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 Records for October 1950 to September 1960 are unpublished and available in files of the Geological Survey.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. Datum of gage is 965.7 ft above NGVD of 1929 (from levels by New York State Department of Transportation).

REMARKS.--Records good except those below 20 ft^3/s, which are fair. Flow completely regulated by Schoharie Resevoir. Stage-discharge relation affected by backwater during high flows along Esopus Creek. 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, 933 ft^3/s, Apr. 22, 23, 24, 25, 1999, gage height, 5.58 ft; minimum discharge, 0.08 ft^3/s, part of each day Apr. 20-26, 2001; minimum gage height since concrete control, 1.86 ft, part of each day Apr. 20-26, 2001.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 728 ft^3/s, July 17, gage height, 5.10 ft; maximum gage height, 5.17 ft, Sept. 18, affected by backwater; minimum discharge, 1.4 ft^3/s, part or all of each day Jan. 8-14, gage height, 1.90 ft.

REVISIONS.--Some daily discharges for water years 1998-99, 2001, and 2003 have been revised as shown in the following table. They supercede those published in WDR NY Vol. 1, 1998-99, 2001, 2003. (e = Estimated)

Water Year	Date	Discharge (ft^3/s)	Water Year	Date	Discharge (ft^3/s)
1998	Jan. 8	e320	1999	Sept. 16	e110
1998	Jan. 9	e2.5	1999	Sept. 17	e1.5
1998	Mar. 10	e6.5	2001	Dec. 17	e80
1998	May 10	e2.4	2001	Dec. 18	e0.65
1998	May 11	e2.7	2003	Sept. 23	e2.4

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	2.0	2.1	1.5	90	151	2.0	1.7	1.8	298	96	226
2	2.1	2.0	2.0	1.5	103	152	1.9	1.7	1.7	268	96	266
3	149	1.9	1.9	1.6	118	153	1.8	1.7	1.7	267	101	309
4	339	1.8	2.0	1.6	119	125	1.8	1.7	178	267	118	308
5	269	1.9	2.0	1.6	118	79	1.8	1.7	511	267	131	308
6	3.1	2.0	2.0	1.6	118	80	1.7	1.7	384	267	142	309
7	1.5	1.9	1.7	1.5	119	80	1.7	1.7	55	268	184	309
8	1.5	2.0	1.6	1.5	118	79	1.7	1.6	30	267	183	290
9	1.6	2.0	6.2	1.5	120	80	1.6	1.7	5.3	266	237	212
10	24	9.8	18	1.4	122	65	1.6	1.7	123	266	356	102
11	88	46	15	1.4	121	1.9	1.6	1.7	317	266	355	3.5
12	88	46	2.7	1.5	126	1.6	10	1.7	274	266	320	16
13	88	46	1.9	1.5	131	1.5	14	12	274	266	153	39
14	88	47	1.8	26	130	1.5	1.8	50	275	266	3.3	6.3
15	88	54	1.8	83	131	1.6	1.8	50	271	265	3.2	6.2
16	88	54	1.7	87	130	1.6	1.7	50	270	443	3.3	62
17	88	54	1.7	91	130	11	1.7	29	299	704	3.2	166
18	88	55	1.6	91	132	39	1.7	1.7	324	585	3.1	e65
19	87	50	1.6	91	133	39	1.7	1.7	323	407	3.1	3.8
20	72	21	1.5	91	133	48	1.6	1.7	321	370	3.1	3.3
21	47	2.4	1.5	91	133	61	1.6	1.7	320	334	3.1	3.1
22	47	2.2	1.5	91	133	61	1.6	1.7	338	318	3.1	3.0
23	47	2.0	1.5	90	133	69	1.7	1.7	386	264	3.1	3.0
24	54	2.0	3.0	90	133	77	1.7	1.8	355	168	33	2.9
25	61	1.9	2.8	90	142	77	1.6	1.8	322	168	101	2.9
26	62	1.9	2.0	90	151	78	1.8	1.9	323	169	141	2.9
27	e40	1.9	1.8	90	151	78	1.8	1.9	321	161	194	2.8
28	2.6	2.2	1.6	91	151	78	1.7	1.9	321	139	225	3.1
29	e2.7	2.2	1.6	91	151	48	1.7	1.8	321	117	225	3.1
30	2.5	2.1	1.6	90	---	1.6	1.7	1.7	321	87	226	3.0
31	2.1	---	1.6	90	---	1.7	---	1.7	---	95	226	---
TOTAL	2,023.9	521.1	91.3	1,573.7	3,720	1,821.0	72.1	236.0	7,567.5	8,559	3,874.6	3,039.9
MEAN	65.3	17.4	2.95	50.8	128	58.7	2.40	7.61	252	276	125	101
MAX	339	55	18	91	151	153	14	50	511	704	356	309
MIN	1.5	1.8	1.5	1.4	90	1.5	1.6	1.6	1.7	87	3.1	2.8

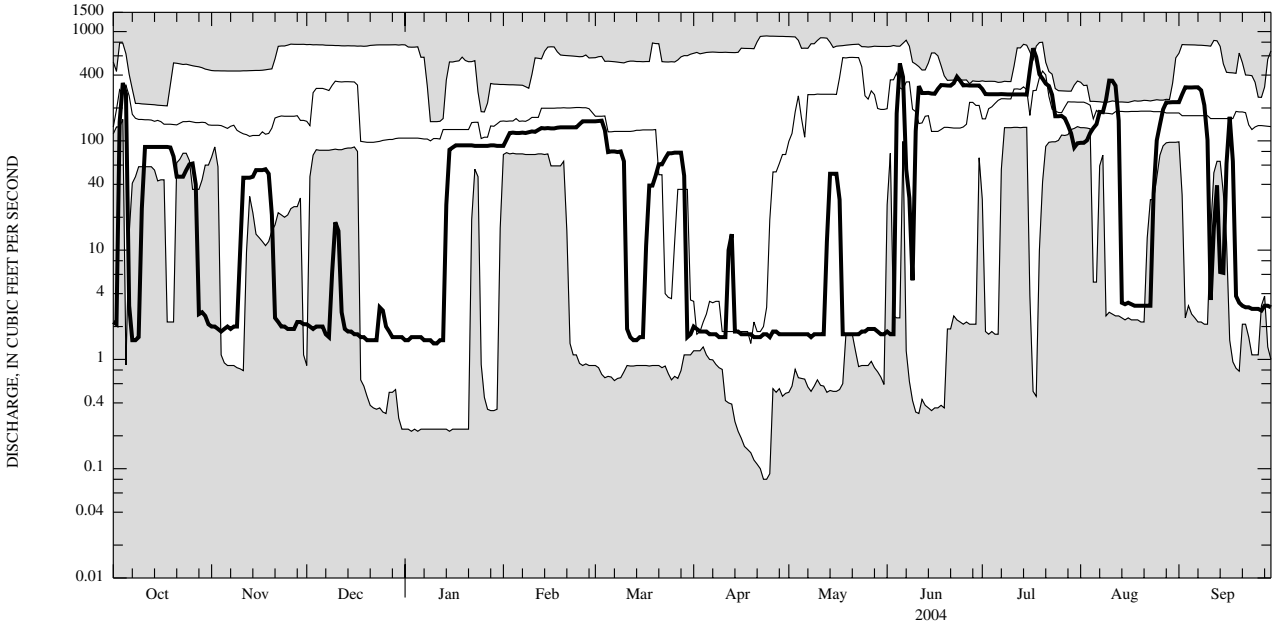
01362230 DIVERSION FROM SCHOHARIE RESERVOIR, NY—Continued

DISCHARGE, CUBIC FEET PER SECOND—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2004, BY WATER YEAR (WY)												
MEAN	178	182	307	152	238	150	164	303	223	250	167	196
MAX	335	536	750	285	456	541	656	716	472	363	230	529
(WY)	(2001)	(2003)	(2003)	(2000)	(2000)	(2002)	(2002)	(2002)	(2002)	(2001)	(1998)	(2000)
MIN	65.3	17.4	2.95	4.66	54.6	0.86	0.99	7.61	44.1	133	65.9	15.9
(WY)	(2004)	(2004)	(2004)	(1997)	(1997)	(1997)	(1997)	(2004)	(2003)	(1999)	(2003)	(2003)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1997 - 2004	
ANNUAL TOTAL	39,577.2		33,100.1			
ANNUAL MEAN	108		90.4		220	
HIGHEST ANNUAL MEAN					320	2002
LOWEST ANNUAL MEAN					90.4	2004
HIGHEST DAILY MEAN	756	Jan 1	704	Jul 17	913	Apr 24, 1999
LOWEST DAILY MEAN	1.5	Oct 7	1.4	Jan 10	0.08	Apr 23, 2001
ANNUAL SEVEN-DAY MINIMUM	1.6	Dec 17	1.5	Jan 7	0.10	Apr 19, 2001
10 PERCENT EXCEEDS	285		274		584	
50 PERCENT EXCEEDS	54		46		153	
90 PERCENT EXCEEDS	2.0		1.6		1.8	

e Estimated



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

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 and telephone telemeter provides 15-minute-interval readings.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 24.5°C, Aug. 6, 2002; minimum (water years 1998-99, 2002-04), 0.0°C, Jan. 19, 1999, and may have also occurred during period of missing record January 1999.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 19.5°C, Aug. 11, 12; minimum, 1.5°C, Mar. 11, 14.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	11.5	9.5	10.0	11.0	9.5	10.0	8.5	8.0	8.0	7.5	6.5	7.0
2	10.5	9.0	9.5	10.0	10.0	10.0	8.0	7.5	8.0	7.5	7.0	7.5
3	13.5	9.0	11.0	11.0	10.0	10.0	8.0	7.5	7.5	8.5	7.5	8.0
4	13.5	13.0	13.0	10.0	9.5	10.0	8.5	8.0	8.0	8.0	7.5	8.0
5	13.5	13.0	13.0	10.0	9.5	10.0	8.5	8.0	8.0	7.5	7.0	7.5
6	13.0	11.0	12.0	10.0	9.5	10.0	8.0	7.5	7.5	7.0	5.0	6.0
7	12.0	10.0	11.0	10.5	9.5	9.5	8.0	6.5	7.0	5.5	4.5	5.0
8	12.5	10.0	11.0	9.5	8.5	9.0	8.5	7.0	7.5	6.0	4.5	5.0
9	12.0	10.5	11.0	9.5	8.5	9.0	8.5	7.0	7.5	5.5	2.5	4.0
10	12.5	10.5	11.5	10.0	8.5	9.0	8.0	6.0	7.0	5.0	2.5	4.0
11	11.5	10.5	11.0	9.0	7.5	8.0	6.0	5.5	6.0	6.5	4.5	5.5
12	11.5	11.0	11.0	8.0	7.5	7.5	7.0	6.0	6.5	7.0	6.0	6.5
13	11.5	11.0	11.5	8.0	7.5	8.0	7.0	6.0	6.5	7.0	4.0	6.0
14	11.0	10.5	11.0	8.5	8.0	8.0	6.5	5.5	6.0	7.0	2.5	4.0
15	12.0	11.0	11.0	8.0	7.5	8.0	7.0	6.0	7.0	3.5	2.5	3.0
16	12.5	11.0	12.0	7.5	7.5	7.5	8.0	6.5	7.0	2.5	2.5	2.5
17	11.5	11.0	11.0	7.5	7.0	7.5	7.5	6.5	7.0	2.5	2.5	2.5
18	11.0	10.5	11.0	7.5	7.5	7.5	7.0	6.0	6.5	2.5	2.5	2.5
19	11.5	10.5	11.0	7.5	7.0	7.0	7.0	6.0	6.5	2.5	2.5	2.5
20	11.5	10.5	11.0	7.5	7.0	7.5	7.0	5.0	6.0	2.5	2.5	2.5
21	10.5	9.5	10.0	9.0	7.5	8.0	7.0	5.0	6.0	2.5	2.5	2.5
22	11.0	9.5	10.5	9.0	8.0	8.5	8.0	5.5	7.0	2.5	2.5	2.5
23	11.0	10.5	11.0	9.0	8.0	8.0	9.0	7.0	7.5	2.5	2.5	2.5
24	10.5	10.0	10.0	9.0	8.0	8.5	8.0	7.0	7.5	2.5	2.5	2.5
25	10.0	9.0	9.5	8.5	8.0	8.0	8.0	7.0	7.5	2.5	2.5	2.5
26	9.5	9.0	9.0	8.5	7.5	8.0	7.5	7.0	7.5	2.5	2.5	2.5
27	10.0	9.5	9.5	9.0	8.0	8.5	8.5	7.5	7.5	2.5	2.5	2.5
28	10.5	9.5	9.5	9.0	8.5	9.0	8.5	6.5	7.5	2.5	2.5	2.5
29	10.5	9.5	10.0	9.0	8.0	8.5	9.0	6.5	7.5	2.5	2.5	2.5
30	10.5	9.5	9.5	8.5	8.0	8.0	8.0	7.0	7.5	2.5	2.5	2.5
31	10.5	9.5	10.0	---	---	---	8.0	7.0	7.5	2.5	2.5	2.5
MONTH	13.5	9.0	10.7	11.0	7.0	8.5	9.0	5.0	7.1	8.5	2.5	4.1

01362230 DIVERSION FROM SCHOHARIE RESERVOIR, NY—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2.5	2.5	2.5	2.0	2.0	2.0	5.0	4.5	5.0	9.0	7.0	7.5
2	2.5	2.0	2.5	2.0	2.0	2.0	5.0	4.5	5.0	8.0	7.0	7.5
3	2.5	2.0	2.5	2.0	2.0	2.0	6.5	5.0	5.0	7.5	6.5	7.0
4	2.5	2.0	2.5	2.5	2.0	2.0	6.0	4.5	5.0	8.0	6.5	6.5
5	2.5	2.0	2.5	2.5	2.5	2.5	5.5	4.5	4.5	8.0	6.0	7.0
6	2.5	2.0	2.5	2.5	2.5	2.5	6.5	4.5	5.0	9.0	6.5	7.0
7	2.5	2.0	2.0	2.5	2.0	2.0	5.5	5.0	5.5	9.0	7.0	7.5
8	2.5	2.0	2.0	2.5	2.5	2.5	6.0	5.5	5.5	7.5	6.5	7.0
9	2.5	2.0	2.0	2.5	2.0	2.5	7.0	5.5	5.5	8.5	7.0	7.5
10	2.5	2.0	2.0	2.5	2.0	2.0	6.5	5.0	5.5	9.0	7.0	8.0
11	2.5	2.0	2.0	6.0	1.5	3.0	7.0	5.0	5.5	9.0	7.5	8.0
12	2.0	2.0	2.0	3.5	2.5	3.0	6.5	4.5	5.5	9.5	7.5	8.0
13	2.0	2.0	2.0	4.0	2.0	2.5	5.5	4.5	5.0	9.0	6.5	7.5
14	2.0	2.0	2.0	5.5	1.5	3.5	6.0	5.5	6.0	8.0	6.5	7.5
15	2.0	2.0	2.0	5.5	3.5	4.5	7.0	5.5	6.0	8.0	7.5	8.0
16	2.5	2.0	2.0	5.0	3.5	4.0	7.5	5.0	6.0	8.0	7.5	8.0
17	2.0	2.0	2.0	5.0	3.5	4.5	8.0	5.5	6.5	8.5	8.0	8.0
18	2.0	2.0	2.0	3.5	3.0	3.0	8.5	6.0	7.0	10.5	8.0	9.0
19	2.0	2.0	2.0	3.0	3.0	3.0	8.5	6.0	7.0	11.0	7.5	8.5
20	2.0	2.0	2.0	3.0	2.5	3.0	8.0	6.0	7.0	11.0	7.5	8.5
21	2.0	2.0	2.0	3.0	2.5	2.5	8.5	6.0	7.0	11.5	8.0	9.0
22	2.0	2.0	2.0	2.5	2.5	2.5	9.0	6.5	7.0	11.5	8.5	9.5
23	2.0	2.0	2.0	2.5	2.5	2.5	7.0	6.5	6.5	12.0	8.0	9.5
24	2.0	2.0	2.0	2.5	2.5	2.5	8.5	6.0	6.5	11.0	8.5	9.0
25	2.0	2.0	2.0	2.5	2.5	2.5	6.5	6.0	6.0	10.0	8.0	8.5
26	2.0	2.0	2.0	2.5	2.5	2.5	7.0	6.5	6.5	11.0	8.0	8.5
27	2.0	2.0	2.0	2.5	2.5	2.5	7.5	6.5	6.5	11.0	8.0	9.0
28	2.0	2.0	2.0	2.5	2.5	2.5	7.5	6.0	6.5	10.5	8.0	8.5
29	2.0	2.0	2.0	3.0	2.5	3.0	8.5	6.5	7.0	10.0	7.5	8.0
30	---	---	---	5.5	3.0	4.0	8.5	6.5	7.0	11.0	7.0	8.0
31	---	---	---	5.0	4.0	4.5	---	---	---	9.0	7.5	8.0
MONTH	2.5	2.0	2.1	6.0	1.5	2.8	9.0	4.5	6.0	12.0	6.0	8.0
		JUNE			JULY			AUGUST			SEPTEMBER	
1	11.0	8.0	8.5	12.0	9.5	11.0	16.5	11.0	12.5	17.5	15.5	16.5
2	11.0	8.0	8.5	11.5	9.5	10.5	14.5	12.0	13.0	17.5	15.5	16.5
3	10.5	8.0	8.5	12.5	10.0	11.5	14.5	11.5	12.5	17.5	16.5	17.0
4	11.0	7.5	8.5	11.5	9.5	11.0	15.5	12.0	14.0	17.5	17.0	17.0
5	10.0	9.0	9.5	11.5	10.5	11.0	15.0	11.5	14.0	17.5	17.0	17.0
6	10.0	9.0	9.5	12.5	10.5	11.5	17.0	13.0	14.5	18.0	16.5	17.0
7	9.0	8.5	8.5	12.0	10.5	11.5	17.0	12.5	15.5	17.5	16.5	17.0
8	8.5	8.0	8.0	12.0	9.5	11.5	18.0	13.5	15.5	18.0	16.5	17.0
9	9.0	8.0	8.5	12.5	10.5	12.0	18.5	13.5	16.0	17.5	16.5	17.0
10	9.5	7.5	8.5	13.0	10.5	12.0	19.0	17.0	18.0	18.0	15.0	16.0
11	10.0	8.5	9.0	13.5	10.5	12.0	19.5	17.0	18.0	15.5	14.5	15.0
12	10.5	8.5	9.5	14.0	10.5	12.0	19.5	16.0	18.0	15.0	14.5	15.0
13	10.5	8.5	9.5	14.0	10.5	12.0	18.5	16.5	17.5	15.5	13.0	14.5
14	10.5	9.0	9.5	13.0	12.0	12.5	16.5	15.0	15.5	14.5	14.0	14.0
15	11.0	8.5	9.5	13.5	11.0	12.0	15.5	14.5	15.0	14.0	14.0	14.0
16	10.5	9.0	10.0	17.5	12.0	14.0	14.5	14.0	14.5	16.5	13.0	14.5
17	10.0	8.5	9.5	18.0	16.5	17.5	14.5	13.5	14.0	17.0	16.0	16.5
18	10.5	10.0	10.0	18.5	14.5	17.0	14.5	13.5	13.5	17.0	15.0	16.0
19	10.5	9.0	9.5	15.5	14.0	15.0	14.0	13.5	13.5	15.5	14.0	14.5
20	11.5	9.5	10.5	15.5	14.0	15.0	14.0	13.0	13.5	15.0	14.0	14.0
21	11.0	9.0	10.0	16.0	13.5	15.0	13.5	13.0	13.0	14.5	14.0	14.0
22	11.5	9.0	10.0	16.0	13.5	14.5	14.0	12.5	13.0	14.5	14.0	14.0
23	12.0	9.5	11.0	16.0	13.0	14.0	13.5	12.5	12.5	14.5	14.0	14.0
24	12.0	9.5	11.0	15.0	11.5	13.5	14.0	10.5	12.0	14.5	13.5	14.0
25	11.0	9.5	10.0	14.5	11.5	13.0	16.5	14.0	15.5	14.0	13.5	13.5
26	12.0	10.0	11.0	16.0	11.0	13.0	16.5	14.0	15.0	14.0	13.5	13.5
27	11.5	9.0	10.5	15.0	11.5	13.0	17.0	15.5	16.5	14.0	13.0	13.5
28	12.0	9.5	10.5	14.5	11.0	12.5	17.0	16.0	16.5	13.5	13.0	13.0
29	11.5	10.0	10.5	15.5	12.5	13.5	17.0	16.0	17.0	13.5	13.0	13.0
30	12.0	10.5	11.5	13.5	10.5	12.0	17.5	15.5	16.5	13.0	12.5	13.0
31	---	---	---	14.0	11.0	12.5	17.5	16.0	17.0	---	---	---
MONTH	12.0	7.5	9.6	18.5	9.5	12.9	19.5	10.5	14.9	18.0	12.5	15.1
YEAR	19.5	1.5	8.5									