



MONTHLY WATER INVENTORY REPORT FOR OHIO

March 2008

<http://www.dnr.state.oh.us/water/pubs/newsltrs/mwirmain.htm>

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PRECIPITATION during March was noticeably above normal across most the state. The state average was 6.40 inches, 3.23 inches above normal. This ranks as the 4th wettest March for the state as a whole in 126 years of record. Regional averages ranged from 8.79 inches, 5.08 inches above normal, for the Southwest Region to 4.09 inches, 1.44 inches above normal, for the Northwest Region. This March ranked in the top 10 wettest of record for nine of the state's 10 climatic regions including: Northeast, 2nd wettest; North Central, 3rd wettest; and Central Hills, Northeast Hills and Southeast, 5th wettest. Cincinnati Fernbank (Hamilton County) reported the greatest amount of March precipitation, 11.88 inches. Several other stations in southwestern Ohio reported in excess of 10 inches for the month. Hicksville (Defiance County) reported the least amount, 2.59 inches.

Precipitation for March fell as both rain and snow. Mainly rain fell during March 3-5 across the state with most areas receiving 1-2 inches; lesser amounts fell in northwestern Ohio. A major winter storm impacted the state during March 7-8 with some areas reporting record amounts of snowfall. The greatest amounts of snow fell in a wide band from southwestern to northeastern Ohio where 10-20 inches was reported. Lesser amounts fell in northwestern and southeastern Ohio. Slowly moderating temperatures coupled with relatively dry conditions during the next 9 days allowed time for the snow to melt slowly. However, even light showers on March 14-15 combined with the melting snow were enough to bring several streams out of their banks. Heavier rain moved across the state during March 18-19 with most of the state receiving another 1-2 inches, and in some areas of southwestern Ohio, more than 4 inches was reported. An additional 0.50-2.0 inches of precipitation fell during March 26-28 with the greatest amount of rain falling in northern and southwestern Ohio. Snowfall for the month was above normal statewide. Chardon (Geauga County) reported the greatest amount of March snow, 39.5 inches. For the season, Chardon has received 124 inches, about 26 inches above normal.

Precipitation for the 2008 calendar year is above normal statewide. The average for the state is 13.74 inches, 5.74 inches above normal. Regional averages range from 15.53 inches, 6.25 inches above normal, for the Southwest Region to 11.77 inches, 5.24 inches above normal, for the Northwest Region.

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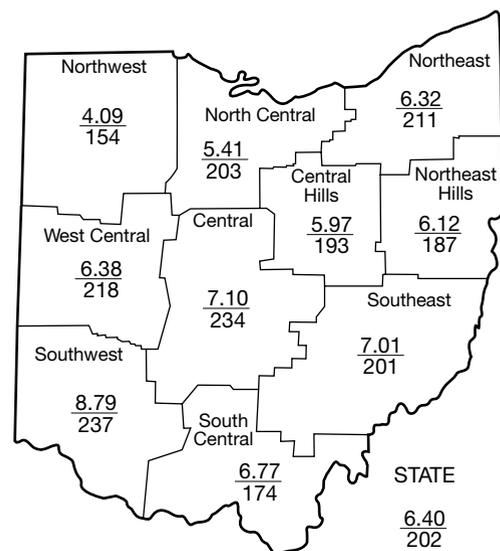
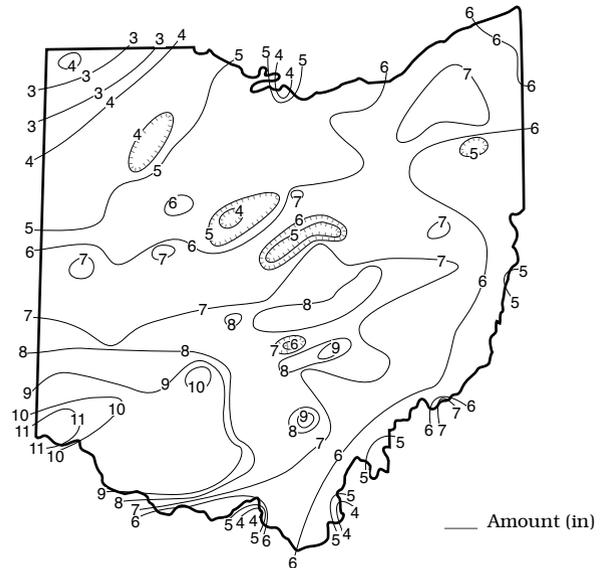
PRECIPITATION

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	+1.44	+5.24	+7.61	+10.68	+19.30	+5.5
North Central	+2.74	+6.73	+9.14	+11.10	+23.25	+6.6
Northeast	+3.33	+7.31	+10.92	+9.70	+23.34	+6.4
West Central	+3.45	+6.87	+9.16	+7.51	+20.99	+4.0
Central	+4.06	+5.45	+8.62	+5.55	+17.36	+3.7
Central Hills	+2.87	+5.27	+8.68	+7.79	+16.74	+4.6
Northeast Hills	+2.84	+5.29	+7.80	+7.89	+16.24	+3.8
Southwest	+5.08	+6.25	+10.22	+3.62	+12.67	+4.1
South Central	+2.88	+3.97	+8.30	+1.59	+6.26	+3.2
Southeast	+3.53	+5.01	+7.64	+2.77	+8.72	+3.6
State	+3.23	+5.74	+8.79	+6.79	+16.44	

*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 MARCH



Average (in)
Percent of normal

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	4,143	247	178	161	135
Great Miami River at Hamilton	3,630	20,850	408	242	205	139
Huron River at Milan	371	2,405	400	261	252	208
Killbuck Creek at Killbuck	464	2,173	243	181	169	127
Little Beaver Creek near East Liverpool	496	2,602	232	194	172	126
Maumee River at Waterville	6,330	20,990	214	206	203	161
Muskingum River at McConnelsville	7,422	33,220	213	234	222	107
Scioto River near Prospect	567	3,298	361	263	244	170
Scioto River at Higby	5,131	30,220	333	207	182	124
Stillwater River at Pleasant Hill	503	2,906	405	253	223	144

STREAMFLOW during March was above normal statewide. Flows during the month were greater than those observed during February and were high enough to be considered excessive throughout Ohio. Preliminary data indicates that flows throughout much of the state were at record or near-record high March flows, perhaps exceeded only by the March 1913 flows in some cases. As an example, 8 of the 10 gauging stations published in this report established new high flows for March for their respective periods of record.

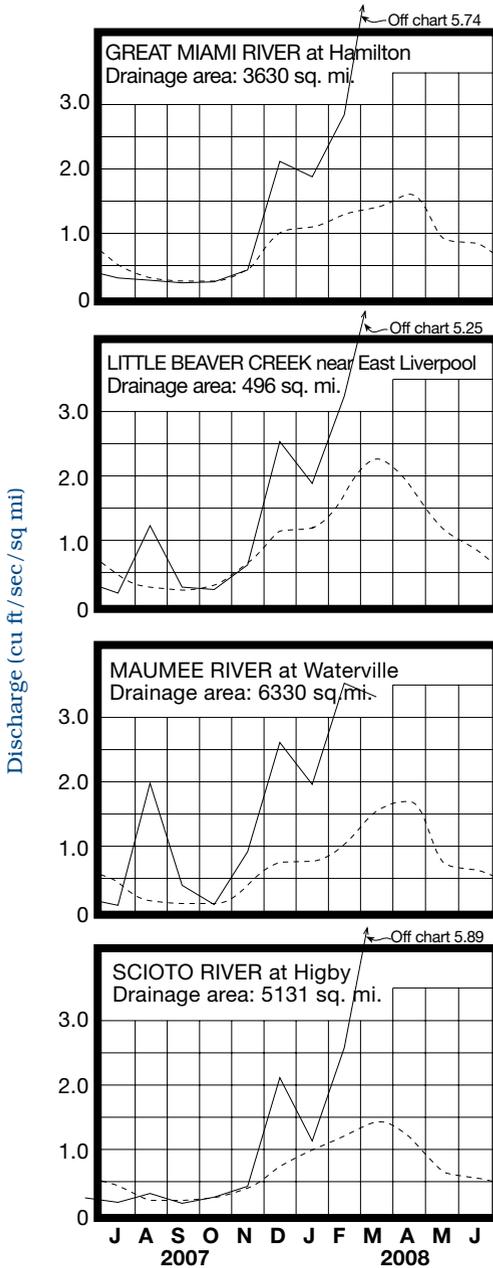
Flows at the beginning of the month were generally below normal in northern Ohio and above normal in southern Ohio. Lowest flows for the month occurred at the beginning of the month across the state. Flows increased rapidly due to the rain that fell during March 3-5. Across the central one-third of the state greatest flows for the month occurred during

March 5-6. Flows declined from these peaks for the next week, but began to rise again as the snow that covered much of the state began to slowly melt. Flows then increased rapidly as heavy rain fell across most of the state. Greatest flows for the month across both northern and southern Ohio occurred following this precipitation on either March 19 or 20. Flooding occurred across several areas of the state. Flows declined from these peaks during the following week but increased late in the month as more precipitation fell across Ohio. At the end of the month, streamflow remained above normal statewide with most flows being excessive.

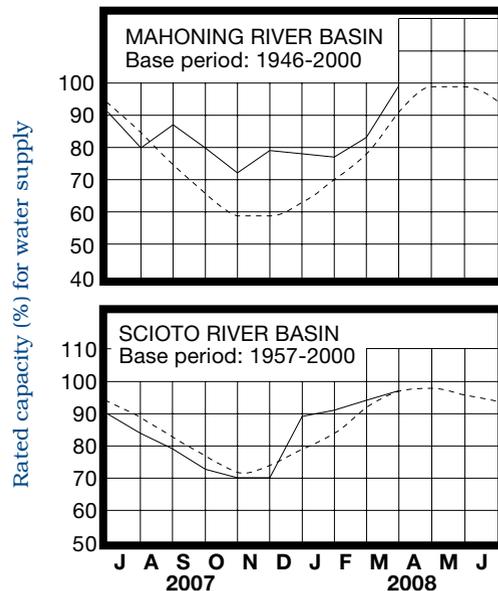
RESERVOIR STORAGE during March increased in both the Mahoning and Scioto river basins. At the end of March, surface water supplies were near or above normal throughout the state.

Reservoir storage at the end of March in the Mahoning basin index reservoirs was 99 percent of rated capacity for water supply compared with 83 percent for last month and 97 percent for March 2007. Month-end storage in the Scioto basin index reservoirs was 97 percent of rated capacity for water supply compared with 94 percent for last month and 100 percent for March 2007. Reservoir storage across the state remains in excellent condition as far as water supplies are concerned.

MEAN STREAM DISCHARGE



RESERVOIR STORAGE FOR WATER SUPPLY



Normal - - - - Current ———

GROUND WATER levels during March rose throughout the state. Net rises from last month's levels ranged from nearly average to about 3 times that usually observed. Generally, levels in most aquifers rose throughout the month. A few shallower aquifers were beginning to decline at the end of the month.

The above normal precipitation during the first 6 months of the 2008 water year has been beneficial for ground water supplies. As a result, ground water supplies continue to maintain a favorable position throughout the state. Ground water levels are above normal across most of Ohio and current levels are higher than they were a year ago in nearly all aquifers. With near-normal precipitation and other climatic conditions during the next several months, ground water supplies should remain in a favorable position throughout this period.

Note: In the Ground Water Levels table on page 3 of the February 2008 issue of this report, the Departure From Normal for observation well PO-1 was incorrect. The correct number is +4.03, not +0.03 as was printed in the report. The online version of this report has been updated to reflect this correction.

LAKE ERIE level rose during March. The mean level was 571.75 feet (IGLD-1985), 0.56 foot higher than last month's mean level and 0.65 foot above normal. This month's mean level is the same as the March 2007 level and 2.55 feet above Low Water Datum.

The U.S. Army Corps of Engineers (USACE) reports that precipitation in the Lake Erie basin during March averaged 4.19 inches, 1.43 inches above normal. For the entire Great Lakes basin, March precipitation averaged 2.40 inches, 0.23 inch above normal. For calendar year 2008 through March, the Lake Erie basin has averaged 11.94 inches, 4.64 inches above normal, while the entire Great Lakes basin has averaged 7.78 inches, 1.64 inches above normal.

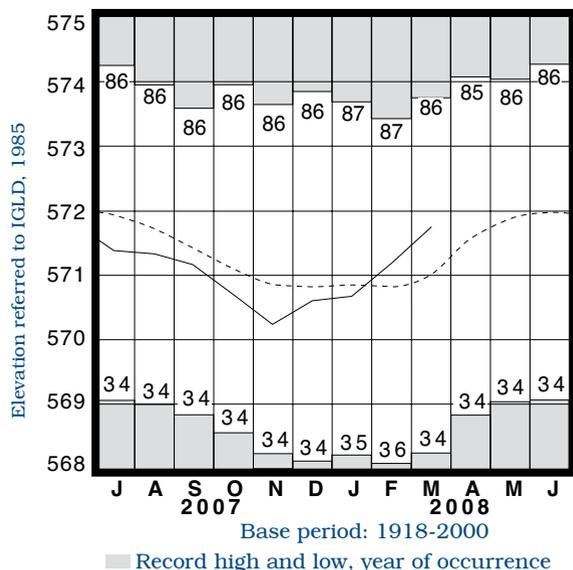
In addition, the USACE reports that based on the current condition of the Great Lakes basin and anticipated weather conditions, the level of Lake Erie is expected to remain above normal for the next couple of months, then fall to below normal during late spring or early summer. Deviations from the anticipated weather patterns could result in the level of Lake Erie ranging from 9 inches above normal to as much as 14 inches below the normal seasonal average.

GROUND-WATER LEVELS

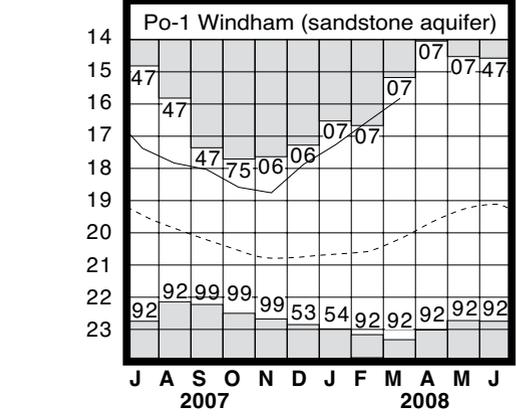
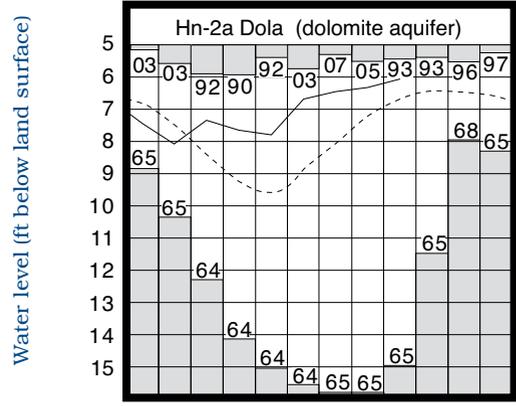
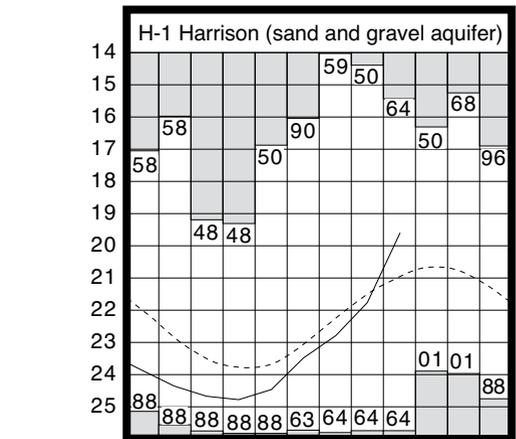
Based on daily lowest level in feet below land-surface datum

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	9.32	+4.00	+2.37	+0.56
Fa-1	Jasper Mill, Fayette Co.	Limestone	7.55	-0.63	+0.81	+0.30
Fr-10	Columbus, Franklin Co.	Gravel	43.13	-0.60	+0.79	-0.49
H-1	Harrison, Hamilton Co.	Gravel	19.60	+1.34	+2.17	+1.02
Hn-2a	Dola, Hardin Co.	Dolomite	6.07	+0.63	+0.25	+0.17
Po-1	Windham, Portage Co.	Sandstone	15.81	+4.38	+0.74	+0.50
Tu-1	Strasburg, Tuscarawas Co.	Gravel	9.44	+2.23	+2.44	+1.95

LAKE ERIE LEVELS



GROUND-WATER LEVELS



Base periods: H-1, 1951-2000. Hn-2a, 1955-2000. Po-1, 1947-2000

(Precipitation continued from front)

Precipitation for the first half of the 2008 water year is also above normal statewide. The average for the state is 25.00 inches, 8.79 inches above normal. Regional averages range from 28.36 inches, 10.22 inches above normal, for the Southwest Region to 21.73 inches, 7.61 inches above normal, for the Northwest Region (see Precipitation table, departure from normal, past 6 months column).

Precipitation has been above normal in 5 of the past 6 months and the cumulative amounts are noteworthy. The state average of 25.00 inches ranks as the wettest October-March period for the state as a whole and regionally, all 10 of the state's climatic regions ranked in the top 5 wettest October-March periods including 6 that ranked as the wettest. The above normal precipitation has been beneficial to Ohio's water supplies. However, it has also resulted in numerous episodes of flooding across many areas of the state, resulting in loss of life and significant property damage. For the third month in a row, flooding has impacted several areas of the state, including some of the same areas that were devastated by the August 2007 floods.

SUMMARY

Precipitation during March was noticeably above normal across most of Ohio. Streamflow was above normal and high enough to be considered excessive statewide. Reservoir storage increased in both the Mahoning and Scioto river basins. Ground water levels rose statewide and were above normal in most aquifers. Lake Erie level rose 0.56 foot and was 0.65 foot above the long-term March average.

NOTES AND COMMENTS

Update On Great Lakes-St. Lawrence River Basin Water Resources Compact Legislation

Legislation for the Great Lakes - St. Lawrence River Basin Water Resources Compact (Compact) is currently being heard in the Senate Environment and Natural Resources Committee. There are two different Compact legislation bills under review: House Bill 416 and Senate Bill 291. House Bill 416 passed through the House and is now being considered in the Senate Committee along with Senate Bill 291, which has not yet been voted on. To date, 4 states (MN, IL, IN, and NY) have passed legislation ratifying the Compact and the other 4 states (PA, MI, WI, and OH) have active bills.

For background, 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 CGLG 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. Legislation was introduced in 2006 during the 126th General Assembly and it passed through the House, but the session time ran out before the Senate could devote the time needed to address concerns it had with the legislation. House Bill 416 and Senate Bill 291 are the current bills under consideration in this 127th General Assembly.

To learn more about The Great Lakes Charter Annex or the pending legislation, please visit 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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