

**SUMMARY OF HYDROLOGIC CONDITIONS
IN THE
UPPER DELAWARE RIVER BASIN
January 2011**

Prepared by the
Office of the Delaware River Master
Milford, Pennsylvania

Adjusted streamflow in the upper Delaware River Basin during January was deficient. The maximum daily mean discharge of 4,100 cfs was recorded on January 22. The minimum daily mean discharge was 2,300 cfs on January 16.

The observed monthly mean streamflow of the Delaware River at Montague, N.J. during January was 3,341 cfs, which is 58 percent of median. The flow at Montague, adjusted for diversions from the basin and change in storage in the major reservoirs, was 3,612 cfs, or 60 percent of median (water years 1971-2000).

On the basis of a 5-station average, precipitation during January was 1.75 inches, which is 58 percent of the 70-year average. The maximum daily-average precipitation during the month was 0.54 inches on January 19. Precipitation in the upper Delaware River Basin during the past 12 months was 3.91 inches more than the long-term average. Precipitation during January was 1.29 inches less than the long-term average for the month.

Combined storage February 1, 2011 in Pepacton, Cannonsville, and Neversink Reservoirs was 84 percent of capacity above the point of maximum depletion. The combined storage of 227 billion gallons was 12 billion gallons less than that of one month ago and 29 billion gallons less than that of one year ago. Median storage on the first day of February in 43 years of record is 225 billion gallons.

As part of statewide networks, the USGS operates ground-water observation wells in the Pennsylvania and New Jersey parts of the Delaware River Basin. Mean water levels during January were below average in 16 of 21 observation wells. Water levels in 13 of the wells were below December 2010 levels, and water levels in all of the wells were below January 2010 levels.

HYDROLOGIC CONDITIONS IN THE UPPER DELAWARE RIVER BASIN

Compiled by the Office of the Delaware River Master, Milford, Pa.

(Preliminary data - subject to revision)

PRECIPITATION, IN INCHES

	Dec. 1940 to Jan. 2010		February 2010 to January 2011					
	Average		Actual		Percent of average		Excess (+) or deficit (-)	
	Amount	Cumulative	Amount	Cumulative	By month	Cumulative	By month	Cumulative
Feb.	2.64	44.06	3.47	47.97	131	109	+ .83	+3.91
Mar.	3.36	41.42	5.36	44.50	160	107	+2.00	+3.08
Apr.	3.75	38.06	2.86	39.14	76	103	-.89	+1.08
May	4.16	34.31	3.02	36.28	73	106	-1.14	+1.97
June	4.14	30.15	3.90	33.26	94	110	-.24	+3.11
July	4.13	26.01	4.49	29.36	109	113	+ .36	+3.35
Aug.	3.94	21.88	5.40	24.87	137	114	+1.46	+2.99
Sept.	4.03	17.94	2.40	19.47	60	109	-1.63	+1.53
Oct.	3.64	13.91	9.07	17.07	249	123	+5.43	+3.16
Nov.	3.77	10.27	2.83	8.00	75	78	-.94	-2.27
Dec.	3.46	6.50	3.42	5.17	99	80	-.04	-1.33
Jan.	3.04	3.04	1.75	1.75	58	58	-1.29	-1.29

Note: Amount shown in cumulative columns is total from month shown to present.

STREAMFLOW, IN CFS DELAWARE RIVER AT MONTAGUE, N.J.

Month	1940-2009			2011 Monthly mean	Percent of median
	Maximum	Median	Minimum		
January (observed)	16,060 (2006)	5,743	1,318 (1981)	3,341	58
January (adjusted)	21,330 (1996)	6,074	1,064 (1981)	3,612	59
February (observed)	15,430 (2008)	5,444	1,748 (1980)		
February (adjusted)	20,330 (1981)	5,823	1,373 (1980)		

**SUMMARY OF HYDROLOGIC CONDITIONS
IN THE
UPPER DELAWARE RIVER BASIN
February 2011**

Prepared by the
Office of the Delaware River Master
Milford, Pennsylvania

Adjusted streamflow in the upper Delaware River Basin during February was in the normal range. The maximum daily mean discharge of 8,000 cfs was recorded on February 27. The minimum daily mean discharge was 2,600 cfs on February 6.

The observed monthly mean streamflow of the Delaware River at Montague, N.J. during February was 4,272 cfs, which is 78 percent of median. The flow at Montague, adjusted for diversions from the basin and change in storage in the major reservoirs, was 5,442 cfs, or 75 percent of median (water years 1971-2000).

On the basis of a 5-station average, precipitation during February was 3.80 inches, which is 143 percent of the 70-year average. The maximum daily-average precipitation during the month was 0.79 inches on February 2. Precipitation in the upper Delaware River Basin during the past 12 months was 3.70 inches more than the long-term average. Precipitation during February was 1.15 inches more than the long-term average for the month.

Combined storage March 1, 2011 in Pepacton, Cannonsville, and Neversink Reservoirs was 83 percent of capacity above the point of maximum depletion. The combined storage of 226 billion gallons was 1 billion gallons less than that of one month ago and 9 billion gallons less than that of one year ago. Median storage on the first day of March in 43 years of record is 228 billion gallons.

As part of statewide networks, the USGS operates ground-water observation wells in the Pennsylvania and New Jersey parts of the Delaware River Basin. Mean water levels during February were below average in 17 of 21 observation wells. Water levels in 11 of the wells were below January 2011 levels, and water levels in all of the wells were below February 2010 levels.

HYDROLOGIC CONDITIONS IN THE UPPER DELAWARE RIVER BASIN

Compiled by the Office of the Delaware River Master, Milford, Pa.

(Preliminary data - subject to revision)

PRECIPITATION, IN INCHES

	Dec. 1940 to Feb. 2010		March 2010 to February 2011					
	Average		Actual		Percent of average		Excess (+) or deficit (-)	
	Amount	Cumulative	Amount	Cumulative	By month	Cumulative	By month	Cumulative
Mar.	3.36	44.07	5.36	47.77	160	108	+2.00	+3.70
Apr.	3.75	40.71	2.86	42.41	76	104	-.89	+1.70
May	4.16	36.96	3.02	39.55	73	107	-1.14	+2.59
June	4.14	32.80	3.90	36.53	94	111	-.24	+3.73
July	4.13	28.66	4.49	32.63	109	114	+.36	+3.97
Aug.	3.94	24.53	5.40	28.14	137	115	+1.46	+3.61
Sept.	4.03	20.59	*2.44	22.74	61	110	-1.59	+2.15
Oct.	3.64	16.56	*8.50	20.30	234	123	+4.86	+3.74
Nov.	3.77	12.92	2.83	11.80	75	91	-.94	-1.12
Dec.	3.46	9.15	3.42	8.97	99	98	-.04	-.18
Jan.	3.04	5.69	1.75	5.55	58	98	-1.29	-.14
Feb.	2.65	2.65	3.80	3.80	143	143	+1.15	+1.15

Note: Amount shown in cumulative columns is total from month shown to present.

* Revised since last month.

STREAMFLOW, IN CFS DELAWARE RIVER AT MONTAGUE, N.J.

Month	1940-2009			2011 Monthly mean	Percent of median
	Maximum	Median	Minimum		
February (observed)	15,430 (2008)	5,444	1,748 (1980)	4,272	78
February (adjusted)	20,330 (1981)	5,823	1,373 (1980)	5,442	93
March (observed)	24,480 (1945)	9,242	3,191 (1981)		
March (adjusted)	25,910 (1945)	11,110	3,928 (2006)		

**SUMMARY OF HYDROLOGIC CONDITIONS
IN THE
UPPER DELAWARE RIVER BASIN
March 2011**

Prepared by the
Office of the Delaware River Master
Milford, Pennsylvania

Adjusted streamflow in the upper Delaware River Basin during March was excessive. The maximum daily mean discharge of 71,000 cfs was recorded on March 11. The minimum daily mean discharge was 8,280 cfs on March 31.

The observed monthly mean streamflow of the Delaware River at Montague, N.J. during March was 22,870 cfs, which is 247 percent of median. The flow at Montague, adjusted for diversions from the basin and change in storage in the major reservoirs, was 25,650 cfs, or 231 percent of median (water years 1971-2000).

On the basis of a 5-station average, precipitation during March was 6.09 inches, which is 180 percent of the 70-year average. The maximum daily-average precipitation during the month was 2.23 inches on March 7. Precipitation in the upper Delaware River Basin during the past 12 months was 4.57 inches more than the long-term average. Precipitation during March was 2.70 inches more than the long-term average for the month.

Combined storage April 1, 2011 in Pepacton, Cannonsville, and Neversink Reservoirs was 98 percent of capacity above the point of maximum depletion. The combined storage of 266 billion gallons was 40 billion gallons more than that of one month ago and 11 billion gallons less than that of one year ago. Median storage on the first day of April in 43 years of record is 261 billion gallons. Pepacton, Cannonsville, and Neversink Reservoirs spilled a total of 13.9, 26.2, and 3.7 billion gallons, respectively, during the month.

As part of statewide networks, the USGS operates ground-water observation wells in the Pennsylvania and New Jersey parts of the Delaware River Basin. Mean water levels during March were above average in 16 of 21 observation wells. Water levels in all of the wells were above February 2011 levels, and water levels in 11 of the wells were below March 2010 levels.

HYDROLOGIC CONDITIONS IN THE UPPER DELAWARE RIVER BASIN

Compiled by the Office of the Delaware River Master, Milford, Pa.

(Preliminary data - subject to revision)

PRECIPITATION, IN INCHES

	Dec. 1940 to Mar. 2010		April 2010 to March 2011					
	Average		Actual		Percent of average		Excess (+) or deficit (-)	
	Amount	Cumulative	Amount	Cumulative	By month	Cumulative	By month	Cumulative
Apr.	3.75	44.10	2.86	48.67	76	110	-.89	+4.57
May	4.16	40.35	3.02	45.81	73	114	-1.14	+5.46
June	4.14	36.19	3.90	42.79	94	118	-.24	+6.60
July	4.13	32.05	4.49	38.89	109	121	+.36	+6.84
Aug.	3.94	27.92	5.40	34.40	137	123	+1.46	+6.48
Sept.	4.03	23.98	2.44	29.00	61	121	+1.59	+5.02
Oct.	3.64	19.95	8.50	26.56	234	133	+4.86	+6.61
Nov.	3.77	16.31	*3.00	18.06	80	111	-.77	+1.75
Dec.	3.46	12.54	3.42	15.06	99	120	-.04	+2.52
Jan.	3.04	9.08	1.75	11.64	58	128	-1.29	+2.56
Feb.	2.65	6.04	3.80	9.89	143	164	+1.15	+3.85
Mar.	3.39	3.39	6.09	6.09	180	180	+2.70	+2.70

Note: Amount shown in cumulative columns is total from month shown to present.

* Revised since last month.

STREAMFLOW, IN CFS DELAWARE RIVER AT MONTAGUE, N.J.

Month	1940-2009			2011 Monthly mean	Percent of median
	Maximum	Median	Minimum		
March (observed)	24,480 (1945)	9,242	3,191 (1981)	22,870	247
March (adjusted)	25,910 (1945)	11,110	3,928 (2006)	25,650	231
April (observed)	31,560 (1940)	11,010	3,322 (1985)		
April (adjusted)	33,010 (1940)	13,585	3,847 (1946)		

**SUMMARY OF HYDROLOGIC CONDITIONS
IN THE
UPPER DELAWARE RIVER BASIN
April 2011**

Prepared by the
Office of the Delaware River Master
Milford, Pennsylvania

Adjusted streamflow in the upper Delaware River Basin during April was excessive. The maximum daily mean discharge of 46,700 cfs was recorded on April 29. The minimum daily mean discharge was 8,220 cfs on April 1.

The observed monthly mean streamflow of the Delaware River at Montague, N.J. during April was 16,290 cfs, which is 148 percent of median. The flow at Montague, adjusted for diversions from the basin and change in storage in the major reservoirs, was 18,240 cfs, or 142 percent of median (water years 1971-2000).

On the basis of a 5-station average, precipitation during April was 7.00 inches, which is 187 percent of the 70-year average. The maximum daily-average precipitation during the month was 1.59 inches on April 17. Precipitation in the upper Delaware River Basin during the past 12 months was 12.32 inches more than the long-term average. Precipitation during April was 3.26 inches more than the long-term average for the month.

Combined storage May 1, 2011 in Pepacton, Cannonsville, and Neversink Reservoirs was 102 percent of capacity above the point of maximum depletion. The combined storage of 278 billion gallons was 12 billion gallons more than that of one month ago and 9 billion gallons more than that of one year ago. Median storage on the first day of May in 43 years of record is 271 billion gallons. Pepacton, Cannonsville, and Neversink Reservoirs spilled a total of 15.1, 15.1, and 2.5 billion gallons, respectively, during the month.

As part of statewide networks, the USGS operates ground-water observation wells in the Pennsylvania and New Jersey parts of the Delaware River Basin. Mean water levels during April were above average in 20 of 21 observation wells. Water levels in 14 of the wells were above March 2011 levels, and water levels in 13 of the wells were above April 2010 levels.

HYDROLOGIC CONDITIONS IN THE UPPER DELAWARE RIVER BASIN

Compiled by the Office of the Delaware River Master, Milford, Pa.

(Preliminary data - subject to revision)

PRECIPITATION, IN INCHES

	Dec. 1940 to Apr. 2010		May 2010 to April 2011					
	Average		Actual		Percent of average		Excess (+) or deficit (-)	
	Amount	Cumulative	Amount	Cumulative	By month	Cumulative	By month	Cumulative
May	4.16	44.09	3.02	53.23	73	121	-1.14	+12.32
June	4.14	39.93	3.90	50.21	94	126	-.24	+13.46
July	4.13	35.79	4.49	46.31	109	129	+.36	+13.70
Aug.	3.94	31.66	5.40	41.82	137	132	+1.46	+13.34
Sept.	4.03	27.72	2.44	36.42	61	131	+1.59	+11.88
Oct.	3.64	23.69	8.50	33.98	234	143	+4.86	+10.29
Nov.	3.77	20.05	3.00	25.48	80	127	-.77	+5.43
Dec.	3.46	16.28	*3.84	22.48	111	138	+.38	+6.20
Jan.	3.04	12.82	1.75	18.64	58	145	-1.29	+5.82
Feb.	2.65	9.78	3.80	16.89	143	173	+1.15	+7.11
Mar.	3.39	7.13	6.09	13.09	180	184	+2.70	+5.96
Apr.	3.74	3.74	7.00	7.00	187	187	+3.26	+3.26

Note: Amount shown in cumulative columns is total from month shown to present.

* Revised since last month.

STREAMFLOW, IN CFS

DELAWARE RIVER AT MONTAGUE, N.J.

Month	1940-2009			2011 Monthly mean	Percent of median
	Maximum	Median	Minimum		
April (observed)	31,560 (1940)	11,010	3,322 (1985)	16,290	148
April (adjusted)	33,010 (1940)	13,585	3,847 (1946)	18,240	134
May (observed)	16,090 (1943)	6,718	2,215 (1965)		
May (adjusted)	18,970 (1989)	7,959	2,944 (1941)		

**SUMMARY OF HYDROLOGIC CONDITIONS
IN THE
UPPER DELAWARE RIVER BASIN
May 2011**

Prepared by the
Office of the Delaware River Master
Milford, Pennsylvania

Adjusted streamflow in the upper Delaware River Basin during May was excessive. The maximum daily mean discharge of 28,600 cfs was recorded on May 21. The minimum daily mean discharge was 4,910 cfs on May 15.

The observed monthly mean streamflow of the Delaware River at Montague, N.J. during May was 13,810 cfs, which is 206 percent of median. The flow at Montague, adjusted for diversions from the basin and change in storage in the major reservoirs, was 14,190 cfs, or 172 percent of median (water years 1971-2000).

On the basis of a 5-station average, precipitation during May was 5.79 inches, which is 140 percent of the 70-year average. The maximum daily-average precipitation during the month was 1.21 inches on May 19. Precipitation in the upper Delaware River Basin during the past 12 months was 11.93 inches more than the long-term average. Precipitation during May was 1.65 inches more than the long-term average for the month.

Combined storage June 1, 2011 in Pepacton, Cannonsville, and Neversink Reservoirs was 101 percent of capacity above the point of maximum depletion. The combined storage of 273 billion gallons was 5 billion gallons less than that of one month ago and 7 billion gallons more than that of one year ago. Median storage on the first day of June in 44 years of record is 269 billion gallons. Pepacton, Cannonsville, and Neversink Reservoirs spilled a total of 17.4, 32.5, and 3.4 billion gallons, respectively, during the month.

As part of statewide networks, the USGS operates ground-water observation wells in the Pennsylvania and New Jersey parts of the Delaware River Basin. Mean water levels during May were above average in 19 of 21 observation wells. Water levels in 13 of the wells were below April 2011 levels, and water levels in 16 of the wells were above May 2010 levels.

HYDROLOGIC CONDITIONS IN THE UPPER DELAWARE RIVER BASIN

Compiled by the Office of the Delaware River Master, Milford, Pa.

(Preliminary data - subject to revision)

PRECIPITATION, IN INCHES

	Dec. 1940 to May 2010		June 2010 to May 2011					
	Average		Actual		Percent of average		Excess (+) or deficit (-)	
	Amount	Cumulative	Amount	Cumulative	By month	Cumulative	By month	Cumulative
June	4.14	44.07	3.90	56.00	94	127	-.24	+11.93
July	4.13	39.93	4.49	52.10	109	130	+.36	+12.17
Aug.	3.94	35.80	5.40	47.61	137	133	+1.46	+11.81
Sept.	4.03	31.86	2.44	42.21	61	132	-1.59	+10.35
Oct.	3.64	27.83	8.50	39.77	234	143	+4.86	+11.94
Nov.	3.77	24.19	3.00	31.27	80	129	-.77	+7.08
Dec.	3.46	20.42	3.84	28.27	111	138	+.38	+7.85
Jan.	3.04	16.96	1.75	24.43	58	144	-1.29	+7.47
Feb.	2.65	13.92	3.80	22.68	143	163	+1.15	+8.76
Mar.	3.39	11.27	6.09	18.88	180	168	+2.70	+7.61
Apr.	3.74	7.88	7.00	12.79	187	162	+3.26	+4.91
May	4.14	4.14	5.79	5.79	140	140	+1.65	+1.65

Note: Amount shown in cumulative columns is total from month shown to present.

* Revised since last month.

STREAMFLOW, IN CFS DELAWARE RIVER AT MONTAGUE, N.J.

Month	1940-2009			2011 Monthly mean	Percent of median
	Maximum	Median	Minimum		
May (observed)	16,090 (1943)	6,718	2,215 (1965)	13,810	206
May (adjusted)	18,970 (1989)	7,959	2,944 (1941)	14,190	178
June (observed)	20,130 (2006)	3,284	1,214 (1965)		
June (adjusted)	21,350 (2006)	3,961	1,024 (1962)		

**SUMMARY OF HYDROLOGIC CONDITIONS
IN THE
UPPER DELAWARE RIVER BASIN
June 2011**

Prepared by the
Office of the Delaware River Master
Milford, Pennsylvania

Adjusted streamflow in the upper Delaware River Basin during June was in the normal range. The maximum daily mean discharge of 27,300 cfs was recorded on June 25. The minimum daily mean discharge was 3,490 cfs on June 11.

The observed monthly mean streamflow of the Delaware River at Montague, N.J. during June was 7,821 cfs, which is 244 percent of median. The flow at Montague, adjusted for diversions from the basin and change in storage in the major reservoirs, was 8,265 cfs, or 247 percent of median (water years 1981-2010).

On the basis of a 10-station average, precipitation during June was 6.29 inches, which is 152 percent of the 70-year average. The maximum daily-average precipitation during the month was 1.21 inches on June 23. Precipitation in the upper Delaware River Basin during the past 12 months was 14.33 inches more than the long-term average. Precipitation during June was 2.16 inches more than the long-term average for the month.

Combined storage July 1, 2011 in Pepacton, Cannonsville, and Neversink Reservoirs was 98 percent of capacity above the point of maximum depletion. The combined storage of 265 billion gallons was 8 billion gallons less than that of one month ago and 18 billion gallons more than that of one year ago. Median storage on the first day of July in 44 years of record is 257 billion gallons. Pepacton, Cannonsville, and Neversink Reservoirs spilled a total of <0.1, 0.8, and 1.1 billion gallons, respectively, during the month.

As part of statewide networks, the USGS operates ground-water observation wells in the Pennsylvania and New Jersey parts of the Delaware River Basin. Mean water levels during June were above average in 17 of 21 observation wells. Water levels in 20 of the wells were below May 2011 levels, and water levels in 15 of the wells were above June 2010 levels.

HYDROLOGIC CONDITIONS IN THE UPPER DELAWARE RIVER BASIN

Compiled by the Office of the Delaware River Master, Milford, Pa.

(Preliminary data - subject to revision)

PRECIPITATION, IN INCHES

	Dec. 1940 to June 2010		July 2010 to June 2011					
	Average		Actual		Percent of average		Excess (+) or deficit (-)	
	Amount	Cumulative	Amount	Cumulative	By month	Cumulative	By month	Cumulative
July	4.13	44.06	4.49	58.39	109	133	+36	+14.33
Aug.	3.94	39.93	5.40	53.90	137	135	+1.46	+13.97
Sept.	4.03	35.99	2.44	48.50	61	135	-1.59	+12.51
Oct.	3.64	31.96	8.50	46.06	234	144	+4.86	+14.10
Nov.	3.77	28.32	3.00	37.56	80	133	-.77	+9.24
Dec.	3.46	24.55	3.84	34.56	111	141	+38	+10.01
Jan.	3.04	21.09	1.75	30.72	58	146	-1.29	+9.63
Feb.	2.65	18.05	3.80	28.97	143	160	+1.15	+10.92
Mar.	3.39	15.40	6.09	25.17	180	163	+2.70	+9.77
Apr.	3.74	12.01	7.00	19.08	187	159	+3.26	+7.07
May	4.14	8.27	5.79	12.08	140	146	+1.65	+3.81
June	4.13	4.13	6.29	6.29	152	152	+2.16	+2.16

Note: Amount shown in cumulative columns is total from month shown to present.

STREAMFLOW, IN CFS DELAWARE RIVER AT MONTAGUE, N.J.

Month	1940-2010			2011 Monthly mean	Percent of median
	Maximum	Median	Minimum		
June (observed)	20,130 (2006)	3,199	1,214 (1965)	7,821	244
June (adjusted)	21,350 (2006)	3,948	1,024 (1962)	8,265	209
July (observed)	11,220 (1945)	2,486	864 (1954)		
July (adjusted)	11,470 (1945)	2,193	391 (1965)		

**SUMMARY OF HYDROLOGIC CONDITIONS
IN THE
UPPER DELAWARE RIVER BASIN
July 2011**

Prepared by the
Office of the Delaware River Master
Milford, Pennsylvania

Adjusted streamflow in the upper Delaware River Basin during July was excessive for the fifth consecutive month. The maximum daily mean discharge of 23,400 cfs was recorded on July 4. The minimum daily mean discharge was 2,850 cfs on July 24.

The observed monthly mean streamflow of the Delaware River at Montague, N.J. during July was 6,172 cfs, which is 248 percent of median. The flow at Montague, adjusted for diversions from the basin and change in storage in the major reservoirs, was 5,834 cfs, or 266 percent of median.

On the basis of a 10-station average, precipitation during July was 4.72 inches, which is 114 percent of the 70-year average. The maximum daily-average precipitation during the month was 1.15 inches on July 26. Precipitation in the upper Delaware River Basin during the past 12 months was 14.55 inches more than the long-term average. Precipitation during July was 0.58 inches more than the long-term average for the month.

Combined storage August 1, 2011 in Pepacton, Cannonsville, and Neversink Reservoirs was 91 percent of capacity above the point of maximum depletion. The combined storage of 247 billion gallons was 17 billion gallons less than that of one month ago and 29 billion gallons more than that of one year ago. Median storage on the first day of August in 44 years of record is 232 billion gallons. Pepacton and Neversink Reservoirs spilled a total of 1.1, and 1.0 billion gallons, respectively, during the month.

As part of statewide networks, the USGS operates ground-water observation wells in the Pennsylvania and New Jersey parts of the Delaware River Basin. Mean water levels during July were above average in 12 of 21 observation wells. Water levels in all of the wells were below June 2011 levels, and water levels in 13 of the wells were above July 2010 levels.

HYDROLOGIC CONDITIONS IN THE UPPER DELAWARE RIVER BASIN

Compiled by the Office of the Delaware River Master, Milford, Pa.

(Preliminary data - subject to revision)

PRECIPITATION, IN INCHES

	Dec. 1940 to July 2010		August 2010 to July 2011					
	Average		Actual		Percent of average		Excess (+) or deficit (-)	
	Amount	Cumulative	Amount	Cumulative	By month	Cumulative	By month	Cumulative
Aug.	3.94	44.07	5.40	58.62	137	133	+1.46	+14.55
Sept.	4.03	40.13	2.44	53.22	61	133	-1.59	+13.09
Oct.	3.64	36.10	8.50	50.78	234	141	+4.86	+14.68
Nov.	3.77	32.46	3.00	42.28	80	130	-.77	+9.82
Dec.	3.46	28.69	3.84	39.28	111	137	+.38	+10.59
Jan.	3.04	25.23	1.75	35.44	58	140	-1.29	+10.21
Feb.	2.65	22.19	3.80	33.69	143	152	+1.15	+11.50
Mar.	3.39	19.54	6.09	29.89	180	153	+2.70	+10.35
Apr.	3.74	16.15	7.00	23.80	187	147	+3.26	+7.65
May	4.14	12.41	5.79	16.80	140	135	+1.65	+4.39
June	4.13	8.27	6.29	11.01	152	133	+2.16	+2.74
July	4.14	4.14	4.72	4.72	114	114	+.58	+.58

Note: Amount shown in cumulative columns is total from month shown to present.

STREAMFLOW, IN CFS DELAWARE RIVER AT MONTAGUE, N.J.

Month	1940-2010			2011 Monthly mean	Percent of median
	Maximum	Median	Minimum		
July (observed)	11,220 (1945)	2,486	864 (1954)	6,172	248
July (adjusted)	11,470 (1945)	2,193	391 (1965)	5,834	266
August (observed)	14,230 (1955)	2,138	715 (1954)		
August (adjusted)	17,410 (1955)	1,583	364 (1964)		

**SUMMARY OF HYDROLOGIC CONDITIONS
IN THE
UPPER DELAWARE RIVER BASIN
August 2011**

Prepared by the
Office of the Delaware River Master
Milford, Pennsylvania

Adjusted streamflow in the upper Delaware River Basin during August was excessive for the sixth consecutive month. The maximum daily mean discharge of 78,700 cfs was recorded on August 29. The minimum daily mean discharge was 2,670 cfs on August 3.

The observed monthly mean streamflow of the Delaware River at Montague, N.J. during August was 11,130 cfs, which is 521 percent of median. The flow at Montague, adjusted for diversions from the basin and change in storage in the major reservoirs, was 13,270 cfs, or 838 percent of median.

On the basis of a 10-station average, precipitation during August was 11.85 inches, which is 299 percent of the 70-year average. The maximum daily-average precipitation during the month was 3.75 inches on August 28 when Hurricane Irene passed over the area. Precipitation in the upper Delaware River Basin during the past 12 months was 20.98 inches more than the long-term average. Precipitation during August was 7.89 inches more than the long-term average for the month.

Combined storage September 1, 2011 in Pepacton, Cannonsville, and Neversink Reservoirs was 100 percent of capacity above the point of maximum depletion and set a new September 1 maximum for the period of record. The combined storage of 271 billion gallons was 24 billion gallons more than that of one month ago and 87 billion gallons more than that of one year ago. Median storage on the first day of September in 44 years of record is 203 billion gallons. Pepacton and Neversink Reservoirs spilled a total of 14.7, and 5.7 billion gallons, respectively, during the month.

As part of statewide networks, the USGS operates ground-water observation wells in the Pennsylvania and New Jersey parts of the Delaware River Basin. Mean water levels during August were above average in 15 of 21 observation wells. Water levels in 19 of the wells were below July 2011 levels, and water levels in 16 of the wells were above August 2010 levels.

HYDROLOGIC CONDITIONS IN THE UPPER DELAWARE RIVER BASIN

Compiled by the Office of the Delaware River Master, Milford, Pa.

(Preliminary data - subject to revision)

PRECIPITATION, IN INCHES

	Dec. 1940 to Aug. 2010		September 2010 to August 2011					
	Average		Actual		Percent of average		Excess (+) or deficit (-)	
	Amount	Cumulative	Amount	Cumulative	By month	Cumulative	By month	Cumulative
Sept.	4.03	44.09	2.44	65.07	61	148	-1.59	+20.98
Oct.	3.64	40.06	8.50	62.63	234	156	+4.86	+22.57
Nov.	3.77	36.42	3.00	54.13	80	149	-.77	+17.71
Dec.	3.46	32.65	3.84	51.13	111	157	+.38	+18.48
Jan.	3.04	29.19	1.75	47.29	58	162	-1.29	+18.10
Feb.	2.65	26.15	3.80	45.54	143	174	+1.15	+19.39
Mar.	3.39	23.50	6.09	41.74	180	178	+2.70	+18.24
Apr.	3.74	20.11	7.00	35.65	187	177	+3.26	+15.54
May	4.14	16.37	5.79	28.65	140	175	+1.65	+12.28
June	4.13	12.23	6.29	22.86	152	187	+2.16	+10.63
July	4.14	8.10	4.72	16.57	114	205	+.58	+8.47
Aug.	3.96	3.96	11.85	11.85	299	299	+7.89	+7.89

Note: Amount shown in cumulative columns is total from month shown to present.

STREAMFLOW, IN CFS DELAWARE RIVER AT MONTAGUE, N.J.

Month	1940-2010			2011 Monthly mean	Percent of median
	Maximum	Median	Minimum		
August (observed)	14,230 (1955)	2,138	715 (1954)	11,130	521
August (adjusted)	17,410 (1955)	1,583	364 (1964)	13,270	838
September (observed)	17,200 (2004)	1,994	892 (1941)		
September (adjusted)	18,310 (2004)	1,538	324 (1964)		

**SUMMARY OF HYDROLOGIC CONDITIONS
IN THE
UPPER DELAWARE RIVER BASIN
September 2011**

Prepared by the
Office of the Delaware River Master
Milford, Pennsylvania

Adjusted streamflow in the upper Delaware River Basin during September was excessive for the seventh consecutive month. The maximum daily mean discharge of 100,000 cfs was recorded on September 8. The minimum daily mean discharge was 7,880 cfs on September 21.

The observed monthly mean streamflow of the Delaware River at Montague, N.J. during September was 24,540 cfs, which is 1,231 percent of median and set a new maximum for September. The flow at Montague, adjusted for diversions from the basin and change in storage in the major reservoirs, was 24,300 cfs, or 1,580 percent of median, and also a new maximum for September.

On the basis of a 10-station average, precipitation during September was 11.59 inches, which is 290 percent of the 70-year average. The maximum daily-average precipitation during the month was 2.12 inches on September 7. Precipitation in the upper Delaware River Basin during the past 12 months was 30.16 inches more than the long-term average. Precipitation during September was 7.59 inches more than the long-term average for the month.

Combined storage October 1, 2011 in Pepacton, Cannonsville, and Neversink Reservoirs was 100 percent of capacity above the point of maximum depletion. The combined storage of 271 billion gallons was 0.5 billion gallons less than that of one month ago and 108 billion gallons more than that of one year ago. Median storage on the first day of October in 44 years of record is 178 billion gallons. Pepacton, Cannonsville, and Neversink Reservoirs spilled a total of 31.9, 28.0, and 13.2 billion gallons, respectively, during the month.

As part of statewide networks, the USGS operates ground-water observation wells in the Pennsylvania and New Jersey parts of the Delaware River Basin. Mean water levels during September were above average in all 21 observation wells. Water levels in all of the wells were above August 2011 levels, and water levels in 20 of the wells were above September 2010 levels. Water levels in many of these wells set new maximums for September.

HYDROLOGIC CONDITIONS IN THE UPPER DELAWARE RIVER BASIN

Compiled by the Office of the Delaware River Master, Milford, Pa.

(Preliminary data - subject to revision)

PRECIPITATION, IN INCHES

	Dec. 1940 to Sept. 2010		October 2010 to September 2011					
	Average		Actual		Percent of average		Excess (+) or deficit (-)	
	Amount	Cumulative	Amount	Cumulative	By month	Cumulative	By month	Cumulative
Oct.	3.64	44.06	8.50	74.22	234	168	+4.86	+30.16
Nov.	3.77	40.42	3.00	65.72	80	163	-.77	+25.30
Dec.	3.46	36.65	3.84	62.72	111	171	+.38	+26.07
Jan.	3.04	33.19	1.75	58.88	58	177	-1.29	+25.69
Feb.	2.65	30.15	3.80	57.13	143	189	+1.15	+26.98
Mar.	3.39	27.50	6.09	53.33	180	194	+2.70	+25.83
Apr.	3.74	24.11	7.00	47.24	187	196	+3.26	+23.13
May	4.14	20.37	5.79	40.24	140	198	+1.65	+19.87
June	4.13	16.23	6.29	34.45	152	212	+2.16	+18.22
July	4.14	12.10	4.72	28.16	114	233	+.58	+16.06
Aug.	3.96	7.96	11.85	23.44	299	294	+7.89	+15.48
Sept.	4.00	4.00	11.59	11.59	290	290	+7.59	+7.59

Note: Amount shown in cumulative columns is total from month shown to present.

STREAMFLOW, IN CFS DELAWARE RIVER AT MONTAGUE, N.J.

Month	1940-2010			2011 Monthly mean	Percent of median
	Maximum	Median	Minimum		
September (observed)	17,200 (2004)	1,994	892 (1941)	24,540	1,231
September (adjusted)	18,310 (2004)	1,538	324 (1964)	24,300	1,580
October (observed)	15,690 (1955)	2,495	807 (1941)		
October (adjusted)	18,570 (1955)	2,509	322 (1964)		

**SUMMARY OF HYDROLOGIC CONDITIONS
IN THE
UPPER DELAWARE RIVER BASIN
October 2011**

Prepared by the
Office of the Delaware River Master
Milford, Pennsylvania

Adjusted streamflow in the upper Delaware River Basin during October was excessive for the eighth consecutive month. The maximum daily mean discharge of 28,700 cfs was recorded on October 1. The minimum daily mean discharge was 5,190 cfs on October 27.

The observed monthly mean streamflow of the Delaware River at Montague, N.J. during October was 10,710 cfs, which is 429 percent of median. The flow at Montague, adjusted for diversions from the basin and change in storage in the major reservoirs, was 10,920 cfs, or 435 percent of median.

On the basis of a 5-station average, precipitation during October was 3.71 inches, which is 100 percent of the 70-year average. The maximum daily-average precipitation during the month was 0.57 inches on October 14. Precipitation in the upper Delaware River Basin during the past 12 months was 25.30 inches more than the long-term average. Precipitation during October was equal to the long-term average for the month.

Combined storage November 1, 2011 in Pepacton, Cannonsville, and Neversink Reservoirs was 95 percent of capacity above the point of maximum depletion. The combined storage of 258 billion gallons was 13 billion gallons less than that of one month ago and 43 billion gallons more than that of one year ago. Median storage on the first day of November in 44 years of record is 168 billion gallons. Pepacton and Neversink Reservoirs spilled a total of 3.5 and 3.2 billion gallons, respectively, during the month.

As part of statewide networks, the USGS operates ground-water observation wells in the Pennsylvania and New Jersey parts of the Delaware River Basin. Mean water levels during October were above average in all 21 observation wells. Water levels in 14 of the wells were above September 2011 levels, and water levels in all of the wells were above October 2010 levels. Water levels in 14 wells set new maximums for October.

HYDROLOGIC CONDITIONS IN THE UPPER DELAWARE RIVER BASIN

Compiled by the Office of the Delaware River Master, Milford, Pa.

(Preliminary data - subject to revision)

PRECIPITATION, IN INCHES

	Dec. 1940 to Oct. 2010		November 2010 to October 2011					
	Average		Actual		Percent of average		Excess (+) or deficit (-)	
	Amount	Cumulative	Amount	Cumulative	By month	Cumulative	By month	Cumulative
Nov.	3.77	44.13	3.00	69.43	80	157	-.77	+25.30
Dec.	3.46	40.36	3.84	66.43	111	165	+.38	+26.07
Jan.	3.04	36.90	1.75	62.59	58	170	-1.29	+25.69
Feb.	2.65	33.86	3.80	60.84	143	180	+1.15	+26.98
Mar.	3.39	31.21	6.09	57.04	180	183	+2.70	+25.83
Apr.	3.74	27.82	7.00	50.95	187	183	+3.26	+23.13
May	4.14	24.08	5.79	43.95	140	183	+1.65	+19.87
June	4.13	19.94	6.29	38.16	152	191	+2.16	+18.22
July	4.14	15.81	4.72	31.87	114	202	+.58	+16.06
Aug.	3.96	11.67	11.85	27.15	299	233	+7.89	+15.48
Sept.	4.00	7.71	11.59	15.30	290	198	+7.59	+7.59
Oct.	3.71	3.71	3.71	3.71	100	100	0.00	0.00

Note: Amount shown in cumulative columns is total from month shown to present.

STREAMFLOW, IN CFS DELAWARE RIVER AT MONTAGUE, N.J.

Month	1940-2010			2011 Monthly mean	Percent of median
	Maximum	Median	Minimum		
October (observed)	15,690 (1955)	2,495	807 (1941)	10,710	429
October (adjusted)	18,570 (1955)	2,509	322 (1964)	10,920	435
November (observed)	13,010 (2003)	4,798	995 (1964)		
November (adjusted)	16,160 (1972)	6,262	390 (1964)		

**SUMMARY OF HYDROLOGIC CONDITIONS
IN THE
UPPER DELAWARE RIVER BASIN
November 2011**

Prepared by the
Office of the Delaware River Master
Milford, Pennsylvania

Adjusted streamflow in the upper Delaware River Basin during November was in the normal range. The maximum daily mean discharge of 20,000 cfs was recorded on November 24. The minimum daily mean discharge was 4,440 cfs on November 14.

The observed monthly mean streamflow of the Delaware River at Montague, N.J. during November was 7,466 cfs, which is 156 percent of median. The flow at Montague, adjusted for diversions from the basin and change in storage in the major reservoirs, was 8,547 cfs, or 136 percent of median.

On the basis of a 5-station average, precipitation during November was 3.57 inches, which is 95 percent of the 70-year average. The maximum daily-average precipitation during the month was 1.58 inches on November 23. Precipitation in the upper Delaware River Basin during the past 12 months was 27.31 inches more than the long-term average. Precipitation during November was 0.19 inches less than the long-term average for the month.

Combined storage December 1, 2011 in Pepacton, Cannonsville, and Neversink Reservoirs was 94 percent of capacity above the point of maximum depletion. The combined storage of 255 billion gallons was 2 billion gallons less than that of one month ago and 25 billion gallons more than that of one year ago. Median storage on the first day of December in 44 years of record is 190 billion gallons.

As part of statewide networks, the USGS operates ground-water observation wells in the Pennsylvania and New Jersey parts of the Delaware River Basin. Mean water levels during November were above average in all 21 observation wells. Water levels in 16 of the wells were below October 2011 levels, and water levels in 19 of the wells were above November 2010 levels.

HYDROLOGIC CONDITIONS IN THE UPPER DELAWARE RIVER BASIN

Compiled by the Office of the Delaware River Master, Milford, Pa.

(Preliminary data - subject to revision)

PRECIPITATION, IN INCHES

	Dec. 1940 to Nov. 2010		December 2010 to November 2011					
	Average		Actual		Percent of average		Excess (+) or deficit (-)	
	Amount	Cumulative	Amount	Cumulative	By month	Cumulative	By month	Cumulative
Dec.	3.46	44.12	*3.88	71.43	112	162	+.42	+27.31
Jan.	3.04	40.66	*1.90	67.55	62	166	-1.14	+26.89
Feb.	2.65	37.62	*3.93	65.65	148	175	+1.28	+28.03
Mar.	3.39	34.97	*6.11	61.72	180	176	+2.72	+26.75
Apr.	3.74	31.58	*7.28	55.61	195	176	+3.54	+24.03
May	4.14	27.84	*6.62	48.33	160	174	+2.48	+20.49
June	4.13	23.70	*6.35	41.71	154	176	+2.22	+18.01
July	4.14	19.57	*4.64	35.36	112	181	+.50	+15.79
Aug.	3.96	15.43	11.85	30.72	299	199	+7.89	+15.29
Sept.	4.00	11.47	11.59	18.87	290	165	+7.59	+7.40
Oct.	3.71	7.47	3.71	7.28	100	97	0.00	-.19
Nov.	3.76	3.76	3.57	3.57	95	95	-.19	-.19

Note: Amount shown in cumulative columns is total from month shown to present.

*Revised since last month.

STREAMFLOW, IN CFS DELAWARE RIVER AT MONTAGUE, N.J.

Month	1940-2010			2011 Monthly mean	Percent of median
	Maximum	Median	Minimum		
November (observed)	13,010 (2003)	4,798	995 (1964)	7,466	156
November (adjusted)	16,160 (1972)	6,262	390 (1964)	8,547	136
December (observed)	18,830 (1996)	5,667	1,665 (1998)		
December (adjusted)	20,880 (1973)	6,808	1,624 (1998)		