April 25, 2024

The state of Indiana received below normal precipitation in much of the state over the week of April 19-25, 2024. Much of Indiana received 0.5-1.00" of rainfall. The north central and southwestern portions of the state received 1.00-2.00" of rainfall.

Mean temperatures for the week were below normal throughout the state. Mean temperatures ranged from 44.3°F in northwest Indiana to 56.2°F in southwest Indiana. Departure from normal temperature ranged from -10.3°F to 4.2°F.

4" soil water content from the Purdue Mesonet Data Hub on April 25, 2024, indicates a range of 7.2% (very sandy soil) to 43.2% available water with a statewide average of 32.2%.

Soil moisture data from the NASA SPORT Real-time 3km Land Information System ranges from 55% to 75% available water in the 0-100cm soil depth.

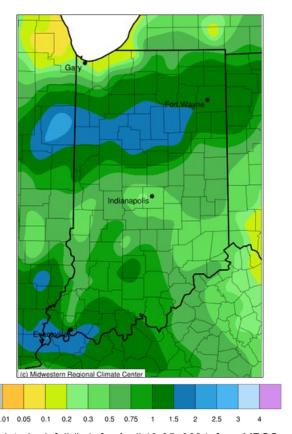


Figure 1. Accumulated rainfall (in.) for April 19-25, 2024, from MRCC.

USDM for the State of Indiana

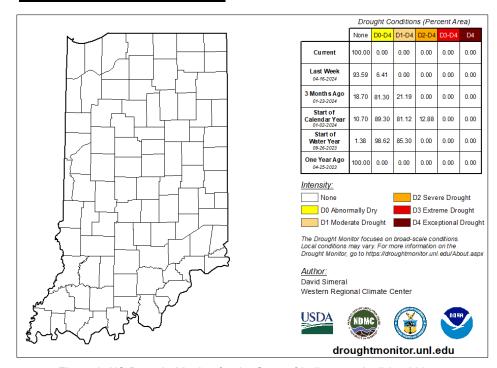


Figure 2. US Drought Monitor for the State of Indiana on April 25, 2024.

For April 25, 2024, the USDM indicates that the entire state has no drought conditions.

Reservoir Levels as of April 25, 2024

Table 1. Reservoirs managed by United States Army Corp of Engineers.

Reservoir	Brookville	Cecil Harden	Cagles Mill	Monroe	Patoka	JE Roush	Salamonie	Mississinewa
Winter Pool ¹	740.0	640.0	636.0	538.0	532.0	737.0	730.0	712.0
Summer Pool ¹	748.0	662.0	639.5	538.0	536.0	749.0	755.0	737.0
Current Pool ¹	748.7	664.0	659.8	543.7	533.2	749.95	756.32	737.50
% Utilization ²	4.82	9.65	21.77	26.02	1.58	2.8	7.8	5.6

Table 2. Reservoirs managed by Citizens Energy Group* and NIPSCO**.

Reservoir	Eagle Creek ^{3*}	Geist³*	Morse ^{3*}	Lake Freeman ⁴ **	Lake Schafer ^{4**}
Normal Pool	790	784.26	809.44	610.35	645.15
Current Pool	790.74	784.58	809.81	610.34	645.13
% Utilization ²	98.6%				

¹All units in feet and datum NGVD29

Groundwater Monitoring Network as of April 25, 2024

Groundwater wells across the state are generally reporting below normal but range from low to high. Data is reported from the U.S. Geological Survey Ohio-Kentucky-Indiana Water Science Center.

Table 3. Groundwater level rankings relative to normal.

rable 3. Groundwater lever rankings relative to normal.						
Low <5%	Much Below 5-10%	Below 10-25%				
Hamilton 7	Bartholomew 4	Benton 4				
Jasper 13	Parke 6	Boone 17				
Knox 8	Randolph 3	Harrison 8				
Vanderburgh 7	Wells 4	Martin 5				
Valider burgir 7	Wells 4	Morgan 4				
		Newton 8				
		Noble 8				
		Pulaski 7				
		Tippecanoe 18				
Near Normal						
	25-75%					
Cass 3	Jefferson 5	Posey 3				
Clark 20	Knox 7	Shelby 2				
Decatur 2	LaGrange 2	Vigo 7				
Elkhart 4	La Porte 9	Wayne 6				
Fulton 7	Marion 35					
Grant 8	Marion 39					
Above	Much Above	High				
75-90%	90-95%	>95%				
Delaware 4		Whitley 3				
Grant 10	None					
Lake 13						

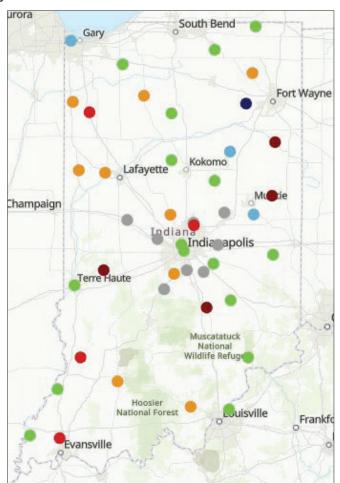


Figure 3. Map of USGS real-time groundwater monitoring wells.

²Percent of designed flood storage utilized. The other named reservoirs are not designed for flood storage.

³All units in feet and datum NAVD88.

⁴All units in feet Local Datum.

Streamflow Conditions as of April 25, 2024

Streamflow conditions are below normal to above normal across the state. There are 104 gages reporting normal, 23 reporting above normal, and 22 reporting below normal, for the date. There is 1 reporting much below normal, 3 reporting an all-time low for the date, 0 reporting much above normal, and 1 reporting an all-time high for the date.

Currently, 36% of stream gages indicate steady flow conditions; 13% are increasing and 49% are decreasing.

Average observed streamflow at real-time USGS observing sites over the past 7-days ending April 25, 2024, averaged 0% reporting an all-time low, 0% much below normal, 3% below normal, 82% near normal, 13% above normal, 3% much above normal, and 0% reporting an all-time high.

USGS and NWS reports 8 gages in "action stage" and 1 in "minor flood stage". The NWS 4-Day Maximum Flood category forecasts 10 gages with "near flood stage and 5 gages with "minor flood stage".

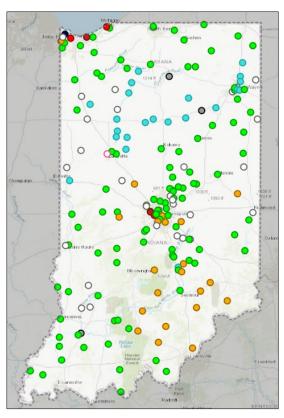


Figure 4. Map of USGS streamflow gages for Indiana.

NOAA 7-Day Quantitative Precipitation Forecast

For April 25, 2024, the 7-Day Quantitative Precipitation Forecast valid for April 25-May 2, 2024, predicts 0.50" in the southeast increasing to 1.50" of precipitation in the northwestern corner of the state. Precipitation is expected throughout the week.

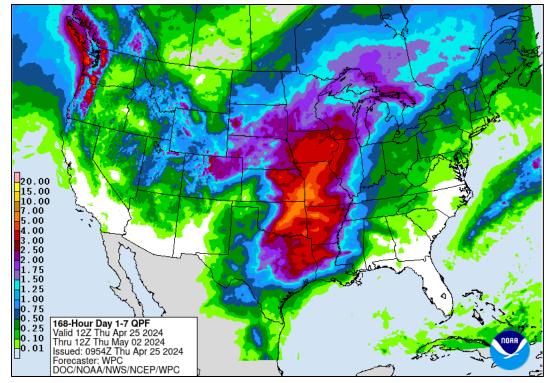
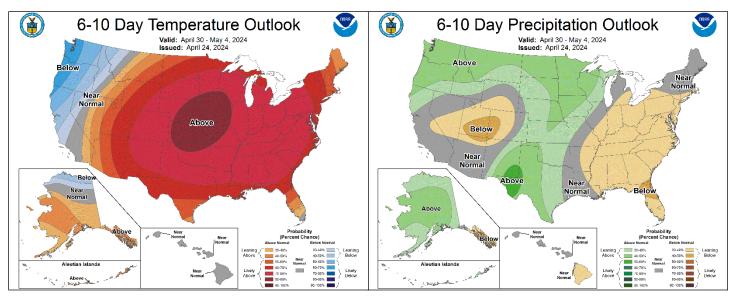


Figure 5. NOAA 7-Day Quantitative Precipitation Forecast, - April 25-May 2, 2024.

NOAA National Weather Service 6-10 Day Outlook

The 6-10 Day Temperature Outlook for April 30-May 4, 2024, projects above normal temperatures for the state. The Precipitation Outlook projects a 33-40% chance of below normal precipitation for most of the state and near normal conditions in the northwestern corner of the state.



Figures 6-7. 6-10 Day Temperature and Precipitation Outlook for the US

Acknowledgments:

Prepared by DNR-Division of Water, Resource Assessment with data from the following organizations:

Temperature and precipitation data:

<u>Midwestern Regional Climate Center</u> <u>CoCoRaHS Mapping System</u>

Soil data:

NASA, Short-term Prediction Research and Transition Center

Purdue Mesonet Data Hub

Reservoir data:

US Army Corp of Engineers, Louisville District
US Army Corp of Engineers, Chicago District
Citizens Reservoirs at NWS River Observations
NIPSCO Hydro Plant Lakes

Groundwater data:

U.S. Geological Survey Ohio-Kentucky-Indiana Water Science Center

Streamflow data:

USGS National Water Dashboard

NWS River Forecasts

USGS WaterWatch

Drought data:

US Drought Monitor

Forecast:

National Weather Service, Climate Prediction Center National Weather Service, Weather Prediction Center