



Monthly Ground-Water Conditions in Pennsylvania

September 1999

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U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY
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OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE \$300

WATER LEVELS FROM PENNSYLVANIA OBSERVATION-WELL NETWORK SEPTEMBER 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 | 7.85 | 7.50 | 7.27 | 7.59 | 8.55/69 | 6.40/90 | 8.05 | 9/27 | DOWN | DOWN | -0.26 |
| Beaver | BV-156 | 1967 | 9.75 | 9.44 | 9.42 | 9.81 | 11.60/73 | 8.85/92 | 9.81 | 9/21 | DOWN | DOWN | .06 |
| Butler | BT-311 | 1970 | 25.19 | 24.97 | N/D | 21.14 | 29.06/83 | 6.89/90 | 25.05 | 9/20 | DOWN | N/D | -4.05 |
| Crawford | CW-413 | 1967 | N/D | 53.15 | 54.26 | 52.36* | 54.99/83* | 45.73/87* | 54.79 | 9/20 | N/D | N/D | N/D |
| Elk | EK-108 | 1975 | 7.28** | 6.70** | 7.22** | 5.09 | 7.22/98** | 2.75/90 | 7.42** | 9/20 | DOWN | DOWN | -2.19 |
| Erie | ER-82 | 1966 | 22.99 | 21.75 | 24.04 | 21.09* | 24.04/98* | 18.63/92* | 23.49 | 9/23 | DOWN | UP | -1.90* |
| Fayette | FA-17 | 1968 | 23.22 | 23.41 | 23.52 | 23.18 | 23.96/93 | 22.41/96 | 23.29 | 9/22 | UP | UP | -.04 |
| Forest | FO-11 | 1974 | 9.88 | 10.30 | 10.49 | 10.24 | 11.84/82 | 8.74/92 | 9.99 | 9/23 | UP | UP | .36 |
| Green | GR-118 | 1973 | 46.03 | 41.18 | 38.18 | 35.57 | 44.67/86 | 25.81/96 | 48.61 | 9/21 | DOWN | DOWN | -10.46 |
| Lawrence | LA-1201 | 1967 | 18.67 | 18.24 | 18.67 | 17.55 | 19.11/95 | 15.37/75 | 18.94 | 9/27 | DOWN | SAME | -1.12 |
| Mercer | MR-1364 | 1964 | 2.85+ | 3.34+ | 4.15 | 4.48 | 5.72/82 | 3.00/92 | 1.42+ | 9/21 | UP | UP | 1.63 |
| Somerset | SO-2 | 1937 | 38.11^ | 37.29^ | 34.75 | 34.32* | 35.63/88* | 32.95/96* | 41.30^ | 9/21 | DOWN | DOWN | -3.79* |
| Warren | WR-50 | 1972 | 43.72 | N/D | 43.44 | 43.56 | 44.96/78 | 41.16/87 | 44.02 | 9/28 | N/D | DOWN | -1.16 |
| Washington | WS-155 | 1971 | 37.22 | 36.78 | 36.37 | 36.24 | 37.59/71 | 34.24/75 | 37.44 | 9/20 | DOWN | DOWN | -.98 |
| Westmoreland | WE-300 | 1968 | 18.35 | 18.00 | 17.63 | 18.43 | 24.26/68 | 15.85/90 | 18.48 | 9/20 | DOWN | DOWN | .08 |
| Observation wells in the Delaware River Basin | | | | | | | | | | | | | |
| Berks | BE-623 | 1975 | 139.12 | 140.81 | 136.58 | 134.13 | 139.60/81 | 123.90/84 | 135.59 | 9/29 | UP | DOWN | -4.99 |
| Bucks | BK-929 | 1967 | 48.90 | 48.86 | N/D | 46.44* | 48.75/95* | 42.62/89* | 48.09 | 9/27 | DOWN | N/D | -2.46* |
| Bucks | BK-1020 | 1975 | 34.17 | 37.06 | 36.80 | 35.89 | 40.66/85 | 31.56/94 | 28.77 | 9/27 | UP | UP | 1.72 |
| Carbon | CB-104 | 1969 | 69.80 | 79.32 | 80.28 | 69.79 | 83.13/93 | 29.33/87 | 38.25 | 9/27 | UP | UP | -.01 |
| Chester | CH-10 | 1966 | 13.77 | 15.11 | 14.33 | 13.84 | 15.77/95 | 11.23/89 | 12.05 | 9/27 | UP | UP | .07 |
| Delaware | DE-723 | 1983 | 7.43 | 8.57 | 7.77 | 7.37 | 8.77/95 | 6.20/96 | 6.43 | 9/21 | UP | UP | -.06 |
| Lebanon | LB-372 | 1973 | 10.37 | 11.03 | 9.72 | 9.66 | 10.84/91 | 8.29/76 | 10.04 | 9/27 | UP | DOWN | -.71 |
| Lehigh | LE-644 | 1971 | 79.74 | 81.50 | 69.18 | 65.43 | 80.01/81 | 47.39/84 | 74.30 | 9/27 | UP | DOWN | -14.31 |
| Monroe | MO-190 | 1968 | 15.92 | 15.81 | 14.58 | 13.03 | 16.12/93 | 9.78/87 | 14.65 | 9/27 | DOWN | DOWN | -2.89 |
| Montgomery | MG-225 | 1956 | 13.50++ | 15.92++ | 16.63 | 32.21 | 58.47/63 | 15.38/96 | 9.70++ | 9/22 | UP | UP | 18.71 |
| Montgomery | MG-917 | 1997 | 11.09 | 12.25 | 10.57 | N/D | N/D | N/D | 9.96 | 9/22 | UP | DOWN | N/D |
| Pike | PI-200 | 1981 | 74.60 | 82.17 | 96.04 | 57.67 | 96.04/98 | 36.66/90 | 61.42 | 9/27 | UP | UP | -16.93 |
| Schuylkill | SC-296 | 1975 | 50.33 | 54.36 | 52.87 | 50.27 | 55.21/93 | 39.77/87 | 45.91 | 9/27 | UP | UP | -.06 |
| Wayne | WN-64 | 1968 | 29.97 | 30.06 | 28.43 | 27.63* | 29.79/91* | 25.09/90* | 29.50 | 9/27 | UP | DOWN | -2.34* |

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 wells SO-2 and LY-112 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 conditions 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 | 12.83 | 13.46 | 12.98 | 12.69 | 13.70/88 | 11.66/71 | 12.37 | 9/27 | UP | UP | -.14 |
| Bedford | BD-150 | 1965 | 30.98 | N/D | 22.60 | 23.50 | 36.37/66 | 11.76/79 | 31.39 | 9/27 | N/D | DOWN | -7.48 |
| Blair | BA-74 | 1969 | 15.59 | 16.79 | 16.56 | 14.46 | 17.14/97 | 11.75/79 | 15.65 | 9/27 | UP | UP | -1.13 |
| Bradford | BR-92 | 1966 | 11.48 | 11.78 | 11.51 | 10.67 | 11.90/91 | 7.89/94 | 10.60 | 9/27 | UP | UP | -.81 |
| Cameron | CM-13 | 1967 | 24.57 | 24.27 | 24.03 | 23.86 | 25.64/72 | 21.93/88 | 24.45 | 9/27 | DOWN | DOWN | -.71 |
| Clinton | CN-1 | 1950 | 53.28 | 52.31 | 51.73 | 51.00 | 54.51/65 | 47.75/90 | 53.69 | 9/27 | DOWN | DOWN | -2.28 |
| Cumberland | CU-2 | 1951 | 29.69 | 27.24 | 27.08 | 25.85 | 30.12/66 | 17.80/96 | 30.03 | 9/28 | DOWN | DOWN | -3.84 |
| Dauphin | DA-350 | 1964 | 5.43 | 6.04 | 5.80 | 5.58 | 6.38/66 | 4.62/74 | 5.06 | 9/27 | UP | UP | .15 |
| Franklin | FR-332 | 1975 | 22.25 | 26.18 | 21.16 | 29.42 | 35.34/76 | 16.59/96 | 19.57 | 9/30 | UP | DOWN | 7.17 |
| Huntingdon | HU-301 | 1969 | 54.92 | 54.98 | 54.79 | 54.51 | 55.78/83 | 53.13/96 | 54.67 | 9/20 | UP | DOWN | -.41 |
| Juniata | JU-351 | 1968 | 13.54 | 14.77 | 14.91 | 14.64 | 15.35/83 | 12.36/96 | 13.59 | 9/27 | UP | UP | 1.10 |
| Lancaster | LN-514 | 1964 | 32.71 | 33.30 | 32.97 | 33.08 | 33.35/81 | 32.70/71 | 32.76 | 9/27 | UP | UP | .37 |
| Luzerne | LU-294 | 1994 | 35.35 | N/D | 35.46 | 34.31 | 37.08/57 | 30.92/88 | 34.84 | 9/27 | N/D | UP | -1.04 |
| Lycoming | LY-112 | 1967 | 104.77 [^] | N/D | 94.54 | 90.25 | 94.74/95 | 86.61/79 | 103.62 [^] | 9/27 | N/D | DOWN | -14.52 |
| Mifflin | MF-344 | 1983 | 57.11 | 59.97 | 59.41 | 63.36 | 74.41/83 | 56.56/97 | 58.63 | 9/27 | UP | UP | 6.25 |
| Potter | PO-72 | 1967 | 32.50 | 32.63 | 31.78 | 26.19 | 32.56/91 | 17.09/92 | 33.12 | 9/27 | UP | DOWN | -6.31 |
| Snyder | SN-130 | 1968 | 18.60 | 19.19 | 19.42 | 19.10 | 19.43/83 | 17.55/68 | 18.93 | 9/27 | UP | UP | .50 |
| Sullivan | SU-34 | 1965 | 27.81 | 29.95 | 29.86 | 28.59 | 30.34/80 | 26.14/74 | 26.64 | 9/27 | UP | UP | .78 |
| Susquehanna | SQ-61 | 1972 | 34.85 | 35.59 | 34.38 | 33.77 | 36.81/82 | 29.55/94 | 31.07 | 9/27 | UP | DOWN | -1.08 |
| Tioga | TI-100 | 1972 | 32.75 | 33.11 | 32.09 | 33.19 | 34.38/88 | 31.96/94 | 32.33 | 9/28 | UP | DOWN | .44 |
| Union | UN-51 | 1967 | 40.04 | 40.87 | 41.33 | 40.15 | 41.51/91 | 36.10/79 | 38.04 | 9/27 | UP | UP | .11 |

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NOTES:

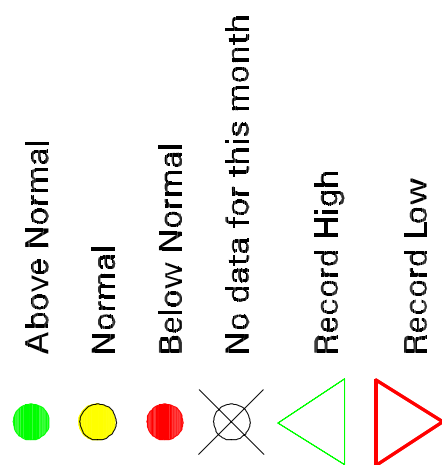
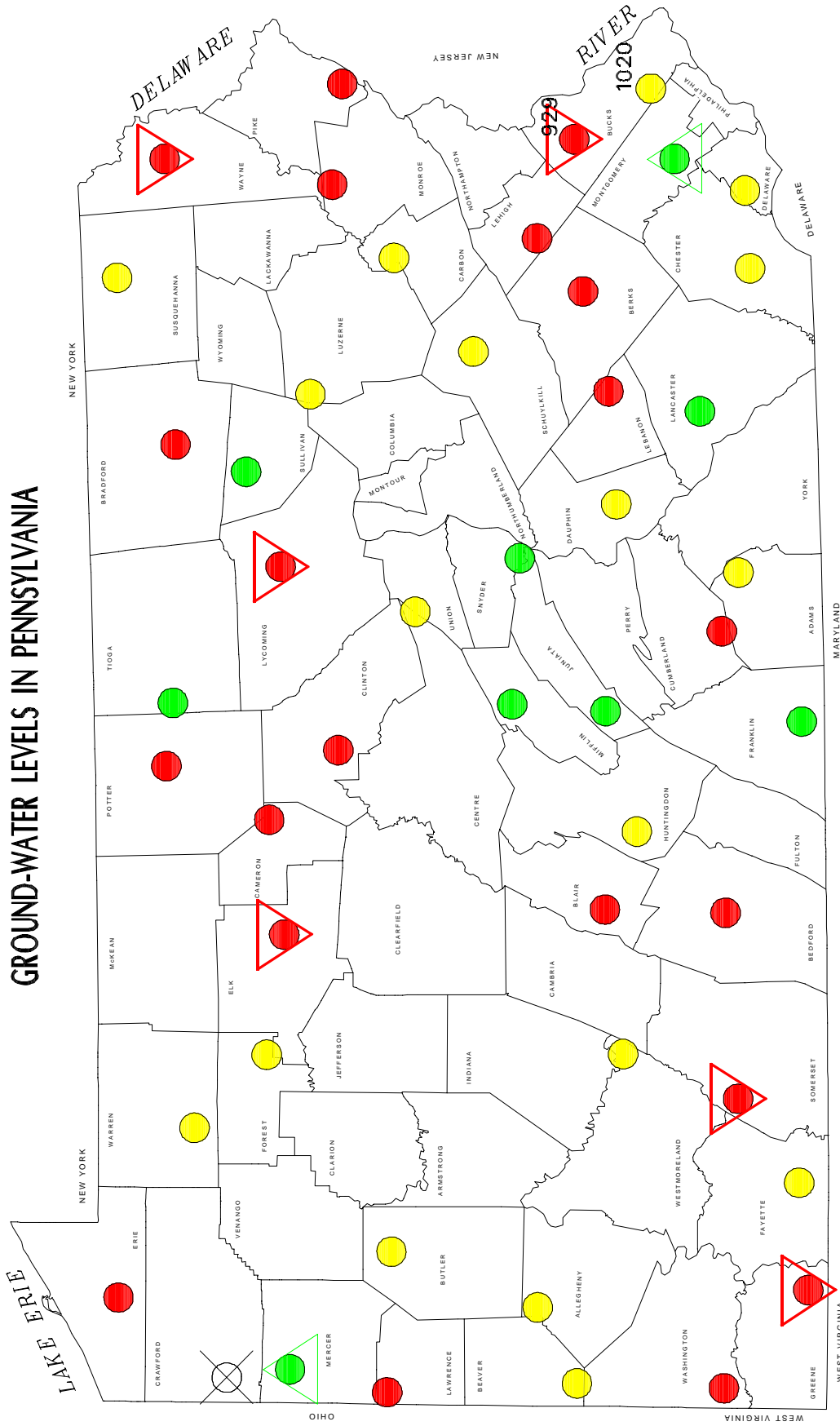
- 1) Continuous water-level records for wells CE-118 (Centre County) and PH-12 (Philadelphia County) are being collected but are not reported in the monthly summary because they are not used for drought monitoring.
- 2) Well MG-917 is not shown on map because insufficient years of record have been collected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

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

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



SEPTEMBER 1999

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.