MONTHLY WATER INVENTORY REPORT FOR OHIO

August 2008

http://www.dnr.state.oh.us/tabid/4191/Default.aspx

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PRECIPITATION during August was below normal throughout most of the state with only a few locations, mainly in northeastern and southeastern Ohio, having above normal precipitation. The state average was 1.94 inches, 1.50 inches below normal. This ranks as the 13th driest August for the state as a whole during the past 126 years. Regional averages ranged from 3.66 inches, 0.12 inch below normal, for the South Central Region to 1.10 inches, 2.09 inches below normal, for the Northwest Region. August 2008 ranked as the 4th driest August of record for the Southwest Region, 5th driest for the Central Region, 6th driest for both the North Central and Northwest regions, 7th driest for the West Central Region, and the 9th driest for the Northeast Hills Region. Gallipolis (Gallia County) reported the greatest amount of August precipitation, 6.58 inches. Elmore (Ottawa County) reported the least amount, only 0.23 inch. Several other locations, mostly in the western half of the state, also received less than 1 inch of precipitation for the month.

Precipitation during August fell in a typical summer pattern of scattered showers and thunderstorms, a few with locally heavy rain. For much of Ohio, the first half of the month was wetter than the second half. Showers and thunderstorms on August 5 were confined to the southwest half of the state with amounts of 0.5-1.0 inch generally falling throughout the area with as much as 2 inches reported at some locations. Scattered showers moved across northern Ohio during August 9-10 with most areas receiving around 0.25 inch or less except for extreme northeastern Ohio where around 1.5 inches were reported. The next 2 weeks were unusually dry across most of the state. Widely scattered storms on August 14 in northwestern and eastern Ohio dumped as much as 1 inch of rain at some locations, but most places received little or no rain. The next precipitation fell on August 24 when widely scattered storms brought locally heavy rain to a few isolated areas, but most of the state again received no rain. Showers occurred in southeastern Ohio during August 26-27 as remnants from Hurricane Faye moved through the state with 1-2 inches of rain across the region and up to 3 inches reported at some locations. Widely scattered storms on August 29, some with locally heavy downpours, occurred in southwestern and central Ohio. Some agricultural crops are projected to have been adversely impacted by the below normal precipitation.

Precipitation for the 2008 calendar year is above normal statewide. The state average is 32.77 inches, 5.90 inches above normal. Regional averages range from 35.64 inches, 6.38 inches above normal, for the South Central Region to 28.77 inches, 4.84 inches above normal, for the Northwest Region.

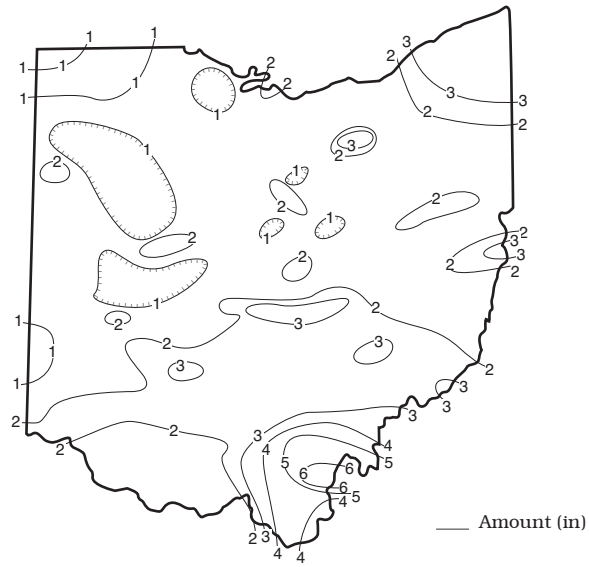
Precipitation for the 2008 water year is above normal throughout Ohio. The state average is 44.03 inches, 8.96 inches above normal. Regional averages range from 48.23 inches, 10.56 inches above normal, for the South Central Region to 38.73 inches, 7.21 inches above normal, for the Northwest Region.

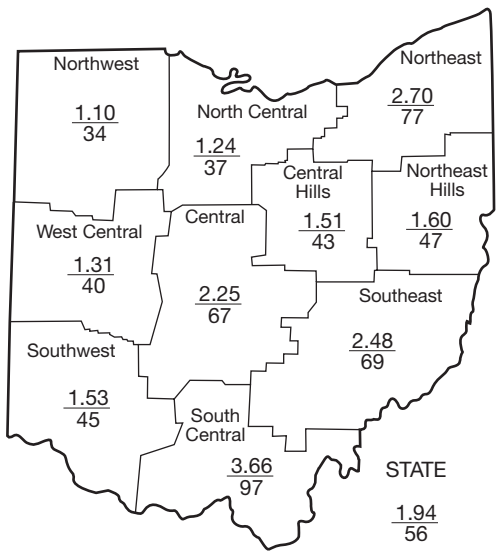
PRECIPITATION

Region	DEPARTURE FROM NORMAL (IN.) Base period 1951-2000					Palmer Drought Severity Index*
	This Month	Past 3 Mos.	Past 6 Mos.	Past 12 Mos.	Past 24 Mos.	
Northwest	-2.09	-0.39	+1.04	+6.50	+16.23	+1.2
North Central	-2.11	-0.14	+2.43	+8.10	+18.96	+1.8
Northeast	-0.79	+2.10	+4.41	+11.09	+18.24	+2.8
West Central	-1.93	+1.50	+4.66	+10.50	+18.81	+1.1
Central	-1.12	+1.85	+4.88	+9.28	+17.54	+0.7
Central Hills	-2.01	-0.76	+0.57	+5.76	+12.13	0.0
Northeast Hills	-1.83	-0.60	+0.67	+5.31	+11.26	-0.8
Southwest	-1.88	-0.67	+4.60	+9.83	+10.92	+0.4
South Central	-0.12	+1.44	+5.29	+9.57	+11.02	+1.0
Southeast	-1.10	+1.69	+5.43	+8.50	+11.24	+1.4
State	-1.50	+0.59	+3.40	+8.42	+14.59	

*Above +4 = Extreme Moist Spell
3.0 To 3.9 = Very Moist Spell
2.0 To 2.9 = Unusual Moist Spell
1.0 To 1.9 = Moist Spell
0.5 To 0.9 = Incipient Moist Spell
0.4 To-0.4 = Near Normal
-0.5 To -0.9 = Incipient Drought
-1.0 To -1.9 = Mild Drought
-2.0 To -2.9 = Moderate Drought
-3.0 To -3.9 = Severe Drought
Below -4.0 = Extreme Drought

PRECIPITATION AUGUST





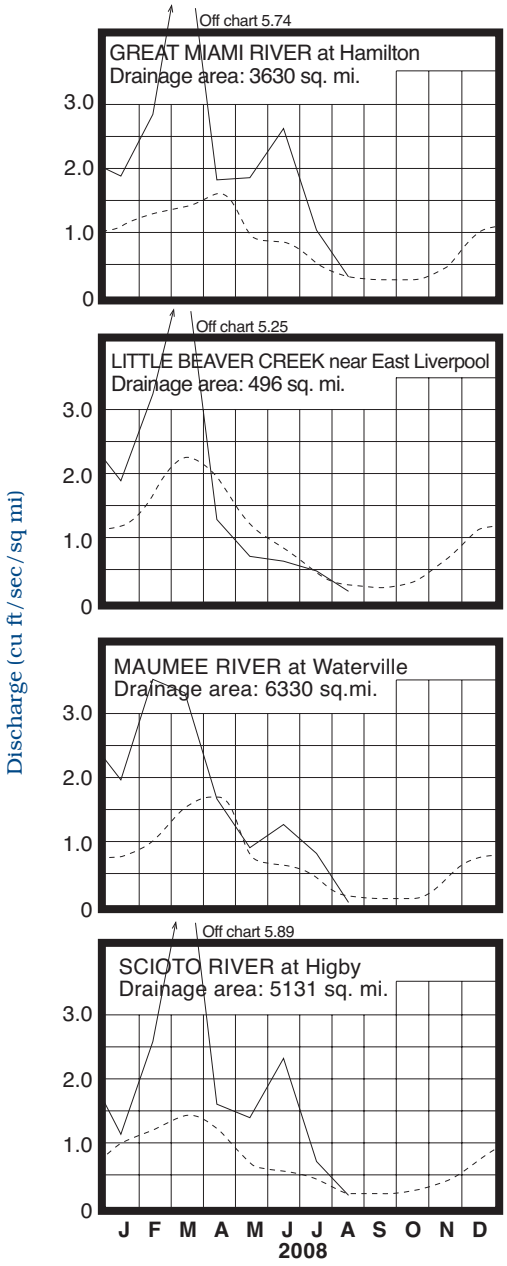
MEAN STREAM DISCHARGE

River and Location	Drainage Area (Sq. Mi.)	Mean Discharge (CFS)	% of Normal	% of Normal Past		
		This Month		3 Mos.	6 Mos.	12 Mos.
Grand River near Painesville	685	195	222	113	138	141
Great Miami River at Hamilton	3,630	1,121	97	176	196	173
Huron River at Milan	371	25	27	115	190	205
Killbuck Creek at Killbuck	464	87	62	81	131	132
Little Beaver Creek near East Liverpool	496	81	59	63	116	123
Maumee River at Waterville	6,330	303	31	126	132	162
Muskingum River at McConnelsville	7,422	1,689	58	178	210	123
Scioto River near Prospect	567	29	65	154	184	191
Scioto River at Higby	5,131	933	71	146	177	154
Stillwater River at Pleasant Hill	503	76	107	190	199	181

STREAMFLOW during August was below normal across most of the state, but above normal in a few basins in northeastern and west-central Ohio. Flows were low enough to be considered deficient across much of the state. Flows for the month declined seasonally from those flows recorded during July.

Flows at the beginning of the month were below normal across most of the state, but above normal in some basins in southwestern and northeastern Ohio. Greatest flows for August occurred at various times during the first half of the month across most of the state, generally at the beginning of August in central and southeastern Ohio, near the end of the first week in western Ohio, and around mid-month in northeastern Ohio. The exception was in some extreme southeastern Ohio basins where the month's greatest flow occurred following precipitation that fell during August 26-27. Low flows for August occurred during the last week of the month statewide. At the end of August, streamflow was below normal throughout Ohio.

MEAN STREAM DISCHARGE

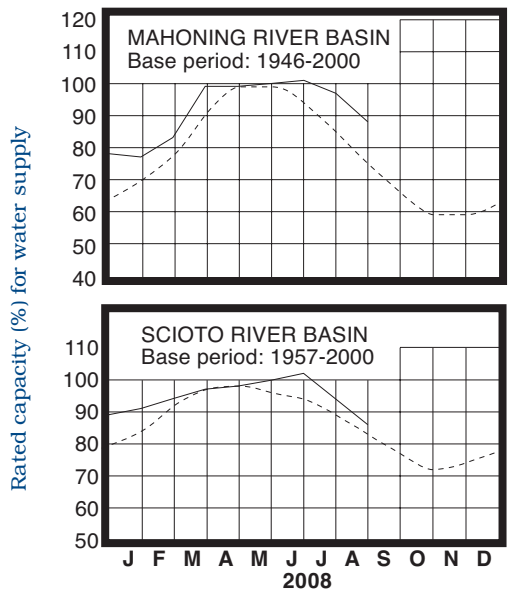


Base period for all streams: 1971-2000

RESERVOIR STORAGE during August decreased in both the Mahoning and Scioto river basins. At the end of August, surface water storage in both basins remained above normal.

Reservoir storage at the end of August in the Mahoning basin index reservoirs was 88 percent of rated capacity for water supply compared with 97 percent for last month and 87 percent for August 2007. Month-end storage in the Scioto basin index reservoirs was 86 percent of rated capacity for water supply compared with 94 percent for last month and 79 percent for August 2007. Surface water supplies remain in good shape throughout the state.

RESERVOIR STORAGE FOR WATER SUPPLY



Normal – – – – Current ———

GROUND-WATER LEVELS

Based on daily lowest level in feet below land-surface datum

Index Well	Location	Aquifer	Mean This Month	Departure From Normal	Change in feet from:	
					Last Month	Year Ago
F-1	W. Rushville, Fairfield Co.	Sandstone	12.60	+3.44	-2.36	+3.61
Fa-1	Jasper Mill, Fayette Co.	Limestone	9.29	-0.97	-0.79	+0.86
Fr-10	Columbus, Franklin Co.	Gravel	44.57	-0.77	-1.13	+0.97
H-1	Harrison, Hamilton Co.	Gravel	23.17	-0.30	-1.09	+1.28
Hn-2a	Dola, Hardin Co.	Dolomite	7.65	-0.16	-1.18	+0.48
Po-1	Windham, Portage Co.	Sandstone	16.96	+2.91	-0.23	+0.85
Tu-1	Strasburg, Tuscarawas Co.	Gravel	14.34	-0.93	-0.94	+0.34

GROUND WATER levels during August declined seasonally throughout the state. Net declines during August were greater than usually observed in most aquifers. Levels in some shallow aquifers showed slight temporary improvement following local precipitation. However, ground water levels in most aquifers generally declined steadily throughout the month, reflecting the seasonal trend and the below normal precipitation since mid-July.

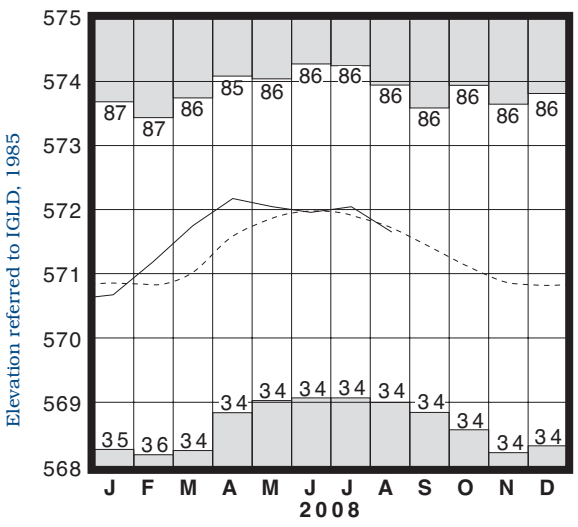
Ground water storage has fallen to below normal levels across much of the state with only some consolidated aquifers in eastern Ohio remaining above normal. Current levels continue to be higher than they were at this time last year, ranging from 0.5-3.5 feet above the August 2007 levels. The Ohio Agricultural Statistics Service reports that at the end of August, soil moisture was rated as being short or very short in 72 percent of the state and adequate in 28 percent of the state. Even though ground water levels are below normal across most of the state, ground water storage remains adequate throughout Ohio. Ground water levels typically are expected to decline for the next 2 or 3 months, before the onset of the new recharge season.

LAKE ERIE level declined during August. The mean level was 571.65 feet (IGLD-1985), 0.39 foot lower than last month's mean level and 0.07 foot below normal. This month's mean level is 0.32 foot higher than the August 2007 level and 2.45 feet above Low Water Datum.

The U.S. Army Corps of Engineers (USACE) reports that precipitation in the Lake Erie basin during August averaged 1.84 inches, 1.35 inches below normal. For the entire Great Lakes basin, August precipitation averaged 2.15 inches, 1.00 inch below normal. For calendar year 2008 through August, the Lake Erie basin has averaged 27.03 inches, 3.33 inches above normal, while the entire Great Lakes basin has averaged 23.99 inches, 2.89 inches above normal.

In addition, the USACE reports that based on the current condition of the Great Lakes basin and anticipated weather conditions, the level on Lake Erie should remain below normal for the foreseeable future. Deviations from the anticipated weather patterns could result in the level of Lake Erie ranging from about 7 inches above normal to as much as 14 inches below the normal seasonal levels.

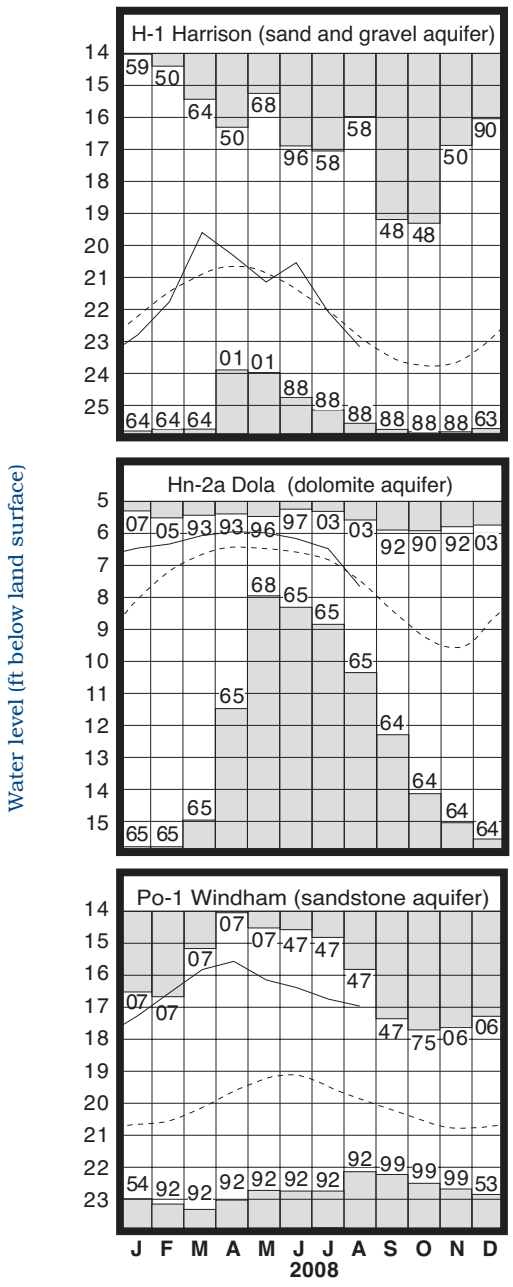
LAKE ERIE LEVELS



Base period: 1918-2000

Record high and low, year of occurrence

GROUND-WATER LEVELS



Base periods: H-1, 1951-2000. Hn-2a, 1955-2000.

Po-1, 1947-2000 Record high and low, year of occurrence

Normal – – – – Current ———

SUMMARY

Precipitation during August was below normal throughout most of the state with only a few locations, mainly in northeastern and southeastern Ohio, having above normal precipitation. Streamflow was below normal across most of the state and low enough to be considered deficient throughout much of Ohio. Reservoir storage decreased but remained above normal in both the Mahoning and Scioto river basins. Ground water levels declined statewide and were below normal across much of the state. Lake Erie level declined 0.39 foot and was 0.07 foot below the long-term August average.

NOTES AND COMMENTS

Water Resources Data For Ohio Available On-Line

The Water Resources Division of the U.S. Geological Survey (USGS) recently announced the availability of the following report:

Water Resources Data For The United States, Water Year 2007

This report contains data from cooperative long-term surface water and ground water networks as well as data collected as part of special short-term projects. Beginning with last years report, paper reports will no longer be produced. The USGS annual Water Data Report is now part of a national web-based product with "Site Data Sheet" available for each individual station that can be viewed and/or downloaded. Site Data Sheets contain all surface-water, ground-water and/or water-quality that were collected at a particular site in a given water year. All Site Data Sheets for water year 2007 in Ohio have been completed and are available at: http://pubs.water.usgs.gov/wdr2007. Connecting to this web site will take you directly to the Site Data Sheet search page. Site Data Sheets are indexed by USGS station number and physical location, which includes state, county and hydrologic unit. If you have any questions or comments, please contact James Mangus at (614) 430-7727 or e-mail: jpmangus@usgs.gov. Water Resources Data-Ohio reports for water year 2002-2006 can also be accessed online at: http://pubs.usgs.gov/wdr/.

Additional Ground Water Pollution Potential Maps Available On-Line

The Ohio Department of Natural Resources (ODNR), Division of Water announces the availability of the pollution potential reports and maps for Defiance and Hardin counties. This brings to 72 the number of counties in Ohio for which pollution potential maps are available on-line. Pollution potential maps are available for viewing and/or printing from the Division of Water website at: http://www.dnr.state.oh.us/tabid/3541/Default.aspx. Maps can also be purchased for $10.00 each plus postage and handling (see chart below) from: ODNR Division of Water, Water Resources Section, 2045 Morse Road, Building B-2, Columbus, Ohio, 43229-6693, phone (614) 265-6740. Payment may be made by check or credit card. Please make checks payable to ODNR Division of Water.

Ground water pollution potential maps are designed to determine an aquifer's relative vulnerability to ground water pollution. The maps can be used as a planning and management tool for administrators, commissioners, zoning boards, and others to aid in making educated decisions about local development and siting of land use activities that can affect ground water quality. The accompanying report for each map describes the various factors that were evaluated to determine the pollution potential ratings. This information can be used to help direct resources and land use activities to appropriate areas, or to assist in protection, monitoring, and clean-up efforts. For more information, please contact Jim Raab at: jim.raab@dnr.state.oh.us or phone (614) 265-6747.

Postage and Handling Charges

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under $10.01	$2.50
$10.01 - $20.00	$3.75
$20.01 - $50.00	$6.00
$50.01 - $100.00	$8.50
$100.01 and over	$10.00

ACKNOWLEDGMENTS

This report has been compiled from Division of Water data and from information supplied by the following:

Precipitation data:
U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Weather Service: The Miami Conservancy District: U.S. Army Corps of Engineers, Muskingum Area.

Streamflow and reservoir storage data:
U.S. Geological Survey, Water Resources Division.

Lake Erie level data:
U.S. Army Corps of Engineers, Detroit District.

Palmer Drought Severity Index:
U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Weather Service.

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