

<b>NWS Form E-5</b> (04-2006) (PRES. BY NWS Instruction 10-924)	<b>U.S. DEPARTMENT OF COMMERCE</b> <b>NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION</b> <b>NATIONAL WEATHER SERVICE</b>	HYDROLOGIC SERVICE AREA (HSA)
		NORTHERN INDIANA (IWX)
<b>MONTHLY REPORT OF HYDROLOGIC CONDITIONS</b>		REPORT FOR:
		MONTH                      YEAR
		JANUARY                      2011
TO: Hydrologic Information Center, W/OS31 NOAA's National Weather Service 1325 East West Highway Silver Spring, MD 20910-3283		SIGNATURE
		Michael Rehbein Service Hydrologist
		DATE
		February 8, 2011

*When no flooding occurs, include miscellaneous river conditions below the small box, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (NWS Instruction 10-924).*

An X inside this box indicates that no flooding occurred within this hydrologic service area.

**...Colder than normal and more snow than normal for the IWX HSA...**

Temperatures were as much as 3 degrees below normal for the entire Northern Indiana HSA. Several snow events, including a record breaking lake effect event at South Bend, produced above normal snowfall totals for the area. However, despite the above normal snow totals, liquid equivalent amounts were slightly below normal.

At the Fort Wayne airport, temperatures averaged about 3 degrees below the climatological normal values. The average high temperature was 27.7 degrees. This was 3.3 degrees below the normal value of 31 degrees. The average low temperature was 13.3 degrees which was 2.8 degrees below the normal value of 16.1 degrees. This resulted in an average temperature of 20.5 degrees for the month. This was 3.1 degrees below the normal value of 23.6 degrees. During the month, there was 16.1 inches of snow at the airport. This was 6.2 inches above the normal value of 9.9 inches. This increased the seasonal total to 27 inches which was 5.3 inches above the normal value of 21.7 inches. The liquid equivalent total precipitation for the month was 1.80 inches. This was 0.25 inches below the normal value of 2.05 inches. The greatest 24-hour snowfall total was 5.5 inches on the 11<sup>th</sup> and the greatest snow depth was 6 inches on the 12<sup>th</sup>.

Temperatures at the South Bend airport were likewise below normal for the month. The average high temperature was 27.8 degrees. This was 3.2 degrees below the normal value of 31 degrees. The average low temperature was 14.6 degrees which was 1.1 degrees below the normal value of 15.7 degrees. This resulted in an average temperature of 21.2 degrees which was 2.2 degrees below the normal value of 23.4 degrees. January saw a tremendous amount of snow at South Bend. The snowfall total for the month was 53.8 inches! This was 30.6 inches above the normal value of 28.1 inches. Nearly half of this amount fell on the 8<sup>th</sup> as a record amount of 26 inches was observed. The greatest snow depth was 23 inches on the 8<sup>th</sup>. Despite this snowfall, the liquid equivalent precipitation was slightly below normal. There was 2.16 inches of liquid equivalent which was 0.11 inches below the normal value of 2.27 inches.

**...Despite the heavy snow, rivers remain low...**

Due to the prolonged cold temperatures, most of the area rivers are partially or completely covered with ice. Given the below normal precipitation from the Fall into the Winter, rivers remain at low levels. There have been no problems with ice break ups or jams.

**...Abnormally dry soil conditions remain across the area...**

According to the latest Drought Monitor, the entire area remains in abnormally dry conditions (D0) with a small area of moderate drought (D1) conditions in extreme north central Indiana.

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		NORTHERN INDIANA (IWX)
<b>MONTHLY REPORT OF HYDROLOGIC CONDITIONS</b>		REPORT FOR:
		MONTH                      YEAR
		FEBRUARY                      2011
TO: Hydrologic Information Center, W/OS31 NOAA's National Weather Service 1325 East West Highway Silver Spring, MD 20910-3283		SIGNATURE
		Michael Rehbein Service Hydrologist
		DATE
		March 1, 2011

*When no flooding occurs, include miscellaneous river conditions below the small box, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (NWS Instruction 10-924).*

An X inside this box indicates that no flooding occurred within this hydrologic service area.

### ...Flooding returns to the Northern Indiana HSA...

After more than 6 months of no flooding, heavy snows followed by heavy rain have brought flooding conditions back to the Northern Indiana Hydrologic Service Area. Temperatures remain below normal values while precipitation/snowfall totals were from 50 to 100 percent above the climatological normal values. With a few exceptions, flooding was primarily minor.

The average temperatures at the Fort Wayne airport for the month of February were about 2 degrees below the normal. The average high temperature was 33.5 degrees. This was 1.9 degrees below the normal value of 35.4 degrees. The average low temperature was 17.6 degrees which was 1.6 degrees below the normal value of 19.2 degrees. This resulted in an average temperature of 25.5 degrees which was 1.8 degrees below the normal of 27.3 degrees. Rainfall/liquid water equivalent total for the month was 3.21 inches. This was 1.27 inches above the normal value of 1.94 inches. Of this total, there was 18.3 inches of snow which was 10.7 inches above the normal value of 7.6 inches. This brought the seasonal total to 45.3 inches which is 16 inches above the normal value of 29.3 inches. The greatest 24-hour rainfall total was 1.31 inches from the 27<sup>th</sup> to the 28<sup>th</sup>. The greatest snowfall total was 4.9 inches and the deepest snow depth was 13 inches on the 6<sup>th</sup>.

Similar conditions were noted at the South Bend airport. For the month, the average high temperature was 32.6 degrees. This was 2.9 degrees below the normal value of 35.5 degrees. The average low temperature was 18.6 degrees which was 0.4 degrees below the normal value of 19 degrees. This resulted in an average temperature of 25.6 degrees which was 1.7 degrees below the normal value of 27.3 degrees. The liquid equivalent precipitation for the month was 3.52 inches. This was 1.53 inches above the normal value of 1.98 inches. The greatest 24-hour total was 1.07 inches on the 20<sup>th</sup> to the 21<sup>st</sup>. Of this total, there was 25.5 inches of snow for the month. This was 10 inches above the normal value of 15.5 inches. This brought the seasonal total to 104.2 inches which is 38.1 inches above the normal value of 66.1 inches. The greatest 24-hour snowfall was 8.4 inches and the greatest depth was 13 inches on the 8<sup>th</sup>.

**...A few sites observed moderate flooding...**

The abundance of rain and snow for the month brought minor to moderate flooding to the region. There had been as much as 2 inches of liquid tied up in the snow pack. Warmer temperatures and rainfall totals of 1 to 2 inches was enough to melt the snowpack and cause the rivers to rise rapidly. The Maumee and Wabash basins were the hardest hit areas. The Mississinewa River at Marion, the Saint Mary's River at Decatur and the Auglaize River at Fort Jennings all reached moderate flood levels before the end of the month. These rivers, plus several others, remained over flood stage levels at the end of the month.

Gauge problems at the site on the Kankakee River at Davis Route 30 during the latter half of the month prevented the collection of data for several days. It is quite possible there was some minor flooding at this point, but there was no confirmation of this.

<u>River Location</u>	<u>Flood Stage</u>	<u>Moderate Stage</u>
Mississinewa River @ Marion	12.0 feet	13.0 feet
St. Mary's River @ Decatur	17.0 feet	20.0 feet
Auglaize River @ Ft. Jennings	13.0 feet	16.0 feet

Other sites that exceeded flood stage were the Dowagiac River @ Sumnerville, the Maumee River @ Defiance, the Salamonie River below Warren, the Tiffin River @ Stryker and the Wabash River at Linn Grove, near Bluffton and at Bluffton.

**...Despite the rain, minor drought conditions persist...**

Despite the fact that there was above normal rainfall for the month of February, areas of abnormally dry conditions remain across the northern Indiana HSA. Continued heavy rains into the first part of March are likely to help ease the dry conditions across the area.

**FLOOD STAGE REPORT**

REPORT FOR:  
 MONTH YEAR  
 FEBRUARY 2011

RIVER AND STATION	FLOOD STAGE (Feet)	ABOVE FLOOD STAGES (Date)		CREST	
		FROM	TO	STAGE (Feet)	DATE
ST. MARY'S RIVER @ DECATUR	17.0	02/18/2011	02/22/2011	19.53	02/19/2011
ST. MARY'S RIVER @ DECATUR	17.0	02/28/2011	CONTINUED		
AUGLAIZE RIVER @ FT. JENNINGS	13.0	02/18/2011	02/19/2011	13.69	02/19/2011
AUGLAIZE RIVER @ FT. JENNINGS	13.0	02/28/2011	CONTINUED		
DOWAGIAC RIVER @ SUMNERVILLE	8.0	02/21/2011	02/21/2011	8.04	02/21/2011
MAUMEE RIVER @ DEFIANCE	10.0	02/19/2011	02/20/2011	11.17	02/20/2011
MAUMEE RIVER @ DEFIANCE	10.0	02/28/2011	CONTINUED		
SALAMONIE RIVER BELOW WARREN	12.0	02/18/2011	02/18/2011	12.12	02/21/2011
SALAMONIE RIVER BELOW WARREN	12.0	02/28/2011	CONTINUED		
TIFFIN RIVER @ STRYKER	11.0	02/20/2011	02/24/2011	11.91	02/21/2011
TIFFIN RIVER @ STRYKER	11.0	02/28/2011	CONTINUED		
WABASH RIVER @ LINN GROVE	11.0	02/19/2011	02/20/2011	12.05	02/19/2011
WABASH RIVER @ LINN GROVE	11.0	02/28/2011			
WABASH RIVER NEAR BLUFFTON	12.0	02/19/2011	02/21/2011	13.08	02/20/2011
WABASH RIVER NEAR BLUFFTON	12.0	02/28/2011	CONTINUED		
WABASH RIVER @ BLUFFTON	10.0	02/18/2011	02/21/2011	12.08	02/20/2011
WABASH RIVER @ BLUFFTON	10.0	02/28/2011	CONTINUED		
MISSISSINEWA RIVER @ MARION	12.0	02/28/2011	CONTINUED		
BLANCHARD RIVER @ OTTAWA	23.0	02/28/2011	CONTINUED		
KANKAKEE RIVER @ DAVIS ROUTE 30	10.0	02/28/2011	CONTINUED		

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		NORTHERN INDIANA (IWX)
		REPORT FOR: MONTH                      YEAR MARCH                      2011
<b>MONTHLY REPORT OF HYDROLOGIC CONDITIONS</b>		SIGNATURE Michael Rehbein Service Hydrologist
TO: Hydrologic Information Center, W/OS31 NOAA's National Weather Service 1325 East West Highway Silver Spring, MD 20910-3283		DATE April 13, 2011

*When no flooding occurs, include miscellaneous river conditions below the small box, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (NWS Instruction 10-924).*

An X inside this box indicates that no flooding occurred within this hydrologic service area.

### ...Flooding returns to the Northern Indiana HSA...

March was an active month, with respect to hydrology, across the Northern Indiana HSA. Several periods of moderate to heavy rainfall across the Maumee and Wabash River basins caused rivers to rise above flood stage. Some of the river sites, particularly in the Maumee basin experienced two flooding episodes. Some of the most damaging of the flooding occurred along the Blanchard River at Ottawa, OH in the Maumee basin. While there were periods of heavy rain, both of the climatological sites, Ft. Wayne and South Bend, reported rainfall totals slightly above (Ft. Wayne) and slightly below (South Bend) normal values.

At the Fort Wayne airport, average temperatures were very close to the climatological normal values. For the month, the average high temperature was 47.5 degrees. This was 0.1 degrees above the normal value of 47.4 degrees. The average low temperature was 29.2 degrees which was 0.4 degrees above the normal value of 28.8 degrees. This resulted in an average temperature of 38.3 degrees which was 0.2 degrees above the normal value of 38.1 degrees. Rainfall was slightly above normal for the month. There was 3.03 inches of rain for the month and this was 0.17 inches above the normal value of 2.86 inches. The greatest 24-hour rainfall total was 0.65 inches on the 4<sup>th</sup> and 22<sup>nd</sup>. There was only 1.2 inches of snow for the month and this was 3.5 inches below the normal value of 4.7 inches. This brought the seasonal snowfall total to 46.5 inches which is 12.5 inches above the normal value of 34 inches. The greatest 24-hour snowfall was 0.7 inches and the greatest depth was 1 inch on the 6<sup>th</sup>.

At South Bend, the average temperatures were about a degree below the climatological normal values. The average high temperature for the month was 45.5 degrees. This was 1.3 degrees below the normal value of 46.8 degrees. The average low temperature was 26.8 degrees which was 1.4 degrees below the normal value of 28.2 degrees. This resulted in an average temperature of 36.2 degrees which was 1.3 degrees below the normal value of 37.5 degrees. Rainfall for the month was once again below normal. The monthly total was 2.28 inches which was 0.61 inches below the normal value of 2.89 inches. The greatest 24-hour rainfall total was 0.63 inches on the 4<sup>th</sup>. There was only 1.4 inches of snow during the month. This was 7.3 inches below the normal value of 8.7 inches. This brought the seasonal total to 105.6 inches which is 30.8 inches above the normal value of 74.8 inches. The greatest 24-hour snowfall was 0.8 inches and the greatest snow depth was 1 inch.

### **...Flooding returns to the Northern Indiana HSA...**

For the first time in quite some time, flooding was experienced across the Northern Indiana HSA. Heavy rains across portions of northern Indiana into northwestern Ohio caused rivers in the Maumee and Wabash basins to rise above flood stage. Some areas experienced several bouts of heavy precipitation and thus saw river levels rise above flood stage a second time after receding following the initial heavy rain. Ottawa, Ohio, which is along the banks of the Blanchard River, experienced moderate flooding as the river crested at nearly 28.5 feet on the 2<sup>nd</sup>. A survey of the town revealed numerous homes and business affected by the flooding. This was the first of 2 rounds of flooding. The second time came only 4 days after the initial crest of 28.46 feet. Other areas along the Maumee River as well as the St. Mary's River saw rivers crest from 2 to 6 feet above their respective flood stages.

### **...Hydrological conditions still abnormally dry...**

Despite the heavy rains that occurred across the region, hydrological conditions remain in the "abnormally dry" category according to the Drought Monitor. This information was taken from the April 5<sup>th</sup> version of the Drought Monitor.

**FLOOD STAGE REPORT**

REPORT FOR:  
MONTH YEAR  
MARCH 2011

RIVER AND STATION	FLOOD STAGE (Feet)	ABOVE FLOOD STAGES (Date)		CREST	
		FROM	TO	STAGE (Feet)	DATE
MAUMEE RIVER @ COLISEUM BLVD IN FT. WAYNE	17.0	03/01/2011	03/08/2011	19.95	03/06/2011
MAUMEE RIVER @ FORT WAYNE	17.0	03/01/2011	03/08/2011	19.41	03/06/2011
MAUMEE RIVER @ NEW HAVEN	17.0	03/01/2011	03/08/2011	19.83	03/06/2011
MAUMEE RIVER @ NAPOLEON	12.0	03/02/2011	03/03/2011	12.78	03/02/2011
MAUMEE RIVER @ DEFIANCE	10.0	02/28/2011	03/11/2011	13.66	03/02/2011
ST. MARY'S RIVER @ DECATUR	17.0	02/28/2011	03/11/2011	22.49	03/03/2011
ST. MARY'S RIVER @ MULDOON BRIDGE	14.0	03/01/2011	03/07/2011	16.32	03/03/2011
AUGLAIZE RIVER @ FT. JENNINGS	13.0	02/28/2011	03/03/2011	18.95	03/01/2011
AUGLAIZE RIVER @ FT. JENNINGS	13.0	03/06/2011	03/08/2011	14.20	03/07/2011
AUGLAIZE RIVER NEAR DEFIANCE POWER DAM	21.0	03/01/2011	03/03/2011	22.61	03/02/2011
SALAMONIE RIVER BELOW WARREN	12.0	02/28/2011	03/03/2011	13.17	03/01/2011
TIFFIN RIVER @ STRYKER	11.0	02/28/2011	03/15/2011	14.33	03/07/2011
WABASH RIVER NEAR BLUFFTON	12.0	02/28/2011	03/10/2011	16.16	03/02/2011
WABASH RIVER @ BLUFFTON	10.0	02/28/2011	03/12/2011	15.00	03/02/2011
WABASH RIVER @ LINN GROVE	11.0	02/28/2011	03/10/2011	13.49	03/02/2011
MISSISSINEWA RIVER @ MARION	12.0	02/28/2011	03/02/2011	14.63	03/01/2011
BLANCHARD RIVER @ OTTAWA	23.0	02/28/2011	03/03/2011	28.46	03/02/2011
BLANCHARD RIVER @ OTTAWA	23.0	03/07/2011	03/07/2011	23.08	03/07/2011
KANKAKEE RIVER @ DAVIS ROUTE 30	10.0	02/28/2011	03/02/2011	10.16	03/02/2011
KANKAKEE RIVER @ DAVIS ROUTE 30	10.0	03/05/2011	03/07/2011	10.34	03/06/2011
BEAN CREEK @ POWERS	15.0	03/05/2011	03/07/2011	17.21	03/05/2011
ST. JOSEPH (OH) RIVER @ MONTPELIER	12.0	03/06/2011	03/08/2011	12.55	03/07/2011
ST. JOSEPH (OH) RIVER @ NEWVILLE	12.0	03/05/2011	03/12/2011	13.49	03/06/2011
ST. JOSEPH (OH) RIVER NEAR ST. JOE (FT. WAYNE)	12.0	03/05/2011	03/07/2011	12.68	03/06/2011
TIPPECANOE RIVER @ NORWAY	11.5	03/05/2011	03/06/2011	11.76	03/05/2011
TIPPECANOE RIVER @ NORWAY	11.5	03/09/2011	03/09/2011	11.55	03/09/2011
TIPPECANOE RIVER @ NORWAY	11.5	03/10/2011	03/10/2011	11.52	03/10/2011
TIPPECANOE RIVER @ OSWEGO	7.5	03/08/2011	03/14/2011	7.60	03/10/2011



**MONTHLY REPORT OF HYDROLOGIC CONDITIONS**

REPORT FOR:  
MONTH                      YEAR

APRIL                      2011

TO: Hydrologic Information Center, W/OS31  
NOAA's National Weather Service  
1325 East West Highway  
Silver Spring, MD 20910-3283

SIGNATURE  
Michael Rehbein  
Service Hydrologist

DATE  
May 4, 2011

*When no flooding occurs, include miscellaneous river conditions below the small box, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (NWS Instruction 10-924).*

An X inside this box indicates that no flooding occurred within this hydrologic service area.

**...Major flooding conditions return to the Northern Indiana HSA...**

After quite a few months where there were borderline drought conditions across the Northern Indiana HSA, rains returned to the area and produced minor to major flooding across a large part of the area. There was flooding in every major basin, but the basin that experienced major flooding was the Tippecanoe River. The river crested at 14.16 feet at Ora, Indiana which was slightly above the major flood stage of 14 feet. Moderate flooding occurred on the Tippecanoe River at Oswego, Winamac and Norway. The Kankakee River at Davis Route 30 Bridge also experienced moderate flooding. Rainfall at both the major airports in the HSA topped the climatological normal values for the month of April. In the case of South Bend, they reported twice the normal value.

Thanks in part to warmer than normal low temperatures, both the climate sites were slightly above normal in terms of temperature. At the Fort Wayne airport, the average high temperature was 60.3 degrees. This was 0.5 degrees above the normal value of 59.8 degrees. The average low temperature was 40.4 degrees. This was 2.2 degrees above the normal value of 38.2 degrees. This resulted in an average temperature of 50.3 degrees. This was 1.3 degrees above the normal value of 49 degrees. More than five inches (5.30) of rain fell at the airport during the month of April. This was 1.76 inches above the normal value of 3.54 inches. The greatest 24-hour total was 1.31 inches from the 19<sup>th</sup> to the 20<sup>th</sup>. There was only a trace of snowfall for the month that fell on the 18<sup>th</sup>. This was 1.1 inches below normal. This left the seasonal snowfall total at 46.5 inches, which is 11.4 inches above the normal value of 35.1 inches.

At South Bend, the average high temperature for the month was 58.7 degrees. This was 0.2 degrees below the normal low temperature of 58.9 degrees. The average low temperature was 39.1 degrees. This was 1.4 degrees above the normal value of 37.7 degrees. This resulted in an average monthly temperature of 48.9 degrees which was 0.6 degrees above the normal value of 48.3 degrees. Rainfall at the South Bend airport was twice the normal value. The total reported was 7.24 inches while the normal value was 3.62 inches. The greatest 24-hour precipitation amount was 1.62 inches from the 27<sup>th</sup> to the 28<sup>th</sup>. There was only a trace of snowfall that fell on the 22<sup>nd</sup>. This total for the month was 1.7 inches below normal. This leaves the seasonal total at 105.6 inches which is 29.1 inches above the normal value of 76.5 inches.

**...Moderate to major flooding across portions of the area...**

After a dry end to 2010 and beginning of 2011, April saw the return of flooding rains to the region. All four of the major river basins experienced flooding to some degree. Moderate to major flooding was observed along the Tippecanoe River at Oswego, Winamac and Norway (moderate) and Ora (major).

<u>Location</u>	<u>Crest</u>	<u>Flood Stage</u>	<u>Flood Category</u>
Tippecanoe River @ Ora	14.16 ft	12.00 ft	Major
Tippecanoe River @ Oswego	Still rising	7.50 ft	Moderate
Tippecanoe River @ Winamac	12.28 ft	10.00 ft	Moderate
Tippecanoe River @ Norway	15.00 ft	11.50 ft	Moderate
Kankakee River @ Davis Route 30 Bridge	12.88 ft	10.00 ft	Moderate
St. Mary's River @ Decatur	21.01 ft	17.00 ft	Moderate

**...Flooding rains relieve dry conditions across the region...**

After many months of drier than normal conditions, the latest Drought Monitor indicates the dry conditions from earlier this year have been eliminated.

**FLOOD STAGE REPORT**

REPORT FOR:  
 MONTH                      YEAR  
 APRIL                      2011

RIVER AND STATION	FLOOD STAGE (Feet)	ABOVE FLOOD STAGES (Date)		CREST	
		FROM	TO	STAGE (Feet)	DATE
BEAN CREEK @ POWERS	15.0	04/28/2011	04/30/2011	17.87	04/28/2011
BLANCHARD RIVER @ OTTAWA	23.0	04/27/2011	04/28/2011	23.88	04/28/2011
DOWAGIAC RIVER @ SUMNERVILLE	8.0	04/27/2011	04/30/2011	8.93	04/28/2011
EEL RIVER @ NORTH MANCHESTER	9.0	04/28/2011	04/30/2011	10.81	04/28/2011
ELKHART RIVER @ GOSHEN	7.0	04/28/2011	04/30/2011	7.99	04/29/2011
KANKAKEE RIVER @ DAVIS ROUTE 30	10.0	04/20/2011	04/21/2011	10.28	04/21/2011
KANKAKEE RIVER @ DAVIS ROUTE 30	10.0	04/23/2011	04/24/2011	10.0	04/23/2011
KANKAKEE RIVER @ DAVIS ROUTE 30	10.0	04/26/2011	CONTINUED	12.88	04/29/2011
MAUMEE RIVER @ COLISEUM BLVD IN FORT WAYNE	17.0	04/28/2011	CONTINUED	19.34	04/29/2011
MAUMEE RIVER @ DEFIANCE	10.0	04/26/2011	CONTINUED	13.40	04/29/2011
MAUMEE RIVER @ FT. WAYNE	17.0	04/28/2011	CONTINUED	18.69	04/29/2011
MAUMEE RIVER @ NAPOLEON	12.0	04/28/2011	04/29/2011	12.34	04/28/2011
ST. JOSEPH RIVER (MI/IN) @ SOUTH BEND	5.5	04/28/2011	CONTINUED	6.9	04/29/2011
ST. JOSEPH RIVER (IN/OH) @ NEWVILLE	12.0	04/23/2011	CONTINUED	13.34	04/28/2011
ST. JOSEPH RIVER (IN/OH) NEAR ST. JOE (FORT WAYNE)	12.0	04/23/2011	04/24/2011	12.16	04/23/2011
ST. MARY'S RIVER @ DECATUR	17.0	04/28/2011	CONTINUED	21.01	04/29/2011
TIFFIN RIVER @ STRYKER	11.0	04/21/2011	CONTINUED	14.70	04/29/2011
TIPPECANOE RIVER @ OSWEGO	7.5	04/24/2011	CONTINUED	-----	-----
TIPPECANOE RIVER NEAR ORA	12.0	04/27/2011	CONTINUED	14.16	04/30/2011
TIPPECANOE RIVER @ WINAMAC (DCP)	10.0	04/27/2011	CONTINUED	12.28	04/30/2011
TIPPECANOE RIVER @ NORWAY	11.5	04/22/2011	04/24/2011	11.98	04/23/2011
TIPPECANOE RIVER @ NORWAY	11.5	04/26/2011	CONTINUED	15.00	04/28/2011
WABASH RIVER @ LINN GROVE	11.0	04/27/2011	04/30/2011	12.39	04/28/2011
WABASH RIVER NEAR BLUFFTON	12.0	04/28/2011	CONTINUED	13.76	04/29/2011
WABASH RIVER @ BLUFFTON	10.0	04/27/2011	CONTINUED	12.33	04/29/2011
WABASH RIVER @ WABASH	14.0	04/28/2011	04/28/2011	16.65	04/28/2011

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		<b>MONTHLY REPORT OF HYDROLOGIC CONDITIONS</b>  REPORT FOR: MONTH                      YEAR  MAY                              2011
TO: Hydrologic Information Center, W/OS31 NOAA's National Weather Service 1325 East West Highway Silver Spring, MD 20910-3283	SIGNATURE Michael Rehbein Service Hydrologist	DATE  June 14, 2011

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An X inside this box indicates that no flooding occurred within this hydrologic service area.

### **...Record rainfall across parts of northern Indiana brings extensive flooding...**

May saw record rainfall recorded at the Fort Wayne and well above normal rainfall to the South Bend airport. There were several heavy rain events that each caused rivers to exceed flood stage. A number of river sites experienced multiple flooding events, sometimes only separated by a day or two. Nearly every river basin experienced some flooding during the course of the month.

At the Fort Wayne airport, the average high temperature for the month was 72.5 degrees. This was nearly a full degree warmer than the normal high of 71.6 degrees. The average low temperature was 52.5 degrees which was nearly three and a half degrees warmer than the normal value of 49.1 degrees. This resulted in a mean temperature of 62.5 degrees which was slightly more than 2 degrees above the normal value of 60.4 degrees. Record rain was reported at the airport for the month of May. The 10.17 inches of rain reported was 6.42 inches above normal. The normal rainfall for the month should be about 3.75 inches. The greatest 24-hour total was 3.55 inches recorded from the 25<sup>th</sup> to the 26<sup>th</sup>. Hail was observed at the airport on the 23<sup>rd</sup>, so a trace of snow was observed. This left the seasonal total at 46.5 inches, which is 11.4 inches above the normal value of 35.1 inches.

High temperatures at the South Bend airport averaged 70.1 degrees. This was just over half a degree below the normal value of 70.7 degrees. The average low temperature was 50.7 degrees which was 2.3 degrees above the normal value of 48.4 degrees. This resulted in an average temperature of 60.4 degrees which was 0.8 degrees above the normal value of 59.6 degrees. The rainfall total for the month was 7.59 inches. This was more than 4 inches above the normal value of 3.50 inches. The greatest 24-hour total was 2.46 inches on the 25<sup>th</sup> to the 26<sup>th</sup>. There was no snowfall or hail at the airport during the month. This left the seasonal snowfall total at 105.6 inches which was just over 29 inches above the normal value of 76.5 inches.

### **...Moderate flooding occurred across parts of the HSA...**

The result of the record rainfall was moderate to major flooding across much of the area. One site, the Tippecanoe River near Ora rose to moderate flood stage on 2 occasions during the month of May. The following table shows those sites that rose to moderate flood stage.

<u>Site</u>	<u>Crest(ft)</u>	<u>Date</u>	<u>Moderate Flood Stage</u>
Little River above Huntington	17.76	5/27	16
Maumee River @ Coliseum Blvd (FWA)	21.69	5/27	20
Maumee River @ Defiance	17.36	5/28	15
Maumee River @ Ft. Wayne	21.11	5/27	20
Maumee River @ Napoleon	15.40	5/27	15
Maumee River @ New Haven	22.07	5/27	20
St. Joseph River (IN/OH) @ Montpelier	13.36	5/28	13
St. Joseph River (IN/OH) @ Newville	14.61	5/30	14
Tippecanoe River @ Oswego	8.24	5/1	8
Tippecanoe River near Ora	*	5/1	13
Tippecanoe River near Ora	13.52	5/31	13

Several other locations were close to moderate stage or were receding from moderate stage that was reached in late April.

\*The Tippecanoe River near Ora was receding from major stage at the beginning of the month.

### **...Drought conditions...**

Due to the abundance of rain during the month and previous months, drought conditions are not present across any county in the Northern Indiana HSA.

**FLOOD STAGE REPORT**

REPORT FOR:  
MONTH YEAR  
MAY 2011

RIVER AND STATION	FLOOD STAGE (Feet)	ABOVE FLOOD STAGES (Date)		CREST	
		FROM	TO	STAGE (Feet)	DATE
BEAN CREEK @ POWERS	15.0	05/26/2011	05/28/2011	16.82	05/27/2011
BEAN CREEK @ POWERS	15.0	05/29/2011	05/31/2011	17.23	05/30/2011
DOWAGIAC RIVER @ SUMNERVILLE	8.0	05/30/2011	05/30/2011	8.05	05/30/2011
EEL RIVER @ NORTH MANCHESTER	9.0	05/15/2011	05/15/2011	10.93	05/15/2011
EEL RIVER @ NORTH MANCHESTER	9.0	05/26/2011	05/30/2011	10.52	05/26/2011
KANKAKEE RIVER @ DAVIS ROUTE 30	10.0	04/26/2011	05/07/2011	12.88	04/29/2011
KANKAKEE RIVER @ DAVIS ROUTE 30	10.0	05/15/2011	05/18/2011	10.72	05/16/2011
KANKAKEE RIVER @ DAVIS ROUTE 30	10.0	05/26/2011	CONTINUE	12.19	05/30/2011
LITTLE RIVER ABOVE HUNTINGTON	15.0	05/25/2011	05/29/2011	17.76	05/27/2011
MAUMEE RIVER @ COLISEUM BLVD IN FORT WAYNE	17.0	04/28/2011	05/01/2011	19.34	04/29/2011
MAUMEE RIVER @ COLISEUM BLVD IN FORT WAYNE	17.0	05/25/2011	CONTINUE	21.69	05/27/2011
MAUMEE RIVER @ DEFIANCE	10.0	04/26/2011	05/01/2011	13.40	04/29/2011
MAUMEE RIVER @ DEFIANCE	10.0	05/25/2011	05/31/2011	17.36	05/28/2011
MAUMEE RIVER @ FT. WAYNE	17.0	04/28/2011	05/01/2011	18.69	04/29/2011
MAUMEE RIVER @ FT. WAYNE	17.0	05/25/2011	CONTINUE	21.11	05/27/2011
MAUMEE RIVER @ NAPOLEON	12.0	05/26/2011	05/30/2011	15.40	05/27/2011
MAUMEE RIVER @ NEW HAVEN	17.0	04/28/2011	05/01/2011	19.06	04/30/2011
MAUMEE RIVER @ NEW HAVEN	17.0	05/25/2011	CONTINUE	22.07	05/27/2011
PIGEON RIVER NEAR SCOTT	6.0	05/27/2011	CONTINUE	6.59	05/30/2011
ST. JOSEPH RIVER (MI/IN) @ SOUTH BEND	5.5	04/28/2011	05/02/2011	6.9	04/29/2011
ST. JOSEPH RIVER (MI/IN) @ THREE RIVERS	7.0	05/31/2011	CONTINUE	7.04	05/31/2011
ST. JOSEPH RIVER (IN/OH) @ MONTPELIER	12.0	05/26/2011	CONTINUE	13.36	05/28/2011
ST. JOSEPH RIVER (IN/OH) @ NEWVILLE	12.0	04/23/2011	05/03/2011	13.34	04/28/2011
ST. JOSEPH RIVER (IN/OH) @ NEWVILLE	12.0	05/17/2011	05/21/2011	12.53	05/20/2011
ST. JOSEPH RIVER (IN/OH) @ NEWVILLE	12.0	05/26/2011	CONTINUE	14.61	05/30/2011
ST. JOSEPH RIVER (IN/OH) NEAR ST. JOE (FT. WAYNE)	12.0	05/25/2011	05/31/2011	14.47	05/27/2011
ST. MARY'S RIVER @ DECATUR	17.0	04/28/2011	05/01/2011	21.01	04/29/2011
ST. MARY'S RIVER @ DECATUR	17.0	05/24/2011	05/25/2011	18.45	05/24/2011
ST. MARY'S RIVER @ DECATUR	17.0	05/25/2011	05/31/2011	19.65	05/26/2011
ST. MARY'S RIVER @ MULDOON BRIDGE	14.0	05/25/2011	05/27/2011	14.73	05/26/2011
SPY RUN CREEK @ FT. WAYNE CHILDREN'S ZOO	11.0	05/25/2011	05/25/2011	11.76	05/25/2011
TIFFIN RIVER @ STRYKER	11.0	04/21/2011	05/04/2011	14.70	04/29/2011
TIFFIN RIVER @ STRYKER	11.0	05/16/2011	05/18/2011	11.31	05/17/2011
TIFFIN RIVER @ STRYKER	11.0	05/26/2011	CONTINUE	14.54	05/31/2011
TIPPECANOE RIVER @ OSWEGO	7.5	04/24/2011	05/09/2011	8.24	05/01/2011
TIPPECANOE RIVER @ OSWEGO	7.5	05/29/2011	CONTINUE	STILL RISING	N/A
TIPPECANOE RIVER NEAR ORA	12.0	04/27/2011	05/05/2011	14.16	04/30/2011
TIPPECANOE RIVER NEAR ORA	12.0	05/27/2011	CONTINUE	13.52	05/31/2011
TIPPECANOE RIVER @ WINAMAC (DCP)	10.0	04/27/2011	05/04/2011	12.28	04/30/2011

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TIPPECANOE RIVER @ NORWAY	11.5	04/26/2011	05/03/2011	15.00	04/28/2011
TIPPECANOE RIVER @ NORWAY	11.5	05/26/2011	CONTINUE	13.06	05/29/2011
WABASH RIVER NEAR BLUFFTON	12.0	04/28/2011	05/01/2011	13.76	04/29/2011
WABASH RIVER @ BLUFFTON	10.0	04/27/2011	05/01/2011	12.33	04/29/2011
WABASH RIVER @ WABASH	14.0	05/15/2011	05/15/2011	17.71	05/15/2011
WABASH RIVER @ WABASH	14.0	05/26/2011	05/27/2011	15.00	05/26/2011

<b>NWS Form E-5</b> (04-2006) (PRES. BY NWS Instruction 10-924)	<b>U.S. DEPARTMENT OF COMMERCE</b> <b>NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION</b> <b>NATIONAL WEATHER SERVICE</b>	HYDROLOGIC SERVICE AREA (HSA)  NORTHERN INDIANA (IWX)
		<b>MONTHLY REPORT OF HYDROLOGIC CONDITIONS</b>  REPORT FOR: MONTH            YEAR  JUNE              2011
TO: Hydrologic Information Center, W/OS31 NOAA's National Weather Service 1325 East West Highway Silver Spring, MD 20910-3283		SIGNATURE Michael Rehbein Service Hydrologist  DATE  July 12, 2011

*When no flooding occurs, include miscellaneous river conditions below the small box, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (NWS Instruction 10-924).*

An X inside this box indicates that no flooding occurred within this hydrologic service area.

### **...Wet conditions from May spill over into June...**

Flooding was ongoing at a dozen locations to begin the month of June. Rivers that were in flood at the beginning of the month include the Kankakee, both of the St. Joseph Rivers, the Tiffin, Pigeon River, the Tippecanoe and the Maumee River. With the exception of the Tippecanoe River at Oswego, river levels were falling at the beginning of the month, but Oswego crested on the 3<sup>rd</sup>. June saw temperatures average above normal at both climatological sites in Northern Indiana, but rainfall ranged from three-quarters of an inch below normal at Ft. Wayne to three-quarters of an inch above normal at South Bend.

Temperatures at the Fort Wayne airport averaged above normal for the month of June. The average high temperature was 82.2 degrees. This was 1.6 degrees above the normal value of 80.6 degrees. The average low was 62.0 degrees which was 3.2 degrees above the normal value of 58.8 degrees. This resulted in an average temperature for the month of 72.1 degrees. This was 2.4 degrees above the normal value of 69.7 degrees. Precipitation for the month was about three-quarters of an inch below normal. There was 3.25 inches reported at the airport in June which was 0.79 inches below the normal value of 4.04 inches. The greatest 24-hour total was 1.66 inches on the 10<sup>th</sup>.

The average high temperature at the South Bend airport was 79.9 degrees. This was 0.3 degrees above the normal value of 79.6 degrees. Low temperatures averaged 60.7 degrees for the month. This was 2.4 degrees above the normal value of 58.3 degrees. This resulted in an average temperature for the month of 70.3 degrees which was 1.3 degrees above the normal value of 69 degrees. Above normal rainfall was reported at the airport for the month. There was 4.94 inches reported in South Bend which was 0.75 inches above the normal value of 4.19 inches. The greatest 24-hour total was 1.48 inches which occurred on the 18<sup>th</sup>.

### **...Only minimal flooding in the area as water recedes...**

Flooding was only minima across the region last month as the high water from May receded. There were a few river locations that were experiencing minor flooding as water levels were mainly on the decrease at the beginning of the month. The only exception was the Tippecanoe River at Oswego which crested on the 3<sup>rd</sup> of June. By the 7<sup>th</sup> of the month, all river locations across the Northern Indiana HSA had fallen to below flood stage and remained that way throughout the remainder of the month.



**...Drought conditions remain non-existent...**

Rainfall over the past several months have ensured that drought conditions have not returned to the northern Indiana HSA. According to the latest Drought Monitor, there were no drought conditions in or near the area.

**FLOOD STAGE REPORT**

REPORT FOR:  
 MONTH            YEAR  
 JUNE            2011

RIVER AND STATION	FLOOD STAGE (Feet)	ABOVE FLOOD STAGES (Date)		CREST	
		FROM	TO	STAGE (Feet)	DATE
KANKAKEE RIVER @ DAVIS ROUTE 30	10.0	05/26/2011	06/04/2011	12.19	05/30/2011
MAUMEE RIVER @ COLISEUM BLVD IN FORT WAYNE	17.0	05/25/2011	06/01/2011	21.69	05/27/2011
MAUMEE RIVER @ FT. WAYNE	17.0	05/25/2011	06/01/2011	21.11	05/27/2011
MAUMEE RIVER @ NEW HAVEN	17.0	05/25/2011	06/01/2011	22.07	05/27/2011
PIGEON RIVER NEAR SCOTT	6.0	05/27/2011	06/04/2011	6.59	05/30/2011
ST. JOSEPH RIVER (MI/IN) @ THREE RIVERS	7.0	05/31/2011	06/02/2011	7.04	05/31/2011
ST. JOSEPH RIVER (IN/OH) @ MONTPELIER	12.0	05/26/2011	06/01/2011	13.36	05/28/2011
ST. JOSEPH RIVER (IN/OH) @ NEWVILLE	12.0	05/26/2011	06/04/2011	14.61	05/30/2011
TIFFIN RIVER @ STRYKER	11.0	05/26/2011	06/04/2011	14.54	05/31/2011
TIPPECANOE RIVER @ NORWAY	11.5	05/26/2011	06/01/2011	13.06	05/29/2011
TIPPECANOE RIVER @ OSWEGO	7.5	05/29/2011	06/07/2011	8.03	06/03/2011
TIPPECANOE RIVER NEAR ORA	12.0	05/27/2011	06/03/2011	13.52	05/31/2011

<b>NWS Form E-5</b> (04-2006) (PRES. BY NWS Instruction 10-924)	<b>U.S. DEPARTMENT OF COMMERCE</b> <b>NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION</b> <b>NATIONAL WEATHER SERVICE</b>	HYDROLOGIC SERVICE AREA (HSA)
		NORTHERN INDIANA (IWX)
<b>MONTHLY REPORT OF HYDROLOGIC CONDITIONS</b>		REPORT FOR: MONTH                      YEAR
		JULY                              2011
TO: Hydrologic Information Center, W/OS31 NOAA's National Weather Service 1325 East West Highway Silver Spring, MD 20910-3283		SIGNATURE Michael Rehbein Service Hydrologist
		DATE August 11, 2011

*When no flooding occurs, include miscellaneous river conditions below the small box, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (NWS Instruction 10-924).*

An X inside this box indicates that no flooding occurred within this hydrologic service area.

**...Hot and dry conditions prevail across much of the Northern Indiana HSA...**

All of the Northern Indiana HSA baked under relentless heat during the month of July. Afternoon temperatures reached at least 90 degrees 11 times at South Bend, and 22 times at Fort Wayne! This helped to make July 2011 the warmest month on record at the Fort Wayne airport. Temperatures were also well above normal at the South Bend airport.

Temperatures at the Fort Wayne airport averaged more than 6 degrees above the normal for the entire month of July. The average high temperature was 91 degrees. This was 6.7 degrees above the normal value of 84.3 degrees. The average low temperature was 68.6 degrees which was 6.1 degrees above the normal value of 62.5 degrees. This resulted in a record breaking average monthly temperature of 79.8 degrees which was 6.4 degrees above the normal value of 73.4 degrees. There were 22 days in which the high temperature reached or exceeded 90 degrees. This breaks the old record of 21 days set in July 1983. Rainfall for the month was well below normal at Fort Wayne. There was only 0.98 inches reported at the airport. This was 2.60 inches below the normal value of 3.58 inches. The greatest 24-hour total was 0.39 inches on the 8<sup>th</sup>. The combination of below normal rainfall and well above normal temperatures has led to increasingly dry conditions across the eastern parts of the Northern Indiana HSA.

Although not quite as warm, South Bend also recorded above normal temperatures for the month of July. The airport reported an average high temperature of 87.4 degrees which was 4.3 degrees above the normal value of 83.1 degrees. The average overnight low temperature was 67.5 degrees. This was 4.7 degrees above the normal value of 62.8 degrees. This resulted in an average temperature of 77.5 degrees which was 4.5 degrees above the normal value of 73 degrees. There were 11 days with highs of 90 degrees or higher. There was a bit more rainfall across western sections of the HSA. At South Bend, there was 2.52 inches reported. This was 1.21 inches below the normal value of 3.73 inches. The greatest 24-hour rainfall total was 0.88 inches from the 18<sup>th</sup> to the 19<sup>th</sup>.

**...No flooding occurred across the region in July...**

The lack of rainfall across the area meant rivers were well below flood stage for the entire month. There were no reports of any flooding this month.

**...Drought conditions return to parts of the area...**

Due to hot temperatures and below normal rainfall for the month, much of the Northern Indiana HSA was experiencing abnormally dry conditions (D0). Parts of the area near the Fort Wayne metro area into northwestern Ohio were experiencing moderate drought (D1) conditions. The only area that was not experiencing any drought conditions were those areas west of

<b>NWS Form E-5</b> (04-2006) (PRES. BY NWS Instruction 10-924)	<b>U.S. DEPARTMENT OF COMMERCE</b> <b>NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION</b> <b>NATIONAL WEATHER SERVICE</b>	HYDROLOGIC SERVICE AREA (HSA) NORTHERN INDIANA (IWX)
		REPORT FOR: MONTH                      YEAR AUGUST                      2011
<b>MONTHLY REPORT OF HYDROLOGIC CONDITIONS</b>		SIGNATURE Michael Rehbein Service Hydrologist
TO: Hydrologic Information Center, W/OS31 NOAA's National Weather Service 1325 East West Highway Silver Spring, MD 20910-3283		DATE September 12, 2011

*When no flooding occurs, include miscellaneous river conditions below the small box, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (NWS Instruction 10-924).*

An X inside this box indicates that no flooding occurred within this hydrologic service area.

**...Above normal temperatures and below normal precipitation again in August...**

Once again, temperatures were above normal and precipitation amounts were below normal during the month of August. This combination has led to abnormally dry conditions across most of the Northern Indiana HSA.

At the Fort Wayne airport, daily high temperatures averaged just over 2 degrees above normal. The observed value was 83 degrees, while the average high temperature is 80.9 degrees. The average low temperature was 61.5 degrees which was 0.2 degrees below the normal value of 61.7 degrees. This resulted in an average temperature of 72.2 degrees. This was 0.9 degrees above the normal value of 71.3 degrees. For the month, there was 1.94 inches of rain. This was 1.82 inches below the normal value of 3.76 inches. The greatest 24-hour rainfall total was 0.64 inches from the 6<sup>th</sup> to the 7<sup>th</sup>.

At South Bend, afternoon high temperatures averaged 84.8 degrees. This was 2.6 degrees above the normal value of 82.2 degrees. The average low temperature was 61.2 degrees which was 0.4 degrees above the normal value of 60.8 degrees. This resulted in an average temperature of 73 degrees for the entire month. That was 1.5 degrees above the normal value of 71.5 degrees. Rainfall here was also below normal values. For the month, 3.37 inches of rain was observed at the airport. This was 0.27 inches below the normal value of 3.64 inches. The greatest 24-hour rainfall total was 1.13 inches from the 8<sup>th</sup> to the 9<sup>th</sup>.

**...No flooding occurred on Northern Indiana rivers...**

Once again, due to the below normal rainfall totals, there were no flooding issues on any river in the Northern Indiana HSA.

**...Abnormally dry conditions persist across the area...**

Abnormally dry conditions are present across much of the Northern Indiana HSA. The only areas where conditions are not dry include the northwestern Ohio counties and the western counties of northern Indiana. The latest Drought Monitor can be found at <http://droughtmonitor.unl.edu>.

<b>NWS Form E-5</b> (04-2006) (PRES. BY NWS Instruction 10-924)	<b>U.S. DEPARTMENT OF COMMERCE</b> <b>NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION</b> <b>NATIONAL WEATHER SERVICE</b>	HYDROLOGIC SERVICE AREA (HSA)  NORTHERN INDIANA (IWX)
		<b>MONTHLY REPORT OF HYDROLOGIC CONDITIONS</b>  REPORT FOR: MONTH                      YEAR  SEPTEMBER              2011
TO: Hydrologic Information Center, W/OS31 NOAA's National Weather Service 1325 East West Highway Silver Spring, MD 20910-3283		SIGNATURE Michael Rehbein Service Hydrologist
		DATE  October 13, 2011

*When no flooding occurs, include miscellaneous river conditions below the small box, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (NWS Instruction 10-924).*

An X inside this box indicates that no flooding occurred within this hydrologic service area.

### **...Flooding returns to the Northern Indiana HSA...**

For the first time in quite a few months, rains caused flooding or near flooding conditions across the Northern Indiana HSA. Rainfall across the area was above normal for the month, thanks in part to a very slow moving upper level low pressure system that meandered across the area during the latter half of the month. This feature was responsible for some areas receiving several inches of rain spread out over the course of a week, particularly over the eastern part of the region. There was one river site that exceeded flood stage and one that reached action stage during the month.

Temperatures across the region were mostly slightly below climatological normal for the month. At the Ft. Wayne airport, the average high temperature was 72.2 degrees. This was 3.8 degrees below the normal value of 76 degrees. Overnight lows were slightly above normal. The average low was 52.8 degrees which was 0.2 degrees above the normal value of 52.6 degrees. This resulted in an average temperature of 62.5 degrees. This was 1.8 degrees below the normal value of 64.3 degrees. There was 4.76 inches of rainfall during the month. This was 1.96 inches above the normal value of 2.80 inches. The greatest 24-hour rainfall total was 1.18 inches which occurred from the 25<sup>th</sup> to the 26<sup>th</sup>.

At South Bend, the average high temperature for the month was 71.3 degrees. This was 2.7 degrees below the normal value of 74 degrees. The average low temperature was 52.5 degrees which was 1.2 degrees below the normal value of 53.7 degrees. This yielded an average temperature of 61.9 degrees which was 2 degrees below the normal value of 63.9 degrees. The rainfall total for the month was 3.65 inches. This was 0.12 inches above the normal value of 3.53 inches.

### **...Flooding reported along the Blanchard River at Ottawa, Ohio...**

The stubbornly slow moving upper low that meandered across the Ohio River Valley during the latter half of September brought abundant amounts of rain to the Northern Indiana HSA...particularly across the eastern part of the area. Some areas experienced 2 inches or more rainfall during the week that the upper low moved first westward and then eastward through the area. There was sufficient rainfall to cause the Blanchard River at Ottawa, OH to briefly exceed flood stage. The river crested at 23.65 feet on the 29<sup>th</sup>. Flood stage is 23.0 feet.

**...Still some dry areas across the region...**

Despite the above normal rainfall for the month, there is still one area that is abnormally dry according to the latest Drought Monitor. A small region along the Indiana/Michigan border remains in drought category 0.

NWS Form E-3  
 (04-2006)  
 (PRES. BY NWS Instruction 10-924)

U.S. DEPARTMENT OF COMMERCE  
 NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
 NATIONAL WEATHER SERVICE

Hydrologic Service Area (HSA)  
 NORTHERN INDIANA (IWX)

**FLOOD STAGE REPORT**

REPORT FOR:  
 MONTH            YEAR  
 SEPTEMBER    2011

RIVER AND STATION	FLOOD STAGE (Feet)	ABOVE FLOOD STAGES (Date)		CREST	
		FROM	TO	STAGE (Feet)	DATE
BLANCHARD RIVER @ OTTAWA	23.0	09/28/2011	09/30/2011	23.65	09/29/2011



<b>NWS Form E-5</b> (04-2006) (PRES. BY NWS Instruction 10-924)	<b>U.S. DEPARTMENT OF COMMERCE</b> <b>NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION</b> <b>NATIONAL WEATHER SERVICE</b>	HYDROLOGIC SERVICE AREA (HSA)  NORTHERN INDIANA (IWX)
		<b>MONTHLY REPORT OF HYDROLOGIC CONDITIONS</b>
TO: Hydrologic Information Center, W/OS31 NOAA's National Weather Service 1325 East West Highway Silver Spring, MD 20910-3283		REPORT FOR: MONTH                      YEAR  OCTOBER                      2011
		SIGNATURE Michael Rehbein Service Hydrologist
		DATE  November 16, 2011

*When no flooding occurs, include miscellaneous river conditions below the small box, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (NWS Instruction 10-924).*

An X inside this box indicates that no flooding occurred within this hydrologic service area.

**...Above normal rainfall brings isolated flooding to the Northern Indiana HSA...**

Rainfall totals for the month of October were above climatological normal. Heavy rain during the latter part of the month helped two locations exceed flood stage, and several others to rise to near flood stage. Overall, temperatures were above normal for the month.

Temperatures at the Fort Wayne airport averaged slightly above normal for the month of October. The average high temperature was 65.2 degrees which was 1.8 degrees above the normal high temperature of 63.4 degrees. The average low temperature was 41.5 degrees. This was 0.3 degrees below the normal value of 41.8 degrees. This resulted in an average temperature of 53.4 degrees which was 0.8 degrees above the normal value of 52.6 degrees. Precipitation for the month was well above normal. There was 3.81 inches reported for the month. This was 0.97 inches above the normal value of 2.84 inches. The greatest 24-hour rainfall total was 2.46 inches from the 19<sup>th</sup> to the 20<sup>th</sup>.

Conditions at the South Bend airport were comparable to those at Ft. Wayne. The average high temperature was 64.1 degrees. This was 2.4 degrees above the normal value of 61.7 degrees. The average low temperature was 42.4 degrees which was 0.2 degrees below the normal value of 42.6 degrees. The result was an average temperature of 53.2 degrees and this was 1.1 degrees above the normal value of 52.1 degrees. Rainfall for the month was well above normal values. There was 4.57 inches of rain reported during the month. This was 1.25 inches above the normal value of 3.32 inches. The greatest 24-hour rainfall total was 2.17 inches from the 19<sup>th</sup> to the 20<sup>th</sup>.

**...Brief minor flooding in portion of northwestern Ohio...**

Going into the month of October, much of the area was somewhat dry due to sparse rainfall the previous month. This caused below normal river levels across some areas of the HSA. The heavy rains during the latter part of the month did allow the Blanchard River at Ottawa and the Auglaize River near Ft. Jennings to exceed flood stage. Both sites experienced only minor flooding of the river and both rivers receded after only a couple of days above flood.

**...No drought conditions across the area...**

According to the latest Drought Monitor, there are no drought conditions across the Northern Indiana HSA.

**FLOOD STAGE REPORT**

REPORT FOR:  
 MONTH            YEAR  
 OCTOBER        2011

RIVER AND STATION	FLOOD STAGE (Feet)	ABOVE FLOOD STAGES (Date)		CREST	
		FROM	TO	STAGE (Feet)	DATE
BLANCHARD RIVER @ OTTAWA	23.0	10/21/2011	10/23/2011	24.65	10/22/2011
AUGLAIZE RIVER @ FT. JENNINGS	13.0	10/21/2011	10/22/2011	13.28	10/22/2011

**MONTHLY REPORT OF HYDROLOGIC CONDITIONS**

REPORT FOR:  
MONTH                      YEAR

NOVEMBER                2011

TO: Hydrologic Information Center, W/OS31  
NOAA's National Weather Service  
1325 East West Highway  
Silver Spring, MD 20910-3283

SIGNATURE  
Michael Rehbein  
Service Hydrologist

DATE  
December 19, 2011

*When no flooding occurs, include miscellaneous river conditions below the small box, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (NWS Instruction 10-924).*

An X inside this box indicates that no flooding occurred within this hydrologic service area.

**...Warmer and wetter than normal conditions across the Northern Indiana HSA...**

November was a warmer and wetter than normal month across the entire HSA. Some parts of the area saw as much as twice the normal amount of rain for the month. The abundant rainfall, mainly across the eastern parts of the area, led to extensive river flooding across parts of northeastern Indiana into northwestern Ohio. Bean Creek at Powers, OH saw a crest of 20.57 feet on the 30<sup>th</sup> which established a record crest for that point.

The Fort Wayne airport reported temperatures well above normal for the month. The average high temperature was 54.4 degrees. This was 4.5 degrees above the normal value of 49.9 degrees. The average low temperature was 37 degrees which was 4.1 degrees above the normal value of 32.9 degrees. This resulted in an average monthly temperature of 45.7 degrees which was 4.3 degrees above the climatological normal. Precipitation at Ft. Wayne was nearly twice the climatological normal. There was 6.09 inches recorded for the month. This was 3.00 inches above the normal of 3.09 inches. The greatest 24-hour rainfall amount was 2.69 inches from the 28<sup>th</sup> to the 29<sup>th</sup>. This precipitation amount included 4.4 inches of snow. This was 2.6 inches above the normal value of 1.8 inches. The greatest 24-hour snowfall total was 4.1 inches.

Temperature conditions at the South Bend airport were similar to those at the Ft. Wayne airport but precipitation results were very different. The average high temperature was 53.1 degrees which was 4.9 degrees above the normal value of 48.2 degrees. The average low was 36.9 degrees. This was 3.6 degrees above the normal value of 33.3 degrees. The resulting average temperature for the month was 45 degrees which was 4.3 degrees above the normal value of 40.7 degrees. Precipitation for the month was just slightly above normal. There was 3.46 inches reported at the airport for the month. This was 0.19 inches above the normal value of 3.27 inches. The greatest 24-hour total was 1.15 inches on the 22<sup>nd</sup>. There was only a trace of snowfall for the month. This was 4.8 inches below normal.

**...Several storm systems lead to flooding across the eastern HSA...**

There were several storm systems that moved across the Northern Indiana HSA during the month of November. This caused increasingly wet conditions to the region. Finally, saturated grounds and heavy rainfall led to extensive river flooding across northeastern Indiana and northwestern Ohio. Much of this

flooding started during the last week of the month and continued into December. The Bean Creek near Powers, Ohio saw a record crest of 20.57 feet which occurred on the 30<sup>th</sup>. There was also moderate to major flooding over other portions of the Maumee River basin.

<u>River and Location</u>	<u>Crest</u>	<u>Flood category</u>
Bean Creek at Powers	20.57 feet	Record
Tiffin River at Stryker	17.50 feet	Major
St. Joseph River at Montpelier	15.51 feet	Moderate
St. Joseph River at Newville	16.61 feet	Moderate
Eel River at North Manchester	11.42 feet	Moderate
Maumee River at Ft. Wayne	22.15 feet	Moderate
Maumee River at Coliseum Blvd. in Ft. Wayne	22.32 feet	Moderate
Maumee River at New Haven	22.29 feet	Moderate
Maumee River at Defiance	17.44 feet	Moderate
Maumee River at Napoleon	15.50 feet	Moderate
St. Mary's River at Decatur	20.14 feet	Moderate

**...No drought conditions across the area...**

The abundant rainfall over the past couple of months has prevented drought conditions from developing across the Northern Indiana HSA. The latest Drought Monitor can be found at the following web site: <http://droughtmonitor.unl.edu/>.

**FLOOD STAGE REPORT**

REPORT FOR:  
MONTH            YEAR  
NOVEMBER      2011

RIVER AND STATION	FLOOD STAGE (Feet)	ABOVE FLOOD STAGES (Date)		CREST	
		FROM	TO	STAGE (Feet)	DATE
BEAN CREEK @ POWERS	15.0	11/23/2011	11/24/2011	15.85	11/23/2011
BEAN CREEK @ POWERS	15.0	11/29/2011	CONTINUED	20.57*	11/30/2011
TIFFIN RIVER @ STRYKER	11.0	11/23/2011	CONTINUED		
ST. JOSEPH RIVER @ MONTPELIER	12.0	11/24/2011	11/25/2011	12.37	11/25/2011
ST. JOSEPH RIVER @ MONTPELIER	12.0	11/29/2011	CONTINUED		
ST. JOSEPH RIVER @ NEWVILLE	12.0	11/24/2011	CONTINUED		
ST. JOSEPH RIVER NEAR ST. JOE FT. WAYNE	12.0	11/29/2011	CONTINUED		
AUGLAIZE RIVER @ FT. JENNINGS	13.0	11/30/2011	CONTINUED		
AUGLAIZE RIVER @ DEFIANCE POWER DAM	21.0	11/30/2011	CONTINUED		
BLANCHARD RIVER @ OTTAWA	23.0	11/29/2011	CONTINUED		
CEDAR CREEK @ 18 <sup>TH</sup> ST IN AUBURN	9.0	11/29/2011	11/30/2011	9.88	11/30/2011
EEL RIVER @ NORTH MANCHESTER	9.0	11/29/2011	CONTINUED	11.42	11/30/2011
FISH CREEK @ HAMILTON	9.0	11/29/2011	CONTINUED	10.66	11/30/2011
LITTLE RIVER ABOVE HUNTINGTON	15.0	11/29/2011	CONTINUED	16.60	11/30/2011
MAUMEE RIVER @ FT. WAYNE	17.0	11/29/2011	CONTINUED		
MAUMEE RIVER @ COLISEUM BLVD IN FT. WAYNE	17.0	11/29/2011	CONTINUED		
MAUMEE RIVER @ NEW HAVEN	17.0	11/29/2011	CONTINUED		
MAUMEE RIVER @ DEFIANCE	10.0	11/29/2011	CONTINUED		
MAUMEE RIVER @ NAPOLEON	12.0	11/29/2011	CONTINUED		
PIGEON RIVER NEAR SCOTT	6.0	11/30/2011	CONTINUED		
ST. MARY'S RIVER @ DECATUR	17.0	11/29/2011	CONTINUED	20.14	11/30/2011
ST. MARY'S RIVER @ MULDOON BRIDGE	14.0	11/29/2011	CONTINUED		
SPY RUN CREEK @ FT. WAYNE CHILDRENS ZOO	11.0	11/29/2011	11/29/2011	11.72	11/29/2011
WABASH RIVER @ BLUFFTON	10.0	11/30/2011	CONTINUED		
WABASH RIVER @ WABASH	14.0	11/29/2011	11/29/2011	14.86	11/29/2011

\*RECORD FLOOD

**MONTHLY REPORT OF HYDROLOGIC CONDITIONS**

REPORT FOR:  
MONTH                      YEAR

DECEMBER                2011

TO: Hydrologic Information Center, W/OS31  
NOAA's National Weather Service  
1325 East West Highway  
Silver Spring, MD 20910-3283

SIGNATURE  
Michael Rehbein  
Service Hydrologist

DATE  
January 17, 2012

*When no flooding occurs, include miscellaneous river conditions below the small box, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (NWS Instruction 10-924).*

An X inside this box indicates that no flooding occurred within this hydrologic service area.

**...Flooding rains continued in December...**

Heavy rains from November continued into the month of December. An active weather pattern and warmer than normal temperatures helped to continue the wet trend that was begun in November. Heavy rains that started in November continued into the first week of December and led to widespread flooding, including a record crest on the Tippecanoe River at North Webster, IN.

December saw temperatures well above the climatological normal values at both Ft. Wayne and South Bend. The average high temperature at the Ft. Wayne airport was 41.4 degrees. This was 5.2 degrees above the normal value of 36.2 degrees. The average low temperature was 28.9 degrees which was 6.8 degrees above the normal value of 22.1 degrees. This resulted in an average temperature of 35.1 degrees which was 6 degrees above the normal value of 29.1 degrees. The total liquid precipitation amount for the month was 3.77 inches. This was an inch above the normal value of 2.77 inches. The greatest 24-hour liquid equivalent for the month was 1.24 inches from the 14<sup>th</sup> to the 15<sup>th</sup>. There was 6.6 inches of snow for the month. This was 1.9 inches below the normal value of 8.5 inches. The greatest snow depth was 2 inches and the greatest 24-hour snowfall total was 3.3 inches.

South Bend was equally warm during the month of December. The average high temperature at the airport was 41.2 degrees. This was 6 degrees above the normal value of 35.2 degrees. The average low temperature was 29 degrees. This was 6.6 degrees above the normal value of 22.4 degrees. This resulted in an average monthly temperature of 35.1 degrees which was 6.3 degrees above the normal value of 28.8 degrees. Liquid equivalent precipitation was very close to climatological normal. There were 2.62 inches of liquid during the month which was only 0.01 inches above the normal value of 2.61 inches. The greatest 24-hour liquid equivalent was 1.30 inches on the 14<sup>th</sup>. Snowfall was well below the normal value due to the warmer than normal conditions. There was only 5.7 inches of snow for the entire month. This was 11.6 inches below the normal value of 17.3 inches. The greatest snow depth was 2 inches and the greatest 24-hour snowfall total was 2.9 inches.

**...Flooding rains from November continue into December...**

Heavy rains that plagued the Northern Indiana HSA in November continued into December. A number of rivers began the month above the flood stage as heavy rains from the last week in November kept

river levels high. There were a number of rivers that crested above moderate or even major stage. One river, the Tippecanoe River at North Webster, established a new record flood level. Two river sites – the St. Joseph River at Montpelier and the Tippecanoe River at Ora – exceeded flood stage on 3 separate occasions during the month of December. As a result of the excessive rains the past 2 months, there are no drought conditions anywhere in the Northern Indiana HSA.



**FLOOD STAGE REPORT**

REPORT FOR:  
MONTH            YEAR  
DECEMBER      2011

RIVER AND STATION	FLOOD STAGE (Feet)	ABOVE FLOOD STAGES (Date)		CREST	
		FROM	TO	STAGE (Feet)	DATE
BEAN CREEK @ POWERS	15.0	11/29/2011	12/03/2011	20.57*	11/30/2011
BEAN CREEK @ POWERS	15.0	12/15/2011	12/16/2011	15.92	12/16/2011
TIFFIN RIVER @ STRYKER	11.0	11/23/2011	12/12/2011	17.50	12/01/2011
TIFFIN RIVER @ STRYKER	11.0	12/15/2011	12/21/2011	13.14	12/17/2011
ST. JOSEPH RIVER @ MONTPELIER	12.0	11/29/2011	12/05/2011	15.51	12/01/2011
ST. JOSEPH RIVER @ MONTPELIER	12.0	12/06/2011	12/08/2011	12.33	12/07/2011
ST. JOSEPH RIVER @ MONTPELIER	12.0	12/16/2011	12/18/2011	12.67	12/17/2011
ST. JOSEPH RIVER @ NEWVILLE	12.0	11/24/2011	12/10/2011	16.61	12/02/2011
ST. JOSEPH RIVER @ NEWVILLE	12.0	12/15/2011	12/20/2011	12.91	12/18/2011
ST. JOSEPH RIVER NEAR ST. JOE FT. WAYNE	12.0	11/29/2011	12/07/2011	17.60	12/01/2011
AUGLAIZE RIVER @ FT. JENNINGS	13.0	11/30/2011	12/02/2011	14.29	12/01/2011
AUGLAIZE RIVER @ FT. JENNINGS	13.0	12/06/2011	12/08/2011	13.55	12/07/2011
AUGLAIZE RIVER NEAR DEFIANCE POWER DAM	21.0	11/30/2011	12/02/2011	22.05	12/01/2011
BLANCHARD RIVER @ OTTAWA	23.0	11/29/2011	12/03/2011	26.33	12/01/2011
BLANCHARD RIVER @ OTTAWA	23.0	12/06/2011	12/08/2011	24.22	12/07/2011
EEL RIVER @ NORTH MANCHESTER	9.0	11/29/2011	12/02/2011	11.42	11/30/2011
EEL RIVER @ NORTH MANCHESTER	9.0	12/15/2011	12/16/2011	10.19	12/15/2011
FISH CREEK @ HAMILTON	9.0	11/29/2011	12/01/2011	10.66	11/30/2011
KANKAKEE RIVER @ DAVIS ROUTE 30	10.0	12/15/2011	12/19/2011	11.34	12/16/2011
LITTLE RIVER ABOVE HUNTINGTON	15.0	11/29/2011	12/02/2011	16.60	11/30/2011
MAUMEE RIVER @ FT. WAYNE	17.0	11/29/2011	12/08/2011	22.15	12/01/2011
MAUMEE RIVER @ COLISEUM BLVD IN FT. WAYNE	17.0	11/29/2011	12/08/2011	22.32	12/01/2011
MAUMEE RIVER @ NEW HAVEN	17.0	11/29/2011	12/08/2011	22.29	12/01/2011
MAUMEE RIVER @ DEFIANCE	10.0	11/29/2011	12/09/2011	17.44	12/01/2011
MAUMEE RIVER @ NAPOLEON	12.0	11/29/2011	12/03/2011	15.50	12/01/2011
PIGEON RIVER NEAR SCOTT	6.0	11/30/2011	12/14/2011	6.92	12/06/2011
PIGEON RIVER NEAR SCOTT	6.0	12/14/2011	12/23/2011	6.55	12/16/2011
ST. JOSEPH RIVER @ SOUTH BEND	5.5	12/15/2011	12/17/2011	6.10	12/16/2011
ST. MARY'S RIVER @ DECATUR	17.0	11/29/2011	12/04/2011	20.14	11/30/2011
ST. MARY'S RIVER @ DECATUR	17.0	12/04/2011	12/08/2011	18.85	12/06/2011
ST. MARY'S RIVER @ MULDOON BRIDGE	14.0	11/29/2011	12/02/2011	15.00	12/04/2011
TIPPECANOE RIVER @ NORTH WEBSTER	6.0	12/05/2011	12/08/2011	6.84*	12/05/2011
TIPPECANOE RIVER @ NORWAY	11.5	12/15/2011	12/19/2011	13.43	12/15/2011
TIPPECANOE RIVER @ ORA	12.0	12/02/2011	12/04/2011	12.08	12/02/2011
TIPPECANOE RIVER @ ORA	12.0	12/05/2011	12/09/2011	12.48	12/07/2011
TIPPECANOE RIVER @ ORA	12.0	12/15/2011	12/22/2011	14.00	12.17/2011
TIPPECANOE RIVER @ OSWEGO	7.5	12/02/2011	12/27/2011	8.48	12/08/2011
TIPPECANOE RIVER @ WINAMAC	10.0	12/16/2011	12/21/2011	11.94	12/18/2011
WABASH RIVER @ BLUFFTON	10.0	11/30/2011	12/03/2011	11.03	12/02/2011

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WABASH RIVER @ BLUFFTON	10.0	12/07/2011	12/09/2011	11.00	12/08/2011
WABASH RIVER @ LINN GROVE	11.0	11/30/2011	12/02/2011	11.49	12/01/2011
WABASH RIVER @ LINN GROVE	11.0	12/06/2011	12/08/2011	11.60	12/07/2011
WABASH RIVER @ WABASH	14.0	12/15/2011	12/15/2011	15.05	12/15/2011

\*RECORD FLOOD CREST