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Indiana State Climate Office
Monthly Weather Report
http://www.iclimate.org

Mar 3, 2008

February 2008 Climate Summary

Summary

Cold and wet. Wet and cold. That pretty much sums up February. Unfortunately for climatologists this was not the expected pattern. Wet, yes. Cold, no. With La Niña in the Pacific temperatures were expected to remain warm, as they were in January. Apparently not during this La Niña.

The statewide average precipitation total for February 2008 is 4.79 inches, which is 2.29 inches above normal (210%). February 2008 ranks as the 5th wettest February in recorded history (dating back to 1895). All climate divisions received at least 4.30 inches of rain and at least 165% of the normal. In terms of deviation from normal, the Northwest was the wettest receiving 258% of the normal precipitation (4.40 inches). That's a lot. As a result, flooding was a recurring theme.

A statewide average temperature of 27.7°F is good enough to rank February 2008 as the 36th coolest February in the last 114 years (27.7 ties February 2008 with February 1908). Each climate division was at least 1.1°F below normal. Once again, the Northwest saw the biggest deviation and was 4.3°F below the normal of 28.0°F.

February 1st – 7th

The first strong disturbance of the month entered on the first. Temperatures decreased as the system progressed across the state. Northern and western counties received mostly snow with a few scattered periods of sleet and freezing rain. Central counties experienced primarily slushy conditions, with an intermittent mix of sleet, freezing rain, and snow showers. Areas in the southeast received rain. Fort Wayne set a daily snowfall record of 3.9 inches. The previous record of 3.2 inches was set in 1966. The largest snow accumulations occurred in Newton, Lake, and Porter counties, which reported close to 6 inches on the 1st. A few scattered snow showers lingered on the 2nd in central and northern counties. Accumulations were no bigger than 1 inch. Temperatures began to warm on the 2nd and continued to do so through the 5th. Temperatures rose into the 40's and 50's during this period. The extreme southern portions of Posey, Vanderburgh, Warrick, Spencer, and Perry counties even reached the 60's. The largest spike came on the 4th when a warm front pushed its way through the state ahead of a strong system that would bring heavy rain and severe thunderstorms to the Mid-West. All of Indiana received at least an inch of rain over the 4th and the 5th. The heaviest rain and severe

storms impacted the state late on the 4th and early on the 5th. The storms were associated with high winds, hail, and tornadoes across the Mid-West. Tennessee was hit the hardest.

In Indiana, the Storm Prediction Center reports that there was a possible tornado in the vicinity of Bainbridge in Putnam County in the early morning hours of the 5th. Other reports indicate strong winds in excess of 65 MPH across the state. Quarter size hail was reported in Crawford and Floyd counties. As a result of these severe storms, South Bend (0.77 inches), Fort Wayne (1.90 inches), and Indianapolis (1.83 inches) set daily rainfall records. Previous records were 0.77 inches in 1960, 0.96 inches in 1908, and 1.35 inches in 1976, respectively.

The tail of the strong front that passed on the 5th split off from the main system and brought another batch of moist conditions to the Mid-West. On the 6th Indiana received more heavy rains. Temperatures also began to fall throughout the day. This thirds system took its time to cross the state and left behind some lingering rain showers in eastern counties as well as some light snow showers in northern counties. Over half the state saw at least 2 inches of snow during the first week of February. The entire state received at least 2 inches of precipitation this week as well, with a peak in central and southwestern counties (at least 3 inches). These totals did not help the flooding situation.

February 8th – 14th

After temperatures decreased slightly on the 7th, they rebounded on the 8th and climbed into the low-40's for much of the state. Some northern counties experienced lake effect scattered snow showers on the 8th. Accumulations were less than an inch. A weak cold front entered the state early on the 9th but resulted in very little precipitation. The biggest effect was a sudden drop in temperatures. High temperatures were in the low- to mid-40's on the 8th but dropped into low-20's by the 10th. Besides the abnormally cold conditions on the 10th the state was relatively dry, save for a few northern counties impacted by weak lake effect snow storms. Temperatures would remain well below normal through Valentine's Day.

Moisture in advance of the next synoptic system brought snowy conditions on the 11th. These conditions persisted on the 12th and 13th when the disturbance entered the state. Most of the state received at least an inch of snow over these three days. Largest totals were reported in the northeast, with Adams County receiving over 4.5 inches from the 11th through the 13th.

February 15th – 21st

The cold spell seeped into the third week of February but temperatures soon began to warm. High temperatures were in the mid-30's on the 15th, approximately 5°F below normal. Temperatures rose slightly on the 16th into the mid-40's. This trend continued on the 17th in advance of the next system. Highs peaked in the low-50's on the 17th and then began to fall sharply as a strong synoptic low pushed to northeast out of Oklahoma. The warm temperatures on the 17th were linked with rain. Line after line of heavy rain

advanced through the state during the evening and through the night. South Bend and Fort Wayne again set rainfall records. It was reported that 0.59 inches fell in South Bend on the 17th. The previous record of 0.44 inches was set in 1998. In Fort Wayne 0.52 inches fell, which barely broke the 1998 record of 0.51 inches. Lingering moisture from this front turned to snow in northern counties on the 18th. Some lingering rain showers were experienced across the rest of the state. Immediately behind this front came another front, this one armed with a batch of even colder air. This southerly moving front out of Canada dropped high temperatures into the low-20's on the 19th. High pressure pushed this front further into the South but not before it was able to drop over an inch of snow on most of Indiana on the 20th, including a storm maximum of at least 2.2 inches in White County. The heaviest snowfall was focused in central Indiana. Temperature remained in the low-20's on the 21st. The high pressure that pushed the latest disturbance into the deep South hovered over the Great Lakes preventing temperatures from warming at all.

February 22nd – 29th

This mixture of high pressure over the Lakes and a strong frontal system draped across much of the South brought strong winter weather from the Mid-West up through the Northeast. Temperature sin Indiana on the 22nd hovered around 32°F, creating awful travel conditions. Snow, sleet, and freezing rain fell throughout the state at various times. The type of precipitation continually fluctuated and changed. Snowfall totals for the day were modest, with a maximum of 2 inches in Franklin County. Remaining moisture fell as snow on the 23rd, with a heavy pocket over Warren, Fountain, and Vermillion counties resulting in at least 2 inches of new snow. Temperatures slowly began to warm on the 23rd. From the 23rd through the 26th highs were in the mid- to high-30's across the state. These temperatures are about 8°F below normal. A new synoptic system developed over Kansas on the 25th and brought another period of moist conditions. The northern half of the state received at least ½ inch of snow on the 26th coupled with trace amounts of sleet. Snowfall was much heavier in the extreme northern counties, where totals climbed as high as 4 inches. Fort Wayne set a new daily snowfall record on the 26th when the city received 4.6 inches. The old record was set in 1977 (4 inches). The southern half of Indiana was just too warm for snow on the 26th so this system dropped a moderate sum of rain. The small warming experienced from the 23rd to 26th disappeared after the passing of the most recent disturbance. High temperatures fell back to the high-20's on the 27th. Trailing moisture from the system brought more snow and rain showers on the 27th. Accumulations were minimal. The 28th was calm and cool. High temperatures were in the mid-30's, about 10° below normal. A new system formed in the Texas panhandle on this day and set it sights on Indiana for the final day of February 2008. The "leap day", February 29th, was much warmer as the disturbance's leading warm front crossed Indiana in the morning. High temperatures reached 60°F in Posey County. The statewide average was in the mid-40's. Some snow showers fell across the state in the morning. These quickly changed to rain showers as the temperature rose. Much of the precipitation associated with this final system of February fell on March 1st.

February Summary

Temperature

Region	Temperature	Normal	Deviation
Northwest	23.6	28.0	-4.3
North Central	23.8	27.5	-3.7
Northeast	23.9	27.0	-3.1
West Central	26.7	30.2	-3.5
Central	27.8	29.9	-2.1
East Central	27.8	28.9	-1.1
Southwest	32.1	35.0	-2.8
South Central	32.4	34.7	-2.3
Southeast	31.3	33.6	-2.3
State	27.7	30.6	-2.8

Precipitation

Region	Precipitation	Normal	Deviation	Percent of Normal
Northwest	4.40	1.71	2.69	258
North Central	4.30	1.82	2.49	237
Northeast	4.56	1.79	2.77	255
West Central	4.89	2.17	2.72	226
Central	5.08	2.27	2.80	223
East Central	5.20	2.15	3.05	242
Southwest	4.92	2.88	2.04	171
South Central	4.83	2.93	1.91	165
Southeast	4.96	2.81	2.15	176
State	4.79	2.29	2.51	210

Winter-To-Date

(December 2007 and January and February 2008)

Temperature

Region	Temperature	Normal	Deviation
Northwest	25.7	26.5	-0.7
North Central	26.0	26.4	-0.4
Northeast	26.3	26.2	0.1

West Central	28.3	28.5	-0.3
Central	28.9	28.6	0.3
East Central	28.7	27.9	0.8
Southwest	33.0	33.1	-0.1
South Central	32.7	33.0	-0.3
Southeast	32.0	32.2	-0.2
State	29.1	29.2	-0.1

Precipitation

Region	Precipitation	Normal	Deviation	Percent of Normal
Northwest	13.18	6.24	6.94	211
North Central	13.40	6.66	6.74	201
Northeast	12.44	6.46	5.98	193
West Central	11.72	7.41	4.31	158
Central	13.28	7.60	5.67	175
East Central	12.82	7.32	5.51	175
Southwest	14.07	9.41	4.66	150
South Central	14.65	9.59	5.06	153
Southeast	13.42	9.22	4.20	146
State	13.26	7.78	5.48	170

Annual-to-Date

(January & February)

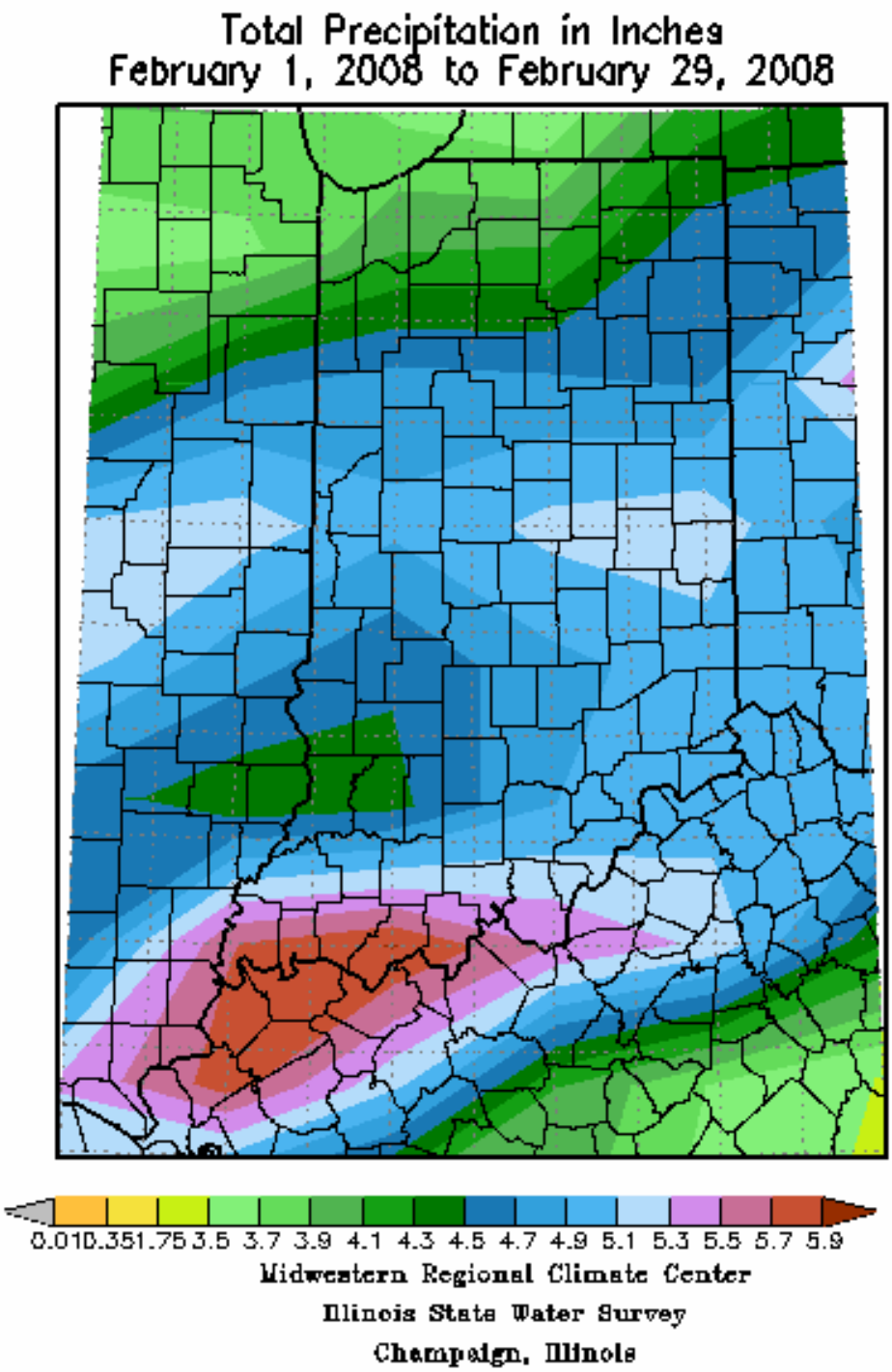
Temperature

Region	Temperature	Normal	Deviation
Northwest	24.2	25.4	-1.2
North Central	24.5	25.3	-0.8
Northeast	24.9	25.0	-0.1
West Central	26.6	27.6	-1.0
Central	27.2	27.5	-0.3
East Central	27.2	26.7	0.5
Southwest	31.2	32.3	-1.2
South Central	30.9	32.2	-1.3
Southeast	30.2	31.3	-1.1
State	27.5	28.2	-0.7

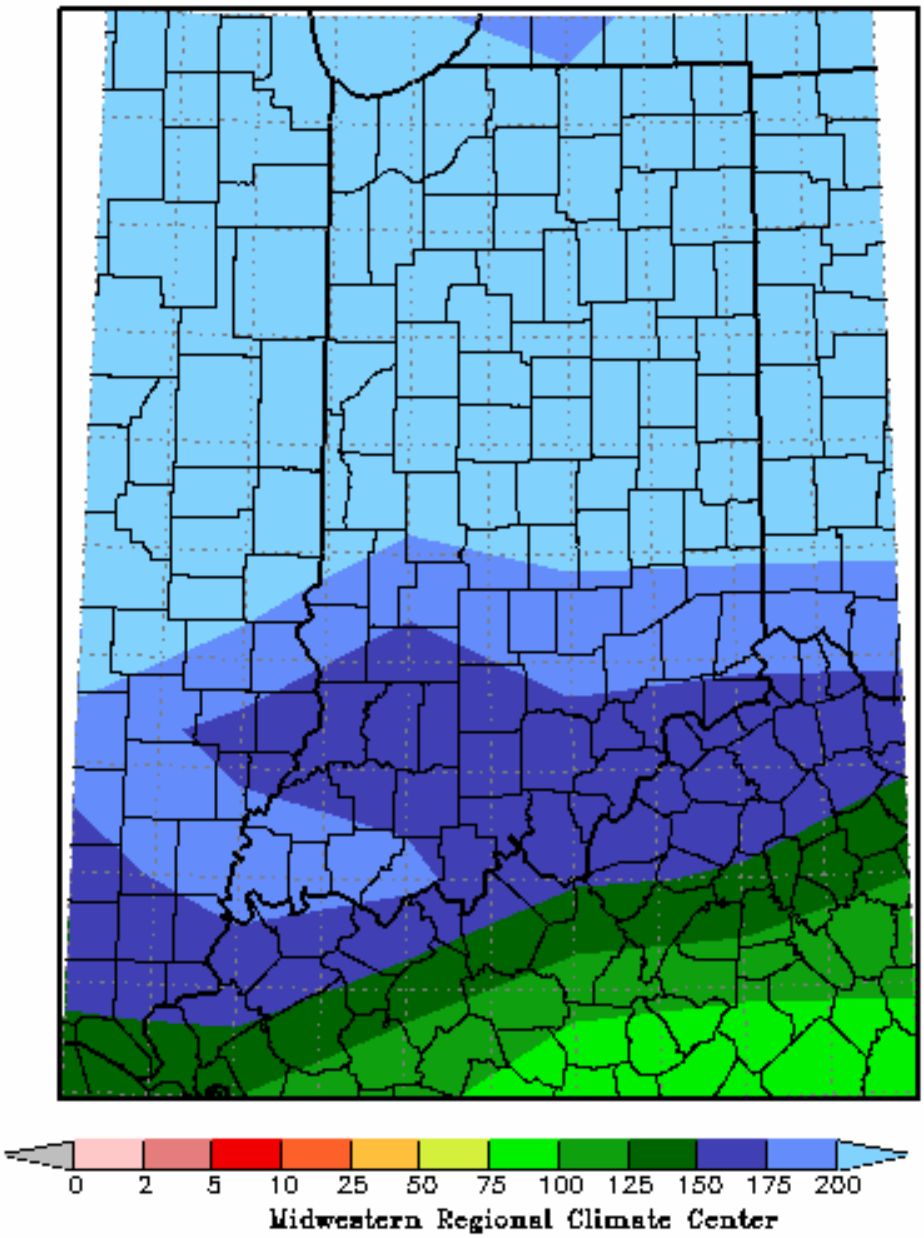
Precipitation

Region	Precipitation	Normal	Deviation	Percent of Normal
Northwest	9.07	3.58	5.49	253
North Central	8.95	3.87	5.08	231
Northeast	8.10	3.77	4.33	215
West Central	7.37	4.45	2.92	166
Central	8.09	4.62	3.48	175
East Central	8.13	4.44	3.69	183

Southwest	7.91	5.88	2.03	135
South Central	8.44	6.03	2.41	140
Southeast	7.95	5.81	2.14	137
State	8.22	4.72	3.50	174

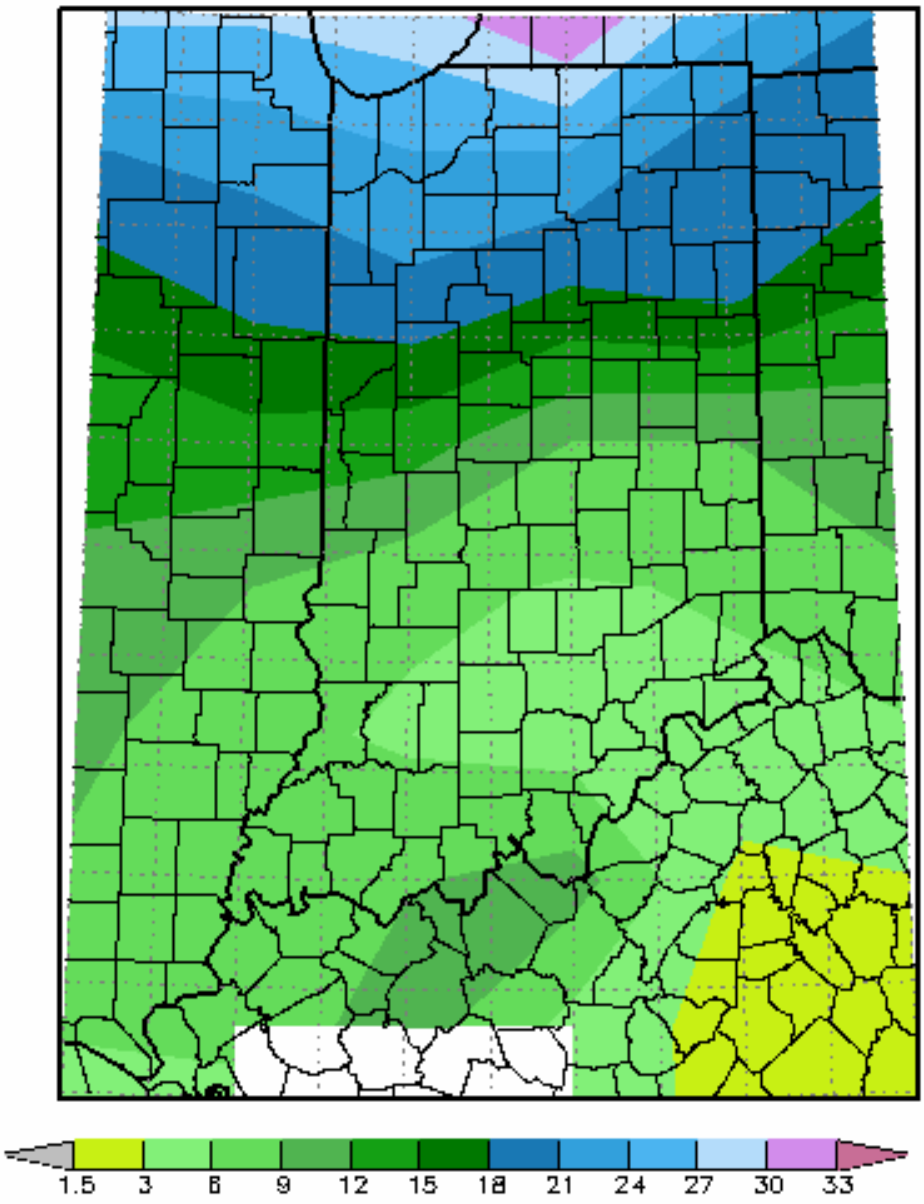


Total Precipitation Percent of Mean
February 1, 2008 to February 29, 2008



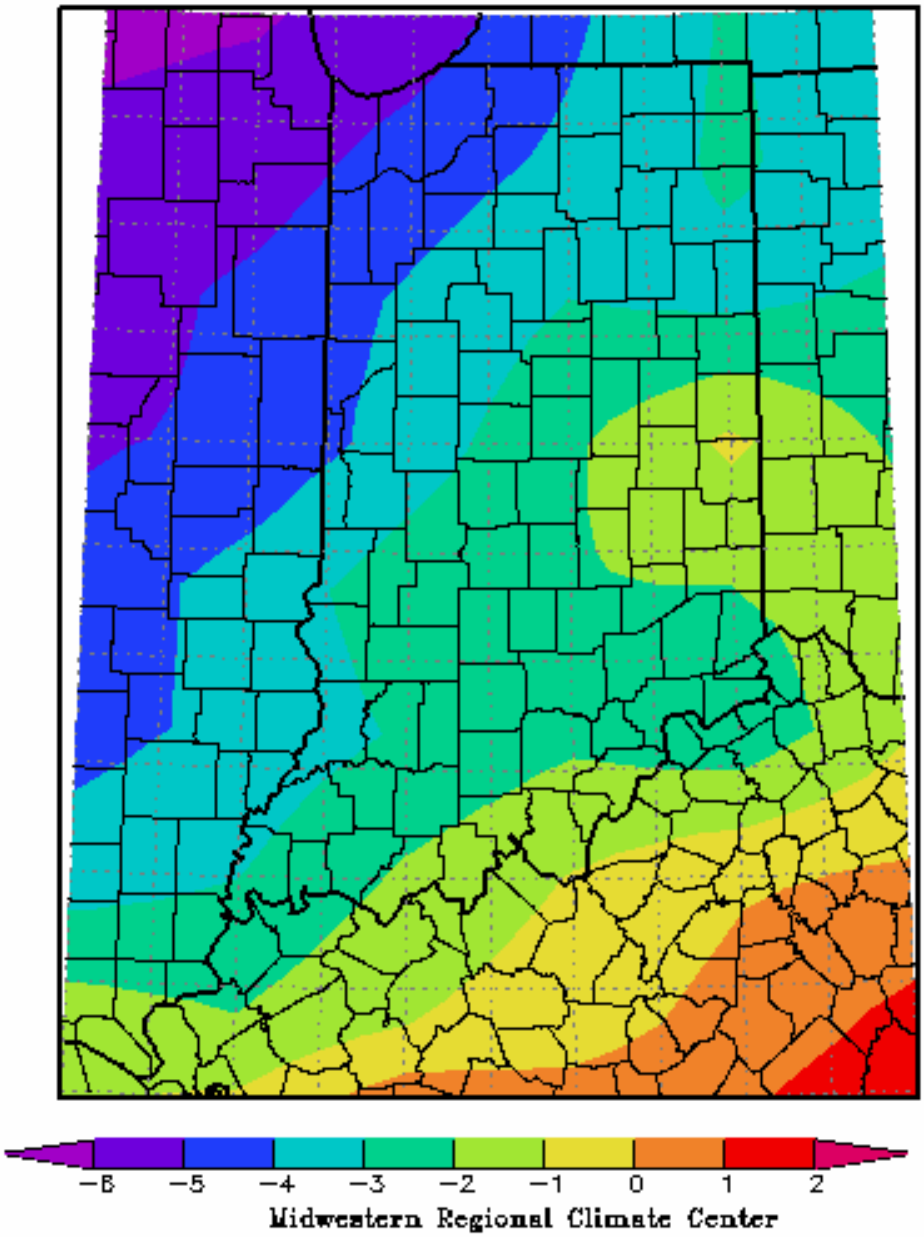
Midwestern Regional Climate Center
Illinois State Water Survey
Champaign, Illinois

Total Snowfall in Inches
February 1, 2008 to February 29, 2008



Midwestern Regional Climate Center
Illinois State Water Survey
Champaign, Illinois

Average Temperature Departure from Mean in Degrees F
February 1, 2008 to February 29, 2008



Midwestern Regional Climate Center
Illinois State Water Survey
Champaign, Illinois

Drought Summary from the U.S. Drought Monitor

Below is a drought summary for the state of Indiana from the U.S. drought monitor. Areas in white are not experiencing any drought. Yellow areas are abnormally dry, but not entirely considered a drought. Drought begins when the moisture levels become more severe, with beige, orange, red, and brown indicating increasing levels of drought (moderate, severe, extreme, and exceptional, respectively). The table below indicates how much of the state is not under drought conditions, and also how much of the state is under drought conditions from its respective column upwards.

For example, February 5th has 0.00% of Indiana under no drought, and 0.00% of Indiana under at *least* D0 through D4 drought status. This is followed by 0.00% as D1 through D4 status. To obtain the amount that is D0 status, simply subtract the D1-D4 column from the D0-D4 column, thus giving you the percentage of area with abnormally dry conditions. Please note, however, that these areas are not exact, and much of this drought map has been created from reports throughout the state and estimation, so use this information as a general view rather than for specifics.

D0 Abnormally Dry D1 Drought - Moderate D2 Drought - Severe D3 Drought - Extreme D4 Drought - Exceptional

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
02/05/08	100.00	0.00	0.00	0.00	0.00	0.00
02/12/08	100.00	0.00	0.00	0.00	0.00	0.00
02/19/08	100.00	0.00	0.00	0.00	0.00	0.00
02/26/08	100.00	0.00	0.00	0.00	0.00	0.00

February 5th Drought Summary

February 12th Drought Summary

February 19th Drought Summary

February 26th Drought Summary