## SUMMER DROUGHT 1999

## Rainfall data for Paducah KY from July – September: 1.48 inches

1999-07-01         0.01           1999-07-02         0.02           1999-07-03         0.00           1999-07-04         0.00           1999-07-05         0.00           1999-07-06         0.00           1999-07-07         0.00           1999-07-08         0.00           1999-07-09         T           1999-07-10         0.25           1999-07-12         0.00           1999-07-13         0.00           1999-07-14         0.00           1999-07-15         0.00           1999-07-16         0.00           1999-07-17         T           1999-07-18         0.00           1999-07-19         0.00           1999-07-20         0.00           1999-07-21         0.00           1999-07-22         0.00           1999-07-23         0.00           1999-07-24         0.00           1999-07-25         0.00           1999-07-26         0.00           1999-07-28         T           1999-07-29         0.00           1999-07-31         0.00           1999-08-01         T           1999-08-04         0.00 </th <th>Date</th> <th>Precipitation</th>	Date	Precipitation
1999-07-03	1999-07-01	0.01
1999-07-04	1999-07-02	0.02
1999-07-05         0.00           1999-07-06         0.00           1999-07-07         0.00           1999-07-08         0.00           1999-07-09         T           1999-07-10         0.25           1999-07-11         0.00           1999-07-12         0.00           1999-07-13         0.00           1999-07-14         0.00           1999-07-15         0.00           1999-07-16         0.00           1999-07-17         T           1999-07-18         0.00           1999-07-19         0.00           1999-07-20         0.00           1999-07-21         0.00           1999-07-22         0.00           1999-07-23         0.00           1999-07-24         0.00           1999-07-25         0.00           1999-07-26         0.00           1999-07-28         T           1999-07-29         0.00           1999-07-31         0.00           1999-08-01         T           1999-08-04         0.00           1999-08-05         0.00           1999-08-06         0.00	1999-07-03	0.00
1999-07-06         0.00           1999-07-07         0.00           1999-07-08         0.00           1999-07-09         T           1999-07-10         0.25           1999-07-11         0.00           1999-07-12         0.00           1999-07-13         0.00           1999-07-14         0.00           1999-07-15         0.00           1999-07-16         0.00           1999-07-17         T           1999-07-18         0.00           1999-07-19         0.00           1999-07-20         0.00           1999-07-21         0.00           1999-07-22         0.00           1999-07-23         0.00           1999-07-24         0.00           1999-07-25         0.00           1999-07-26         0.00           1999-07-28         T           1999-07-29         0.00           1999-07-31         0.00           1999-08-01         T           1999-08-02         0.00           1999-08-03         0.00           1999-08-06         0.00	1999-07-04	0.00
1999-07-07         0.00           1999-07-08         0.00           1999-07-09         T           1999-07-10         0.25           1999-07-11         0.00           1999-07-12         0.00           1999-07-13         0.00           1999-07-14         0.00           1999-07-15         0.00           1999-07-16         0.00           1999-07-17         T           1999-07-18         0.00           1999-07-19         0.00           1999-07-20         0.00           1999-07-21         0.00           1999-07-22         0.00           1999-07-23         0.00           1999-07-24         0.00           1999-07-25         0.00           1999-07-26         0.00           1999-07-28         T           1999-07-29         0.00           1999-07-31         0.00           1999-08-01         T           1999-08-02         0.00           1999-08-03         0.00           1999-08-04         0.00           1999-08-06         0.00	1999-07-05	0.00
1999-07-08         0.00           1999-07-09         T           1999-07-10         0.25           1999-07-11         0.00           1999-07-12         0.00           1999-07-13         0.00           1999-07-14         0.00           1999-07-15         0.00           1999-07-16         0.00           1999-07-17         T           1999-07-18         0.00           1999-07-19         0.00           1999-07-20         0.00           1999-07-21         0.00           1999-07-22         0.00           1999-07-23         0.00           1999-07-24         0.00           1999-07-25         0.00           1999-07-26         0.00           1999-07-28         T           1999-07-29         0.00           1999-07-30         0.00           1999-07-31         0.00           1999-08-01         T           1999-08-02         0.00           1999-08-03         0.00           1999-08-06         0.00	1999-07-06	0.00
1999-07-09         T           1999-07-10         0.25           1999-07-11         0.00           1999-07-12         0.00           1999-07-13         0.00           1999-07-14         0.00           1999-07-15         0.00           1999-07-16         0.00           1999-07-17         T           1999-07-18         0.00           1999-07-19         0.00           1999-07-20         0.00           1999-07-21         0.00           1999-07-22         0.00           1999-07-23         0.00           1999-07-24         0.00           1999-07-25         0.00           1999-07-26         0.00           1999-07-28         T           1999-07-29         0.00           1999-07-30         0.00           1999-07-31         0.00           1999-08-01         T           1999-08-02         0.00           1999-08-03         0.00           1999-08-04         0.00           1999-08-05         0.00           1999-08-06         0.00	1999-07-07	0.00
1999-07-10         0.25           1999-07-11         0.00           1999-07-12         0.00           1999-07-13         0.00           1999-07-14         0.00           1999-07-15         0.00           1999-07-16         0.00           1999-07-17         T           1999-07-18         0.00           1999-07-19         0.00           1999-07-20         0.00           1999-07-21         0.00           1999-07-22         0.00           1999-07-23         0.00           1999-07-24         0.00           1999-07-25         0.00           1999-07-26         0.00           1999-07-27         0.00           1999-07-28         T           1999-07-29         0.00           1999-07-31         0.00           1999-08-01         T           1999-08-02         0.00           1999-08-03         0.00           1999-08-04         0.00           1999-08-05         0.00           1999-08-06         0.00	1999-07-08	0.00
1999-07-11         0.00           1999-07-12         0.00           1999-07-13         0.00           1999-07-14         0.00           1999-07-15         0.00           1999-07-16         0.00           1999-07-17         T           1999-07-18         0.00           1999-07-19         0.00           1999-07-20         0.00           1999-07-21         0.00           1999-07-22         0.00           1999-07-23         0.00           1999-07-24         0.00           1999-07-25         0.00           1999-07-26         0.00           1999-07-28         T           1999-07-29         0.00           1999-07-30         0.00           1999-07-31         0.00           1999-08-01         T           1999-08-02         0.00           1999-08-03         0.00           1999-08-04         0.00           1999-08-05         0.00           1999-08-06         0.00	1999-07-09	T
1999-07-12         0.00           1999-07-13         0.00           1999-07-14         0.00           1999-07-15         0.00           1999-07-16         0.00           1999-07-17         T           1999-07-18         0.00           1999-07-19         0.00           1999-07-20         0.00           1999-07-21         0.00           1999-07-22         0.00           1999-07-23         0.00           1999-07-24         0.00           1999-07-25         0.00           1999-07-26         0.00           1999-07-27         0.00           1999-07-28         T           1999-07-29         0.00           1999-07-31         0.00           1999-08-01         T           1999-08-02         0.00           1999-08-03         0.00           1999-08-04         0.00           1999-08-05         0.00           1999-08-06         0.00	1999-07-10	0.25
1999-07-13	1999-07-11	0.00
1999-07-14         0.00           1999-07-15         0.00           1999-07-16         0.00           1999-07-17         T           1999-07-18         0.00           1999-07-19         0.00           1999-07-20         0.00           1999-07-21         0.00           1999-07-22         0.00           1999-07-23         0.00           1999-07-24         0.00           1999-07-25         0.00           1999-07-26         0.00           1999-07-27         0.00           1999-07-28         T           1999-07-29         0.00           1999-07-31         0.00           1999-08-01         T           1999-08-02         0.00           1999-08-03         0.00           1999-08-04         0.00           1999-08-05         0.00           1999-08-06         0.00	1999-07-12	0.00
1999-07-15	1999-07-13	0.00
1999-07-16 0.00 1999-07-17 T 1999-07-18 0.00 1999-07-19 0.00 1999-07-20 0.00 1999-07-21 0.00 1999-07-22 0.00 1999-07-23 0.00 1999-07-24 0.00 1999-07-25 0.00 1999-07-26 0.00 1999-07-27 0.00 1999-07-28 T 1999-07-29 0.00 1999-07-30 0.00 1999-07-31 0.00 1999-07-31 0.00 1999-08-01 T 1999-08-02 0.00 1999-08-03 0.00 1999-08-04 0.00 1999-08-05 0.00 1999-08-05 0.00 1999-08-06 0.00	1999-07-14	0.00
1999-07-17 T 1999-07-18 0.00 1999-07-19 0.00 1999-07-20 0.00 1999-07-21 0.00 1999-07-22 0.00 1999-07-23 0.00 1999-07-24 0.00 1999-07-25 0.00 1999-07-26 0.00 1999-07-27 0.00 1999-07-28 T 1999-07-29 0.00 1999-07-30 0.00 1999-07-31 0.00 1999-08-01 T 1999-08-01 T 1999-08-02 0.00 1999-08-03 0.00 1999-08-04 0.00 1999-08-05 0.00 1999-08-05 0.00 1999-08-06 0.00	1999-07-15	0.00
1999-07-18	1999-07-16	0.00
1999-07-19	1999-07-17	T
1999-07-20 0.00 1999-07-21 0.00 1999-07-22 0.00 1999-07-23 0.00 1999-07-24 0.00 1999-07-25 0.00 1999-07-26 0.00 1999-07-27 0.00 1999-07-28 T 1999-07-29 0.00 1999-07-30 0.00 1999-07-31 0.00 1999-08-01 T 1999-08-02 0.00 1999-08-03 0.00 1999-08-04 0.00 1999-08-05 0.00 1999-08-06 0.00	1999-07-18	0.00
1999-07-21 0.00 1999-07-22 0.00 1999-07-23 0.00 1999-07-24 0.00 1999-07-25 0.00 1999-07-26 0.00 1999-07-27 0.00 1999-07-28 T 1999-07-29 0.00 1999-07-30 0.00 1999-07-31 0.00 1999-08-01 T 1999-08-02 0.00 1999-08-03 0.00 1999-08-04 0.00 1999-08-05 0.00 1999-08-05 0.00	1999-07-19	0.00
1999-07-22 0.00 1999-07-23 0.00 1999-07-24 0.00 1999-07-25 0.00 1999-07-26 0.00 1999-07-27 0.00 1999-07-28 T 1999-07-29 0.00 1999-07-30 0.00 1999-07-31 0.00 1999-08-01 T 1999-08-02 0.00 1999-08-03 0.00 1999-08-04 0.00 1999-08-05 0.00 1999-08-06 0.00	1999-07-20	0.00
1999-07-23 0.00 1999-07-24 0.00 1999-07-25 0.00 1999-07-26 0.00 1999-07-27 0.00 1999-07-28 T 1999-07-29 0.00 1999-07-30 0.00 1999-07-31 0.00 1999-08-01 T 1999-08-02 0.00 1999-08-03 0.00 1999-08-04 0.00 1999-08-05 0.00 1999-08-06 0.00	1999-07-21	0.00
1999-07-24 0.00 1999-07-25 0.00 1999-07-26 0.00 1999-07-27 0.00 1999-07-28 T 1999-07-29 0.00 1999-07-30 0.00 1999-07-31 0.00 1999-08-01 T 1999-08-02 0.00 1999-08-03 0.00 1999-08-04 0.00 1999-08-05 0.00 1999-08-06 0.00	1999-07-22	0.00
1999-07-25 0.00 1999-07-26 0.00 1999-07-27 0.00 1999-07-28 T 1999-07-29 0.00 1999-07-30 0.00 1999-07-31 0.00 1999-08-01 T 1999-08-02 0.00 1999-08-03 0.00 1999-08-04 0.00 1999-08-05 0.00 1999-08-06 0.00	1999-07-23	0.00
1999-07-26 0.00 1999-07-27 0.00 1999-07-28 T 1999-07-29 0.00 1999-07-30 0.00 1999-07-31 0.00 1999-08-01 T 1999-08-02 0.00 1999-08-03 0.00 1999-08-04 0.00 1999-08-05 0.00 1999-08-06 0.00	1999-07-24	0.00
1999-07-27 0.00 1999-07-28 T 1999-07-29 0.00 1999-07-30 0.00 1999-07-31 0.00 1999-08-01 T 1999-08-02 0.00 1999-08-03 0.00 1999-08-04 0.00 1999-08-05 0.00 1999-08-06 0.00	1999-07-25	0.00
1999-07-28 T 1999-07-29 0.00 1999-07-30 0.00 1999-07-31 0.00 1999-08-01 T 1999-08-02 0.00 1999-08-03 0.00 1999-08-04 0.00 1999-08-05 0.00 1999-08-06 0.00	1999-07-26	0.00
1999-07-29 0.00 1999-07-30 0.00 1999-07-31 0.00 1999-08-01 T 1999-08-02 0.00 1999-08-03 0.00 1999-08-04 0.00 1999-08-05 0.00 1999-08-06 0.00	1999-07-27	0.00
1999-07-30 0.00 1999-07-31 0.00 1999-08-01 T 1999-08-02 0.00 1999-08-03 0.00 1999-08-04 0.00 1999-08-05 0.00 1999-08-06 0.00	1999-07-28	Т
1999-07-31 0.00 1999-08-01 T 1999-08-02 0.00 1999-08-03 0.00 1999-08-04 0.00 1999-08-05 0.00 1999-08-06 0.00	1999-07-29	0.00
1999-08-01 T 1999-08-02 0.00 1999-08-03 0.00 1999-08-04 0.00 1999-08-05 0.00 1999-08-06 0.00	1999-07-30	0.00
1999-08-02 0.00 1999-08-03 0.00 1999-08-04 0.00 1999-08-05 0.00 1999-08-06 0.00	1999-07-31	0.00
1999-08-03 0.00 1999-08-04 0.00 1999-08-05 0.00 1999-08-06 0.00	1999-08-01	Т
1999-08-04 0.00 1999-08-05 0.00 1999-08-06 0.00	1999-08-02	0.00
1999-08-05 0.00 1999-08-06 0.00	1999-08-03	0.00
1999-08-06 0.00	1999-08-04	0.00
	1999-08-05	0.00
	1999-08-06	0.00
1999-08-07 0.18	1999-08-07	0.18
1999-08-08 0.36	1999-08-08	0.36
1999-08-09 0.00	1999-08-09	0.00

	J 111 J J11 J
1999-08-10	0.00
1999-08-11	0.00
1999-08-12	0.00
1999-08-13	0.00
1999-08-14	0.00
1999-08-15	0.00
1999-08-16	0.00
1999-08-17	0.00
1999-08-18	0.00
1999-08-19	Т
1999-08-20	0.00
1999-08-21	0.00
1999-08-22	0.00
1999-08-23	0.00
1999-08-24	0.00
1999-08-25	0.00
1999-08-26	0.00
1999-08-27	0.00
1999-08-28	0.00
1999-08-29	0.00
1999-08-30	0.00
1999-08-31	0.00
1999-09-01	0.00
1999-09-02	0.00
1999-09-03	0.00
1999-09-04	0.00
1999-09-05	0.00
1999-09-06	Т
1999-09-07	0.00
1999-09-08	0.00
1999-09-09	0.00
1999-09-10	0.00
1999-09-11	0.00
1999-09-12	0.06
1999-09-13	0.01
1999-09-14	0.00
1999-09-15	0.00
1999-09-16	0.00
1999-09-17	0.00
1999-09-18	0.00
1999-09-19	Т
1999-09-20	0.02
1999-09-21	0.22
1999-09-22	0.00

1999-09-23	0.00
1999-09-24	0.00
1999-09-25	0.00
1999-09-26	0.00
1999-09-27	0.00
1999-09-28	0.00
1999-09-29	0.35
1999-09-30	0.00

The moderate to severe summer drought took a considerable toll on crops across southern Illinois. The worst drought conditions were along the Ohio River, where Paducah, KY, received only 1.5 inches of rain in the three-month period from July to September. Carbondale received much more generous rainfall, with a three-month total of 5.5 inches.

The soybean crop suffered the greatest effects from the drought, with yields in most areas only near 20 percent of normal. Corn yields were much closer to normal due to plentiful rains in June and early July, when the corn crop matures most rapidly. Small ponds and reservoirs became very low. The city of Marion, which relies on a small lake for its drinking water supply, was forced to siphon water from its neighboring city of Herrin. Low water levels in Union and Jackson Counties forced some cattle farmers to haul water to their herds.

The fire danger reached extreme levels at times. The Illinois Department of Natural Resources issued a wildfire alert for southern Illinois due to the combination of drying grasses, brisk winds, and low humidity. Outdoor burning was banned in seven counties, including Alexander, Pope, Johnson, Jackson, Union, Pulaski, and Hardin. Local burning bans were posted in other counties. Among the many wildland fires that occurred, one of the largest was near West Frankfort, where 80 acres were scorched.

River levels on the Ohio River became unsafe for navigation in places. Fully loaded barges could not safely navigate the river, so tonnage was reduced by 10 to 20 percent.

The moderate summer drought took a considerable toll on crops across Southwest Indiana. Rainfall at Evansville, IN for the three-month period from July through September was about 3 inches. This compares to a 3-month average of around 10 inches. Evansville received 0.39 inches in September, which was 3 inches below normal.

The soybean crop in southwest IN suffered the greatest effects from the drought, with average yields estimated only about 20 percent of normal. Corn yields were much closer to normal, mainly due to heavy rains in June and early July, when the corn crop matures.

The fire danger reached extreme levels at times. The governor of Indiana declared a total burning ban across all of Southwest Indiana. A wildland fire in mid-September scorched several hundred acres near Chandler, which is in Warrick County. A field fire early in the month occurred near Evansville at the junction of Interstate 164 and U.S. Highway 41. Although no evacuations were required, the westbound lanes of Interstate 164 were closed briefly due to smoke. A wildfire on September 27 burned about 150 acres just west of Owensville in Gibson County. Fire departments from throughout Gibson County and parts of Posey County worked to extinguish this fire.

The severe summer drought took a major toll on crops and plants across West Kentucky. Rainfall at Paducah for the three-month period from July through September was about an inch and a half. This compares to a 3-month average of around 10 inches. Paducah received 0.66 inches in September, which was 3 inches below normal. The soybean crop sustained the

greatest monetary losses, estimated near 70 million dollars. This was followed by tobacco losses near 50 million, and corn near 35 million. Total crop losses in western Kentucky were near 155 million dollars, which prompted an agricultural disaster declaration by the state and federal governments. The root systems of many shrubs and young trees were damaged by the drought. Some shrubs and shallow-rooted trees, such as dogwood and redbud trees, died during the summer. The unirrigated pumpkin crop was nearly a total loss.

The fire danger reached extreme levels at times. A few of the largest fires reached 500 to 1000 acres in size. The largest fire occurred east of Central City in Muhlenberg County late in the month. This fire grew to almost 1000 acres, prompting the closure of the Western Kentucky Parkway for several hours. Another large fire, estimated around 500 acres, occurred in Hickman County early in the month. This fire, which may have been sparked by a passing train, burned quite a few corn and soybean fields. Finally, a 100-acre cornfield fire near Henderson closed the Pennyrile Parkway for about an hour and forced the brief evacuation of a nursing home. Burning bans were imposed in virtually all western Kentucky counties, including a campfire ban in the Land Between The Lakes National Recreation Area. The Kentucky Division of Water declared a Water Shortage Warning for the Pennyrile area, which includes the Owensboro and Hopkinsville areas. However, no mandatory water conservation measures were imposed.

A secondary effect of the drought was premature leaf-drop, which reduced the brilliance of the fall colors.

The severe summer drought took a major toll on crops across Southeast Missouri. Rainfall at Cape Girardeau for the three-month period from July through September was just under two inches. This compares to a 3-month average of around 10 inches. Cape Girardeau received 0.98 inches in September, which is about 3 inches below normal. The soybean crop suffered the greatest effects from the drought, with yields estimated less than 50 percent of normal. The root systems of many shrubs and young trees were damaged by the drought. Some shrubs and shallow-rooted trees, such as dogwood and redbud trees, died during the summer. The effects of the drought were greatest closest to the Bootheel, from New Madrid to Cape Girardeau. Rainfall was higher to the north and west, especially from Perryville to the Poplar Bluff area. High fire danger prompted Cape Girardeau County to ban open burning.