1956	1960	1960	1998	1961	1964	1958	1958	1960	1998	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

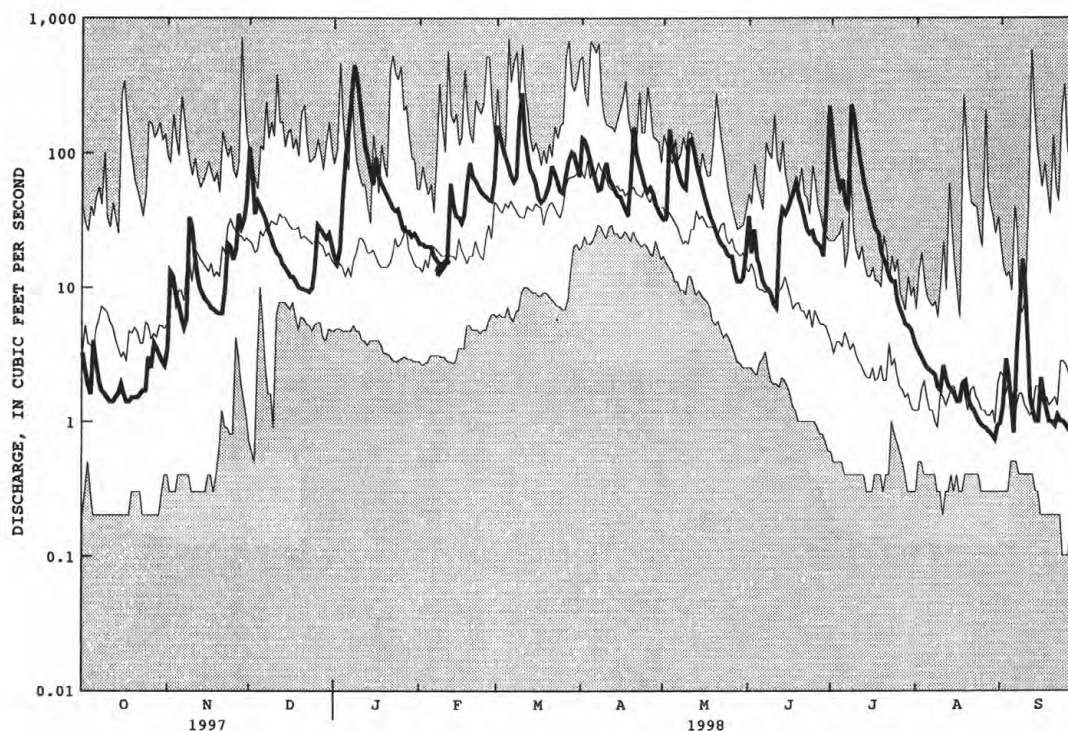
## SUMMARY STATISTICS

FOR 1997 CALENDAR YEAR

FOR 1998 WATER YEAR

WATER YEARS 1953 - 1998

ANNUAL TOTAL	8824.96	14129.46	
ANNUAL MEAN	24.2	38.7	30.8
HIGHEST ANNUAL MEAN			46.7
LOWEST ANNUAL MEAN			15.0
HIGHEST DAILY MEAN	221	Feb 27	448
LOWEST DAILY MEAN	.38	Aug 12	.73
ANNUAL SEVEN-DAY MINIMUM	.63	Aug 6	.85
ANNUAL RUNOFF (CFSM)	1.20		1.92
ANNUAL RUNOFF (INCHES)	16.25		26.02
10 PERCENT EXCEEDS	62		92
50 PERCENT EXCEEDS	13		22
90 PERCENT EXCEEDS	1.4		1.5



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



## DELAWARE RIVER BASIN

## 01424108 SHERRUCK BROOK TRIBUTARY NEAR TROUT CREEK, NY

**LOCATION.**--Lat 42°11'16", long 75°18'57", Delaware County, Hydrologic Unit 02040101, on left bank downstream from culvert on Mormon Hollow Road, 800 ft upstream from Sherruck Brook, and 2.2 mi southwest of Trout Creek.

**DRAINAGE AREA.**--1.26 mi<sup>2</sup>.

**PERIOD OF RECORD.**--October 1997 to September 1998.

**GAGE.**--Water-stage recorder and crest-stage gage. Elevation of gage is 1,520 ft above sea level, from topographic map.

**REMARKS.**--Records fair except those for estimated daily discharges, which are poor. Satellite gage-height telemeter at station.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 45 ft<sup>3</sup>/s, Jan. 8, 1998, gage height, 2.14 ft, outside gage height was 2.43 ft, from crest-stage gage; minimum discharge, 0.07 ft<sup>3</sup>/s, Oct. 11, 1997, Aug. 28, 30, Sept. 6, 1998, gage height, 0.35 ft.

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 30 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 8	1945	*45	a*2.14	June 30	1830	44	2.11
Mar. 10	0200	34	1.91	July 8	1600	43	2.10

a Recorded; outside gage height was 2.43 ft, from crest-stage gage.

Minimum discharge, 0.07 ft<sup>3</sup>/s, Oct. 11, Aug. 28, 30, Sept. 6, gage height, 0.35 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.09	.24	6.0	e.92	e1.1	9.6	11	1.9	1.5	17	.15	.10
2	.08	.77	3.0	.86	.82	9.0	12	1.9	.89	9.7	.14	.12
3	.08	.65	2.2	1.2	.72	8.2	9.0	9.2	1.4	6.0	.14	.12
4	.08	.45	2.4	3.8	.72	7.0	7.3	8.1	.70	4.3	.14	.11
5	.15	.43	2.4	11	e.72	5.9	5.8	7.0	.56	4.5	.14	.10
6	.12	.33	2.0	19	e.68	5.0	4.7	5.7	.48	2.7	.14	.09
7	.11	.28	1.7	25	e.66	4.3	3.7	4.5	.44	2.1	.14	.22
8	.09	.37	1.5	38	e.60	4.7	3.7	3.9	.42	14	.13	.19
9	.09	1.9	1.2	30	e.56	15	5.0	3.6	.39	13	.13	.22
10	.09	1.4	e1.1	20	e.52	24	6.5	9.1	.34	8.7	.14	.18
11	.08	.82	1.0	14	e.52	14	4.8	11	.33	5.7	.18	.13
12	.08	.62	.95	10	3.7	e8.0	4.1	8.6	1.9	3.9	.15	.11
13	.09	.53	.88	8.4	e4.0	e6.0	3.6	6.5	3.0	2.7	.14	.10
14	.09	.53	.81	6.3	e3.1	e4.6	3.1	4.9	2.8	2.0	.13	.10
15	.11	.46	e.74	5.2	e2.6	e4.0	3.1	3.8	3.1	1.6	.15	.09
16	.09	.44	e.62	6.9	e2.3	e3.3	2.7	3.0	3.6	1.3	.15	.16
17	.08	.41	e.60	5.4	e2.2	e2.9	2.3	2.3	3.3	1.0	.15	.11
18	.09	.39	e.58	4.6	3.5	2.8	1.9	1.6	5.1	.82	.19	.09
19	.09	.37	e.56	4.0	6.5	3.1	4.7	1.5	3.9	.66	.17	.09
20	.09	.37	e.54	3.5	6.2	3.4	14	1.3	2.9	.62	.14	.09
21	.09	.37	e.54	3.1	5.4	5.8	8.9	1.1	2.1	.54	.13	.10
22	.09	1.1	e.58	2.5	4.7	5.2	7.0	.97	1.6	.46	.13	.11
23	.10	1.2	.58	2.4	4.2	4.2	5.6	.85	1.4	.43	.13	.10
24	.10	1.2	.54	2.3	e3.8	3.6	4.5	.74	1.3	.36	.12	.09
25	.18	.92	1.2	2.1	3.9	3.3	3.6	.73	1.1	.30	.11	.09
26	.14	1.0	1.6	1.8	3.2	4.5	3.8	.69	1.0	.27	.10	.10
27	.22	2.1	1.6	1.5	2.9	10	3.5	.55	.98	.24	.10	.18
28	.20	1.6	1.4	1.5	3.9	16	2.8	.48	.75	.22	.09	.18
29	.17	1.9	1.3	1.4	---	13	2.5	.46	5.9	.21	.10	.13
30	.16	3.8	e1.1	1.4	---	9.7	2.2	.43	21	.20	.09	.12
31	.15	---	e1.0	1.2	---	7.2	---	1.1	---	.18	.13	---
TOTAL	3.47	26.95	42.22	239.28	73.72	227.3	157.4	107.70	74.18	105.71	4.17	3.72
MEAN	.11	.90	1.36	7.72	2.63	7.33	5.25	3.47	2.47	3.41	.13	.12
MAX	.22	3.8	6.0	38	6.5	24	14	11	21	17	.19	.22
MIN	.08	.24	.54	.86	.52	2.8	1.9	.43	.33	.18	.09	.09
CFSM	.09	.71	1.08	6.13	2.09	5.82	4.16	2.76	1.96	2.71	.11	.10
IN.	.10	.80	1.25	7.06	2.18	6.71	4.65	3.18	2.19	3.12	.12	.11

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

	MEAN	.11	.90	1.36	7.72	2.63	7.33	5.25	3.47	2.47	3.41	.13	.12
	MAX	.11	.90	1.36	7.72	2.63	7.33	5.25	3.47	2.47	3.41	.13	.12
	(WY)	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998
	MIN	.11	.90	1.36	7.72	2.63	7.33	5.25	3.47	2.47	3.41	.13	.12
	(WY)	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998

e Estimated



DELAWARE RIVER BASIN

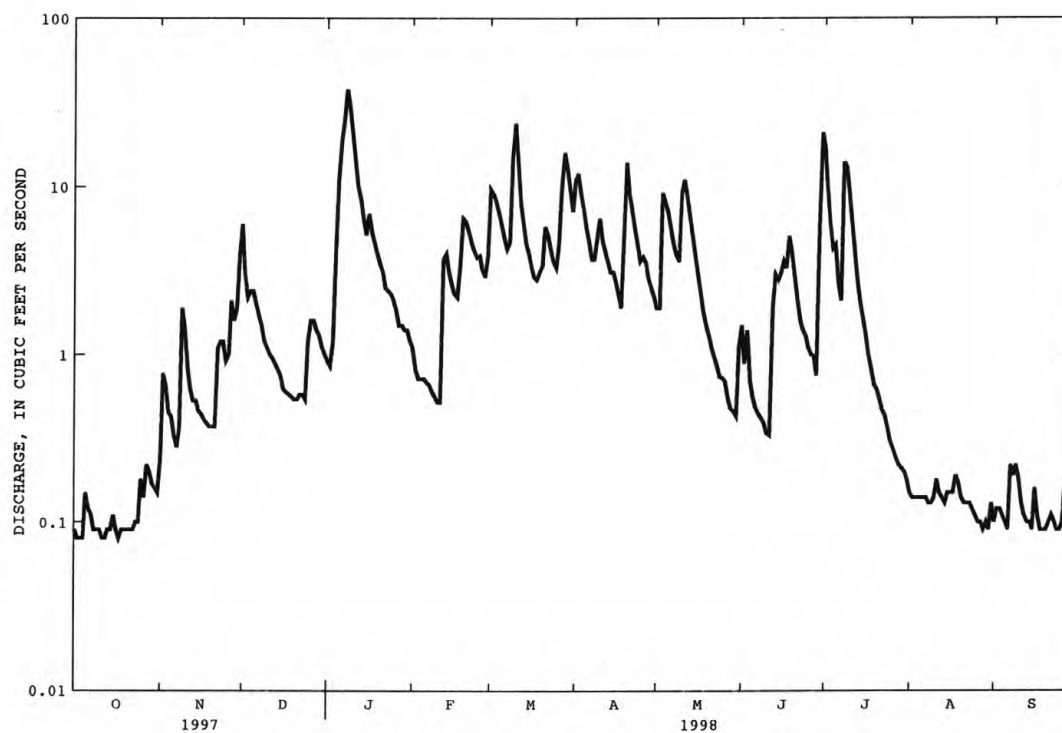
279

01424108 SHERRUCK BROOK TRIBUTARY NEAR TROUT CREEK, NY--Continued

SUMMARY STATISTICS

FOR 1998 WATER YEAR

ANNUAL TOTAL	1065.82	
ANNUAL MEAN	2.92	
HIGHEST DAILY MEAN	38	Jan 8
LOWEST DAILY MEAN	.08	Oct 2
ANNUAL SEVEN-DAY MINIMUM	.09	Oct 8
ANNUAL RUNOFF (CFSM)	2.32	
ANNUAL RUNOFF (INCHES)	31.47	
10 PERCENT EXCEEDS	7.6	
50 PERCENT EXCEEDS	1.1	
90 PERCENT EXCEEDS	.10	



CURRENT WATER YEAR DAILY DISCHARGE.



## 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 mi<sup>2</sup>.

## 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 ft<sup>3</sup>/s and those for estimated daily discharges, which are poor. Subsequent to October 1963, entire flow from 454 mi<sup>2</sup> 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 ft<sup>3</sup>/s, Mar. 16, 1986, gage height, 13.07 ft; minimum discharge not determined.

**EXTREMES FOR CURRENT YEAR.**--Maximum discharge, 4,840 ft<sup>3</sup>/s, Mar. 11, gage height, 10.13 ft; minimum, 5.5 ft<sup>3</sup>/s, Jan. 14, gage height, 2.58 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e620	107	e24	26	51	795	1930	848	138	1560	752	1010
2	e620	e23	e30	26	51	1270	2430	801	205	2030	392	1070
3	e620	e23	e30	27	51	1540	2490	910	210	1850	430	1040
4	e620	e23	e30	30	51	1540	2280	1080	213	1450	619	1040
5	e620	e23	e27	34	52	1420	2020	1100	213	1290	893	1100
6	e620	e23	e25	37	51	1270	1750	1100	205	1210	887	1140
7	e370	e23	e25	37	51	1110	1500	1080	205	949	934	336
8	e620	e23	e25	50	51	996	1310	1050	205	1040	1030	245
9	e620	e25	e25	51	51	1190	1300	1030	205	3600	959	270
10	e620	e23	e25	24	52	3380	1530	1160	205	4130	840	427
11	e600	e23	e25	19	52	4670	1530	1670	208	3150	982	1170
12	e680	e23	e25	17	51	3870	1390	2000	213	2330	1020	1150
13	e600	e23	e26	16	54	2980	1270	1980	213	1740	965	828
14	e760	e24	e26	15	53	2420	1170	1800	286	1220	1050	827
15	640	e25	e27	20	52	2010	1100	1580	973	862	1040	810
16	753	e23	e27	36	53	1640	1040	1360	1750	689	1100	855
17	632	e23	e28	33	53	1360	958	1180	1990	510	1080	843
18	791	e23	28	32	55	1220	879	1050	2310	424	969	1170
19	696	e23	28	32	57	1200	859	897	2390	404	910	1250
20	777	e23	28	32	56	1320	1450	801	2240	368	830	958
21	782	e23	28	27	55	1500	1950	676	1690	360	753	967
22	757	e23	27	32	55	1620	1930	578	1270	350	908	974
23	723	e23	28	33	58	1500	1800	486	1040	322	710	848
24	568	e23	28	40	173	1350	1600	434	865	288	1010	807
25	510	e23	29	51	431	1240	1410	407	772	237	751	1150
26	373	e23	28	51	469	1230	1280	377	631	235	877	1140
27	368	e23	27	51	473	1500	1250	241	489	243	1000	746
28	560	e23	27	51	485	1830	1140	170	405	278	948	526
29	427	e23	28	51	---	2080	1020	223	356	292	1030	204
30	449	e23	28	51	---	2140	923	159	505	290	1000	408
31	376	---	27	51	---	1990	---	107	---	650	1030	---
TOTAL	18772	779	839	1083	3247	55181	44489	28335	22600	34351	27699	25309
MEAN	606	26.0	27.1	34.9	116	1780	1483	914	753	1108	894	844
MAX	791	107	30	51	485	4670	2490	2000	2390	4130	1100	1250
MIN	368	23	24	15	51	795	859	107	138	235	392	204

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1998, BY WATER YEAR (WY)

MEAN	513	273	334	332	435	814	1230	729	514	639	612	548
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 1997 CALENDAR YEAR

## FOR 1998 WATER YEAR

## WATER YEARS 1964 - 1998

ANNUAL TOTAL	256724	262684	
ANNUAL MEAN	703	720	582
HIGHEST ANNUAL MEAN			1049
LOWEST ANNUAL MEAN			87.3
HIGHEST DAILY MEAN	3450	4670	14800
LOWEST DAILY MEAN	23	15	7.2
ANNUAL SEVEN-DAY MINIMUM	23	21	8.1
10 PERCENT EXCEEDS	1530	1650	1450
50 PERCENT EXCEEDS	560	619	324
90 PERCENT EXCEEDS	25	25	21

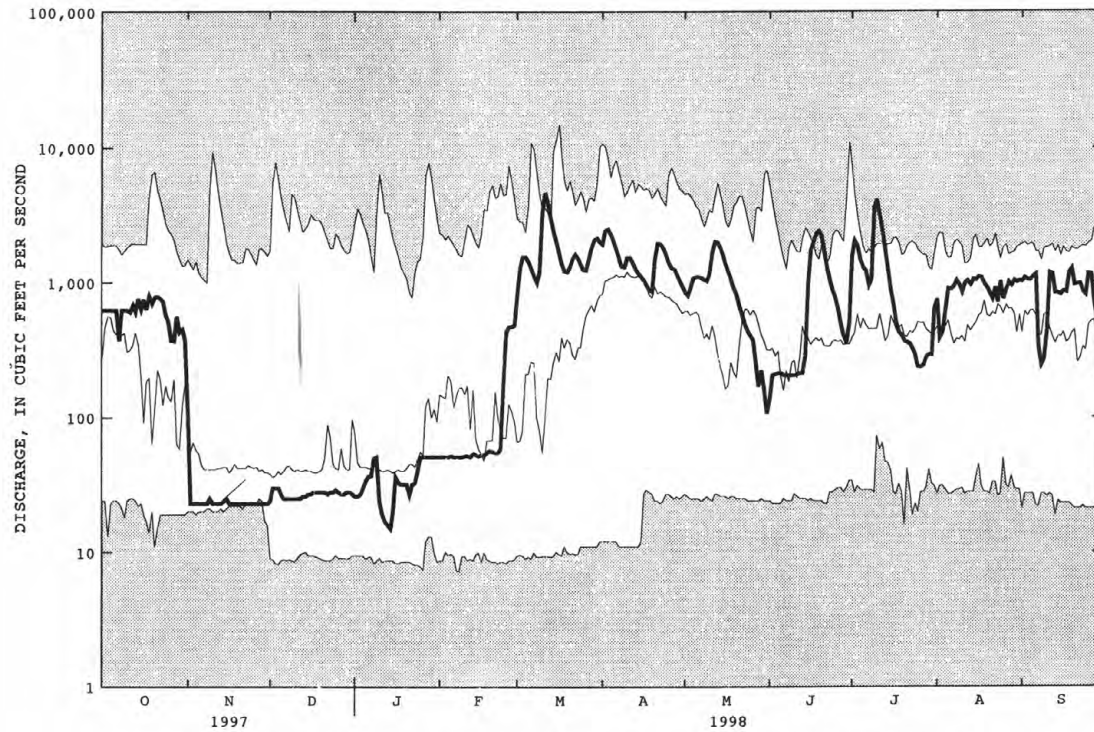
e Estimated



DELAWARE RIVER BASIN

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01425000 WEST BRANCH DELAWARE RIVER AT STILESVILLE, NY--Continued



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



## 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. Prior to March 1993, water-temperature digital recorder since October 1975, provided one-hour-interval punches. Prior to October 1975, water-temperature recorder provided continuous recordings.

**REMARKS.**--Interruptions of record were 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, 1998), 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 recorded, 21.5°C, June 21, but may have been higher during period of instrument malfunction; minimum, 0.0°C on several days during winter period.

## WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

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



## 01425000 WEST BRANCH DELAWARE RIVER AT STILESVILLE, NY--Continued

## WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

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



## DELAWARE RIVER BASIN

## 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 mi<sup>2</sup>.

## 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 mi<sup>2</sup> 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 ft<sup>3</sup>/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 ft<sup>3</sup>/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 ft<sup>3</sup>/s.

**EXTREMES FOR CURRENT YEAR.**--Maximum discharge, 6,110 ft<sup>3</sup>/s, Mar. 10, gage height, 7.92 ft; minimum, 66 ft<sup>3</sup>/s, Dec. 22, result of freezeup, gage height, 1.39 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	632	193	566	e220	e135	2050	2940	1020	362	2730	841	987
2	690	192	388	e300	e130	2520	3600	967	268	2660	476	1100
3	627	204	309	374	137	2600	3360	1150	456	2280	492	1090
4	710	140	318	544	131	2370	2950	1330	310	1800	615	1020
5	600	140	326	1190	134	2110	2570	1360	269	1700	923	1120
6	712	118	283	1630	e115	1850	2210	1350	240	1480	969	1210
7	524	105	242	1730	e110	1600	1900	1290	224	1150	964	445
8	502	107	216	3190	e105	1470	1690	1250	218	1480	1120	285
9	647	249	198	3210	e100	2550	1850	1250	211	4000	987	274
10	714	271	193	1600	e110	5670	2510	1840	202	4410	913	340
11	571	200	188	925	124	5740	2200	2810	202	3440	1000	1180
12	760	166	172	619	340	4550	1940	2920	312	2610	1100	1220
13	651	144	162	499	408	3550	1730	2610	499	1990	992	885
14	789	e145	153	e370	e250	2920	1550	2270	569	1460	1130	853
15	635	141	e145	e330	e230	2450	1440	1970	1260	1030	1050	792
16	814	127	e140	512	e200	e1900	1340	1690	2080	838	1140	919
17	631	119	e135	407	e210	e1600	1210	1440	2390	648	1120	829
18	814	113	e130	342	307	e1500	1090	1240	3030	537	1040	1180
19	699	114	e125	300	539	1610	1180	1070	2820	505	903	1330
20	807	103	e120	268	484	1770	2720	937	2590	460	887	1020
21	764	103	e115	e220	460	2330	2750	804	2010	442	774	952
22	798	186	e120	e210	399	2410	2530	697	1520	431	897	1040
23	700	e240	e130	e200	358	2130	2270	609	1220	393	800	864
24	665	251	e140	221	433	e1800	2010	542	1010	370	966	804
25	516	208	e145	197	758	e1600	1770	505	897	286	881	1150
26	470	186	e150	e170	773	e1800	1620	491	758	279	790	1210
27	318	303	e160	e160	784	2430	1600	342	607	278	1060	839
28	686	253	e170	164	861	3050	1410	216	498	317	930	716
29	511	280	e180	e155	---	3160	1240	280	467	355	1090	210
30	469	335	e190	160	---	2900	1110	249	1720	324	984	411
31	453	---	e200	153	---	2600	---	158	---	655	1090	---
TOTAL	19879	5436	6209	20570	9125	78590	60290	36657	29219	41338	28924	26275
MEAN	641	181	200	664	326	2535	2010	1182	974	1333	933	876
MAX	814	335	566	3210	861	5740	3600	2920	3030	4410	1140	1330
MIN	318	103	115	153	100	1470	1090	158	202	278	476	210

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1998, BY WATER YEAR (WY)

	656	545	625	574	710	1275	1701	997	643	708	664	620
MEAN	656	545	625	574	710	1275	1701	997	643	708	664	620
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 1997 CALENDAR YEAR	FOR 1998 WATER YEAR	WATER YEARS 1964 - 1998
ANNUAL TOTAL	303909	362512	
ANNUAL MEAN	833	993	810
HIGHEST ANNUAL MEAN			1411
LOWEST ANNUAL MEAN			204
HIGHEST DAILY MEAN	3910	Feb 28	5740
LOWEST DAILY MEAN	59	Sep 23	100
ANNUAL SEVEN-DAY MINIMUM	117	Nov 15	114
10 PERCENT EXCEEDS	1740		2440
50 PERCENT EXCEEDS	600		712
90 PERCENT EXCEEDS	142		148

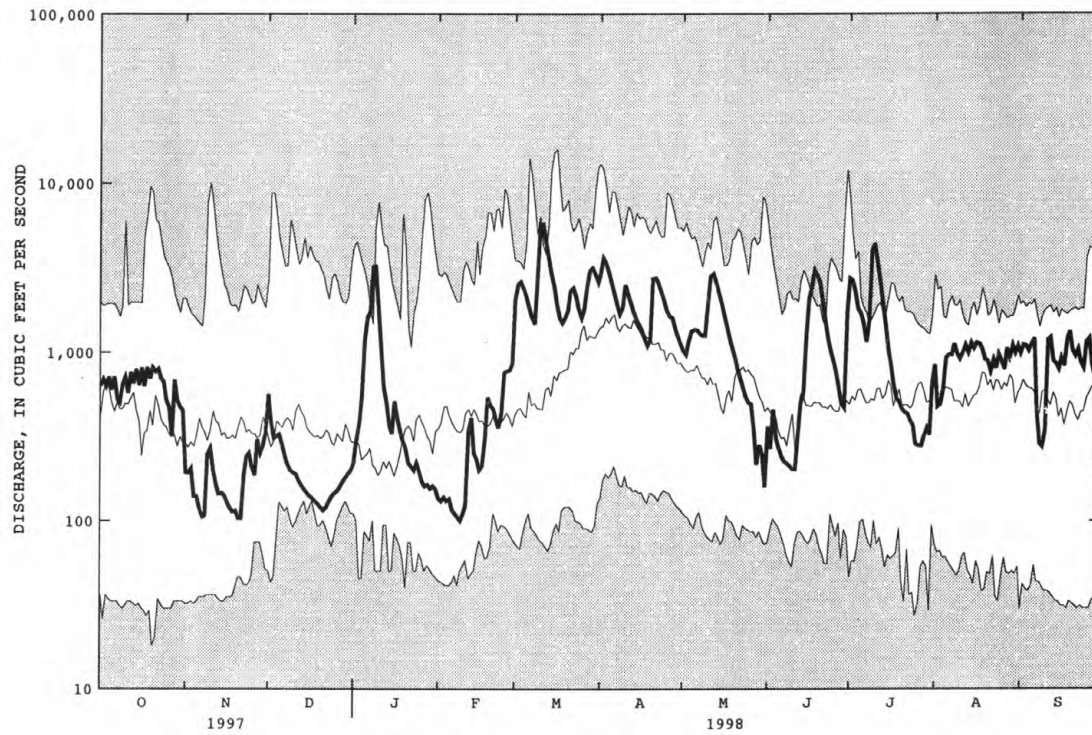
e Estimated



DELAWARE RIVER BASIN

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01426500 WEST BRANCH DELAWARE RIVER AT HALE EDDY, NY--Continued



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



## 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, 1998), 30.5°C, July 22, 23, 1972, June 16, 1981; minimum (water years 1968, 1978-98), 0.0°C on many days during winter periods.

**EXTREMES FOR CURRENT YEAR.**--

WATER TEMPERATURES: Maximum, 23.5°C, May 28; minimum, 0.0°C on many days during winter period.

## WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

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



## DELAWARE RIVER BASIN

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01426500 WEST BRANCH DELAWARE RIVER AT HALE EDDY, NY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

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



## DELAWARE RIVER BASIN

## 01427000 WEST BRANCH DELAWARE RIVER AT HANCOCK, NY

**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 mi<sup>2</sup>.

**PERIOD OF DAILY RECORD.**--

WATER TEMPERATURES: October 1996 to current year.

**INSTRUMENTATION.**--Water-temperature satellite telemeter provides 15-minute-interval readings.

**REMARKS.**--Water temperature is affected by release of water from upstream reservoir.

**EXTREMES FOR PERIOD OF RECORD.**--

WATER TEMPERATURES: Maximum, 24.5°C, Sept. 18, 1997; minimum, 0.0°C on many days during winter periods.

**EXTREMES FOR CURRENT YEAR.**--

WATER TEMPERATURES: Maximum, 23.0°C, May 29; minimum, 0.0°C on many days during winter period.

## WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

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



## 01427000 WEST BRANCH DELAWARE RIVER AT HANCOCK, NY--Continued

## WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	17.5	15.0	16.0	16.5	14.5	16.0	14.5	9.0	12.0	12.0	9.0	10.5
2	16.0	13.0	14.5	18.0	13.5	15.5	15.5	10.0	13.0	11.0	8.5	9.5
3	15.5	12.5	14.0	18.5	15.5	17.0	15.5	13.5	14.5	12.5	8.5	10.5
4	14.0	11.0	13.0	17.5	16.0	16.5	15.0	13.5	14.5	12.5	8.5	10.5
5	15.5	10.5	13.0	19.5	16.5	17.5	13.5	9.5	11.5	12.5	8.5	11.0
6	15.5	11.0	13.5	19.5	16.5	18.0	11.5	8.5	10.0	13.5	9.0	11.0
7	13.0	11.0	12.0	18.5	16.5	17.0	12.5	8.5	10.5	12.5	11.0	11.5
8	12.0	10.5	11.5	17.0	15.0	16.0	13.5	8.0	11.0	14.0	10.5	12.0
9	17.5	10.0	13.5	18.5	15.5	17.0	13.0	9.5	11.5	14.0	11.0	12.5
10	19.0	13.5	16.0	18.5	16.5	17.5	11.5	8.5	10.0	14.5	11.5	13.0
11	16.5	13.5	15.0	18.0	15.5	16.5	13.5	9.0	11.0	13.0	9.0	11.5
12	13.5	13.0	13.5	18.5	14.5	16.5	12.0	8.0	10.0	13.5	9.0	11.5
13	14.5	13.0	13.5	19.5	15.5	17.5	12.5	8.5	10.5	14.0	10.0	12.0
14	14.0	12.5	13.0	19.0	15.0	17.0	11.0	7.5	9.5	13.5	10.5	12.5
15	14.5	12.5	13.5	19.5	16.5	18.0	11.5	9.5	10.0	13.5	11.0	12.5
16	18.0	14.5	16.0	20.0	16.0	18.0	12.0	8.5	10.5	13.5	11.0	12.0
17	17.0	15.0	16.0	20.0	17.5	19.0	11.0	8.5	9.0	14.5	11.0	13.0
18	17.0	15.0	16.0	21.5	17.5	19.5	10.0	8.0	9.0	14.0	9.5	12.0
19	18.5	15.0	17.0	20.0	17.0	19.0	12.5	8.5	10.5	14.0	10.5	12.0
20	18.5	15.0	16.5	19.0	17.0	17.5	12.5	7.5	10.5	14.0	11.0	12.5
21	19.5	16.0	17.5	17.0	15.0	16.0	13.5	8.5	11.0	14.0	12.0	13.0
22	20.5	17.5	19.0	18.0	15.0	16.5	13.0	9.0	11.5	13.5	12.0	12.5
23	20.5	18.0	19.0	17.0	15.5	16.5	12.0	8.5	10.5	13.5	10.5	12.0
24	22.0	18.0	20.0	16.5	14.5	15.5	12.5	10.5	11.5	12.5	9.5	11.5
25	21.0	18.0	19.5	18.5	14.0	16.5	12.5	8.5	10.5	12.5	10.5	11.5
26	20.0	17.5	18.5	20.5	15.5	18.0	14.5	12.0	13.0	14.5	12.0	13.0
27	19.0	16.0	17.5	20.5	16.0	18.5	13.0	8.5	11.0	16.0	12.5	14.5
28	20.0	15.0	17.5	21.0	16.5	18.5	14.0	9.0	11.5	15.5	13.0	14.0
29	19.0	15.5	17.0	18.5	16.0	17.5	12.5	8.5	9.5	16.0	11.5	13.5
30	17.5	14.5	16.5	18.0	14.5	16.0	12.5	8.5	10.5	16.0	12.5	14.0
31	---	---	---	16.5	14.5	15.5	12.5	9.0	11.0	---	---	---
MONTH	22.0	10.0	15.5	21.5	13.5	17.0	15.5	7.5	11.0	16.0	8.5	12.0



## 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 mi<sup>2</sup>.

**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 1994-98), 27.5°C, July 15, 1995; minimum (water years 1994-98), 0.0°C on many days during winter periods.

**EXTREMES FOR CURRENT YEAR.**--

WATER TEMPERATURES: Maximum, 24.5°C, July 18, 28, 29; minimum, 0.0°C on many days during winter period.

## WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

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



## DELAWARE RIVER BASIN

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01427301 DELAWARE RIVER NEAR HANKINS, NY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

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



## 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 mi<sup>2</sup>.

## 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 mi<sup>2</sup> of drainage area controlled by Pepacton Reservoir (see Reservoirs in Delaware River Basin), and subsequent to October 1963, entire flow from 454 mi<sup>2</sup> 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 ft<sup>3</sup>/s, Jan. 19, 1996, gage-height, 16.31 ft; minimum, 306 ft<sup>3</sup>/s, Sept. 24, 25, 1997; minimum gage height, 2.20 ft, Sept. 13, 1977, Aug. 23, 1985.

**EXTREMES FOR CURRENT YEAR.**--Maximum discharge, 30,500 ft<sup>3</sup>/s, Jan. 9, gage height, 8.93 ft; minimum, 521 ft<sup>3</sup>/s, Sept. 11, gage height, 2.66 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1290	773	3600	e980	e1150	6130	5980	2570	1530	10800	1160	1160
2	1270	748	3280	e1100	e1100	7400	10000	2540	1590	7600	1100	1250
3	1070	1610	2450	e1400	1130	7100	8380	4260	2340	6140	808	1280
4	1150	1510	2160	1900	1070	6040	6940	6740	1970	4750	e800	1220
5	1070	1180	2140	4640	1080	5200	5910	6460	1450	4530	e850	1250
6	1170	1070	2040	7570	1060	4460	5030	6730	1230	3850	e1200	1310
7	1110	927	1810	11300	997	3840	4410	6880	1110	2950	e1200	1180
8	972	873	1620	17800	941	3540	4360	6100	1050	3110	e1250	656
9	1240	1440	1470	25700	911	6060	4920	5790	997	9530	e1250	567
10	1240	2580	1390	14500	897	18900	9380	8410	938	10900	e1200	572
11	1190	1870	1390	8490	904	14300	7920	14400	907	8330	1200	828
12	1280	1500	1290	5680	1870	10200	6640	13500	1400	6080	1360	1350
13	1250	1290	1210	4270	3380	7680	5750	10800	3420	4600	1210	1230
14	1350	e1200	1150	3490	2580	6290	5100	8680	5470	3500	1300	1030
15	1300	e1150	e1050	2790	e1900	5350	4640	7090	8880	2600	1250	990
16	1350	e1100	e960	4140	e1700	4450	4370	5880	12000	2110	1340	1060
17	1320	e1000	e860	4650	e1750	3780	3930	4920	10900	1770	1320	995
18	1330	969	e800	3470	1920	3550	3570	4290	11100	1550	1360	1070
19	1320	905	e740	2950	3040	4070	3470	3450	9260	1370	1190	1370
20	1370	866	e720	2600	3360	4600	9830	2740	7860	1260	1190	1330
21	1350	830	e690	2270	3080	5670	9940	2250	6240	1220	1070	1070
22	1390	1180	e700	1990	2690	6340	8370	1890	4670	1230	1000	1270
23	1320	1930	e700	e1800	2390	5390	7160	1660	3580	1120	1140	1180
24	1380	1950	e900	e1900	2620	4690	6200	1490	2800	1070	939	1100
25	1200	1650	1160	e1700	2920	4260	5200	1420	2290	961	1270	1080
26	1230	1440	1430	e1600	2970	4490	4400	1430	1990	853	924	1370
27	948	1590	1600	e1500	2960	6060	4440	1280	1690	808	1190	1210
28	903	1740	1450	e1400	3060	7360	3830	1050	1480	781	1140	1330
29	1070	1670	e1300	1390	---	7710	3260	933	1310	801	1190	1050
30	943	1990	e1200	1360	---	6850	2870	1080	4130	793	1160	595
31	868	---	e1100	1310	---	5900	---	979	---	794	1240	---
TOTAL	37244	40531	44360	147640	55430	197660	176200	147692	115582	107761	35801	32953
MEAN	1201	1351	1431	4763	1980	6376	5873	4764	3853	3476	1155	1098
MAX	1390	2580	3600	25700	3380	18900	10000	14400	12000	10900	1360	1370
MIN	868	748	690	980	897	3540	2870	933	907	781	800	567

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1998, 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	1998
MEAN	2075	2724	2746	2532	2700	4649	5769	3566	1721	1409	1300	1402												
MAX	6545	6561	11130	7594	7993	11080	14500	7866	3853	3571	2710	3716												
(WY)	1978	1997	1997	1978	1976	1977	1993	1984	1998	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 1997 CALENDAR YEAR				FOR 1998 WATER YEAR				WATER YEARS 1975 - 1998			
ANNUAL TOTAL	915367				1138854							
ANNUAL MEAN	2508				3120				2710			
HIGHEST ANNUAL MEAN									3972			
LOWEST ANNUAL MEAN									1435			
HIGHEST DAILY MEAN	12400				25700				54800			
LOWEST DAILY MEAN	321				567				312			
ANNUAL SEVEN-DAY MINIMUM	544				744				354			
10 PERCENT EXCEEDS	5950				7240				6100			
50 PERCENT EXCEEDS	1390				1500				1400			
90 PERCENT EXCEEDS	896				931				780			

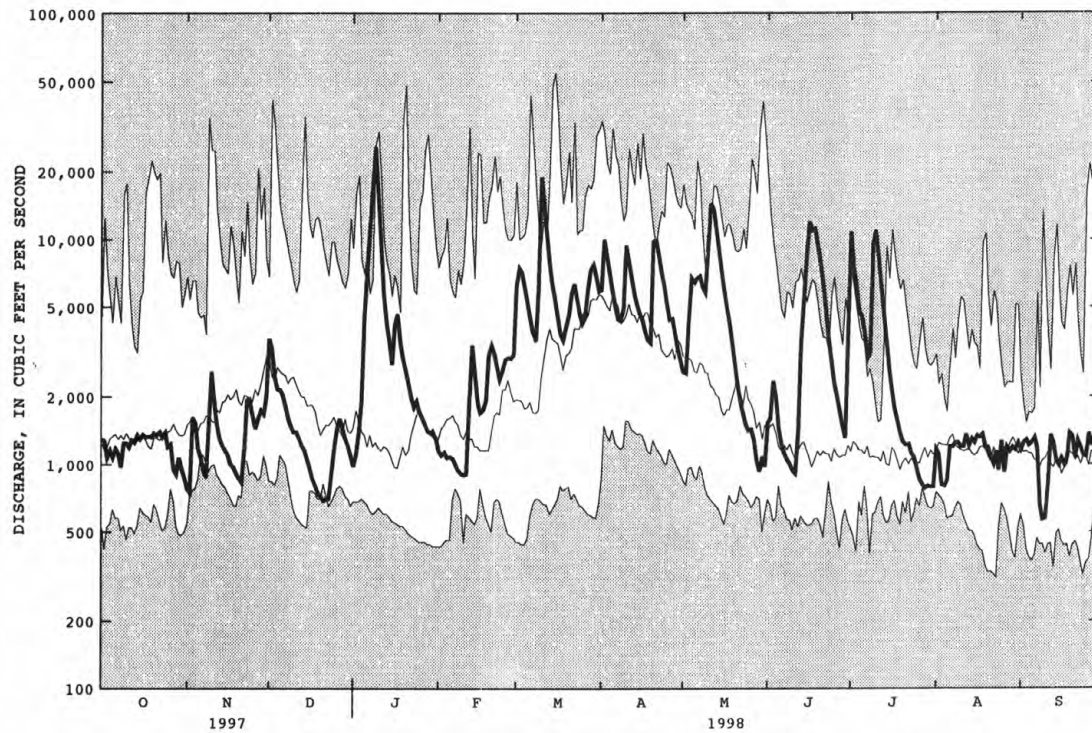
e Estimated



DELAWARE RIVER BASIN

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01427510 DELAWARE RIVER AT CALLICOON, NY--Continued



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



## DELAWARE RIVER BASIN

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 1976-98), 30.5°C, July 12, 1987; minimum, 0.0°C on many days during winter periods.

## EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 26.0°C, July 19, 20, 22, 28; minimum, 0.0°C on many days during winter period.

## WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	14.5	12.5	13.5	10.5	8.5	9.5	3.0	2.0	3.0	.5	.0	.0
2	13.5	11.0	12.0	11.0	9.5	10.5	2.0	1.0	1.5	.5	.0	.0
3	13.0	11.5	12.5	10.5	9.0	9.5	2.0	1.0	1.5	.5	.0	.0
4	15.0	12.0	13.5	9.5	8.5	9.0	3.0	1.5	2.5	.5	.0	.5
5	17.0	13.5	15.5	9.0	7.5	8.0	3.0	2.5	3.0	1.0	.0	.5
6	18.0	14.5	16.0	8.5	7.0	7.5	3.0	2.0	2.5	3.5	.5	2.0
7	17.0	14.5	16.0	8.0	7.0	7.5	2.5	2.0	2.0	4.0	3.5	3.5
8	16.5	14.5	15.5	8.5	7.5	8.0	2.5	1.5	2.0	5.5	4.0	4.5
9	17.5	14.5	16.0	8.5	8.0	8.0	1.5	.5	1.5	6.5	5.5	6.0
10	17.5	15.5	16.5	8.0	6.5	7.5	1.5	.0	1.0	6.5	4.5	5.5
11	16.0	14.0	15.0	7.0	5.5	6.5	1.0	.0	.5	4.5	3.0	4.0
12	15.0	12.0	13.5	5.5	4.0	5.0	1.5	.5	1.0	3.0	2.5	2.5
13	15.0	12.0	13.5	4.0	2.5	3.5	1.5	.5	1.0	2.5	1.5	2.5
14	15.0	14.0	14.5	3.5	1.0	2.0	1.5	.0	1.0	1.5	.0	1.0
15	14.0	12.5	13.5	2.0	1.0	1.5	.5	.0	.5	.0	.0	.0
16	13.0	11.0	12.0	2.0	1.0	1.5	.5	.0	.5	1.0	.0	.5
17	12.0	9.5	11.0	2.0	.5	1.0	.5	.0	.5	2.5	1.0	2.0
18	12.0	10.0	11.0	1.5	.5	1.0	.5	.0	.5	2.0	2.0	2.0
19	11.5	9.5	10.5	1.0	.5	.5	.5	.0	.5	2.5	1.5	2.0
20	11.0	9.0	10.0	1.5	.5	1.0	.5	.0	.5	2.0	1.5	2.0
21	11.0	9.5	10.0	2.0	.5	1.0	.5	.0	.5	1.5	.5	1.0
22	10.0	8.0	9.0	2.5	1.5	2.0	.5	.0	.5	1.0	.0	.5
23	8.0	7.0	7.5	3.0	2.5	3.0	.5	.0	.0	.5	.0	.0
24	7.5	7.0	7.5	3.0	1.5	2.5	.5	.0	.5	1.0	.0	.5
25	9.0	7.5	8.0	1.5	1.0	1.5	.5	.0	.5	1.0	.0	.5
26	8.5	7.0	7.5	1.5	.5	1.0	1.0	.5	.5	1.0	.0	.5
27	9.0	7.5	8.0	2.0	1.5	2.0	1.0	.5	.5	.5	.0	.0
28	8.0	6.0	7.0	2.5	1.5	2.0	1.0	.0	.5	1.0	.0	.5
29	7.5	5.0	6.5	3.5	2.0	2.5	.5	.0	.0	1.5	.0	.5
30	8.5	6.0	7.5	3.0	2.5	3.0	.5	.0	.0	2.0	.5	1.0
31	9.0	6.5	8.0	---	---	---	.5	.0	.0	2.0	1.0	1.5
MONTH	18.0	5.0	11.5	11.0	.5	4.5	3.0	.0	1.0	6.5	.0	1.5



## DELAWARE RIVER BASIN

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01427510 DELAWARE RIVER AT CALLICOON, NY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	22.5	19.5	21.0	19.0	17.0	17.5	25.0	20.5	23.0	20.0	16.0	18.0
2	20.0	18.0	19.0	18.0	16.5	17.0	23.5	19.5	21.5	18.5	16.0	17.0
3	19.0	16.0	17.5	20.0	17.5	18.5	24.5	19.5	22.0	18.0	15.0	16.0
4	17.5	15.0	16.0	20.5	18.5	19.5	25.5	20.5	23.0	19.5	15.0	17.0
5	18.0	14.0	16.0	20.5	18.5	19.5	24.5	22.0	23.5	19.0	16.0	17.5
6	18.5	14.0	16.5	21.0	18.5	20.0	---	---	---	20.0	15.5	17.5
7	17.0	14.0	15.5	20.0	19.0	19.5	---	---	---	18.5	16.5	17.0
8	16.0	14.0	15.0	19.0	17.0	18.0	---	---	---	18.5	15.5	17.0
9	19.5	13.5	16.5	18.5	16.5	17.0	---	---	---	17.5	15.0	15.5
10	21.0	16.0	18.5	19.5	18.5	19.0	---	---	---	17.0	15.0	16.0
11	20.0	17.5	18.0	19.0	18.5	18.5	---	---	---	19.5	15.0	17.0
12	17.5	16.0	16.5	20.0	18.0	19.0	22.0	19.0	20.5	19.0	15.5	17.5
13	17.0	15.5	16.0	21.0	18.5	19.5	21.0	17.5	19.5	19.5	16.0	17.5
14	16.5	15.5	16.0	22.0	19.5	20.5	20.0	18.0	18.5	20.5	17.0	18.5
15	15.5	14.5	15.0	23.0	20.0	21.0	18.0	16.5	17.0	20.5	18.0	19.0
16	17.5	14.5	16.5	23.0	20.5	21.5	21.0	16.5	18.5	20.5	18.5	19.0
17	17.5	17.0	17.5	24.5	21.0	22.5	19.5	17.5	18.0	20.5	17.0	19.0
18	18.0	17.0	17.5	25.5	21.5	23.5	17.5	16.0	17.0	20.0	16.0	18.0
19	18.5	17.0	18.0	26.0	21.5	24.0	18.5	14.5	16.5	18.5	16.5	17.5
20	19.5	18.0	19.0	26.0	22.5	24.0	20.0	15.0	17.5	19.0	16.0	17.0
21	20.5	19.0	20.0	25.0	22.0	23.5	21.0	16.0	19.0	19.5	17.0	18.5
22	21.5	19.5	20.5	26.0	22.5	24.0	22.0	18.0	20.0	19.0	16.5	18.0
23	22.0	20.5	21.0	25.0	23.0	23.5	21.0	19.0	20.0	16.5	14.0	15.5
24	24.5	20.5	22.5	25.0	22.0	23.5	21.5	18.0	20.0	16.0	12.0	14.0
25	24.5	21.5	23.0	24.0	20.0	22.5	21.5	18.5	20.0	14.5	12.5	13.5
26	24.5	22.0	23.5	24.5	20.0	22.5	22.0	18.0	20.0	16.5	13.5	15.0
27	23.5	21.5	22.5	24.5	20.5	22.5	24.0	19.0	21.5	19.0	15.5	17.0
28	25.0	20.5	22.5	26.0	21.5	23.5	22.5	19.0	21.0	18.5	16.5	17.5
29	24.0	21.0	22.5	25.5	22.5	24.0	21.5	18.5	19.5	17.5	14.5	16.0
30	23.0	19.0	21.0	25.5	22.0	24.0	19.5	17.0	18.5	17.5	15.0	16.0
31	---	---	---	25.5	22.5	24.0	20.0	17.0	18.5	---	---	---
MONTH	25.0	13.5	18.5	26.0	16.5	21.0	---	---	---	20.5	12.0	17.0



## DELAWARE RIVER BASIN

## 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 mi<sup>2</sup>.

## 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 mi<sup>2</sup> of drainage area controlled by Pepacton Reservoir, and subsequent to October 1963, entire flow from 454 mi<sup>2</sup> 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 ft<sup>3</sup>/s, Aug. 19, 1955, gage height, 26.40 ft, from floodmarks in gage house, from rating curve extended above 55,000 ft<sup>3</sup>/s, on basis of slope-area measurement at gage height 23.19 ft; minimum discharge, 122 ft<sup>3</sup>/s, Sept. 5, 1953, gage height, 1.11 ft.

**EXTREMES FOR CURRENT YEAR.**---Maximum discharge, 32,400 ft<sup>3</sup>/s, Jan. 9, gage height, 11.71 ft; minimum, 590 ft<sup>3</sup>/s, Sept. 11, 12, gage height, 2.26 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1320	882	4030	e1100	1480	7070	6540	3320	1510	12700	1000	1290
2	1250	811	4370	e1200	1330	8870	10900	3270	2060	8680	1230	1220
3	1130	1320	3270	1650	1310	8480	9620	4490	3250	7080	951	1340
4	1060	1920	2790	2120	1280	7380	8050	7420	2860	5690	893	1310
5	1170	1310	2710	4720	1330	6400	6920	7210	1910	5240	918	1260
6	1050	1160	2620	8460	1360	5590	5950	7430	1490	4820	1250	1300
7	1200	1020	2270	12600	1250	4910	5220	7590	1270	3850	1290	1460
8	1040	936	1980	18600	1160	4470	5060	6920	1180	3420	1270	888
9	1020	1070	1740	28900	1110	6810	5510	6620	1110	8620	1410	676
10	1210	2940	1590	18400	1080	20800	11100	10400	1050	11500	1280	613
11	1280	2410	1590	10500	1080	17600	9360	18100	991	9160	1250	627
12	1160	1750	1490	7230	2210	12000	7790	16600	1540	6950	1340	1270
13	1340	1420	1350	5520	4300	9070	6770	12600	4640	5440	1410	1390
14	1240	1310	1280	4630	3780	7490	6020	9940	6980	4330	1300	1110
15	1370	1370	1100	3570	e2500	6470	5530	8180	9330	3400	1420	1070
16	1240	1290	977	4670	e2200	5520	5230	6880	13500	2740	1350	1020
17	1390	1150	e920	6110	e2300	4780	4810	5840	12400	2230	1450	1120
18	1220	1060	e880	4740	2640	4460	4460	5130	12900	1870	1450	1030
19	1370	976	e840	4030	3950	5110	4250	4350	10500	1580	1410	1310
20	1270	936	e800	3580	4690	5570	10800	3560	8810	1410	1220	1470
21	1370	898	e760	3150	4280	6320	11400	2950	7250	1340	1200	1210
22	1330	1050	751	2750	3810	7490	9470	2410	5680	1310	1080	1140
23	1380	2200	730	2450	3380	6520	8180	2030	4580	1230	1150	1340
24	1300	2580	995	2600	3710	5740	7170	1770	3670	1170	1120	1140
25	1370	2110	1230	2730	4130	5250	6170	1710	3040	1090	1180	1070
26	1210	1740	1670	e2100	4290	5290	5320	1800	2600	950	1240	1310
27	1110	1700	2080	e1900	4320	7090	5370	1580	2140	887	1030	1370
28	864	2060	1880	e1800	4290	8250	4790	1260	1800	846	1300	1250
29	1100	1940	1590	1720	---	8720	4130	1060	1530	840	1160	1370
30	1030	2140	e1400	1680	---	7950	3680	1150	3270	867	1300	749
31	896	---	e1200	1620	---	6950	---	1190	---	830	1210	---
TOTAL	37290	45459	52883	176830	74550	234420	205570	174760	134841	122070	38062	34723
MEAN	1203	1515	1706	5704	2663	7562	6852	5637	4495	3938	1228	1157
MAX	1390	2940	4370	28900	4690	20800	11400	18100	13500	12700	1450	1470
MIN	864	811	730	1100	1080	4460	3680	1060	991	830	893	613

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1998, BY WATER YEAR (WY)

	MEAN	2049	2822	3166	2799	2987	5161	6536	4104	2267	1664	1392	1484
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 1997 CALENDAR YEAR	FOR 1998 WATER YEAR	WATER YEARS 1964 - 1998
ANNUAL TOTAL	993191	1331458	
ANNUAL MEAN	2721	3648	3034
HIGHEST ANNUAL MEAN			4650
LOWEST ANNUAL MEAN			1297
HIGHEST DAILY MEAN	13400	Apr 1	63000
LOWEST DAILY MEAN	368	Sep 25	250
ANNUAL SEVEN-DAY MINIMUM	584	Sep 20	264
10 PERCENT EXCEEDS	6270		6720
50 PERCENT EXCEEDS	1390		1650
90 PERCENT EXCEEDS	886		859

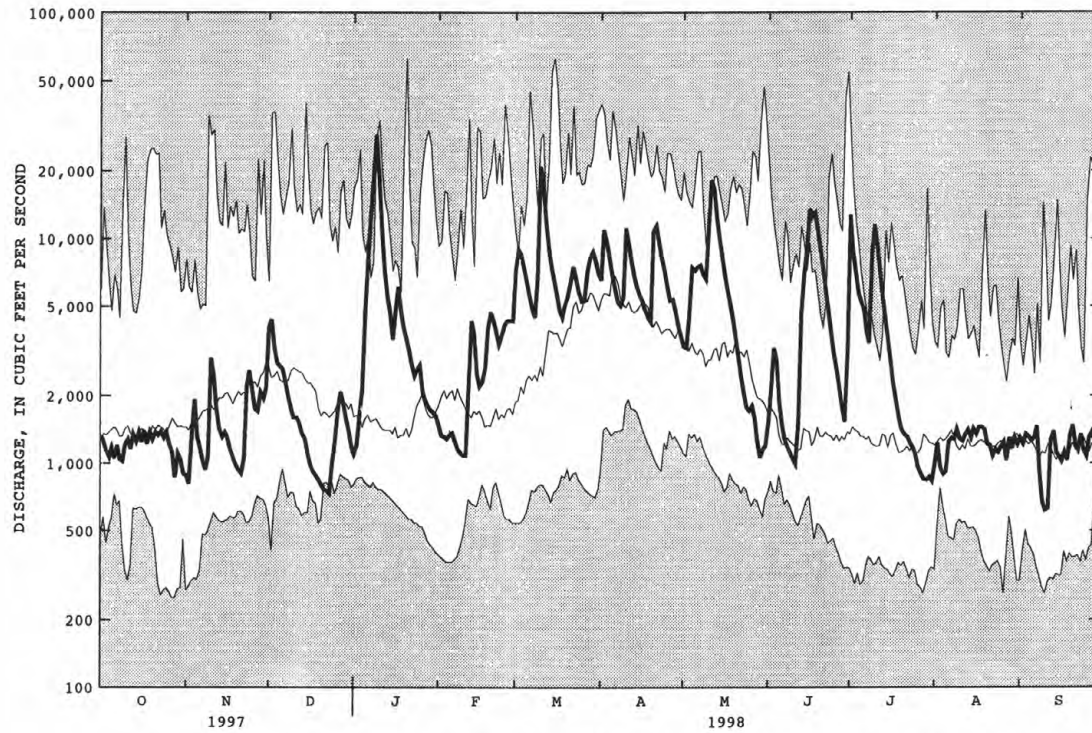
e Estimated



DELAWARE RIVER BASIN

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01428500 DELAWARE RIVER ABOVE LACKAWAXEN RIVER NEAR BARRYVILLE, NY--Continued



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



01428500 DELAWARE RIVER ABOVE LACKAWAXEN RIVER NEAR BARRYVILLE, NY--Continued

## WATER-QUALITY RECORDS

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, 1998), 32.5°C, July 9, 10, 1993; minimum (water years 1968, 1977-98), 0.0°C, on many days during winter periods, each year except water years 1980-82.

**EXTREMES FOR CURRENT YEAR.--**

WATER TEMPERATURES: Maximum, 28.0°C, July 31; minimum, 0.0°C on many days during winter period.

**WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998**

DAY	MAX	MIN	MEAN		MAX	MIN	MEAN		MAX	MIN	MEAN		MAX	MIN	MEAN
	OCTOBER				NOVEMBER				DECEMBER				JANUARY		
1	---	13.0	---		---	---	---		---	---	---		---	---	---
2	15.5	12.0	---		---	---	---		---	---	---		---	---	---
3	---	12.5	---		---	---	---		---	---	---		---	---	---
4	16.5	13.0	---		---	---	---		---	---	---		---	---	---
5	18.5	14.5	---		---	---	---		---	---	---		---	---	---
6	19.5	---	---		---	---	---		---	---	---		---	---	---
7	19.0	---	---		---	---	---		---	---	---		---	---	---
8	19.0	16.0	---		---	---	---		---	---	---		---	---	---
9	19.5	16.0	---		---	---	---		---	---	---		---	---	---
10	20.0	16.5	18.0		---	---	---		---	---	---		---	---	---
11	18.5	15.5	---		---	---	---		---	---	---		---	---	---
12	17.5	13.5	---		---	---	---		---	---	---		---	---	---
13	16.5	13.5	---		---	---	---		---	---	---		---	---	---
14	15.5	14.5	---		---	---	---		---	---	---		---	---	---
15	15.0	13.0	---		---	---	---		---	---	---		---	---	---
16	15.5	12.0	---		---	---	---		---	---	---		---	---	---
17	14.0	11.0	---		---	---	---		---	---	---		---	---	---
18	13.5	10.5	---		---	---	---		---	---	---		---	---	---
19	11.5	10.0	---		---	---	---		---	---	---		---	---	---
20	12.0	9.0	---		---	---	---		---	---	---		---	---	---
21	---	---	---		---	---	---		---	---	---		---	---	---
22	---	---	---		---	---	---		---	---	---		---	---	---
23	---	---	---		---	---	---		---	---	---		.5	.0	.0
24	---	---	---		---	---	---		---	---	---		.5	.0	.5
25	---	---	---		---	---	---		---	---	---		1.0	.0	.5
26	---	---	---		---	---	---		---	---	---		2.0	.0	.5
27	---	---	---		---	---	---		---	---	---		.5	.0	.0
28	---	---	---		---	---	---		---	---	---		1.0	.0	.5
29	---	---	---		---	---	---		---	---	---		2.0	.0	.5
30	---	---	---		---	---	---		---	---	---		1.5	.5	1.0
31	---	---	---		---	---	---		---	---	---		2.0	1.0	1.5
MONTH	---	---	---		---	---	---		---	---	---		---	---	---



## DELAWARE RIVER BASIN

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01428500 DELAWARE RIVER ABOVE LACKAWAXEN RIVER NEAR BARRYVILLE, NY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

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

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



## 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 mi<sup>2</sup>.

**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, 1990-98), 32.0°C, July 20, 21, 1980; minimum, 0.0°C on many days during winter periods.

**EXTREMES FOR CURRENT YEAR.**--

WATER TEMPERATURES: Maximum, 28.0°C, Aug. 4; minimum, 0.0°C on many days during winter period.

## WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	15.5	13.0	14.5	10.0	7.5	9.0	3.0	2.0	2.5	.5	.0	.0
2	15.0	12.0	13.0	10.5	9.0	9.5	2.5	1.0	1.5	.5	.0	.0
3	14.5	13.5	14.0	10.0	8.0	9.0	2.0	.5	1.0	1.0	.0	.5
4	16.0	13.0	14.5	9.5	8.5	9.0	3.0	1.0	2.0	1.5	.0	1.0
5	17.0	14.5	15.5	9.0	7.5	8.0	3.0	2.0	2.5	1.5	.5	1.0
6	18.0	15.0	16.5	8.5	7.0	8.0	2.5	1.0	2.0	2.5	1.0	1.5
7	18.0	16.0	17.0	9.0	7.5	8.0	2.0	1.0	1.5	4.0	2.5	3.0
8	17.5	16.0	17.0	8.5	7.5	8.0	2.5	1.5	2.0	5.0	3.5	4.0
9	19.5	15.5	17.5	9.0	7.5	8.0	2.0	.5	1.0	6.0	4.5	5.5
10	18.5	16.5	17.5	8.0	6.5	7.5	2.0	.0	1.0	6.0	4.5	5.5
11	17.0	15.5	16.5	7.0	6.0	6.5	1.0	.0	.5	5.0	3.0	4.0
12	16.0	14.0	15.0	6.0	4.5	5.0	1.5	.0	1.0	3.5	2.5	3.0
13	15.5	14.0	15.0	4.5	3.0	4.0	1.5	.5	1.0	3.5	2.0	3.0
14	16.0	15.0	15.5	4.0	1.5	2.5	1.5	.0	.5	2.5	1.0	1.5
15	15.0	13.0	14.0	2.0	1.0	1.5	.5	.0	.0	1.5	.0	1.0
16	13.5	12.0	13.0	2.0	.5	1.5	.5	.0	.0	2.0	.5	1.5
17	13.0	11.5	12.0	1.5	.0	1.0	.5	.0	.0	2.5	1.5	2.0
18	12.5	10.5	11.5	1.0	.0	.5	.5	.0	.0	2.5	1.5	2.0
19	11.5	10.0	11.0	1.0	.0	.5	.5	.0	.0	3.0	1.5	2.5
20	11.0	9.0	10.0	1.5	.0	.5	.5	.0	.0	2.5	1.5	2.0
21	10.5	9.0	10.0	2.0	.0	1.0	.5	.0	.0	2.5	1.0	1.5
22	10.0	8.0	9.0	2.0	1.0	1.5	1.0	.0	.0	2.0	1.0	1.5
23	8.0	7.0	7.5	3.0	1.5	2.5	.5	.0	.0	1.5	.0	.5
24	8.0	7.0	7.5	3.0	1.5	2.5	1.0	.0	.5	2.0	.5	1.0
25	8.0	7.0	7.5	2.0	.5	1.5	1.0	.0	.5	2.0	.5	1.5
26	8.0	6.5	7.5	2.0	.0	1.0	1.5	.0	1.0	2.0	.0	1.0
27	9.5	7.0	8.0	2.5	1.0	1.5	1.5	.5	1.0	1.5	.0	1.0
28	8.0	5.5	6.5	2.5	1.0	1.5	1.5	.5	1.0	2.0	.5	1.0
29	7.0	4.5	6.0	3.0	1.5	2.5	1.0	.0	.5	2.0	.0	1.0
30	7.5	6.0	6.5	3.0	2.0	2.5	1.0	.0	.0	2.5	1.0	2.0
31	8.5	6.0	7.0	---	---	---	.5	.0	.0	2.0	1.0	1.5
MONTH	19.5	4.5	12.0	10.5	.0	4.0	3.0	.0	1.0	6.0	.0	2.0



## DELAWARE RIVER BASIN

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## 01432160 DELAWARE RIVER AT BARRYVILLE, NY--Continued

## WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	2.0	.0	1.0	5.0	4.0	4.5	11.5	10.0	11.0	14.5	12.5	13.5
2	2.5	.0	1.5	4.5	3.0	4.0	11.5	10.5	11.0	16.0	13.5	14.5
3	2.5	1.0	2.0	4.0	3.0	3.5	10.5	8.5	9.5	16.0	14.5	15.0
4	2.5	1.5	2.0	4.0	2.5	3.0	9.0	7.0	8.0	15.0	13.5	14.0
5	3.0	1.0	2.0	4.0	2.5	3.0	7.5	6.0	7.0	14.0	13.0	13.5
6	3.0	1.0	2.0	4.0	2.0	3.0	8.0	5.5	7.0	14.5	12.5	13.5
7	2.0	.5	1.5	4.5	3.0	3.5	9.5	6.0	7.5	15.5	13.5	14.5
8	2.0	.0	1.0	3.5	3.0	3.5	8.5	7.5	8.0	15.0	14.0	14.5
9	2.5	.0	1.5	4.5	3.0	3.5	8.0	6.5	7.5	14.5	13.5	14.0
10	3.0	.5	1.5	4.5	3.0	4.0	8.0	6.0	7.0	14.5	13.5	14.0
11	3.0	1.0	2.0	3.5	1.0	2.0	9.0	6.5	8.0	13.5	12.5	13.0
12	3.5	2.5	3.0	1.5	.0	1.0	10.0	7.0	8.5	14.0	12.0	13.0
13	3.0	1.5	2.5	2.0	.0	1.0	10.5	8.0	9.0	14.5	12.0	13.5
14	2.0	.5	1.0	2.0	.5	1.0	11.5	8.5	10.0	15.5	12.5	14.0
15	1.0	.0	.5	2.5	.5	1.5	11.0	10.0	10.5	17.0	14.0	15.5
16	1.5	.0	.5	3.5	1.0	2.0	11.0	9.5	10.5	19.5	15.5	17.5
17	2.0	.5	1.0	4.0	1.0	2.5	12.0	10.5	11.5	20.5	18.0	19.0
18	2.5	1.0	1.5	3.0	2.5	3.0	13.0	10.5	11.5	20.0	18.0	19.0
19	2.5	1.5	2.0	3.5	2.5	3.0	12.5	10.0	11.5	20.0	17.5	18.5
20	3.0	2.0	2.5	4.5	2.5	3.5	10.5	8.5	9.5	21.0	18.0	19.0
21	3.5	2.5	3.0	4.5	2.0	3.5	11.0	8.0	9.5	19.5	17.5	19.0
22	4.0	2.5	3.0	2.5	1.0	2.0	11.5	9.0	10.5	19.0	16.5	17.5
23	3.5	2.0	3.0	3.5	1.0	2.0	11.0	10.0	10.5	19.5	15.0	17.5
24	3.0	1.0	2.0	4.5	1.5	3.0	12.0	9.5	10.5	20.0	16.0	18.0
25	3.0	1.0	2.0	5.0	2.5	3.5	13.0	10.5	11.5	19.5	17.0	18.5
26	3.5	1.5	2.5	6.0	3.5	4.5	12.5	9.5	11.0	20.5	17.5	19.0
27	4.0	1.5	2.5	7.5	5.0	6.0	11.0	8.5	10.0	21.0	17.5	19.5
28	5.0	2.5	3.5	9.0	6.0	7.0	12.0	8.5	10.0	22.0	18.0	20.5
29	---	---	---	10.5	7.5	9.0	13.0	9.5	11.0	23.5	19.0	21.5
30	---	---	---	11.0	8.0	9.5	13.5	11.5	12.5	24.5	20.0	22.5
31	---	---	---	12.5	9.5	10.5	---	---	---	25.0	22.5	23.5
MONTH	5.0	.0	2.0	12.5	.0	4.0	13.5	5.5	9.5	25.0	12.0	17.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	23.0	19.0	20.5	20.5	18.5	19.5	26.0	21.0	24.0	21.5	19.5	21.0
2	20.0	18.0	19.0	20.0	17.5	18.5	25.5	22.5	24.0	20.5	19.0	19.5
3	18.5	16.0	17.5	21.0	18.0	19.5	26.5	22.5	24.5	20.5	18.0	19.5
4	17.0	15.0	16.0	21.0	19.0	20.0	28.0	21.5	25.0	20.5	18.5	19.5
5	17.5	14.5	16.0	22.0	19.5	20.5	27.5	22.5	24.5	20.5	18.0	19.5
6	18.0	14.5	16.5	21.5	19.0	20.0	26.5	23.5	25.0	21.5	18.5	20.0
7	17.0	15.5	16.0	21.0	19.0	20.0	26.5	23.5	25.0	21.0	19.0	20.0
8	16.0	14.5	15.0	19.5	18.0	19.0	25.0	22.5	24.0	21.0	17.0	19.0
9	18.0	14.0	16.5	19.0	17.5	18.0	24.5	22.5	23.5	19.5	16.5	17.5
10	19.0	15.5	17.5	20.5	17.5	19.0	24.5	22.5	23.0	19.5	15.0	17.0
11	18.0	16.0	17.0	20.5	18.5	19.5	25.0	22.0	23.5	22.0	15.0	18.5
12	16.5	15.5	16.0	21.5	18.0	19.5	24.0	22.0	23.0	20.5	17.5	19.0
13	16.5	15.5	16.0	22.0	19.0	20.5	23.0	21.0	22.0	21.5	19.0	20.0
14	16.5	15.5	16.0	23.0	20.0	21.0	22.0	20.0	21.0	22.0	19.0	20.5
15	16.5	15.5	16.0	23.0	21.0	22.0	22.0	20.0	20.5	22.5	20.0	21.0
16	17.5	15.0	16.0	23.5	20.5	22.0	22.5	19.5	21.0	22.5	20.5	21.5
17	19.0	17.0	18.0	24.5	21.0	23.0	21.5	20.5	21.0	22.5	20.0	21.5
18	18.5	17.0	18.0	25.5	22.0	23.5	21.5	19.5	20.5	22.0	18.5	20.5
19	19.5	17.0	18.5	26.0	22.5	24.0	20.5	18.0	19.5	22.0	19.5	20.5
20	21.0	18.0	19.5	25.5	23.5	24.0	20.5	17.5	19.0	21.0	19.0	20.5
21	22.0	19.0	20.5	26.0	22.5	24.5	21.5	18.0	20.0	22.0	19.5	20.5
22	21.0	20.0	20.5	26.5	22.5	24.5	23.0	20.0	21.5	21.0	19.0	20.5
23	21.0	19.5	20.0	26.0	23.5	24.5	23.5	21.0	22.0	19.0	17.0	18.0
24	22.5	19.5	21.0	26.0	22.5	24.5	24.5	21.5	23.0	17.0	14.5	16.0
25	23.5	20.0	22.0	25.0	21.5	23.5	24.5	21.5	23.0	16.5	15.0	15.5
26	24.5	21.5	23.0	26.0	22.0	24.0	24.0	21.5	23.0	18.0	15.5	16.5
27	24.0	21.5	23.0	25.5	22.0	24.0	27.0	22.0	24.5	19.5	16.5	18.0
28	24.0	21.0	22.5	26.5	21.5	24.0	24.5	21.0	23.0	19.5	18.0	18.5
29	24.0	21.5	22.5	26.0	21.5	24.0	24.0	22.0	23.0	18.5	16.5	17.5
30	23.0	20.5	22.0	27.0	21.5	24.0	23.5	21.0	22.5	19.0	16.0	17.5
31	---	---	---	26.5	22.0	24.0	23.5	21.0	22.0	---	---	---
MONTH	24.5	14.0	18.5	27.0	17.5	22.0	28.0	17.5	22.5	22.5	14.5	19.0



## 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 mi<sup>2</sup>.

**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.**--Interruption of record was 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, 1992-98) 31.0°C, July 21, 1980, July 31, 1995; minimum (water years 1974, 1977-78, 1980, 1983-98), 0.0°C on many days during winter periods, except 1978, 1980, and 1985.

**EXTREMES FOR CURRENT YEAR.**--

WATER TEMPERATURES: Maximum, 27.5°C, Aug. 3, 4, 5, 27; minimum, 0.0°C on many days during winter period.

## WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	15.0	13.5	14.5	9.0	7.5	8.5	3.0	2.5	2.5	.0	.0	.0
2	14.5	12.0	13.0	10.0	9.0	9.5	2.5	1.5	1.5	.0	.0	.0
3	14.5	13.0	13.5	10.0	8.5	9.0	1.5	1.0	1.5	.0	.0	.0
4	15.5	13.0	14.0	9.0	8.5	9.0	2.5	1.5	2.0	.5	.0	.0
5	17.5	14.5	15.5	9.0	8.0	8.5	2.5	2.5	2.5	1.0	.0	.5
6	18.0	15.0	16.5	8.5	7.5	8.0	2.5	1.5	2.0	2.0	.5	1.0
7	18.0	16.5	17.0	8.5	7.5	8.0	2.0	1.5	1.5	3.5	2.0	3.0
8	18.0	16.5	17.0	8.0	7.5	8.0	2.0	1.5	2.0	4.5	3.5	4.0
9	19.0	16.0	17.0	8.0	7.5	8.0	1.5	1.0	1.5	5.5	4.5	5.0
10	19.0	17.0	17.5	8.0	7.0	7.5	1.5	.5	1.0	5.5	4.5	5.5
11	18.0	15.5	16.5	7.0	6.0	6.5	1.0	.5	.5	4.5	3.0	4.0
12	16.5	14.5	15.0	6.0	4.5	5.5	1.0	.5	1.0	3.0	2.5	2.5
13	16.0	13.5	15.0	4.5	3.5	4.0	1.5	1.0	1.0	2.5	2.0	2.5
14	15.5	15.0	15.0	3.5	2.0	2.5	1.5	.0	1.0	2.0	.5	1.0
15	---	---	---	2.0	1.5	2.0	.5	.0	.0	.5	.0	.0
16	---	---	---	2.0	1.0	1.5	.5	.0	.0	1.0	.0	.5
17	---	---	---	2.0	.5	1.0	.5	.0	.0	1.5	1.0	1.0
18	---	---	---	1.5	.5	1.0	.5	.0	.0	1.5	1.5	1.5
19	---	---	---	1.0	.0	.5	.5	.0	.0	2.0	1.5	1.5
20	---	---	---	1.5	.0	.5	.5	.0	.0	1.5	1.0	1.5
21	11.0	9.5	10.0	1.0	.5	1.0	.5	.0	.0	1.0	.5	1.0
22	9.5	8.0	9.0	2.0	1.0	1.5	.5	.0	.0	1.0	.5	.5
23	8.0	7.0	7.5	2.5	2.0	2.0	.0	.0	.0	.5	.0	.0
24	8.0	7.0	7.5	2.5	2.0	2.5	.5	.0	.0	1.0	.0	.5
25	7.5	7.0	7.5	2.0	1.0	1.5	.5	.0	.5	1.0	.0	.5
26	7.5	6.5	7.0	1.5	1.0	1.5	1.0	.5	1.0	.5	.0	.5
27	8.5	7.0	7.5	2.5	1.5	1.5	1.0	1.0	1.0	.5	.0	.0
28	7.5	6.5	7.0	2.0	1.5	2.0	1.0	.5	.5	.5	.0	.5
29	7.0	5.0	6.0	3.0	2.0	2.5	.5	.0	.0	1.0	.0	.5
30	8.0	6.0	6.5	3.0	2.5	2.5	.0	.0	.0	1.5	1.0	1.0
31	8.5	6.0	7.0	---	---	---	.0	.0	.0	1.5	.5	1.0
MONTH	---	---	---	10.0	.0	4.5	3.0	.0	1.0	5.5	.0	1.5



## DELAWARE RIVER BASIN

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01432805 DELAWARE RIVER AT POND EDDY, NY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	1.5	.0	.5	5.0	4.0	4.5	12.0	11.5	11.5	14.5	12.5	13.5
2	1.5	.5	1.0	4.5	4.0	4.0	11.5	10.5	11.0	15.0	13.5	14.5
3	2.0	1.0	1.5	4.0	3.5	4.0	10.5	9.0	10.0	15.5	14.5	15.0
4	1.5	1.5	1.5	4.0	3.0	3.5	9.0	7.0	8.0	15.0	13.5	14.0
5	1.5	1.0	1.5	3.5	3.0	3.5	7.0	6.5	6.5	13.5	13.0	13.5
6	2.0	1.0	1.5	4.0	2.5	3.5	7.5	6.0	6.5	14.0	13.0	13.5
7	2.0	1.0	1.5	4.0	3.5	3.5	8.5	6.0	7.5	15.5	14.0	14.5
8	2.0	.5	1.0	4.0	3.5	3.5	8.5	7.5	8.0	15.0	14.5	14.5
9	2.0	.5	1.0	4.0	3.5	3.5	8.0	6.5	7.5	14.5	14.0	14.5
10	2.5	1.0	1.5	5.0	3.5	4.5	7.5	6.5	7.0	14.5	13.5	14.0
11	2.0	1.5	2.0	3.5	1.5	2.5	8.5	6.5	7.5	13.5	13.0	13.0
12	3.0	2.0	2.5	1.5	.5	1.0	9.0	7.0	8.0	13.5	12.5	13.0
13	3.0	1.5	2.5	1.5	.0	1.0	10.0	8.0	9.0	14.5	12.5	13.5
14	1.5	.5	1.0	1.5	1.0	1.5	11.0	9.0	10.0	15.5	13.0	14.0
15	.5	.0	.0	2.0	1.0	1.5	10.5	10.5	10.5	16.5	14.5	15.5
16	.5	.0	.0	3.0	1.5	2.0	11.0	10.0	10.5	18.5	16.0	17.5
17	1.0	.5	.5	3.5	2.0	2.5	12.0	10.5	11.5	20.0	18.0	19.0
18	1.5	1.0	1.5	3.5	3.0	3.0	12.5	10.5	11.5	20.0	18.5	19.5
19	2.0	1.5	2.0	3.0	3.0	3.0	12.5	10.5	11.5	20.5	17.5	19.0
20	2.5	2.0	2.5	4.5	3.0	3.5	10.5	8.5	9.5	21.0	18.0	19.5
21	3.0	2.5	3.0	4.5	2.5	4.0	10.0	8.0	9.0	20.0	18.0	19.0
22	3.5	2.5	3.0	2.5	1.5	2.0	11.0	9.0	10.0	18.5	16.5	17.5
23	3.0	2.5	3.0	2.5	1.0	2.0	10.5	10.0	10.5	18.5	15.5	17.0
24	3.0	1.5	2.0	4.0	2.0	3.0	11.5	9.5	10.5	19.5	16.5	18.0
25	2.5	1.5	2.0	4.5	3.0	3.5	12.5	10.5	11.5	19.0	18.0	18.5
26	3.0	1.5	2.5	5.5	4.0	4.5	12.0	9.5	11.0	20.0	18.0	19.0
27	3.5	2.0	3.0	7.0	5.0	6.0	10.5	9.0	9.5	20.5	18.0	19.5
28	4.5	3.0	3.5	9.0	6.5	7.5	11.0	8.5	9.5	21.5	19.0	20.5
29	---	---	---	10.5	8.5	9.5	12.5	9.5	11.0	23.0	20.0	21.5
30	---	---	---	11.0	9.0	10.0	13.5	11.5	12.5	24.0	21.0	22.5
31	---	---	---	12.0	10.0	11.0	---	---	---	25.0	22.5	23.5
MONTH	4.5	.0	2.0	12.0	.0	4.0	13.5	6.0	9.5	25.0	12.5	17.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	23.0	20.0	21.0	21.0	18.5	19.5	26.5	22.0	23.5	23.5	20.5	21.5
2	20.5	18.0	19.5	19.5	17.5	18.5	26.5	22.0	24.0	21.0	19.5	20.0
3	19.5	17.0	18.0	20.5	18.0	19.5	27.5	23.0	24.5	21.5	19.0	20.0
4	17.5	16.0	16.5	21.0	19.5	20.0	27.5	23.5	25.0	22.0	19.0	20.0
5	17.0	15.0	16.0	21.5	20.0	20.5	27.5	24.0	25.0	22.0	18.5	20.0
6	17.5	15.0	16.5	21.5	19.5	20.5	27.0	23.5	25.0	22.5	18.5	20.0
7	17.0	15.5	16.5	21.0	20.0	20.5	26.5	24.0	25.0	21.0	20.0	20.5
8	16.0	15.0	15.5	20.5	19.0	19.5	27.0	23.5	24.5	21.0	18.5	19.5
9	17.5	14.5	16.0	19.0	18.0	18.5	25.5	23.5	24.0	19.5	17.0	18.0
10	19.0	16.5	18.0	20.5	17.5	19.0	24.5	23.0	23.5	19.5	16.5	17.0
11	18.5	16.5	17.5	20.5	19.0	19.5	26.0	23.0	24.0	20.5	15.5	17.5
12	16.5	16.5	16.5	21.0	18.5	19.5	25.0	22.5	23.5	21.0	17.5	19.0
13	16.5	16.0	16.5	21.5	19.5	20.5	24.0	22.0	22.5	22.5	19.0	20.5
14	17.0	16.0	16.5	22.5	20.0	21.5	22.5	21.5	22.0	22.5	20.0	21.0
15	16.5	16.0	16.5	23.0	21.0	22.0	22.0	20.5	21.0	22.0	20.5	21.5
16	17.5	15.5	16.5	23.0	21.5	22.5	22.5	20.5	21.5	22.5	21.0	21.5
17	19.0	17.5	18.0	24.0	21.5	23.0	21.5	21.0	21.5	23.5	20.5	21.5
18	18.5	17.5	18.0	25.5	22.5	24.0	22.0	20.5	21.0	22.5	20.0	21.0
19	19.5	18.0	18.5	25.5	22.5	24.0	21.5	19.0	20.0	23.0	20.0	21.0
20	21.0	18.5	19.5	25.5	23.5	24.5	22.0	18.0	19.5	22.0	20.0	21.0
21	22.0	20.0	21.0	25.0	23.0	24.5	22.5	18.5	20.5	22.5	20.0	21.0
22	21.5	21.0	21.0	26.0	23.5	24.5	23.5	20.0	21.5	21.5	19.5	21.0
23	21.0	20.5	21.0	25.5	24.5	25.0	24.0	21.5	22.5	19.5	17.0	18.5
24	23.0	20.5	21.5	25.5	23.0	24.5	25.5	22.0	23.5	18.0	15.5	16.5
25	23.5	21.5	22.5	25.0	22.5	23.5	24.5	22.5	23.5	16.5	15.5	16.0
26	23.5	22.5	23.0	27.0	22.0	24.0	25.0	22.5	23.5	18.5	15.0	16.5
27	24.0	22.5	23.5	25.5	22.5	24.0	27.5	22.5	24.0	19.5	17.0	18.0
28	24.0	22.0	23.0	25.5	23.0	24.0	25.0	22.5	23.5	20.0	18.0	18.5
29	23.5	22.0	23.0	25.5	23.0	24.0	24.5	22.5	23.5	19.0	17.0	17.5
30	23.5	21.0	22.5	26.0	22.5	24.0	24.0	22.0	23.0	18.5	16.5	17.5
31	---	---	---	26.0	23.5	24.5	24.5	21.5	22.5	---	---	---
MONTH	24.0	14.5	19.0	27.0	17.5	22.0	27.5	18.0	23.0	23.5	15.0	19.5



## 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.

**DRAINAGE AREA.**--3,070 mi<sup>2</sup>.

**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 mi<sup>2</sup> of drainage area controlled by Pepacton Reservoir, and subsequent to October 1963, entire flow from 454 mi<sup>2</sup> 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 prior to current degree of regulation, 233,000 ft<sup>3</sup>/s, Aug. 19, 1955, gage height, 23.91 ft, from floodmarks in gage house, from rating curve extended above 89,000 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow; maximum discharge since current degree of regulation, 134,000 ft<sup>3</sup>/s, Jan. 20, 1996, gage height, 18.37 ft; maximum gage height, 26.6 ft, Feb. 12, 1981 (ice jam), from floodmarks; minimum observed discharge, 175 ft<sup>3</sup>/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 ft<sup>3</sup>/s, Oct. 10, 1903, gage height, 23.1 ft, from rating curve extended above 70,000 ft<sup>3</sup>/s, by velocity-area studies; maximum gage height, 25.5 ft, Mar. 8, 1904 (ice jam).

**EXTREMES FOR CURRENT YEAR.**--Maximum discharge, 41,400 ft<sup>3</sup>/s, Jan. 9, gage height, 10.14 ft; minimum, 944 ft<sup>3</sup>/s, Sept. 11, gage height, 1.81 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1590	1350	4670	e2800	2650	10000	9820	5860	4980	17100	1570	1650
2	1810	1370	5750	2530	2930	14300	15100	5200	4730	13600	1620	1570
3	2090	1650	4720	2950	3300	13600	14200	5530	7010	10700	1740	1710
4	1480	2470	3960	2960	3370	11700	11700	9650	6430	8440	1610	1770
5	1490	2030	3740	6200	3330	10100	10100	10500	4670	6930	1650	1730
6	1610	1710	3860	11500	3400	8790	8150	10400	3560	6920	1500	1650
7	2440	1540	3360	16200	2960	7880	7390	11000	2810	5810	1730	1800
8	2280	1510	3120	22700	2220	7190	7150	10200	2790	4660	1790	1600
9	1600	1510	3040	36200	2610	10400	7720	9170	2720	8320	1790	1230
10	1570	2710	2550	27700	2980	27900	16400	12900	3150	13500	1690	1160
11	1550	3150	2400	16700	2850	26300	15100	26300	3170	11400	1780	1330
12	1480	2420	2570	12100	4290	18200	11600	26800	3790	8620	1620	1620
13	1680	2030	2180	9760	7280	14200	10100	20900	7460	7110	1860	1830
14	1630	1980	2040	8330	e5800	12100	8930	16200	12000	6230	1650	1630
15	1830	1930	1940	6810	4300	10500	8440	13200	14000	4800	1820	1920
16	1610	1900	1770	8050	4490	9160	7920	10400	18500	4170	1760	1780
17	1660	1760	2130	10100	4850	8000	7090	8350	17000	3850	1870	1790
18	1580	1620	1800	8220	5230	7680	6450	7650	17500	3060	1890	1750
19	1690	1520	1810	7020	7240	8910	5830	6980	15000	2530	2040	1470
20	1610	1490	1760	6210	8840	9950	14100	6070	12600	2860	1670	1850
21	1770	1460	1770	5830	7550	10100	17200	5370	10700	2880	1680	1720
22	1630	1570	1720	5060	6220	12000	14300	4310	8450	2900	1590	1910
23	1690	2620	1670	4770	6010	10900	13000	3480	7750	2620	1530	1830
24	1630	3380	1730	4810	6990	9590	11800	2820	6460	2220	1600	1900
25	1850	3060	1910	5200	8160	9030	8720	2600	5790	2030	1790	1790
26	1590	2590	2610	4590	7840	8030	7100	3350	5080	1580	2060	1820
27	1680	2380	3190	4380	7650	10500	8340	3690	3930	1500	1530	1800
28	1370	2760	3080	4210	7080	12500	7930	3070	3470	1840	2140	1650
29	1300	2840	3170	4000	---	12700	7010	2740	3190	1830	1620	2140
30	1440	2800	3480	4030	---	11900	6440	2400	3900	1800	1620	1650
31	1350	---	e3200	3280	---	10600	---	2480	---	1710	1650	---
TOTAL	51580	63110	86700	275200	142420	364710	305130	269570	222590	173520	53460	51050
MEAN	1664	2104	2797	8877	5086	11760	10170	8696	7420	5597	1725	1702
MAX	2440	3380	5750	36200	8840	27900	17200	26800	18500	17100	2140	2140
MIN	1300	1350	1670	2530	2220	7190	5830	2400	2720	1500	1500	1160

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1998, BY WATER YEAR (WY)**

	MEAN	3023	4212	5275	4905	5166	8060	9536	6181	3834	2738	2232	2396
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

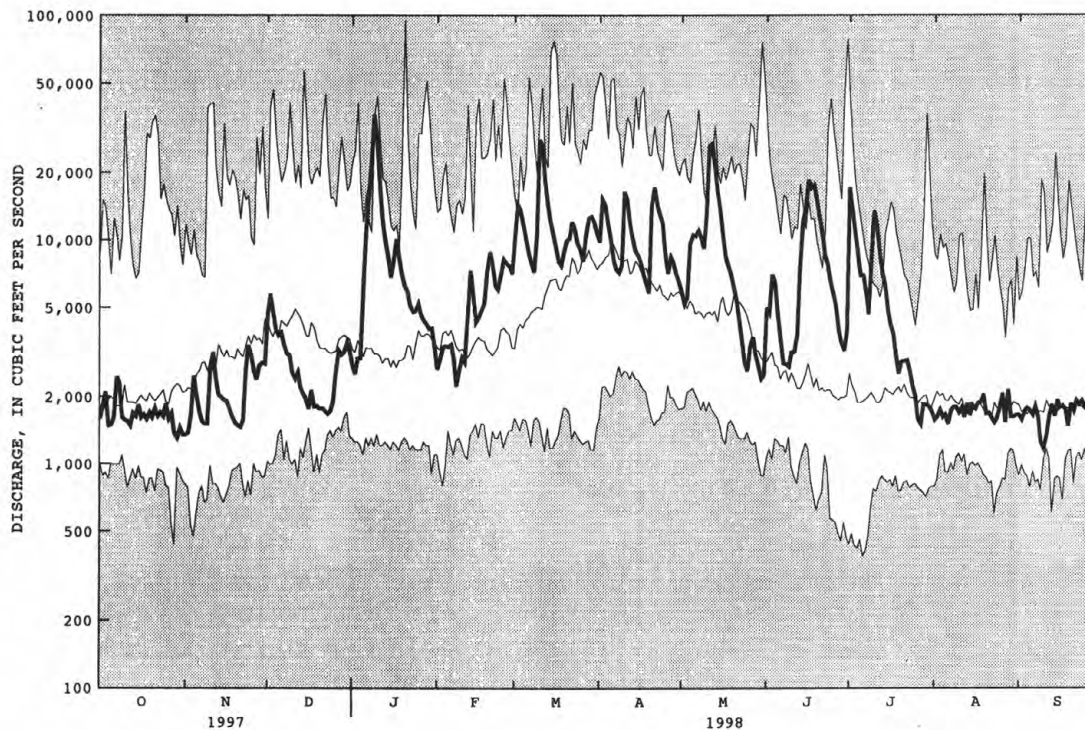


DELAWARE RIVER BASIN

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01434000 DELAWARE RIVER AT PORT JERVIS, NY--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1964 - 1998	
ANNUAL TOTAL	1431420		2059040		4792	
ANNUAL MEAN	3922		5641		7216	
HIGHEST ANNUAL MEAN					2028	
LOWEST ANNUAL MEAN					1973	
HIGHEST DAILY MEAN	17300	Apr 1	36200	Jan 9	95200	Jan 20 1996
LOWEST DAILY MEAN	1210	Sep 6	1160	Sep 10	385	Jul 6 1965
ANNUAL SEVEN-DAY MINIMUM	1390	Sep 4	1400	Oct 28	432	Jul 1 1965
10 PERCENT EXCEEDS	8330		12300		10400	
50 PERCENT EXCEEDS	2390		3300		2870	
90 PERCENT EXCEEDS	1510		1610		1500	



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



## DELAWARE RIVER BASIN

## 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 mi<sup>2</sup>.

**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 ft<sup>3</sup>/s, which are poor.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 2,030 ft<sup>3</sup>/s, Jan. 19, 1996, gage height, 6.21 ft; minimum, 2.0 ft<sup>3</sup>/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 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 1	1900	*1,650	*5.83	May 10	1615	1,150	5.25
Jan. 8	1615	1,040	5.09	June 14	1445	1,420	5.58

Minimum discharge, 3.2 ft<sup>3</sup>/s, Sept. 18, 20, 21, gage height, 1.31 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	312	31	e10	e15	25	202	24	29	97	9.5	4.3
2	10	250	22	e11	e14	22	142	64	18	45	9.1	5.4
3	9.2	108	20	e13	e13	21	84	60	21	35	8.7	5.7
4	8.8	61	20	e16	e13	19	61	65	16	33	8.5	4.5
5	12	46	20	37	e13	18	51	84	14	36	8.5	4.1
6	9.9	38	19	95	e12	18	44	98	14	30	8.3	3.9
7	9.0	34	17	154	e12	17	39	69	13	29	7.9	5.3
8	8.6	62	17	621	e11	18	39	55	13	48	7.3	5.0
9	8.4	122	18	276	e11	146	56	62	12	51	7.2	4.3
10	8.3	68	16	113	e10	235	65	645	11	35	10	4.1
11	8.2	50	16	67	e10	e80	45	320	11	30	15	3.8
12	8.2	42	15	50	36	e50	40	182	32	26	7.9	3.7
13	8.1	37	15	43	24	e40	37	97	132	24	7.1	3.6
14	8.2	36	e14	e38	e16	e35	36	72	584	23	7.1	3.6
15	9.0	32	e17	e37	e15	e32	35	60	195	22	7.2	3.7
16	8.7	29	e13	e38	e15	e29	34	52	185	22	7.0	3.8
17	8.2	26	14	32	e16	e27	37	50	91	21	7.0	3.6
18	7.9	25	13	29	e20	e25	35	42	68	19	8.2	3.4
19	7.8	23	12	27	e25	41	40	38	51	18	7.4	3.4
20	7.7	22	e11	25	24	41	100	36	42	18	6.1	3.4
21	7.6	21	e10	e23	20	42	47	33	36	17	5.8	3.4
22	7.4	32	e9.4	e21	18	35	40	31	32	16	5.6	9.0
23	7.4	25	e11	e20	18	30	36	28	29	15	5.7	5.8
24	7.2	22	e12	e25	e17	30	34	26	26	15	5.5	4.1
25	11	20	22	e21	e19	27	32	25	24	13	5.2	3.7
26	9.6	20	19	e19	e18	30	33	22	22	12	5.5	3.7
27	30	21	14	e18	e18	61	31	21	22	12	4.8	4.3
28	18	19	13	18	20	175	28	19	20	11	4.6	6.1
29	12	18	e12	17	---	230	26	20	20	11	4.5	4.0
30	11	22	e11	17	---	190	25	19	127	10	4.5	3.7
31	10	---	e10	16	---	185	---	20	---	10	4.6	---
TOTAL	310.4	1643	483.4	1947	473	1974	1554	2439	1910	804	221.3	130.4
MEAN	10.0	54.8	15.6	62.8	16.9	63.7	51.8	78.7	63.7	25.9	7.14	4.35
MAX	30	312	31	621	36	235	202	645	584	97	15	9.0
MIN	7.2	18	9.4	10	10	17	25	19	11	10	4.5	3.4
CFSM	1.12	6.13	1.75	7.03	1.89	7.13	5.80	8.81	7.13	2.90	.80	.49
IN.	1.29	6.84	2.01	8.11	1.97	8.22	6.47	10.16	7.96	3.35	.92	.54

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1998, BY WATER YEAR (WY)**

	MEAN	32.4	41.7	35.6	39.8	18.4	39.7	67.8	36.3	25.1	18.6	12.2	14.5
MAX	69.7	58.7	79.8	72.6	37.0	63.7	139	78.7	63.7	63.0	28.5	38.4	
(WY)	1996	1996	1997	1996	1996	1998	1993	1998	1998	1996	1994	1996	
MIN	10.0	15.0	15.0	15.8	11.1	23.7	21.6	15.0	6.52	3.90	3.55	4.35	
(WY)	1998	1995	1996	1994	1993	1993	1995	1995	1991	1991	1993	1998	

**SUMMARY STATISTICS FOR 1997 CALENDAR YEAR FOR 1998 WATER YEAR WATER YEARS 1991 - 1998**

ANNUAL TOTAL	9543.6	13889.5	
ANNUAL MEAN	26.1	38.1	
HIGHEST ANNUAL MEAN			31.9
LOWEST ANNUAL MEAN			47.1
HIGHEST DAILY MEAN	312	Nov 1	1996
LOWEST DAILY MEAN	3.1	Aug 12	1995
ANNUAL SEVEN-DAY MINIMUM	3.3	Aug 6	1995
ANNUAL RUNOFF (CFSM)	2.93		701
ANNUAL RUNOFF (INCHES)	39.76		2.1
10 PERCENT EXCEEDS	54		Aug 8 1991
50 PERCENT EXCEEDS	17		Aug 27 1993
90 PERCENT EXCEEDS	5.4		3.57
			48.52
			60
			19
			5.8

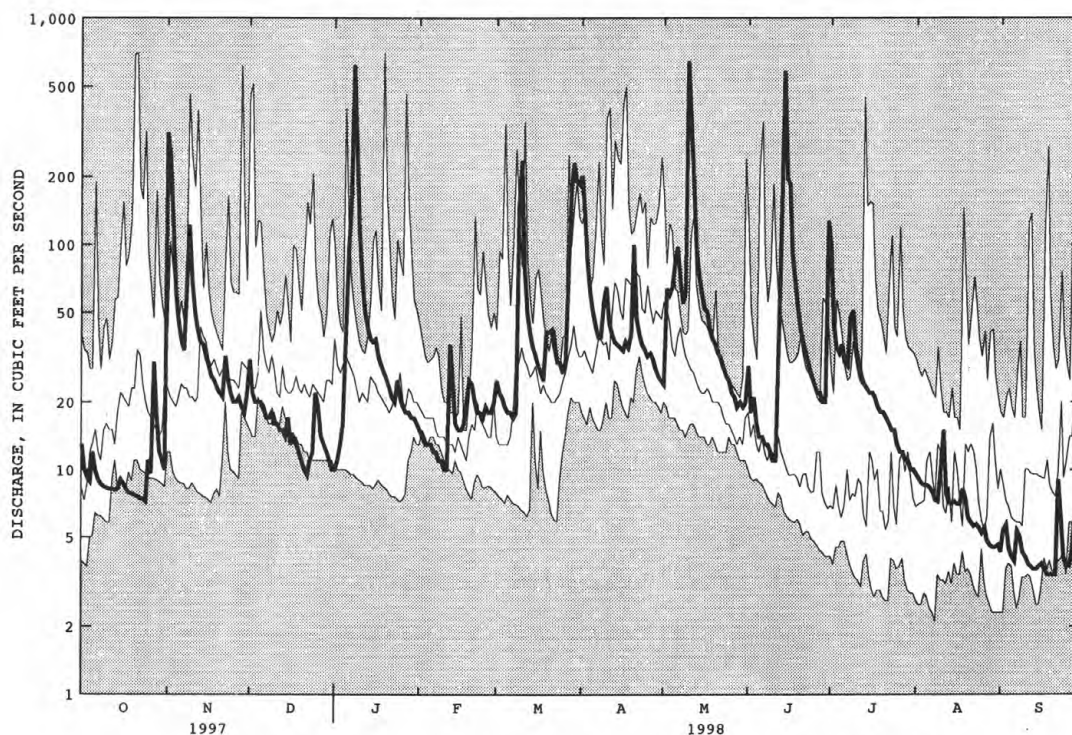
e Estimated



DELAWARE RIVER BASIN

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0143400680 EAST BRANCH NEVERSINK RIVER NORTHEAST OF DENNING, NY--Continued



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



## 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 mi<sup>2</sup>.

**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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 3,240 ft<sup>3</sup>/s, Jan. 19, 1996, gage height, 11.25 ft; minimum, 5.8 ft<sup>3</sup>/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 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 1	2030	1,730	9.57	May 10	1730	1,510	9.28
Jan. 8	1715	1,830	9.70	June 14	1600	*2,200	*10.15
Mar. 10	0015	1,250	8.90				

Minimum recorded discharge, 6.0 ft<sup>3</sup>/s, Sept. 6, 7, 13, 14, gage height, 5.58 ft, but may have been less during period of estimated record in September.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e23	363	95	e26	e37	76	328	53	72	224	20	7.5
2	e19	490	60	e28	e36	65	280	105	38	100	20	8.8
3	e17	241	53	e35	35	60	170	129	51	72	19	e11
4	e16	132	55	e50	34	54	129	153	35	61	18	8.8
5	e15	97	56	99	34	50	107	193	32	66	17	7.2
6	e18	78	51	236	e32	47	94	249	29	53	17	6.5
7	e16	69	47	395	e30	46	84	183	28	49	16	11
8	e15	139	44	1220	e29	48	82	136	27	106	15	e10
9	e14	273	44	669	e28	393	117	128	26	115	14	9.8
10	e14	162	43	289	e28	579	169	876	24	68	18	9.1
11	e14	113	41	170	29	188	104	550	24	55	e24	7.6
12	e14	94	39	123	92	118	90	336	81	50	e18	6.8
13	e14	80	38	105	62	e100	82	189	298	45	e14	6.4
14	e14	79	37	e88	e41	97	77	142	1120	42	e13	6.2
15	e15	69	e36	e84	e38	83	76	115	492	40	e13	6.6
16	e15	62	e35	117	e37	e74	72	98	402	38	e13	e6.4
17	e14	57	36	84	e40	e70	73	94	212	36	e12	e6.9
18	e13	53	34	73	57	66	68	79	152	39	e14	e6.4
19	e13	50	32	65	66	103	81	71	107	38	e16	e6.4
20	e13	47	32	60	55	105	222	65	84	39	e12	e6.5
21	e12	45	e28	56	47	108	107	59	69	39	e11	e6.6
22	e12	85	e25	e53	43	84	90	54	60	34	e10	e11
23	e12	66	e30	51	42	73	81	51	55	33	e9.8	e12
24	e12	55	e31	72	51	69	76	46	50	34	e9.4	8.6
25	e18	48	59	55	49	65	70	45	45	29	e9.0	6.9
26	e20	47	50	51	46	71	75	43	42	27	e8.8	6.5
27	e35	53	38	e46	45	131	72	39	45	25	e8.6	9.8
28	e30	46	34	44	51	300	63	36	38	25	8.5	19
29	e23	45	e32	43	---	371	58	37	38	24	8.0	9.8
30	e21	58	e29	41	---	295	55	41	262	23	8.3	7.6
31	e20	---	e26	39	---	272	---	37	---	22	7.8	---
TOTAL	521	3296	1290	4567	1214	4261	3252	4432	4038	1651	422.2	253.7
MEAN	16.8	110	41.6	147	43.4	137	108	143	135	53.3	13.6	8.46
MAX	35	490	95	1220	92	579	328	876	1120	224	24	19
MIN	12	45	25	26	28	46	55	36	24	22	7.8	6.2
CFSM	.73	4.80	1.82	6.43	1.89	6.00	4.73	6.24	5.88	2.33	.59	.37
IN.	.85	5.35	2.10	7.42	1.97	6.92	5.28	7.20	6.56	2.68	.69	.41

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1998, BY WATER YEAR (WY)**

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	59.8	93.3	80.5	97.4	45.4	91.3	163	80.2	59.2	40.4	26.7	28.5
MAX	134	134	181	159	86.9	137	301	143	135	137	59.5	62.7
(WY)	1996	1996	1997	1996	1996	1998	1993	1998	1998	1996	1994	1996
MIN	16.8	36.9	37.7	34.0	29.6	60.6	55.2	36.0	24.4	9.71	8.86	8.46
(WY)	1998	1995	1996	1994	1993	1993	1995	1995	1993	1991	1993	1998

e Estimated

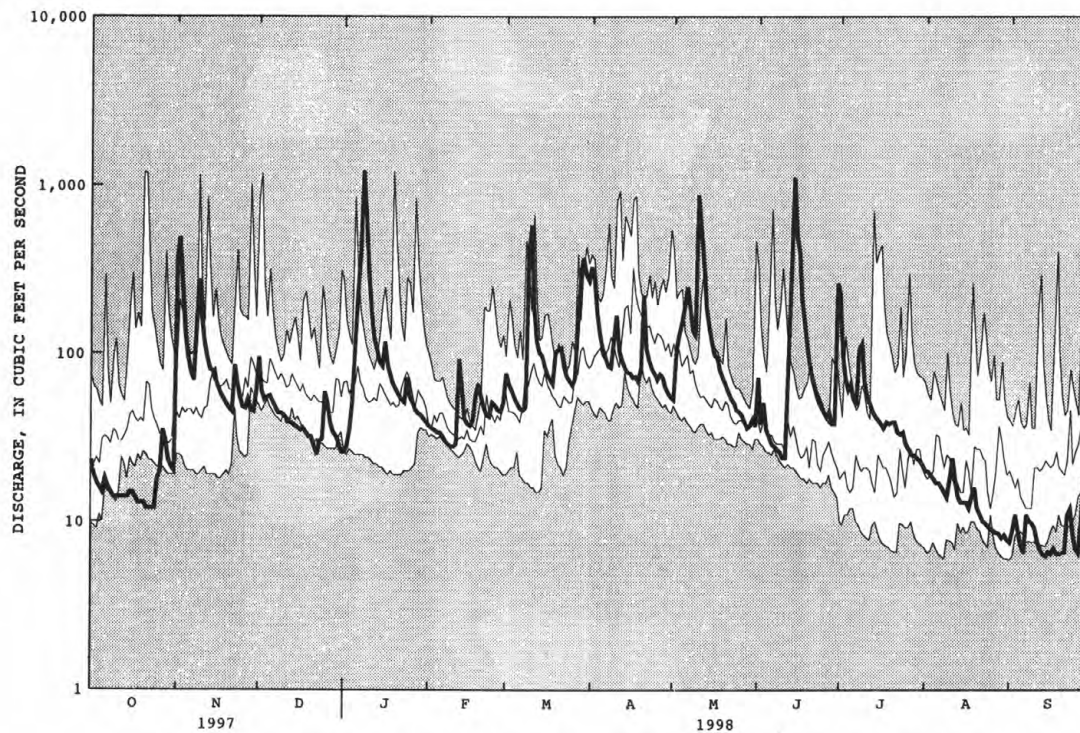


DELAWARE RIVER BASIN

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01434017 EAST BRANCH NEVERSINK RIVER NEAR CLARYVILLE, NY--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1991 - 1998	
ANNUAL TOTAL	21289.4		29197.9		72.8	
ANNUAL MEAN	58.3		80.0		101	
HIGHEST ANNUAL MEAN					47.7	
LOWEST ANNUAL MEAN					1220	
HIGHEST DAILY MEAN	490	Nov 2	1220	Jan 8	1220	Jan 8 1998
LOWEST DAILY MEAN	6.8	Aug 12	6.2	Sep 14	5.9	Sep 1 1993
ANNUAL SEVEN-DAY MINIMUM	7.8	Aug 6	6.5	Sep 13	6.3	Aug 27 1993
ANNUAL RUNOFF (CFSM)	2.55		3.49		3.18	
ANNUAL RUNOFF (INCHES)	34.58		47.43		43.22	
10 PERCENT EXCEEDS	120		165		138	
50 PERCENT EXCEEDS	40		46		42	
90 PERCENT EXCEEDS	12		11		13	



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



## DELAWARE RIVER BASIN

## 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 mi<sup>2</sup>.

## WATER DISCHARGE RECORDS

**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 ft<sup>3</sup>/s, which are poor.

Several measurements of water temperature were made during the year.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 136 ft<sup>3</sup>/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 ft<sup>3</sup>/s, Aug. 6, 7, 8, 1991, gage height, 0.93 ft.

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 35 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 1	1715	*112	*2.28	Apr. 1	1730	62	1.83
Jan. 8	1715	95	2.09	May 10	0715	109	2.24
Mar. 9	2100	53	1.77	June 14	1145	103	2.17

Minimum discharge, 0.07 ft<sup>3</sup>/s, Sept. 21, 22; minimum gage height, 1.05 ft, part of each day Sept. 11, 23-27, 29-30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	30	1.1	e.42	.52	.86	28	1.9	1.2	4.8	.39	.12
2	.95	24	.89	e.41	.50	.78	19	8.0	.92	2.5	.35	.19
3	.90	8.4	.79	.40	.51	.77	7.8	7.1	1.0	2.0	.34	.15
4	.82	4.2	.87	.78	.46	.68	4.7	7.8	.85	1.7	.33	.14
5	.95	3.0	.79	2.6	.46	.67	3.8	9.9	.79	1.6	.32	.13
6	.96	2.5	.78	15	.43	.59	3.3	11	.76	1.5	.31	.13
7	.98	2.2	.70	20	.39	.59	2.9	6.7	.73	1.4	.29	.21
8	.92	5.0	.68	69	.37	.60	2.8	5.3	.68	1.9	.27	.17
9	1.0	16	.79	26	.36	11	3.4	6.0	.63	2.2	.26	.15
10	1.1	6.9	.71	8.7	.36	19	3.8	76	.61	1.8	.40	.13
11	1.3	4.4	.61	4.5	.37	4.3	3.5	38	.58	1.5	.44	.13
12	1.3	3.4	.58	3.1	1.5	e2.4	3.2	17	1.2	1.4	.27	.17
13	1.3	3.0	.58	2.5	1.1	e1.7	3.0	6.5	10	1.3	.24	.23
14	1.3	2.8	.59	2.2	e.80	e1.5	2.9	4.6	54	1.2	.22	.21
15	1.5	2.5	.95	2.1	e.60	e1.4	3.3	3.8	15	1.2	.22	.20
16	1.4	2.2	.63	1.8	e.56	e1.4	3.7	3.3	10	1.1	.21	.25
17	1.3	1.8	.50	1.5	e.65	e1.3	5.3	3.2	4.6	1.0	.23	.19
18	1.2	1.5	.49	1.4	e1.3	e1.2	4.4	2.9	3.3	.96	.25	.15
19	1.2	1.4	.44	1.3	e1.2	1.9	5.0	2.6	2.7	.85	.21	.13
20	1.2	1.3	.43	e1.2	e.90	2.2	13	2.3	2.2	.89	.18	.11
21	1.1	1.2	.46	e1.0	e.85	2.3	5.5	2.0	2.0	.77	.17	.09
22	1.0	1.3	1.2	1.0	.78	1.8	4.3	1.8	1.8	.72	.19	.18
23	1.0	1.1	.71	2.0	.77	e1.4	3.7	1.6	1.6	.67	.22	.15
24	1.0	1.0	.51	1.2	e2.0	e1.3	3.3	1.5	1.5	.64	.20	.13
25	1.7	.92	1.3	.93	e1.9	e1.3	3.0	1.4	1.4	.56	.15	.13
26	1.4	.94	.58	.79	e.90	e1.4	2.9	1.2	1.3	.54	.17	.13
27	4.3	.93	.45	.74	e.70	6.0	2.6	1.1	1.2	.50	.14	.19
28	3.4	.79	e.45	.68	.77	22	2.3	.97	1.1	.48	.12	.18
29	2.5	.77	e.47	.67	---	21	2.1	1.0	1.1	.46	.13	.14
30	2.2	.92	e.45	.64	---	18	2.0	.88	5.0	.41	.12	.13
31	1.9	---	e.44	e.56	---	21	---	1.0	---	.41	.16	---
TOTAL	44.28	136.37	20.92	175.12	22.01	152.34	158.5	238.35	129.75	38.96	7.50	4.74
MEAN	1.43	4.55	.67	5.65	.79	4.91	5.28	7.69	4.32	1.26	.24	.16
MAX	4.3	30	1.3	69	2.0	22	28	76	54	4.8	.44	.25
MIN	.82	.77	.43	.40	.36	.59	2.0	.88	.58	.41	.12	.09
CFSM	1.86	5.90	.88	7.34	1.02	6.38	6.86	9.99	5.62	1.63	.31	.21
IN.	2.14	6.59	1.01	8.46	1.06	7.36	7.66	11.52	6.27	1.88	.36	.23

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1998, BY WATER YEAR (WY)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	2.85	3.36	2.21	3.09	1.09	3.01	6.40	3.27	1.71	1.16	.78	1.28
MAX	5.97	4.88	5.85	5.65	2.20	4.91	12.1	7.69	4.32	4.59	2.03	4.07
(WY)	1996	1996	1997	1998	1996	1998	1993	1998	1998	1996	1994	1996
MIN	1.02	1.17	.67	1.11	.51	1.29	1.57	1.10	.34	.14	.18	.16
(WY)	1994	1995	1998	1994	1992	1996	1995	1995	1991	1991	1993	1998

e Estimated

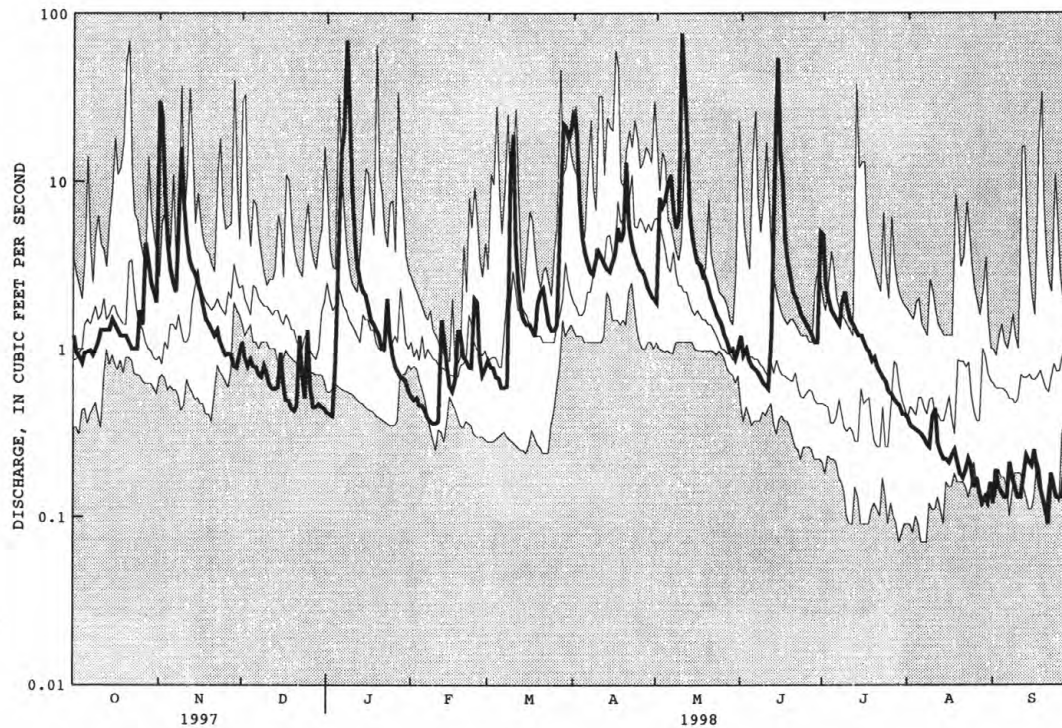


DELAWARE RIVER BASIN

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01434021 WEST BRANCH NEVERSINK RIVER AT WINNISOOK LAKE NEAR FROST VALLEY, NY--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1991 - 1998	
ANNUAL TOTAL	769.75		1128.84		2.62	
ANNUAL MEAN	2.11		3.09		3.83	
HIGHEST ANNUAL MEAN					1.47	
LOWEST ANNUAL MEAN					1.47	
HIGHEST DAILY MEAN	30	Nov 1	76	May 10	76	May 10 1998
LOWEST DAILY MEAN	.11	Aug 10	.09	Sep 21	.07	Jul 29 1991
ANNUAL SEVEN-DAY MINIMUM	.12	Aug 6	.13	Sep 19	.08	Aug 2 1991
ANNUAL RUNOFF (CFSM)	2.74		4.02		3.40	
ANNUAL RUNOFF (INCHES)	37.19		54.54		46.21	
10 PERCENT EXCEEDS	4.2		5.7		5.4	
50 PERCENT EXCEEDS	1.1		1.1		1.1	
90 PERCENT EXCEEDS	.22		.20		.28	



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



## DELAWARE RIVER BASIN

01434021 WEST BRANCH NEVERSINK RIVER AT WINNISOOK LAKE NEAR FROST VALLEY, NY--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1998.

NUTRIENT DATA: 1998 (b).

REMARKS.--Provisional chemical minor element and nutrient data for additional samples are available in files of the Geological Survey.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)
JUN		
12...	2024	.008
14...	0906	--
14...	1745	.012



**01434025 BISCUIT BROOK ABOVE PIGEON BROOK AT FROST VALLEY, NY**  
(Hydrologic bench-mark 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 mi<sup>2</sup>.

**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. Satellite gage-height telemeter at station.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 815 ft<sup>3</sup>/s, Apr. 4, 1987, gage height, 4.37 ft, present datum; minimum discharge, 0.24 ft<sup>3</sup>/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 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 8	1600	*252	*3.19	June 14	1445	221	3.08
Mar. 9	2315	218	3.07				

Minimum discharge, 0.40 ft<sup>3</sup>/s, Sept. 18, 19, 20, 21, 22; minimum gage height, 0.64 ft, Sept. 13, 18, 19, 20, 21, 22.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	31	12	e3.3	e4.4	9.7	49	7.7	11	23	1.9	.72
2	2.2	57	7.4	e3.6	4.4	8.3	43	12	5.4	14	1.8	1.2
3	2.1	32	6.7	e4.5	4.1	7.6	27	21	8.6	11	1.7	1.3
4	2.0	19	7.9	e10	4.0	6.8	21	26	5.2	9.0	1.7	.69
5	2.4	14	7.8	25	3.9	6.4	17	31	4.6	10	1.7	.59
6	2.0	11	7.0	70	e3.7	6.2	14	37	4.2	7.6	1.6	.55
7	1.9	10	6.4	85	e3.6	6.1	13	26	4.0	7.1	1.5	1.2
8	1.9	22	6.0	188	e3.4	6.8	13	20	3.9	18	1.4	.90
9	1.9	40	6.2	109	e3.2	80	18	20	3.8	18	1.4	.76
10	2.2	24	5.7	55	e3.1	95	21	125	3.4	11	1.5	.75
11	2.5	17	5.4	29	e3.0	33	16	74	3.4	9.2	2.1	.60
12	2.4	13	5.3	20	e12	e19	14	44	7.4	7.9	1.3	.54
13	2.4	11	5.1	16	e7.8	e15	12	27	16	7.0	1.2	.51
14	2.6	11	5.0	e13	e6.2	e13	12	21	110	6.4	1.2	.50
15	3.2	9.3	6.0	e11	e4.5	e11	11	18	55	5.9	1.3	.52
16	3.0	8.3	4.9	e14	e4.4	e10	10	16	34	5.4	1.2	.63
17	2.7	7.5	4.8	e9.0	e4.2	e9.2	9.4	16	28	5.0	1.3	.53
18	2.6	7.0	4.4	10	e5.2	e8.6	8.5	13	25	4.5	1.6	.44
19	2.5	6.5	4.2	8.9	7.8	17	16	11	18	4.1	1.3	.43
20	2.5	6.1	4.1	8.1	6.8	18	37	10	14	4.6	1.1	.43
21	2.8	5.8	3.7	7.4	6.1	19	18	8.9	11	4.0	.97	.42
22	3.2	9.3	e3.5	e7.0	5.9	14	15	7.9	9.5	3.6	.89	.95
23	3.5	7.2	e3.6	e6.8	5.8	e11	13	7.0	8.7	3.4	.86	.63
24	3.5	6.5	3.7	e9.0	15	e9.6	12	6.0	7.6	3.3	.86	.47
25	6.4	5.7	8.6	e6.8	14	e9.0	11	6.1	6.6	2.9	.77	.45
26	4.2	6.1	6.3	e6.4	6.6	e10	12	5.5	6.1	2.7	.92	.48
27	10	7.1	5.0	e5.8	6.0	39	11	5.0	6.3	2.6	.71	.78
28	6.9	5.7	4.5	5.5	7.1	83	9.6	4.5	5.2	2.5	.67	1.0
29	5.5	5.7	e4.4	5.4	---	83	8.8	5.7	5.5	2.3	.70	.57
30	5.1	8.3	e4.1	5.1	---	57	8.3	5.4	37	2.2	.70	.53
31	4.8	---	e3.7	4.7	---	41	---	6.4	---	2.2	.96	---
TOTAL	103.9	424.1	173.4	762.3	166.2	762.3	500.6	644.1	468.4	220.4	38.81	20.07
MEAN	3.35	14.1	5.59	24.6	5.94	24.6	16.7	20.8	15.6	7.11	1.25	.67
MAX	10	57	12	188	15	95	49	125	110	23	2.1	1.3
MIN	1.9	5.7	3.5	3.3	3.0	6.1	8.3	4.5	3.4	2.2	.67	.42
CFSM	.90	3.80	1.50	6.61	1.60	6.61	4.49	5.59	4.20	1.91	.34	.18
IN.	1.04	4.24	1.73	7.62	1.66	7.62	5.01	6.44	4.68	2.20	.39	.20

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

	8.65	13.8	12.2	10.8	9.15	16.6	22.8	13.8	6.29	4.55	3.59	4.79
MEAN	8.65	13.8	12.2	10.8	9.15	16.6	22.8	13.8	6.29	4.55	3.59	4.79
MAX	19.7	20.8	26.0	25.3	28.3	30.3	54.3	33.1	15.6	15.7	9.31	17.4
(WY)	1997	1993	1997	1996	1984	1986	1993	1989	1998	1996	1990	1987
MIN	1.00	3.24	4.43	2.65	2.26	8.41	8.83	4.57	1.83	.74	.65	.67
(WY)	1985	1985	1990	1989	1987	1996	1995	1995	1991	1991	1993	1998

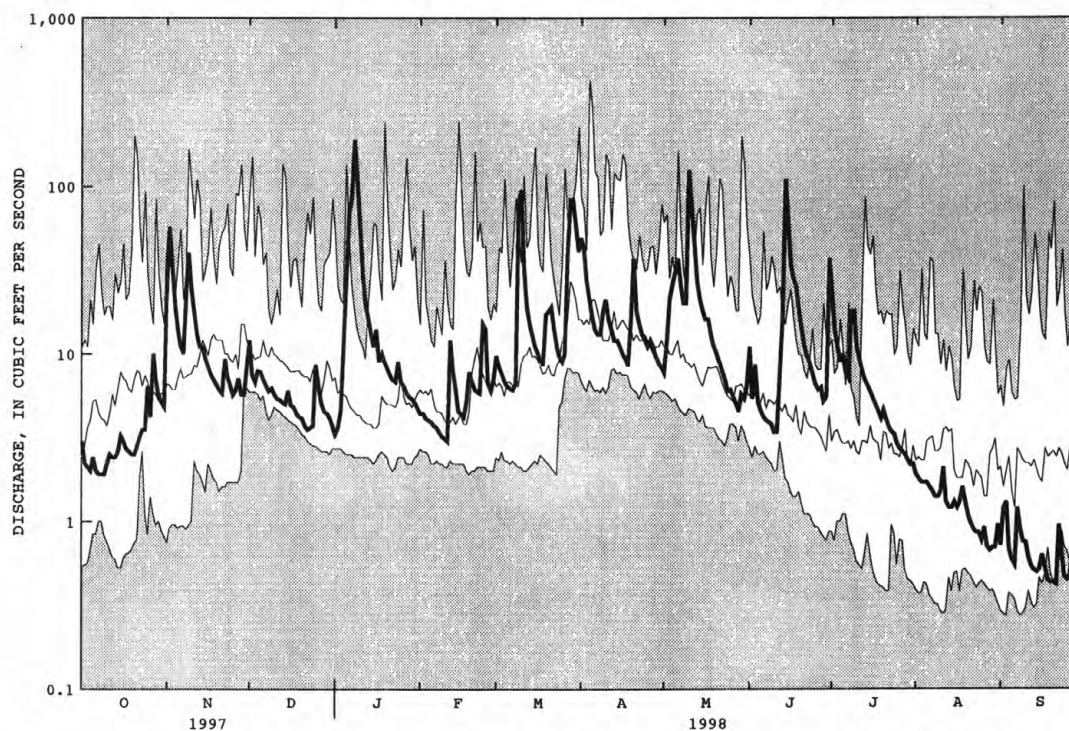
e Estimated



## DELAWARE RIVER BASIN

01434025 BISCUIT BROOK ABOVE PIGEON BROOK AT FROST VALLEY, NY--Continued  
(Hydrologic bench-mark station)

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR	FOR 1998 WATER YEAR	WATER YEARS 1983 - 1998
ANNUAL TOTAL	3007.73	4284.58	
ANNUAL MEAN	8.24	11.7	10.6
HIGHEST ANNUAL MEAN			14.0
LOWEST ANNUAL MEAN			6.76
HIGHEST DAILY MEAN	91 Apr 7	188 Jan 8	431 Apr 4 1987
LOWEST DAILY MEAN	.28 Aug 11	.42 Sep 21	.27 Sep 3 1991
ANNUAL SEVEN-DAY MINIMUM	.32 Aug 6	.49 Sep 15	.31 Sep 7 1991
ANNUAL RUNOFF (CFSM)	2.22	3.16	2.85
ANNUAL RUNOFF (INCHES)	30.08	42.85	38.79
10 PERCENT EXCEEDS	18	25	20
50 PERCENT EXCEEDS	5.1	6.2	6.0
90 PERCENT EXCEEDS	1.0	.97	1.5



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



## 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), 1998 (c).

MINOR ELEMENTS DATA: 1983-87 (e), 1993-95 (b), 1996 (a), 1998 (c).

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), 1998 (c).

BIOLOGICAL DATA:

Bacteria--1993-95 (b), 1996 (a).

SEDIMENT DATA: 1993-95 (b), 1996 (a).

REMARKS.--Provisional chemical, nutrient, and minor elements data for additional samples are available in files of the Geological Survey.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (90095)	PH WATER WHOLE LAB (STAND- ARD UNITS) (00403)	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 LAB (MG/L AS : CACO3) (90410)
NOV 12...	1150	14	21	7.3	2.1	.47	.3	.1	3.2
JAN 06...	0951	95	--	--	--	--	--	--	--
FEB 02...	1300	4.3	22	6.6	2.2	.48	.3	.2	2.9
APR 28...	1200	9.5	20.1	6.95	2.0	.46	.3	.18	--
MAY 05...	1200	25	--	--	--	--	--	--	--
JUN 12...	1022	5.7	--	--	--	--	--	--	--
JUN 14...	0934	132	--	--	--	--	--	--	--
AUG 18...	1225	1.5	22.1	6.57	2.2	.50	.4	.18	--

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)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	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)
NOV 12...	3.9	.4	<.1	--	2.1	23	.01	.18
JAN 06...	--	--	--	--	--	--	--	--
FEB 02...	4.9	.4	<.1	--	2.1	18	<.01	.22
APR 28...	6.4	.38	.04	<.01	1.7	--	--	--
MAY 05...	--	--	--	--	--	--	--	--
JUN 12...	--	--	--	--	--	--	--	--
JUN 14...	--	--	--	--	--	--	--	--
AUG 18...	5.3	.56	.06	<.01	2.4	--	--	--

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)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
NOV 12...	<.02	<.1	<.01	<.01	.01	11	5
JAN 06...	--	--	--	.002	--	--	--
FEB 02...	.03	<.1	<.01	<.01	.01	95	6
APR 28...	--	--	--	--	<.01	--	--
MAY 05...	--	--	--	--	--	--	--
JUN 12...	--	--	.047	.005	--	--	--
JUN 14...	--	--	.005	.005	--	--	--
AUG 18...	--	--	--	--	<.01	--	--



## DELAWARE RIVER BASIN

## 01434092 SHELTER CREEK BELOW DRY CREEK NEAR FROST VALLEY, NY

**LOCATION.**--Lat 41°58'12", long 74°30'53", Ulster County, Hydrologic Unit 02040104, on right bank about 50 ft downstream from Dry Creek, and 1.2 mi south of Frost Valley.

**DRAINAGE AREA.**--0.62 mi<sup>2</sup>.

**PERIOD OF RECORD.**--October 1992 to current year. Occasional miscellaneous measurements 1992.

**GAGE.**--Water-stage recorder. Elevation of gage is 2,140 ft above sea level, from topographic map.

**REMARKS.**--Records good. Several measurements of water temperature were made during the years.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 96 ft<sup>3</sup>/s, Nov. 9, 1996, gage height, 1.86 ft, from rating curve extended above 25 ft<sup>3</sup>/s; minimum discharge, 0.049 ft<sup>3</sup>/s, Aug. 15, 27, 29, 30, 31, Sept. 14, 15, 1993; minimum gage height, 0.68 ft, Aug. 12, 1997.

**EXTREMES FOR CURRENT YEAR.**--**Water year 1995:** Maximum discharge, about 30 ft<sup>3</sup>/s, Mar. 8; maximum recorded gage height, 1.42 ft, Dec. 5, but probably was higher during period of estimated record in March; minimum discharge, 0.064 ft<sup>3</sup>/s, Sept. 2, 3, 4, 10, 11; minimum gage height, 0.70 ft, Sept. 10, 11.

**Water year 1996:** Maximum discharge, about 70 ft<sup>3</sup>/s, Jan. 19; maximum recorded gage height, 1.59 ft, Oct. 21, Nov. 12, but probably was higher during period of estimated record in January; minimum discharge, 0.092 ft<sup>3</sup>/s, Oct. 1, gage height, 0.73 ft.

**Water year 1997:** Maximum discharge, 96 ft<sup>3</sup>/s, Nov. 9, gage height, 1.86 ft, from rating curve extended above 25 ft<sup>3</sup>/s; minimum discharge, 0.064 ft<sup>3</sup>/s, Aug. 12, gage height, 0.68 ft.

**Water year 1998:** Maximum discharge, about 50 ft<sup>3</sup>/s, Jan. 8; maximum recorded gage height, 1.66 ft, June 14, but probably was higher during period of estimated record in January; minimum discharge, 0.10 ft<sup>3</sup>/s, Sept. 17, 18, 19, 20, 21, 26, 27, gage height, 0.74 ft.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	2.1	2.6	3.4	1.4	1.0	1.3	1.7	1.0	.44	.19	.18
2	1.9	1.1	2.1	2.2	1.2	.67	1.2	1.3	1.3	.35	.34	.092
3	1.5	.69	2.1	1.8	1.0	.62	1.1	1.2	2.9	.28	.28	.074
4	1.5	.74	2.2	1.6	e.97	.59	1.6	1.1	1.6	.29	.36	.080
5	1.4	.72	7.2	1.5	e.94	.59	.96	1.2	1.4	.33	.83	.089
6	1.2	.76	5.7	1.6	.91	.68	.96	1.0	1.4	.40	.46	.095
7	1.2	.65	4.4	3.8	.88	.96	1.0	.91	1.4	.75	.26	.10
8	1.2	.60	2.9	2.0	.84	e10	.91	.86	1.3	.36	.18	.12
9	1.3	.66	2.5	1.9	.78	e9.6	1.5	.88	.99	.27	.18	.23
10	1.1	.75	2.3	1.7	.77	4.0	1.6	1.1	.98	.24	.20	.10
11	.85	.51	3.4	1.7	.77	3.2	1.4	1.0	1.0	.54	.24	.085
12	.77	.52	1.7	1.8	.65	2.7	1.9	.98	1.7	.34	.24	.10
13	.77	.60	e1.6	2.9	.60	3.5	3.3	.89	.94	.27	.20	.48
14	.79	.63	e1.6	3.7	.59	4.9	2.2	.82	.84	.25	.18	.21
15	.75	.66	e1.5	6.6	.60	7.4	2.1	.91	e.75	.24	.23	.11
16	.68	.57	1.4	7.8	1.1	7.4	2.0	.80	e.68	.21	.81	.10
17	.66	.50	1.5	5.9	.64	5.8	1.9	.79	.63	.96	.31	.83
18	.69	.79	1.5	4.3	.58	4.4	1.8	.79	.62	.58	.19	.19
19	.72	.68	1.2	3.7	.58	3.8	3.5	.81	.64	.22	.15	.11
20	.76	.53	1.2	6.8	.59	3.2	2.4	.72	.64	.19	.13	.13
21	.70	1.7	1.1	6.4	.56	3.7	2.6	.71	.48	.19	.14	.16
22	.65	1.3	1.2	4.6	.49	3.2	2.5	.65	.53	.17	.13	2.0
23	.61	.68	1.2	3.6	.50	2.7	2.3	.63	.46	.33	.11	.35
24	.57	.58	6.8	3.0	.56	2.5	2.2	.74	.43	.30	.11	.12
25	.55	.76	5.3	2.4	.45	2.2	2.1	.85	.64	.26	.094	.14
26	.49	.70	3.6	2.1	.43	2.1	1.9	.80	.86	1.5	.10	.30
27	.46	.59	3.1	1.9	.41	1.8	1.9	.64	.74	1.1	.13	.24
28	.45	8.5	2.6	1.7	2.2	1.7	1.9	.54	.38	.55	.12	.16
29	.46	5.2	1.9	1.6	---	1.6	1.6	1.8	.36	.31	.12	.12
30	.47	3.4	1.7	1.5	---	1.7	1.5	1.6	.36	.23	.11	.12
31	.50	---	1.8	1.4	---	1.6	---	1.1	---	.20	.16	---
TOTAL	27.75	38.17	80.9	96.9	21.99	99.81	55.13	29.82	27.95	12.65	7.284	7.215
MEAN	.90	1.27	2.61	3.13	.79	3.22	1.84	.96	.93	.41	.23	.24
MAX	2.1	8.5	7.2	7.8	2.2	10	3.5	1.8	2.9	1.5	.83	2.0
MIN	.45	.50	1.1	1.4	.41	.59	.91	.54	.36	.17	.094	.074
CFSM	1.44	2.05	4.21	5.04	1.27	5.19	2.96	1.55	1.50	.66	.38	.39
IN.	1.66	2.29	4.85	5.81	1.32	5.99	3.31	1.79	1.68	.76	.44	.43

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1995, BY WATER YEAR (WY)**

	1993	1994	1995	1993	1994	1995	1993	1994	1995	1993	1994	1995
MEAN	.95	2.77	2.51	2.48	.84	2.34	6.24	1.27	.77	.56	.68	.42
MAX	1.18	3.52	2.97	3.30	1.16	3.22	8.85	1.69	.93	1.03	1.69	.82
(WY)	1993	1993	1994	1993	1994	1995	1993	1994	1995	1994	1994	1994
MIN	.77	1.27	1.94	1.00	.58	1.62	1.84	.96	.61	.24	.10	.21
(WY)	1994	1995	1993	1994	1993	1993	1995	1995	1993	1993	1993	1993

**SUMMARY STATISTICS FOR 1994 CALENDAR YEAR FOR 1995 WATER YEAR WATER YEARS 1993 - 1995**

ANNUAL TOTAL	702.64	505.569	1.82
ANNUAL MEAN	1.93	1.39	2.13
HIGHEST ANNUAL MEAN			1.39
LOWEST ANNUAL MEAN			1.39
HIGHEST DAILY MEAN	21	Apr 13	28
LOWEST DAILY MEAN	.24	Sep 20	.055
ANNUAL SEVEN-DAY MINIMUM	.32	Sep 16	.09
ANNUAL RUNOFF (CFSM)	3.10		2.23
ANNUAL RUNOFF (INCHES)	42.16		30.33
10 PERCENT EXCEEDS	3.6		3.2
50 PERCENT EXCEEDS	1.1		.84
90 PERCENT EXCEEDS	.44		.18

e Estimated



## DELAWARE RIVER BASIN

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## 01434092 SHELTER CREEK BELOW DRY CREEK NEAR FROST VALLEY, NY--Continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.12	3.3	1.2	e.43	2.0	2.4	2.8	14	.66	e1.1	1.4	.20
2	.16	8.0	.97	e.42	1.8	2.1	3.0	6.6	.62	e.86	1.1	.18
3	.16	8.0	1.2	e.42	1.6	1.8	2.5	4.1	.90	e2.3	.99	.18
4	.75	3.8	1.2	e.42	1.4	1.7	2.1	3.4	1.2	e2.2	4.0	.20
5	2.3	3.2	.91	e.41	1.1	1.7	2.0	2.7	.77	e1.9	1.9	.19
6	5.2	2.8	e.93	.37	.98	1.8	1.9	2.8	.56	e1.3	1.5	.17
7	1.2	3.0	.82	e.40	1.0	1.6	1.8	2.2	.49	e1.2	1.4	.79
8	.71	2.6	.78	e.39	e1.0	1.4	1.7	2.0	3.4	e1.2	1.2	1.0
9	.55	2.0	.80	e.38	e1.0	1.3	1.6	1.8	2.2	e1.2	1.3	.32
10	.54	1.9	.75	e.38	.91	1.1	1.5	2.2	4.3	e1.3	1.1	.24
11	.64	4.3	.70	e.38	.99	1.0	1.7	7.1	3.0	e1.0	.96	.21
12	.65	11	.65	e.37	.85	1.0	2.1	9.0	2.6	e.90	.92	.19
13	.73	4.5	.59	e.37	.76	1.1	7.6	4.5	e2.1	e15	.82	.26
14	4.8	3.2	.64	e.37	.76	1.3	14	3.4	e1.8	e10	.69	.25
15	3.9	3.9	.73	e.36	.73	2.2	6.6	3.0	e1.5	e11	.66	.19
16	1.9	3.1	.68	e.36	.71	1.7	20	3.1	e1.3	e12	.66	.19
17	1.7	2.5	.62	.59	.71	1.5	11	2.7	e1.4	5.7	.54	.74
18	1.7	2.2	.61	1.3	.66	1.7	5.6	2.4	e1.5	3.2	.46	2.2
19	1.9	2.2	.58	e52	.60	1.8	4.1	2.1	e1.6	2.9	.42	.41
20	2.1	2.0	.54	e15	1.6	3.3	3.6	1.9	e2.0	2.3	.40	.28
21	17	1.8	.52	e6.0	5.8	2.0	3.4	2.0	e1.7	1.8	.36	.24
22	7.7	1.6	.52	e3.5	6.0	1.7	3.3	1.7	e1.5	1.5	.33	.68
23	4.9	1.5	.52	e2.8	6.4	1.6	3.9	1.5	e1.3	1.4	.33	.84
24	4.2	1.3	.49	e7.1	12	1.5	4.0	1.4	e1.2	1.2	1.0	.54
25	3.4	1.2	.49	e6.9	6.0	2.2	3.3	1.3	e1.1	1.6	.36	.66
26	2.7	1.3	.46	e15	3.7	3.3	3.1	1.2	e1.0	5.1	.30	.47
27	3.2	1.3	.44	e30	3.2	2.3	2.8	1.1	e.94	1.7	.29	.47
28	12	1.6	.44	e11	4.1	2.0	2.2	1.0	e.96	1.5	.38	2.5
29	5.8	1.1	.42	e4.7	3.0	2.1	7.9	.91	e.90	1.5	.28	3.6
30	3.6	1.0	e.44	e3.7	---	2.1	15	.81	e1.2	1.6	.24	2.0
31	3.2	---	e.44	e2.9	---	2.4	---	.72	---	1.6	.22	---
TOTAL	99.41	91.2	21.08	168.72	71.36	56.7	146.1	94.64	45.70	99.06	26.51	20.39
MEAN	3.21	3.04	.68	5.44	2.46	1.83	4.87	3.05	1.52	3.20	.86	.68
MAX	17	11	1.2	52	12	3.3	20	14	4.3	15	4.0	3.6
MIN	.12	1.0	.42	.36	.60	1.0	1.5	.72	.49	.86	.22	.17
CFSM	5.17	4.90	1.10	8.78	3.97	2.95	7.85	4.92	2.46	5.15	1.38	1.10
IN.	5.96	5.47	1.26	10.12	4.28	3.40	8.77	5.68	2.74	5.94	1.59	1.22

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1996, BY WATER YEAR (WY)

	1993	1994	1995	1996
MEAN	1.51	2.84	2.05	3.22
MAX	3.21	3.52	2.97	5.44
(WY)	1996	1993	1994	1996
MIN	.77	1.27	.68	1.00
(WY)	1994	1995	1996	1994

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1993 - 1996
ANNUAL TOTAL	570.439	940.87	
ANNUAL MEAN	1.56	2.57	2.01
HIGHEST ANNUAL MEAN			2.57
LOWEST ANNUAL MEAN			1.39
HIGHEST DAILY MEAN	17	52	52
LOWEST DAILY MEAN	.074	.12	.055
ANNUAL SEVEN-DAY MINIMUM	.09	.19	.06
ANNUAL RUNOFF (CFSM)	2.52	4.15	3.24
ANNUAL RUNOFF (INCHES)	34.23	56.45	43.97
10 PERCENT EXCEEDS	3.6	5.6	4.3
50 PERCENT EXCEEDS	.91	1.5	1.1
90 PERCENT EXCEEDS	.17	.38	.23

e Estimated



## DELAWARE RIVER BASIN

## 01434092 SHELTER CREEK BELOW DRY CREEK NEAR FROST VALLEY, 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	1.7	1.9	26	2.6	e.62	3.6	7.3	3.6	1.2	.22	.11	.40
2	1.7	1.7	27	2.6	.60	8.6	5.2	3.2	1.3	.29	.10	.26
3	1.7	1.6	8.5	2.9	.60	5.5	5.0	6.7	1.1	.32	.10	.22
4	1.6	1.4	4.4	2.4	.58	4.0	8.0	6.4	.90	.24	.11	.20
5	1.4	1.3	3.3	2.8	1.5	3.3	9.0	4.5	.81	.22	.11	.19
6	1.3	1.2	2.8	2.6	.84	4.0	9.6	4.3	.75	.20	.096	.18
7	1.1	1.2	2.4	2.4	.70	2.7	11	3.4	.74	.19	.089	.18
8	1.4	9.1	2.2	2.2	.66	2.4	8.7	2.9	.70	.20	.087	.18
9	1.8	26	1.9	2.2	.65	2.0	5.6	2.9	.64	.50	.084	.17
10	2.1	7.9	1.7	2.1	.63	1.9	4.3	2.7	.58	.27	.082	.16
11	1.6	4.2	1.7	1.8	.60	1.6	3.4	2.3	.54	.19	.081	4.5
12	1.6	3.2	3.1	1.6	.60	1.4	3.9	2.1	.51	.18	.077	3.6
13	1.5	2.7	3.1	1.4	.56	1.4	5.3	2.0	.52	.17	.44	1.5
14	1.5	2.4	2.9	1.3	e.57	1.8	3.9	1.8	.48	.16	.13	1.1
15	1.6	2.1	2.5	e1.2	e.58	1.9	3.4	e1.7	.44	1.0	.097	.95
16	1.5	1.8	2.4	e1.1	.60	1.4	3.0	e1.6	.42	.50	.093	.88
17	1.3	1.7	6.2	e1.0	.60	e1.3	3.0	e1.4	.49	.21	.090	.79
18	1.2	1.7	6.7	.96	.62	e1.2	2.8	e1.3	.48	.20	.19	.71
19	5.4	2.3	4.8	.85	.94	e1.2	2.7	e2.6	.45	.19	.094	.62
20	35	1.7	3.7	.84	e1.1	e1.2	2.7	e4.7	.39	.18	.15	.68
21	19	1.5	3.0	.79	e.96	1.4	2.5	e2.6	.38	.21	1.9	.58
22	7.2	1.4	2.7	.87	e3.5	1.8	2.2	e2.3	.34	.26	.49	.53
23	4.6	1.3	2.4	.98	e3.3	1.4	2.1	e2.1	.30	.19	.31	.54
24	4.5	1.2	6.2	.71	e2.3	e1.3	1.9	e2.0	.31	.18	.21	.50
25	3.4	1.3	4.8	1.4	e1.7	1.4	1.8	e1.9	.31	.17	.19	.50
26	2.9	3.3	3.3	.82	e2.1	3.4	1.8	e1.8	.52	.15	.19	.48
27	2.6	2.0	2.9	.69	3.7	2.7	1.7	e1.7	.33	.16	.23	.44
28	2.4	2.0	2.6	e.67	3.8	4.6	5.6	1.6	.26	.16	2.6	.44
29	2.2	1.9	3.8	.65	---	8.3	3.5	1.4	.24	.13	1.3	.81
30	2.3	1.9	3.3	.64	---	12	3.2	1.4	.23	.12	.44	1.3
31	2.1	---	2.8	e.63	---	11	---	1.2	---	.11	.31	---
TOTAL	121.2	94.9	155.1	45.70	35.51	101.7	134.1	82.1	16.66	7.47	10.580	23.59
MEAN	3.91	3.16	5.00	1.47	1.27	3.28	4.47	2.65	.56	.24	.34	.79
MAX	35	26	27	2.9	3.8	12	11	6.7	1.3	1.0	2.6	4.5
MIN	1.1	1.2	1.7	.63	.56	1.2	1.7	1.2	.23	.11	.077	.16
CFSM	6.31	5.10	8.07	2.38	2.05	5.29	7.21	4.27	.90	.39	.55	1.27
IN.	7.27	5.69	9.31	2.74	2.13	6.10	8.05	4.93	1.00	.45	.63	1.42

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

	1993	1994	1995	1996	1997
MEAN	1.99	2.90	2.64	2.87	1.26
MAX	3.91	3.52	5.00	5.44	2.46
(WY)	1997	1993	1997	1996	1997
MIN	.77	1.27	.68	1.00	.58
(WY)	1994	1995	1996	1994	1993

## SUMMARY STATISTICS

## FOR 1996 CALENDAR YEAR

## FOR 1997 WATER YEAR

## WATER YEARS 1993 - 1997

ANNUAL TOTAL	1100.38	828.610	
ANNUAL MEAN	3.01	2.27	2.06
HIGHEST ANNUAL MEAN			2.57
LOWEST ANNUAL MEAN			1.39
HIGHEST DAILY MEAN	52	Jan 19	52
LOWEST DAILY MEAN	.17	Sep 6	.077
ANNUAL SEVEN-DAY MINIMUM	.19	Aug 31	.09
ANNUAL RUNOFF (CFSM)	4.85		3.66
ANNUAL RUNOFF (INCHES)	66.02		49.72
10 PERCENT EXCEEDS	6.1		4.5
50 PERCENT EXCEEDS	1.7		1.4
90 PERCENT EXCEEDS	.40		.19

e Estimated



## DELAWARE RIVER BASIN

319

## 01434092 SHELTER CREEK BELOW DRY CREEK NEAR FROST VALLEY, NY--Continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.59	4.8	2.5	.78	.81	2.3	8.3	1.8	2.2	6.3	.29	.17
2	.48	9.1	1.7	.79	.77	2.0	7.7	2.5	1.0	4.2	.26	.35
3	.48	6.2	1.6	.96	.80	1.9	5.1	4.2	1.5	3.4	.23	.24
4	.45	4.6	1.8	2.8	.78	1.7	4.1	5.5	.84	3.0	.22	.18
5	.82	3.3	1.8	4.0	.77	1.6	3.5	7.4	.76	3.2	.23	.16
6	.50	2.7	1.6	11	.70	1.5	3.0	12	.71	2.3	.22	.15
7	.45	2.4	1.4	17	.65	1.5	2.6	12	.68	2.2	.20	.27
8	.46	4.9	1.3	e33	.63	1.6	2.7	7.0	.68	5.9	.18	.19
9	.45	7.2	1.2	e16	.60	14	3.3	5.6	.62	4.4	.19	.17
10	.43	4.9	1.2	e8.0	.59	16	3.9	12	.59	3.2	.37	.15
11	.42	3.7	1.1	3.7	.60	6.4	3.0	11	.60	2.9	.72	.14
12	.41	3.0	1.1	2.8	3.1	4.2	2.7	7.9	3.2	2.5	.36	.13
13	.42	2.5	1.0	2.8	1.4	3.5	2.5	5.8	6.0	2.3	.33	.13
14	.46	2.4	.91	2.4	1.1	3.0	2.4	4.6	21	2.1	.36	.13
15	.61	2.0	.88	2.2	e1.1	2.5	2.3	4.0	15	1.9	.36	.13
16	.50	1.8	.87	3.2	e1.0	2.2	2.1	3.5	11	1.6	.33	.15
17	.43	1.6	.81	2.2	1.1	2.0	2.0	3.4	7.6	1.4	.37	.13
18	.42	1.4	.72	1.9	1.7	1.9	1.8	2.7	5.6	1.2	.49	.12
19	.41	1.3	.70	1.7	1.7	3.4	3.6	2.4	4.3	1.0	.34	.12
20	.40	1.2	.66	1.5	1.5	3.3	5.9	2.1	3.4	1.1	.28	.11
21	.40	1.1	.58	1.4	1.3	3.3	3.4	1.8	2.9	.87	.26	.11
22	.40	2.3	.58	1.3	1.3	2.6	3.2	1.6	2.5	.77	.25	.37
23	.40	1.5	.61	1.3	1.2	2.3	3.0	1.4	2.3	.74	.26	.14
24	.40	1.3	.57	2.0	2.3	2.1	2.8	1.2	1.9	.69	.25	.12
25	1.1	1.1	2.1	1.4	1.3	2.0	2.5	1.2	1.6	.54	.22	.12
26	.57	1.2	1.2	1.2	1.2	2.5	2.8	1.0	1.7	.48	.26	.11
27	1.9	1.4	.89	1.1	1.3	6.0	2.4	.90	2.0	.46	.21	.26
28	.82	1.1	.82	1.1	1.6	11	2.1	.81	1.3	.45	.19	.21
29	.71	1.1	.86	1.0	---	10	1.9	1.2	1.3	.41	.19	.13
30	.68	2.2	e.79	.97	---	7.0	1.8	.95	9.6	.35	.19	.12
31	.71	---	.77	.87	---	5.3	---	1.8	---	.37	.19	---
TOTAL	17.68	85.3	34.62	132.37	32.90	130.6	98.4	131.26	114.38	62.23	8.80	5.01
MEAN	.57	2.84	1.12	4.27	1.18	4.21	3.28	4.23	3.81	2.01	.28	.17
MAX	1.9	9.1	2.5	33	3.1	16	8.3	12	21	6.3	.72	.37
MIN	.40	1.1	.57	.78	.59	1.5	1.8	.81	.59	.35	.18	.11
CFSM	.92	4.59	1.80	6.89	1.90	6.80	5.29	6.83	6.15	3.24	.46	.27
IN.	1.06	5.12	2.08	7.94	1.97	7.84	5.90	7.88	6.86	3.73	.53	.30

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1998, BY WATER YEAR (WY)

MEAN	1.75	2.89	2.39	3.10	1.25	2.72	5.22	2.29	1.37	1.19	.59	.48
MAX	3.91	3.52	5.00	5.44	2.46	4.21	8.85	4.23	3.81	3.20	1.69	.82
(WY)	1997	1993	1997	1996	1996	1998	1993	1998	1998	1996	1994	1994
MIN	.57	1.27	.68	1.00	.58	1.62	1.84	.96	.56	.24	.10	.17
(WY)	1998	1995	1996	1994	1993	1993	1995	1995	1997	1993	1993	1998

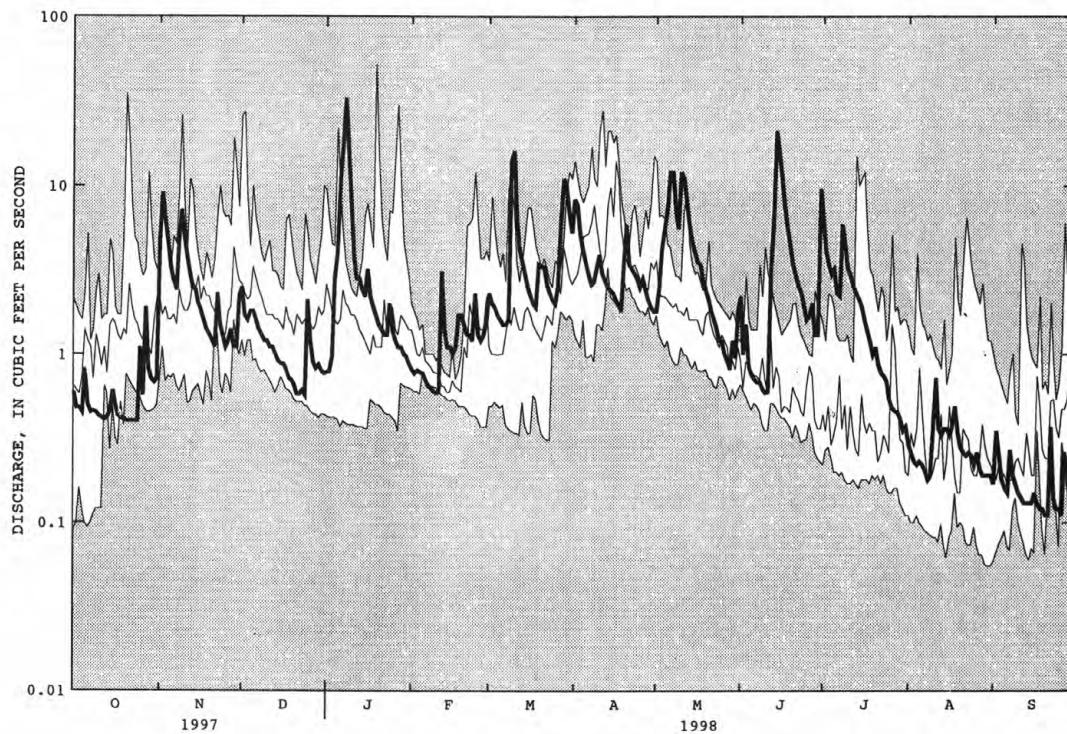
SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR	FOR 1998 WATER YEAR	WATER YEARS 1993 - 1998
ANNUAL TOTAL	595.010	853.55	
ANNUAL MEAN	1.63	2.34	2.11
HIGHEST ANNUAL MEAN			2.57
LOWEST ANNUAL MEAN			1.39
HIGHEST DAILY MEAN	12 Mar 30	33 Jan 8	52 Jan 19 1996
LOWEST DAILY MEAN	.077 Aug 12	.11 Sep 20	.055 Aug 30 1993
ANNUAL SEVEN-DAY MINIMUM	.09 Aug 6	.12 Sep 15	.06 Aug 27 1993
ANNUAL RUNOFF (CFSM)	2.63	3.77	3.40
ANNUAL RUNOFF (INCHES)	35.70	51.21	46.15
10 PERCENT EXCEEDS	3.7	5.5	4.5
50 PERCENT EXCEEDS	.94	1.3	1.2
90 PERCENT EXCEEDS	.19	.23	.21

e Estimated



## DELAWARE RIVER BASIN

01434092 SHELTER CREEK BELOW DRY CREEK NEAR FROST VALLEY, NY--Continued



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



## DELAWARE RIVER BASIN

321

## 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 mi<sup>2</sup>.

**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 ft<sup>3</sup>/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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 8,020 ft<sup>3</sup>/s, Jan. 19, 1996, gage height, 11.83 ft, from rating curve extended above 1,190 ft<sup>3</sup>/s on basis of runoff comparisons with nearby stations; minimum discharge, 5.9 ft<sup>3</sup>/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 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 8	1730	a*3,880	*9.77	May 10	1800	2,030	8.69
Mar. 10	0045	a2,560	9.12	June 14	1630	a3,080	9.49

a From rating curve extended as explained above.

Minimum discharge, 7.0 ft<sup>3</sup>/s, Sept. 21; minimum gage height, 4.30 ft, Dec. 22.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	304	156	e38	59	110	466	81	112	283	27	11
2	29	635	100	e42	59	99	437	121	57	156	25	12
3	26	390	85	e50	57	93	268	202	75	117	24	16
4	25	217	91	88	55	84	204	242	53	100	23	12
5	30	160	95	204	54	78	171	288	45	110	22	10
6	28	126	84	561	51	74	143	403	42	87	22	9.7
7	25	109	77	883	49	73	124	313	39	81	21	13
8	24	228	72	2720	46	77	125	226	38	181	19	14
9	e23	471	67	1310	45	650	166	202	37	196	18	11
10	e22	298	68	534	46	1120	246	1160	34	122	19	11
11	e23	197	66	289	45	342	166	739	33	100	26	9.8
12	e23	158	62	203	122	213	139	458	68	90	20	9.2
13	e22	132	60	168	116	174	126	281	178	81	17	8.9
14	e22	130	57	136	75	151	118	217	1350	75	17	8.6
15	e25	112	54	122	58	132	114	181	667	70	17	8.6
16	e25	100	56	186	e58	117	106	155	435	67	17	9.7
17	e24	90	55	142	e56	107	102	154	281	62	17	8.8
18	e22	82	51	120	e70	104	93	128	230	57	19	8.0
19	e22	78	49	108	e110	171	117	113	169	52	19	7.7
20	e21	73	48	100	e90	181	374	101	135	53	16	7.4
21	e21	68	44	91	e80	199	181	91	113	53	15	7.4
22	e20	120	39	82	e70	151	145	82	99	47	14	16
23	e20	101	53	80	e68	126	130	76	91	44	13	11
24	e20	86	46	108	e75	115	121	70	84	44	13	8.5
25	e29	75	84	92	e70	108	111	67	75	39	13	7.8
26	e32	73	77	79	e68	118	118	63	70	36	14	7.8
27	e58	88	60	73	68	231	115	56	81	35	12	10
28	e50	73	53	71	76	526	99	51	64	33	11	16
29	e39	71	50	68	---	579	91	53	62	32	11	9.7
30	e34	92	e45	66	---	424	85	61	363	30	11	8.4
31	e33	---	e42	64	---	353	---	53	---	29	12	---
TOTAL	860	4937	2046	8878	1896	7080	5001	6488	5180	2562	544	309.0
MEAN	27.7	165	66.0	286	67.7	228	167	209	173	82.6	17.5	10.3
MAX	58	635	156	2720	122	1120	466	1160	1350	283	27	16
MIN	20	68	39	38	45	73	85	51	33	29	11	7.4
CFSM	.82	4.87	1.95	8.47	2.00	6.76	4.93	6.19	5.11	2.45	.52	.30
IN.	.95	5.43	2.25	9.77	2.09	7.79	5.50	7.14	5.70	2.82	.60	.34

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1998, BY WATER YEAR (WY)**

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	87.3	153	128	166	70.5	145	265	118	77.6	52.0	33.8	34.1
MAX	192	224	321	305	136	228	498	209	173	165	75.2	70.5
(WY)	1996	1997	1997	1996	1996	1998	1993	1998	1998	1996	1994	1996
MIN	27.7	61.2	49.3	53.8	40.2	108	86.7	49.7	34.5	11.1	10.7	10.3
(WY)	1998	1995	1996	1994	1993	1993	1995	1995	1993	1991	1993	1998

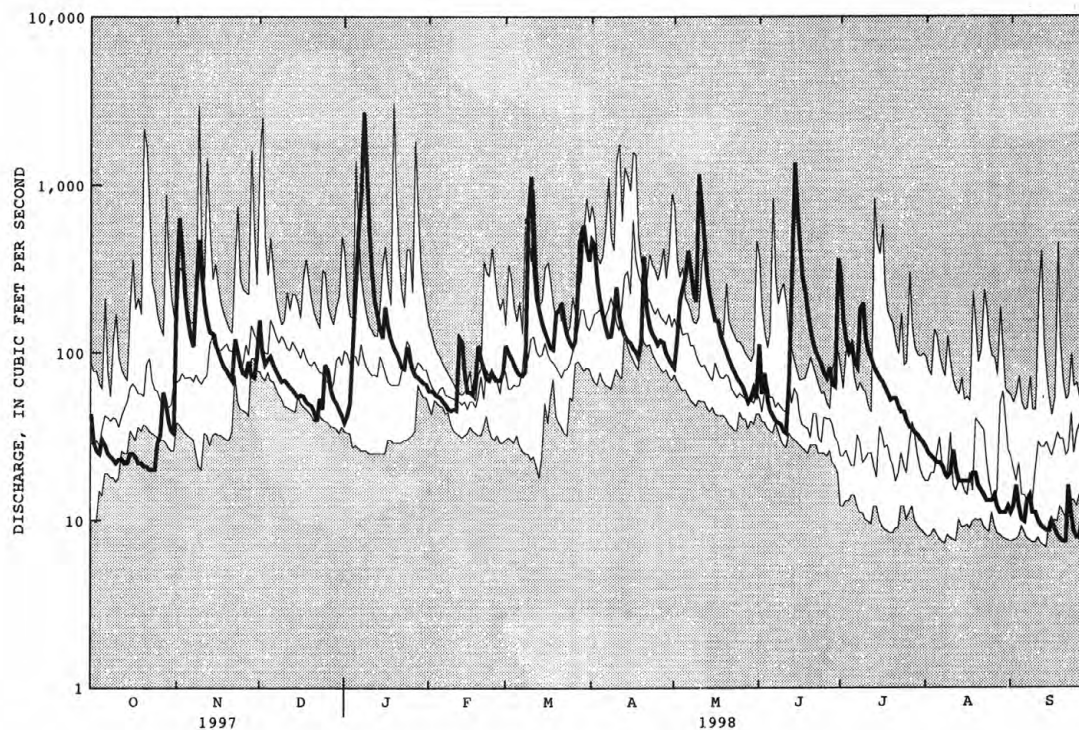
e Estimated



## DELAWARE RIVER BASIN

## 01434498 WEST BRANCH NEVERSINK RIVER AT CLARYVILLE, NY--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1991 - 1998	
ANNUAL TOTAL	32744.5		45781.0		112	
ANNUAL MEAN	89.7		125		151	1996
HIGHEST ANNUAL MEAN					70.3	1995
LOWEST ANNUAL MEAN					3100	Jan 19 1996
HIGHEST DAILY MEAN	748	Apr 7	2720	Jan 8	6.8	Sep 14 1991
LOWEST DAILY MEAN	7.4	Aug 12	7.4	Sep 20	7.3	Sep 8 1991
ANNUAL SEVEN-DAY MINIMUM	8.0	Aug 6	8.2	Sep 15	3.31	
ANNUAL RUNOFF (CFSM)	2.65		3.71		44.97	
ANNUAL RUNOFF (INCHES)	36.04		50.39		211	
10 PERCENT EXCEEDS	191		244		61	
50 PERCENT EXCEEDS	60		73		15	
90 PERCENT EXCEEDS	15		14			



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



## 323

**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.

**DRAINAGE AREA.**--66.6 mi<sup>2</sup>.

**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 ft<sup>3</sup>/s and fair above, except those for estimated daily discharges, which are poor.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 19,300 ft<sup>3</sup>/s, Apr. 4, 1987, gage height, 13.26 ft; maximum gage height, 13.83 ft, present datum, July 10, 1952; minimum discharge, 6.8 ft<sup>3</sup>/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 ft<sup>3</sup>/s, by slope-area measurement.

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

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 8	1745	*5,280	*10.95	May 10	1815	3,400	10.13
Mar. 10	0100	3,810	10.33	June 14	1700	*5,280	*10.95

Minimum discharge, 15 ft<sup>3</sup>/s, Sept. 21, gage height, 6.18 ft.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	531	297	e72	107	243	792	155	207	683	49	21
2	51	1140	189	e80	105	219	761	247	108	340	46	21
3	47	680	164	101	103	204	480	380	144	243	45	28
4	45	393	167	142	99	182	378	448	101	200	43	23
5	52	294	174	306	98	168	316	541	87	213	42	20
6	50	231	156	715	92	158	271	711	80	170	41	18
7	44	201	143	1210	88	154	236	564	77	154	40	21
8	42	373	133	3570	85	159	228	422	75	318	37	27
9	41	758	124	2100	83	1060	300	379	72	399	35	22
10	40	505	124	944	82	1880	475	1900	68	233	37	21
11	41	352	122	559	81	616	315	1350	65	187	59	19
12	41	284	115	408	259	403	266	862	168	165	42	18
13	40	239	110	341	197	332	239	532	548	148	36	17
14	40	231	105	272	e120	287	222	413	2480	136	35	17
15	44	202	94	239	e110	250	216	342	1370	126	36	17
16	45	180	103	369	e110	221	201	291	1020	120	36	19
17	42	162	103	276	116	205	193	285	625	114	34	18
18	40	151	96	233	156	193	181	238	486	102	40	17
19	39	142	91	209	193	300	208	209	352	92	41	16
20	38	134	89	189	173	321	635	188	275	90	32	16
21	37	126	83	171	150	351	337	168	224	93	29	15
22	36	228	71	155	136	270	276	152	193	83	28	31
23	36	197	90	153	134	227	247	141	175	78	27	32
24	36	164	88	218	160	206	228	128	161	79	26	22
25	52	143	152	172	152	194	209	123	141	71	24	19
26	57	138	149	146	143	208	218	116	128	67	24	18
27	105	160	116	135	144	357	219	105	142	65	23	25
28	92	137	102	132	160	773	188	97	117	63	22	44
29	68	132	91	125	---	920	173	96	113	61	21	26
30	61	164	e84	122	---	712	163	114	743	56	21	21
31	58	---	e76	114	---	631	---	96	---	53	21	---
TOTAL	1527	8772	3801	13978	3636	12404	9171	11793	10545	5002	1072	649
MEAN	49.3	292	123	451	130	400	306	380	352	161	34.6	21.6
MAX	105	1140	297	3570	259	1880	792	1900	2480	683	59	44
MIN	36	126	71	72	81	154	163	96	65	53	21	15
CSFM	.74	4.39	1.84	6.77	1.95	6.01	4.59	5.71	5.28	2.42	.52	.32
IN.	.85	4.90	2.12	7.81	2.03	6.93	5.12	6.59	5.89	2.79	.60	.36

MEAN	150	214	217	176	169	277	437	254	142	87.0	71.4	85.4
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

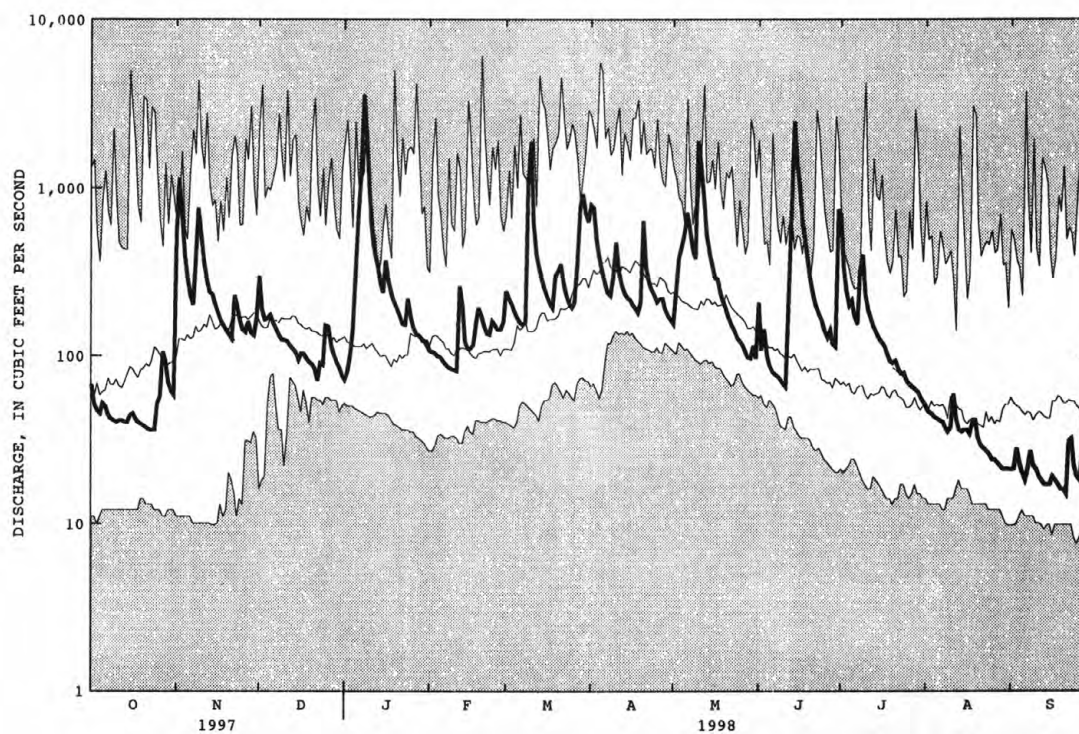
e Estimated



## DELAWARE RIVER BASIN

01435000 NEVERSINK RIVER NEAR CLARYVILLE, NY--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1951 - 1998	
ANNUAL TOTAL	58339		82350		190	
ANNUAL MEAN	160		226		286	
HIGHEST ANNUAL MEAN					100	
LOWEST ANNUAL MEAN					196	
HIGHEST DAILY MEAN	1270	Apr 7	3570	Jan 8	6090	Feb 20 1981
LOWEST DAILY MEAN	16	Aug 11	15	Sep 21	7.5	Sep 25 1964
ANNUAL SEVEN-DAY MINIMUM	17	Aug 6	17	Sep 15	8.9	Sep 21 1964
ANNUAL RUNOFF (CFSM)	2.40		3.39		2.85	
ANNUAL RUNOFF (INCHES)	32.59		46.00		38.69	
10 PERCENT EXCEEDS	341		482		376	
50 PERCENT EXCEEDS	110		141		114	
90 PERCENT EXCEEDS	29		28		32	



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



01435000 NEVERSINK RIVER NEAR CLARYVILLE, NY--Continued

## WATER-QUALITY RECORDS

**PERIOD OF RECORD.**--Water years 1965-66, 1969, 1971, 1973-75, 1985-87, June 1998.

CHEMICAL DATA: 1965 (a), 1966 (b), 1969, 1971 (a), 1973-75 (b), 1985 (a), 1986 (b), 1987 (c).

NUTRIENT DATA: 1985 (a), 1986 (b), 1987 (c), 1998 (e).

**REMARKS.**--Provisional chemical minor element and nutrient data for additional samples are available in files of the Geological Survey.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)
JUN			
12...	0830	.029	.002
12...	2310	.002	.004
13...	1320	.003	.002
13...	1350	.007	.003
13...	1525	.011	.004
13...	2020	.009	.003
14...	0215	.003	.003
14...	0835	.005	.001
14...	0915	.005	.003
14...	0945	.006	.003
14...	1010	.007	.004
14...	1050	.007	.004
14...	1135	.006	.004
14...	1245	.023	.005
14...	1625	.022	.004
14...	1830	.008	.003
14...	2025	.007	.002
14...	2240	.006	.003
15...	0125	.005	.003
15...	0535	<.001	.003
16...	1510	.002	.002
17...	0620	.003	.002
30...	1100	<.001	.001



## 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 mi<sup>2</sup>.

**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 mi<sup>2</sup> 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 ft<sup>3</sup>/s, Nov. 25, 1950, gage height, 11.23 ft, site and datum then in use, from rating curve extended above 2,600 ft<sup>3</sup>/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, 4,180 ft<sup>3</sup>/s, June 14, gage height, 6.89 ft; minimum, 4.1 ft<sup>3</sup>/s, Feb. 18, gage height, 2.37 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	24	14	15	26	26	26	44	51	85	48	51
2	23	21	14	15	26	26	26	53	51	68	48	51
3	24	16	15	15	26	26	26	52	56	59	48	51
4	24	16	15	15	26	26	26	52	53	66	60	51
5	23	16	15	16	26	26	25	52	50	65	75	50
6	23	15	15	16	26	26	25	52	49	58	83	50
7	23	16	15	16	26	26	26	52	49	51	83	50
8	24	16	15	16	26	26	25	52	49	51	78	49
9	23	16	15	12	26	27	25	53	49	51	70	49
10	23	15	15	6.9	26	25	25	60	49	51	70	49
11	30	15	15	7.0	26	25	25	1310	49	51	63	51
12	42	15	15	7.0	26	26	26	1090	51	49	50	51
13	42	15	15	7.0	26	26	26	530	50	54	51	51
14	36	15	15	7.9	26	26	26	393	1630	85	51	58
15	25	15	15	12	26	26	26	155	2140	99	51	70
16	25	15	15	17	26	26	26	54	1380	74	51	63
17	25	15	15	17	26	26	26	51	878	56	51	49
18	25	15	12	17	26	26	25	51	607	63	51	49
19	25	15	8.9	17	26	26	26	51	277	89	52	49
20	25	15	15	17	26	26	26	51	64	102	55	49
21	24	15	15	17	26	26	25	51	64	99	59	49
22	23	15	15	17	26	25	25	51	62	91	59	49
23	23	15	15	17	26	25	26	50	62	74	59	49
24	23	14	15	23	26	25	25	51	66	62	55	51
25	23	15	15	26	25	25	25	51	68	51	52	51
26	24	15	15	26	28	25	26	51	68	50	58	49
27	23	13	15	26	26	25	26	51	62	49	75	50
28	23	15	15	26	26	25	26	57	48	58	84	49
29	23	15	15	26	---	25	26	64	55	57	79	49
30	23	15	15	26	---	25	26	51	57	48	70	49
31	24	---	15	26	---	25	---	51	---	48	63	---
TOTAL	798	468	453.9	524.8	729	795	769	4837	8244	2014	1902	1536
MEAN	25.7	15.6	14.6	16.9	26.0	25.6	25.6	156	275	65.0	61.4	51.2
MAX	42	24	15	26	28	27	26	1310	2140	102	84	70
MIN	23	13	8.9	6.9	25	25	25	44	48	48	48	49

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1998, BY WATER YEAR (WY)

MEAN	51.9	24.9	15.5	14.4	16.6	13.3	86.6	81.1	70.3	69.8	74.0	65.0
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 1997 CALENDAR YEAR

FOR 1998 WATER YEAR

## WATER YEARS 1954 - 1998

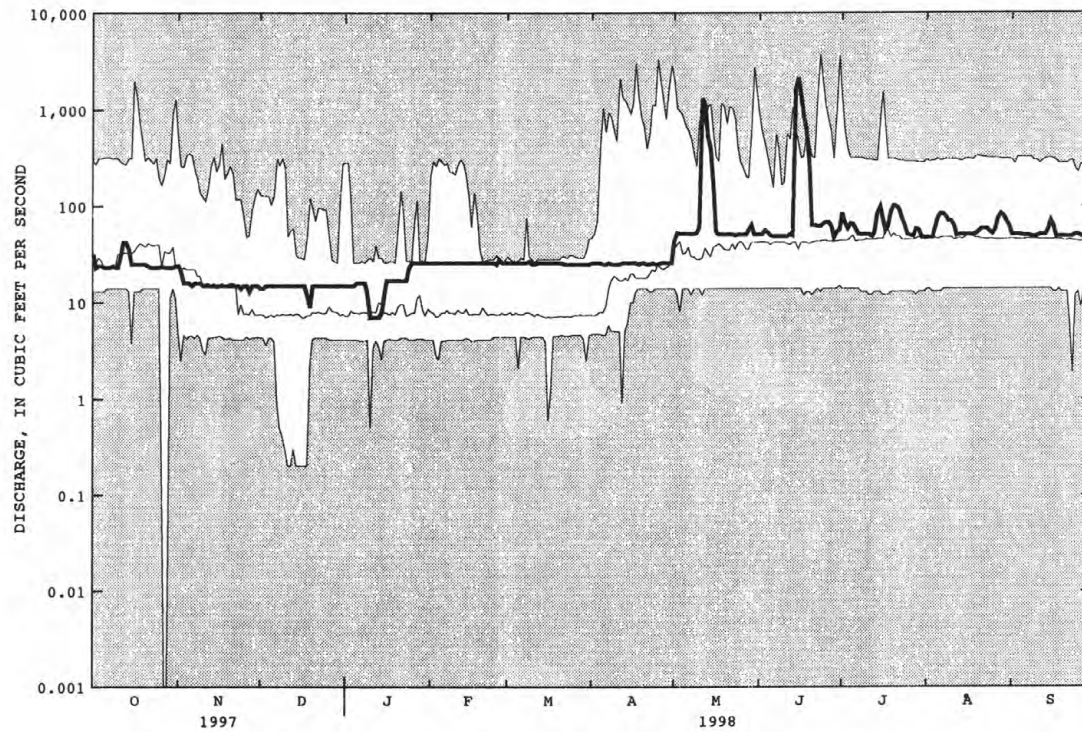
ANNUAL TOTAL	13456.9		23070.7				
ANNUAL MEAN	36.9		63.2			48.7	
HIGHEST ANNUAL MEAN						158	1956
LOWEST ANNUAL MEAN						11.4	1971
HIGHEST DAILY MEAN	211	Apr 8	2140	Jun 15	3700		Jun 23 1972
LOWEST DAILY MEAN	8.9	Dec 19	6.9	Jan 10	.00		Oct 27 1954
ANNUAL SEVEN-DAY MINIMUM	14	Dec 13	8.5	Jan 9	.23		Dec 12 1958
10 PERCENT EXCEEDS	59		65		78		
50 PERCENT EXCEEDS	25		26		23		
90 PERCENT EXCEEDS	15		15		5.1		



DELAWARE RIVER BASIN

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01436000 NEVERSINK RIVER AT NEVERSINK, NY--Continued



CURRENT WATER YEAR DAILY DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD. SHADED AREAS SHOW DAILY MAXIMUM AND MINIMUM FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR. ZERO FLOWS ARE PLOTTED AS 0.001 DISCHARGE, WHICH MAY INCLUDE THE DAILY MINIMUM FOR PERIOD OF RECORD.



## DELAWARE RIVER BASIN

## 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 mi<sup>2</sup>.

## 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 mi<sup>2</sup> 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, 6,150 ft<sup>3</sup>/s, June 15, 1998, gage height, 12.30 ft; minimum, 31 ft<sup>3</sup>/s, Oct. 2, 3, 1995, gage height, 4.33 ft.

**EXTREMES FOR CURRENT YEAR.**---Maximum discharge, 6,150 ft<sup>3</sup>/s, June 15, gage height, 12.30 ft; minimum, 32 ft<sup>3</sup>/s, Oct. 11, 12; minimum gage height, 4.36 ft, Oct. 7, 8-11, 12.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	130	379	e92	129	381	189	175	195	1160	76	68
2	46	432	240	e110	122	328	390	261	139	447	72	63
3	40	303	192	125	125	278	242	408	205	275	71	66
4	38	188	179	147	125	244	200	462	142	224	72	62
5	36	149	176	285	133	218	165	415	119	210	90	60
6	36	123	166	477	136	197	148	509	104	178	102	58
7	34	107	149	732	127	181	139	417	97	152	105	66
8	33	151	137	1350	117	173	147	349	95	164	102	75
9	33	434	127	1200	111	528	244	377	92	210	90	63
10	33	338	122	722	111	950	638	1370	89	163	89	59
11	33	225	130	507	110	479	301	2360	87	136	101	58
12	45	181	122	393	292	e310	241	1970	154	120	75	58
13	54	154	118	332	292	e270	209	944	618	108	67	58
14	54	148	113	279	199	260	186	794	2990	120	66	58
15	51	145	108	225	e140	234	228	485	3980	142	68	72
16	44	134	113	286	e130	211	235	328	2390	135	66	78
17	40	128	112	264	139	194	174	265	1390	113	67	63
18	40	e130	99	229	295	208	153	217	1140	97	71	56
19	51	e130	90	207	404	357	165	186	722	116	78	55
20	46	130	87	190	343	363	737	168	323	133	70	53
21	51	135	87	173	290	362	397	144	271	146	73	59
22	59	218	e89	156	248	305	279	131	227	141	75	65
23	52	249	e96	142	224	257	238	124	206	117	75	64
24	51	204	103	211	285	240	214	117	189	120	74	58
25	71	167	142	234	330	226	164	118	171	89	67	58
26	74	150	195	187	314	219	192	128	152	83	69	59
27	99	166	173	163	306	232	243	114	141	79	80	61
28	115	148	144	153	291	213	175	106	120	78	95	90
29	97	145	e120	145	---	172	162	117	115	89	98	71
30	77	177	e110	144	---	154	165	142	920	77	88	69
31	55	---	e100	140	---	137	---	115	---	78	84	---
TOTAL	1659	5619	4318	10000	5868	8881	7360	13816	17583	5500	2476	1903
MEAN	53.5	187	139	323	210	286	245	446	586	177	79.9	63.4
MAX	115	434	379	1350	404	950	737	2360	3980	1160	105	90
MIN	33	107	87	92	110	137	139	106	87	77	66	53

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1998, BY WATER YEAR (WY)

	1992	1993	1994	1995	1996	1997	1998
MEAN	127	224	233	249	161	277	450
MAX	258	320	523	394	262	328	1022
(WY)	1997	1996	1997	1996	1996	1994	1993
MIN	53.5	114	112	110	90.2	231	144
(WY)	1998	1995	1996	1994	1993	1995	1995

## SUMMARY STATISTICS FOR 1997 CALENDAR YEAR FOR 1998 WATER YEAR WATER YEARS 1992 - 1998

	1997	1998	1992-1998
ANNUAL TOTAL	55483	84983	
ANNUAL MEAN	152	233	210
HIGHEST ANNUAL MEAN			253
LOWEST ANNUAL MEAN			141
HIGHEST DAILY MEAN	702	3980	4170
LOWEST DAILY MEAN	33	33	32
ANNUAL SEVEN-DAY MINIMUM	34	34	34
10 PERCENT EXCEEDS	290	395	393
50 PERCENT EXCEEDS	122	142	129
90 PERCENT EXCEEDS	64	59	71

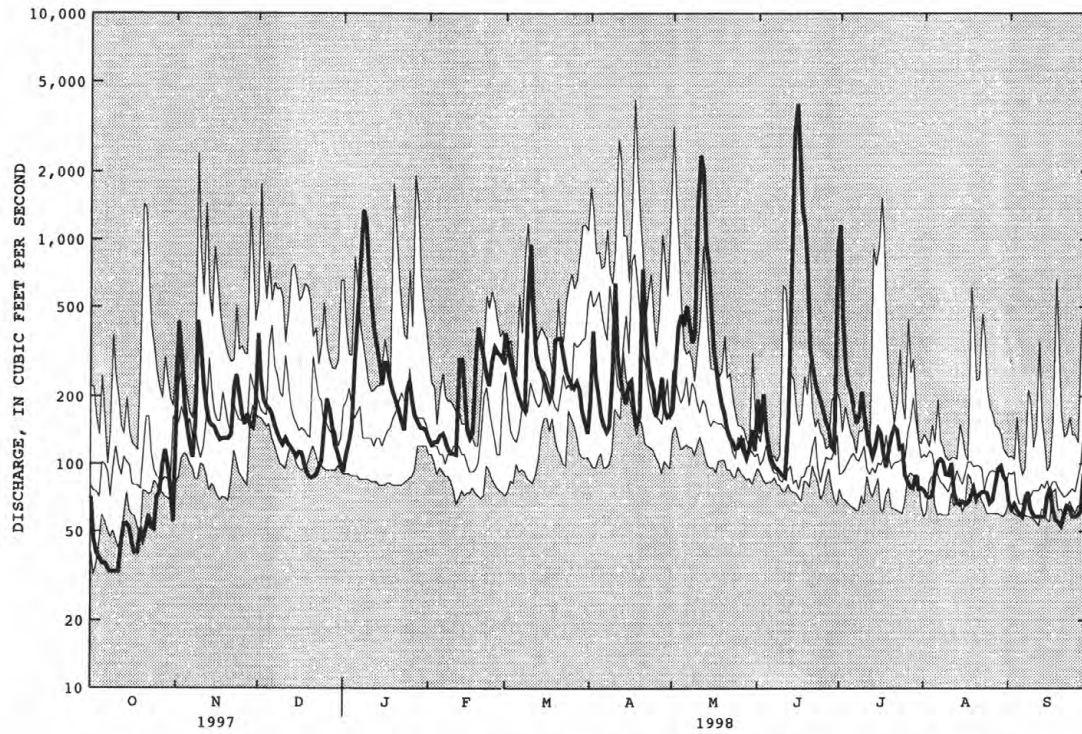
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DELAWARE RIVER BASIN

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01436690 NEVERSINK RIVER AT BRIDGEVILLE, NY--Continued



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



## 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. Prior to May 1993, satellite telemeter 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, 26.5°C, July 15, 1995; minimum, 0.0°C on many days during winter periods.

## EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 24.5°C, July 18, Aug. 26, 27; minimum, 0.0°C on many days during winter period.

## WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	14.0	11.0	12.5	10.0	7.0	8.5	3.0	1.5	2.5	.0	.0	.0
2	13.0	8.0	10.5	10.5	9.0	10.0	1.5	.5	1.0	.0	.0	.0
3	12.5	10.5	11.5	9.5	7.5	8.5	2.0	.0	1.0	.5	.0	.0
4	15.0	11.0	13.0	9.0	7.5	8.0	3.0	1.5	2.5	.5	.5	.5
5	18.5	13.0	15.0	8.5	6.0	7.0	3.0	2.0	2.5	1.0	.5	.5
6	19.0	13.0	15.5	8.0	5.5	6.5	2.0	.5	1.5	2.0	.5	1.5
7	17.0	12.5	14.5	7.5	6.0	7.0	1.5	.5	1.0	2.5	2.0	2.5
8	16.5	13.5	14.5	7.0	6.5	7.0	2.5	1.0	1.5	3.5	2.5	2.5
9	18.0	12.5	15.0	8.0	7.0	7.5	1.5	.0	1.0	5.0	3.5	4.0
10	19.5	15.0	16.5	7.5	6.5	7.0	1.5	.0	1.0	4.5	3.0	3.5
11	17.5	12.5	14.5	7.0	5.0	6.0	.5	.0	.5	3.5	2.0	2.5
12	15.0	10.0	12.0	5.0	3.5	4.5	1.5	.5	1.0	2.0	1.0	1.5
13	15.0	9.5	12.0	4.0	2.0	3.0	2.0	.5	1.0	2.5	1.0	2.0
14	14.5	13.5	14.0	3.0	.5	1.0	1.5	.0	.5	1.0	.0	.5
15	14.0	11.5	12.5	2.0	.5	1.5	.5	.0	.0	---	---	---
16	14.5	10.0	11.5	3.5	1.0	2.0	.5	.0	.0	---	---	---
17	13.0	8.5	10.5	2.5	.5	1.5	1.0	.0	.0	2.0	1.0	1.5
18	12.5	8.0	10.0	2.5	.5	1.5	1.0	.0	.0	1.5	1.0	1.5
19	9.5	7.5	8.5	2.5	.0	1.0	1.5	.0	.5	2.0	1.0	1.5
20	11.0	6.0	8.0	---	---	---	1.5	.0	.5	1.5	.5	1.0
21	10.0	7.0	8.5	---	---	---	1.5	.0	.5	1.5	.0	.5
22	9.5	6.0	7.5	---	---	---	.0	.0	.0	1.0	.0	.5
23	6.5	4.0	5.5	---	---	---	.0	.0	.0	.5	.0	.0
24	7.0	5.0	6.0	---	---	---	.5	.0	.0	1.5	.0	.5
25	7.5	6.5	7.0	1.0	.0	1.0	.5	.0	.5	2.0	.0	1.0
26	7.5	6.0	6.5	2.5	.0	1.5	1.5	.5	1.0	1.5	.0	.5
27	8.5	6.5	7.5	3.0	1.5	2.0	2.0	1.0	1.5	.5	.0	.5
28	7.5	5.0	6.5	2.0	1.5	2.0	2.0	.0	1.0	1.0	.0	.5
29	7.5	4.0	5.5	4.0	2.0	2.5	.5	.0	.0	2.0	.0	.5
30	8.5	5.0	6.5	2.5	2.0	2.5	.0	.0	.0	2.0	.5	1.5
31	8.5	4.5	6.5	---	---	---	.0	.0	.0	3.0	1.0	1.5
MONTH	19.5	4.0	10.5	---	---	---	3.0	.0	1.0	---	---	---



## DELAWARE RIVER BASIN

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01436690 NEVERSINK RIVER AT BRIDGEVILLE, NY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

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



## DELAWARE RIVER BASIN

## 01437500 NEVERSINK RIVER AT GODEFFROY, NY

**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.

**DRAINAGE AREA.**--307 mi<sup>2</sup>.

**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 mi<sup>2</sup> 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 prior to regulation, 24,500 ft<sup>3</sup>/s, Nov. 26, 1950, gage height, 11.79 ft; maximum discharge since regulation, 33,000 ft<sup>3</sup>/s, Aug. 19, 1955, gage height, 12.49 ft, from rating curve extended above 11,000 ft<sup>3</sup>/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, 7,560 ft<sup>3</sup>/s, June 15, gage height, 8.55 ft; minimum, 49 ft<sup>3</sup>/s, Oct. 11, gage height, 3.36 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	116	163	648	e285	378	883	485	446	555	2590	129	104
2	101	734	523	e290	360	832	859	559	392	1040	124	90
3	75	617	439	299	352	735	665	775	755	729	118	97
4	70	409	421	345	354	660	600	886	537	603	115	88
5	68	326	414	564	387	600	545	807	425	552	118	83
6	67	288	397	857	381	551	497	982	360	488	132	80
7	63	264	364	1310	359	514	461	894	317	426	137	86
8	59	261	339	2220	336	496	436	796	293	405	134	110
9	60	569	318	2590	318	978	525	860	272	450	130	91
10	66	608	306	1770	314	2160	1390	2510	251	385	125	84
11	60	483	310	1330	308	1320	928	4310	237	334	151	85
12	59	427	297	1080	599	1010	767	3960	332	296	131	85
13	82	380	288	913	732	855	683	2400	933	267	112	82
14	82	370	271	792	603	771	614	1850	3890	247	109	79
15	95	355	e230	679	e490	700	594	1330	5980	259	111	80
16	83	323	e230	716	e430	633	615	1010	4670	257	119	99
17	71	299	e220	686	e450	579	546	821	3240	230	117	94
18	68	279	e210	614	667	576	513	703	2570	207	120	73
19	75	298	e210	559	896	793	484	603	1800	196	122	69
20	78	272	e200	520	863	866	1300	540	1140	212	113	68
21	74	264	e190	480	775	864	975	473	991	237	108	85
22	86	335	e160	443	699	809	739	418	799	223	108	160
23	86	470	213	430	645	714	655	379	688	209	106	115
24	75	409	216	511	733	663	608	339	605	199	106	97
25	93	367	271	577	835	627	526	330	530	176	102	91
26	117	337	397	506	782	605	509	379	465	152	107	90
27	144	351	383	466	781	628	625	321	409	144	107	95
28	211	346	347	440	753	609	516	290	358	139	119	143
29	184	333	306	411	---	542	468	273	319	139	126	123
30	155	351	e295	412	---	502	438	323	1020	140	123	102
31	124	---	e290	400	---	463	---	298	---	132	110	---
TOTAL	2847	11288	9703	23495	15580	23538	19566	30865	35133	12063	3689	2828
MEAN	91.8	376	313	758	556	759	652	996	1171	389	119	94.3
MAX	211	734	648	2590	896	2160	1390	4310	5980	2590	151	160
MIN	59	163	160	285	308	463	436	273	237	132	102	68

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1998, BY WATER YEAR (WY)**

	MEAN	299	386	447	376	414	685	844	550	381	238	223	213
	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	91.8	86.3	119	72.6	118	297	248	180	111	54.2	76.0	71.1
	(WY)	1998	1966	1981	1981	1980	1981	1985	1962	1957	1966	1968	1972

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR	FOR 1998 WATER YEAR	WATER YEARS 1954 - 1998
ANNUAL TOTAL	125111	190595	
ANNUAL MEAN	343	522	421
HIGHEST ANNUAL MEAN			704
LOWEST ANNUAL MEAN			215
HIGHEST DAILY MEAN	1800	5980	15900
LOWEST DAILY MEAN	59	59	32
ANNUAL SEVEN-DAY MINIMUM	62	62	38
10 PERCENT EXCEEDS	640	895	878
50 PERCENT EXCEEDS	290	367	272
90 PERCENT EXCEEDS	95	90	107

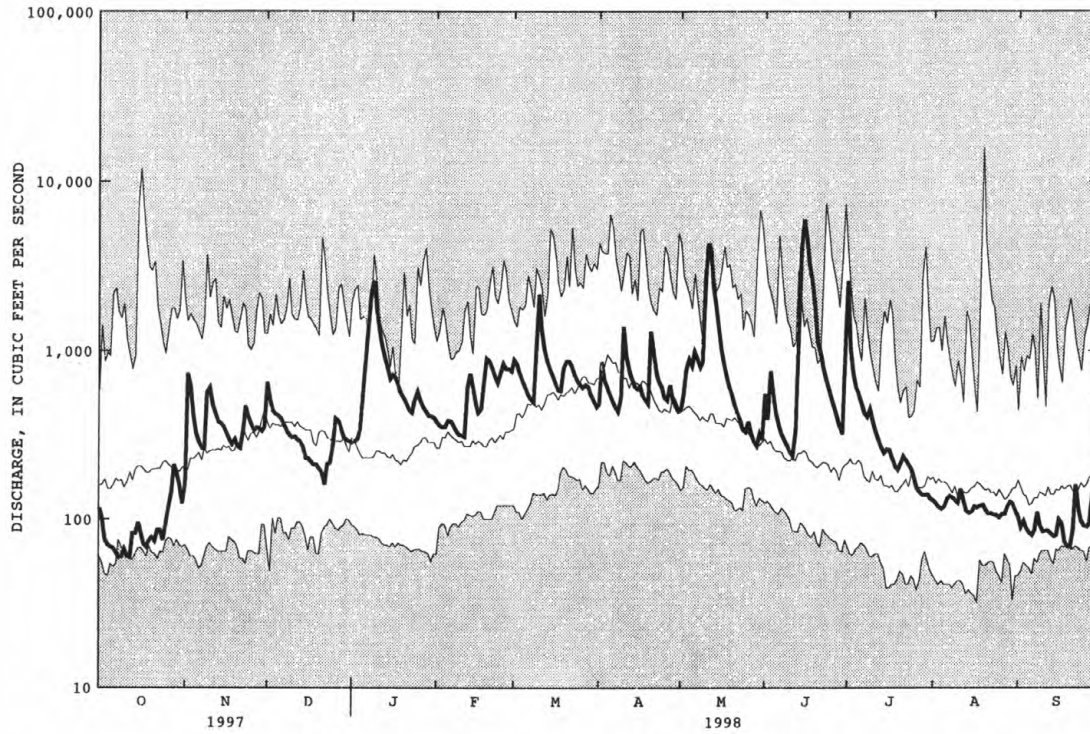
e Estimated



DELAWARE RIVER BASIN

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01437500 NEVERSINK RIVER AT GODEFFROY, NY--Continued



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



## DELAWARE RIVER BASIN

## 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 mi<sup>2</sup>.

**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. 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 1997 TO SEPTEMBER 1998  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1670	1510	5130	3980	3350	10900	10500	6700	6670	17900	1840	1750
2	1740	1930	6570	3330	3570	15100	15600	6330	5780	14800	1820	1730
3	2550	2210	5400	3710	3980	14500	15300	6870	7960	11400	2010	1830
4	1700	2960	4630	3480	4060	12500	12500	10700	7640	9290	1900	1940
5	1650	2520	4370	6290	4080	11000	10900	11600	5660	7680	1830	1940
6	1640	2070	4490	10900	4130	9760	9140	11700	4440	7710	1780	1880
7	2630	1840	3990	15900	3690	8860	8250	12100	3470	6450	1980	2000
8	2530	1770	3630	23600	2840	8170	7970	11400	3190	5420	2080	1990
9	2000	2040	3560	39100	3150	10900	8440	10600	3350	8120	2020	1530
10	1660	3190	3110	31200	3600	28200	17300	15100	3490	13400	2000	1370
11	1650	3890	2900	19400	3460	29000	17000	30600	3640	11500	2060	1530
12	1610	3090	2940	13600	5430	20400	12800	32100	4170	8980	1910	1660
13	1750	2560	2750	11000	8630	15800	11200	24900	7930	7460	2080	2120
14	1810	2420	2450	9530	7680	13300	10100	19100	14700	6630	1940	1900
15	1950	2460	2240	7990	5380	11500	9470	15200	20300	5320	2030	2070
16	1850	2340	2170	8750	5260	10300	9020	12000	23900	4590	2010	1890
17	1750	2170	2440	10800	5780	9040	8180	9840	21500	4370	2120	1840
18	1740	1990	2240	9230	6420	8690	7510	8810	20700	3570	2170	1880
19	1770	1870	2060	8010	8660	9940	6780	8090	17800	3000	2300	1500
20	1750	1820	2130	7110	10200	11100	14200	7050	14400	3160	1970	1890
21	1870	1820	2120	6660	8950	11200	18700	6320	12200	3320	1910	1810
22	1750	1930	1890	5780	7500	12900	15400	5130	9790	3440	1830	2100
23	1790	3010	2260	5540	7160	11900	13800	4280	8870	3020	1760	1860
24	1780	3980	2110	5660	8330	10700	12400	3500	7530	2780	1840	2030
25	1950	3650	2300	6180	9590	10100	9910	3180	6760	2460	2030	1870
26	1800	3140	3040	5590	9200	9150	8070	3820	5950	1940	2240	1860
27	1920	2870	3750	5130	9000	11100	9220	4330	4790	1720	1740	1870
28	1580	3170	3730	4960	8470	12900	8910	3640	4170	2130	2150	1790
29	1410	3320	3560	4780	---	13200	7960	3310	3740	2250	1800	2180
30	1620	3270	4100	4740	---	12500	7280	3020	4280	2060	1710	1860
31	1480	---	4080	4250	---	11200	---	2920	---	2070	1790	---
TOTAL	56350	76810	102140	306180	171550	395810	333810	314240	268770	187940	60650	55470
MEAN	1818	2560	3295	9877	6127	12770	11130	10140	8959	6063	1956	1849
MAX	2630	3980	6570	39100	10200	29000	18700	32100	23900	17900	2300	2180
MIN	1410	1510	1890	3330	2840	8170	6780	2920	3190	1720	1710	1370

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

MEAN	3337	5169	6255	5914	5980	9999	11980	7452	4396	3086	2595	2637
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 1997 CALENDAR YEAR	FOR 1998 WATER YEAR	WATER YEARS 1940 - 1998
ANNUAL TOTAL	1614960	2329720	
ANNUAL MEAN	4425	6383	5728
HIGHEST ANNUAL MEAN			8621
LOWEST ANNUAL MEAN			2309
HIGHEST DAILY MEAN	19300	Apr 5	39100
LOWEST DAILY MEAN	1410	Oct 29	1370
ANNUAL SEVEN-DAY MINIMUM	1580	Sep 24	1620
INSTANTANEOUS PEAK FLOW			43800
INSTANTANEOUS PEAK STAGE		14.93	Jan 9
INSTANTANEOUS LOW FLOW		1150	Jan 9
10 PERCENT EXCEEDS	9280	13300	12100
50 PERCENT EXCEEDS	2860	3980	3450
90 PERCENT EXCEEDS	1670	1800	1600

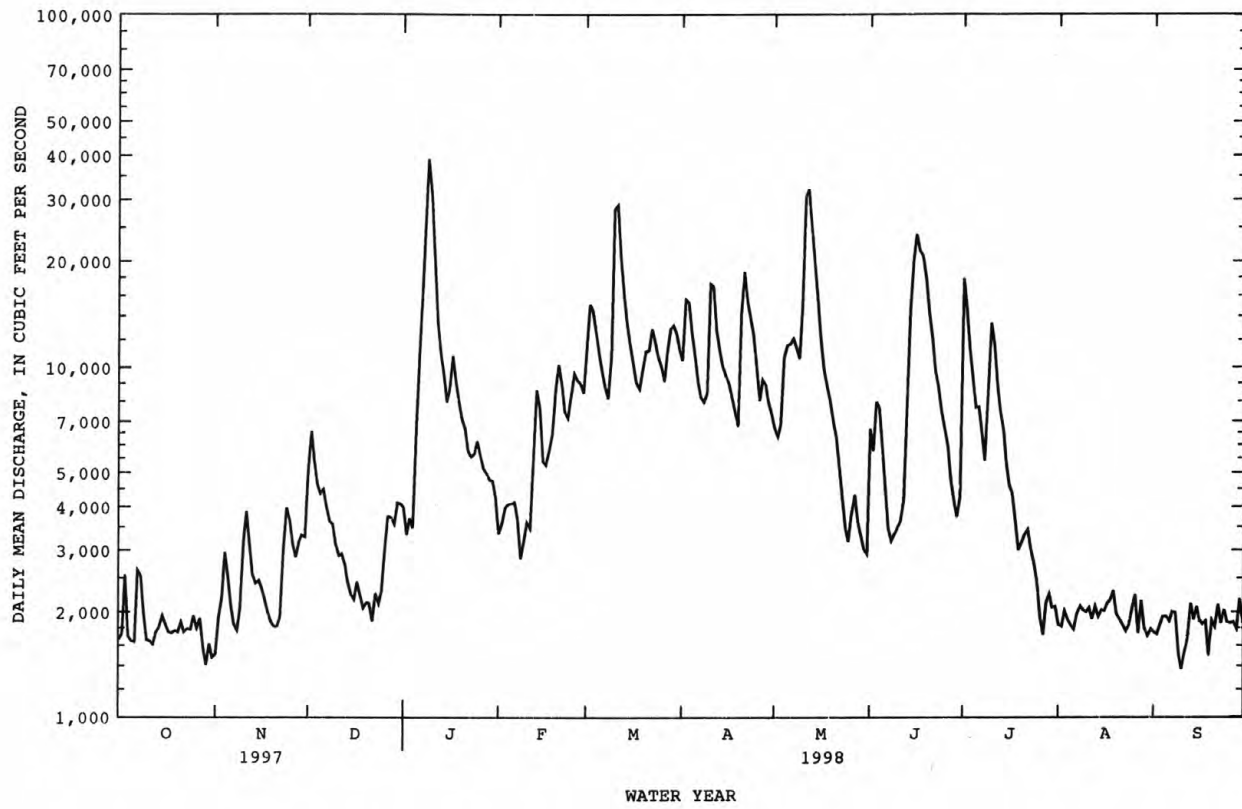
a From rating curve extended above 90,000 ft<sup>3</sup>/sec on basis of flood-routing study.



DELAWARE RIVER BASIN

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01438500 DELAWARE RIVER AT MONTAGUE, NJ--Continued





## 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 mi<sup>2</sup>. **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, 152,343 mil gal, June 16, elevation, 1,281.37 ft; minimum observed, 73,262 mil gal, Nov. 8, elevation, 1,229.81 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 mi<sup>2</sup>. **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, 103,688 mil gal, Mar. 11, elevation, 1,153.15 ft; minimum observed, 26,092 mil gal, Nov. 1, elevation, 1,088.45 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 mi<sup>2</sup>, 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 ft<sup>3</sup> 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 ft<sup>3</sup>. 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 ft<sup>3</sup>, Mar. 14, 1977, elevation, 1,071.8 ft; minimum observed (after first filling), -141.4 mil ft<sup>3</sup>, Dec. 2, 1938, elevation, 987.5 ft.

**EXTREMES FOR CURRENT YEAR.**--Maximum contents observed, 1,387.3 mil ft<sup>3</sup>, May 11, elevation, 1,070.0 ft; minimum observed, 912.2 mil ft<sup>3</sup>, Oct. 30, 31, Nov. 1, elevation, 1,057.1 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 mi<sup>2</sup>. **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 ft<sup>3</sup> 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 ft<sup>3</sup>. 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 ft<sup>3</sup>, July 20, 1945, elevation, 1,222.0 ft; minimum observed (after first filling), -26.8 mil ft<sup>3</sup>, Nov. 15, 1928, elevation, 1,144.5 ft.

**EXTREMES FOR CURRENT YEAR.**--Maximum contents observed, 974.7 mil ft<sup>3</sup>, July 15, elevation, 1,216.4 ft; minimum observed, 67.6 mil ft<sup>3</sup>, Nov. 24, elevation, 1,174.9 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 mi<sup>2</sup>, 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 ft<sup>3</sup> 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 ft<sup>3</sup>. 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 ft<sup>3</sup>, July 30, 31, 1945, elevation, 1,073.1 ft; minimum observed (after first filling), about -6.54 mil ft<sup>3</sup>, Mar. 16, 1963, elevation, 1,038.0 ft.

**EXTREMES FOR CURRENT YEAR.**--Maximum contents observed, 118.88 mil ft<sup>3</sup>, May 13, 15, elevation, 1,069.9 ft; minimum observed, 41.08 mil ft<sup>3</sup>, Oct. 29, 31, elevation, 1,057.3 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 mi<sup>2</sup>. **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, 37,783 mil gal, June 15, elevation, 1,441.28 ft; minimum observed, 13,074 mil gal, Nov. 1, elevation, 1,376.52 ft.

**MONTH-END ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998**

Date	Elevation (feet) ††	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)	Elevation (feet) ††	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)	Elevation (feet) †	Contents (million ft <sup>3</sup> )	Change in contents (equivalent in ft <sup>3</sup> /s)
<b>01416900 Pepacton Reservoir</b>				<b>01424997 Cannonsville Reservoir</b>			<b>01433000 Swinging Bridge Reservoir</b>		
Sept. 30	1,245.63	93,880		1,107.58	43,846		1,060.0	1,010.3	
Oct. 31	1,230.74	74,385	- 973	1,088.45	26,092	- 886	1,057.1	912.2	- 36.6
Nov. 30	1,231.17	74,908	+ 27.0	1,098.08	34,401	+ 429	1,066.2	1,237.0	+125
Dec. 31	1,234.48	79,008	+ 205	1,107.40	43,657	+ 462	1,064.3	1,165.1	- 26.8
CAL YR 1997	-	-	- 303	-	-	- 243	-	-	- 2.0
Jan. 31	1,257.62	111,694	+1,631	1,143.78	89,249	+2,276	1,065.2	1,198.9	+ 12.6
Feb. 28	1,259.69	114,961	+ 181	1,150.94	100,130	+ 601	1,063.3	1,128.1	- 29.2
Mar. 31	1,275.88	142,310	+1,365	1,151.99	101,821	+ 84.4	1,066.4	1,244.7	+ 43.5
Apr. 30	1,280.25	150,262	+ 410	1,151.19	100,533	- 66.4	1,066.3	1,240.9	- 1.5
May 31	1,279.79	149,413	- 42.4	1,149.68	98,131	- 120	1,064.4	1,168.9	- 26.9
June 30	1,280.33	150,410	+ 51.4	1,151.32	100,742	+ 135	1,069.2	1,355.0	+ 71.8
July 31	1,277.15	144,595	- 290	1,147.06	94,145	- 329	1,060.6	1,031.3	-121
Aug. 31	1,269.03	130,344	- 711	1,128.89	68,842	-1,263	1,062.6	1,102.6	+ 26.6
Sept. 30	1,261.03	117,101	- 683	1,115.94	53,046	- 815	1,058.3	952.2	- 58.0
WTR YR 1998	-	-	+ 98.4	-	-	+ 39.0	-	-	- 1.8
Date	Elevation (feet) †	Contents (million ft <sup>3</sup> )	Change in contents (equivalent in ft <sup>3</sup> /s)	Elevation (feet) †	Contents (million ft <sup>3</sup> )	Change in contents (equivalent in ft <sup>3</sup> /s)	Elevation (feet) ††	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)
<b>01433100 Toronto Reservoir</b>				<b>01433200 Cliff Lake</b>			<b>01435900 Neversink Reservoir</b>		
Sept. 30	1,183.8	191.9		1,060.4	56.12		1,391.26	17,411	
Oct. 31	1,177.6	100.1	- 34.3	1,057.3	41.08	- 5.6	1,376.52	13,074	-216
Nov. 30	1,175.1	69.8	- 11.7	1,065.8	88.94	+18.5	1,393.35	18,088	+259
Dec. 31	1,178.7	114.8	+ 16.8	1,064.3	79.18	- 3.6	1,396.94	19,284	+ 59.7
CAL YR 1997	-	-	- 31.4	-	-	- 0.7	-	-	- 71.7
Jan. 31	1,190.3	304.2	+ 70.7	1,066.0	90.26	+ 4.1	1,418.71	27,505	+410
Feb. 28	1,194.1	380.5	+ 31.5	1,063.3	72.92	- 7.2	1,416.19	26,472	- 57.1
Mar. 31	1,202.2	571.6	+ 71.4	1,067.1	97.88	+ 9.3	1,430.37	32,569	+304
Apr. 30	1,208.0	725.2	+ 59.3	1,066.6	94.40	- 1.3	1,435.22	34,829	+117
May 31	1,212.9	864.8	+ 52.1	1,065.0	83.66	- 4.0	1,439.00	36,653	+ 91.0
June 30	1,215.3	938.9	+ 28.6	1,069.1	112.64	+11.2	1,439.52	36,910	+ 13.3
July 31	1,212.4	850.1	- 33.2	1,065.7	88.28	- 9.1	1,436.35	35,368	- 77.0
Aug. 31	1,197.0	444.9	-151	1,067.2	98.60	+ 3.8	1,423.98	29,733	-281
Sept. 30	1,190.0	298.5	- 56.5	1,060.1	54.50	-17.0	1,403.03	21,422	-429
WTR YR 1998	-	-	+ 3.4	-	-	- 0.1	-	-	+ 17.0

†† 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.

01423900 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 1997 TO SEPTEMBER 1998

Month	01415200 <u>Pepacton Reservoir</u>	01423900 <u>Cannonsville Reservoir</u>	01435800 <u>Neversink Reservoir</u>
October.....	699	281	257
November.....	600	0.0	81.6
December.....	327	134	82.5
CAL YR 1997	605	182	249
January.....	283	0.0	140
February.....	372	42.0	228
March.....	234	76.4	190
April.....	150	0.0	259
May.....	284	105	242
June.....	399	244	143
July.....	637	324	202
August.....	690	390	259
September.....	696	0.0	411
WTR YR 1998	448	135	207



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 mi<sup>2</sup>.

**PERIOD OF RECORD.**---November 1992 to current year.

**GAGE.**---Water-stage recorder. Datum of gage is 477.54 ft above sea level.

**REMARKS.**---No estimated daily discharges. Records good. 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, 11,700 ft<sup>3</sup>/s, Jan. 8, 1998, gage height, 12.62 ft; minimum discharge not determined.

**EXTREMES OUTSIDE PERIOD OF RECORD.**---Maximum discharge, 24,800 ft<sup>3</sup>/s, Dec. 29, 1984, gage height, 16.36 ft, on basis of contracted-opening measurement of peak flow.

**EXTREMES FOR CURRENT YEAR.**---Maximum discharge, 11,700 ft<sup>3</sup>/s, Jan. 8, gage height, 12.62 ft; minimum, 107 ft<sup>3</sup>/s, May 17, gage height, 5.02 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	517	457	1010	462	471	1230	4020	282	243	507	775	371
2	466	571	939	433	466	1250	3860	238	200	493	709	394
3	426	955	898	440	754	1260	3320	261	194	489	267	395
4	422	1890	912	505	786	1450	1820	255	189	478	205	392
5	459	1810	923	688	786	1440	1210	248	186	513	202	391
6	437	1750	910	2340	785	1410	1050	241	183	488	205	389
7	422	1800	890	5890	783	1380	871	235	186	470	202	397
8	412	1820	872	9880	605	1470	843	230	191	479	199	397
9	403	1790	862	8530	349	2140	833	226	192	468	196	397
10	425	1500	508	4840	347	2330	827	232	187	457	209	413
11	414	1140	457	2450	345	2250	817	260	185	789	244	417
12	417	923	452	2310	389	2180	809	249	202	720	220	409
13	414	574	455	2250	470	2130	800	235	238	280	207	430
14	416	485	453	2180	666	2110	788	254	282	210	201	425
15	412	449	486	1430	652	2090	784	251	298	208	200	412
16	388	449	441	670	650	2070	782	221	292	209	198	404
17	390	447	440	546	651	1800	789	203	347	406	200	710
18	388	439	436	531	735	1080	634	216	552	762	198	421
19	383	438	435	521	815	1130	611	212	398	702	196	396
20	378	440	435	518	893	1160	629	212	251	278	195	401
21	386	441	424	510	1150	1150	619	208	227	218	194	387
22	403	450	419	523	1090	1130	612	208	221	213	194	401
23	420	458	425	493	1060	989	606	416	220	239	202	395
24	426	472	426	496	1060	533	586	710	224	228	323	393
25	430	460	449	494	1060	522	381	522	221	215	484	399
26	434	467	478	483	1060	529	373	209	416	208	355	401
27	500	539	479	494	1050	663	368	205	796	203	238	428
28	573	532	461	482	1060	1280	358	204	811	201	226	399
29	518	576	447	475	---	1550	356	215	490	210	218	397
30	486	940	441	483	---	3830	336	220	485	213	211	396
31	465	---	437	477	---	4010	---	220	---	217	202	---
TOTAL	13430	25462	18100	52824	20988	49546	30692	8098	9107	11771	8075	12357
MEAN	433	849	584	1704	750	1598	1023	261	304	380	260	412
MAX	573	1890	1010	9880	1150	4010	4020	710	811	789	775	710
MIN	378	438	419	433	345	522	336	203	183	201	194	371

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1998, BY WATER YEAR (WY)

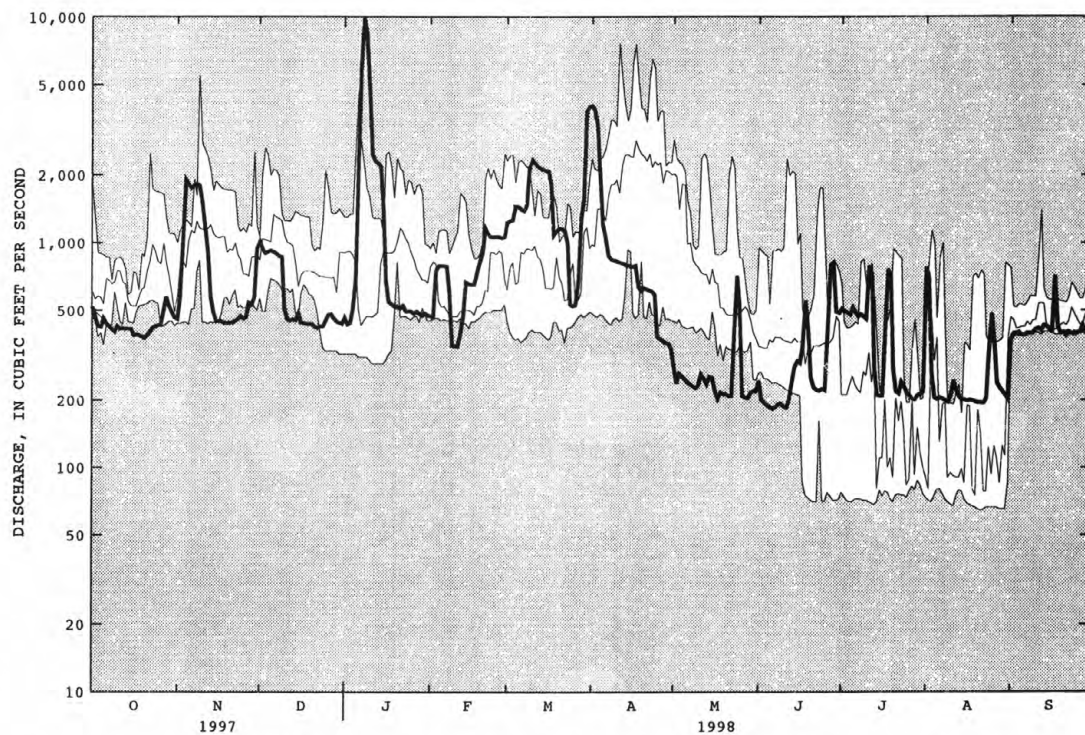
	1993	1994	1995	1996	1997	1998
MEAN	668	974	883	1067	761	1027
MAX	822	1295	1397	1704	1291	1598
(WY)	1996	1996	1997	1998	1996	1998
MIN	433	680	559	548	532	549
(WY)	1998	1994	1996	1994	1995	1993

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR	FOR 1998 WATER YEAR	WATER YEARS 1993 - 1998
ANNUAL TOTAL	296660	260450	
ANNUAL MEAN	813	714	776
HIGHEST ANNUAL MEAN			920
LOWEST ANNUAL MEAN			548
HIGHEST DAILY MEAN	3510	9880	9880
LOWEST DAILY MEAN	175	183	64
ANNUAL SEVEN-DAY MINIMUM	182	187	65
10 PERCENT EXCEEDS	1900	1420	1720
50 PERCENT EXCEEDS	500	449	520
90 PERCENT EXCEEDS	210	208	194



## STREAMS TRIBUTARY TO LAKE ONTARIO

04250200 SALMON RIVER AT PINEVILLE, NY--Continued



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



STREAMS TRIBUTARY TO LAKE ONTARIO

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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 mi<sup>2</sup>.

**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 ft<sup>3</sup>/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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 12,800 ft<sup>3</sup>/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 ft<sup>3</sup>/s, Aug. 26, 1918, gage height, 2.40 ft.

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 3,900 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 9	0800	*12,100	*11.25	Apr. 2	1645	5,720	9.34

Minimum discharge, 157 ft<sup>3</sup>/s, Sept. 23, 24, gage height, 3.86 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	852	396	1310	e410	541	1120	5040	446	432	595	338	338
2	570	468	1140	e420	520	1380	5490	476	456	577	294	337
3	451	799	866	e460	502	1230	4390	685	419	486	264	349
4	537	837	854	e620	480	1080	3300	1400	369	452	255	343
5	767	1040	769	1030	e460	952	2330	1560	327	748	241	319
6	935	862	682	1490	e450	817	1530	1090	291	608	230	291
7	801	773	615	2380	e440	776	1300	925	288	489	255	312
8	577	696	565	6940	e430	723	1180	796	279	540	272	324
9	473	810	524	11000	e420	1420	1130	682	280	480	249	313
10	371	961	452	7600	e410	3380	1030	757	266	420	244	294
11	348	666	498	4410	e420	2970	923	1020	251	364	613	270
12	347	579	445	2700	e660	1940	851	995	333	336	1020	251
13	314	508	e400	1970	e1000	e1300	793	734	1160	313	617	258
14	315	513	e360	1360	818	e1150	709	578	1780	293	411	246
15	315	506	e330	990	589	e1000	661	493	1990	282	415	246
16	313	497	e380	e900	e550	803	655	451	2390	265	409	262
17	289	464	e390	e800	e600	802	624	390	2860	269	341	244
18	279	459	e370	e740	e750	790	719	368	3130	261	290	206
19	288	397	e350	e700	1060	973	e600	354	2150	243	271	190
20	296	459	e330	e660	1180	1270	e600	347	1160	270	252	177
21	290	432	e310	e600	989	1220	e620	323	1070	297	240	177
22	288	468	e310	e560	790	1030	e740	312	1160	501	236	170
23	309	509	e320	e540	664	909	790	314	852	900	238	162
24	307	532	e370	e530	684	836	667	304	738	1340	913	161
25	308	415	e450	e520	628	797	675	303	606	750	1740	169
26	334	511	e560	e500	781	826	639	293	738	482	1480	170
27	595	905	e600	e500	664	1200	546	295	1360	374	666	254
28	849	858	e580	e520	662	2140	514	284	1070	321	476	260
29	684	712	e500	e540	---	3890	486	289	702	322	377	226
30	643	759	e460	e540	---	4760	453	313	604	384	373	215
31	568	---	e420	546	---	4870	---	310	---	367	350	---
TOTAL	14613	18791	16510	53476	18142	48354	39985	17887	29511	14329	14370	7534
MEAN	471	626	533	1725	648	1560	1333	577	984	462	464	251
MAX	935	1040	1310	11000	1180	4870	5490	1560	3130	1340	1740	349
MIN	279	396	310	410	410	723	453	284	251	243	230	161

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1998, BY WATER YEAR (WY)

	MEAN	MAX	MIN	(WY)	(WY)	(WY)	(WY)	(WY)	(WY)	(WY)	(WY)	(WY)
MEAN	538	744	735	651	574	1023	1890	983	512	355	285	381
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

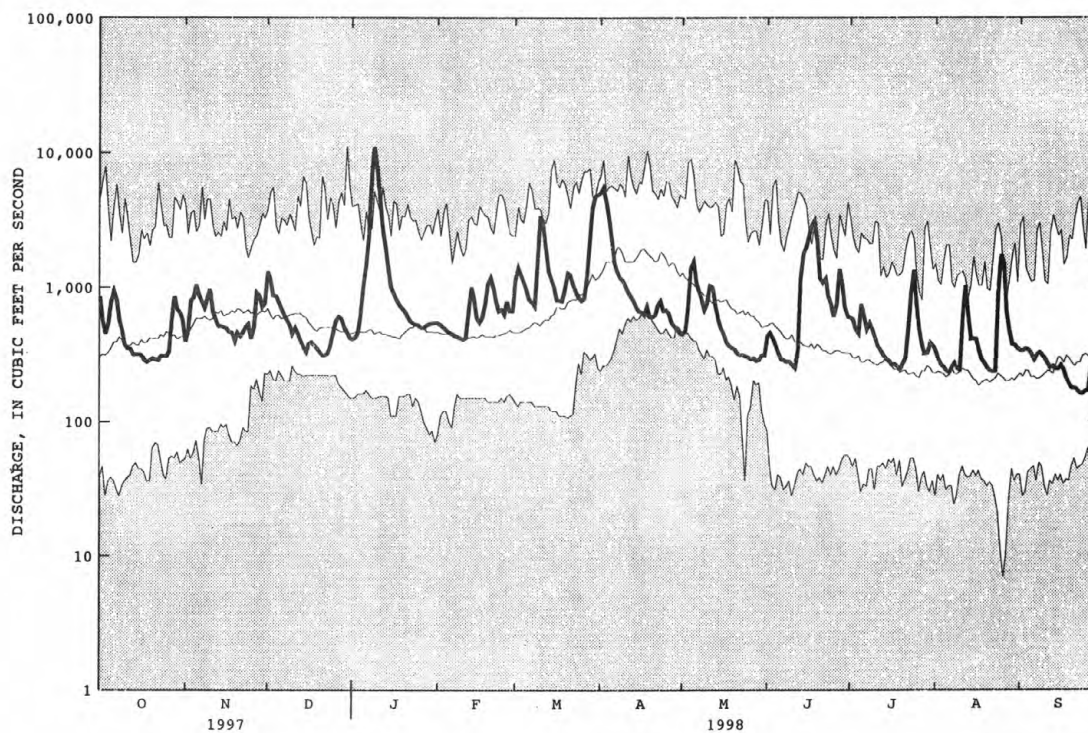
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## STREAMS TRIBUTARY TO LAKE ONTARIO

## 04252500 BLACK RIVER NEAR BOONVILLE, NY--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1911 - 1998	
ANNUAL TOTAL	276709		293502		722	
ANNUAL MEAN	758		804		1119	
HIGHEST ANNUAL MEAN					448	
LOWEST ANNUAL MEAN					11100	
HIGHEST DAILY MEAN	4960	Apr 7	11000	Jan 9	7.0	1976
LOWEST DAILY MEAN	147	Aug 31	161	Sep 24		1931
ANNUAL SEVEN-DAY MINIMUM	153	Aug 4	169	Sep 20		1984
10 PERCENT EXCEEDS	1680		1320		19	1918
50 PERCENT EXCEEDS	560		530		1550	
90 PERCENT EXCEEDS	194		270		470	
					169	



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



**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.

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

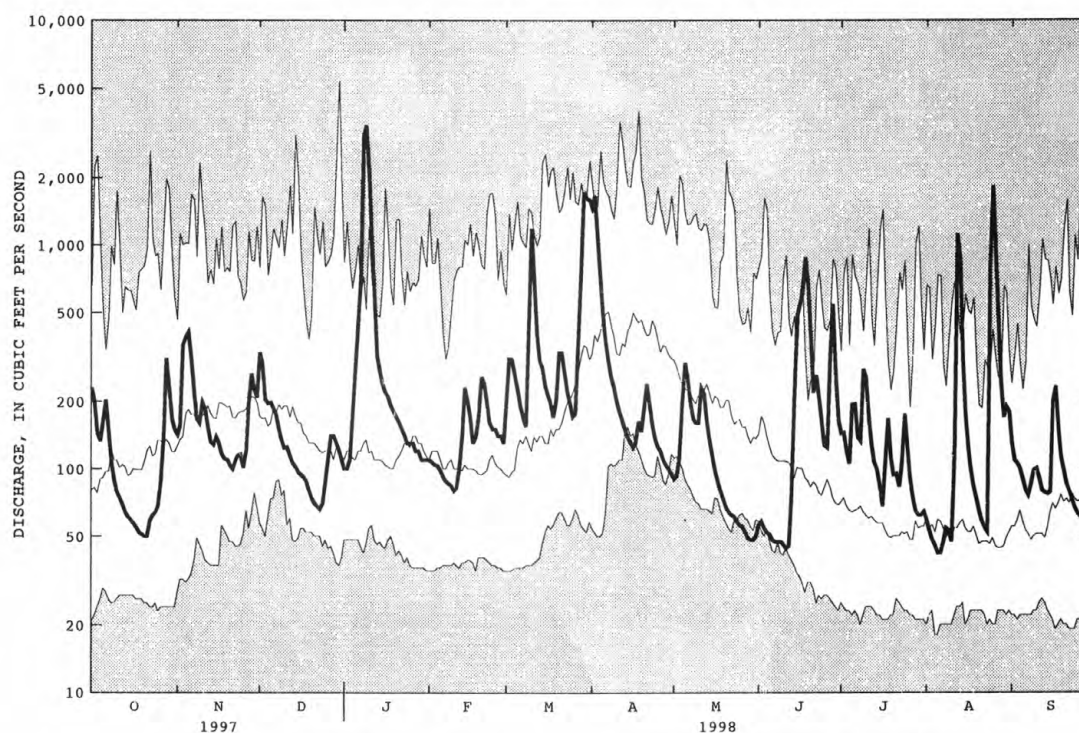
e Estimated



## STREAMS TRIBUTARY TO LAKE ONTARIO

## 04256000 INDEPENDENCE RIVER AT DONNATTSBURG, NY--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1942 - 1998	
ANNUAL TOTAL	66244		80768		197	
ANNUAL MEAN	181		221		292	
HIGHEST ANNUAL MEAN					132	
LOWEST ANNUAL MEAN					1947	
HIGHEST DAILY MEAN	1660	Apr 7	3420	Jan 9	5410	Dec 30 1984
LOWEST DAILY MEAN	32	Aug 11	42	Aug 5	18	Aug 4 1949
ANNUAL SEVEN-DAY MINIMUM	36	Jul 30	46	Jun 6	20	Aug 4 1949
ANNUAL RUNOFF (CFSM)	2.05		2.49		2.22	
ANNUAL RUNOFF (INCHES)	27.78		33.87		30.21	
10 PERCENT EXCEEDS	354		346		418	
50 PERCENT EXCEEDS	130		130		120	
90 PERCENT EXCEEDS	49		58		42	



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



## STREAMS TRIBUTARY TO LAKE ONTARIO

345

## 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 mi<sup>2</sup>.

**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 ft<sup>3</sup> 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 ft<sup>3</sup>, 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 ft<sup>3</sup>; minimum observed since first filling, 1,644.80 ft, Mar. 25-27, 1949, contents, 8 mil ft<sup>3</sup>.

**EXTREMES FOR CURRENT YEAR.**--Maximum observed elevation, 1,678.90 ft, July 1, 2, contents, 4,597 mil ft<sup>3</sup>; minimum observed, 1,668.80 ft, Oct. 27, contents, 2,193 mil ft<sup>3</sup>.

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 1997 TO SEPTEMBER 1998**  
**DAILY OBSERVATION AT 0800 HOURS**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1669.62	1668.98	1670.19	1670.17	1675.96	1670.26	1674.29	1677.31	1676.44	1678.90	1676.44	1677.89
2	1669.64	1669.02	1670.26	1670.14	1675.77	1670.07	1675.34	1677.29	1676.35	1678.90	1676.36	1677.81
3	1669.64	1669.15	1670.31	1670.10	1675.57	1669.96	1676.27	1677.31	1676.26	1678.87	1676.25	1677.71
4	1669.64	1669.30	1670.33	1670.13	1675.37	1669.84	1676.93	1677.38	1676.14	1678.80	1676.14	1677.61
5	1669.62	1669.47	1670.37	1670.24	1675.17	1669.73	1677.42	1677.43	1676.05	1678.77	1676.04	1677.48
6	1669.74	1669.62	1670.42	1670.42	1674.95	1669.68	1677.75	1677.48	1676.00	1678.75	1675.93	1677.34
7	1669.77	1669.70	1670.45	1670.93	1674.74	1669.69	1677.96	1677.51	1675.94	1678.68	1675.87	1677.22
8	1669.77	1669.75	1670.47	1671.78	1674.54	1669.69	1678.17	1677.53	1675.90	1678.62	1675.78	1677.09
9	1669.75	1669.77	1670.48	1673.71	1674.33	1669.73	1678.29	1677.55	1675.84	1678.57	1675.68	1676.96
10	1669.71	1669.83	1670.48	1675.01	1674.12	1669.88	1678.38	1677.56	1675.78	1678.52	1675.57	1676.83
11	1669.68	1669.88	1670.46	1675.95	1673.89	1670.43	1678.39	1677.63	1675.72	1678.45	1675.61	1676.71
12	1669.62	1669.89	1670.45	1676.47	1673.68	1670.62	1678.37	1677.70	1675.66	1678.37	1675.92	1676.57
13	1669.58	1669.91	1670.43	1676.79	1673.56	1670.75	1678.36	1677.69	1675.63	1678.21	1676.65	1676.44
14	1669.52	1669.92	1670.43	1677.08	1673.38	1670.86	1678.32	1677.68	1675.67	1678.15	1676.87	1676.30
15	1669.47	1669.96	1670.41	1677.23	1673.18	1670.96	1678.27	1677.67	1675.77	1678.02	1676.93	1676.16
16	1669.41	1669.96	1670.39	1677.37	1672.97	1671.03	1678.21	1677.66	1676.04	1677.89	1676.95	1676.17
17	1669.34	1669.96	1670.35	1677.41	1672.74	1670.99	1678.15	1677.64	1676.33	1677.88	1676.95	1676.24
18	1669.28	1669.97	1670.32	1677.37	1672.54	1670.90	1678.10	1677.60	1676.69	1677.83	1676.94	1676.19
19	1669.21	1669.97	1670.28	1677.31	1672.33	1670.82	1678.04	1677.57	1677.01	1677.71	1676.91	1676.10
20	1669.14	1669.94	1670.24	1677.23	1672.15	1670.82	1678.02	1677.54	1677.23	1677.58	1676.87	1675.98
21	1669.07	1669.94	1670.20	1677.13	1671.96	1670.82	1677.99	1677.49	1677.37	1677.45	1676.83	1675.86
22	1669.00	1669.94	1670.17	1677.06	1671.75	1670.84	1677.94	1677.42	1677.50	1677.36	1676.72	1675.75
23	1668.98	1669.95	1670.11	1676.97	1671.55	1670.82	1677.88	1677.30	1677.63	1677.28	1676.58	1675.60
24	1668.92	1669.94	1670.08	1676.98	1671.30	1670.75	1677.81	1677.19	1677.76	1677.24	1676.45	1675.49
25	1668.87	1669.93	1670.05	1676.90	1671.15	1670.67	1677.71	1677.10	1677.87	1677.16	1677.47	1675.33
26	1668.82	1669.91	1670.07	1676.83	1670.95	1670.56	1677.62	1676.99	1677.94	1677.05	1677.92	1675.20
27	1668.80	1669.95	1670.10	1676.73	1670.72	1670.48	1677.52	1676.90	1678.33	1676.92	1678.11	1675.07
28	1668.84	1670.04	1670.12	1676.61	1670.49	1670.67	1677.41	1676.79	1678.72	1676.78	1678.12	1674.97
29	1668.93	1670.10	1670.11	1676.48	---	1671.34	1677.36	1676.70	1678.87	1676.66	1678.08	1674.84
30	1668.95	1670.13	1670.10	1676.32	---	1672.48	1677.33	1676.63	1678.86	1676.62	1678.00	1674.69
31	1668.97	---	1670.16	1676.14	---	1673.30	---	1676.53	---	1676.54	1677.97	---
MEAN	1669.33	1669.79	1670.28	1675.06	1673.24	1670.63	1677.65	1677.35	1676.78	1677.89	1676.74	1676.32
MAX	1669.77	1670.13	1670.48	1677.41	1675.96	1673.30	1678.39	1677.70	1678.87	1678.90	1678.12	1677.89
MIN	1668.80	1668.98	1670.05	1670.10	1670.49	1669.68	1674.29	1676.53	1675.63	1676.54	1675.57	1674.69
†	2228	2466	2466	3813	2500	3304	4156	3930	4594	3930	4321	3458
††	-46.3	+91.8	0.0	+503	-543	+300	+329	-84.4	+256	-248	+146	-333

CAL YR 1997 MEAN 1674.04 MAX 1678.89 MIN 1668.80 †† -48.9

WTR YR 1998 MEAN 1674.25 MAX 1678.90 MIN 1668.80 †† +35.1

† 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

## 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 mi<sup>2</sup>.

**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.**--No estimated daily discharges. Records good. 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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 5,100 ft<sup>3</sup>/s, May 21, 1969, gage height, 6.98 ft; minimum, 11 ft<sup>3</sup>/s, Jan. 22, 29, Feb. 4, 1967, gage height, 0.63 ft.

**EXTREMES FOR CURRENT YEAR.**--Maximum discharge, 4,440 ft<sup>3</sup>/s, Jan. 9, gage height, 6.56 ft; minimum, 170 ft<sup>3</sup>/s, Sept. 27, gage height, 1.77 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	655	465	666	434	853	1100	1490	430	477	1000	454	842
2	732	503	643	667	1010	1200	1600	452	463	990	429	734
3	621	635	570	339	978	1160	1490	477	520	982	396	744
4	511	775	537	469	978	1050	1060	641	598	963	470	733
5	554	675	494	887	934	1050	742	811	478	974	535	694
6	512	622	483	1140	971	755	705	822	441	960	494	779
7	464	697	477	1700	975	475	599	637	356	860	421	699
8	553	371	507	3120	917	457	784	405	343	836	522	783
9	646	443	514	3970	906	843	760	391	285	663	523	760
10	386	527	502	2420	890	1470	869	490	302	875	517	787
11	306	471	449	1520	914	1580	754	716	310	801	399	766
12	359	443	386	1130	994	1340	757	754	323	736	831	787
13	310	438	370	1020	1020	942	730	454	339	723	1390	790
14	321	405	305	847	1110	523	760	436	421	749	914	578
15	300	379	369	965	991	565	696	397	892	699	466	742
16	292	375	418	884	972	551	699	383	902	600	449	1090
17	317	413	408	834	947	919	763	387	963	650	474	1060
18	272	449	421	998	1020	881	817	385	990	719	360	1310
19	302	431	412	1140	1190	799	792	391	999	718	362	1010
20	327	462	522	1040	1210	1040	811	385	660	702	290	849
21	307	431	328	1010	1080	1040	850	310	443	640	335	617
22	354	460	353	1050	1080	1060	881	338	298	671	752	998
23	405	453	310	929	1040	895	825	441	293	643	681	1010
24	348	433	314	876	1030	879	847	470	366	770	1230	696
25	392	379	323	865	994	874	770	505	390	749	2210	604
26	401	424	436	848	1020	910	735	472	528	730	1520	353
27	453	524	712	842	998	937	719	523	1000	643	1070	418
28	622	618	333	820	1010	1160	611	489	1430	656	1010	765
29	567	617	374	840	---	1580	386	333	1280	495	937	532
30	577	533	490	857	---	1790	415	555	1050	474	939	693
31	413	---	441	839	---	1500	---	490	---	570	888	---
TOTAL	13579	14851	13867	35300	28032	31325	24717	15170	18140	23241	22268	23223
MEAN	438	495	447	1139	1001	1010	824	489	605	750	718	774
MAX	732	775	712	3970	1210	1790	1600	822	1430	1000	2210	1310
MIN	272	371	305	339	853	457	386	310	285	474	290	353

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1998, BY WATER YEAR (WY)**

	MEAN	512	580	653	690	704	705	812	717	517	492	521	507
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	

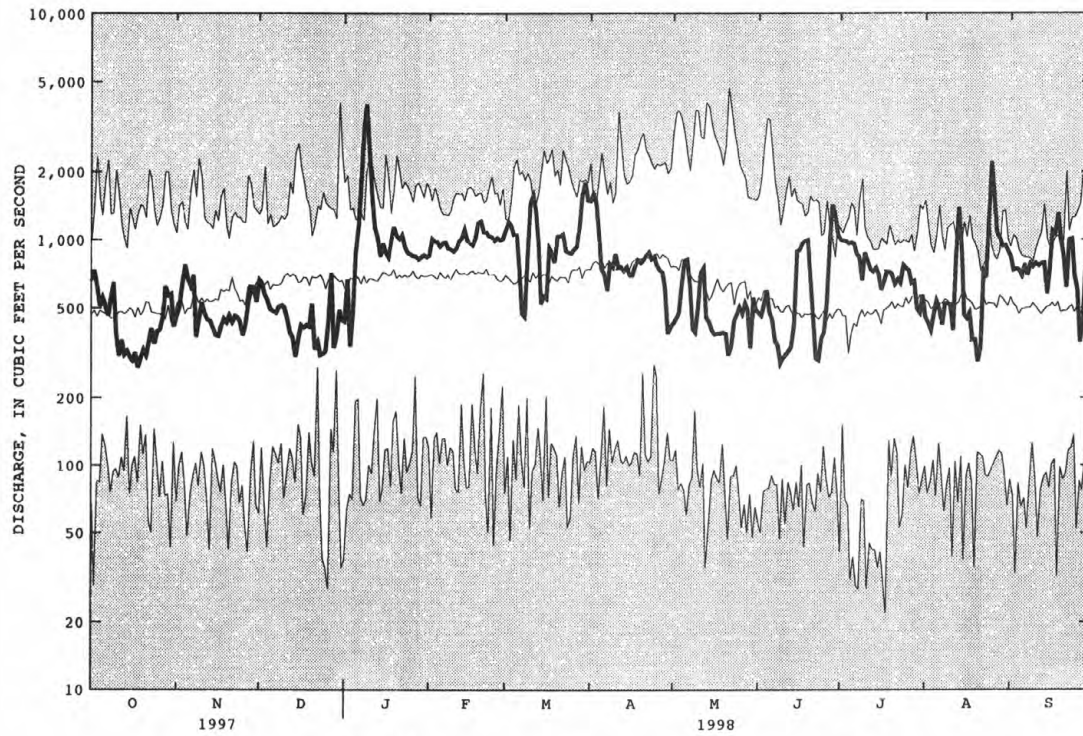
SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR	FOR 1998 WATER YEAR	WATER YEARS 1930 - 1998
ANNUAL TOTAL	241952	263713	
ANNUAL MEAN	663	723	617
HIGHEST ANNUAL MEAN			916
LOWEST ANNUAL MEAN			361
HIGHEST DAILY MEAN	1900	3970	4700
LOWEST DAILY MEAN	259	272	22
ANNUAL SEVEN-DAY MINIMUM	302	302	37
10 PERCENT EXCEEDS	1020	1060	977
50 PERCENT EXCEEDS	577	671	580
90 PERCENT EXCEEDS	342	360	283



STREAMS TRIBUTARY TO LAKE ONTARIO

347

04258000 BEAVER RIVER AT CROGHAN, NY--Continued



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



## STREAMS TRIBUTARY TO LAKE ONTARIO

## 04260500 BLACK RIVER AT WATERTOWN, NY

**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 mi<sup>2</sup>.

**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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 55,500 ft<sup>3</sup>/s, Jan. 10, 1998, gage height, 16.02 ft; minimum, 10 ft<sup>3</sup>/s, Sept. 2, 1934, gage height, 0.81 ft, present datum.

**EXTREMES OUTSIDE PERIOD OF RECORD.**--Maximum discharge, about 39,700 ft<sup>3</sup>/s, Apr. 23, 1869 (from New York State Museum Bulletin 85).

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

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 10	1145	*55,500	*16.02	Apr. 3	0630	25,600	10.21

Minimum discharge, 196 ft<sup>3</sup>/s, May 30, gage height, 1.32 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2730	2920	5680	e2000	3900	4870	23800	2360	1540	4070	1770	3600
2	3570	3190	6350	e2600	3820	6790	24900	2350	1880	3880	1650	3060
3	3310	5330	5670	e2500	3810	7790	25300	2580	2050	3990	1560	2650
4	2710	5830	5280	5320	3620	7840	23700	3360	1950	3400	1420	2440
5	2620	5870	5560	7160	3420	7080	20200	4770	1870	3560	1440	2350
6	3090	5510	5030	9910	3270	6230	16100	5340	1630	4240	1410	2040
7	3420	5010	4290	13400	3230	5230	12900	5320	1510	3860	1410	2180
8	2990	4170	3750	20600	3110	4470	10200	4660	1300	3250	1440	2060
9	2630	3250	3750	38000	2950	5190	8260	3770	1290	3080	1490	2170
10	2260	3760	3300	52000	2890	10200	6940	3540	1250	2980	1540	2280
11	1670	4040	3030	47000	2790	12500	6190	4130	1240	3010	1570	2410
12	1620	3610	3020	34600	3130	14600	5500	4940	1280	2760	2080	2300
13	1530	3180	2810	25000	4210	13900	4890	4870	1260	2380	5160	2140
14	1350	2910	2520	19500	e3900	11300	4410	3820	2550	2130	5290	2120
15	1320	2700	2050	13600	e3600	8160	3980	3230	5040	2140	4070	1940
16	1320	2570	2140	10700	e3500	e580	3790	2830	6110	1960	3090	2290
17	1340	2650	e2400	7960	3850	5660	3750	2550	6990	1770	2420	3100
18	1340	2690	e2300	7200	4140	5140	3780	2410	8380	1910	2030	3240
19	1320	2640	e2300	6730	5560	5100	3940	1800	9320	2070	1880	3150
20	1390	2470	e2400	6180	6580	6470	3910	1970	10100	1920	1710	2600
21	1470	2590	2320	5570	6530	6940	4840	1690	9390	1900	1500	2280
22	1510	2900	1970	4940	6270	6750	5110	1640	7230	1990	1450	1880
23	1530	3110	1740	e3500	5510	6140	4780	1450	6010	2100	1700	2140
24	1550	3130	1810	e2700	4830	5540	4210	1630	4560	2970	2720	2170
25	1550	3010	2130	e3100	4240	5060	3640	1660	3700	3790	6540	1930
26	1530	2720	3180	e3400	4290	4850	3600	1700	3420	3480	8610	1610
27	2230	4380	e3100	e3000	4560	7030	3400	1440	4470	2670	8390	1370
28	3550	5980	e3800	e3400	4310	10200	3220	1480	5330	2240	7690	1650
29	4140	5570	e3300	e3700	---	12900	2830	1450	5860	1860	6260	2100
30	3830	5100	2990	4090	---	16800	2540	1310	5110	1710	5010	1850
31	3290	---	2160	3980	---	22200	---	1600	---	1660	4280	---
TOTAL	69710	112790	102130	373340	115820	259510	254610	87650	123620	84730	98580	69100
MEAN	2249	3760	3295	12040	4136	8371	8487	2827	4121	2733	3180	2303
MAX	4140	5980	6350	52000	6580	22200	25300	5340	10100	4240	8610	3600
MIN	1320	2470	1740	2000	2790	4470	2540	1310	1240	1660	1410	1370

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1920 - 1998, BY WATER YEAR (WY)

MEAN	3118	4376	4461	4126	3637	6102	9927	5385	2730	2020	1762	2154
MAX	9058	8440	9944	12040	9181	13590	19180	12790	8235	5266	4083	5011
(WY)	1946	1989	1997	1998	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

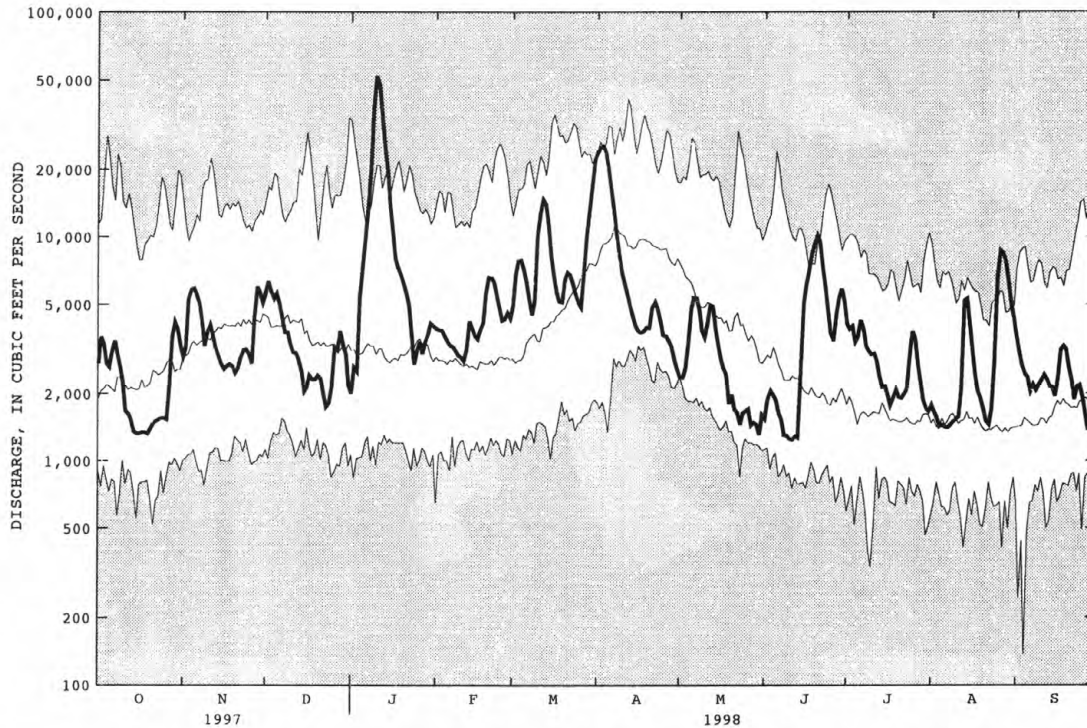


STREAMS TRIBUTARY TO LAKE ONTARIO

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04260500 BLACK RIVER AT WATERTOWN, NY--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1920 - 1998	
ANNUAL TOTAL	1689700		1751590		4148	
ANNUAL MEAN	4629		4799		6392	
HIGHEST ANNUAL MEAN					2579	
LOWEST ANNUAL MEAN					137	
HIGHEST DAILY MEAN	20700	Apr 9	52000	Jan 10	52000	Jan 10 1998
LOWEST DAILY MEAN	1100	Jul 27	1240	Jun 11	137	Sep 4 1939
ANNUAL SEVEN-DAY MINIMUM	1120	Aug 4	1300	Jun 7	637	Aug 15 1923
10 PERCENT EXCEEDS	10900		8040		8820	
50 PERCENT EXCEEDS	3250		3290		2810	
90 PERCENT EXCEEDS	1410		1550		1270	



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



## STREAMS TRIBUTARY TO LAKE ONTARIO

## 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 mi<sup>2</sup>. **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 ft<sup>3</sup> 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 ft<sup>3</sup>, Oct. 3, 1945, elevation, 1,787.1 ft; minimum observed, less than 0.90 mil ft<sup>3</sup>, Nov. 18, 1943, water level below elevation 1,775.6 ft.

**EXTREMES FOR CURRENT YEAR**---Maximum contents observed, 303.0 mil ft<sup>3</sup>, Aug. 25, elevation, 1,786.20 ft; minimum observed, 196.0 mil ft<sup>3</sup>, Feb. 2-12, 23, elevation, 1,782.80 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 mi<sup>2</sup>. **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 ft<sup>3</sup>, elevation, 1,707.0 ft. Usable capacity without flashboards, 764.3 mil ft<sup>3</sup>, 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 ft<sup>3</sup>, June 17, 1972, elevation, 1,707.9 ft; minimum observed, 6.50 mil ft<sup>3</sup>, Nov. 3, 1939, elevation, 1,699.8 ft.

**EXTREMES FOR CURRENT YEAR**---Maximum contents observed, 934.0 mil ft<sup>3</sup>, Aug. 25, elevation, 1,707.32 ft; minimum observed, 490.9 mil ft<sup>3</sup>, Dec. 22, elevation, 1,703.94 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 1997 TO SEPTEMBER 1998

Date	Elevation (feet) †	Contents (million ft <sup>3</sup> )	Change in contents (equivalent in ft <sup>3</sup> /s)	Elevation (feet) †	Contents (million ft <sup>3</sup> )	Change in contents (equivalent in ft <sup>3</sup> /s)
<b>04253300 Sixth Lake</b>				<b>04253400 First Lake</b>		
Sept. 30	1,785.30	274.2		1,706.44	814.8	
Oct. 31	1,783.87	229.2	-16.6	1,705.04	631.9	-68.3
Nov. 30	1,783.05	203.7	- 9.83	1,704.12	513.3	-45.8
Dec. 31	1,783.13	206.2	+ 0.93	1,704.08	508.1	- 1.94
CAL YR 1997	-	-	+ 0.52	-	-	+ 1.63
Jan. 31	1,782.87	198.2	- 2.99	1,704.29	534.4	+ 9.81
Feb. 28	1,782.93	200.0	+ 0.74	1,704.11	512.0	- 9.25
Mar. 31	1,784.13	237.3	+13.9	1,705.45	685.2	+64.7
Apr. 30	1,784.36	244.4	+ 2.74	1,705.79	729.4	+17.1
May 31	1,785.79	289.9	+17.0	1,706.72	852.3	+45.9
June 30	1,785.62	284.4	- 2.12	1,706.94	881.9	+11.4
July 31	1,785.70	287.0	+ 0.97	1,706.91	878.0	- 1.45
Aug. 31	1,785.61	284.1	- 1.08	1,706.71	851.0	-10.1
Sept. 30	1,785.07	267.0	- 6.60	1,706.51	824.0	-10.4
WTR YR 1998	-	-	- 0.23	-	-	+ 0.29

† Elevation at 2400 hours, by interpolation.



## ST. LAWRENCE RIVER BASIN

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## 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 mi<sup>2</sup>.

**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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 4,090 ft<sup>3</sup>/s, Apr. 12, 1947; maximum gage height, 7.3 ft, Apr. 26, 1926; minimum discharge not determined.

**EXTREMES FOR CURRENT YEAR.**--Maximum discharge, 3,740 ft<sup>3</sup>/s, Jan. 9, gage height, 6.87 ft; minimum, 92 ft<sup>3</sup>/s, Jan. 23, gage height, 1.74 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	674	457	794	540	748	489	2200	402	248	1760	300	347
2	696	393	730	345	847	423	2480	332	261	1890	299	222
3	647	549	826	282	636	518	2400	341	313	1680	308	297
4	338	764	810	563	663	569	2210	539	307	1450	282	711
5	425	1050	817	845	684	570	2050	660	298	1180	247	657
6	418	689	785	1250	654	568	1860	496	273	437	226	486
7	466	605	873	1700	617	565	1650	328	198	397	208	415
8	435	374	360	3130	700	456	1390	496	199	443	206	506
9	327	358	844	3460	469	648	1070	703	212	801	289	249
10	358	465	644	2900	422	1300	592	600	210	1020	254	242
11	312	618	440	2210	423	1140	670	591	209	984	342	235
12	352	499	865	1840	642	769	734	558	209	865	365	278
13	290	466	688	1780	748	503	547	554	312	770	365	268
14	191	347	675	1650	419	504	336	555	322	728	654	304
15	341	459	552	1680	469	556	464	475	603	574	711	323
16	286	701	458	1620	449	501	411	397	535	371	787	740
17	412	664	484	1450	394	490	664	399	778	243	507	453
18	354	646	439	1400	549	564	614	340	582	283	362	265
19	309	496	386	1120	663	563	506	347	753	319	432	301
20	500	472	482	1200	643	569	492	368	652	408	451	276
21	399	613	301	1060	634	519	502	255	557	274	402	298
22	357	701	191	1120	559	629	503	284	880	220	419	376
23	377	708	239	959	550	559	588	257	735	257	409	310
24	402	661	404	1020	384	570	610	257	720	289	604	258
25	326	692	435	1040	294	539	500	254	784	285	786	223
26	231	679	512	547	626	412	423	242	812	286	588	248
27	521	722	353	920	532	966	437	271	1060	284	476	520
28	569	924	406	808	456	1860	395	256	1280	285	387	315
29	672	767	352	678	---	2280	315	254	1330	322	644	653
30	507	847	479	695	---	2100	373	245	1050	403	370	740
31	451	---	486	675	---	2170	---	245	---	283	642	---
TOTAL	12943	18386	17110	40487	15874	24869	27986	12301	16682	19791	13322	11516
MEAN	418	613	552	1306	567	802	933	397	556	638	430	384
MAX	696	1050	873	3460	847	2280	2480	703	1330	1890	787	740
MIN	191	347	191	282	294	412	315	242	198	220	206	222

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1998, BY WATER YEAR (WY)

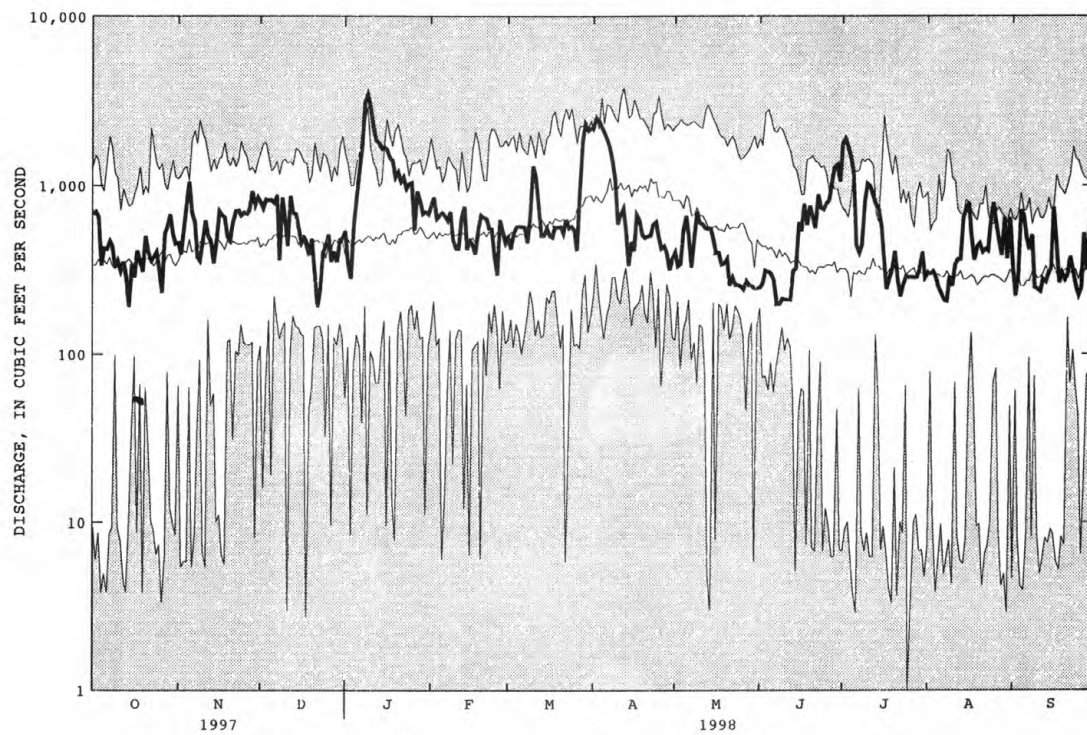
	396	509	517	560	535	699	1009	689	420	338	308	327
MEAN	396	509	517	560	535	699	1009	689	420	338	308	327
MAX	685	1048	1097	1306	970	1161	1787	1659	1218	930	632	719
(WY)	1946	1989	1928	1998	1947	1990	1947	1943	1947	1996	1989	1957
MIN	189	177	239	230	225	288	302	219	170	131	152	152
(WY)	1942	1940	1935	1931	1931	1931	1995	1941	1988	1991	1991	1990

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1925 - 1998	
ANNUAL TOTAL	225850		231267			
ANNUAL MEAN	619		634		525	
HIGHEST ANNUAL MEAN					884	
LOWEST ANNUAL MEAN					311	
HIGHEST DAILY MEAN	2160		3460		3790	
LOWEST DAILY MEAN	191		191		1.0	
ANNUAL SEVEN-DAY MINIMUM	202		216		71	
10 PERCENT EXCEEDS	1050		1120		973	
50 PERCENT EXCEEDS	500		503		425	
90 PERCENT EXCEEDS	243		263		201	



## ST. LAWRENCE RIVER BASIN

04262000 OSWEGATCHIE RIVER NEAR OSWEGATCHIE, NY--Continued



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



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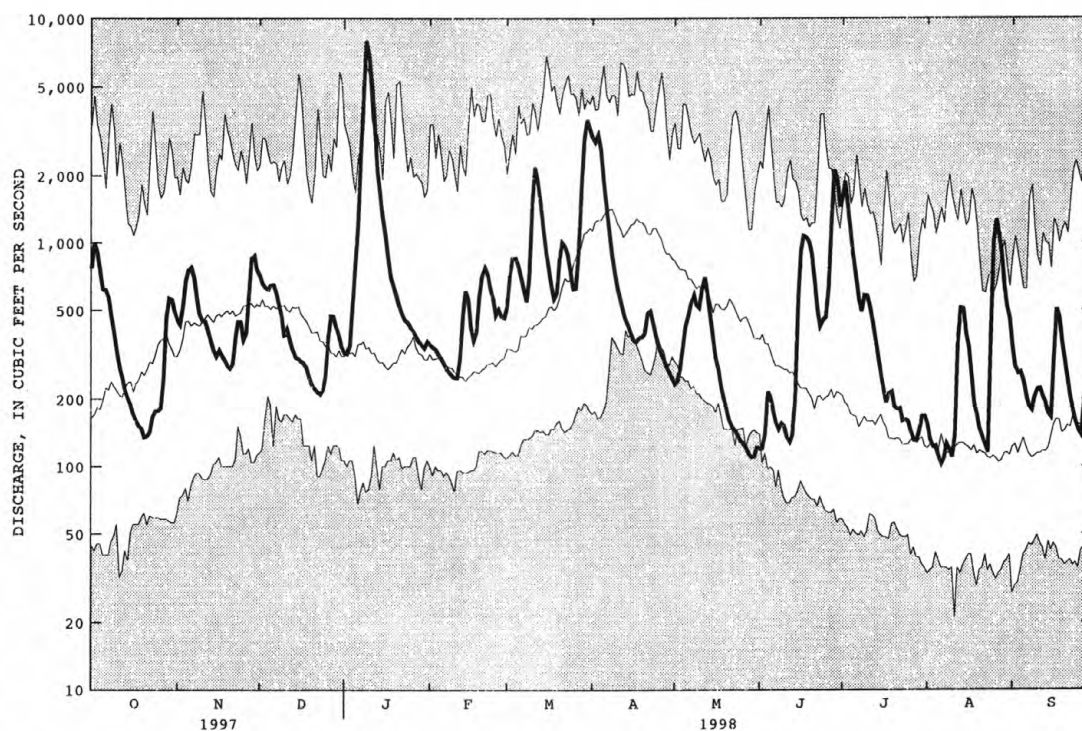
## e Estimated



## ST. LAWRENCE RIVER BASIN

## 04262500 WEST BRANCH OSWEGATCHIE RIVER NEAR HARRISVILLE, NY--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1916 - 1998	
ANNUAL TOTAL	196298		219692		527	
ANNUAL MEAN	538		602		833	1947
HIGHEST ANNUAL MEAN					333	1941
LOWEST ANNUAL MEAN					7970	Jan 9 1998
HIGHEST DAILY MEAN	3620	Feb 23	7970	Jan 9	21	Aug 11 1985
LOWEST DAILY MEAN	76	Aug 11	102	Aug 6	34	Aug 28 1934
ANNUAL SEVEN-DAY MINIMUM	88	Aug 6	114	Aug 4		
ANNUAL RUNOFF (CFSM)	2.20		2.47		2.16	
ANNUAL RUNOFF (INCHES)	29.93		33.49		29.32	
10 PERCENT EXCEEDS	1010		1080		1180	
50 PERCENT EXCEEDS	393		388		325	
90 PERCENT EXCEEDS	130		145		99	



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



## 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 mi<sup>2</sup>.

**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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 19,600 ft<sup>3</sup>/s, Apr. 6, 1960, gage height, 10.36 ft; minimum, 99 ft<sup>3</sup>/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, 13,600 ft<sup>3</sup>/s, Jan. 13, gage height, 8.47 ft; minimum, 428 ft<sup>3</sup>/s, May 30, Aug. 8, 9; minimum gage height, 1.13 ft, May 30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1650	1520	3290	e1200	1560	2720	8180	821	494	3460	753	1170
2	1780	1500	3100	1210	1570	3300	8060	856	530	3460	660	1220
3	1990	1650	2680	1560	1580	3850	7870	884	498	4110	647	906
4	2000	1770	2400	2360	e1550	4220	7790	863	512	4040	584	734
5	1830	2070	2660	2730	1460	4420	7630	861	563	3450	503	823
6	1600	2280	2710	3500	1440	4410	6960	1210	649	2930	481	1060
7	1400	2390	2620	4710	1420	4100	5890	1410	651	2190	474	1040
8	1340	2060	2460	5750	1360	3500	4900	1330	583	1560	437	901
9	1290	1780	2150	7180	1320	e4000	3960	1280	556	1840	441	836
10	1140	1460	e1700	8950	1320	e6000	3280	1380	518	2230	507	813
11	947	1370	e1600	11300	1140	6840	2560	1510	495	2480	487	696
12	791	1530	1540	13300	1090	6580	2030	1740	492	2410	448	622
13	762	1510	1650	13400	e1300	5790	1880	1750	511	2010	581	612
14	770	1370	e1600	11200	e1900	e4400	1800	1610	606	1750	835	577
15	713	1280	e1500	e8000	2080	e3300	1540	1420	1090	1520	1030	599
16	598	1140	1460	e5700	1720	e2800	1270	1240	1880	1400	1220	753
17	606	1230	1420	e4000	1540	e2400	1350	1080	2320	1180	1220	1260
18	604	1420	e1250	e3500	1480	2220	1310	929	2510	945	1110	1680
19	681	1420	e1200	e3100	1830	2180	1480	836	2590	889	809	1450
20	634	1400	e1150	e2900	2550	2460	1490	783	2320	794	649	1040
21	590	1390	e1000	e2600	3060	2820	1380	637	2200	779	672	896
22	742	1890	e940	e2400	3140	2850	1310	722	1890	799	692	777
23	722	2220	860	e2200	2950	2800	1410	607	1570	721	645	729
24	641	2320	832	e2100	2590	2600	1370	504	1570	627	691	692
25	687	2150	848	e2000	2260	2350	1340	505	1470	592	759	661
26	723	2040	1140	e1900	2110	2410	1300	522	1500	577	1460	583
27	804	2930	1470	e1750	2190	4050	1120	513	1630	577	2130	733
28	1040	3470	1560	e1600	2500	5510	1010	549	2310	568	1950	863
29	1500	3520	1510	e1500	---	7280	995	506	3260	556	1640	1020
30	1790	3400	1410	e1400	---	7950	841	440	3720	590	1470	933
31	1710	---	e1300	e1500	---	8300	---	470	---	689	1420	---
TOTAL	34075	57480	53010	136500	52010	128410	93306	29768	41488	51723	27405	26679
MEAN	1099	1916	1710	4403	1858	4142	3110	960	1383	1668	884	889
MAX	2000	3520	3290	13400	3140	8300	8180	1750	3720	4110	2130	1680
MIN	590	1140	832	1200	1090	2180	841	440	492	556	437	577

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 1998, BY WATER YEAR (WY)

	MEAN	1139	1793	1918	1834	1643	3119	4242	2137	1123	742	616	705
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	

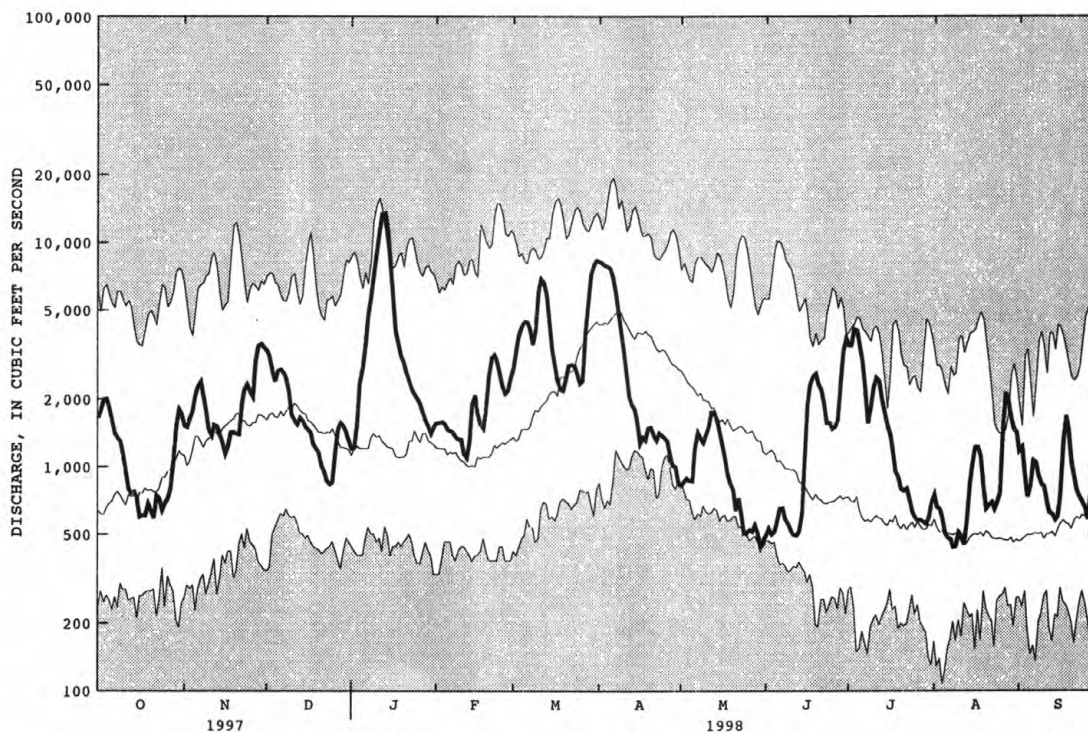
SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR	FOR 1998 WATER YEAR	WATER YEARS 1916 - 1998
ANNUAL TOTAL	677660	731854	
ANNUAL MEAN	1857	2005	1750
HIGHEST ANNUAL MEAN			2952
LOWEST ANNUAL MEAN			1029
HIGHEST DAILY MEAN	8120	13400	19200
LOWEST DAILY MEAN	322	437	107
ANNUAL SEVEN-DAY MINIMUM	357	468	133
10 PERCENT EXCEEDS	3380	3980	3990
50 PERCENT EXCEEDS	1460	1460	1100
90 PERCENT EXCEEDS	530	590	436

e Estimated



## ST. LAWRENCE RIVER BASIN

04263000 OSWEGATCHIE RIVER NEAR HEUVELTON, NY--Continued



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



**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.

**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."

**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 Raisin 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 gages. Prior to August 1956, these were gages of the Canadian Hydrographic Service and from August 1956 to June 1958, 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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum daily discharge, 378,000 ft<sup>3</sup>/s, May 20, 28, June 8, 1993; minimum daily, 139,000 ft<sup>3</sup>/s, Feb. 7, 1936; maximum monthly discharge, 353,500 ft<sup>3</sup>/s, May and June 1993; minimum monthly, 153,800 ft<sup>3</sup>/s, Feb. 1936.

**EXTREMES FOR CURRENT YEAR.**--Maximum daily discharge, 360,000 ft<sup>3</sup>/s, Mar. 17-27; minimum daily, 166,000 ft<sup>3</sup>/s, Apr. 1-4.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	299000	274000	279000	293000	237000	325000	166000	350000	329000	303000	305000	289000
2	299000	274000	289000	293000	238000	327000	166000	349000	328000	303000	304000	289000
3	299000	291000	287000	293000	240000	328000	166000	346000	328000	303000	305000	289000
4	299000	291000	280000	296000	244000	328000	166000	346000	328000	310000	305000	289000
5	299000	291000	287000	300000	245000	331000	170000	346000	325000	310000	305000	284000
6	299000	289000	288000	297000	248000	345000	188000	346000	325000	310000	304000	284000
7	299000	280000	290000	293000	252000	350000	207000	346000	325000	310000	305000	285000
8	299000	278000	289000	254000	256000	350000	238000	346000	322000	309000	300000	285000
9	299000	279000	283000	208000	259000	349000	268000	346000	318000	310000	300000	285000
10	292000	289000	272000	195000	263000	350000	282000	343000	318000	310000	299000	291000
11	292000	292000	257000	194000	266000	345000	291000	341000	315000	298000	299000	291000
12	299000	287000	282000	204000	270000	343000	304000	341000	310000	313000	300000	287000
13	298000	288000	290000	219000	277000	343000	308000	341000	310000	312000	299000	286000
14	298000	262000	291000	224000	287000	351000	315000	341000	310000	313000	299000	286000
15	298000	269000	286000	231000	297000	357000	318000	340000	310000	312000	298000	286000
16	295000	288000	287000	229000	305000	357000	321000	341000	310000	312000	298000	286000
17	289000	291000	290000	230000	309000	360000	325000	341000	310000	312000	298000	284000
18	286000	291000	288000	230000	312000	360000	327000	340000	310000	312000	298000	289000
19	292000	289000	286000	229000	316000	360000	332000	341000	310000	303000	298000	281000
20	295000	289000	287000	230000	320000	360000	336000	341000	302000	311000	291000	279000
21	296000	287000	277000	230000	323000	360000	335000	341000	307000	311000	291000	280000
22	295000	256000	277000	230000	327000	360000	335000	337000	307000	311000	287000	281000
23	295000	263000	270000	229000	328000	360000	335000	338000	307000	311000	285000	285000
24	295000	289000	281000	230000	333000	360000	338000	338000	307000	311000	284000	285000
25	285000	286000	277000	230000	332000	360000	340000	337000	307000	309000	285000	278000
26	277000	286000	295000	230000	329000	360000	345000	335000	307000	309000	285000	278000
27	275000	286000	293000	230000	325000	360000	350000	334000	303000	309000	287000	278000
28	297000	284000	293000	230000	325000	325000	349000	331000	303000	308000	289000	279000
29	2930											

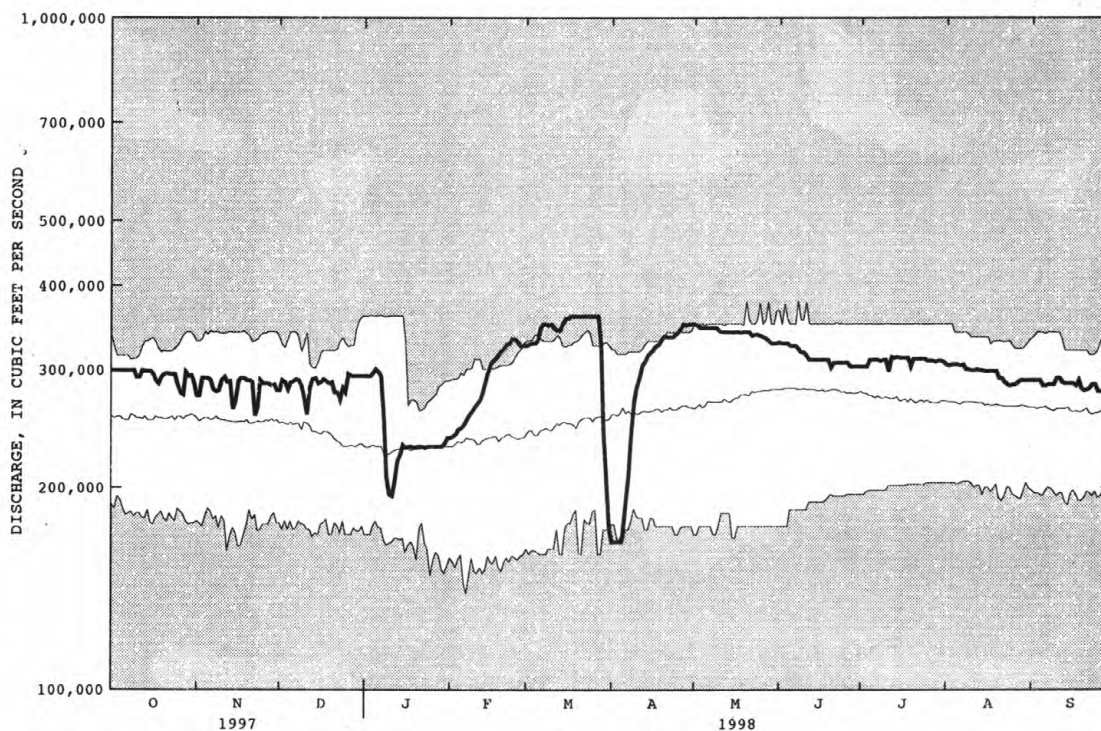
MEAN	251000	247500	242700	227800	235400	247900	258400	268600	273000	269500	264000	258400
MAX	323800	338100	327000	298700	293300	335100	325100	353500	353500	350000	330300	326400
(WY)	1987	1987	1987	1987	1997	1998	1973	1993	1993	1973	1974	1986
MIN	182600	176100	174700	168700	153800	179800	179200	176500	188600	200600	200000	194900
(WY)	1936	1936	1936	1936	1936	1965	1964	1965	1965	1964	1936	1936



## ST. LAWRENCE RIVER MAIN STEM

04264331 ST. LAWRENCE RIVER AT CORNWALL, ONTARIO--NEAR MASSENA, NY--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1936 - 1998	
ANNUAL TOTAL	109202000		108199000			
ANNUAL MEAN	299200		296400		253800	
HIGHEST ANNUAL MEAN					309300	
LOWEST ANNUAL MEAN					191800	
HIGHEST DAILY MEAN	343000	Mar 23	360000	Mar 17	378000	May 20 1993
LOWEST DAILY MEAN	225000	Jan 17	166000	Apr 1	139000	Feb 7 1936
ANNUAL SEVEN-DAY MINIMUM	230000	Jan 14	171000	Mar 31	148000	Feb 6 1936
10 PERCENT EXCEEDS	329000		343000		302000	
50 PERCENT EXCEEDS	299000		298000		254000	
90 PERCENT EXCEEDS	269000		242000		208000	



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



## 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 mi<sup>2</sup>.

**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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 8,630 ft<sup>3</sup>/s, Apr. 27, 1993, gage height, 12.04 ft; maximum gage height, 12.25 ft, May 8, 1972; minimum discharge not determined.

**EXTREMES OUTSIDE PERIOD OF RECORD.**--Maximum discharge, about 7,000 ft<sup>3</sup>/s, May 1, 1900 (from New York State Museum Bulletin 85).

**EXTREMES FOR CURRENT YEAR.**--Maximum discharge, 7,250 ft<sup>3</sup>/s, Jan. 14, Apr. 5, 6, gage height, 11.26 ft; minimum, 65 ft<sup>3</sup>/s, Oct. 30, gage height, 1.84 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	488	745	1270	882	2380	992	4710	1830	406	3080	669	1440
2	677	871	1310	878	2260	1040	5670	1780	511	3160	667	1420
3	575	1100	1270	874	2150	1050	6310	1740	511	3230	654	1380
4	567	1130	1270	894	2040	1070	6730	1630	495	3170	632	1340
5	677	1220	1270	917	1930	1080	7040	1530	509	3070	635	1310
6	1140	1270	1270	1000	1830	1100	7140	1540	509	2980	614	1300
7	998	1320	1250	1200	1740	1090	6870	1540	536	2900	624	1290
8	787	1340	1230	2240	1670	1090	6500	1550	586	2910	617	1260
9	715	1360	1210	3830	1420	1140	6100	1550	606	3040	601	1250
10	714	1520	1180	5200	914	1280	5550	1570	556	3000	609	1230
11	745	1630	1150	6180	827	1410	5190	1620	506	2940	682	1160
12	748	1600	1120	6740	863	1480	4810	1660	464	2870	783	1060
13	833	1550	1110	7050	902	1530	4450	1660	524	2760	958	1050
14	811	1520	1090	7190	922	1570	4150	1630	581	2610	1210	1050
15	666	1480	1060	6990	931	1660	3820	1610	687	2470	1160	1040
16	778	1430	1030	6570	941	1760	3590	1580	845	2150	1150	1160
17	730	1380	1020	6230	951	1970	3380	1530	1090	2010	1140	1150
18	671	1350	1010	5950	946	1890	3180	1470	1850	1880	1100	1170
19	666	1310	987	5590	981	1860	3060	1390	2300	1780	1060	1180
20	667	1260	968	5170	992	1830	2960	1240	2350	1700	1050	1170
21	700	1250	948	4760	1000	1810	2880	1130	2400	1550	1030	1150
22	718	1230	922	4350	997	1790	2790	616	2530	1330	1010	1110
23	713	1230	906	4030	992	1770	2640	463	2510	1220	992	1130
24	534	1210	892	3680	989	1730	2580	886	2600	1060	1030	1200
25	665	1210	904	3410	1010	1690	2400	790	2700	909	1240	1160
26	663	1200	904	3170	1000	1770	2320	666	2900	898	1500	1140
27	964	1230	902	3050	1000	1990	2140	673	3030	886	1490	1160
28	243	1260	895	2850	997	2300	2010	673	2950	821	1540	1180
29	814	1280	887	2710	---	2810	1950	711	2850	821	1560	1160
30	550	1290	904	2600	---	3210	1890	691	2890	766	1540	829
31	570	---	891	2490	---	3810	---	598	---	672	1460	---
TOTAL	21787	38776	33030	118675	35575	52572	124810	39547	43782	64643	31007	35629
MEAN	703	1293	1065	3828	1271	1696	4160	1276	1459	2085	1000	1188
MAX	1140	1630	1310	7190	2380	3810	7140	1830	3030	3230	1560	1440
MIN	243	745	887	874	827	992	1890	463	406	672	601	829

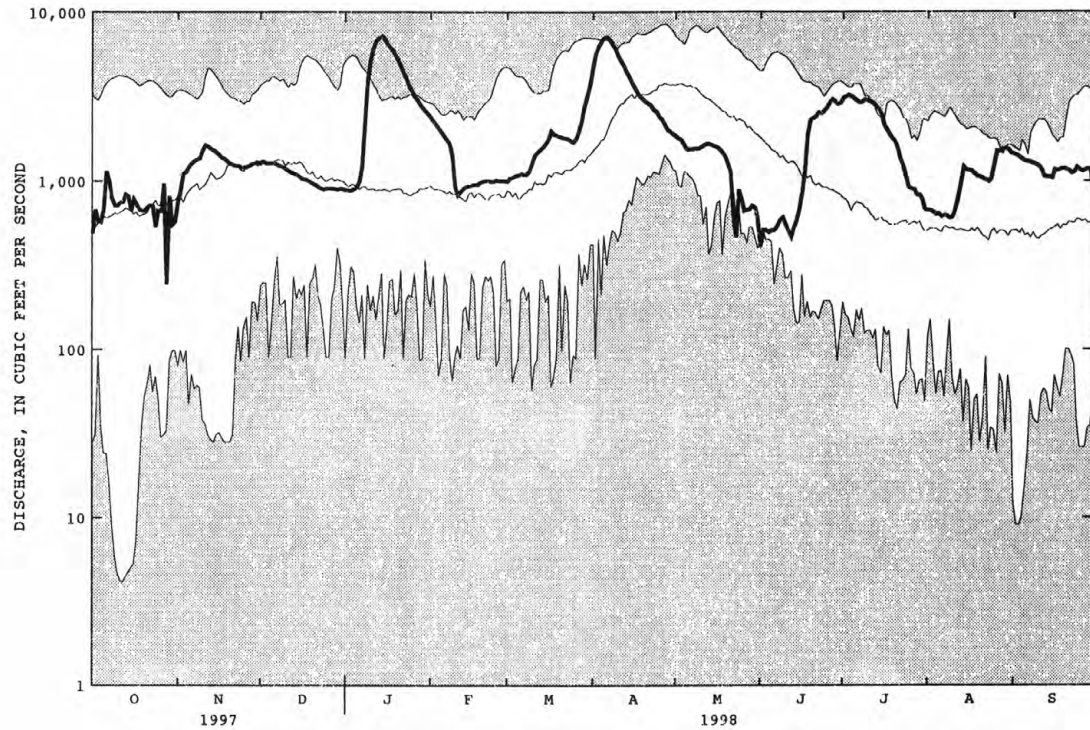
**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1908 - 1998, BY WATER YEAR (WY)**

MEAN	870	1181	1261	1111	938	1296	3128	2919	1308	750	589	611
MAX	3292	2676	3439	3828	2148	3577	5405	6094	3982	2461	1867	1614
(WY)	1946	1989	1984	1998	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 1997 CALENDAR YEAR	FOR 1998 WATER YEAR	WATER YEARS 1908 - 1998
ANNUAL TOTAL	532964	639833	
ANNUAL MEAN	1460	1753	1331
HIGHEST ANNUAL MEAN			2030
LOWEST ANNUAL MEAN			734
HIGHEST DAILY MEAN	3680	7190	8500
LOWEST DAILY MEAN	157	243	4.1
ANNUAL SEVEN-DAY MINIMUM	324	497	4.6
10 PERCENT EXCEEDS	3130	3220	2900
50 PERCENT EXCEEDS	1180	1230	943
90 PERCENT EXCEEDS	560	666	360



ST. LAWRENCE RIVER BASIN  
04266500 RAQUETTE RIVER AT PIERCEFIELD, NY--Continued



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



## 361

**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.

**REMARKS.**---Records good except those for estimated daily discharges, which are fair, and those below 800 ft<sup>3</sup>/s, which are poor. Flow regulated 16 mi upstream by Carry Falls Reservoir since 1953; considerable natural storage in large lakes upstream from Piercefield. Large diurnal fluctuation caused by five powerplants upstream from gage. Several measurements of water temperature were made during the year.

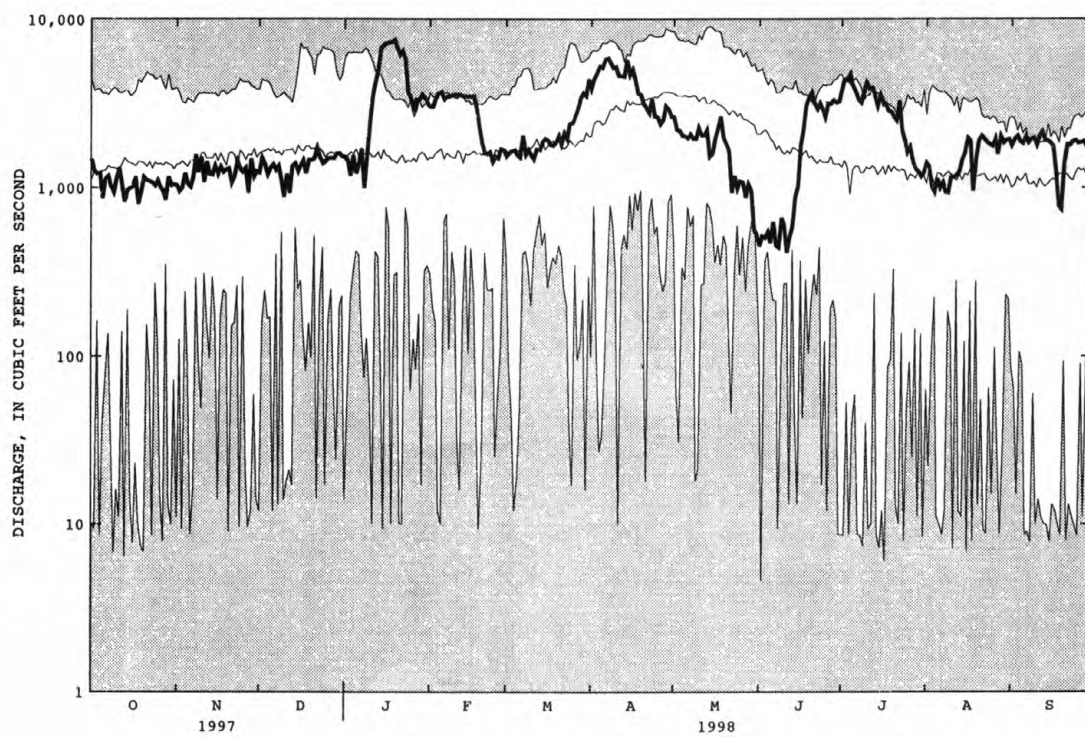
**EXTREMES FOR CURRENT YEAR.**--Maximum discharge, 8,600 ft<sup>3</sup>/s, Jan. 19, gage height, 9.22 ft; minimum, 21 ft<sup>3</sup>/s, June 11, gage height, 1.63 ft.

## e Estimated



## ST. LAWRENCE RIVER BASIN

04267500 RAQUETTE RIVER AT SOUTH COLTON, NY--Continued



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



## ST. LAWRENCE RIVER BASIN

363

## 04268000 RAQUETTE RIVER AT RAYMONDVILLE, NY

**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 mi<sup>2</sup>.

**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 Piercefild. Several measurements of water temperature were made during the year.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 13,000 ft<sup>3</sup>/s, Apr. 5, 1974, gage height, 8.40 ft; maximum gage height, 9.24 ft, Feb. 22, 1954 (ice jam); minimum discharge, 2.2 ft<sup>3</sup>/s, Sept. 18, 19, 1966; minimum gage height, 0.42 ft, July 13, 1950.

**EXTREMES FOR CURRENT YEAR.**--Maximum discharge, 10,300 ft<sup>3</sup>/s, Jan. 18, gage height, 6.87 ft; minimum, 41 ft<sup>3</sup>/s, Oct. 15, 20, 21, gage height, 0.76 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1790	1250	1750	e1700	e3200	2240	6440	3420	521	3990	1390	2100
2	1800	1330	1650	e1700	e3300	e2300	5960	2340	547	4530	1390	2090
3	1510	1320	1460	e1700	3560	e2500	6210	2360	706	5210	1210	2130
4	1280	1500	1680	e1800	3920	e2600	6410	1960	502	4770	974	2230
5	1750	1610	1640	e1900	4220	e2600	6220	2440	484	5430	1080	2210
6	1310	1630	1750	e2000	4280	e2500	6100	2210	626	4460	1020	2100
7	1180	1410	1670	e2100	4110	2570	6930	2590	596	3960	1050	2130
8	1190	1390	1690	2190	4080	2440	6520	2490	588	3650	1060	2130
9	989	1570	1620	3220	4090	e2500	6050	2440	600	4660	979	2220
10	1030	1600	1090	5520	4000	e2500	5300	2440	539	4840	1130	2180
11	979	1460	1210	e5600	3900	e2500	5690	2430	622	5130	1620	2130
12	1180	1450	1200	e6000	4030	e2400	5070	2450	628	4350	1770	2100
13	896	1450	1510	6880	4120	e2400	5220	2320	798	4400	1470	2110
14	993	1400	1570	7590	e4200	e2300	5200	2310	741	3840	1420	2110
15	1170	1520	1720	8520	e4200	e2200	6040	2370	1310	3290	1790	2140
16	1080	1450	1760	9000	e4000	e2100	5220	2280	2240	3740	1920	2230
17	1060	1400	1490	9760	e3900	e2200	5190	2410	3830	3700	1950	2220
18	1060	1440	1530	9870	e3700	2280	4890	2020	3440	3460	1830	2060
19	1390	1420	1520	9190	3400	2350	3790	1970	5310	2980	993	1170
20	1290	1330	1790	8440	2140	2370	3790	2130	4620	2930	1910	763
21	1080	1600	e1800	7170	e2000	2220	3520	1820	3800	2890	2030	1080
22	1190	1730	e1700	e6600	e1900	2360	3200	1320	3810	2890	2110	1750
23	1130	1790	1630	e5800	e1800	2660	3100	1040	3700	3090	2160	2020
24	1090	1770	1710	5210	1950	2950	3540	1140	3350	2290	2100	1900
25	1100	1690	1610	3340	1670	2690	2970	1010	3200	1780	2490	2030
26	1140	1660	1660	e3200	2070	3350	3130	1120	3320	1710	2270	1970
27	1500	2180	1700	e3100	2050	5330	3160	1070	3490	1710	2200	2220
28	1220	2290	e1700	e3100	2130	6890	2870	1070	3710	1250	2170	2260
29	1610	2090	e1700	e3100	---	7810	2910	1060	3870	1500	2090	2010
30	1340	1890	e1700	e3100	---	6410	3030	567	3980	1290	2130	2150
31	1300	---	e1700	e3100	---	5740	---	665	---	1360	2080	---
TOTAL	38627	47620	49910	151500	91920	96260	143670	59262	65478	105080	51786	59943
MEAN	1246	1587	1610	4887	3283	3105	4789	1912	2183	3390	1671	1998
MAX	1800	2290	1800	9870	4280	7810	6930	3420	5310	5430	2490	2260
MIN	896	1250	1090	1700	1670	2100	2870	567	484	1250	974	763

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1998, BY WATER YEAR (WY)

	1959	1983	2134	2033	2009	2603	3913	3530	2014	1439	1276	1276
MEAN	1599	1983	2134	2033	2009	2603	3913	3530	2014	1439	1276	1276
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	1995

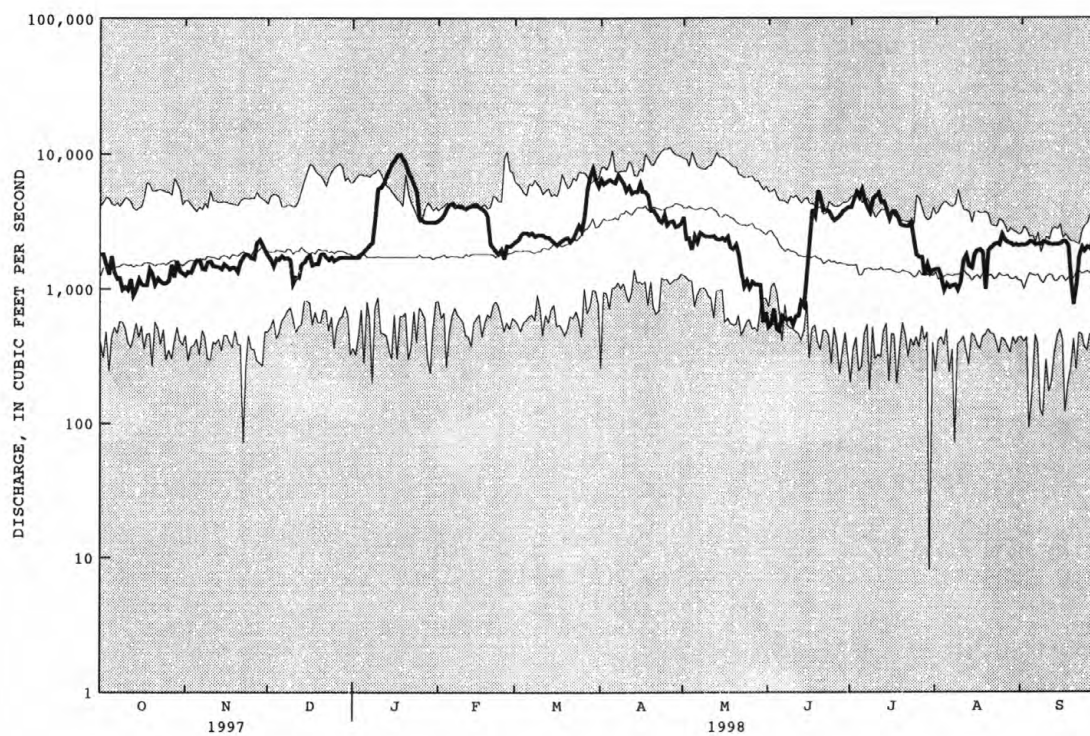
SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR	FOR 1998 WATER YEAR	WATER YEARS 1954 - 1998
ANNUAL TOTAL	827551	961056	
ANNUAL MEAN	2267	2633	2150
HIGHEST ANNUAL MEAN			3022
LOWEST ANNUAL MEAN			1148
HIGHEST DAILY MEAN	4900	9870	11100
LOWEST DAILY MEAN	501	484	8.1
ANNUAL SEVEN-DAY MINIMUM	887	562	345
10 PERCENT EXCEEDS	4070	5210	4020
50 PERCENT EXCEEDS	1730	2130	1700
90 PERCENT EXCEEDS	1090	1080	854

e Estimated



## ST. LAWRENCE RIVER BASIN

04268000 RAQUETTE RIVER AT RAYMONDVILLE, NY--Continued



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



## ST. LAWRENCE RIVER BASIN

365

## 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 mi<sup>2</sup>.

**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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 5,960 ft<sup>3</sup>/s, Dec. 29, 1984, gage height, 7.37 ft; maximum gage height, 7.51 ft, Feb. 25, 1985 (ice jam); minimum recorded discharge, 50 ft<sup>3</sup>/s, Aug. 1, 2, 1965, Sept. 5, 1995, gage height, 0.92 ft.

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 1,600 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 10	0415	*4,300	*6.31	July 1	2200	1,670	3.59
Mar. 31	0515	4,070	6.08				

Minimum discharge, 98 ft<sup>3</sup>/s, May 29, gage height, 1.20 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	546	340	351	e140	e160	283	3620	211	198	1280	172	184
2	446	331	285	e140	e150	359	3130	218	205	1410	144	167
3	338	496	274	e170	e150	387	2550	272	233	1040	124	221
4	270	498	e280	e240	e145	370	2000	406	281	881	113	234
5	289	544	e290	e370	e140	345	1510	480	254	844	110	196
6	309	487	e290	e560	e135	309	1130	468	200	670	108	165
7	279	415	e260	e1000	e130	281	900	513	167	505	118	148
8	225	360	e230	e1700	e125	281	762	457	149	444	144	189
9	193	335	e200	3930	e120	393	668	473	138	880	140	250
10	179	440	e170	4140	e120	820	591	433	125	928	129	277
11	161	458	e180	3180	e130	897	528	460	113	866	342	224
12	148	407	e160	2150	e150	732	480	435	109	703	609	182
13	140	342	e150	1610	e220	587	446	357	142	532	474	158
14	133	262	e130	1170	e360	e450	419	285	292	421	294	143
15	130	263	e130	e700	e330	e390	392	255	482	334	204	151
16	126	e260	e130	e580	e320	e350	371	231	628	275	211	375
17	121	e250	e120	e470	331	e320	374	216	766	235	201	437
18	116	e240	e120	e400	293	e300	384	200	729	209	165	361
19	114	243	e110	e320	325	297	357	177	835	189	145	272
20	113	236	e110	e270	344	338	379	156	632	173	128	220
21	113	267	e105	e240	339	393	428	143	442	158	119	195
22	120	342	e100	e230	322	366	404	140	345	147	118	170
23	125	327	e100	e210	294	309	349	139	360	140	115	153
24	126	283	e110	e200	262	300	307	131	337	151	197	142
25	132	234	e150	e190	e240	292	284	120	316	142	706	132
26	139	287	e220	e180	e230	300	269	114	288	130	855	129
27	329	503	e210	e170	e230	583	253	110	739	120	660	605
28	561	490	e190	e160	269	1370	240	104	920	119	483	754
29	472	479	e180	e150	---	2670	233	101	651	149	353	581
30	414	417	e170	e160	---	2960	221	113	560	223	278	441
31	376	---	e150	e160	---	3950	---	144	---	212	221	---
TOTAL	7283	10836	5655	25290	6364	21982	23979	8062	11636	14510	8180	7856
MEAN	235	361	182	816	227	709	799	260	388	468	264	262
MAX	561	544	351	4140	360	3950	3620	513	920	1410	855	754
MIN	113	234	100	140	120	281	221	101	109	119	108	129
CFSM	1.37	2.11	1.07	4.77	1.33	4.15	4.67	1.52	2.27	2.74	1.54	1.53
IN.	1.58	2.36	1.23	5.50	1.38	4.78	5.22	1.75	2.53	3.16	1.78	1.71

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1998, BY WATER YEAR (WY)

	233	341	261	288	210	358	956	427	254	184	174	158
MEAN	233	341	261	288	210	358	956	427	254	184	174	158
MAX	414	603	577	816	447	709	1780	749	388	468	292	262
(WY)	1996	1997	1997	1998	1997	1998	1993	1996	1998	1998	1962	1998
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

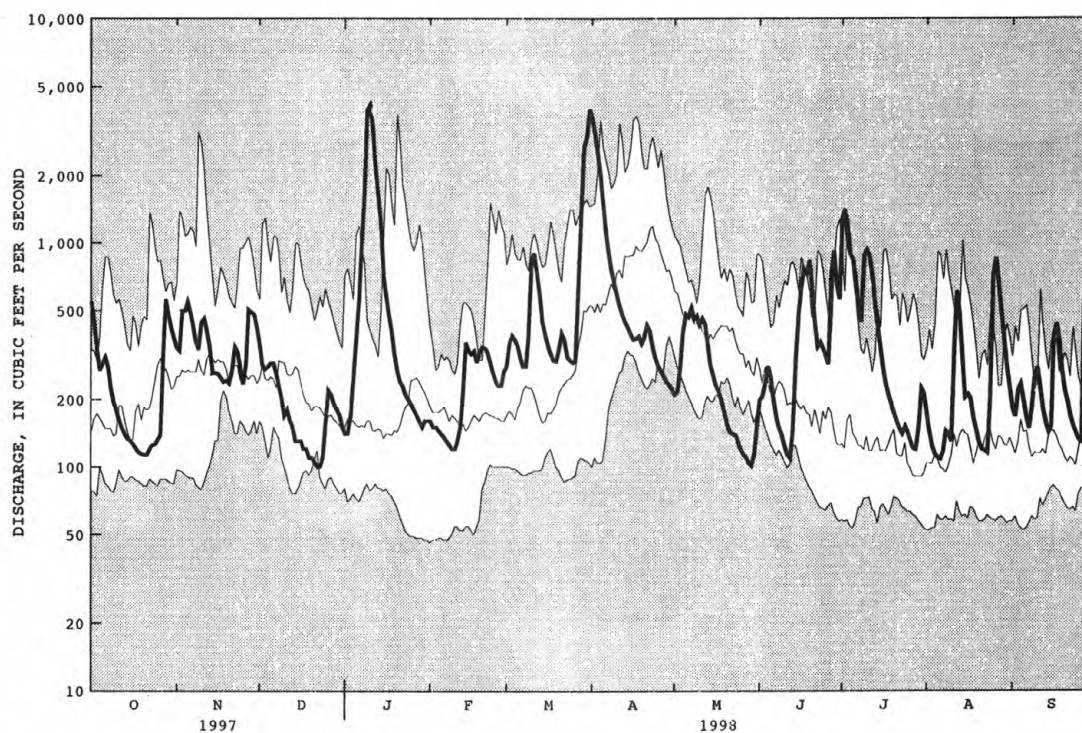
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## ST. LAWRENCE RIVER BASIN

04268800 WEST BRANCH ST. REGIS RIVER NEAR PARISHVILLE, NY--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1959 - 1998	
ANNUAL TOTAL	129144		151633		322	
ANNUAL MEAN	354		415		431	1996
HIGHEST ANNUAL MEAN					198	1965
LOWEST ANNUAL MEAN					4140	Jan 10 1998
HIGHEST DAILY MEAN	2050	Apr 7	4140	Jan 10	46	Feb 1 1961
LOWEST DAILY MEAN	63	Aug 10	100	Dec 22	47	Jan 28 1961
ANNUAL SEVEN-DAY MINIMUM	74	Jul 29	108	Dec 18		
ANNUAL RUNOFF (CFSM)	2.07		2.43		1.88	
ANNUAL RUNOFF (INCHES)	28.09		32.99		25.55	
10 PERCENT EXCEEDS	758		735		648	
50 PERCENT EXCEEDS	270		272		205	
90 PERCENT EXCEEDS	115		125		92	



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



## ST. LAWRENCE RIVER BASIN

367

## 04269000 ST. REGIS RIVER AT BRASHER CENTER, NY

**LOCATION.**--Lat 44°51'49", long 74°46'45", St. Lawrence County, Hydrologic Unit 04150306, on left bank 600 ft upstream from highway bridge at Brasher Center, and 6.5 mi downstream from West Branch.

**DRAINAGE AREA.**--612 mi<sup>2</sup>.

**PERIOD OF RECORD.**--August 1910 to October 1917, November 1917 to December 1918 (monthly discharges only, published in WSP 1307), January 1919 to September 1996, October 1996 to September 1997 (annual maximum only), October 1997 to current year.

**REVISED RECORDS.**--WSP 1387: 1910-16, 1917(M). WDR NY-82-1: Drainage area.

**GAGE.**--Water-stage recorder. Datum of gage is 217.23 ft above sea level. Prior to June 24, 1916, nonrecording gage at site 600 ft downstream at different datum. June 24, 1916 to Nov. 10, 1917, and Jan. 1, 1919 to Aug. 13, 1920, nonrecording gage at present site and datum.

**REMARKS.**--Records good except those for estimated daily discharges, which are poor. Slight diurnal fluctuation caused by powerplant operations upstream from station. Several measurements of water temperature were made during the year.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 16,800 ft<sup>3</sup>/s, Apr. 6, 1937, gage height, 12.82 ft; maximum gage height recorded, about 15.3 ft, Apr. 6, 1937 (ice jam); minimum discharge observed, about 34 ft<sup>3</sup>/s, Aug. 8, 1917, gage height, 5.25 ft.

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 5,600 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 10	1715	10,300	10.94	Mar. 31	1715	*11,000	*11.16

Minimum discharge, 244 ft<sup>3</sup>/s, May 28, gage height, 5.94 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1750	1170	1330	e580	e900	e1200	10200	712	512	2770	523	643
2	1610	1140	e1200	e640	e880	1560	8940	713	600	4380	419	547
3	1260	1320	e1100	e820	e840	1900	7790	789	612	3270	395	613
4	972	1630	e900	e1200	e800	1950	6220	1000	670	2660	363	749
5	867	1880	e1100	e1600	e760	1800	5020	1460	742	2890	377	695
6	876	1760	e1100	e2500	e740	1570	3730	1440	692	2370	322	546
7	843	1490	e1000	e3600	e700	1400	3170	1610	525	1880	359	486
8	710	1290	e920	e4100	e680	1210	2720	1800	512	1610	371	588
9	628	1090	e840	6810	e660	1940	2610	1440	429	2580	411	856
10	579	1310	e780	9930	e640	4290	2130	1320	433	2790	363	1100
11	588	1580	e720	8740	e680	3600	1720	1300	355	2580	840	932
12	385	1440	e720	6180	e800	2610	1580	1350	365	2250	1430	738
13	409	1250	e700	4670	e1100	e2000	1600	1380	392	1860	1460	606
14	393	1030	e680	3520	e1300	e1700	1490	1130	596	1550	1030	556
15	386	941	e640	e3000	e1200	e1400	1370	960	1140	1280	742	617
16	366	898	e620	e2600	e1100	e1300	1290	786	1650	1050	653	1170
17	352	e940	e600	e2300	e1000	e1200	1180	716	2680	913	672	1550
18	342	825	e580	e2000	e1100	1160	1250	678	2320	851	609	1360
19	332	851	e560	e1800	1150	1120	1240	489	3400	712	503	965
20	324	808	e520	e1600	1210	1150	1270	562	2300	619	441	784
21	330	858	e480	e1500	1260	1170	1480	478	1570	565	402	673
22	409	1250	e440	e1400	1210	1120	1400	453	1280	490	386	563
23	341	1200	e430	e1300	1130	1080	1320	436	1440	485	357	518
24	419	1130	e450	e1200	1030	1090	1130	427	1160	523	448	471
25	400	859	e580	e1200	960	1070	951	393	993	511	1450	427
26	403	973	e780	e1100	e980	1220	960	352	1170	442	1880	420
27	778	1970	e900	e1000	e1000	e3000	908	349	3070	410	1700	886
28	1660	2090	e880	e1000	e1100	e4500	854	290	4230	371	1230	2110
29	1740	1770	e680	e960	---	e6600	808	314	2650	425	1080	1880
30	1460	1540	e640	e940	---	e8400	755	318	2160	469	942	1530
31	1260	---	e580	e920	---	10300	---	348	---	508	814	---
TOTAL	23172	38283	23450	80710	26910	75610	77086	25793	40648	46064	22972	25579
MEAN	747	1276	756	2604	961	2439	2570	832	1355	1486	741	853
MAX	1750	2090	1330	9930	1300	10300	10200	1800	4230	4380	1880	2110
MIN	324	808	430	580	640	1070	755	290	355	371	322	420
CFSM	1.22	2.09	1.24	4.25	1.57	3.99	4.20	1.36	2.21	2.43	1.21	1.39
IN.	1.41	2.33	1.43	4.91	1.64	4.60	4.69	1.57	2.47	2.80	1.40	1.55

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1910 - 1998, BY WATER YEAR (WY)

MEAN	754	1017	986	909	784	1526	2812	1553	836	545	479	526
MAX	2203	2467	2674	2678	2302	3434	5576	4512	2848	1486	1564	1541
(WY)	1978	1928	1984	1913	1997	1913	1993	1971	1947	1998	1986	1981
MIN	296	374	367	273	304	337	996	495	247	225	129	155
(WY)	1965	1931	1961	1931	1931	1941	1995	1941	1941	1941	1934	1934

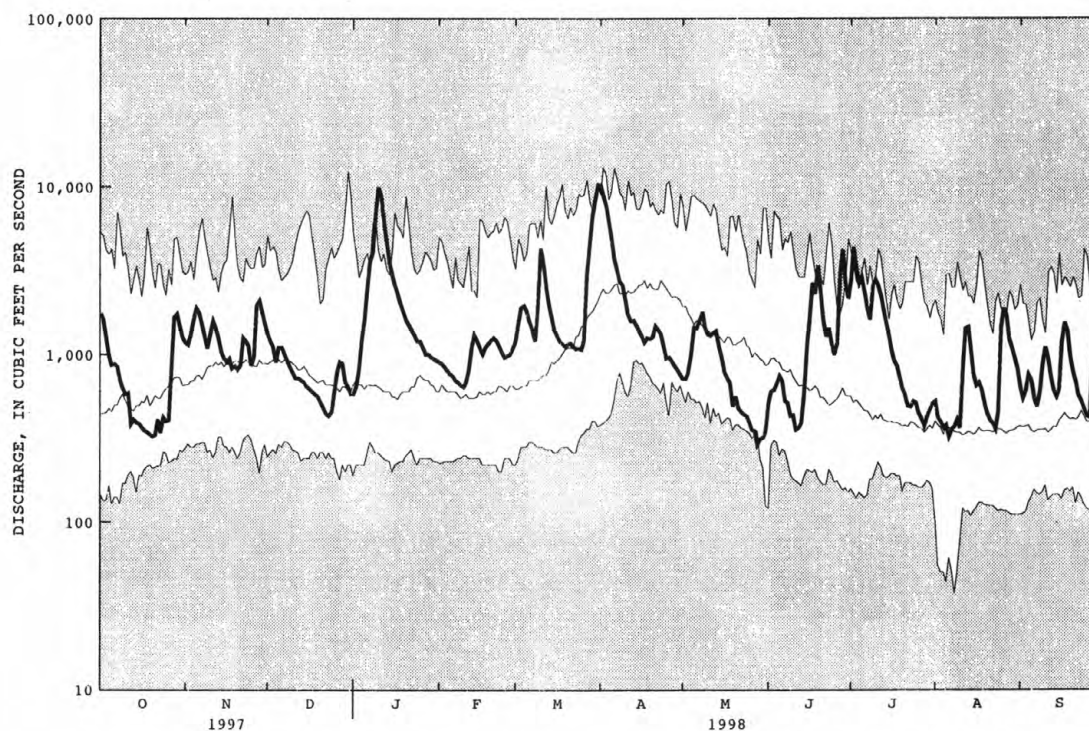
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## ST. LAWRENCE RIVER BASIN

## 04269000 ST. REGIS RIVER AT BRASHER CENTER, NY--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1910 - 1998	
ANNUAL TOTAL	513758		506277		1060	
ANNUAL MEAN	1408		1387		1884	
HIGHEST ANNUAL MEAN					1947	
LOWEST ANNUAL MEAN					581	
HIGHEST DAILY MEAN	6010	Mar 3	10300	Mar 31	13000	Apr 2 1916
LOWEST DAILY MEAN	225	Aug 10	290	May 28	37	Aug 8 1917
ANNUAL SEVEN-DAY MINIMUM	252	Jul 29	338	May 25	49	Aug 3 1917
ANNUAL RUNOFF (CFSM)	2.30		2.27		1.73	
ANNUAL RUNOFF (INCHES)	31.23		30.77		23.53	
10 PERCENT EXCEEDS	2710		2610		2250	
50 PERCENT EXCEEDS	1100		1000		691	
90 PERCENT EXCEEDS	390		411		290	



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



## ST. LAWRENCE RIVER BASIN

369

## 04270000 SALMON RIVER AT CHASM FALLS, NY

**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 mi<sup>2</sup>.

**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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 3,540 ft<sup>3</sup>/s, Apr. 1, 1998, gage height, 5.43 ft; minimum, 9.8 ft<sup>3</sup>/s, Sept. 26, 27, 1963.

**EXTREMES OUTSIDE PERIOD OF RECORD.**--Flood of Dec. 29, 1984, reached a stage of 5.63 ft, from floodmarks, discharge, 3,700 ft<sup>3</sup>/s.

**EXTREMES FOR CURRENT YEAR.**--Maximum discharge, 3,540 ft<sup>3</sup>/s, Apr. 1, gage height, 5.43 ft; minimum, 24 ft<sup>3</sup>/s, Oct. 19, gage height, 0.60 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	340	246	224	165	215	199	3280	211	262	819	169	154
2	280	247	194	178	211	222	2540	217	208	1190	149	148
3	268	302	226	205	211	228	1920	280	219	873	143	168
4	231	284	226	289	204	220	1450	397	215	609	138	170
5	237	345	238	344	200	213	1050	362	198	582	136	156
6	225	298	232	510	188	206	778	335	178	473	133	140
7	201	271	223	707	194	201	664	323	168	379	149	138
8	184	260	209	1030	200	196	612	340	164	337	157	192
9	175	263	199	1750	188	243	581	325	159	349	142	269
10	170	373	195	1830	189	438	536	308	149	354	142	269
11	166	335	172	1400	185	393	489	304	142	371	256	210
12	162	281	201	890	200	385	452	274	141	346	218	185
13	162	246	194	660	235	373	439	241	184	290	175	177
14	159	222	177	536	214	329	432	221	231	201	156	169
15	154	222	156	407	232	270	432	211	323	183	151	183
16	151	216	192	386	238	250	426	202	305	177	171	379
17	149	210	193	431	221	269	436	205	287	161	166	325
18	148	201	187	442	197	273	445	196	283	159	156	238
19	156	195	182	385	207	265	394	142	330	154	147	203
20	152	192	181	281	193	280	437	147	408	154	138	184
21	156	205	141	260	188	268	495	162	344	154	140	177
22	181	236	159	241	184	249	417	169	260	150	147	165
23	177	218	174	244	177	260	369	166	224	151	150	157
24	173	204	179	259	179	251	338	159	233	179	181	146
25	170	175	184	267	173	238	318	153	231	161	387	146
26	165	200	214	255	188	249	300	149	559	148	299	143
27	251	278	215	243	189	396	279	146	1420	146	232	317
28	328	274	198	262	191	755	265	144	1690	149	193	622
29	255	280	169	256	---	1530	246	141	1090	170	179	492
30	244	234	184	238	---	2100	211	164	706	207	183	366
31	241	---	171	222	---	2980	---	175	---	195	168	---
TOTAL	6211	7513	5989	15573	5591	14729	21031	6969	11311	9971	5451	6788
MEAN	200	250	193	502	200	475	701	225	377	322	176	226
MAX	340	373	238	1830	238	2980	3280	397	1690	1190	387	622
MIN	148	175	141	165	173	196	211	141	141	146	133	138

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1998, BY WATER YEAR (WY)

MEAN	193	219	203	195	167	274	546	335	202	156	148	157
MAX	540	446	401	502	409	637	890	948	540	393	350	322
(WY)	1978	1928	1928	1998	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

## SUMMARY STATISTICS

## FOR 1997 CALENDAR YEAR

## FOR 1998 WATER YEAR

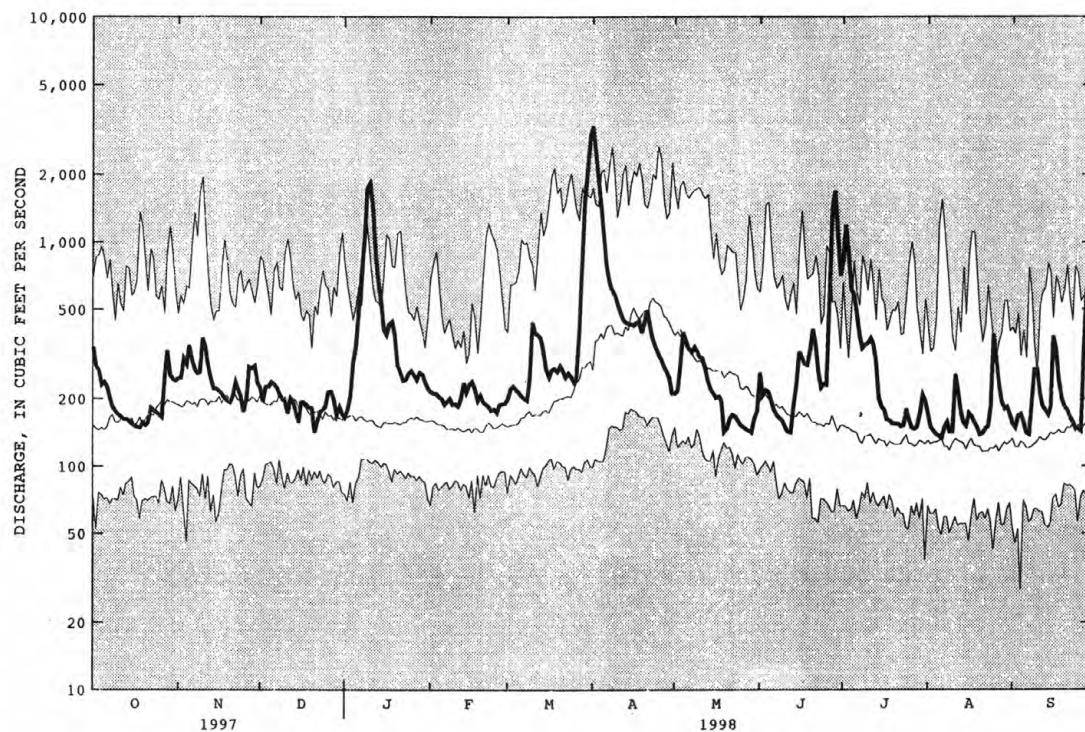
## WATER YEARS 1925 - 1998

ANNUAL TOTAL	94241	117127	
ANNUAL MEAN	258	321	
HIGHEST ANNUAL MEAN			233
LOWEST ANNUAL MEAN			364
HIGHEST DAILY MEAN	1080	Apr 7	1947
LOWEST DAILY MEAN	101	Jul 31	1965
ANNUAL SEVEN-DAY MINIMUM	112	Jul 27	3280
10 PERCENT EXCEEDS	454		152
50 PERCENT EXCEEDS	215		1965
90 PERCENT EXCEEDS	143		1998
			1934
			1941



## ST. LAWRENCE RIVER BASIN

04270000 SALMON RIVER AT CHASM FALLS, NY--Continued



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



## ST. LAWRENCE RIVER BASIN

371

## 04271500 GREAT CHAZY RIVER AT PERRY MILLS, NY

**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.**--243 mi<sup>2</sup>.

**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 ft<sup>3</sup>) from which the Clinton Correctional Facility at Dannemora (Saranac River basin) obtains its water supply (about 1 ft<sup>3</sup>/s). Several measurements of water temperature were made during the year. Satellite gage-height telemeter at station.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 9,700 ft<sup>3</sup>/s, Nov. 9, 1996, gage height, 12.24 ft; minimum about 0.8 ft<sup>3</sup>/s, Sept. 18, 1932; minimum gage height, 1.31 ft, Aug. 31, 1966.

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

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 10	1745	2,990	7.01	June 26	1800	3,720	7.74
Mar. 31	1230	*7,640	*10.89	July 2	0800	4,210	8.20

Minimum discharge, 56 ft<sup>3</sup>/s, Oct. 20, gage height, 1.70 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	206	222	e270	e150	e190	e330	5700	245	137	2190	114	103
2	209	446	e260	e140	e180	e460	4150	236	161	3830	106	90
3	158	875	e250	e140	e180	e700	3350	333	141	1960	98	97
4	127	637	e250	e160	e170	e840	2490	481	167	986	86	106
5	118	684	e240	e200	e170	e580	1820	466	142	1610	79	99
6	118	552	e230	e250	e170	e490	1450	400	121	1160	75	90
7	103	404	e230	e500	e170	e450	1410	350	106	744	75	230
8	85	329	e220	e2000	e160	e450	1450	336	98	626	79	265
9	78	316	e200	2600	e160	e500	1350	307	92	606	76	305
10	76	626	e190	2620	e170	e880	1160	285	83	363	76	301
11	71	630	e180	2440	e190	e1000	973	306	77	451	191	216
12	67	471	e170	1670	e250	e880	841	294	72	417	529	159
13	67	384	e160	1290	e300	e800	751	244	87	317	369	139
14	67	325	e150	e1100	e370	e700	666	213	160	263	205	123
15	68	311	e140	e980	e350	e600	608	198	616	219	166	117
16	66	e290	e140	e840	e320	e520	570	179	579	209	167	225
17	63	e270	e130	e700	e310	e470	584	171	516	1780	145	263
18	60	259	e130	e580	e310	e450	785	165	1210	715	127	179
19	60	247	e130	e500	e300	e450	581	144	1400	367	115	140
20	57	246	e120	e420	e290	e430	752	136	822	248	101	122
21	60	252	e120	e370	e280	e410	1500	150	547	199	92	115
22	65	e252	e110	e340	e270	e390	847	144	433	171	90	107
23	70	e250	e120	e310	e260	e380	582	131	728	163	89	99
24	73	e230	e130	e290	e260	e370	475	116	502	411	108	91
25	80	e200	e140	e270	e260	e380	415	104	409	274	314	89
26	78	e220	e140	e240	e280	e410	380	97	2200	190	303	88
27	148	e250	e150	e240	e280	e940	341	91	3010	152	213	144
28	464	e290	e150	e230	e290	e3000	318	84	2160	136	158	831
29	339	e290	e140	e220	---	6490	289	77	1090	126	135	646
30	265	e280	e150	e210	---	5840	264	83	1720	134	155	342
31	249	---	e150	e200	---	7090	---	82	---	122	140	---
TOTAL	3815	11038	5290	22200	6890	37680	36852	6648	19586	21139	4776	5921
MEAN	123	368	171	716	246	1215	1228	214	653	682	154	197
MAX	464	875	270	2620	370	7090	5700	481	3010	3830	529	831
MIN	57	200	110	140	160	330	264	77	72	122	75	88

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1998, BY WATER YEAR (WY)**

	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939
MEAN	139	216	203	254	205	493	935	380	200	126	90.8	84.6
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

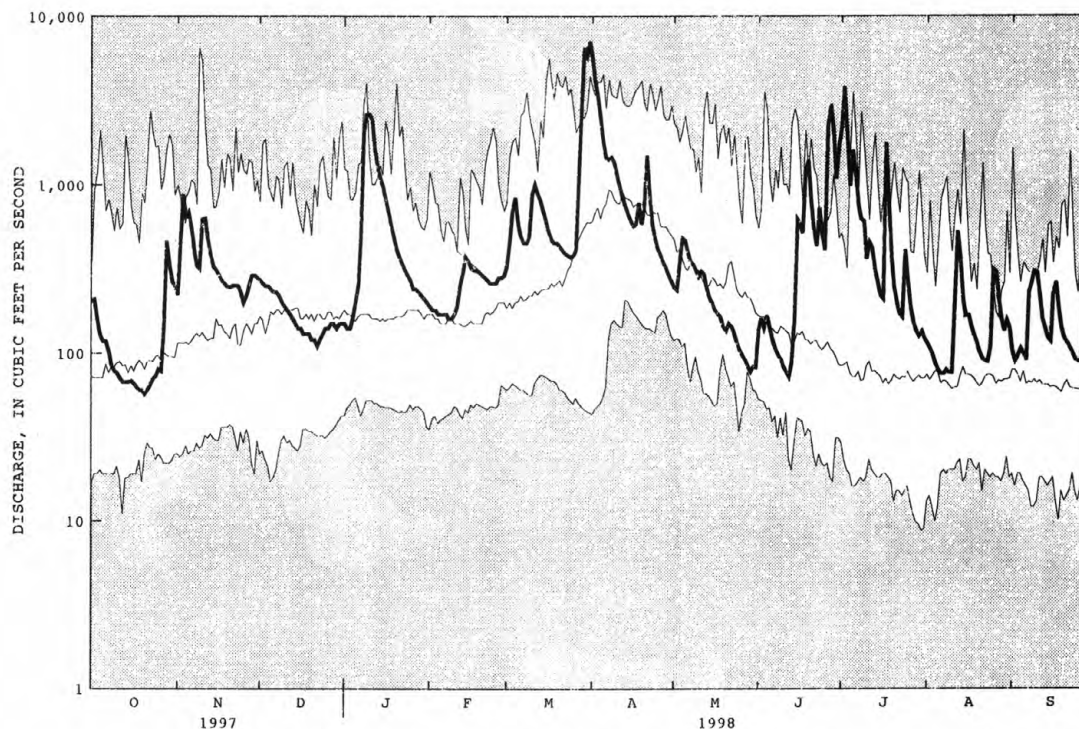
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## ST. LAWRENCE RIVER BASIN

## 04271500 GREAT CHAZY RIVER AT PERRY MILLS, NY--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1928 - 1998	
ANNUAL TOTAL	112455		181835		276	
ANNUAL MEAN	308		498		514	
HIGHEST ANNUAL MEAN					97.2	
LOWEST ANNUAL MEAN					1947	
HIGHEST DAILY MEAN	2720	Apr 7	7090	Mar 31	7090	Mar 31 1998
LOWEST DAILY MEAN	27	Aug 10	57	Oct 20	8.7	Jul 30 1991
ANNUAL SEVEN-DAY MINIMUM	36	Aug 6	62	Oct 16	11	Jul 26 1991
10 PERCENT EXCEEDS	728		992		620	
50 PERCENT EXCEEDS	170		250		140	
90 PERCENT EXCEEDS	62		89		45	



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



## ST. LAWRENCE RIVER BASIN

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## 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.**--50.3 mi<sup>2</sup>.

**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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 2,750 ft<sup>3</sup>/s, Nov. 10, 1996, gage height, 10.40 ft, outside gage height was 11.12 ft, from crest-stage gage; minimum, 0.42 ft<sup>3</sup>/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 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 31	2330	*1,850	a*8.73	July 2	1445	1,220	6.95
June 20	0215	716	5.25				

a Recorded; outside gage height, 9.65 ft, from crest-stage gage.

Minimum discharge, 8.9 ft<sup>3</sup>/s, Apr. 14, gage height, 1.89 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	43	e66	e33	e46	e80	1670	46	22	664	27	19
2	57	121	e62	e32	e44	116	1120	45	26	1080	23	16
3	52	202	e60	e32	e43	133	776	57	26	689	20	19
4	40	155	e58	e38	e43	136	409	62	27	267	19	28
5	34	156	e58	e62	e43	e110	240	61	24	235	18	31
6	30	170	e56	e90	e42	e80	221	67	20	234	17	32
7	22	135	e54	e130	e40	e72	198	63	17	177	33	49
8	17	103	e52	171	e39	e74	196	55	16	139	35	42
9	15	90	e47	240	e38	e90	187	49	14	160	25	43
10	14	142	e44	275	e41	e120	171	46	13	150	22	45
11	12	142	e42	221	e47	e150	143	48	12	115	42	38
12	11	103	e41	e170	e58	e140	125	49	11	106	82	32
13	11	86	e39	e140	e90	e130	110	43	13	89	66	26
14	11	73	e35	e110	95	e120	76	37	27	79	47	24
15	11	68	e33	e100	92	e100	87	34	68	68	34	24
16	11	68	e33	e88	84	e88	79	30	105	59	31	45
17	11	66	e32	e80	72	e78	76	27	90	79	28	47
18	12	64	e31	e72	63	e70	97	25	100	88	25	39
19	12	61	e31	e68	59	e68	89	23	315	66	24	32
20	12	61	e29	e62	58	e66	95	23	560	52	21	27
21	11	e60	e28	e60	58	e64	147	25	259	43	20	24
22	10	e60	e26	e56	57	e58	143	24	177	36	19	20
23	11	e58	e28	e54	55	e58	102	22	184	32	17	18
24	13	e54	e29	e52	e50	e56	82	20	192	63	22	16
25	14	e50	e31	e52	e50	e58	72	17	144	66	43	15
26	16	e56	e32	e50	e52	e62	65	15	169	47	53	15
27	44	e64	e33	e50	e56	e80	61	14	513	38	44	27
28	95	e76	e34	e51	e64	e300	57	13	375	33	34	131
29	85	e74	e33	e52	---	1090	53	12	246	31	28	165
30	60	e72	e32	e52	---	1210	48	12	311	31	25	111
31	49	---	e34	e48	---	1360	---	12	---	29	23	---
TOTAL	850	2733	1243	2791	1579	6417	6995	1076	4076	5045	967	1200
MEAN	27.4	91.1	40.1	90.0	56.4	207	233	34.7	136	163	31.2	40.0
MAX	95	202	66	275	95	1360	1670	67	560	1080	82	165
MIN	10	43	26	32	38	56	48	12	11	29	17	15
CFSM	.55	1.81	.80	1.79	1.12	4.12	4.64	.69	2.70	3.24	.62	.80
IN.	.63	2.02	.92	2.06	1.17	4.75	5.17	.80	3.01	3.73	.72	.89

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

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
MEAN	40.8	81.8	51.5	59.7	35.4	99.7	207	69.3	48.1	37.7	20.5
MAX	110	214	122	129	75.6	207	420	145	136	163	43.2
(WY)	1997	1997	1997	1995	1991	1998	1993	1996	1998	1998	1998
MIN	5.74	7.76	10.5	12.2	7.45	20.8	43.4	31.1	12.1	2.81	1.15
(WY)	1992	1992	1992	1994	1992	1993	1995	1995	1997	1995	1991

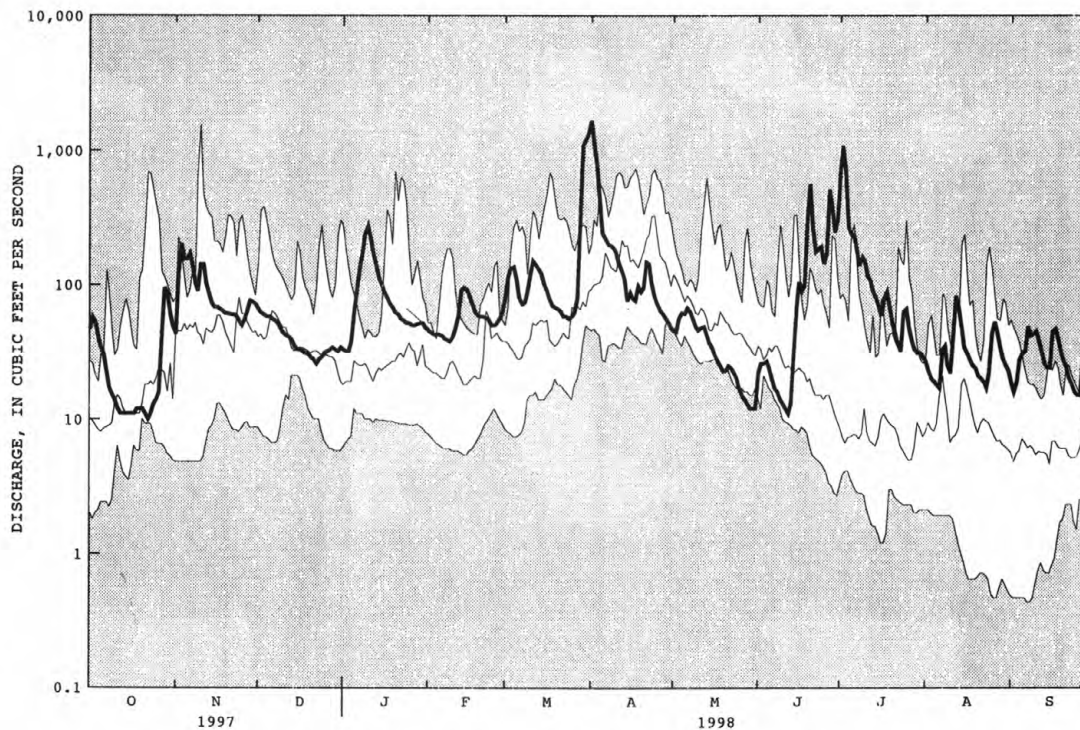
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## ST. LAWRENCE RIVER BASIN

04271815 LITTLE CHAZY RIVER NEAR CHAZY, NY--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1990 - 1998	
ANNUAL TOTAL	18599.4		34972			
ANNUAL MEAN	51.0		95.8		62.5	
HIGHEST ANNUAL MEAN					95.8	
LOWEST ANNUAL MEAN					28.1	
HIGHEST DAILY MEAN	350	Apr 29	1670	Apr 1	1670	Apr 1 1998
LOWEST DAILY MEAN	2.5	Aug 2	10	Oct 22	.43	Sep 7 1991
ANNUAL SEVEN-DAY MINIMUM	3.3	Jul 27	11	Oct 11	.45	Sep 2 1991
ANNUAL RUNOFF (CFSM)	1.01		1.90		1.24	
ANNUAL RUNOFF (INCHES)	13.76		25.86		16.87	
10 PERCENT EXCEEDS	130		170		150	
50 PERCENT EXCEEDS	30		52		30	
90 PERCENT EXCEEDS	8.0		17		4.9	



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



## 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 mi<sup>2</sup>.

**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 4.29 ft<sup>3</sup>/s from Saranac River and Mead and West Brooks, tributaries upstream from station, for municipal supply. About 1 ft<sup>3</sup>/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.

**EXTREMES FOR PERIOD OF RECORD.**---Maximum discharge, 14,400 ft<sup>3</sup>/s, Nov. 9, 1996, gage height, 12.11 ft; minimum discharge not determined.

**EXTREMES FOR CURRENT YEAR.**---Maximum discharge, 11,200 ft<sup>3</sup>/s, Apr. 1, gage height, 10.73 ft; minimum, 168 ft<sup>3</sup>/s, Aug. 1, gage height, 2.50 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	658	629	985	e500	1300	936	9770	1030	1100	4290	711	750
2	612	946	659	e660	1330	1010	8550	1040	666	4740	792	743
3	594	1310	613	e800	1200	1090	7080	1110	751	3190	753	782
4	611	1230	e660	1110	e1100	1080	5700	1240	694	2700	729	752
5	678	1340	e700	1210	e840	1040	4670	1250	691	3140	593	723
6	682	1200	832	1620	e800	987	4020	1240	629	2350	591	619
7	615	1160	939	1970	e740	963	3670	1200	586	1990	614	550
8	565	1050	896	2880	e740	926	3370	1280	597	1990	627	644
9	585	1070	747	5540	e760	1050	3090	1250	589	2510	614	812
10	566	1270	704	5770	e820	1630	2850	1130	505	2390	614	703
11	548	1140	501	5310	891	e1300	2610	1200	490	2270	1050	596
12	540	938	e540	4330	1010	1210	2380	1140	469	2090	1000	501
13	534	868	e580	3820	1200	1470	2180	1070	747	1860	787	483
14	510	692	e600	3120	e900	e1300	2050	935	1050	1690	695	519
15	567	743	e540	2450	e860	e1200	1860	851	1800	1490	649	539
16	536	735	e600	2170	e900	1190	1960	780	1650	1430	672	983
17	541	708	e720	2540	e860	1070	1870	680	2180	1560	684	885
18	557	694	755	2370	e820	983	1960	521	2150	1340	649	651
19	554	708	800	2080	804	949	1690	499	2570	1170	609	714
20	547	740	835	1980	e800	1000	1920	514	2450	1070	605	698
21	550	768	796	e1900	e780	973	2180	604	1800	979	599	710
22	563	925	671	e1700	e780	773	1740	494	1350	1020	609	773
23	536	758	469	e1500	788	1080	1670	523	1170	908	645	725
24	511	742	489	e1500	868	1230	1590	506	1110	1000	618	677
25	495	604	501	1500	888	1050	1490	493	1070	864	901	671
26	472	798	717	e1200	1050	1060	1380	504	4410	852	1060	681
27	725	1060	e740	e1000	996	1590	1270	558	7500	810	1170	909
28	919	1100	e620	e1100	931	3670	1190	467	4430	758	1100	1270
29	744	1170	e580	e1200	---	6340	1120	458	2750	772	1020	1200
30	699	1070	e550	e1300	---	6670	1090	521	2490	834	990	1180
31	625	---	e530	1340	---	9580	---	637	---	924	839	---
TOTAL	18439	28166	20869	67470	25756	56400	87970	25725	50444	54981	23589	22443
MEAN	595	939	673	2176	920	1819	2932	830	1681	1774	761	748
MAX	919	1340	985	5770	1330	9580	9770	1280	7500	4740	1170	1270
MIN	472	604	469	500	740	773	1090	458	469	758	591	483

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903 - 1998, BY WATER YEAR (WY)**

MEAN	617	738	732	699	658	1092	1984	1374	805	569	476	488
MAX	2162	1971	2071	2176	1372	2487	3626	3687	2757	1820	1045	1220
(WY)	1978	1997	1984	1998	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

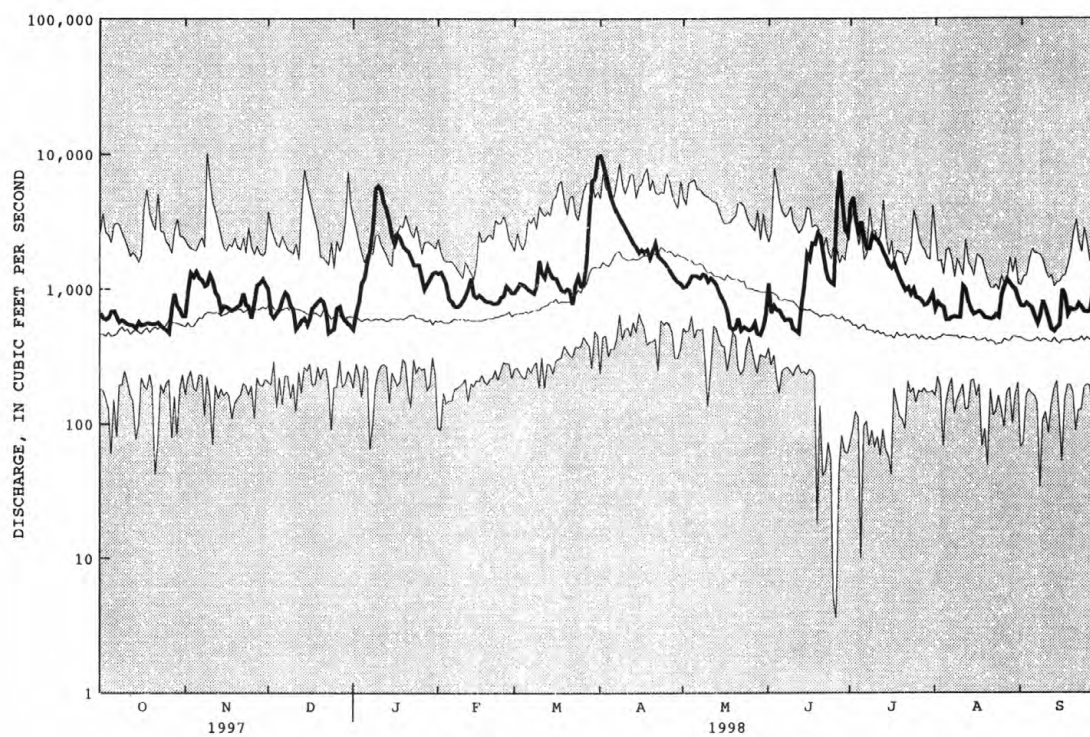
SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1903 - 1998	
ANNUAL TOTAL	343548		482252			
ANNUAL MEAN	941		1321		853	
HIGHEST ANNUAL MEAN					1458	
LOWEST ANNUAL MEAN					460	
HIGHEST DAILY MEAN	3860	Apr 7	9770	Apr 1	10200	Nov 9 1996
LOWEST DAILY MEAN	326	Aug 10	458	May 29	3.6	Jun 26 1979
ANNUAL SEVEN-DAY MINIMUM	352	Aug 5	501	May 24	38	Jun 21 1979
10 PERCENT EXCEEDS	1860		2450		1640	
50 PERCENT EXCEEDS	730		919		640	
90 PERCENT EXCEEDS	467		548		325	

e Estimated



## ST. LAWRENCE RIVER BASIN

04273500 SARANAC RIVER AT PLATTSBURGH, NY--Continued



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



## ST. LAWRENCE RIVER BASIN

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## 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.**--63.3 mi<sup>2</sup>.

**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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 4,200 ft<sup>3</sup>/s, Nov. 9, 1996, gage height, 7.56 ft, from floodmark in gage well; minimum discharge, 3.0 ft<sup>3</sup>/s, Sept. 17, 1967.

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 500 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 9	1115	844	3.99	July 1	1730	2,500	6.03
Mar. 31	0445	1,480	4.98	July 5	0200	857	3.88
June 27	1415	*4,170	*7.54	July 9	0145	585	3.35

Minimum discharge, 16 ft<sup>3</sup>/s, Oct. 10, 11, gage height, 0.73 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	58	53	e25	e40	e56	1030	56	107	1530	59	e44
2	24	106	46	e27	e37	e80	889	63	63	1240	51	e43
3	21	132	48	e31	e36	e180	601	90	66	397	47	e48
4	21	85	52	e38	e35	e110	387	83	58	334	46	e47
5	27	98	48	e50	e35	e84	277	95	52	592	45	e44
6	28	64	e48	e90	e35	e80	224	83	45	263	45	e39
7	21	51	e45	e200	e36	e76	213	74	42	178	48	e37
8	20	44	e41	e400	e35	e90	191	68	42	224	52	e38
9	19	54	e37	e700	e33	e250	170	64	40	500	45	e43
10	19	129	e38	568	e32	e190	150	72	36	263	51	e44
11	17	83	e38	372	e43	e160	130	89	34	189	e200	e39
12	17	58	e37	273	e64	e140	116	67	34	149	e170	e36
13	20	51	e36	239	e80	e120	108	58	54	128	e110	e36
14	19	45	e35	211	e66	e110	102	53	168	116	e80	e35
15	19	e45	e35	e160	e60	e96	95	50	332	96	e70	44
16	19	e45	e36	e130	e56	e88	88	47	208	97	e64	143
17	21	e45	e36	e110	e52	e68	95	48	207	315	e58	87
18	20	46	e34	e90	e50	e66	127	45	223	130	e54	58
19	23	44	e33	e78	e54	e68	95	41	355	101	e50	46
20	27	45	e32	e72	e52	e68	173	40	280	86	e46	44
21	29	46	e28	e66	e47	e60	179	49	157	78	e47	42
22	32	60	e30	e60	e45	e56	115	42	124	71	e48	38
23	32	53	e31	e58	e45	e54	91	40	168	70	e52	36
24	32	50	e30	e56	e45	e54	79	37	93	82	e56	34
25	31	43	e31	e56	e44	e66	71	35	90	65	e66	34
26	30	52	e32	e54	e43	77	68	34	1120	58	e64	35
27	56	109	e29	e52	e45	256	64	33	2510	56	e56	99
28	52	74	e28	e50	e48	790	62	32	847	55	e50	156
29	42	63	e25	e46	---	1210	59	45	315	84	e48	102
30	43	56	e24	e45	---	984	57	75	269	90	e52	70
31	52	---	e23	e43	---	1320	---	60	---	76	e47	---
TOTAL	861	1934	1119	4450	1293	7107	6106	1768	8139	7733	1977	1641
MEAN	27.8	64.5	36.1	144	46.2	229	204	57.0	271	249	63.8	54.7
MAX	56	132	53	700	80	1320	1030	95	2510	1530	200	156
MIN	17	43	23	25	32	54	57	32	34	55	45	34
CFSM	.44	1.02	.57	2.27	.73	3.62	3.22	.90	4.29	3.94	1.01	.86
IN.	.51	1.14	.66	2.62	.76	4.18	3.59	1.04	4.78	4.54	1.16	.96

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1998, 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	1998	
MEAN	36.7	62.6	48.9	62.9	41.6	113	173	72.5	59.5	42.3	26.4	20.1																						
MAX	87.9	202	112	144	67.9	229	365	145	271	249	63.8	54.7																						
(WY)	1996	1997	1997	1998	1996	1998	1993	1996	1998	1998	1998	1998																						
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																						

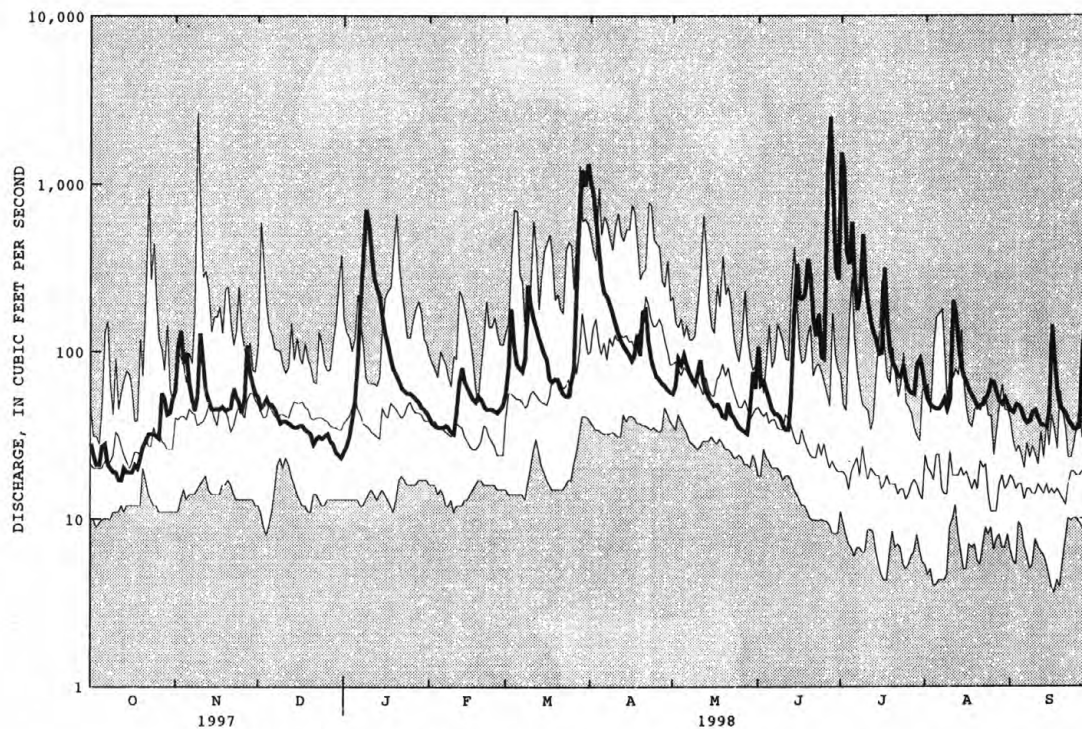
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## ST. LAWRENCE RIVER BASIN

## 04273700 SALMON RIVER AT SOUTH PLATTSBURGH, NY--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1966 - 1998	
ANNUAL TOTAL	23444		44128		63.0	
ANNUAL MEAN	64.2		121		121	
HIGHEST ANNUAL MEAN					28.0	
LOWEST ANNUAL MEAN					2640	
HIGHEST DAILY MEAN	620	Mar 30	2510	Jun 27	3.6	Nov 9 1996
LOWEST DAILY MEAN	10	Aug 10	17	Oct 11	4.5	Sep 17 1967
ANNUAL SEVEN-DAY MINIMUM	12	Aug 5	19	Oct 9	.99	Sep 14 1967
ANNUAL RUNOFF (CFSM)	1.01		1.91		13.52	
ANNUAL RUNOFF (INCHES)	13.78		25.93		124	
10 PERCENT EXCEEDS	131		223		36	
50 PERCENT EXCEEDS	42		56		13	
90 PERCENT EXCEEDS	19		32			



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



## ST. LAWRENCE RIVER BASIN

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## 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 mi<sup>2</sup>.

**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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 7,210 ft<sup>3</sup>/s, June 27, 1998, gage height, 13.78 ft, outside gage height was about 14.6 ft, from floodmark, from rating curve extended above 3,300 ft<sup>3</sup>/s on basis of peak flow from contracted-opening measurement at site 0.4 mi upstream; minimum discharge, 2.6 ft<sup>3</sup>/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 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 30	0315	1,460	4.71	July 1	2330	3,630	7.59
June 27	1015	a*7,210	b*13.78	July 17	0730	1,210	4.01

a From rating curve extended as explained above.

b Recorded; outside gage height was about 14.6 ft, from floodmark.

Minimum discharge, 9.2 ft<sup>3</sup>/s, Oct. 15, gage height, 1.19 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	e38	e60	e28	e44	e62	985	49	60	1870	64	39
2	15	e80	e58	e31	e41	e130	822	50	61	1600	53	36
3	15	e110	e58	e36	e38	e170	606	63	59	573	46	42
4	13	e90	e56	e42	e37	e130	332	73	53	359	41	50
5	15	e80	e54	e56	e37	e100	203	83	48	736	39	45
6	16	71	e52	e80	e38	e88	177	82	44	420	38	37
7	13	67	e50	e200	e38	e84	150	75	39	257	39	33
8	12	64	e45	e450	e37	e90	129	73	38	224	42	38
9	13	63	e43	e700	e36	e230	112	70	38	327	40	48
10	20	73	e42	e600	e36	e200	99	68	38	320	50	55
11	15	72	e41	e430	e46	e160	92	72	35	237	166	47
12	11	65	e39	e250	e90	e140	86	68	32	176	198	40
13	11	60	e37	e210	e78	e110	80	62	43	157	147	35
14	10	56	e35	e180	e70	e98	76	54	97	128	103	35
15	11	e54	e34	e150	e60	e90	72	49	217	113	68	47
16	12	e52	e36	e130	e54	e86	69	45	223	193	60	129
17	12	55	e37	e110	e52	e80	72	43	174	992	53	141
18	12	54	e36	e92	e54	e76	73	40	199	471	48	97
19	15	53	e34	e80	e56	e70	71	35	355	193	44	65
20	15	54	e32	e72	e54	e68	97	31	427	132	40	48
21	e16	53	e31	e68	e50	e64	134	38	224	102	38	43
22	e17	55	e32	e64	e50	e62	111	43	138	89	43	39
23	e20	57	e33	e62	e49	e60	87	46	163	88	49	35
24	e19	57	e33	e60	e48	e64	75	39	128	87	63	33
25	e19	55	e32	e58	e48	e72	67	31	105	84	80	32
26	e19	57	e33	e56	e49	e100	61	26	1010	73	103	31
27	e33	e72	e33	e54	e52	e360	58	26	4850	66	86	76
28	e31	e74	e30	e52	e54	1030	54	24	1410	59	64	168
29	e26	e72	e27	e50	---	1270	52	25	491	65	51	228
30	e27	e68	e26	e48	---	1210	50	41	306	70	47	131
31	e30	---	e27	e46	---	1220	---	42	---	73	44	---
TOTAL	532	1931	1216	4545	1396	7774	5152	1566	11105	10334	2047	1923
MEAN	17.2	64.4	39.2	147	49.9	251	172	50.5	370	333	66.0	64.1
MAX	33	110	60	700	90	1270	985	83	4850	1870	198	228
MIN	10	38	26	28	36	60	50	24	32	59	38	31
CFSM	.25	.95	.58	2.16	.74	3.70	2.53	.75	5.46	4.92	.97	.95
IN.	.29	1.06	.67	2.49	.77	4.27	2.83	.86	6.09	5.67	1.12	1.06

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1998, BY WATER YEAR (WY)**

	1992	1993	1994	1995	1996	1997	1998
MEAN	27.0	64.0	42.7	68.6	35.3	91.8	170
MAX	68.4	171	103	147	63.4	251	329
(WY)	1996	1997	1997	1998	1996	1998	1993
MIN	11.2	23.0	27.7	15.5	15.1	41.6	36.9
(WY)	1995	1992	1994	1994	1992	1994	1995

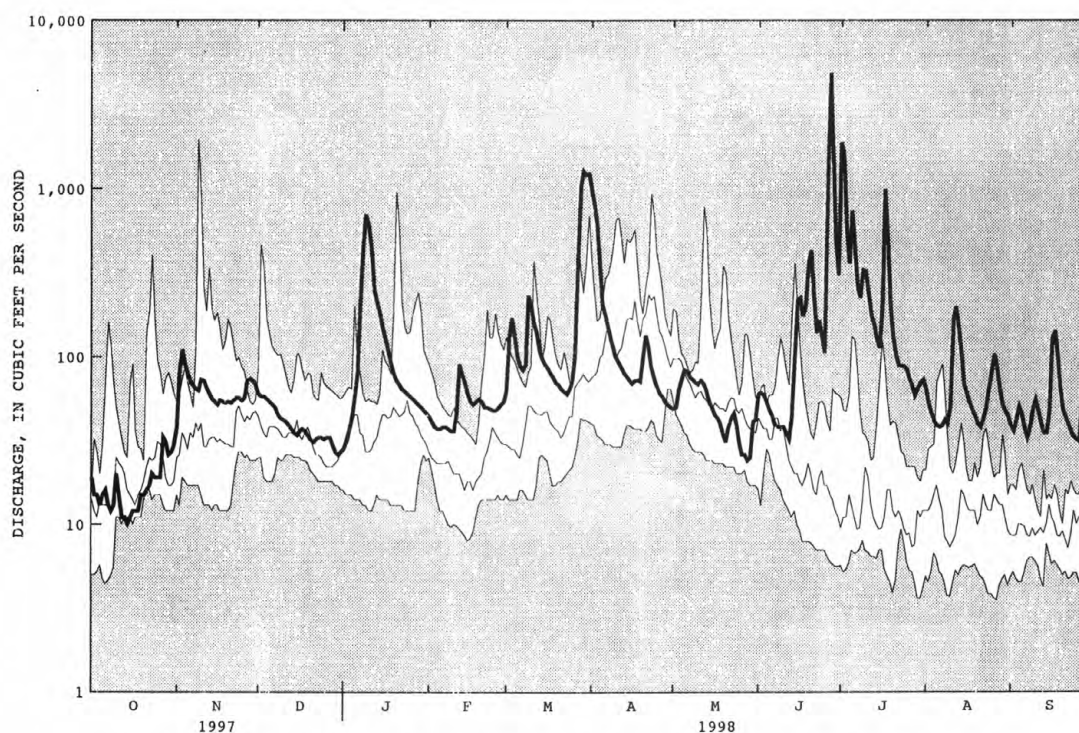
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## ST. LAWRENCE RIVER BASIN

## 04273800 LITTLE AUSABLE RIVER NEAR VALCOUR, NY--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1992 - 1998	
ANNUAL TOTAL	17810.2		49521		62.7	
ANNUAL MEAN	48.8		136		136	
HIGHEST ANNUAL MEAN					26.3	
LOWEST ANNUAL MEAN					1998	
HIGHEST DAILY MEAN	360	Mar 30	4850	Jun 27	4850	Jun 27 1998
LOWEST DAILY MEAN	3.7	Aug 9	10	Oct 14	3.5	Aug 27 1992
ANNUAL SEVEN-DAY MINIMUM	4.7	Aug 5	11	Oct 12	4.1	Aug 21 1992
ANNUAL RUNOFF (CFSM)	.72		2.00		.92	
ANNUAL RUNOFF (INCHES)	9.77		27.17		12.56	
10 PERCENT EXCEEDS	100		224		115	
50 PERCENT EXCEEDS	35		58		31	
90 PERCENT EXCEEDS	10		29		8.9	



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



## 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.**--446 mi<sup>2</sup>.

**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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 37,400 ft<sup>3</sup>/s, Nov. 9, 1996, gage height, 13.83 ft, from rating curve extended above 13,000 ft<sup>3</sup>/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 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 8	1815	*18,000	*9.51	Apr. 2	0045	11,500	7.76
Mar. 29	0800	12,800	8.13	June 15	0600	7,790	6.56
Mar. 31	2030	13,700	8.38	June 27	1430	13,800	8.41

Minimum recorded discharge, 159 ft<sup>3</sup>/s, Oct. 20, 21, 23, 24, gage height, 1.30 ft, but may have been less during period of estimated record Dec. 15-31.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	600	323	467	e180	e260	518	10200	565	415	3770	308	333
2	573	2450	379	e220	e250	618	8850	717	405	3570	291	314
3	432	3500	e390	e300	e240	667	5260	1450	530	2040	266	353
4	382	1670	e410	e350	e230	632	3410	1760	591	1400	254	426
5	427	1600	425	e700	e230	605	2410	1870	515	1960	283	389
6	517	1110	412	e1600	e220	544	1850	2430	398	1540	288	321
7	394	830	387	e2500	e210	503	1590	1830	344	1050	323	297
8	326	673	e350	12100	e210	480	1450	1490	325	1000	350	362
9	285	668	e320	14900	e210	737	1340	1180	374	2300	298	393
10	255	1160	e280	9640	e200	3620	1210	1160	356	1880	269	592
11	235	960	e250	4200	e210	2250	1070	2420	304	1560	1140	458
12	222	725	e230	2420	e260	1460	967	1560	282	1240	4010	365
13	215	589	e210	1920	e350	1070	922	1070	975	1030	1720	324
14	215	e450	e200	1290	e560	995	926	835	2470	838	895	296
15	205	e440	e190	1010	e600	811	981	702	6530	664	602	365
16	206	e450	e180	e900	e520	e660	1070	606	3380	618	484	1460
17	202	457	e180	e800	e480	e600	1620	533	3250	1000	438	1100
18	197	425	e170	e720	e460	e580	2010	447	2570	698	395	681
19	195	402	e170	e640	e450	624	1260	400	2230	517	346	507
20	246	395	e160	e580	e450	684	1660	355	2010	502	306	421
21	177	415	e160	e540	e450	e600	1830	402	1450	442	290	393
22	184	496	e160	e480	e440	e540	1420	355	1020	388	284	351
23	205	457	e160	e450	e430	e500	1190	320	1230	363	273	329
24	175	410	e170	e410	e420	e490	1090	298	932	403	557	319
25	185	348	e180	e380	e400	e500	991	293	744	351	1430	303
26	185	434	e180	e340	e400	611	872	276	4960	314	1340	290
27	266	748	e180	e310	e420	3240	751	257	9560	287	818	1190
28	467	598	e180	e300	e460	8920	664	237	4830	283	554	1820
29	405	610	e180	e290	---	12000	596	224	2320	435	444	1090
30	343	453	e180	e280	---	9140	559	231	1850	525	430	770
31	311	---	e170	e270	---	12600	---	282	---	387	379	---
TOTAL	9232	24246	7660	61020	10020	67799	60019	26555	57150	33355	20065	16612
MEAN	298	808	247	1968	358	2187	2001	857	1905	1076	647	554
MAX	600	3500	467	14900	600	12600	10200	2430	9560	3770	4010	1820
MIN	175	323	160	180	200	480	559	224	282	283	254	290
CFSM	.67	1.81	.55	4.41	.80	4.90	4.49	1.92	4.27	2.41	1.45	1.24
IN.	.77	2.02	.64	5.09	.84	5.65	5.01	2.21	4.77	2.78	1.67	1.39

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1910 - 1998, BY WATER YEAR (WY)**

	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921
MEAN	491	613	519	455	353	852	1871	1382	619	362	289	331
MAX	1637	1729	1659	1968	1010	3288	3436	3101	1905	1444	718	1255
(WY)	1919	1928	1921	1998	1925	1921	1960	1947	1998	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

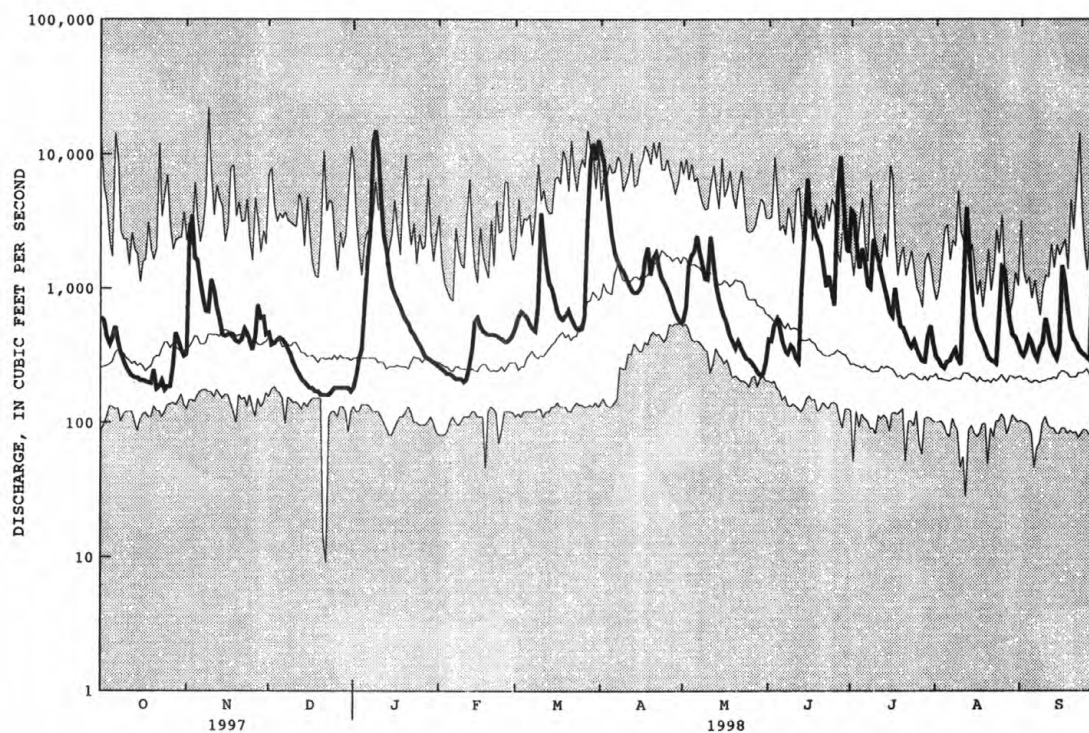
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## ST. LAWRENCE RIVER BASIN

## 04275500 AUSABLE RIVER NEAR AU SABLE FORKS, NY--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1910 - 1998	
ANNUAL TOTAL	268265		393733		680	
ANNUAL MEAN	735		1079		1087	
HIGHEST ANNUAL MEAN					380	
LOWEST ANNUAL MEAN					22000	
HIGHEST DAILY MEAN	5260	Apr 7	14900	Jan 9	9.0	Nov 9 1996
LOWEST DAILY MEAN	120	Aug 9	160	Dec 20	72	Dec 22 1912
ANNUAL SEVEN-DAY MINIMUM	136	Aug 5	164	Dec 18	1.52	Aug 8 1923
ANNUAL RUNOFF (CFSM)	1.65		2.42		20.72	
ANNUAL RUNOFF (INCHES)	22.38		32.84		1510	
10 PERCENT EXCEEDS	1650		2120		348	
50 PERCENT EXCEEDS	449		467		165	
90 PERCENT EXCEEDS	190		213			



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



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**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.

**GAGE.**--Water-stage recorder. Datum of gage is 150.88 ft above sea level. Prior to November 1908, staff gages at site 0.75 mi downstream at various datums. July 23 to Aug. 28, 1923, staff gage at site 600 ft downstream at present datum. May 1987 to February 1990, crest-stage gage at present site and datum.

**REMARKS.**--Records good except those for estimated daily discharges, which are poor. Occasional diurnal fluctuation at low flow caused by powerplant at Wadham's. 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 ft<sup>3</sup>/s, Nov. 9, 1996, gage height, 10.93 ft, from floodmark in gage well; minimum discharge, 8.8 ft<sup>3</sup>/s, Sept. 20, 1957, gage height, 1.84 ft.

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

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 9	0545	*7,370	*8.67	Apr. 1	0445	5,400	7.57
Mar. 10	0800	3,250	6.13	June 15	2000	2,860	5.82
Mar. 29	2015	4,890	7.26	June 27	2015	4,690	7.13

Minimum discharge, 64 ft<sup>3</sup>/s, Oct. 22, gage height, 2.35 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	210	111	e190	e130	e180	e230	4620	283	219	1510	191	181
2	157	609	e180	e120	e170	e250	3680	306	212	1320	168	163
3	141	1440	e170	e130	e170	e280	2600	572	226	796	140	172
4	141	672	e170	e150	e160	e300	1820	900	244	632	136	228
5	131	583	e160	e180	e160	e310	1300	763	196	1190	139	197
6	147	453	e150	e260	e150	e300	1040	999	169	787	142	156
7	139	342	e150	e500	e150	e290	925	950	145	591	150	146
8	114	278	e150	e2000	e140	e280	840	831	151	629	164	278
9	94	298	e140	6460	e140	e500	786	614	164	1210	142	292
10	83	797	e140	3840	e130	2970	713	551	152	937	136	236
11	76	613	e130	1810	e130	1590	634	972	128	819	354	194
12	68	411	e130	987	e150	818	578	783	120	605	1870	168
13	71	326	e120	e500	e190	589	551	572	219	509	922	156
14	73	267	e120	e400	e260	e500	533	470	614	441	499	148
15	74	e230	e120	e350	e300	e450	506	406	2340	379	367	184
16	73	e220	e110	e330	e290	e410	483	354	1650	381	299	595
17	72	e200	e110	e310	e270	e350	539	316	1370	870	261	437
18	72	e190	e110	e300	e260	e370	617	277	1210	501	245	299
19	72	e190	e100	e280	e250	436	483	248	1100	364	220	244
20	72	e180	e100	e270	e240	536	706	226	1650	317	195	216
21	74	e180	e100	e260	e240	438	835	260	1000	301	179	205
22	69	e170	e110	e250	e230	341	628	223	666	265	171	193
23	70	e170	e110	e240	e220	385	540	204	857	250	161	176
24	72	e160	e120	e230	e210	370	492	188	665	312	194	168
25	72	e150	e120	e220	e210	346	453	169	508	250	461	164
26	69	e170	e130	e220	e220	405	410	161	2440	215	666	163
27	106	e250	e120	e220	e230	1230	377	152	4440	201	409	622
28	222	e230	e120	e210	e220	2780	346	141	2700	197	283	642
29	200	e210	e120	e200	---	4560	328	133	1230	221	232	429
30	139	e200	e120	e190	---	3960	296	140	927	256	240	314
31	111	---	e130	e180	---	4720	---	142	---	215	212	---
TOTAL	3284	10300	4050	21727	5670	31294	28659	13306	27712	17471	9948	7766
MEAN	106	343	131	701	203	1009	955	429	924	564	321	259
MAX	222	1440	190	6460	300	4720	4620	999	4440	1510	1870	642
MIN	68	111	100	120	130	230	296	133	120	197	136	146
CFSM	.39	1.27	.48	2.60	.75	3.74	3.54	1.59	3.42	2.09	1.19	.96
IN.	.45	1.42	.56	2.99	.78	4.31	3.95	1.83	3.82	2.41	1.37	1.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 1998, BY WATER YEAR (WY)

MEAN	174	262	236	225	176	459	940	545	257	149	106	106
MAX	543	892	755	772	627	1375	1945	1140	924	582	417	483
(WY)	1946	1928	1928	1996	1925	1936	1993	1945	1998	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

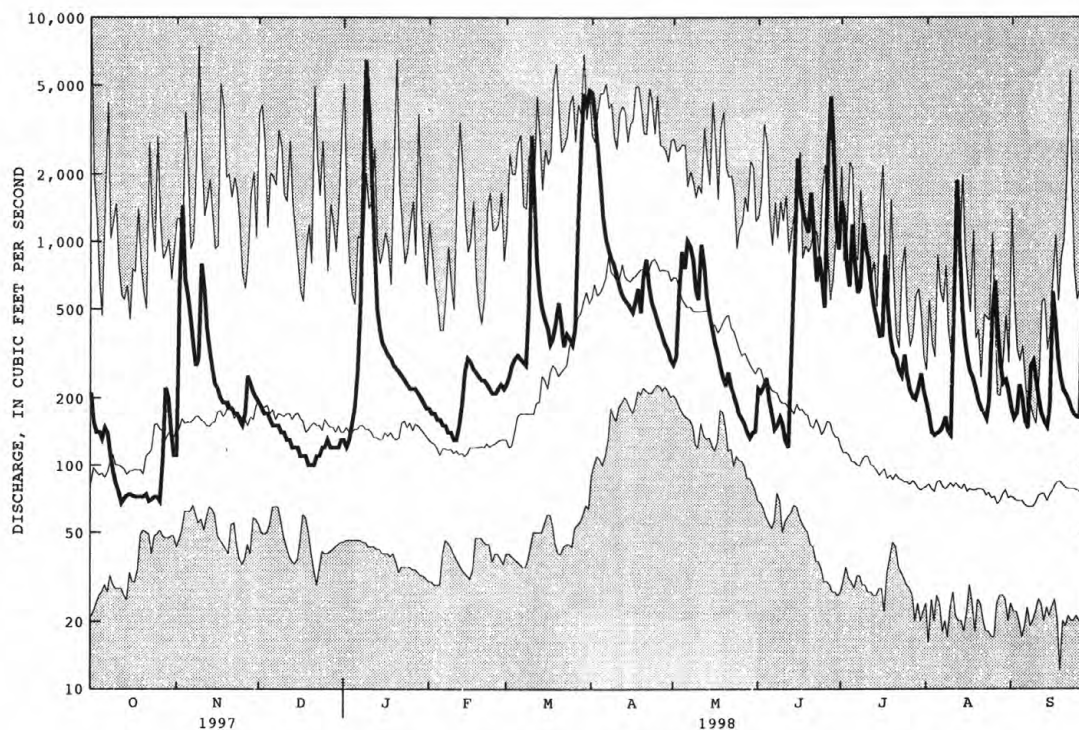
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## ST. LAWRENCE RIVER BASIN

## 04276500 BOUQUET RIVER AT WILLSBORO, NY--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1923 - 1998	
ANNUAL TOTAL	114333		181187		301	
ANNUAL MEAN	313		496		496	
HIGHEST ANNUAL MEAN					122	
LOWEST ANNUAL MEAN					8400	
HIGHEST DAILY MEAN	2330	Apr 7	6460	Jan 9	122	1965
LOWEST DAILY MEAN	49	Aug 10	68	Oct 12	12	1924
ANNUAL SEVEN-DAY MINIMUM	56	Aug 6	71	Oct 20	20	1957
ANNUAL RUNOFF (CFSM)	1.16		1.84		1.11	1941
ANNUAL RUNOFF (INCHES)	15.75		24.96		15.15	
10 PERCENT EXCEEDS	739		978		694	
50 PERCENT EXCEEDS	190		244		150	
90 PERCENT EXCEEDS	73		120		60	



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



## REVISION OF RECORDS FOR A DISCONTINUED STATION

## 04276645 HOISINGTON BROOK AT WESTPORT, NY

**LOCATION.**--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.**--6.47 mi<sup>2</sup>.

**PERIOD OF RECORD.**--March 1990 to September 1996 (discontinued). Annual maximum, water year 1997 to current year.

**REVISED RECORDS.**--WDR NY-97-1: 1990-93 (P).

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

**REMARKS.**--Slight diversion at unknown location upstream from station.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 207 ft<sup>3</sup>/s, Aug. 13, 1990, gage height, 5.90 ft, from rating curve extended above 50 ft<sup>3</sup>/s; maximum gage height, 6.47 ft, Jan. 19, 1996 (ice jam); minimum discharge, 0.06 ft<sup>3</sup>/s, Sept. 30, 1995, gage height, 3.53 ft.

**REVISIONS.**--The daily, monthly, and yearly discharges have been revised as shown in the following table. They supersede figures published in WDR NY Vol. 1, 1990-93.

Revised daily discharges, in cubic feet per second, for 1990-93 water years are given herewith:

Water year	Date	Discharge	Water year	Date	Discharge	Water year	Date	Discharge
1990	Apr. 3	52	1991	Dec. 23	32	1993	Apr. 16	37
1990	Apr. 4	109	1991	Dec. 24	42	1993	Apr. 17	86
1990	May 12	13	1991	Dec. 25	20	1993	Apr. 18	39
1990	May 13	32	1992	Mar. 10	e25	1993	Apr. 19	29
1990	May 14	26	1992	Mar. 11	e90	1993	Apr. 20	25
1990	Aug. 12	20	1992	Mar. 12	e35	1993	Apr. 21	29
1990	Aug. 13	48	1993	Apr. 8	32	1993	Apr. 22	62
1990	Aug. 14	34	1993	Apr. 9	40	1993	Apr. 23	80
1991	Oct. 23	18	1993	Apr. 10	58	1993	Apr. 24	40
1991	Oct. 24	63	1993	Apr. 11	64	1993	Apr. 25	32
1991	Oct. 25	20	1993	Apr. 12	34	1993	Apr. 26	40
1991	Nov. 10	45	1993	Apr. 13	29	1993	Apr. 27	29
1991	Nov. 11	33	1993	Apr. 14	30	1993	Apr. 28	23
1991	Nov. 12	18	1993	Apr. 15	28			

Revised monthly and yearly discharges, in cubic feet per second, and runoffs for 1990-93 water years are given herewith:

	TOTAL	MEAN	MAX	MIN	CFSM	IN
April 1990	512.3	17.1	109	5.6	2.64	2.95
May 1990	520.4	16.8	58	4.4	2.59	2.99
August 1990	314.2	10.1	48	1.7	1.57	1.81
October 1990	315.2	10.2	63	2.2	1.57	1.81
November 1990	379.7	12.7	45	5.0	1.96	2.18
December 1990	431.9	13.9	42	6.0	2.15	2.48
WTR YR 1991	3109.66	8.52	65	.36	1.32	17.88
March 1992	505.1	16.3	100	1.5	2.51	2.90
WTR YR 1992	2215.13	6.05	100	.82	.94	12.73
April 1993	1050	35.0	86	11	5.41	6.04
CAL YR 1992	2320.23	6.34	100	.82	.98	13.33
WTR YR 1993	2312.79	6.34	86	.67	.98	13.30



## 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 mi<sup>2</sup>.

**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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 1,290 ft<sup>3</sup>/s, Jan. 19, 1996, gage height, 4.97 ft, from rating curve extended above 370 ft<sup>3</sup>/s; minimum discharge, 1.9 ft<sup>3</sup>/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 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 8	1645	a*894	*4.25	June 27	0915	461	3.17
Mar. 31	1745	611	3.61	Aug. 12	0400	438	3.10

a From rating curve extended as explained above.

Minimum discharge, 4.6 ft<sup>3</sup>/s, Oct. 11, 13, 14, gage height, 0.72 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	8.2	e18	e9.4	e25	36	404	25	18	97	16	18
2	46	52	e17	e11	e24	40	359	32	15	72	15	17
3	19	48	e17	e13	e24	42	226	47	14	55	14	18
4	9.3	24	e16	e14	e22	41	152	49	13	55	14	16
5	12	24	e16	e15	e21	42	115	44	13	126	15	14
6	8.8	16	e15	e18	e20	38	92	54	12	65	15	13
7	6.2	13	e14	e30	e20	36	74	49	12	54	16	14
8	5.2	12	e14	e520	e19	36	67	42	13	55	15	34
9	5.0	23	e14	541	e19	92	62	38	13	75	14	20
10	5.1	60	e13	357	e18	257	56	49	11	54	15	17
11	4.8	33	e12	182	e20	e110	53	66	11	45	96	15
12	5.0	23	e12	109	e23	e88	50	48	15	39	243	14
13	4.7	20	e12	e82	e30	e70	48	40	25	36	71	13
14	5.0	18	e13	e66	e40	65	45	35	59	31	48	13
15	6.9	e19	e14	e58	e50	58	42	32	74	26	38	20
16	7.0	e18	e16	e52	e43	e46	40	29	92	79	32	33
17	6.2	e18	e13	e46	e37	e44	41	26	84	51	28	21
18	5.9	e17	e12	e42	e30	e40	38	24	65	31	24	18
19	5.9	e17	e11	e39	e26	e40	35	21	80	26	22	16
20	5.9	17	e10	e36	e24	e39	73	25	79	26	20	17
21	5.4	17	e10	e34	e23	e39	53	27	52	24	19	22
22	5.8	20	e9.6	e32	e22	e39	44	22	47	22	18	17
23	6.2	19	e10	e32	e20	e38	40	20	58	28	17	15
24	7.0	19	e11	e31	e20	e38	37	18	47	30	58	13
25	6.9	e18	e12	e30	e21	e38	34	17	36	23	71	13
26	6.4	19	e12	e30	e23	45	31	17	156	20	39	12
27	23	30	e11	e30	e25	106	29	16	349	19	30	30
28	15	24	e11	e32	28	254	28	15	157	18	26	22
29	9.4	22	e10	e28	---	377	27	15	97	19	24	18
30	7.8	e20	e9.2	e27	---	387	26	15	72	17	23	16
31	6.9	---	e8.4	e25	---	494	---	16	---	17	20	---
TOTAL	312.7	688.2	393.2	2571.4	717	3115	2421	973	1789	1335	1116	539
MEAN	10.1	22.9	12.7	82.9	25.6	100	80.7	31.4	59.6	43.1	36.0	18.0
MAX	46	60	18	541	50	494	404	66	349	126	243	34
MIN	4.7	8.2	8.4	9.4	18	36	26	15	11	17	14	12
CFSM	.37	.85	.47	3.07	.95	3.72	2.99	1.16	2.21	1.59	1.33	.67
IN.	.43	.95	.54	3.54	.99	4.29	3.34	1.34	2.46	1.84	1.54	.74

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

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
MEAN	20.9	35.2	33.0	41.0	21.2	56.5	111	50.4	28.4	17.7	16.1	8.74
MAX	55.1	77.5	72.4	82.9	38.4	100	223	95.0	59.6	48.5	36.0	18.0
(WY)	1991	1996	1997	1998	1996	1998	1993	1990	1998	1996	1990	1998
MIN	7.14	13.7	12.7	10.3	9.08	18.6	31.9	17.8	5.53	5.54	5.65	4.62
(WY)	1995	1994	1998	1994	1992	1993	1995	1995	1995	1995	1991	1995

e Estimated

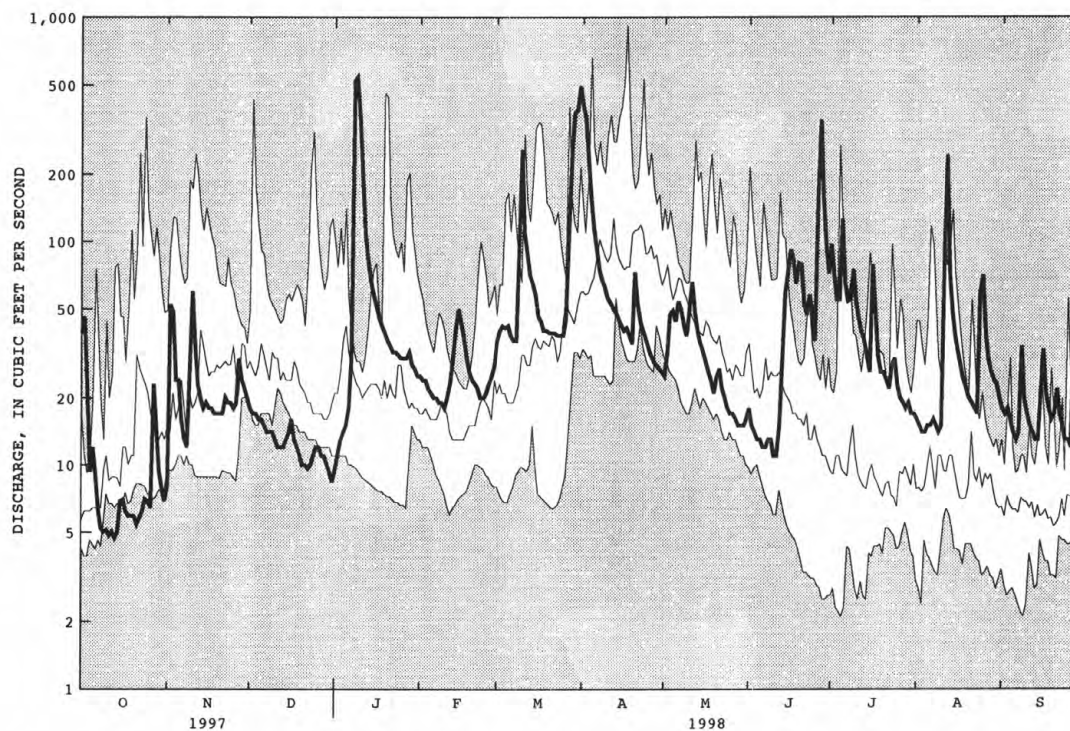


## ST. LAWRENCE RIVER BASIN

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## 04276770 MILL BROOK AT PORT HENRY, NY--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR	FOR 1998 WATER YEAR	WATER YEARS 1990 - 1998
ANNUAL TOTAL	10535.1	15970.5	
ANNUAL MEAN	28.9	43.8	35.6
HIGHEST ANNUAL MEAN			48.6
LOWEST ANNUAL MEAN			20.1
HIGHEST DAILY MEAN	280 Apr 7	541 Jan 9	915 Apr 17 1993
LOWEST DAILY MEAN	3.2 Aug 9	4.7 Oct 13	2.1 Sep 9 1991
ANNUAL SEVEN-DAY MINIMUM	3.8 Aug 4	5.0 Oct 8	2.4 Jun 30 1995
ANNUAL RUNOFF (CFSM)	1.07	1.62	1.32
ANNUAL RUNOFF (INCHES)	14.52	22.00	17.90
10 PERCENT EXCEEDS	77	74	83
50 PERCENT EXCEEDS	17	24	20
90 PERCENT EXCEEDS	5.0	11	6.2



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



## ST. LAWRENCE RIVER BASIN

## 04276842 PUTNAM CREEK EAST OF CROWN POINT CENTER, NY

**LOCATION.**--Lat 43°56'33", long 73°27'51", 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 mi<sup>2</sup>.

**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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, about 2,500 ft<sup>3</sup>/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 ft<sup>3</sup>/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 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 8	2300	*1,850	a*7.13	Aug. 12	0415	1,190	6.68
Mar. 29	1800	1,170	6.76				

a Recorded; outside gage height was 7.66 ft, from crest-stage gage.

Minimum discharge, 8.9 ft<sup>3</sup>/s, Oct. 13, 14, gage height, 3.95 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e16	21	55	e20	e45	80	900	40	19	133	18	30
2	e20	44	54	e22	e42	102	876	48	16	116	16	28
3	e16	84	48	e24	e40	121	600	67	15	91	14	31
4	13	88	46	e27	e38	128	372	94	14	77	13	29
5	16	87	45	e30	e36	133	278	95	13	166	13	25
6	16	74	44	e34	e35	123	224	103	12	122	13	22
7	15	59	41	e70	e34	112	186	102	13	92	15	25
8	13	49	38	769	e33	e100	158	90	15	82	16	42
9	12	59	34	e1400	e32	e130	138	77	15	105	14	40
10	12	122	30	965	e32	e350	121	89	14	94	21	32
11	11	118	28	578	e31	e250	108	145	13	83	287	26
12	9.9	95	e25	357	e40	e190	96	136	16	68	825	23
13	9.3	78	e23	269	e60	e160	87	108	31	58	332	20
14	9.4	66	e22	202	e80	e140	78	90	100	49	187	18
15	12	61	21	158	e70	e130	71	73	244	41	128	26
16	11	59	25	e120	e62	e120	67	62	255	40	94	56
17	10	53	24	e100	e56	e110	67	53	366	47	73	43
18	11	47	23	e92	e54	107	65	45	554	44	58	35
19	10	43	e20	e82	e52	127	61	40	472	39	47	29
20	10	40	e18	e72	e50	143	130	35	316	39	40	25
21	11	38	e15	e66	e47	130	126	31	212	34	34	29
22	11	41	e13	e62	e45	118	104	27	148	32	31	22
23	10	42	e15	e60	e44	112	87	24	120	41	28	19
24	10	42	e17	e60	e44	98	75	21	120	60	58	18
25	11	39	e20	e58	e45	91	66	19	96	58	100	16
26	10	38	e22	e56	e47	104	61	17	355	46	113	16
27	20	51	e23	56	e49	194	55	16	503	37	75	25
28	25	52	e20	57	e56	513	51	15	316	29	54	23
29	27	49	e21	53	---	974	48	15	214	27	45	20
30	25	47	e22	e50	---	962	44	17	157	23	40	18
31	22	---	e21	e47	---	978	---	16	---	20	35	---
TOTAL	434.6	1786	873	6016	1299	7130	5400	1810	4754	1993	2837	811
MEAN	14.0	59.5	28.2	194	46.4	230	180	58.4	158	64.3	91.5	27.0
MAX	27	122	55	1400	80	978	900	145	554	166	825	56
MIN	9.3	21	13	20	31	80	44	15	12	20	13	16
CFSM	.27	1.15	.55	3.76	.90	4.46	3.49	1.13	3.07	1.25	1.77	.52
IN.	.31	1.29	.63	4.34	.94	5.14	3.89	1.30	3.43	1.44	2.05	.58

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

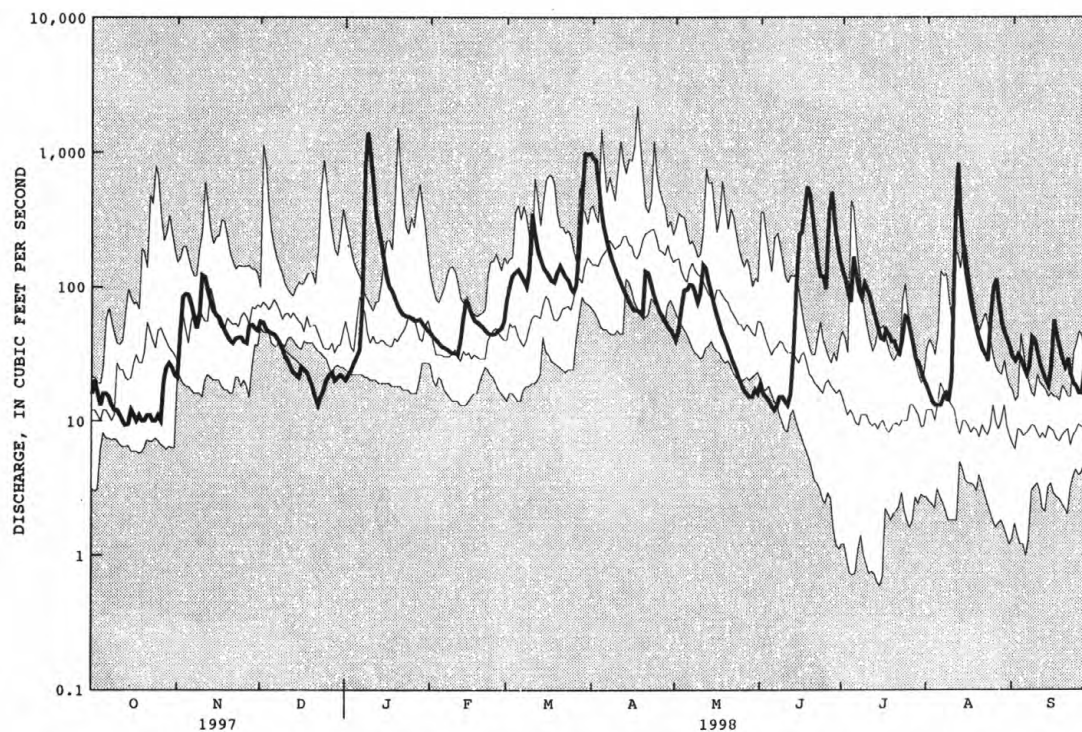
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
MEAN	46.9	78.3	80.9	96.6	44.9	127	262	108	50.2	22.8	27.4
MAX	128	167	188	211	75.7	230	566	214	158	65.6	91.5
(WY)	1991	1991	1991	1996	1991	1998	1993	1990	1998	1996	1998
MIN	7.06	29.5	28.2	22.1	17.8	48.9	64.7	32.0	8.28	3.20	5.16
(WY)	1995	1995	1998	1994	1992	1993	1995	1995	1995	1995	1991

e Estimated



## 04276842 PUTNAM CREEK EAST OF CROWN POINT CENTER, NY--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1990 - 1998	
ANNUAL TOTAL	21568.0		35143.6		77.4	
ANNUAL MEAN	59.1		96.3		100	
HIGHEST ANNUAL MEAN					40.5	
LOWEST ANNUAL MEAN					2200	
HIGHEST DAILY MEAN	650	Apr 7	1400	Jan 9		1996
LOWEST DAILY MEAN	1.8	Aug 9	9.3	Oct 13	.59	1995
ANNUAL SEVEN-DAY MINIMUM	2.1	Aug 6	10	Oct 11	.71	1995
ANNUAL RUNOFF (CFSM)	1.15		1.87		1.50	
ANNUAL RUNOFF (INCHES)	15.55		25.34		20.39	
10 PERCENT EXCEEDS	165		186		187	
50 PERCENT EXCEEDS	31		47		37	
90 PERCENT EXCEEDS	6.3		15		7.1	



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



## ST. LAWRENCE RIVER BASIN

## 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 mi<sup>2</sup> 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 mi<sup>2</sup>. 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, 4.40 ft, June 20; minimum, 2.94 ft, Feb. 27.

**GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998**  
**DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.36	3.23	3.43	3.31	3.48	3.03	4.03	3.74	3.72	3.89	3.50	3.50
2	3.35	3.37	3.46	3.27	3.45	3.03	4.15	3.75	3.75	3.86	3.50	3.51
3	3.35	3.45	3.41	3.23	3.41	3.03	4.16	3.80	3.76	3.84	3.48	3.51
4	3.36	3.45	3.40	3.15	3.35	3.05	4.11	3.82	3.74	3.82	3.46	3.49
5	3.41	3.48	3.37	3.22	3.31	3.07	4.10	3.84	3.72	3.77	3.46	3.49
6	3.42	3.46	3.39	3.20	3.28	3.09	4.07	3.89	3.69	3.78	3.45	3.50
7	3.38	3.44	3.39	3.20	3.25	3.09	4.03	3.87	3.68	3.77	3.46	3.50
8	3.37	3.41	3.36	3.55	3.22	3.08	3.98	3.85	3.70	3.78	3.48	3.48
9	3.39	3.46	3.36	3.98	3.20	3.17	3.89	3.80	3.71	3.77	3.49	3.48
10	3.40	3.57	3.31	4.17	3.17	3.49	3.84	3.80	3.72	3.75	3.49	3.48
11	3.32	3.57	3.31	4.19	3.14	3.61	3.85	3.88	3.71	3.72	3.58	3.46
12	3.35	3.58	3.34	4.16	3.18	3.63	3.83	3.90	3.73	3.71	3.65	3.45
13	3.35	3.54	3.35	4.17	3.20	3.63	3.82	3.89	3.78	3.72	3.69	3.41
14	3.35	3.51	3.34	4.07	3.16	3.65	3.80	3.89	3.85	3.71	3.69	3.42
15	3.33	3.57	3.32	4.01	3.15	3.66	3.78	3.85	4.09	3.69	3.69	3.44
16	3.28	3.56	3.33	3.97	3.15	3.64	3.76	3.83	4.13	3.67	3.64	3.41
17	3.30	3.56	3.31	3.93	3.11	3.64	3.77	3.84	4.26	3.65	3.65	3.44
18	3.29	3.49	3.30	3.92	3.10	3.62	3.77	3.79	4.31	3.62	3.56	3.44
19	3.28	3.46	3.30	3.88	3.11	3.64	3.73	3.72	4.30	3.63	3.52	3.46
20	3.29	3.43	3.25	3.84	3.12	3.66	3.79	3.74	4.27	3.64	3.55	3.43
21	3.28	3.40	3.25	3.80	3.10	3.65	3.81	3.73	4.25	3.64	3.51	3.44
22	3.28	3.31	3.25	3.71	3.07	3.71	3.80	3.68	4.23	3.64	3.50	3.36
23	3.26	3.39	3.27	3.71	3.05	3.74	3.77	3.70	4.18	3.62	3.50	3.37
24	3.23	3.39	3.25	3.73	3.04	3.71	3.74	3.68	4.11	3.63	3.61	3.38
25	3.18	3.41	3.30	3.71	3.07	3.70	3.76	3.69	4.04	3.59	3.61	3.36
26	3.18	3.37	3.33	3.63	3.06	3.69	3.75	3.67	4.09	3.57	3.59	3.35
27	3.27	3.36	3.32	3.61	3.04	3.69	3.74	3.68	4.08	3.60	3.56	3.39
28	3.30	3.37	3.29	3.57	3.02	3.77	3.75	3.70	4.05	3.57	3.54	3.35
29	3.29	3.37	3.31	3.55	---	3.91	3.76	3.71	4.04	3.57	3.56	3.34
30	3.26	3.39	3.31	3.51	---	3.99	3.74	3.68	3.98	3.55	3.55	3.34
31	3.27	---	3.32	3.49	---	4.01	---	3.72	---	3.49	3.53	---
MEAN	3.31	3.44	3.33	3.69	3.18	3.52	3.86	3.78	3.96	3.69	3.55	3.43
MAX	3.42	3.58	3.46	4.19	3.48	4.01	4.16	3.90	4.31	3.89	3.69	3.51
MIN	3.18	3.23	3.25	3.15	3.02	3.03	3.73	3.67	3.68	3.49	3.45	3.34

CAL YR 1997    MEAN 3.48    MAX 4.00    MIN 2.93  
WTR YR 1998    MEAN 3.56    MAX 4.31    MIN 3.02



## 391

**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.

**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, which are poor. Flow regulated by powerplant upstream and Lake Bomoseen.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 14,800 ft<sup>3</sup>/s, July 20, 1945, gage height, 24.36 ft, from high-water mark in well, from rating curve extended above 2,600 ft<sup>3</sup>/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 ft<sup>3</sup>/s, Aug. 8, 1965, Sept. 13, 1977.

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 2,600 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 8	--	*4,400	*c18.86	No other peak greater than base discharge.			

Minimum daily discharge, 19 ft<sup>3</sup>/s, Oct. 19.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	e48	437	e110	e145	e370	e2200	209	79	327	52	94
2	30	e250	370	e115	e140	e400	e1700	221	56	377	46	95
3	29	e310	289	e120	e140	e365	e1100	348	64	445	41	63
4	45	e230	272	e150	e135	e320	e850	363	61	325	47	68
5	50	e260	308	238	e130	e300	e650	319	48	419	38	58
6	74	103	341	330	e130	e280	e450	476	42	419	46	64
7	48	87	254	780	e130	e290	e400	617	39	325	38	69
8	36	77	208	e2800	e125	e400	e350	496	56	274	41	69
9	38	95	183	e2000	e125	e600	e315	436	49	231	30	65
10	35	309	174	e1400	e125	e1050	e290	480	39	228	50	81
11	20	228	166	e1000	119	e470	e270	608	36	195	527	79
12	24	156	152	e800	251	e300	e250	429	41	168	682	56
13	37	126	149	e640	663	e400	e230	282	100	142	492	57
14	26	126	144	e500	405	e500	210	272	624	124	172	56
15	20	126	105	e380	e300	e400	201	289	981	108	147	59
16	22	130	121	e240	e270	e270	186	271	863	95	126	82
17	37	147	120	e230	259	e300	215	269	1180	89	106	80
18	25	142	112	e230	e290	e350	218	196	1350	82	101	65
19	19	136	110	e220	e270	581	195	162	1200	72	93	59
20	22	138	110	e210	e250	e500	560	108	744	70	77	61
21	24	124	101	e205	e240	e400	513	106	552	67	71	60
22	23	136	85	e200	e230	e300	380	69	562	60	66	43
23	23	142	82	e190	e210	e220	354	86	382	66	61	41
24	22	145	85	e190	e220	e230	535	71	211	82	136	54
25	24	134	108	e180	e230	e250	637	63	176	63	300	37
26	133	140	185	e175	e250	e500	538	64	681	53	450	42
27	150	284	199	e170	e280	e800	303	54	1070	49	177	41
28	158	268	172	e160	e290	e1200	269	53	995	43	140	44
29	149	227	117	e160	---	e2000	252	49	684	41	135	29
30	115	211	137	e155	---	e2400	231	45	287	50	124	45
31	e50	---	e120	e150	---	e2350	---	49	---	58	98	---
TOTAL	1546	5035	5516	14428	6352	19096	14852	7560	13252	5147	4710	1816
MEAN	49.9	168	178	465	227	616	495	244	442	166	152	60.5
MAX	158	310	437	2800	663	2400	2200	617	1350	445	682	95
MIN	19	48	82	110	119	220	186	45	36	41	30	29
CFSM	.27	.90	.95	2.49	1.21	3.29	2.65	1.30	2.36	.89	.81	.32
IN.	.31	1.00	1.10	2.87	1.26	3.80	2.95	1.50	2.64	1.02	.94	.36

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1998, BY WATER YEAR (WY)

MEAN	141	225	262	257	258	523	672	322	163	105	81.3	90.6
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

## 04280000 POULTNEY RIVER BELOW FAIR HAVEN, VT--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1929 - 1998	
ANNUAL TOTAL	79237		99310		258	
ANNUAL MEAN	217		272		527	1976
HIGHEST ANNUAL MEAN					66.9	1965
LOWEST ANNUAL MEAN					7010	Jan 20 1996
HIGHEST DAILY MEAN	2040	Mar 31	e 2800	Jan 8	a 2.1	Aug 8 1965
LOWEST DAILY MEAN	12	Aug 20	19	Oct 19	3.0	Aug 13 1965
ANNUAL SEVEN-DAY MINIMUM	15	Aug 7	22	Oct 19	b 14800	Jul 20 1945
INSTANTANEOUS PEAK FLOW			be 4450	Jan 8	d 24.36	Jul 20 1945
INSTANTANEOUS PEAK STAGE			c 18.86	Jan 8	1.38	
ANNUAL RUNOFF (CFSM)	1.16		1.45		18.74	
ANNUAL RUNOFF (INCHES)	15.76		19.76		612	
10 PERCENT EXCEEDS	479		570		135	
50 PERCENT EXCEEDS	133		158		28	
90 PERCENT EXCEEDS	22		42			

a Also occurred on September 13, 1977.

b From rating curve extended above 2,600 ft<sup>3</sup>/s as explained above.

c Ice jam.

d From high-water mark in well.

e Estimated.



## ST. LAWRENCE RIVER BASIN

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## 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 mi<sup>2</sup>.

**PERIOD OF RECORD.**--March 1990 to current year.

**REVISED RECORDS.**--WDR NY-97-1: 1993, 1994(P), 1996.

**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.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 7,600 ft<sup>3</sup>/s, Jan. 20, 1996, gage height, 10.69 ft, minimum discharge, 8.9 ft<sup>3</sup>/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 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow 2.8 mi upstream at Middle Granville (drainage area 156 mi<sup>2</sup>).

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 2,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 8	1515	*7,590	*10.68	Mar. 10	1000	2,430	6.99

Minimum discharge, 27 ft<sup>3</sup>/s, Oct. 24, 25, gage height, 3.07 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	37	493	e110	e160	410	905	205	136	389	84	58
2	34	59	383	e150	e150	533	1290	219	89	334	76	53
3	37	128	314	e190	e130	579	1130	274	122	267	70	58
4	46	111	298	295	e130	554	877	257	98	232	65	53
5	61	142	309	318	e125	536	734	230	82	401	63	47
6	65	113	302	526	e120	492	623	380	70	316	58	43
7	50	97	271	1030	e120	445	542	410	66	256	63	47
8	43	88	248	5080	e115	431	480	338	75	254	61	50
9	39	105	224	4850	e115	914	442	310	73	379	55	53
10	37	293	207	2580	e110	2080	404	362	63	766	54	68
11	33	218	192	1570	e120	1200	350	398	59	490	500	53
12	33	171	179	1100	441	800	317	326	61	395	357	49
13	32	146	173	921	590	629	292	283	124	329	223	45
14	31	142	164	720	e330	572	271	253	395	277	158	41
15	32	141	e150	601	e270	503	251	230	692	242	130	44
16	36	136	e150	569	e250	446	235	206	526	214	115	59
17	34	127	e140	464	e240	404	239	198	885	203	102	52
18	32	122	131	415	318	379	230	189	1140	179	94	45
19	31	119	124	380	409	561	212	164	843	155	86	41
20	31	115	124	351	395	490	549	147	606	154	75	38
21	30	112	e110	320	375	435	432	135	466	215	68	37
22	29	131	e100	e280	340	404	357	126	378	154	64	36
23	28	135	e120	e280	315	373	320	116	347	184	60	36
24	28	137	e130	e270	300	340	330	105	295	278	102	34
25	28	126	189	250	303	327	321	95	268	175	119	32
26	29	138	226	e230	288	414	298	88	626	144	128	32
27	44	330	201	e220	287	918	279	80	467	125	95	36
28	57	266	178	e210	288	1250	254	74	368	112	79	35
29	46	235	e160	e200	---	1380	232	69	302	108	71	30
30	42	232	e130	e180	---	1110	218	73	274	102	68	29
31	40	---	e100	176	---	969	---	72	---	96	63	---
TOTAL	1175	4452	6220	24836	7134	20878	13414	6412	9996	7925	3406	1334
MEAN	37.9	148	201	801	255	673	447	207	333	256	110	44.5
MAX	65	330	493	5080	590	2080	1290	410	1140	766	500	68
MIN	28	37	100	110	110	327	212	69	59	96	54	29
CFSM	.23	.89	1.20	4.80	1.53	4.03	2.68	1.24	2.00	1.53	.66	.27
IN.	.26	.99	1.39	5.53	1.59	4.65	2.99	1.43	2.23	1.77	.76	.30

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

	1990	1991	1992	1993	1994	1995	1996	1997	1998
MEAN	113	248	335	389	217	496	614	361	148
MAX	308	455	735	801	325	673	1163	776	333
(WY)	1991	1992	1993	1994	1995	1996	1997	1998	1999
MIN	37.9	79.2	115	179	116	243	238	135	66.4
(WY)	1998	1999	2000	2001	2002	2003	2004	2005	2006

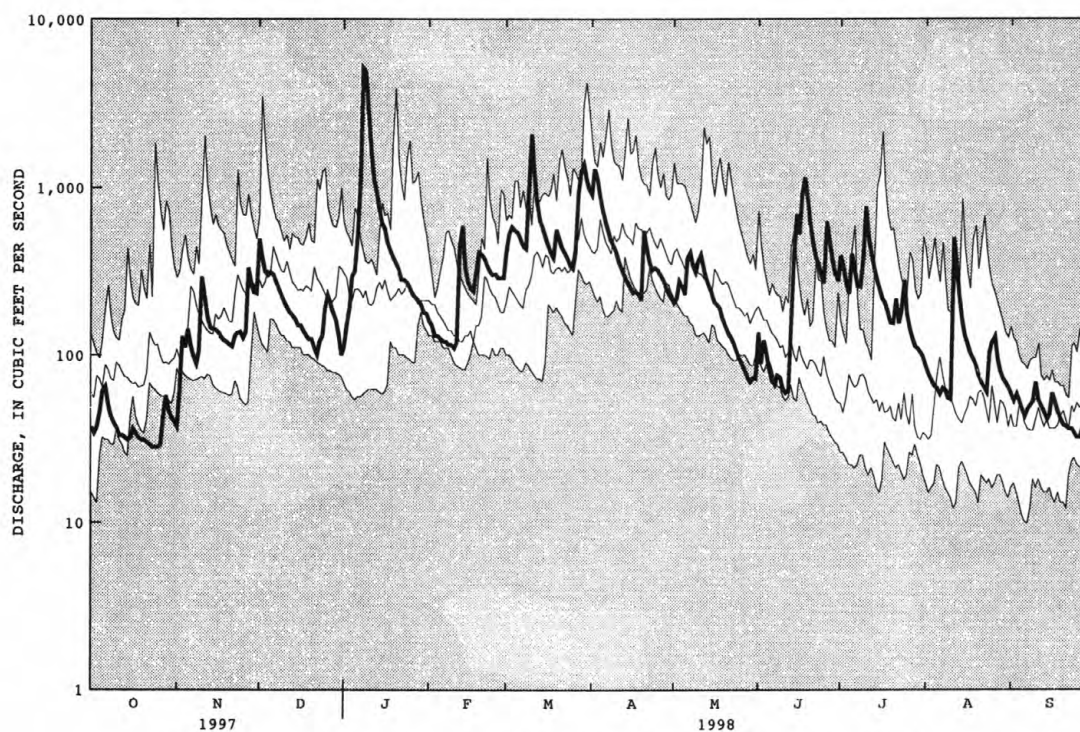
e Estimated



## ST. LAWRENCE RIVER BASIN

04280450 METTAWEE RIVER NEAR MIDDLE GRANVILLE, NY--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1990 - 1998	
ANNUAL TOTAL	83723		107182			
ANNUAL MEAN	229		294		261	
HIGHEST ANNUAL MEAN					339	
LOWEST ANNUAL MEAN					155	
HIGHEST DAILY MEAN	1850	Mar 30	5080	Jan 8	5080	Jan 8 1998
LOWEST DAILY MEAN	12	Aug 11	28	Oct 23	9.8	Sep 7 1995
ANNUAL SEVEN-DAY MINIMUM	16	Aug 6	29	Oct 20	13	Sep 2 1995
ANNUAL RUNOFF (CFSM)	1.37		1.76		1.57	
ANNUAL RUNOFF (INCHES)	18.65		23.88		21.27	
10 PERCENT EXCEEDS	526		564		582	
50 PERCENT EXCEEDS	137		184		160	
90 PERCENT EXCEEDS	24		42		35	



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



## ST. LAWRENCE RIVER BASIN

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## 04294413 LAKE CHAMPLAIN AT PORT HENRY, NY

**LOCATION.**--Lat 44°03'09", long 73°27'12", Essex County, Hydrologic Unit 02010001, on left bank at boat dock, 0.1 mi west of mouth of Mill Brook, and 0.5 mi north of railroad station, in Port Henry.

## ELEVATION RECORDS

**PERIOD OF RECORD.**--October 1997 to September 1998.

**GAGE.**--Water-stage recorder. Datum of gage is sea level.

**REMARKS.**--Area of lake surface about 490 mi<sup>2</sup>. Total volume below 92.5 ft elevation, reported by Lake Champlain Studies Center, 902.2 bil ft<sup>3</sup>. Telephone gage-height and temperature telemeter at station.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum elevation, 101.90 ft, Apr. 4, 5, 1998; minimum, 94.65 ft, Oct. 31, 1997.

**EXTREMES FOR CURRENT YEAR.**--Maximum elevation, 101.90 ft, Apr. 4, 5; minimum, 94.65 ft, Oct. 31.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	94.85	95.98	95.31	98.45	97.29	100.73	99.19	96.86	98.41	97.76	96.96
2	---	94.90	95.92	95.30	98.34	97.32	101.25	99.12	96.68	98.66	97.64	96.85
3	---	95.01	95.87	95.31	98.32	97.42	101.59	99.03	96.68	98.78	97.54	96.77
4	---	95.19	95.87	95.51	98.27	97.48	101.79	98.94	96.65	98.80	97.48	96.77
5	---	95.29	95.87	95.42	98.21	97.54	101.83	98.84	96.61	98.94	97.44	96.78
6	---	95.41	95.87	95.66	98.10	97.56	101.80	98.79	96.58	98.93	97.34	96.66
7	---	95.48	95.89	95.92	98.01	97.57	101.73	98.74	96.53	98.88	97.25	96.66
8	---	95.54	95.91	96.47	97.92	97.56	101.70	98.69	96.46	98.80	97.16	96.73
9	---	95.62	95.85	97.33	97.82	97.57	101.69	98.69	96.38	98.83	97.03	96.74
10	---	95.66	95.88	98.18	97.73	97.96	101.59	98.65	96.30	98.93	96.97	96.67
11	---	95.78	95.81	98.75	97.62	98.31	101.39	98.59	96.22	99.05	97.12	96.60
12	---	95.80	95.76	98.93	97.63	98.43	101.27	98.51	96.10	99.12	97.52	96.56
13	---	95.85	95.66	98.91	97.70	98.40	101.12	98.42	---	99.05	97.61	96.57
14	---	95.94	95.73	99.14	97.74	98.43	101.01	98.33	---	98.96	97.51	96.53
15	---	95.93	95.64	99.14	97.69	98.47	100.88	98.25	---	98.90	97.38	96.45
16	95.24	95.93	95.59	99.23	97.60	98.44	100.71	98.15	96.47	98.85	97.46	96.61
17	95.18	95.85	95.61	99.23	97.58	98.37	100.54	98.01	96.58	98.86	97.42	96.64
18	95.11	95.85	95.59	99.18	97.56	98.31	100.45	97.97	96.74	98.85	97.48	96.62
19	95.07	95.77	95.53	99.17	97.52	98.31	100.37	97.93	96.91	98.74	97.44	96.46
20	95.03	95.79	95.62	99.18	97.48	98.33	100.35	97.77	97.02	98.61	97.30	96.52
21	95.02	95.73	95.53	99.15	97.47	98.37	100.27	97.75	97.07	98.53	97.19	96.44
22	94.97	95.91	95.47	99.12	97.43	98.37	100.20	97.64	97.03	98.43	97.16	96.55
23	94.87	95.75	95.39	98.97	97.39	98.27	100.11	97.55	97.08	98.40	97.10	96.49
24	94.90	95.82	95.44	99.03	97.44	98.21	100.02	97.44	97.12	98.36	96.99	96.32
25	94.91	95.63	95.36	98.97	97.46	98.12	99.97	97.34	97.12	98.31	97.05	96.20
26	94.86	95.67	95.43	98.94	97.42	97.98	99.85	97.28	97.30	98.21	97.12	96.15
27	94.83	95.87	95.44	98.79	97.35	98.06	99.72	97.17	97.77	98.05	97.16	96.17
28	94.86	95.79	95.48	98.74	97.31	98.38	99.58	97.03	98.11	97.96	97.13	96.37
29	94.81	95.88	95.34	98.69	---	98.98	99.43	96.94	98.11	97.89	97.04	96.42
30	94.87	95.88	95.52	98.63	---	99.54	99.31	96.93	98.15	97.87	97.01	96.37
31	94.79	---	95.50	98.56	---	100.17	---	96.80	---	97.84	96.97	---
TOTAL	---	2869.37	2965.35	3038.86	2736.56	3043.52	3022.25	3040.48	---	3056.80	3015.77	2896.63
MEAN	---	95.65	95.66	98.03	97.73	98.18	100.74	98.08	---	98.61	97.28	96.55
MAX	---	95.94	95.98	99.23	98.45	100.17	101.83	99.19	---	99.12	97.76	96.96
MIN	---	94.85	95.34	95.30	97.31	97.29	99.31	96.80	---	97.84	96.97	96.15



## ST. LAWRENCE RIVER BASIN

04294413 LAKE CHAMPLAIN AT PORT HENRY, NY--Continued

## WATER-QUALITY RECORDS

## PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1997 to September 1998.

INSTRUMENTATION.--Water-temperature recorder and telephone telemeter provides 15-minute-interval readings.

REMARKS.--Interruption of record was due to malfunction of recording instrument.

## EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 25.5°C, Aug. 5, 1998; minimum, 0.0°C, Dec. 31, 1997, Jan. 15, 16, 17, 18, 1998.

## EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 25.5°C, Aug. 5; minimum, 0.0°C, Dec. 31, Jan. 15, 16, 17, 18.

## WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

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



## 04294413 LAKE CHAMPLAIN AT PORT HENRY, NY--Continued

## WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	1.5	.5	1.0	2.5	1.5	1.5	4.5	3.0	4.0	10.5	7.5	8.5
2	1.5	.5	1.0	2.5	1.5	1.5	5.0	4.0	4.5	9.5	7.0	8.0
3	1.5	.5	1.0	2.0	1.5	1.5	5.0	3.5	4.0	11.0	8.0	9.5
4	1.5	.5	1.0	3.5	1.5	1.5	4.0	3.5	3.5	9.5	7.5	8.0
5	1.0	1.0	1.0	3.5	1.5	2.0	4.0	3.5	4.0	8.5	7.0	7.5
6	1.5	1.0	1.0	2.5	1.5	2.0	5.0	4.0	4.5	8.5	6.5	7.0
7	1.5	1.0	1.0	2.5	1.5	2.0	5.5	3.5	4.5	7.5	7.0	7.0
8	1.5	1.0	1.0	2.5	1.5	2.0	6.0	4.5	5.0	8.0	6.5	7.0
9	2.0	1.0	1.0	2.5	2.0	2.0	5.0	4.5	5.0	14.5	7.0	12.0
10	2.5	1.0	1.0	2.0	2.0	2.0	6.0	4.5	5.5	13.5	12.5	13.0
11	1.5	1.0	1.0	2.0	2.0	2.0	6.5	5.0	6.0	13.0	12.0	12.5
12	1.5	1.0	1.0	2.0	2.0	2.0	8.5	5.5	6.5	13.0	11.5	12.5
13	1.5	1.0	1.0	2.5	1.5	2.0	8.0	6.0	7.0	11.5	9.0	10.0
14	1.5	1.0	1.0	2.5	1.5	1.5	8.0	6.0	6.5	12.0	8.5	9.5
15	1.5	1.0	1.0	2.0	1.5	1.5	10.5	6.5	8.5	18.0	9.5	13.0
16	1.5	1.0	1.5	2.5	1.5	2.0	9.5	6.0	7.5	19.0	12.0	15.0
17	1.5	1.0	1.5	2.5	1.5	1.5	6.0	5.0	5.5	12.5	8.0	10.0
18	1.5	1.0	1.5	2.0	1.5	1.5	5.5	4.5	5.0	18.0	7.5	12.5
19	2.0	1.0	1.5	2.0	1.0	1.5	5.5	5.0	5.0	15.0	11.5	14.0
20	2.0	1.0	1.5	1.5	1.0	1.0	6.0	5.5	5.5	15.0	13.0	14.0
21	2.5	1.0	1.5	1.5	1.0	1.0	6.5	5.5	6.0	16.0	13.0	14.5
22	2.0	1.0	1.5	1.5	1.0	1.5	10.0	5.5	6.5	15.5	14.0	15.0
23	2.0	1.0	1.5	2.0	1.0	1.5	10.0	5.5	7.0	15.0	13.5	14.0
24	1.5	1.0	1.5	2.0	1.0	1.5	10.0	6.0	8.5	16.5	13.5	15.0
25	2.0	1.0	1.5	2.0	1.0	1.0	10.0	9.0	9.5	17.5	13.5	16.0
26	1.5	1.5	1.5	1.5	1.0	1.5	10.5	8.0	9.0	17.0	13.5	16.0
27	2.0	1.5	1.5	1.5	1.0	1.5	9.0	8.0	8.5	18.5	15.0	16.5
28	2.0	1.5	1.5	1.5	1.5	1.5	9.5	8.5	9.0	16.0	14.5	15.0
29	---	---	---	2.0	1.5	1.5	12.0	8.0	9.5	15.5	13.0	14.5
30	---	---	---	2.5	1.5	2.0	10.0	8.0	8.5	16.0	11.5	14.5
31	---	---	---	4.0	2.0	3.0	---	---	---	16.5	14.5	16.0
MONTH	2.5	.5	1.0	4.0	1.0	1.5	12.0	3.0	6.5	19.0	6.5	12.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	16.5	11.5	15.0	19.5	17.5	19.0	22.0	19.5	21.0	22.5	20.0	21.0
2	16.0	10.0	14.0	21.0	18.5	19.0	22.0	20.0	21.0	21.5	19.5	20.5
3	12.0	6.5	8.5	21.0	18.5	19.5	22.5	20.0	21.5	20.0	18.0	19.0
4	12.0	11.5	12.0	18.5	17.0	17.5	24.0	21.0	22.5	21.0	17.5	19.5
5	13.5	11.5	12.5	20.5	17.0	19.5	25.5	21.5	23.0	21.5	20.0	20.5
6	13.5	12.5	13.0	20.0	19.0	19.5	25.0	22.5	23.5	21.0	19.5	20.5
7	14.5	13.0	14.0	19.5	18.0	19.0	23.0	21.0	22.5	21.0	19.5	20.0
8	17.0	13.5	15.0	19.0	17.0	18.0	22.5	20.0	21.5	20.5	19.5	20.0
9	16.0	15.0	15.5	18.5	16.0	17.0	21.5	18.5	20.0	20.0	19.5	19.5
10	16.0	13.5	14.5	21.5	18.0	20.0	20.0	17.0	18.5	20.0	19.0	19.5
11	14.5	12.0	13.0	20.5	20.0	20.0	22.0	16.5	20.0	20.0	18.5	19.5
12	12.5	10.5	11.5	23.0	19.5	20.5	22.0	21.0	21.5	20.0	18.5	19.5
13	---	---	---	20.5	19.0	19.5	23.0	20.5	21.5	20.0	19.0	19.5
14	---	---	---	19.5	17.5	18.5	22.5	20.0	21.5	21.0	19.0	20.0
15	---	---	---	19.0	17.0	18.0	21.0	17.5	19.5	20.0	19.0	19.5
16	17.0	10.5	13.0	19.0	17.5	18.0	22.0	18.0	20.5	19.5	19.5	19.5
17	14.5	13.0	14.0	20.0	18.0	19.0	22.0	20.5	21.5	19.5	18.5	19.0
18	20.0	14.0	15.0	22.5	18.5	20.5	21.0	19.5	20.0	20.5	18.5	19.5
19	22.0	14.0	18.0	22.5	19.0	21.5	20.0	19.0	19.5	20.0	18.5	19.0
20	23.5	16.5	21.0	20.5	17.5	19.0	21.0	18.5	19.5	21.0	18.5	19.5
21	24.5	18.5	22.0	21.0	17.0	19.0	21.0	18.5	20.0	21.0	19.0	20.0
22	18.5	12.0	14.5	19.0	15.5	16.5	22.0	19.0	21.0	19.0	18.5	19.0
23	15.0	11.5	13.0	21.5	18.0	20.5	21.0	19.5	20.5	18.5	17.5	18.0
24	21.0	12.5	15.0	22.0	18.5	20.5	21.0	19.5	20.5	18.0	17.0	17.5
25	20.5	14.5	17.5	24.0	20.0	22.0	21.0	19.5	20.5	18.0	16.5	17.5
26	21.0	13.5	15.5	22.5	21.0	22.0	20.5	19.5	20.0	18.0	16.0	17.5
27	21.0	16.0	20.0	22.0	18.0	21.0	21.5	20.0	20.5	17.0	15.0	16.5
28	21.5	20.0	20.5	18.5	16.5	17.5	24.5	20.5	22.0	17.5	16.5	17.0
29	20.5	18.0	19.5	19.5	14.0	17.0	23.0	20.0	21.5	18.0	16.5	17.0
30	18.5	16.0	17.0	21.0	19.0	20.5	22.5	19.5	20.5	17.5	17.0	17.0
31	---	---	---	21.5	19.5	20.5	21.0	19.0	20.0	---	---	---
MONTH	---	---	---	24.0	14.0	19.5	25.5	16.5	21.0	22.5	15.0	19.0



## ST. LAWRENCE RIVER BASIN

## 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).

**GAGE.**--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, 8.94 ft, Apr. 5, affected by seiche; minimum, 1.84 ft, Oct. 27, 31, affected by seiche.

**GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.39	1.92	2.97	2.45	5.62	4.35	7.87	6.25	3.81	5.45	4.81	3.99
2	2.42	2.00	2.95	2.43	5.44	4.39	8.37	6.17	3.98	5.71	4.71	3.92
3	2.41	2.14	2.94	2.43	5.37	4.47	8.70	6.08	3.76	5.84	4.62	3.86
4	2.40	2.27	2.94	2.48	5.29	4.54	8.87	6.00	3.68	5.88	4.55	3.84
5	2.41	2.37	2.94	2.54	5.20	4.59	8.92	5.91	3.54	5.94	4.48	3.80
6	2.43	2.48	2.95	2.71	5.13	4.62	8.90	5.83	3.55	5.97	4.40	3.72
7	2.45	2.53	2.94	2.95	5.05	4.63	8.85	5.77	3.49	5.94	4.33	3.71
8	2.47	2.55	2.93	3.48	4.97	4.63	8.78	5.70	3.45	5.90	4.25	3.72
9	2.42	2.59	2.91	4.39	4.89	4.66	8.71	5.57	3.42	5.93	4.15	3.72
10	2.41	2.69	2.89	5.28	4.81	4.99	8.61	5.56	3.38	6.00	4.09	3.69
11	2.38	2.77	2.86	5.80	4.71	5.34	8.49	5.56	3.36	6.10	4.21	3.65
12	2.35	2.82	2.83	6.01	4.69	5.49	8.36	5.53	3.42	6.16	4.47	3.60
13	2.31	2.87	2.78	6.06	4.72	5.50	8.23	5.46	3.30	6.13	4.62	3.58
14	2.25	2.93	2.77	6.16	4.75	5.52	8.10	5.38	3.24	6.06	4.60	3.56
15	2.26	2.97	2.71	6.20	4.74	5.52	7.97	5.28	3.42	6.00	4.52	3.52
16	2.23	2.96	2.67	6.25	4.69	5.49	7.82	5.20	3.52	5.94	4.53	3.59
17	2.20	2.92	2.67	6.25	4.64	5.44	7.68	5.18	3.62	5.93	4.51	3.66
18	2.17	2.92	2.65	6.26	4.61	5.39	7.58	4.99	3.76	5.90	4.44	3.66
19	2.14	2.88	2.61	6.25	4.58	5.37	7.48	4.89	3.93	5.83	4.39	3.58
20	2.10	2.88	2.61	6.23	4.54	5.37	7.44	4.85	4.05	5.72	4.34	3.58
21	2.06	2.83	2.56	6.18	4.51	5.37	7.38	4.67	4.10	5.64	4.25	3.54
22	2.03	2.90	2.53	6.13	4.48	5.40	7.30	4.57	4.21	5.55	4.19	3.51
23	1.98	2.85	2.48	6.11	4.44	5.34	7.20	4.47	4.23	5.48	4.14	3.46
24	1.96	2.86	2.49	6.17	4.43	5.28	7.10	4.43	4.20	5.44	4.10	3.38
25	1.93	2.78	2.45	6.11	4.47	5.21	6.99	4.35	4.20	5.37	4.13	3.29
26	1.90	2.77	2.49	6.08	4.44	5.12	6.87	4.22	4.39	5.27	4.20	3.25
27	1.93	2.87	2.49	5.93	4.40	5.16	6.75	4.16	4.78	5.16	4.20	3.29
28	1.94	2.88	2.49	5.88	4.36	5.47	6.62	4.10	5.12	5.07	4.17	3.39
29	1.93	2.92	2.45	5.83	---	6.04	6.49	4.02	5.20	5.03	4.12	3.46
30	1.94	2.94	2.51	5.77	---	6.65	6.37	3.90	5.25	4.96	4.08	3.45
31	1.90	---	2.49	5.70	---	7.27	---	3.98	---	4.89	4.03	---
MEAN	2.20	2.70	2.71	5.11	4.78	5.25	7.83	5.10	3.91	5.68	4.34	3.60
MAX	2.47	2.97	2.97	6.26	5.62	7.27	8.92	6.25	5.25	6.16	4.81	3.99
MIN	1.90	1.92	2.45	2.43	4.36	4.35	6.37	3.90	3.24	4.89	4.03	3.25

CAL YR 1997 MEAN 3.60 MAX 6.17 MIN 1.90  
WTR YR 1998 MEAN 4.43 MAX 8.92 MIN 1.90



## ST. LAWRENCE RIVER BASIN

399

## 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 mi<sup>2</sup>.

**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.

**GAGE.**--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 mi<sup>2</sup>. Total volume below 92.5 ft elevation, reported by Lake Champlain Studies Center, 902.2 bil ft<sup>3</sup>. 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, 101.71 ft, Apr. 5, 6; minimum, 94.65 ft, Oct. 26, 28.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95.15	94.78	95.65	95.40	98.36	97.17	100.68	99.09	96.67	98.23	97.61	96.80
2	95.24	94.88	95.67	95.37	98.29	97.21	101.13	98.93	96.84	98.54	97.58	96.84
3	95.33	95.08	95.77	95.34	98.17	97.27	101.45	98.89	96.62	98.67	97.49	96.79
4	95.36	95.08	95.75	95.25	98.07	97.34	101.59	98.82	96.54	98.70	97.39	96.68
5	95.37	95.20	95.77	95.41	97.98	97.38	101.64	98.76	96.40	98.72	97.30	96.59
6	95.31	95.29	95.77	95.50	97.92	97.42	101.65	98.69	96.41	98.78	97.24	96.63
7	95.28	95.32	95.75	95.74	97.84	97.43	101.61	98.63	96.35	98.78	97.21	96.52
8	95.26	95.33	95.71	96.20	97.77	97.44	101.54	98.56	96.31	98.81	97.14	96.46
9	95.33	95.32	95.74	97.20	97.69	97.53	101.37	98.43	96.28	98.82	97.12	96.40
10	95.23	95.49	95.64	98.10	97.62	97.73	101.29	98.42	96.24	98.81	97.04	96.41
11	95.18	95.61	95.65	98.56	97.56	98.10	101.25	98.42	96.22	98.83	97.02	96.47
12	95.18	95.69	95.64	98.80	97.50	98.27	101.15	98.39	96.28	98.92	97.13	96.45
13	95.20	95.68	95.69	98.97	97.48	98.36	101.01	98.32	96.16	99.00	97.35	96.39
14	95.21	95.63	95.51	---	97.52	98.35	100.88	98.24	96.10	98.97	97.51	96.35
15	95.07	95.72	95.59	---	97.53	98.30	100.75	98.14	96.28	98.88	97.55	96.40
16	94.98	95.74	95.61	---	97.52	98.27	100.65	98.06	96.38	98.80	97.36	96.38
17	94.99	95.78	95.51	---	97.45	98.24	100.55	98.04	96.48	98.76	97.39	96.47
18	94.99	95.78	95.49	---	97.40	98.18	100.41	97.85	96.62	98.70	97.23	96.48
19	94.95	95.85	95.50	---	97.37	98.15	100.29	97.75	96.79	98.71	97.15	96.59
20	94.93	95.74	95.37	---	97.35	98.12	100.19	97.71	96.91	98.63	97.14	96.41
21	94.87	95.77	95.38	---	97.31	98.05	100.18	97.53	96.96	98.54	97.12	96.46
22	94.83	95.55	95.36	---	97.28	98.11	100.11	97.43	97.07	98.41	97.03	96.26
23	94.84	95.80	95.39	---	97.24	98.15	100.00	97.33	97.09	98.35	96.98	96.21
24	94.77	95.62	95.31	---	97.15	98.08	99.87	97.29	97.06	98.24	97.05	96.30
25	94.72	95.90	95.39	---	97.20	98.07	99.72	97.21	97.06	98.17	97.02	96.26
26	94.69	95.65	95.32	---	97.20	98.06	99.62	97.08	97.23	98.11	97.04	96.22
27	94.82	95.55	95.31	98.69	97.19	98.04	99.51	97.02	97.47	98.08	97.04	96.22
28	94.75	95.83	95.28	98.61	97.17	98.31	99.41	96.96	97.87	97.96	97.01	96.19
29	94.84	95.73	95.33	98.54	---	98.86	99.33	96.88	98.06	97.88	97.04	96.30
30	94.77	95.73	95.23	98.47	---	99.56	99.20	96.76	98.13	97.80	96.93	96.35
31	94.94	---	95.27	98.41	---	100.02	---	96.84	---	97.68	96.86	---
MEAN	95.04	95.54	95.53	---	97.58	98.05	100.60	97.95	96.76	98.53	97.20	96.44
MAX	95.37	95.90	95.77	---	98.36	100.02	101.65	99.09	98.13	99.00	97.61	96.84
MIN	94.69	94.78	95.23	---	97.15	97.17	99.20	96.76	96.10	97.68	96.86	96.19



## STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

## 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 mi<sup>2</sup>.

**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 ft<sup>3</sup>. 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 mi<sup>2</sup>. Records provided by Oswegatchie River-Cranberry Reservoir Commission.

**EXTREMES FOR PERIOD OF RECORD**--Maximum contents observed, 2,985 mil ft<sup>3</sup>, May 13-15, 1971, gage height, 18.5 ft; minimum observed, 70 mil ft<sup>3</sup>, Apr. 1-4, 1956, gage height, 6.0 ft.

**EXTREMES FOR CURRENT YEAR**--Maximum contents observed, 2,740 mil ft<sup>3</sup>, Jan. 12, gage height, 17.7 ft; minimum observed, 1,658 mil ft<sup>3</sup>, Dec. 28-Jan. 3, gage height, 13.8 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 1997 TO SEPTEMBER 1998

Date	Gage height (feet) *	Contents (million ft <sup>3</sup> )	Change in contents (equivalent in ft <sup>3</sup> /s)
<b>04260990 Cranberry Lake</b>			
Sept. 30	15.5	2,100	
Oct. 31	15.2	2,022	- 29.1
Nov. 30	14.8	1,918	- 40.1
Dec. 31	13.8	1,658	- 97.1
CAL YR 1997	-	-	- 15.8
Jan. 31	15.2	2,022	+136
Feb. 28	13.9	1,684	-140
Mar. 31	17.4	2,650	+361
Apr. 30	16.8	2,470	- 69.4
May 31	16.3	2,324	- 54.5
June 30	16.7	2,440	+ 44.8
July 31	16.4	2,352	- 32.9
Aug. 31	16.5	2,380	+ 10.5
Sept. 30	16.4	2,352	- 10.8
WTR YR 1998	-	-	+ 7.99

\* Gage heights at 2400 hours, by interpolation.



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 1998 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. Datum of gage is given in feet above sea level unless otherwise noted.

#### Maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1998 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)
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. Datum of gage is 730 ft, from topographic map. Drainage area is 1.93 mi <sup>2</sup> .	1976-98	5-11-98 6-16-98	0.99 0.99	42 42	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. Datum of gage is 1,680 ft, from topographic map. Drainage area is 1.22 mi <sup>2</sup> .	1991-92+, 1993-98	1- 9-98	2.37	35	1- 9-98	2.37	35
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. Datum of gage is 1,550.38 ft. Drainage area is 192 mi <sup>2</sup> .	1926-31, 1932-87+, 1988-98	1- 9-98	12.84	11,500	1- 9-98	12.84	11,500
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. Datum of gage is 699.31 ft. Drainage area is 527 mi <sup>2</sup> .	1908-25, 1926-70+, 1987-98	4- 2-98	9.38	6,920	3-21-36	112.18	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. Datum of gage is 500 ft, from topographic map. Drainage area is 2.85 mi <sup>2</sup> .	1979-98	1- 9-98	4.35	77	1-19-96	6.56	149

† Operated as a continuous-record gaging station.

f From floodmark.



## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1998 maximum		Period of record maximum		Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)
			Date									
Hudson River basin--Continued												
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. Datum of gage is 369.09 ft. Drainage area is 394 mi <sup>2</sup> .	1923-68†, 1987-98*	1- 9-98	#10.30	9,350	11- 4-27	f17.7	21,300				
Kayaderosseras Creek near West Milton, NY (01330500)**	Lat 43°02'18", long 73°54'35", Saratoga County, Hydrologic Unit 02020003, on left bank 600 ft downstream from Glowgee Creek, 1.0 mi east of West Milton, and 3.5 mi northwest of Ballston Spa. Datum of gage is 376.06 ft. Drainage area is 90.0 mi <sup>2</sup> .	1927-95†, 1998	1- 9-98	8.29	2,930	3-18-36 3-14-77	f10.78 f11.20	4,710 -				
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. Datum of gage is 587.40 ft. Drainage area is 56.1 mi <sup>2</sup> .	1951-96†, 1997-98	1- 9-98	a6.3	a2,300	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. Datum of gage is 1,580 ft, from topographic map. Drainage area is 3.28 mi <sup>2</sup> .	1993-98	1- 8-98	9.89	188	10-21-95	af11.2	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. Datum of gage is 1389.16 ft. Drainage area is 193 mi <sup>2</sup> .	1958-66, 1967-68†, 1969-76, 1987-98	1- 9-98	c12.25	a15,000	q12-29-84 1- 9-98	f13.93 c12.25	20,000 a15,000				
East Canada Creek at East Creek, NY (01348000)**	Lat 43°01'00", long 74°44'28", Herkimer County, Hydrologic Unit 02020004, on right bank 3.5 mi northwest of St. Johnsville, 1.2 mi upstream from mouth, at East Creek. Datum of gage is 335.70 ft. Drainage area is 289 mi <sup>2</sup> .	1946-95†, 1996, 1998	1- 9-98	f8.46	17,800	10- 2-45	f9.0	d24,000				
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, 1.2 mi northwest of Ephratah. Datum of gage is 740 ft, from topographic map. Drainage area is 6.52 mi <sup>2</sup> .	1975-98	1- 8-98	7.72	314	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. Datum of gage is 90 ft, from topographic map. Drainage area is 168 mi <sup>2</sup> .	1980-83†, 1992-98	6-14-98	8.98	4,760	3-22-80	13.41	11,600				

† Operated as a continuous-record gaging station.

# Recorded; outside gage height, 11.95 ft, from floodmark.

f From floodmark.

\* Converted to a continuous-record gaging station April 1998 and also published as such this water year.

\*\* Not an active site.

a About.

q Peak outside period of record.

c Backwater.

d Dam failure.



## Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1998 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)
Hudson River basin--Continued								
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. Datum of gage is 24.78 ft. Drainage area is 329 mi <sup>2</sup> .	1906-14, 1929-68†, 1988-98	1- 9-98	6.50	4,090	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. Datum of gage is 612.65 ft. Drainage area is 98.0 mi <sup>2</sup> .	1929-77†, 1987-98	6-14-98	10.50	6,220	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. Datum of gage is 580 ft, from topographic map. Drainage area is 27.5 mi <sup>2</sup> .	1958-60†, 1961-98	12- 2-96 6-16-98	3.89 3.18	R538 350	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. Datum of gage is 1,160 ft, from topographic map. Drainage area is 11.4 mi <sup>2</sup> .	1972-87, 1994-98	6-14-98	7.66	245	q10-15-55 4- 4-87	f12.40 10.66	1,830 1,000
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. Datum of gage is 404.48 ft. Drainage area is 59.7 mi <sup>2</sup> .	1944-48, 1949-68†, 1987-90, 1994-98	6-16-98	6.45	1,910	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. Datum of gage is 229.53 ft. Drainage area is 57.3 mi <sup>2</sup> .	1958-75†, 1987-98	6-16-98	c6.44	a750	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. Datum of gage is 302.29 ft. Drainage area is 14.9 mi <sup>2</sup> .	1975-98	5-11-98	3.05	286	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. Datum of gage is 328.46 ft. Drainage area is 2.60 mi <sup>2</sup> .	1960-98	5-11-98	5.43	153	11- 8-77	11.02	1,520

f From floodmark.

† Operated as a continuous-record gaging station.

R Revised.

q Peak outside period of record.

c Backwater.

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 1998 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)
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, 1.0 mi southwest of Hortonville. Datum of gage is 759.84 ft. Drainage area is 110 mi <sup>2</sup> .	1941-82+, 1983-98	11- 9-96 3-10-98	5.80 4.62	R4,860 2,870	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. Datum of gage is 2,010 ft, from topographic map. Drainage area is 13.3 mi <sup>2</sup> .	1984-98	6-14-98	4.50	2,220	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. Datum of gage is 450 ft, from topographic map. Drainage area is 11.2 mi <sup>2</sup> .	1976-98	1- 8-98	11.99	387	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. Datum of gage is 950 ft, from topo- graphic map. Drainage area is 82.5 mi <sup>2</sup> .	1962-64, 1987-98	1- 8-98	16.80	6,150	q12-29-84 11- 9-96	f19.15 16.87	13,600 6,320
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. Datum of gage is 523.71 ft. Drainage area is 128 mi <sup>2</sup> .	1958-95+, 1996-98	1- 8-98	10.68	7,290	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. Datum of gage is 1,479.92 ft. Drainage area is 363 mi <sup>2</sup> .	1901-22, 1923-70+, 1987-98	1- 8-98	14.91	14,600	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. Datum of gage is 1,250 ft, from topographic map. Drainage area is 1.66 mi <sup>2</sup> .	1976-86, 1993-98	1- 8-98	10.44	102	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. Datum of gage is 762.36 ft. Drainage area is 94.8 mi <sup>2</sup> .	1957-68+, 1969-98	1- 8-98	6.87	8,520	3- 6-79 12-29-84	b11.10 f10.63	- 17,200

† Operated as a continuous-record gaging station.

R Revised.

f From floodmark.

q Peak outside period of record.

d Dam failure.



## Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1998 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)
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. Datum of gage is 539.41 ft. Drainage area is 32.6 mi <sup>2</sup> .	1959-68†, 1969-98	1- 9-98	6.97	627	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. Datum of gage is 203.15 ft. Drainage area is 43.9 mi <sup>2</sup> .	1959-63†, 1964-98	3-29-98 3-31-98	b6.30 5.03	- 549	3-30-63 3-11-92	6.94 b7.86	1,920 -
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. Datum of gage is 1,540 ft, from topographic map. Drainage area is 1.80 mi <sup>2</sup> .	1995-98	6-27-98	21.91	44	6-27-98	21.91	44
East Branch Little Salmon River near Skerry, NY (04270162)**	Lat 44°47'13", long 74°22'12", Franklin County, Hydrologic Unit 04150307, at culvert on Adams Road, 5.7 mi upstream from mouth, 100 ft downstream from Limekiln Brook, and 1.1 mi northeast of Skerry. Datum of gage is 970 ft, from topographic map. Drainage area is 7.11 mi <sup>2</sup> .	1978-93, 1998	3-31-98	f5.57	189	6-20-78	6.80	240
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. Datum of gage is 173.91 ft. Drainage area is 92.2 mi <sup>2</sup> .	1958-95†, 1996-98	3-31-98	f13.27	3,420	3-31-98	f13.27	3,420
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 down- stream from Marble River, and 4.1 mi northwest of Chateaugay. Datum of gage is 411.33 ft. Drainage area is 151 mi <sup>2</sup> .	1966-95†, 1997-98	3-31-98	7.54	5,440	2-11-66 3-31-98	b10.99 7.54	- 5,440
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. Datum of gage is 219.97 ft. Drainage area is 107 mi <sup>2</sup> .	1960-66†, 1967-98	3-31-98	8.16	5,180	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. Datum of gage is 1,620.76 ft. Drainage area is 116 mi <sup>2</sup> .	1917, 1920-27, 1928-68†, 1983-98	1- 8-98	9.99	6,610	9-22-38	12.20	10,800

† Operated as a continuous-record gaging station.

a About.

b Ice jam.

f From floodmark.

\*\* Not an active site.



## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1998 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)
St. Lawrence River basin--Continued								
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. Datum of gage is 545.37 ft. Drainage area is 198 mi <sup>2</sup> .	1925-95†, 1996-98	1- 8-98	8.47	8,080	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 02010004, 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. Datum of gage is 280 ft, from topo- graphic map. Drainage area is 10.9 mi <sup>2</sup> .	1990-96†, 1997-98	6-26-98 6-27-98	c7.35 7.21	- a600	3-21-94 6-27-98	b7.77 7.21	- a600
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. Datum of gage is 240 ft, from topographic map. Drainage area is 6.47 mi <sup>2</sup> .	1990-96†, 1997-98	1- 8-98	b6.15	a220	1- 8-98 1-19-96	b6.15 b6.47	a220 a200
Northwest Bay Brook near Bolton Landing, NY (04278300)	Lat 43°39'48", long 73°36'14", Warren County, Hydrologic Unit 02010001, on left bank 10 ft downstream from bridge on Padanarum Road, 7.7 mi north of Bolton Landing. Datum of gage is 423.60 ft. Drainage area is 22.0 mi <sup>2</sup> .	1966-68†, 1969-71, 1972-97†, 1998	1- 8-98	5.02	1,050	2-11-81 1-19-96	b7.14 6.57	- 1,950
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. Datum of gage is 110 ft, from topographic map. Drainage area is 11.6 mi <sup>2</sup> .	1990-96†, 1997-98	1- 8-98 6-14-98	6.06 6.06	444 444	12- 2-96	7.97	1,060

† Operated as a continuous-record gaging station.

c Backwater.

b Ice jam.

a About.



## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

407

## Discharge measurements made at miscellaneous sites during water year 1998

Stream	Tributary to	Location	Drainage area (mi <sup>2</sup> )	Measured previously (water years)	Measurements Date	Discharge (ft <sup>3</sup> /s)
<b>Delaware River basin</b>						
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, 1973-97	10- 9-97 6-26-98 7-22-98 8- 4-98 9- 1-98	*2.03 16.0 10.9 *3.77 *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	1992-96	7-27-98	254
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, 1979-97	10- 9-97 5- 6-98 6-26-98 7-22-98 8- 4-98 9- 1-98	*8.68 106 44.4 23.1 *5.92 *2.88
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†, 1978-97	10-10-97 5- 5-98 5-27-98 7-21-98 8- 5-98 9- 4-98 9-15-98	*2.79 145 37.2 14.1 *6.10 3.53 *3.72
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, 1965-97	10-10-97 7-20-98 8- 6-98 8-25-98	*80.3 236 *168 *130
<b>Streams tributary to Lake Ontario</b>						
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	1909-97	10-29-97 12- 9-97 2- 4-98 3-18-98 4-21-98	261 268 847 587 572
<b>Streams tributary to St. Lawrence River</b>						
04270030 Salmon River	St. Lawrence River	Lat 44°50'56", long 74°17'37", Franklin County, Hydrologic Unit 04150307, 0.4 mi downstream from Branch Brook, at bridge on U.S. Highway 11, in Malone.	180	1985	3-31-98	p4,460
04271330 Great Chazy River	Lake Champlain	Lat 44°56'11", long 73°32'47", Clinton County, Hydrologic Unit 02010006, at bridge on Angelville Road, 3.0 mi southeast of Mooers.			6-27-98 7- 1-98 7- 2-98	3,400 2,640 4,120

\* Base flow.

† Operated as a continuous-record gaging station.

p Peak discharge.



## 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-gauze 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), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

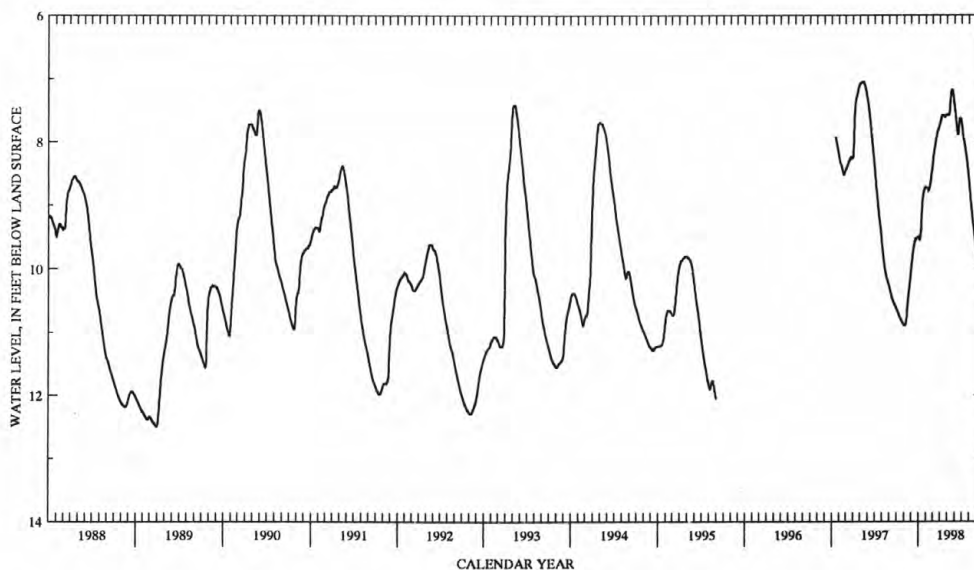
## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.63	10.89	9.99	9.51	8.72	8.33	7.71	7.57	7.45	7.71	8.64	9.72
2	10.65	10.89	9.96	9.52	8.73	8.29	7.69	7.57	7.49	7.74	8.68	9.75
3	10.66	10.89	9.92	9.53	8.73	8.25	7.67	7.57	7.52	7.78	8.72	9.78
4	10.66	10.89	9.88	9.53	8.74	8.22	7.66	7.57	7.55	7.82	8.77	9.80
5	10.67	10.89	9.85	9.54	8.74	8.19	7.64	7.57	7.58	7.85	8.81	9.83
6	10.68	10.89	9.81	9.53	8.74	8.16	7.62	7.58	7.62	7.89	8.86	9.87
7	10.69	10.88	9.78	9.52	8.74	8.14	7.61	7.58	7.66	7.92	8.90	9.89
8	10.70	10.86	9.75	9.49	8.75	8.12	7.60	7.57	7.70	7.95	8.94	9.92
9	10.71	10.84	9.72	9.45	8.75	8.09	7.59	7.56	7.74	7.96	8.98	9.94
10	10.72	10.81	9.69	9.40	8.76	8.07	7.58	7.54	7.77	7.98	9.02	9.97
11	10.74	10.79	9.67	9.32	8.77	8.05	7.58	7.52	7.81	8.00	9.06	10.00
12	10.75	10.75	9.64	9.24	8.76	8.02	7.59	7.47	7.84	8.02	9.09	10.03
13	10.76	10.71	9.62	9.15	8.76	8.00	7.59	7.42	7.87	8.04	9.13	10.05
14	10.76	10.65	9.60	9.08	8.75	7.97	7.59	7.35	7.88	8.07	9.17	10.08
15	10.77	10.59	9.58	9.02	8.73	7.94	7.58	7.30	7.88	8.09	9.20	10.11
16	10.78	10.54	9.57	8.96	8.71	7.93	7.59	7.26	7.86	8.12	9.24	10.14
17	10.79	10.50	9.55	8.91	8.69	7.91	7.59	7.23	7.82	8.14	9.27	10.17
18	10.79	10.46	9.54	8.87	8.67	7.89	7.60	7.20	7.78	8.16	9.29	10.19
19	10.80	10.42	9.53	8.84	8.64	7.87	7.61	7.19	7.73	8.19	9.32	10.22
20	10.81	10.39	9.53	8.82	8.61	7.85	7.61	7.18	7.69	8.22	9.35	10.25
21	10.82	10.36	9.52	8.80	8.57	7.84	7.61	7.18	7.66	8.25	9.39	10.28
22	10.82	10.32	9.52	8.79	8.55	7.82	7.61	7.18	7.65	8.28	9.42	10.30
23	10.83	10.30	9.52	8.78	8.52	7.81	7.60	7.19	7.63	8.31	9.45	10.33
24	10.84	10.26	9.52	8.76	8.49	7.81	7.59	7.21	7.63	8.34	9.48	10.35
25	10.85	10.23	9.51	8.74	8.46	7.81	7.58	7.23	7.63	8.38	9.51	10.38
26	10.86	10.19	9.51	8.74	8.44	7.80	7.58	7.25	7.63	8.41	9.54	10.40
27	10.86	10.15	9.51	8.74	8.41	7.78	7.58	7.28	7.64	8.45	9.57	10.42
28	10.86	10.11	9.51	8.74	8.37	7.76	7.58	7.31	7.66	8.48	9.60	10.44
29	10.87	10.08	9.51	8.73	---	7.74	7.58	7.34	7.68	8.52	9.63	10.46
30	10.87	10.04	9.50	8.72	---	7.73	7.58	7.38	7.69	8.56	9.66	10.49
31	10.89	---	9.50	8.72	---	7.72	---	7.42	---	8.60	9.69	---

WTR YEAR 1998

HIGHEST 7.18 May 20, 21, 22, 1998

LOWEST 10.89 Oct. 31, Nov. 1-5, 6, 1997





## GROUND-WATER LEVELS

409

## 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. Tape 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.

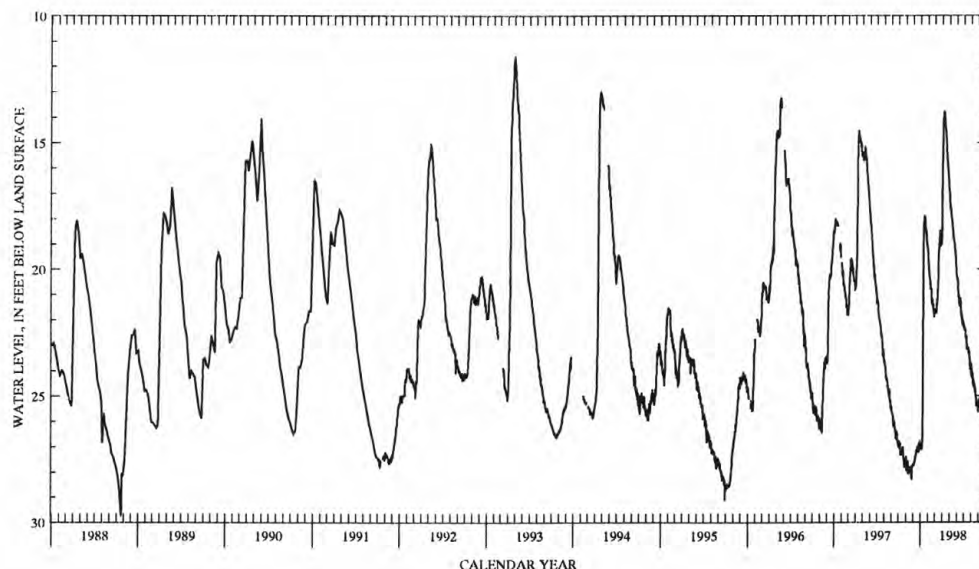
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.96	27.38	27.75	27.11	19.65	21.66	15.95	16.96	20.45	22.19	24.22	25.33
2	27.04	27.46	27.71	27.08	19.85	21.67	15.24	17.30	20.37	22.27	24.23	25.22
3	26.95	27.90	27.74	26.95	19.72	21.58	14.55	17.58	20.34	22.41	23.87	25.18
4	26.78	27.97	27.73	27.01	20.24	21.60	14.13	17.54	20.41	22.29	24.13	25.10
5	26.84	27.62	27.72	27.11	20.12	21.62	14.09	17.61	20.69	22.38	24.18	25.33
6	26.97	27.90	27.62	27.08	20.24	21.74	13.86	17.60	20.74	22.36	24.07	25.50
7	27.12	27.66	27.61	26.91	20.30	21.67	13.76	17.78	21.10	22.41	24.10	25.31
8	26.85	27.56	27.56	26.91	20.55	21.48	13.83	17.79	21.00	22.66	24.41	25.18
9	27.35	27.66	27.57	26.65	20.47	21.17	13.87	17.93	21.18	22.77	24.61	25.49
10	27.21	27.98	27.45	24.75	20.60	21.28	14.14	18.04	21.31	22.74	24.31	25.38
11	27.11	28.08	27.39	21.54	20.81	21.30	14.19	18.13	21.41	22.70	24.31	25.09
12	27.24	27.78	27.32	19.15	20.74	20.88	14.31	18.28	21.40	22.91	24.66	25.13
13	27.23	28.08	27.33	18.12	20.75	20.60	14.41	18.33	21.15	23.16	24.59	25.33
14	27.35	27.95	27.21	18.13	20.80	20.07	14.52	18.45	21.15	23.03	24.49	25.58
15	27.15	27.94	27.17	18.03	21.18	19.77	14.57	18.65	21.18	23.17	24.70	25.68
16	27.14	27.98	27.17	17.91	21.43	19.41	14.72	18.82	21.26	23.13	24.82	25.75
17	27.16	27.89	27.13	17.88	21.21	19.03	14.97	18.80	21.33	23.14	24.62	25.48
18	27.05	27.98	27.09	18.01	21.16	19.10	15.29	18.81	21.66	23.06	24.87	25.80
19	26.99	27.98	27.06	18.21	21.36	18.80	15.66	18.89	21.87	23.26	24.83	25.75
20	27.09	27.84	26.98	18.36	21.40	18.92	15.56	18.94	21.71	23.10	24.98	25.72
21	27.29	27.79	27.11	18.43	21.50	18.53	15.70	18.96	21.93	23.17	25.01	26.04
22	27.41	27.88	27.20	18.53	21.64	18.44	15.92	19.16	21.87	23.28	25.27	25.81
23	27.52	28.12	27.13	18.44	21.40	18.68	16.06	19.25	22.10	23.27	25.41	25.81
24	27.49	28.27	27.24	18.50	21.90	18.90	16.06	19.38	22.19	23.49	25.20	25.77
25	27.68	28.28	26.90	18.87	21.78	19.05	16.26	19.47	22.08	23.44	25.16	25.99
26	27.79	27.75	26.84	19.09	21.58	19.04	16.37	19.40	22.01	23.82	25.27	25.99
27	27.78	27.81	26.79	18.98	21.75	19.03	16.54	19.84	22.03	23.81	25.37	26.08
28	27.48	27.77	26.86	19.05	21.62	18.96	16.74	19.96	22.30	23.97	25.34	26.29
29	27.47	27.75	26.84	19.22	---	18.94	16.89	19.88	22.12	23.79	25.33	26.40
30	27.59	27.69	27.04	19.27	---	18.30	16.94	20.20	22.22	23.67	25.65	26.11
31	27.65	---	27.05	19.39	---	17.12	---	20.27	---	23.76	25.47	---

WTR YEAR 1998

HIGHEST 13.65 Apr. 7, 8, 1998

LOWEST 29.51 Nov. 24, 1997





## GROUND-WATER LEVELS

## 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.

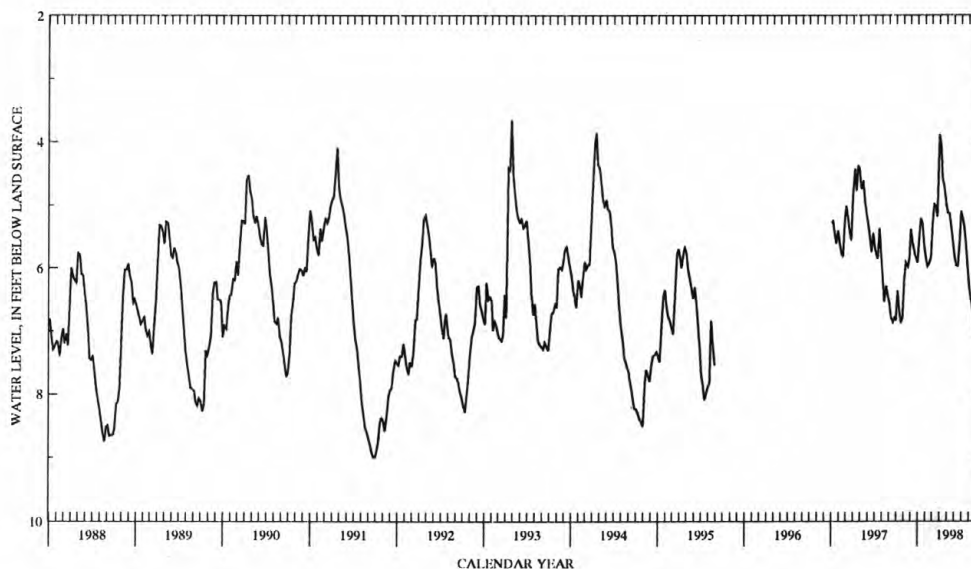
Measuring point: Chiseled mark on top edge of 6-in. by 8-in. opening of concrete well cover, 0.65 ft above land-surface datum.

**PERIOD OF RECORD.**--May 1953 to August 1995, December 1996 to current year.

**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.

## DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06, 1997	6.36	JAN 12, 1998	5.21	APR 13, 1998	4.59	JUL 06, 1998	5.22
13	6.65	19	5.28	20	4.70	13	5.40
21	6.87	26	5.65	27	4.98	20	5.70
27	6.80	FEB 02	5.84	MAY 04	5.13	27	6.06
NOV 03	6.20	09	5.97	11	5.13	AUG 03	6.39
10	5.91	16	5.93	18	5.35	10	6.54
19	5.98	23	5.82	22	5.47	17	6.69
25	5.82	MAR 02	5.30	25	5.59	24	6.99
DEC 01	5.38	09	4.99	JUN 01	5.79	31	7.05
08	5.58	16	5.02	08	5.96	SEP 07	6.70
15	5.72	23	5.19	15	5.97	14	6.57
22	5.82	30	3.89	22	5.52	21	6.58
29	5.91	APR 06	4.05	29	5.10	28	6.49
JAN 05, 1998	5.58						





## GROUND-WATER LEVELS

411

## 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.

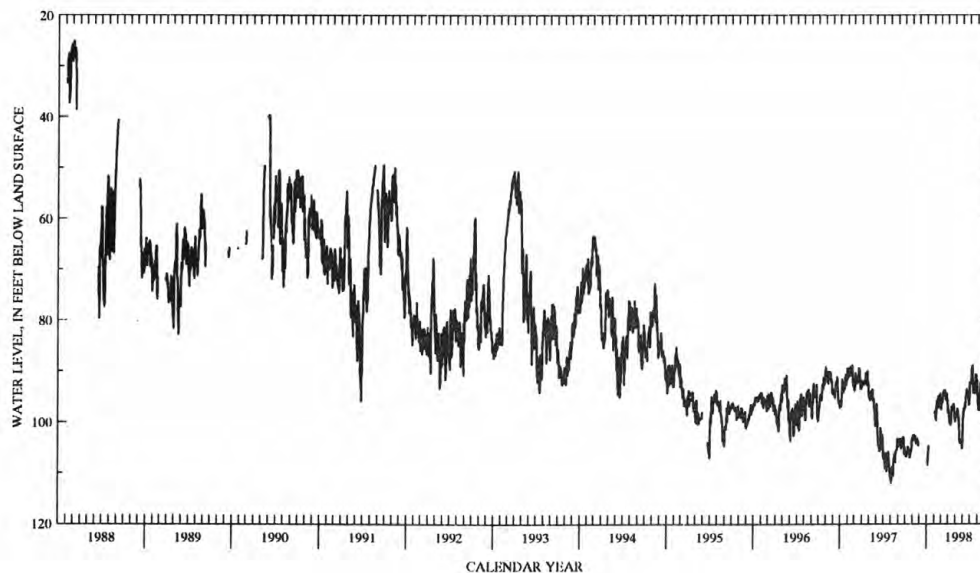
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	105.35	103.14	---	---	---	96.73	98.20	99.81	102.58	92.69	93.43	87.49
2	106.22	103.17	---	---	---	97.15	98.03	98.39	100.82	92.06	94.55	88.04
3	106.18	103.40	---	108.59	98.29	97.63	97.47	98.44	99.61	92.25	95.47	87.69
4	106.20	102.66	---	108.13	98.11	96.53	97.71	98.86	99.02	92.74	95.98	87.28
5	106.28	103.31	---	107.64	98.22	95.92	98.01	98.87	98.00	92.65	97.24	87.81
6	106.89	103.21	---	106.58	98.21	95.86	99.18	99.11	97.22	92.10	97.68	87.28
7	106.23	102.56	---	105.96	98.96	96.01	100.07	98.98	97.34	91.88	96.14	89.94
8	106.21	102.60	---	105.13	99.50	95.97	100.27	98.20	97.39	90.79	96.18	90.21
9	106.40	103.11	---	104.70	99.58	95.11	100.08	98.04	97.08	89.78	97.42	88.85
10	105.88	103.55	---	---	98.44	94.42	99.64	97.33	97.49	89.47	97.84	87.55
11	106.19	103.13	---	---	97.36	94.30	100.35	97.62	97.65	89.06	95.92	86.62
12	105.74	103.28	---	---	95.98	94.26	100.66	98.06	96.40	89.00	94.61	85.96
13	105.23	103.10	---	---	95.91	94.38	100.53	98.77	96.40	91.33	93.42	86.88
14	104.79	102.79	---	---	96.67	93.69	99.44	99.30	95.91	93.06	92.47	87.72
15	105.64	103.18	---	---	97.29	93.94	98.04	98.86	95.03	94.35	92.21	87.51
16	106.09	103.83	---	---	97.11	94.75	97.58	99.73	94.91	93.82	92.47	87.49
17	105.90	104.37	---	---	96.21	94.73	96.87	101.53	94.50	92.17	92.89	88.00
18	105.33	104.07	---	---	95.26	94.11	97.30	101.80	93.54	92.31	92.03	88.16
19	105.73	103.90	---	---	94.81	93.70	97.50	103.45	93.74	93.30	91.02	87.22
20	106.42	103.38	---	---	95.29	94.06	97.01	104.00	94.01	93.55	91.19	88.05
21	106.99	103.40	---	---	96.22	94.82	97.27	103.91	94.06	94.25	91.45	87.65
22	107.13	103.34	---	---	97.22	95.37	97.32	104.21	94.35	94.42	90.51	86.35
23	106.50	104.04	---	---	97.10	95.81	96.87	103.36	94.03	92.55	90.49	85.61
24	105.83	104.36	---	---	95.66	95.20	96.36	103.97	94.53	91.55	89.41	86.10
25	105.54	104.20	---	---	94.77	95.09	96.63	103.89	95.45	90.83	88.58	85.56
26	105.92	103.77	---	---	94.73	94.54	97.51	104.01	94.60	90.56	88.01	85.08
27	105.45	104.79	---	---	94.41	94.41	98.55	104.38	95.52	90.97	88.07	84.00
28	105.33	---	---	---	96.21	95.27	99.19	104.10	96.72	90.95	89.32	83.36
29	104.80	---	---	---	---	95.54	99.50	105.12	95.55	91.68	90.22	82.98
30	103.94	---	---	---	---	96.46	100.00	105.28	93.54	92.09	89.63	82.53
31	103.51	---	---	---	---	97.41	---	104.98	---	91.71	88.44	---

WTR YEAR 1998

HIGHEST 82.12 Sept. 30, 1998

LOWEST 109.20 Jan. 3, 1998





## 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 1998 water year are published immediately following the discharge records for those sites.

Benthic macroinvertebrate data collected during water years 1993-95 are reported in this section. Associated surface-water data were reported in corresponding annual data reports. NAWQA ground-water data collected in the Hudson River basin during the 1998 water year is compiled in a table in this section also. 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:

Bode, R.W., Novak, M.A., and Abele, L.E., 1996, Quality assurance work plan for biological stream monitoring in New York State: Albany, NY, New York State Department of Environmental Conservation, 89 p.

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.

(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 (Ordran)	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- (Pennac-M)	0.006	ug/L
82680	Carbaryl (Sevin)	0.003	ug/L	82669	Pebulate (Tillam)	0.004	ug/L
82674	Carbofuran (Furadan)	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 (Aquazine, 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				



**Benthic macroinvertebrates collected in kick samples at selected sites in the Hudson River basin, 1993-95**  
(National water-quality assessment program)

Benthic macroinvertebrates were collected with a kick technique from 30 wadable streams in the Hudson River Basin during July to August 1993-95. Samples were collected from wadable riffle zones at 1-3 stream reaches associated with each station (Meador and others 1993). Samples were collected and processed according to protocols used by the Stream Biomonitoring Unit of New York State Department of Environmental Conservation (NYSDEC, Bode and others 1996). A net (9 inches tall and 18 inches wide; mesh opening 0.8 mm by 0.9 mm) was positioned in the riffle, and the substrate in front of the net was disturbed by kicking so that dislodged organisms were carried into the net by the current. The net was moved further downstream and the process was repeated until a section 5 meters long was sampled in about 5 minutes. Samples were processed in the laboratory by NYSDEC; this included randomly selecting 100 specimens and identifying each to the lowest possible taxonomic level, as described in Bode and others (1996). Non-insect taxonomy follows Peckarsky and others (1990); insect taxonomy follows Merritt and Cummins (1996).

Additional water quality and biological data for these sites can be found in the continuous-record sections and NAWQA special sections of the 1993, 1994, and 1995 data reports.

Class names are in bold uppercase within parentheses, order names are in bold uppercase, family names are in uppercase, and genus and species names are in italics. Numbers in the macroinvertebrate table refer to number of individuals of each taxon collected in the 100-specimen subsample.

## REFERENCES CITED:

- Bode, R.W., Novak, M.A., and Abele, L.E., 1996, Quality assurance work plan for biological stream monitoring in New York State: Albany, NY, New York State Department of Environmental Conservation, 89 p.  
Meador, M.R., Hupp, C.R., Cuffney, T.F., and Gurtz, M.E., 1993, Methods for characterizing stream habitat as part of the National Water-Quality Assessment Program: U.S. Geological Survey Open-File Report 93-408, 48 p.  
Merritt, R.W., and Cummins, K.W., 1996, An introduction to the aquatic insects of North America (3rd edition): Dubuque, Iowa, Kendall/Hunt Publishing Co, 62 p.  
Peckarsky, B.L., Fraissinet, P.R., Penton, M.A., and Conklin, D.J., Jr, 1990, Freshwater macro-invertebrates of Northeastern North America: Ithaca, NY, Cornell University Press, 442 p.

**Sites and Collection Dates**

SAMPLE	STATION NUMBER	STATION NAME	REACH	DATE
01333500A93	01333500	Little Hoosic River at Petersburg, NY	A	8/03/93
01334500A94	01334500	Hoosic River near Eagle Bridge, NY	A	7/18/94
01334500A95	01334500	Hoosic River near Eagle Bridge, NY	A	7/13/95
0134273950A93	0134273950	Fulmer Creek at Days Rock near Mohawk, NY	A	8/12/93
01342800A93	01342800	West Canada Creek at Nobleboro, NY	A	8/12/93
01346865A93	01346865	Nowadaga Creek at Newville, NY	A	8/10/93
01347194A93	01347194	East Canada Creek at Stratford, NY	A	8/11/93
01348580A93	01348580	Caroga Creek at Palatine Church, NY	A	8/13/93
01348995A93	01348995	Otsquago Creek at Valley Brook near Fort Plain, NY	A	8/10/93
01349150A93	01349150	Canajoharie Creek near Canajoharie, NY	A	7/23/93
01349150A94	01349150	Canajoharie Creek near Canajoharie, NY	A	7/20/94
01349150A95	01349150	Canajoharie Creek near Canajoharie, NY	A	7/25/95
01350196A93	01350196	West Kill northwest of North Blenheim, NY	A	8/13/93
01351270A93	01351270	West Creek at Warnersville, NY	A	8/13/93
01356190A93	01356190	Lisha Kill northwest of Niskayuna, NY	A	7/26/93
01356190A94	01356190	Lisha Kill northwest of Niskayuna, NY	A	7/25/94
01356190A95	01356190	Lisha Kill northwest of Niskayuna, NY	A	7/10/95
01356190B94	01356190	Lisha Kill northwest of Niskayuna, NY	B	7/25/94
01356190C94	01356190	Lisha Kill northwest of Niskayuna, NY	C	7/26/94
013590135A93	013590135	Patroon Creek at Albany, NY	A	8/06/93
01359900A93	01359900	Coeymans Creek near South Bethlehem, NY	A	8/19/93
01360500A93	01360500	Kinderhook Creek at East Nassau, NY	A	8/04/93
01361200A93	01361200	Claverack Creek at Claverack, NY	A	7/29/93
01361200A94	01361200	Claverack Creek at Claverack, NY	A	7/27/94
01361200A95	01361200	Claverack Creek at Claverack, NY	A	7/12/95
01361200B94	01361200	Claverack Creek at Claverack, NY	B	7/27/94
01361200C94	01361200	Claverack Creek at Claverack, NY	C	7/27/94
01361500A93	01361500	Catskill Creek at Oak Hill, NY	A	8/05/93
0136216850A93	0136216850	Roeliff Jansen Kill at Jackson Corners, NY	A	8/04/93
01362200A93	01362200	Esopus Creek at Allaben, NY	A	7/22/93
01362200A94	01362200	Esopus Creek at Allaben, NY	A	7/14/94
01362200A95	01362200	Esopus Creek at Allaben, NY	A	7/19/95
01362200B94	01362200	Esopus Creek at Allaben, NY	B	7/15/94
01362200C94	01362200	Esopus Creek at Allaben, NY	C	7/14/94
01364970A93	01364970	Rondout Creek near Sundown, NY	A	8/13/93
01371500A93	01371500	Wallkill River at Gardiner, NY	A	7/21/93
01372051A93	01372051	Fall Kill at Poughkeepsie, NY	A	7/27/93
01372051A94	01372051	Fall Kill at Poughkeepsie, NY	A	7/11/94
01372051A95	01372051	Fall Kill at Poughkeepsie, NY	A	7/17/95
01372200A93	01372200	Wappinger Creek near Clinton Corners, NY	A	8/19/93
01372681A93	01372681	Fishkill Creek at Stormville Road near Hopewell Jct, NY	A	8/10/93
01373690A93	01373690	Woodbury Creek near Highland Mills, NY	A	8/12/93
01374300A93	01374300	Peekskill Hollow Creek at Van Cortlandtville, NY	A	8/12/93
01374494A93	01374494	Haviland Hollow Brook near Putnam Lake, NY	A	8/10/93
01374960A93	01374960	Hallocks Mill Brook at Yorktown Heights, NY	A	8/11/93
01374987A93	01374987	Kisco River below Mount Kisco, NY	A	8/11/93
01376500A93	01376500	Sawmill River at Yonkers, NY	A	7/20/93
01376500A94	01376500	Sawmill River at Yonkers, NY	A	7/12/94
01376500A95	01376500	Sawmill River at Yonkers, NY	A	8/28/95



(CLASS)	01333500A93	01334500A94	01334500A95	0134273950A93	01342800A93	01346865A93	01347194A93	01348580A93	01348995A93	01349150A93	01349150A94	01349150A95	01350196A93	01351270A93	01356190A93	01356190A94	01356190A95	01356190B94	01356190C94	013590135A93	01359900A93	01360500A93
ORDER FAMILY <i>genus species</i>																						
(ENOPLA)																						
HOPLONEMERTEA																						
TETRASTEMMATIDAE																						
<i>Prostoma graecense</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(TURBELLARIA)	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
(OLIGOCHAETA)																						
LUMBRICINA	0	0	0	0	3	0	0	3	0	0	1	0	0	0	1	1	0	1	0	0	0	1
LUMBRICULIDA																						
LUMBRICULIDAE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Lumbriculus sp.</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Stylodrilus heringianus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TUBIFICIDA																						
ENCHYTRAEDIAE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	76	0	0
TUBIFICIDAE																						
<i>Limnodrilus hoffmeisteri</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0
<i>L. sp.</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0
Tubificidae w/o cap. setae	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	5	1	5	0	0	0	0
NAIDIDAE																						
<i>Nais behningi</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
<i>N. bretscheri</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
<i>N. communis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. sp.</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
<i>N. variabilis</i>	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1
<i>Pristina sp.</i>	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Pristinella sp.</i>	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(HIRUDINEA)	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0
(GASTROPODA)																						
BASOMMATOPHORA																						
PHYSIDAE																						
<i>Physella sp.</i>	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	1	0	1	1	0
PLANORBIDAE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANCYLIDAE																						
Ferrissia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	4	0	0	0	0
MESOGASTROPODA																						
HYDROBIIDAE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(PELECYPODA)																						
VENEROIDEA																						



**Benthic macroinvertebrates collected in kick samples at selected sites in the Hudson River basin, 1993-95--Continued**  
(National water-quality assessment program)

[illegible]



## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY MISCELLANEOUS SITES

Benthic macroinvertebrates collected in kick samples at selected sites in the Hudson River basin, 1993-95--Continued  
(National water-quality assessment program)

(CLASS)	ORDER	FAMILY	genus species	01333500A93	01334500A94	01334500A95	0134273950A93	01342800A93	01346865A93	01347194A93	01348580A93	01348995A93	01349150A93	01349150A94	01349150A95	01350196A93	01351270A93	01356190A93	01356190A94	01356190A95	01356190B94	01356190C94	013590135A93	01359900A93	01360500A93
(INSECTA)																									
			EPHEMEROPTERA																						
			BAETIDAE	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			Acentrella sp.	1	0	2	0	2	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			Acerpenna pygmaea	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0
			Baetis flavistriga	0	0	2	0	0	0	0	0	0	1	1	0	0	0	6	10	5	1	0	0	0	1
			B. sp.	0	0	0	0	0	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0
			B. tricaudatus	0	0	0	0	1	0	0	4	0	0	0	0	0	2	0	0	0	0	0	0	0	0
			Centropilum sp.	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			ISONYCHIIDAE																						
			Isonychia bicolor	0	1	0	0	0	2	0	1	0	0	0	0	9	9	0	0	0	0	0	0	0	2
			HEPTAGENIIDAE	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
			Epeorus (Iron) sp.	0	0	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			Heptagenia flavesce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			H. sp.	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			Leucrocuta sp.	0	0	0	0	0	0	0	0	1	0	0	0	0	5	0	0	0	0	0	0	0	0
			Nixe (Nixe) sp.	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			Stenacron interpunctatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			Stenonema femoratum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0	1	0	0	0
			S. integrum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			S. mediopunctatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			S. sp.	3	0	0	0	7	3	9	0	2	0	0	0	8	1	0	0	0	0	0	0	0	5
			S. terminatum	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			S. vicarium	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			EPHEMERELLIDAE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			Drunella cornutella	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			Serratella deficiens	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			S. serrata	3	7	3	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			S. sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
			TRICORYTHIDAE																						
			Tricorythodes sp.	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
			CAENIDAE																						
			Caenis anceps	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			C. latipennis	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0
			C. sp.	0	0	0	0	0	5	0	0	13	0	3	2	1	0	0	0	0	0	0	0	0	0
			LEPTOPHLEBIIDAE	0	0	0	0	1	0	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0
			Paraleptophlebia sp.	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
			POTAMANTHIDAE																						
			Anthopotamus sp.	0	1	2	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	14
			POLYMITARCYIDAE																						
			Ephoron sp. prob. leukon	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			ODONATA																						
			GOMPHIDAE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			Lanthus sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			AESCHNIDAE	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			Boyeria sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			CORDULEGASTERIDAE																						
			Cordulegaster sp.	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			CALOPTERYGIDAE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			COENAGRIONIDAE	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0



(National water-quality assessment program)

[illegible]







(National water-quality assessment program)

[illegible]



(CLASS) ORDER FAMILY <i>genus species</i>	01333500A93	01334500A94	01334500A95	0134273950A93	01342800A93	01346865A93	01347194A93	01348580A93	01348995A93	01349150A93	01349150A94	01349150A95	01350196A93	01351270A93	01356190A93	01356190A94	01356190A95	01356190B94	01356190C94	013590135A93	01359900A93	01360500A93
UENOIDAE																						
<i>Neophylax</i> sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ODONTOCERIDAE																						
<i>Psilotreta</i> sp.	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HELICOPSYCHIDAE																						
<i>Helicopsyche borealis</i>	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
LEPIDOPTERA																						
PYRALIDAE																						
<i>Petrophila</i> sp.	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
COLEOPTERA																						
GYRINIDAE																						
<i>Dineutus</i> sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PSEPHENIDAE																						
<i>Ectopria nervosa</i>	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
<i>Psephenus herricki</i>	1	2	0	0	0	0	0	1	0	1	1	2	0	2	0	5	4	1	0	0	2	1
<i>P.</i> sp.	0	0	0	2	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0
ELMIDAE																						
<i>Dubiraphia vittata</i>	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
<i>Macronychus glabratus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0
<i>Optioservus fastiditus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>O. ovalis</i>	7	0	0	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
<i>O.</i> sp.	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0
<i>O.s trivittatus</i>	2	11	8	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	3	6
<i>Oulimnius latiusculus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Promoresia elegans</i>	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>P. tardella</i>	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Stenelmis concinna</i>	0	0	0	0	0	0	0	0	0	0	4	7	0	0	0	0	0	0	0	0	0	0
<i>S. crenata</i>	0	14	0	0	0	0	0	19	0	20	16	0	0</									



(National water-quality assessment program)

[illegible]



**Benthic macroinvertebrates collected in kick samples at selected sites in the Hudson River basin, 1993-95--Continued**  
(National water-quality assessment program)

(CLASS) ORDER FAMILY genus species	01333500A93	01334500A94	01334500A95	0134273950A93	01342800A93	01346865A93	01347194A93	01348580A93	01348995A93	01349150A93	01349150A94	01349150A95	01350196A93	01351270A93	01356190A93	01356190A94	01356190A95	01356190B94	01356190C94	013590135A93	01359900A93	01360500A93
Nanocladius (Plecoptera) coluthus sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
N. spinipennis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Natarsia baltimorens	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0
N. sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
Nilotanytus fimbriatus	0	0	0	0	0	0	0	0	1	0	0	4	0	0	0	0	0	0	0	0	0	0
Nilothauma sp.	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Orthocladius annectens	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
O. nr. dentifer	1	0	0	0	1	0	0	1	0	0	0	0	0	25	0	0	0	0	0	0	0	2
Pagastia sp. A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Paralimnophyes sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Parametriochnemus lundbecki	0	0	0	0	0	2	0	0	3	1	0	0	0	0	23	1	0	0	0	0	4	2
Paratrichocladius sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phaenopsectra sp. prob. dyari	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
P. flavipes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Polypedilum (Tripodura) sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P. aviceps	13	0	0	9	13	1	19	4	0	0	0	0	20	0	0	0	0	0	0	0	0	0
P. convictum	2	2	7	2	2	4	0	1	2	26	13	30	0	4	0	1	0	0	0	0	1	4
P. fallax gr.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P. illinoense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P. laetum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	1	0	9	0	0	0
P. scalaenum gr.	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Potthastia gaedii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
P.a longimana	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Pseudochironomus sp.	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Psilometriochnemus sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
Rheocricotopus robacki	2	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	2
Rheotanytarsus distinctissimus gr.	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
R. exiguus gr.	2	2	4	9	8	0	1	9	3	1	7	8	0	0	2	5	1	0	3	0	3	0
Stenochironomus sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
Stictochironomus sp.	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	8	0	0	0	0	0
Sublettea coffmani	2	0	4	5	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Tanytarsus glabrescens gr.	0	1	0	0	0	7	0	1	7	0	0	0	0	1	0	0	0	0	0	0	3	2
T. guerlus gr.	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
Thienemanniella sp. prob. xena	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thienemannimyia gr. spp.	1	1	1	1	4	14	0	2	9	5	2	11	10	1	4	1	0	0	0	1	2	3
Tribelos jucundum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tvetenia bavarica gr.	0	0	0	0	0	0	0	0	0	0	0	0	1	0	5	1	0	1	0	0	0	0
T. vitracies	0	1	1	2	0	7	0	14	0	1	0	1	0	0	0	0	0	0	0	0	2	0
Xenochironomus xenolabis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Zavrelia gr. spp.	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SIMULIIDAE																						
Simulium jenningsi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S. sp.	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S. vittatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TIPULIDAE																						
Antocha sp.	1	3	5	0	0	0	0	0	0	0	0	0	0	1	0	2	2	0	0	0	0	0
Dicranota sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	14	36	32	16	0	0	0
Hexatoma sp.	3	0	0	1	1	0	0	0	4	0	0	0	1	0	0	0	0	0	0	0	1	0
ATHERICIDAE																						
Atherix sp.	0	1	0	0	0	0	1	4	9	1	1	0	1	0	1	0	0	0	0	0	25	1
EMPIDIDAE																						
Hemerodromia sp.	0	0	0	1	0	1	0	0	0	1	0	2	0	1	0	1	0	1	1	0	0	0



(National water-quality assessment program)

[illegible]



## QUALITY OF GROUND WATER

**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 1998 water year from two tile drains and were analyzed for 47 pesticides and pesticide degradates.

STATION	NUMBER	DATE	TIME	FLOW RATE (G/M) (00059)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)	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)
MONTGOMERY COUNTY											
425030074393901	11-09-97	1010	--	725	6.7	--	--	<.002	<.002	.0059	<.002
425030074393901	11-10-97	1110	2.2	--	--	10.0	--	<.002	<.002	E.0040	<.002
425030074393901	02-11-98	1730	1.4	585	7.1	3.5	--	<.002	<.002	.0045	<.002
*425030074393901	02-11-98	1738	1.4	585	7.1	3.5	--	<.002	<.002	E.0031	<.002
425030074393901	03-05-98	1005	3.2	499	7.3	--	--	<.002	<.002	.0135	<.002
425030074393901	04-09-98	1000	--	475	7.3	--	--	<.002	<.002	.0061	<.002
425030074393901	05-14-98	0830	>4.8	485	6.9	--	--	<.002	<.002	.0138	<.002
425030074393901	05-20-98	1100	--	492	7.2	--	--	<.002	<.002	.0087	<.002
425030074393901	05-26-98	1045	E1.5	515	7.2	--	--	<.002	<.002	.0098	<.002
425030074393901	06-01-98	1140	E7.3	484	7.2	--	--	<.002	<.002	.0211	<.002
425030074393901	06-02-98	0750	E6.3	490	7.0	--	--	<.002	<.002	.0176	<.002
425030074393901	06-03-98	1300	E3.7	471	6.8	13.5	--	<.002	<.002	.0278	<.002
425030074393901	06-08-98	1140	E2.4	511	7.2	--	--	<.002	<.002	.0137	<.002
425030074393901	06-12-98	1810	>3.2	511	6.9	--	--	<.002	<.002	.0074	<.002
425030074393901	06-14-98	1130	E47.5	485	6.9	--	--	<.002	<.002	.0222	<.002
425030074393901	06-14-98	1630	E47.5	479	6.9	--	--	<.002	<.002	.0212	<.002
425030074393901	06-15-98	0925	E47.5	470	6.9	--	--	<.002	<.002	.0300	<.002
425030074393901	06-23-98	1540	E6.3	497	6.7	--	--	<.002	<.002	.0121	<.002
425030074393901	06-30-98	0930	E11.0	506	6.45	15.5	--	<.002	<.002	.0134	<.002
425030074393901	07-01-98	0900	E7.3	--	--	--	--	<.002	<.002	.0116	<.002
*425030074393901	07-01-98	0908	E7.3	--	--	--	--	<.002	<.002	.0128	<.002
425030074393901	07-07-98	1010	2.0	558	6.67	17.0	--	<.002	<.002	.0095	<.002
425041074393201	11-09-97	1030	--	631	6.6	--	--	<.002	<.002	.0075	<.002
425041074393201	11-10-97	1120	1	--	--	9.0	--	<.002	<.002	.0067	<.002
425041074393201	02-11-98	1740	1.4	588	6.6	3.5	--	<.002	<.002	.0058	<.002
*425041074393201	02-11-98	1748	1.4	588	6.6	3.5	--	<.002	<.002	.0040	<.002
425041074393201	03-05-98	1025	2.4	402	7.3	--	--	<.002	<.002	.0357	<.002
425041074393201	04-09-98	1020	4.8	500	7.0	6.0	--	<.002	<.002	.0077	<.002
425041074393201	05-14-98	0810	1.2	519	6.6	--	--	<.002	<.002	.0073	<.002
425041074393201	05-20-98	1115	4.8	523	7.0	--	--	<.002	<.002	.0084	<.002
425041074393201	05-26-98	1115	--	523	7.0	--	--	<.002	<.002	.0082	<.002
425041074393201	06-01-98	1220	.3	532	7.1	--	--	<.002	<.002	.0152	<.002
425041074393201	06-02-98	0820	.6	550	6.9	--	--	<.002	<.002	.0138	<.002
425041074393201	06-03-98	1325	E3.2	529	6.7	--	--	<.002	<.002	.0305	<.002
425041074393201	06-08-98	1215	--	545	7.1	--	--	<.002	<.002	.0119	<.002
425041074393201	06-15-98	0940	E3.7	549	6.7	--	--	<.002	<.002	.0983	<.002
425041074393201	06-23-98	1520	.5	551	6.7	--	--	<.002	<.002	.0115	<.002
425041074393201	06-30-98	1020	E.5	547	6.55	15.5	--	<.002	<.002	.0103	<.002
425041074393201	07-01-98	0850	E.2	221	7.38	--	--	<.002	<.002	.0103	<.002
425041074393201	07-22-98	1020	--	581	5.89	--	--	<.002	<.002	.0091	<.002

E Estimate.

\* Replicate sample.



QUALITY OF GROUND WATER

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Agricultural land-use survey--Continued

STATION	NUMBER	DATE	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	P,P' DDE DISSOLV (UG/L) (34653)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	DI- AZINON, DIS- SOLVED (UG/L) (39572)
MONTGOMERY COUNTY											
425030074393901	11-09-97	<.002	<.003	<.003	<.004	.0080	<.002	<.006	E.0080	<.002	
425030074393901	11-10-97	<.002	<.003	<.003	<.004	<.004	<.002	<.006	E.0049	<.002	
425030074393901	02-11-98	<.002	<.003	<.003	<.004	<.004	<.002	<.006	E.0074	<.002	
*425030074393901	02-11-98	<.002	<.003	<.003	<.004	<.004	<.002	<.006	E.0060	<.002	
425030074393901	03-05-98	<.002	<.003	<.003	<.004	<.004	<.002	<.006	E.0256	<.002	
425030074393901	04-09-98	<.002	<.003	<.003	<.004	<.004	<.002	<.006	E.0104	<.002	
425030074393901	05-14-98	<.002	<.003	<.003	<.004	<.004	<.002	<.006	E.0188	<.002	
425030074393901	05-20-98	<.002	<.003	<.003	<.004	<.004	<.002	<.006	E.0139	<.002	
425030074393901	05-26-98	<.002	<.003	<.003	<.004	<.004	<.002	<.006	E.0150	<.002	
425030074393901	06-01-98	<.002	<.003	<.003	<.004	<.020	<.002	<.006	E.0239	<.002	
425030074393901	06-02-98	<.002	<.003	<.003	<.004	<.004	<.002	<.006	E.0195	<.002	
425030074393901	06-03-98	<.002	<.003	<.003	<.004	<.004	<.002	<.006	E.0250	<.002	
425030074393901	06-08-98	<.002	<.003	<.003	<.004	E.0130	<.002	<.006	E.0235	<.002	
425030074393901	06-12-98	<.002	<.003	<.003	<.004	.0051	<.002	<.006	E.0196	<.002	
425030074393901	06-14-98	<.002	<.003	<.003	<.004	.0083	<.002	<.006	E.0354	<.002	
425030074393901	06-14-98	<.002	<.003	<.003	<.004	.0097	<.002	<.006	E.0328	<.002	
425030074393901	06-15-98	<.002	<.003	<.003	<.004	.0103	<.002	<.006	E.0445	<.002	
425030074393901	06-23-98	<.002	<.003	<.003	<.004	.0066	<.002	<.006	E.0256	<.002	
425030074393901	06-30-98	<.002	<.003	<.003	<.004	<.004	<.002	<.006	E.0160	<.002	
425030074393901	07-01-98	<.002	<.003	<.003	<.004	<.004	<.002	<.006	E.0261	<.002	
*425030074393901	07-01-98	<.002	<.003	<.003	<.004	<.004	<.002	<.006	E.0274	<.002	
425030074393901	07-07-98	<.002	<.003	<.003	<.004	.0059	<.002	<.006	E.0201	<.002	
425041074393201	11-09-97	<.002	<.003	<.020	<.004	.0541	<.002	<.006	E.0028	<.002	
425041074393201	11-10-97	<.002	<.003	<.003	<.004	.0218	<.002	<.006	E.0061	<.002	
425041074393201	02-11-98	<.002	<.003	<.003	<.004	<.004	<.002	<.006	E.0050	<.002	
*425041074393201	02-11-98	<.002	<.003	<.003	<.004	<.004	<.002	<.006	E.0037	<.002	
425041074393201	03-05-98	<.002	<.003	<.003	<.010	<.020	<.002	<.006	E.0362	<.002	
425041074393201	04-09-98	<.002	<.003	<.003	<.004	.0051	<.002	<.006	E.0056	<.002	
425041074393201	05-14-98	<.002	<.003	<.003	<.004	<.004	<.002	<.006	E.0082	<.002	
425041074393201	05-20-98	<.002	<.003	<.003	<.004	<.004	<.002	<.006	E.0053	<.002	
425041074393201	05-26-98	<.002	<.003	<.003	<.004	<.004	<.002	<.006	E.0075	<.002	
425041074393201	06-01-98	<.002	<.003	<.003	<.004	<.020	<.002	<.006	E.0088	<.002	
425041074393201	06-02-98	<.002	<.003	<.003	<.004	<.004	<.002	<.006	E.0080	<.002	
425041074393201	06-03-98	<.002	<.003	<.003	<.004	1.95	<.002	<.006	E.0143	<.002	
425041074393201	06-08-98	<.002	<.003	<.003	<.004	.0266	<.002	<.006	E.0120	<.002	
425041074393201	06-15-98	<.002	<.003	<.003	<.004	6.63	<.002	<.006	E.0498	<.002	
425041074393201	06-23-98	<.002	<.003	<.003	<.004	.0264	<.002	<.006	E.0112	<.002	
425041074393201	06-30-98	<.002	<.003	<.003	<.004	.0074	<.002	<.006	E.0085	<.002	
425041074393201	07-01-98	<.002	<.003	<.003	<.004	.0086	<.002	<.006	E.0094	<.002	
425041074393201	07-22-98	<.002	<.003	<.003	<.004	<.010	<.002	<.006	E.0067	<.002	

E Estimate.

\* Replicate sample.



**QUALITY OF GROUND WATER**  
**Agricultural land-use survey--Continued**

STATION	NUMBER	DATE	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U (UG/L) (82660)	DISUL- FOTON WATER FLTRD GF, REC (UG/L) (82677)	EPTC WATER FLTRD GF, REC (UG/L) (82668)	ETHAL- FLUR- ALIN WAT FLT 0.7 U (UG/L) (82663)	ETHO- PROP WATER FLTRD GF, REC (UG/L) (82672)	PARA- THION, DIS- SOLVED (UG/L) (39542)	FONOFOS WATER DISS REC (UG/L) (04095)	ALPHA BHC DIS- SOLVED (UG/L) (34253)
MONTGOMERY COUNTY											
425030074393901	11-09-97	<.001	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	
425030074393901	11-10-97	<.001	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	
425030074393901	02-11-98	<.001	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	
*425030074393901	02-11-98	<.001	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	
425030074393901	03-05-98	<.001	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	
425030074393901	04-09-98	<.001	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	
425030074393901	05-14-98	<.001	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	
425030074393901	05-20-98	<.001	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	
425030074393901	05-26-98	<.001	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	
425030074393901	06-01-98	<.001	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	
425030074393901	06-02-98	<.001	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	
425030074393901	06-03-98	<.001	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	
425030074393901	06-08-98	<.001	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	
425030074393901	06-12-98	<.001	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	
425030074393901	06-14-98	<.001	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	
425030074393901	06-14-98	<.001	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	
425030074393901	06-15-98	<.001	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	
425030074393901	06-23-98	<.001	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	
425030074393901	06-30-98	<.001	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	
425030074393901	07-01-98	<.001	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	
*425030074393901	07-01-98	<.001	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	
425030074393901	07-07-98	<.001	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	
425041074393201	11-09-97	<.001	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	
425041074393201	11-10-97	<.001	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	
425041074393201	02-11-98	<.001	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	
*425041074393201	02-11-98	<.001	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	
425041074393201	03-05-98	<.001	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	
425041074393201	04-09-98	<.001	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	
425041074393201	05-14-98	<.001	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	
425041074393201	05-20-98	<.001	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	
425041074393201	05-26-98	<.001	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	
425041074393201	06-01-98	<.001	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	
425041074393201	06-02-98	<.001	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	
425041074393201	06-03-98	<.001	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	
425041074393201	06-08-98	<.001	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	
425041074393201	06-15-98	<.001	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	
425041074393201	06-23-98	<.001	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	
425041074393201	06-30-98	<.001	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	
425041074393201	07-01-98	<.001	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	
425041074393201	07-22-98	<.001	<.003	<.017	<.002	<.004	<.003	<.004	<.003	<.002	

\* Replicate sample.



QUALITY OF GROUND WATER

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Agricultural land-use survey--Continued

STATION	NUMBER	DATE	LINDANE	I.IN- URON	MALA-	METHYL	METHYL		METRI-	MOL-	NAPROP-
			DIS-	WATER	THION,	AZIN-	PARA-	BUIZIN	INATE	AMIDE	
			FLTRD	0.7 U	THION,	WAT FLT	WAT FLT	WATER	FLTRD	FLTRD	
			SOLVED	GF, REC	DIS-	GF, REC	GF, REC	DISSOLV	GF, REC	GF, REC	
(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)		
(39341)	(82666)	(39532)	(82686)	(82667)	(39415)	(82630)	(82671)	(82684)			
MONTGOMERY COUNTY											
425030074393901	11-09-97	<.004	<.002	<.005	<.001	<.006	.0306	<.004	<.004	<.003	
425030074393901	11-10-97	<.004	<.002	<.005	<.001	<.006	.0069	<.004	<.004	<.003	
425030074393901	02-11-98	<.004	<.002	<.005	<.001	<.006	.0103	<.004	<.004	<.003	
*425030074393901	02-11-98	<.004	<.002	<.005	<.001	<.006	.0116	<.004	<.004	<.003	
425030074393901	03-05-98	<.004	<.002	<.005	<.001	<.006	.0200	<.004	<.004	<.003	
425030074393901	04-09-98	<.004	<.002	<.005	<.001	<.006	.0126	<.004	<.004	<.003	
425030074393901	05-14-98	<.004	<.002	<.005	<.001	<.006	.0190	<.004	<.004	<.003	
425030074393901	05-20-98	<.004	<.002	<.005	<.001	<.006	.0175	<.004	<.004	<.003	
425030074393901	05-26-98	<.004	<.002	<.005	<.001	<.006	.0163	<.004	<.004	<.003	
425030074393901	06-01-98	<.004	<.002	<.005	<.001	<.006	.234	<.004	<.004	<.003	
425030074393901	06-02-98	<.004	<.002	<.005	<.001	<.006	.0522	<.004	<.004	<.003	
425030074393901	06-03-98	<.004	<.002	<.005	<.001	<.006	.715	<.004	<.004	<.003	
425030074393901	06-08-98	<.004	<.002	<.005	<.001	<.006	.0382	<.004	<.004	<.003	
425030074393901	06-12-98	<.004	<.002	<.005	<.001	<.006	.0283	<.004	<.004	<.003	
425030074393901	06-14-98	<.004	<.002	<.005	<.001	<.006	.116	<.004	<.004	<.003	
425030074393901	06-14-98	<.004	<.002	<.005	<.001	<.006	.478	<.004	<.004	<.003	
425030074393901	06-15-98	<.004	<.002	<.005	<.001	<.006	.131	<.004	<.004	<.003	
425030074393901	06-23-98	<.004	<.002	<.005	<.001	<.006	.0338	<.004	<.004	<.003	
425030074393901	06-30-98	<.004	<.002	<.005	<.001	<.006	.0436	<.004	<.004	<.003	
425030074393901	07-01-98	<.004	<.002	<.005	<.001	<.006	.0364	<.004	<.004	<.003	
*425030074393901	07-01-98	<.004	<.002	<.005	<.001	<.006	.0395	<.004	<.004	<.003	
425030074393901	07-07-98	<.004	<.002	<.005	<.001	<.006	.0358	<.004	<.004	<.003	
425041074393201	11-09-97	<.004	<.002	<.005	<.001	<.006	.0116	<.004	<.004	<.003	
425041074393201	11-10-97	<.004	<.002	<.005	<.001	<.006	.0066	<.004	<.004	<.003	
425041074393201	02-11-98	<.004	<.002	<.005	<.001	<.006	E.0038	<.004	<.004	<.003	
*425041074393201	02-11-98	<.004	<.002	<.005	<.001	<.006	E.0025	<.004	<.004	<.003	
425041074393201	03-05-98	<.004	<.002	<.005	<.001	<.006	.0181	<.004	<.004	<.003	
425041074393201	04-09-98	<.004	<.002	<.005	<.001	<.006	E.0037	<.004	<.004	<.003	
425041074393201	05-14-98	<.004	<.002	<.005	<.001	<.006	E.0029	<.004	<.004	<.003	
425041074393201	05-20-98	<.004	<.002	<.005	<.001	<.006	E.0035	<.004	<.004	<.003	
425041074393201	05-26-98	<.004	<.002	<.005	<.001	<.006	.0052	<.004	<.004	<.003	
425041074393201	06-01-98	<.004	<.002	<.005	<.001	<.006	.172	<.004	<.004	<.003	
425041074393201	06-02-98	<.004	<.002	<.005	<.001	<.006	.0506	<.004	<.004	<.003	
425041074393201	06-03-98	<.004	<.002	<.005	<.001	<.006	8.73	<.004	<.004	<.003	
425041074393201	06-08-98	<.004	<.002	<.005	<.001	<.006	.156	<.004	<.004	<.003	
425041074393201	06-15-98	<.004	<.002	<.005	<.001	<.006	E45	<.004	<.004	<.003	
425041074393201	06-23-98	<.004	<.002	<.005	<.001	<.006	.338	<.004	<.004	<.003	
425041074393201	06-30-98	<.004	<.002	<.005	<.001	<.006	.156	<.004	<.004	<.003	
425041074393201	07-01-98	<.004	<.002	<.005	<.001	<.006	.180	<.004	<.004	<.003	
425041074393201	07-22-98	<.004	<.002	<.005	<.001	<.006	.102	<.004	<.004	<.003	

E Estimate.

\* Replicate sample.



**QUALITY OF GROUND WATER**  
**Agricultural land-use survey--Continued**

STATION	NUMBER	DATE	PEB- ULATE WATER FLTRD 0.7 U	PENDI- METH- ALIN WAT FLT 0.7 U	PER- METHRIN CIS WAT FLT 0.7 U	PHORATE WATER FLTRD 0.7 U	PRO- METON, WATER, DISS, REC	PRON- AMIDE WATER FLTRD 0.7 U	PROP- CHLOR, WATER, DISS, REC	PRO- PANII, WATER FLTRD 0.7 U
			GF, REC (UG/L) (82669)	GF, REC (UG/L) (82683)	GF, REC (UG/L) (82687)	GF, REC (UG/L) (82664)	GF, REC (UG/L) (04037)	GF, REC (UG/L) (82676)	GF, REC (UG/L) (04024)	GF, REC (UG/L) (82679)
			MONTGOMERY COUNTY							
425030074393901	11-09-97	<.004	<.004	<.005	<.002	<.018	<.003	<.007	<.004	
425030074393901	11-10-97	<.004	<.004	<.005	<.002	<.018	<.003	<.007	<.004	
425030074393901	02-11-98	<.004	<.004	<.005	<.002	<.018	<.003	<.007	<.004	
*425030074393901	02-11-98	<.004	<.004	<.005	<.002	<.018	<.003	<.007	<.004	
425030074393901	03-05-98	<.004	<.004	<.005	<.002	<.018	<.003	<.007	<.004	
425030074393901	04-09-98	<.004	<.004	<.005	<.002	<.018	<.003	<.007	<.004	
425030074393901	05-14-98	<.004	<.004	<.005	<.002	<.018	<.003	<.007	<.004	
425030074393901	05-20-98	<.004	<.004	<.005	<.002	<.018	<.003	<.007	<.004	
425030074393901	05-26-98	<.004	<.004	<.005	<.002	<.018	<.003	<.007	<.004	
425030074393901	06-01-98	<.004	<.004	<.005	<.002	<.018	<.003	<.007	<.004	
425030074393901	06-02-98	<.004	<.004	<.005	<.002	<.018	<.003	<.007	<.004	
425030074393901	06-03-98	<.004	<.004	<.005	<.002	<.018	<.003	<.007	<.004	
425030074393901	06-08-98	<.004	<.004	<.005	<.002	<.018	<.003	<.007	<.004	
425030074393901	06-12-98	<.004	<.004	<.005	<.002	<.018	<.003	<.007	<.004	
425030074393901	06-14-98	<.004	<.004	<.005	<.002	<.018	<.003	<.007	<.004	
425030074393901	06-14-98	<.004	<.004	<.005	<.002	<.018	<.003	<.007	<.004	
425030074393901	06-15-98	<.004	<.004	<.005	<.002	<.018	<.003	<.007	<.004	
425030074393901	06-23-98	<.004	<.004	<.005	<.002	<.018	<.003	<.007	<.004	
425030074393901	06-30-98	<.004	<.004	<.005	<.002	<.018	<.003	<.007	<.004	
425030074393901	07-01-98	<.004	<.004	<.005	<.002	<.018	<.003	<.007	<.004	
*425030074393901	07-01-98	<.004	<.004	<.005	<.002	<.018	<.003	<.007	<.004	
425030074393901	07-07-98	<.004	<.004	<.005	<.002	<.018	<.003	<.007	<.004	
425041074393201	11-09-97	<.004	.0250	<.005	<.002	<.018	<.003	<.007	<.010	
425041074393201	11-10-97	<.004	.0118	<.005	<.002	<.018	<.003	<.007	<.004	
425041074393201	02-11-98	<.004	<.004	<.005	<.002	<.018	<.003	<.007	<.004	
*425041074393201	02-11-98	<.004	<.004	<.005	<.002	<.018	<.003	<.007	<.004	
425041074393201	03-05-98	<.004	<.004	<.005	<.002	<.018	<.003	<.007	<.004	
425041074393201	04-09-98	<.004	<.004	<.005	<.002	<.018	<.003	<.007	<.004	
425041074393201	05-14-98	<.004	<.004	<.005	<.002	<.018	<.003	<.007	<.004	
425041074393201	05-20-98	<.004	<.004	<.005	<.002	<.018	<.003	<.007	<.004	
425041074393201	05-26-98	<.004	<.004	<.005	<.002	<.018	<.003	<.007	<.004	
425041074393201	06-01-98	<.004	<.004	<.005	<.002	<.018	<.003	<.007	<.004	
425041074393201	06-02-98	<.004	<.004	<.005	<.002	<.018	<.003	<.007	<.004	
425041074393201	06-03-98	<.004	<.004	<.005	<.002	<.018	<.003	<.007	<.004	
425041074393201	06-08-98	<.004	<.004	<.005	<.002	<.018	<.003	<.007	<.004	
425041074393201	06-15-98	<.004	<.004	<.005	<.002	<.018	<.003	<.007	<.004	
425041074393201	06-23-98	<.004	<.004	<.005	<.002	<.018	<.003	<.007	<.004	
425041074393201	06-30-98	<.004	<.004	<.005	<.002	<.018	<.003	<.007	<.004	
425041074393201	07-01-98	<.004	<.004	<.005	<.002	<.018	<.003	<.007	<.004	
425041074393201	07-22-98	<.004	<.004	<.005	<.002	<.018	<.003	<.007	<.004	

\* Replicate sample.



QUALITY OF GROUND WATER

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Agricultural land-use survey--Continued

STATION	NUMBER	DATE	PRO-		TEBU-	TER-	TER-	THIO-	TRIAL-	TRI-
			PARGITE	SI-	THIURON	BACIL	BUFOS	BENCARB	LATE	FLUR-
			WATER	MAZINE,	WATER	WATER	WATER	WATER	WATER	ALIN
			FLTRD	WATER,	FLTRD	FLTRD	FLTRD	FLTRD	FLTRD	WAT FLT
			0.7 U	DISS,	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	
			GF, REC	REC	GF, REC	GF, REC	GF, REC	GF, REC	GF, REC	
			(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	
			(82685)	(04035)	(82670)	(82665)	(82675)	(82681)	(82678)	
MONTGOMERY COUNTY										
425030074393901	11-09-97		<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
425030074393901	11-10-97		<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
425030074393901	02-11-98		<.013	<.005	.0122	<.007	<.013	<.002	<.001	<.002
*425030074393901	02-11-98		<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
425030074393901	03-05-98		<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
425030074393901	04-09-98		<.060	<.005	.0104	<.007	<.013	<.002	<.001	<.002
425030074393901	05-14-98		<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
425030074393901	05-20-98		<.013	<.005	.0140	<.007	<.013	<.002	<.001	<.002
425030074393901	05-26-98		<.013	<.005	.0179	<.007	<.013	<.002	GF, REC	<.002
425030074393901	06-01-98		<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
425030074393901	06-02-98		<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
425030074393901	06-03-98		<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
425030074393901	06-08-98		<.013	<.005	.0165	<.007	<.013	<.002	<.001	<.002
425030074393901	06-12-98		<.013	<.005	.0136	<.007	<.013	<.002	<.001	<.002
425030074393901	06-14-98		<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
425030074393901	06-14-98		<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
425030074393901	06-15-98		<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
425030074393901	06-23-98		<.013	<.005	.0118	<.007	<.013	<.002	<.001	<.002
425030074393901	06-30-98		<.013	<.005	.0134	<.007	<.013	<.002	<.001	<.002
425030074393901	07-01-98		<.013	<.005	.0158	<.007	<.013	<.002	<.001	<.002
*425030074393901	07-01-98		<.013	<.005	.0172	<.007	<.013	<.002	<.001	<.002
425030074393901	07-07-98		<.013	<.005	.0257	<.007	<.013	<.002	<.001	<.002
425041074393201	11-09-97		<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
425041074393201	11-10-97		<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
425041074393201	02-11-98		<.013	E.0029	<.010	<.007	<.013	<.002	<.001	<.002
*425041074393201	02-11-98		<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
425041074393201	03-05-98		<.013	.0220	<.010	<.007	<.013	<.002	<.001	<.002
425041074393201	04-09-98		<.090	<.005	<.010	<.007	<.013	<.002	<.001	<.002
425041074393201	05-14-98		<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
425041074393201	05-20-98		<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
425041074393201	05-26-98		<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
425041074393201	06-01-98		<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
425041074393201	06-02-98		<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
425041074393201	06-03-98		<.013	.0141	<.010	<.007	<.013	<.002	<.001	<.002
425041074393201	06-08-98		<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
425041074393201	06-15-98		<.013	.0667	<.010	<.007	<.013	<.002	<.001	<.002
425041074393201	06-23-98		<.013	E.0014	<.010	<.007	<.013	<.002	<.001	<.002
425041074393201	06-30-98		<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
425041074393201	07-01-98		<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
425041074393201	07-22-98		<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002

E Estimate.

\* Replicate sample.







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## CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
<i>Length</i>		
inch (in.)	$2.54 \times 10^1$	millimeter
	$2.54 \times 10^{-2}$	meter
foot (ft)	$3.048 \times 10^{-1}$	meter
mile (mi)	$1.609 \times 10^0$	kilometer
<i>Area</i>		
acre	$4.047 \times 10^3$	square meter
	$4.047 \times 10^{-1}$	square hectometer
	$4.047 \times 10^{-3}$	square kilometer
square mile (mi <sup>2</sup> )	$2.590 \times 10^0$	square kilometer
<i>Volume</i>		
gallon (gal)	$3.785 \times 10^0$	liter
	$3.785 \times 10^0$	cubic decimeter
	$3.785 \times 10^{-3}$	cubic meter
million gallons (Mgal)	$3.785 \times 10^3$	cubic meter
	$3.785 \times 10^{-3}$	cubic hectometer
cubic foot (ft <sup>3</sup> )	$2.832 \times 10^1$	cubic decimeter
	$2.832 \times 10^{-2}$	cubic meter
cubic-foot-per-second day [(ft <sup>3</sup> /s) d]	$2.447 \times 10^3$	cubic meter
	$2.447 \times 10^{-3}$	cubic hectometer
acre-foot (acre-ft)	$1.233 \times 10^3$	cubic meter
	$1.233 \times 10^{-3}$	cubic hectometer
	$1.233 \times 10^{-6}$	cubic kilometer
<i>Flow</i>		
cubic foot per second (ft <sup>3</sup> /s)	$2.832 \times 10^1$	liter per second
	$2.832 \times 10^1$	cubic decimeter per second
	$2.832 \times 10^{-2}$	cubic meter per second
gallon per minute (gal/min)	$6.309 \times 10^{-2}$	liter per second
	$6.309 \times 10^{-2}$	cubic decimeter per second
	$6.309 \times 10^{-5}$	cubic meter per second
million gallons per day (Mgal/d)	$4.381 \times 10^1$	cubic decimeter per second
	$4.381 \times 10^{-2}$	cubic meter per second
<i>Mass</i>		
ton (short)	$9.072 \times 10^{-1}$	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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