Monthly Ground-Water Conditions in Pennsylvania

October 1999

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U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY
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WATER LEVELS FROM PENNSYLVANIA OBSERVATION-WELL NETWORK
OCTOBER 1999

County	Well number	Year record began	Mean depth to water below land surface, in feet						Last recorded water level	Date of last recorded water level	Trend from last month	Trend from last year	Departure from mean for all years, in feet
			This month	Last month	This month last year	This month, for all years	Maximum for this month/ year of occurrence	Minimum for this month/ year of occurrence					
Observation wells in the Ohio River Basin													
Allegheny	AG-700	1967	7.94	7.85	7.41	7.55	8.67/69	6.17/90	7.95	10/31	DOWN	DOWN	-.39
Beaver	BV-156	1967	9.76	9.75	9.42	9.67	11.34/73	8.68/79	9.62	10/26	DOWN	DOWN	-.09
Butler	BT-311	1970	N/D	25.19	25.90	21.54	29.63/82	4.07/92	25.77	10/20	N/D	N/D	N/D
Crawford	CW-413	1967	55.27	N/D	54.87	51.94*	55.71/83*	43.41/81*	55.79	10/20	N/D	DOWN	-3.33*
Elk	EK-108	1975	7.70**	7.28**	7.33**	5.20	8.53/96**	2.47/90	7.63**	10/20	DOWN	DOWN	-2.50
Erie	ER-82	1966	23.71	22.99	24.83	20.52*	24.83/98*	18.29/87*	23.25	10/22	DOWN	UP	-3.19*
Fayette	FA-17	1968	23.56	23.22	23.76	23.18	24.22/95	21.10/79	23.36	10/21	DOWN	UP	-.38
Forest	FO-11	1974	9.60	9.88	10.18	9.81	11.43/91	8.38/96	8.83	10/21	UP	UP	.21
Green	GR-118	1973	50.97	46.03	42.89	35.78	44.62/82	23.83/96	51.51	10/26	DOWN	DOWN	-15.19
Lawrence	LA-1201	1967	19.14	18.67	18.71	17.41	19.34/95	15.23/77	19.28	10/31	DOWN	DOWN	-1.73
Mercer	MR-1364	1964	1.72+	2.85+	1.25	4.38	5.85/82	1.25/98	1.48+	10/21	UP	DOWN	2.66
Somerset	SO-2	1937	43.06^	38.11^	35.35	34.50*	36.21/91*	32.86/96*	43.43^	10/20	DOWN	DOWN	-8.56*
Warren	WR-50	1972	43.91	43.72	43.72	43.50	45.15/79	41.08/90	43.89	10/28	DOWN	DOWN	-.41
Washington	WS-155	1971	36.84	37.22	36.47	36.10	37.64/71	34.47/75	36.93	10/26	UP	DOWN	-.74
Westmoreland	WE-300	1968	18.92	18.35	18.11	18.34	24.19/68	15.03/90	18.46	10/22	DOWN	DOWN	-.58
Observation wells in the Delaware River Basin													
Berks	BE-623	1975	135.79	139.12	137.42	134.95	140.30/81	123.20/75	136.61	10/31	UP	UP	-.84
Bucks	BK-929	1967	47.34	48.90	N/D	46.59*	48.29/95*	41.48/89*	46.75	10/27	UP	N/D	-.75*
Bucks	BK-1020	1975	30.11	34.17	38.54	36.23	40.54/76	28.83/96	31.25	10/31	UP	UP	6.12
Carbon	CB-104	1969	37.94	69.80	80.29	66.32	86.05/80	35.67/79	45.45	10/31	UP	UP	28.38
Chester	CH-10	1966	11.67	13.77	14.38	13.89	15.65/86	10.46/79	12.20	10/31	UP	UP	2.22
Delaware	DE-723	1983	6.59	7.43	7.94	7.32	8.41/86	5.52/96	6.73	10/27	UP	UP	.73
Lebanon	LB-372	1973	9.33	10.37	9.90	9.61	10.92/81	6.96/75	10.04	10/31	UP	UP	.28
Lehigh	LE-644	1971	72.80	79.74	71.80	66.22	82.35/81	48.64/75	74.12	10/31	UP	DOWN	-6.58
Monroe	MO-190	1968	12.81	15.92	14.90	12.71	16.55/80	8.82/79	12.05	10/31	UP	UP	-.10
Montgomery	MG-225	1956	11.97++	13.50++	17.30	32.81	59.32/63	13.06/96	12.82++	10/27	UP	UP	20.84
Montgomery	MG-917	1997	9.50	11.09	10.64	N/D	N/D	N/D	9.23	10/27	UP	UP	N/D
Pike	PI-200	1981	64.45	74.60	95.54	54.34	95.54/98	38.26/85	63.97	10/31	UP	UP	-10.11
Schuylkill	SC-296	1975	46.14	50.33	52.43	48.91	54.73/80	40.40/90	49.22	10/31	UP	UP	2.77
Wayne	WN-64	1968	28.75	29.97	28.74	27.50*	29.88/91*	24.39/87*	28.18	10/31	UP	DOWN	-1.25*

N/D indicates no data NDR indicates no data received at time of report

DOWN = Water level is lower than that reported for last month or year

UP = Water level is higher than that reported for last month or year

Shaded block indicates this month is a new recorded maximum or minimum

Year refers to water year, October 1 - September 30.

* Value for well is computed using less than the full period of record because of a change in well hydraulics, or nearby non-climatic hydrologic stress.

** Below normal conditions for well EK-108 are probably due to recent land use changes.

^ Below normal conditions for well SO-2 are due to nearby pumping.

\+ Above normal conditions for well MR-1364 are probably due to changes in aquifer caused by Pymatuning Earthquake on Sept. 25, 1998.

++ Above normal condtions for well MG-225 are caused by decreased pumping from nearby wells.

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			This month	Last month	This month last year	This month, for all years	Maximum for this month/ year of occurrence	Minimum for this month/ year of occurrence					
Observation wells in the Susquehanna River Basin													
Adams	AD-146	1968	11.63	12.83	12.65	12.36	13.41/80	11.34/76	11.97	10/31	UP	UP	.73
Bedford	BD-150	1965	NDR	30.98	26.01	24.69	37.96/66	6.97/79	31.76	10/28	NDR	NDR	NDR
Blair	BA-74	1969	14.75	15.59	16.96	14.30	17.69/97	11.15/79	14.79	10/27	UP	UP	-.45
Bradford	BR-92	1966	10.45	11.48	11.33	10.05	11.84/91	4.72/75	10.79	10/31	UP	UP	-.40
Cameron	CM-13	1967	24.08	24.57	23.67	23.73	25.34/72	22.78/79	24.06	10/31	UP	DOWN	-.35
Clinton	CN-1	1950	53.70	53.28	52.58	51.12	55.39/64	47.91/90	53.74	10/31	DOWN	DOWN	-2.58
Cumberland	CU-2	1951	29.53	29.69	28.69	26.78	30.41/91	16.21/96	29.16	10/28	UP	DOWN	-2.75
Dauphin	DA-350	1964	4.55	5.43	5.63	5.31	6.02/64	4.16/79	4.97	10/31	UP	UP	.76
Franklin	FR-332	1975	19.35	22.25	22.09	29.19	34.68/77	16.32/96	21.26	10/31	UP	UP	9.84
Huntingdon	HU-301	1969	54.59	54.92	54.50	54.33	55.63/85	52.95/72	54.76	10/31	UP	DOWN	-.26
Juniata	JU-351	1968	12.87	13.54	14.19	14.28	15.22/74	12.89/96	13.18	10/27	UP	UP	1.41
Lancaster	LN-514	1964	32.75	32.71	33.04	32.84	33.52/70	28.66/75	32.88	10/30	DOWN	UP	.09
Luzerne	LU-294	1994	33.59	35.35	35.75	33.88	37.01/57	30.19/77	33.84	10/31	UP	UP	.29
Lycoming	LY-112	1967	90.01^^	91.77^^	95.00	90.04	95.00/98	86.20/77	91.18^^	10/31	UP	UP	.03
Mifflin	MF-344	1983	55.21	57.11	59.44	62.99	75.22/85	41.15/96	58.23	10/27	UP	UP	7.78
Potter	PO-72	1967	28.12	32.50	30.46	24.26	31.50/91	13.79/90	30.20	10/31	UP	UP	-3.86
Snyder	SN-130	1968	18.78	18.60	19.37	19.06	19.48/85	18.01/68	19.16	10/31	DOWN	UP	.28
Sullivan	SU-34	1965	25.67	27.81	29.42	27.81	29.87/80	24.46/77	27.55	10/31	UP	UP	2.14
Susquehanna	SQ-61	1972	30.40	34.85	33.79	32.79	36.84/73	27.03/77	31.36	10/31	UP	UP	2.39
Tioga	TI-100	1972	32.19	32.75	31.83	33.19	34.73/88	31.83/98	32.37	10/26	UP	DOWN	1.00
Union	UN-51	1967	36.40	40.04	41.65	40.05	41.77/80	35.83/79	37.62	10/31	UP	UP	3.65

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NOTES:
1) Continuous water-level records for wells CE-118 (Centre County) and PH-12 (Philadelphia County) are being collected but are not reported in the monthly summary because they are not used for drought monitoring.
2) Well MG-917 is not shown on map because insufficient years of record have been collected to establish norms.

* Estimated values for well LU-294 are based on data from nearby discontinued well LU-243.

^^ The reported water level for well LY-112 has been lowered by 13 feet to account for the effects of nearby pumping. In comparison to historical data, this results in a designation of below normal conditions.

Questions concerning the ground-water observation wells can be directed to:
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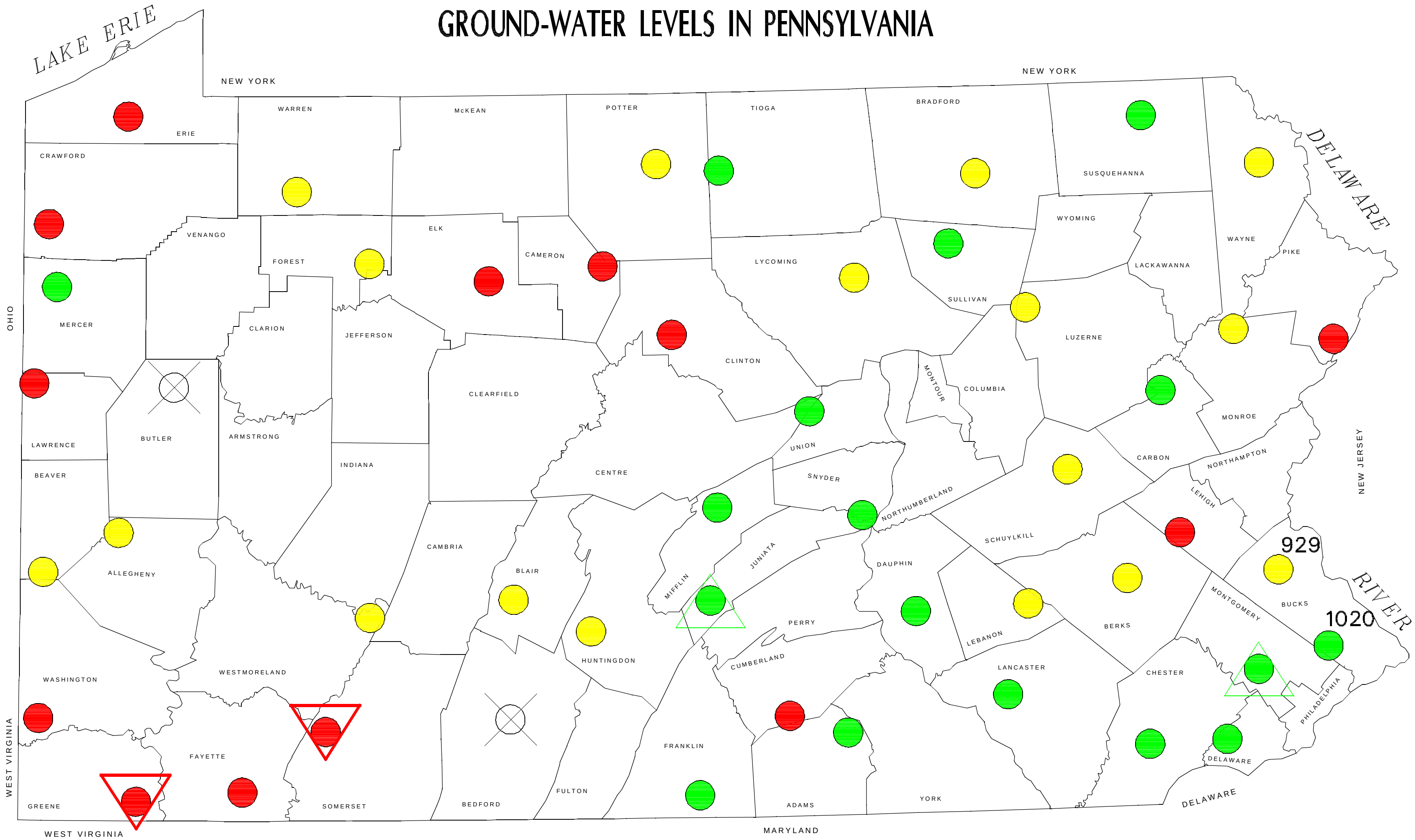
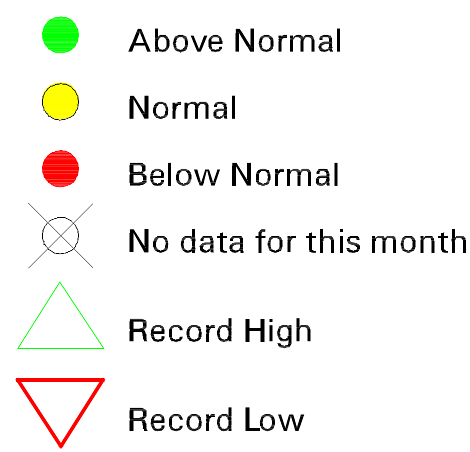
Naomi Weisbeker, Hydrologic Technician, USGS, Lemoyne, PA (717) 730-6937

GROUND-WATER LEVELS IN PENNSYLVANIA





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MEAN WATER LEVELS IN OBSERVATION WELLS

Prepared by the Water Resources Division, U.S. Geological Survey,
in cooperation with the Bureau of Watershed Conservation ,
Pennsylvania Department of Environmental Protection.

Normal is defined as a water level between the 25th percentile and 75th percentile of monthly mean water levels for all previous years of record for this month.