MONTHLY WATER INVENTORY REPORT FOR OHIO

April 2006

http://www.dnr.state.oh.us/water/pubs/newsltrs/mwirmain.html

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PRECIPITATION during April was generally above normal in the southern half of the state and below normal in the northern half. The state average was 3.03 inches, 0.55 inch below normal. Regional averages ranged from 4.22 inches, 0.26 inch above normal, for the Southwest Region to 1.89 inches, 1.49 inches below normal, for the Northwest Region. This was the 15th driest April during the past 112 years for the Northwest Region. Enterprise (Hocking County) reported the greatest amount of April precipitation, 6.40 inches. Bowling Green Waste Water Treatment Plant (Wood County) reported the least amount, 0.80 inch.

Most of the precipitation during April fell as rain with only small amounts of snow reported in northeastern Ohio. The most widespread precipitation of the month occurred during the first week. Precipitation amounts during this period were around 0.75-1.50 inch across most of the state. Showers and thunderstorms during April 14-17 were most numerous across southern Ohio where between 1 and 2 inches of rain fell. Much of northern Ohio experienced only light, scattered showers during this period with generally less that 0.25 inch of precipitation reported. Showers and thunderstorms returned to the state during April 21-23 with much of the state reporting 0.50-1.0 inch of precipitation and areas of northeastern Ohio reporting as much as 1.5 inches of rain. However, little or no rain was reported in northwestern Ohio during this period. The last week of the month was rather dry across the state. Showers on April 30 resulted in 0.50 inch or less of precipitation in the southern portion of the state, but little or no rain was reported elsewhere.

Precipitation for the 2006 calendar year is below normal statewide. The average for the state as a whole is 10.50 inches, 1.08 inches below normal. Regional averages range from 12.93 inches, 0.31 inch below normal, for the Southwest Region to 8.45 inches, 1.71 inches below normal, for the North Central Region.

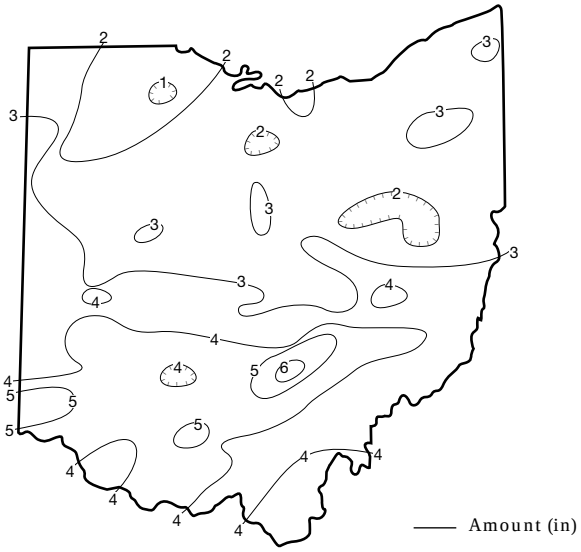
Precipitation for the 2006 water year is below normal throughout most of the state, except in the Southeast Region where it is slightly above normal. The average for the state as a whole is 18.67 inches, 1.12 inches below normal. Regional averages range from 20.97 inches, 1.13 inches below normal, for the Southwest Region to 16.02 inches, 1.78 inches below normal, for the North Central Region.

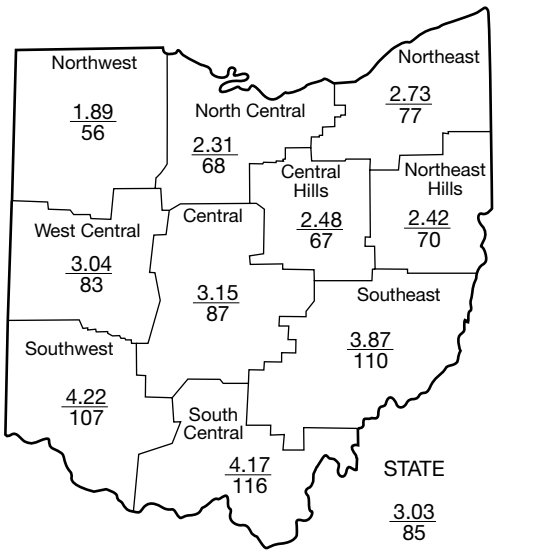
PRECIPITATION

Region	DEPARTURE FROM NORMAL (IN.) Base period 1951-2000					Palmer Drought Severity Index*
	This Month	Past				
		3 Mos.	6 Mos.	12 Mos.	24 Mos.	
Northwest	-1.49	-2.00	+0.38	-2.06	+6.41	-1.1
North Central	-1.08	-2.09	-2.23	-0.32	+11.17	+0.1
Northeast	-0.80	-1.45	-2.39	-1.47	+10.30	-0.7
West Central	-0.62	-0.82	-0.58	+0.46	+11.78	+0.7
Central	-0.48	-1.05	-0.59	-1.55	+11.99	-0.2
Central Hills	-1.20	-2.20	-2.71	-2.02	+12.69	-1.1
Northeast Hills	-1.04	-2.69	-2.77	-2.87	+16.75	-1.2
Southwest	+0.26	-0.23	-0.82	-4.14	+2.09	+0.5
South Central	+0.58	-2.06	-2.09	-6.31	+2.73	-1.5
Southeast	+0.36	-1.83	-0.89	-3.62	+16.26	-0.7
State	-0.55	-1.64	-1.46	-2.38	+10.23	

*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 APRIL





MEAN STREAM DISCHARGE

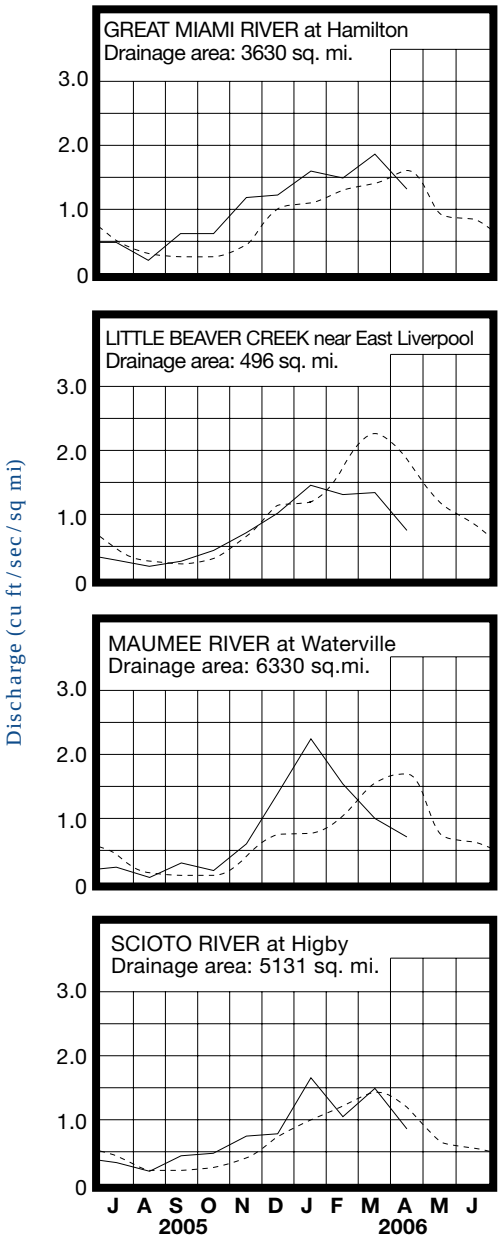
This Month

River and Location	Drainage Area (Sq. Mi.)	Mean Discharge (CFS)	% of Normal	% of Normal Past		
				3 Mos.	6 Mos.	12 Mos.
Grand River near Painesville	685	679	46	73	104	101
Great Miami River at Hamilton	3,630	4,792	82	98	112	101
Huron River at Milan	371	140	23	53	81	79
Killbuck Creek at Killbuck	464	314	40	65	76	77
Little Beaver Creek near East Liverpool	496	377	41	58	70	67
Maumee River at Waterville	6,330	4,526	42	66	101	85
Muskingum River at McConnelsville	7,422	6,328	37	82	110	71
Scioto River near Prospect	567	335	37	61	100	98
Scioto River at Higby	5,131	4,407	58	68	82	79
Stillwater River at Pleasant Hill	503	410	56	84	109	94

STREAMFLOW during April was below normal statewide. April streamflow declined from the March streamflow throughout the state. Flows were low enough to be considered deficient across most of Ohio.

Flows at the beginning of the month were below normal statewide. Flows increased during the early part of the month with most areas in northern Ohio recording their greatest monthly flows on April 8. Greatest flows in southern Ohio occurred during April 15-17 following precipitation that fell around mid-month. Generally, flows declined the remainder of the month except for some increases noted following precipitation that fell during April 21-23. Lowest flows for the month occurred at the end of April across most of the state and were below normal statewide.

MEAN STREAM DISCHARGE

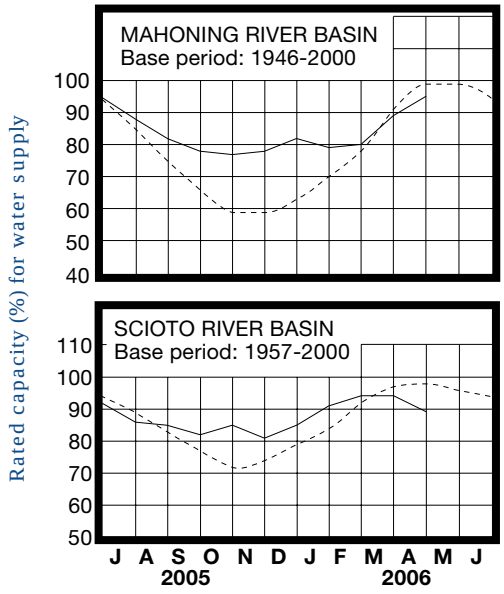


Base period for all streams: 1971-2000

RESERVOIR STORAGE during April increased in the Mahoning River basin and decreased in the Scioto River basin. Storage was below normal in both basins.

Reservoir storage at the end of April in the Mahoning basin index reservoirs was 95 percent of rated capacity for water supply compared with 89 percent for last month and 106 percent for April 2005. Month-end storage in the Scioto basin index reservoirs was 89 percent of rated capacity for water supply compared with 94 percent for last month and 106 percent for April 2005. Surface water supplies continue to remain adequate 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	11.56	+1.13	+0.26	-1.35
Fa-1	Jasper Mill, Fayette Co.	Limestone	8.22	-1.39	+0.10	-0.46
Fr-10	Columbus, Franklin Co.	Gravel	43.25	-0.98	+0.32	-1.15
H-1	Harrison, Hamilton Co.	Gravel	21.41	-0.74	+0.17	+0.45
Hn-2a	Dola, Hardin Co.	Dolomite	6.19	+0.24	0	-0.24
Po-1	Windham, Portage Co.	Sandstone	18.73	+0.93	-0.06	-1.20
Tu-1	Strasburg, Tuscarawas Co.	Gravel	13.31	-2.15	-0.39	-1.71

GROUND WATER levels during April showed mixed responses throughout the state. Generally, aquifers in southern Ohio rose while aquifers in northern Ohio declined. April is a time when levels are normally rising in all aquifers across the state. Even in most aquifers showing improvement, net changes from the March levels were less than usually observed during April.

Overall, current levels are lower than they were a year ago across most of the state. However, ground water levels continue to be above normal in most consolidated aquifers throughout Ohio, while levels remain below normal in unconsolidated aquifers statewide. The greatest departures from normal exist in the unconsolidated aquifers of northern and eastern Ohio, reflecting the below normal precipitation this area of the state has received in the past 2 or 3 months.

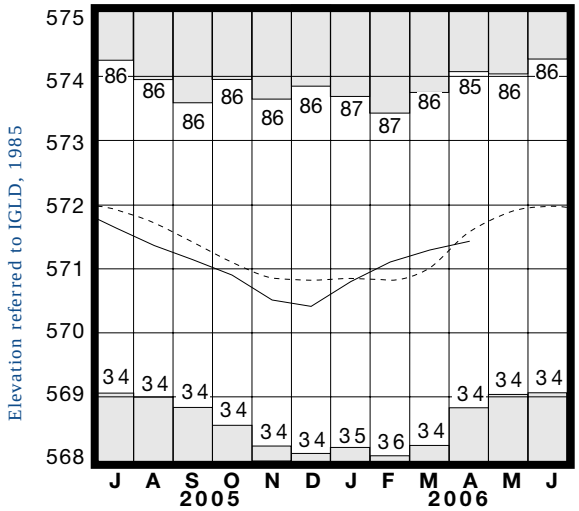
Ground water supplies remain adequate throughout Ohio. Although the end of the 2006 water year recharge season is approaching, with near-normal precipitation and other climatic conditions during the next month or so, some improvement in ground water storage can still occur. The Ohio Agricultural Statistics Service reports that at the end of April, soil moisture was rated as being short or very short in 10 percent of the state, adequate in 78 percent of the state and surplus in 12 percent of the state.

LAKE ERIE level rose during April. The mean level was 571.42 feet (IGLD-1985), 0.13 foot higher than last month's mean level and 0.17 foot below normal. This month's mean level is 0.73 foot lower than the April 2005 level and 2.22 feet above Low Water Datum.

The U.S. Army Corps of Engineers (USACE) reports that precipitation in the Lake Erie basin during April was 2.72 inches, 0.44 inch below normal. For the entire Great Lakes basin, April precipitation averaged 2.11 inches, 0.41 inch below normal. For calendar year 2006 through April, the Lake Erie basin has averaged 10.79 inches, 0.33 inch above normal, while the entire Great Lakes basin has averaged 8.85 inches, 0.19 inch above normal.

In addition, the USACE reports that based on the current condition of the Great Lakes basin and anticipated weather conditions, the level of 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 near-normal to as much as 14 inches below the normal seasonal average.

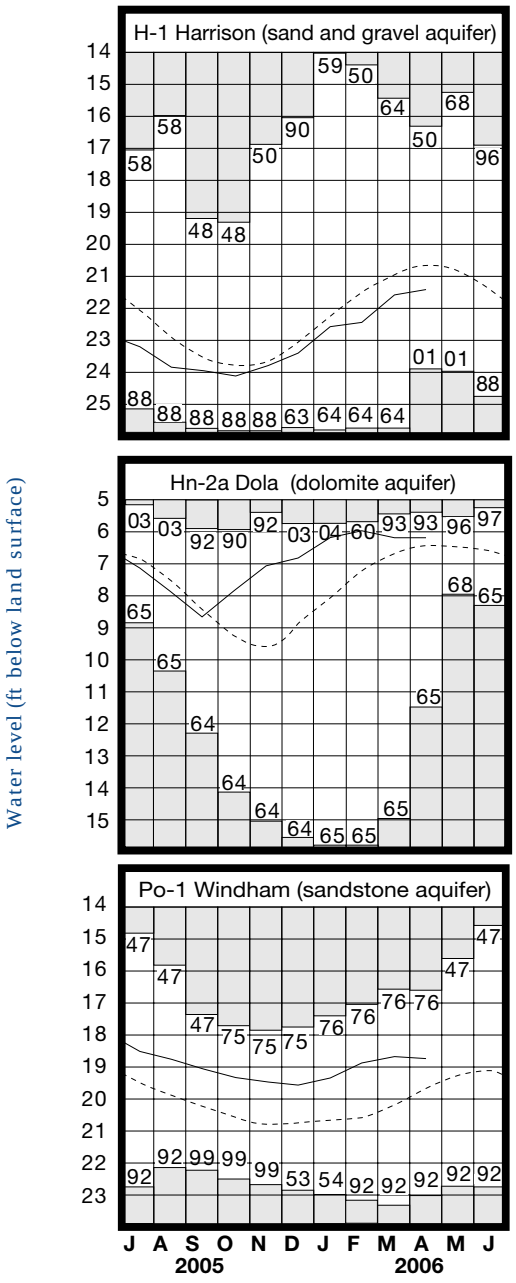
LAKE ERIE LEVELS



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 April was generally above normal in southern Ohio and below normal in northern Ohio. Streamflow was below normal statewide. Reservoir storage increased in the Mahoning River basin and decreased in the Scioto River basin. Storage was below normal in both basins. Ground water levels generally rose in southern Ohio and declined in northern Ohio. Lake Erie mean level rose 0.13 foot and was 0.17 foot below the long-term April average.

NOTES AND COMMENTS

WMAO 2006 Fall Conference Call For Abstracts

The Water Management Association of Ohio (WMAO) is seeking abstracts for presentations at its 35th Annual Fall Conference. Abstracts should address the interactions among water resources and integrated water-resources management. Presentations can be either as a 20-minute oral presentation or as a poster presentation. Presentation topics should address the following issues: Hydrology and Watershed Management; Monitoring and Assessment of Water Resources; or Policy and Administration Issues Related to Water Management. Abstracts should be 300 words or fewer. Members of WMAO's Conference Planning Committee will review all abstracts and will inform the chosen authors by September. Abstracts will be selected for presentation based on their merit and relevance to the conference theme and session topics. Deadline for submission of abstracts is July 21, 2006. Any abstracts received after this deadline may not be accepted. Please mail abstracts to: 2006 WMAO Fall Conference, Abstract Submission, 601 Dempsey Road, Westerville, Ohio 43081 or e-mail to: wmao@ngwa.org. Please include "2006 Fall Conference—Abstract" in the subject line. Please visit www.wmao.org/pdf/2006WMAOCallforAbstracts.pdf for more information.

The 2006 WMAO Fall Conference will be held on November 15 and 16 at the Midwest Hotel and Conference Center located at 4900 Sinclair Road in Columbus, Ohio. The theme of this year's fall conference is "Go With The Flow".

Legislation Introduced To Protect Future Of Great Lakes Basin

Recognizing a growing concern over diversion of water out of the Great Lakes, water use and demand in the Great Lakes basin, and the possible effects on the region's environment and economy, Ohio's State Senator Bob Spada (R-North Royalton) and State Representative Matthew Dolan (R-Novelty) on April 27, 2006 introduced concurrent legislation in the House and Senate that would ratify the Great Lakes-St. Lawrence River Basin Water Resources Compact in Ohio. Hearings will be held on the pending legislation in both the House and the Senate while in session during May and June.

The Great Lakes Charter Annex was signed by the Council of Great Lakes Governors (CGLG) in 2001, and was the initial agreement between the eight Great Lakes states leading to negotiations to update and strengthen the way in which the Great Lakes and the waters of the Great Lakes basin are managed, protected, conserved, restored and improved. On December 13, 2005, the governors and premiers of the Great Lakes states and provinces of Ontario and Quebec approved agreements to implement Annex 2001. One of these agreements was the Great Lakes-St. Lawrence River Basin Water Resources Compact. The compact is an effort by members of the Council of Great Lakes Governors and other interested parties to ban the diversion of Great Lakes water outside of the Great Lakes watershed with limited exceptions, to apply a common standard for management of the waters of the Great Lakes basin and to preserve the economic vitality in the region. To fully implement the compact, it must be ratified by all eight Great Lakes states and approved by Congress through legislative action. Once it has been ratified and approved by Congress, each state will be responsible for passing its own water conservation and efficiency program within a specific set of guidelines. To learn more about The Great Lakes Charter Annex or the pending legislation, please visit the Ohio Department of Natural Resources, Division of Water website at: www.dnr.state.oh.us/water/ or the Council of Great Lakes Governors website at: www.cglg.org.

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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