



MONTHLY WATER INVENTORY REPORT FOR OHIO

January 2013

<http://www.ohiodnr.gov/tabid/4191/Default.aspx>

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Water Inventory Unit

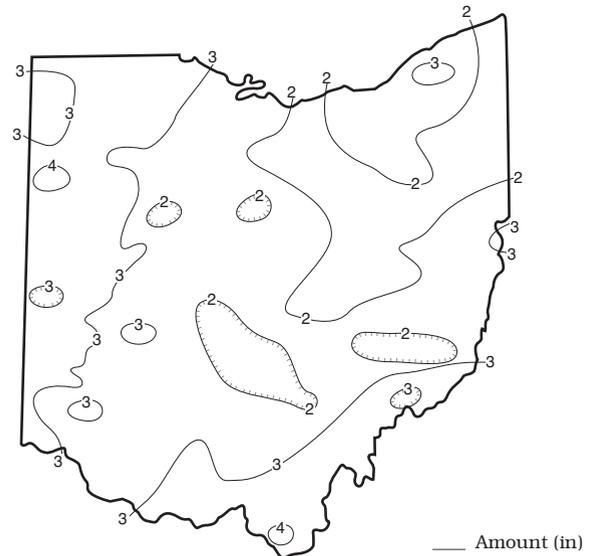
PRECIPITATION during January was generally above normal in western and extreme southeastern Ohio, and below normal in eastern Ohio. The average for the state was 2.55 inches, 0.01 inch below normal. Regional averages ranged from 3.34 inches, 1.30 inches above normal, for the Northwest Region to 1.98 inches, 0.52 inch below normal, for the Central Hills Region. Van Wert (Van Wert County) reported the greatest amount of January precipitation, 4.53 inches. Southpoint (Lawrence County) reported 4.43 inches for the month. Pymatuning Reservoir (Ashtabula County) reported the least amount, 1.15 inches.

Precipitation during January generally fell as rain during the first half of the month and as both rain and snow during the second half. Snowfall for the month was below normal throughout most of the state. The first ten days of the month were rather dry with just a few light showers reported. Widespread precipitation fell across Ohio during January 11-13. Generally, 1-2 inches of rain fell across western Ohio and 0.50-1.0 inch fell across eastern Ohio. The next 11 days were dry with just some light snow showers reported. The only significant precipitation during this period fell across southeastern Ohio on January 15-16 with 0.50-1.0 inch reported. The last week of January was wet throughout the entire state with most of Ohio receiving at least 1 inch of precipitation.

Precipitation for the 2013 water year is above normal throughout most of the state with only the Southwest Region having slightly below normal precipitation. The state average is 12.45 inches, 1.26 inches above normal. Regional averages range from 15.21 inches, 3.03 inches above normal, for the Northeast Region to 10.10 inches, 0.21 inch above normal, for the Northwest Region.

The 2013 calendar year is off to an adequate start as far as precipitation is concerned across most of the state. However, much of eastern Ohio started the year with below normal precipitation. Near-normal precipitation during the next several months will be beneficial in helping replenish the state's water resources.

PRECIPITATION JANUARY

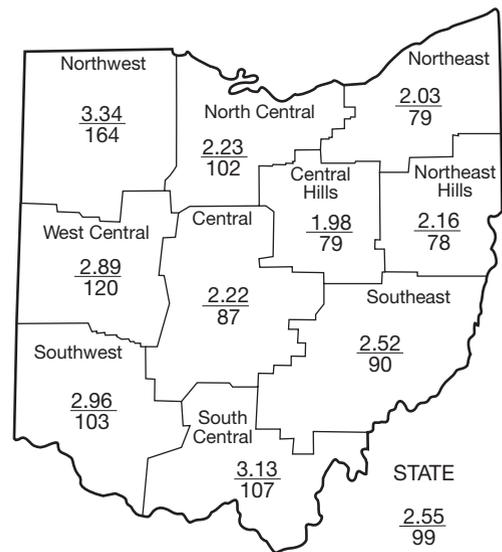


PRECIPITATION

Region	DEPARTURE FROM NORMAL (IN.) Base period 1961-2010					Palmer Drought Severity Index*
	This Month	Past				
		3 Mos.	6 Mos.	12 Mos.	24 Mos.	
Northwest	+1.30	-0.66	+2.68	-4.04	+14.65	+0.3
North Central	+0.05	-1.89	+5.10	+1.43	+22.68	+3.9
Northeast	-0.53	-1.24	+4.90	+0.30	+23.49	+3.2
West Central	+0.48	-0.66	+3.26	-3.88	+16.20	+1.6
Central	-0.32	-0.67	+1.62	-3.63	+15.69	+1.0
Central Hills	-0.52	-1.30	+2.52	-2.49	+14.58	+2.0
Northeast Hills	-0.60	-1.15	+1.43	-4.24	+12.99	+0.9
Southwest	+0.10	-0.99	-0.36	-7.11	+14.89	+0.0
South Central	+0.21	+1.23	+2.01	-1.07	+18.58	+1.5
Southeast	-0.29	+0.24	+2.51	-1.66	+16.00	+1.8
State	-0.01	-0.71	+2.57	-2.64	+16.97	+1.8

*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



Average (in)
Percent of normal

MEAN STREAM DISCHARGE

This Month

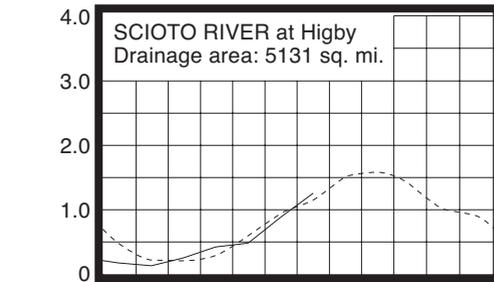
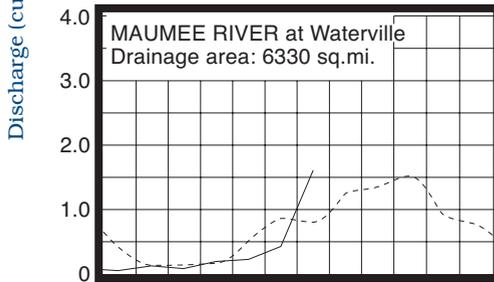
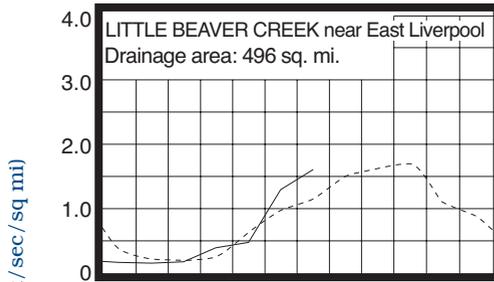
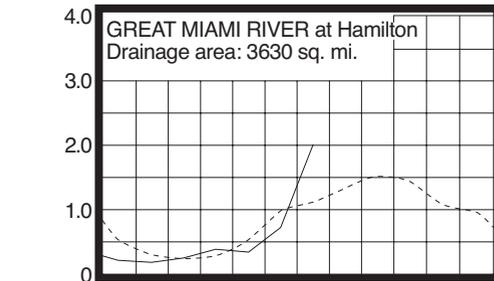
River and Location	Drainage Area (Sq. Mi.)	Mean Discharge (CFS)	% of Normal	% of Normal Past		
				3 Mos.	6 Mos.	12 Mos.
Grand River near Painesville	685	1,712	133	103	108	76
Great Miami River at Hamilton	3,630	7,295	180	93	85	70
Huron River at Milan	371	749	158	115	144	98
Killbuck Creek at Killbuck	464	631	125	107	93	70
Little Beaver Creek near East Liverpool	496	797	140	97	83	60
Maumee River at Waterville	6,330	10,230	203	78	69	55
Muskingum River at McConnellsville	7,422	9,809	119	95	79	64
Scioto River near Prospect	567	1,357	302	140	158	99
Scioto River at Higby	5,131	6,469	109	83	79	69
Stillwater River at Pleasant Hill	503	1,400	320	122	114	64

STREAMFLOW during January was above normal statewide. Flows were high enough to be considered excessive in some basins, mostly in the western half of the state. Flows during January were higher than the December flows throughout nearly all of Ohio.

Flows at the beginning of the month were below normal statewide. Some drainage basins, mainly in western Ohio, recorded their lowest flows for the month during the first eight days of January. Most other drainage basins reached their lowest flows between January 23 and 27. Widespread precipitation during January 11-13 and melting snow increased streamflows. Greatest flows for January were recorded during January 12-15 throughout most of the state. Minor flooding was observed in some areas of northwestern Ohio. A few

basins in northeastern Ohio recorded their greatest January flow at the end of the month. Streamflow at the end of January was above normal statewide and excessive in many drainage basins.

MEAN STREAM DISCHARGE

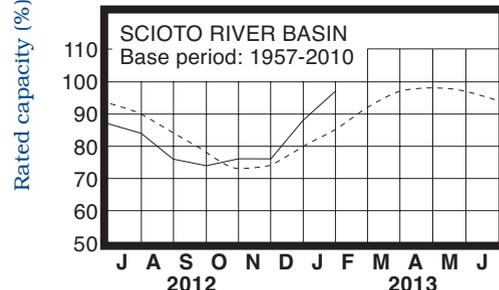
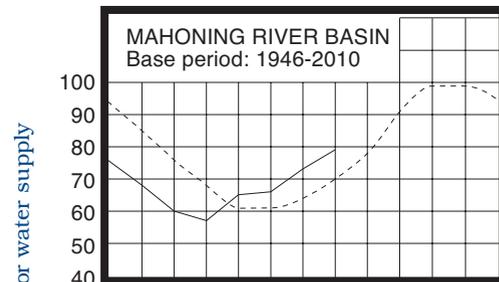


Base period for all streams: 1981-2010

RESERVOIR STORAGE for water supply during January increased in both the Mahoning and Scioto river basins. Storage remained above normal in both basins.

Reservoir storage at the end of January in the Mahoning basin index reservoirs was 79 percent of rated capacity for water supply compared with 73 percent for last month and 74 percent for January 2012. Month-end storage in the Scioto basin index reservoirs was 97 percent of rated capacity for water supply compared with 88 percent for both last month and January 2012.

RESERVOIR STORAGE FOR WATER SUPPLY



Normal - - - - Current ———

GROUND-WATER LEVELS

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

GROUND WATER levels during January rose throughout the state. Net changes from December's levels were greater than usually observed in most aquifers.

Ground water levels rose steadily throughout the month in most aquifers, although levels in a few unconsolidated aquifers were rather stable during the first week, and then began to rise for the remainder of January. Current ground water levels continue to remain lower than they were a year ago ranging from 0.5 foot to 6.5 feet below the January 2012 levels. Ground water storage also continues to remain at below normal levels in most aquifers, but is above normal in some consolidated aquifers in northwestern and southeastern Ohio. Observation well FA-1 near Washington Court House (Fayette County) representing limestone aquifers in south-central and southwestern Ohio, reached a record low-level for January. However, this record was established early in the month, and water levels improved during the remainder of the month. Even though ground water levels remain below normal across most of the state, ground water storage is at adequate levels throughout Ohio. However, near-normal precipitation during the next several months will be needed to provide sustained improvement in ground water storage during the remainder of the 2013 recharge period.

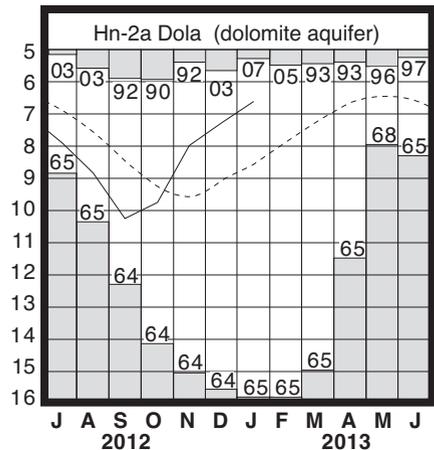
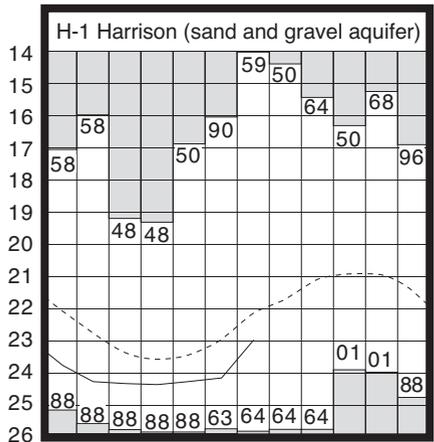
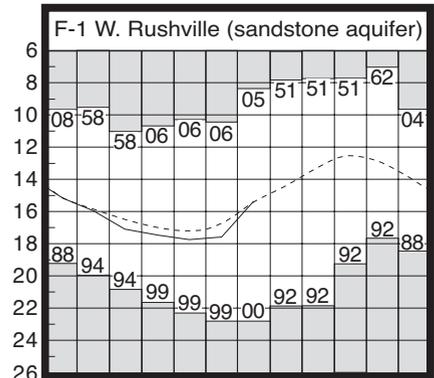
LAKE ERIE level during January was unchanged from the December level. The mean level was 570.28 feet (IGLD-1985), the same as last month and 0.55 foot below normal. This month's mean level is 1.83 feet lower than the January 2012 level and 1.08 feet above Low Water Datum.

The U.S. Army Corps of Engineers (USACE) reports that precipitation in the Lake Erie basin during January averaged 3.08 inches, 0.58 inch above normal. For the entire Great Lakes basin, January precipitation averaged 2.78 inches, 0.57 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 18 inches below the normal seasonal level.

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	15.34	+0.15	+2.23	-4.70
Fa-1	Jasper Mill, Fayette Co.	Limestone	13.97	-5.99	+1.45	-6.53
Fr-10	Columbus, Franklin Co.	Gravel	44.15	-0.19	+0.40	-1.74
H-1	Harrison, Hamilton Co.	Gravel	22.98	-0.86	+1.17	-2.27
Hn-2a	Dola, Hardin Co.	Dolomite	6.61	+1.96	+0.68	-0.39
Po-124	Freedom, Portage Co.	Sandstone	77.31	-0.49	+0.02	-1.51
Tu-1	Strasburg, Tuscarawas Co.	Gravel	14.12	-0.94	+0.72	-2.44

GROUND-WATER LEVELS

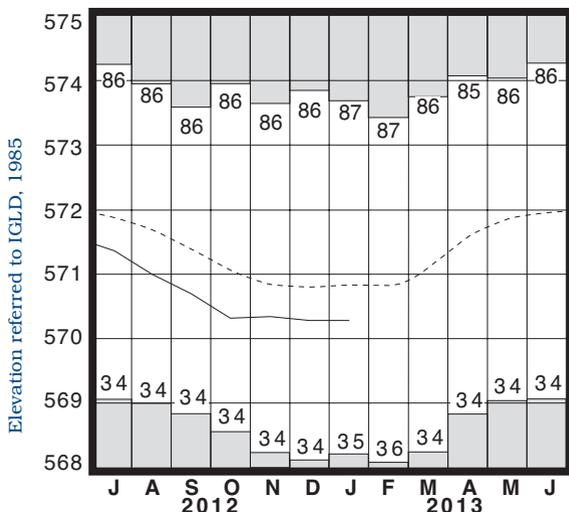


Water level (ft below land surface)

Base periods: F-1, 1947-2010; H-1 1951-2010.

Hn-2a, 1955-2010 ■ Record high and low, year of occurrence

LAKE ERIE LEVELS



Base period: 1918-2010

■ Record high and low, year of occurrence

Normal - - - - Current ———

SUMMARY

Precipitation during January was above normal in western and extreme southeastern Ohio, and below normal in eastern Ohio. Streamflow was above normal statewide and high enough to be considered excessive in some basins in the western half of the state. Reservoir storage increased and remained above normal in both the Mahoning and Scioto river basins. Ground water levels rose statewide, but remained below normal across most of Ohio. Lake Erie level was unchanged from the December level and was 0.55 foot below the long-term January average.

NOTES AND COMMENTS

Severe Weather Awareness Week

Governor John Kasich has designated the week of March 3-9, 2013 as Ohio's Spring Severe Weather Awareness Week. This year's safety campaign coincides with the Federal Emergency Management Agency's (FEMA) and NOAA's National Severe Weather Preparedness Week. The goal is to better educate people about the hazards of severe weather and to encourage people to have a plan in the event severe weather should occur. Each year the Ohio Committee for Severe Weather Awareness (OCSWA) sponsors two awareness weeks to draw attention to the need to prepare for severe weather. The OCSWA consists of representatives from the National Weather Service, American Red Cross, Emergency Management Association of Ohio, Ohio Citizens Corps, State Fire Marshal's office, Ohio Emergency Management Agency, Ohio Departments of Aging, Education, Health, Mental Health, Insurance, Natural Resources, and Transportation, and the Ohio Insurance Institute. A statewide tornado drill will be conducted on March 6 at 9:50 am. Communities and individuals should use this time to think about what course of action they would take in the event if severe weather was to affect them and their property.

National Ground Water Awareness Week

The week of March 10-16, 2013 is National Ground Water Awareness Week. During this week, Ohioans are urged to learn more about the state's ground water resources, from wise use to protection. The ODNR, Division of Soil and Water Resources, Water Resources Section collects, researches, interprets and disseminates information on 140 ground water observation wells located across the state; produces several types of ground water maps, addressing various aspects of ground water resources in the state including availability, pollution potential and horizontal direction of ground water flow; and collects water use data on all facilities that have the capacity to withdraw over 100,000 gallons of water per day. To learn more about these and other programs at the Division of Soil and Water, please visit their website at: <http://www.ohiodnr.gov/soilandwater/>.

ACKNOWLEDGMENTS

This report has been compiled from Division 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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