NWS FORM E-5 . MONTHLY REPORT		U.S. DEPARTMENT OF COMMERCE NOAA, NATIONAL WEATHER SERVICE  OF RIVER AND FLOOD CONDITIONS	HSA OFFICE: Grand Rapids, MI REPORT FOR (MONTH &YEAR): June 2013	
TO:	O: NATIONAL WEATHER SERVICE (W/OS31)		DATE: July 3, 2013	
10:	HYDROMETEOROLOGICAL INFO CENTER 1325 EAST-WEST HIGHWAY, RM 13468 SILVER SPRING, MD 20910	SIGNATURE: Daniel K. Cobb, MIC Mark L. Walton, Service Hydrologist		
When no flooding occurs, include miscellaneous river conditions, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (WSOM E-41).				

An **X** inside this box indicates that no significant flooding occurred within this Hydrologic Service Area.

#### **Summary**

Minor river flooding occurred in the Grand Rapids Hydrologic Service Area (HSA) during the month of June 2013. Flash flood warnings were issued for Allegan, Barry, Eaton, Ingham, Clinton, Ionia, Kent and Ottawa counties. The flash flooding resulted in the temporary closing of Interstate 69 near Potterville, Michigan. Local officials also reported water flowing over numerous roads near Dimondale, Grand Ledge and Potterville, Michigan. No lives were lost during this flash flood event and no significant damages were reported.

#### **Flood Conditions**

## Wednesday, June 12<sup>th</sup>

At 2:10 PM EDT a flood watch for the potential for flash flooding was issued for Calhoun, Eaton, Ingham, Jackson, Allegan, Barry, Kalamazoo and Van Buren counties from 8 PM EDT Wednesday evening through Thursday morning. Thunderstorms with very heavy rain were forecast to move into the area overnight.

At 9:24 PM EDT the flood watch for the potential for flash flooding was expanded to include Clinton, Ionia, Kent and Ottawa counties. The flood watch remained in effect for Calhoun, Eaton, Ingham, Jackson, Allegan, Barry, Kalamazoo and Van Buren counties until 8 AM EDT Thursday.

At 10:55 PM EDT a flash flood warning was issued for Allegan, Barry, Eaton, Ingham, Clinton, Ionia, Kent and Ottawa counties in Southwest Lower Michigan, until 5:00 AM EDT Thursday. Slow moving thunderstorms with very heavy rainfall were moving across the warned area.

# Thursday, June 13<sup>th</sup>

At 2:01 AM EDT the flash flood warning for Allegan, Barry, Eaton, Ingham, Clinton, Ionia, Kent and Ottawa counties remained in effect until 5:00 AM EDT. Local law enforcement officials reported flash flooding in the city of Dimondale, Michigan. Officials reported water flowing over East Road, Creyts Road, and East Jefferson Street near Dimondale, Michigan.

At 4:07 AM EDT a flash flood warning was issued for Eaton and Ingham counties in Southwest Lower Michigan, until 10:00 AM EDT Thursday. Local law enforcement

officials had reported flash flooding across the warned area. Interstate I-69 was closed temporarily due to water over the interstate near Potterville, Michigan. Local officials also reported basement flooding and numerous roads under water near Dimondale, Grand Ledge and Potterville, Michigan.

At 5:56 AM EDT the flood watch for the potential for flash flooding was cancelled for Clinton, Ionia, Kent, Ottawa, Calhoun, Eaton, Ingham, Jackson, Allegan, Barry, Kalamazoo and Van Buren counties. The flash flood warning for Eaton and Ingham counties remained in effect until 10 AM EDT.

At 7:48 AM EDT the flash flood warning for Eaton and Ingham counties remained in effect until 10:00 AM EDT. Local officials reported flooded roads near Dimondale, Grand Ledge, and Potterville areas. Water levels over Interstate I-69 were receding, but one southbound lane was still closed due to water over the road.

At 9:58 AM EDT the flash flood warning was allowed to expire and was replaced by an areal flood advisory.

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### Wednesday, June 26<sup>th</sup>

At 1:54 PM EDT a river flood warning was issued for the Portage River near Vicksburg, Michigan. The river forecast called for the river to crest at 5.3 feet, just above its flood stage of 5.0 feet, Wednesday night.

## Thursday, June 27<sup>th</sup>

At 10:08 AM EDT the river flood warning for the Portage River near Vicksburg, Michigan, was updated to crest near flood stage Thursday morning.

# Friday, June 28<sup>th</sup>

At 10:13 AM EDT the river flood warning for the Portage River near Vicksburg, Michigan, continued. The river crested near 5.1 feet and was forecast to fall below flood stage Saturday.

At 9:33 PM EDT the river flood warning for the Portage River near Vicksburg, Michigan, continued. Minor flooding was occurring and the river forecast called for river levels to continue to fall.

# Saturday, June 29<sup>th</sup>

At 11:26 AM EDT the river flood warning for the Portage River near Vicksburg, Michigan, was cancelled when the river fell back below flood stage and forecast to continue to fall.

\*

The following rivers exceeded bankfull, but remained below flood stage, during the month of June 2013:

- Maple River at Maple Rapids, Michigan (5 days above bankfull)
- Chippewa River below Mt. Pleasant, Michigan (1 day above bankfull)
- Grand River at Jackson, Michigan (1 day above bankfull)
- Grand River at Lansing, Michigan (1 day above bankfull)
- Sycamore Creek near Holt, Michigan (6 days above bankfull)

- Red Cedar River at East Lansing, Michigan (2 days above bankfull)
- Looking Glass River near Eagle, Michigan (4 days above bankfull)
- Grand River at Ionia, Michigan (6 days above bankfull)
- Flat River near Smyrna, Michigan (1 day above bankfull)
- Thornapple River near Hastings, Michigan (7 days above bankfull)

### **Flood Stage Report**

One river in Southwest Lower Michigan exceeded flood stage during the month of June.

The Portage River near Vicksburg, Michigan, with a flood stage of 5.0 feet, rose above flood stage around 4 PM EDT on June 27<sup>th</sup>, crested at 5.06 feet at 7 AM EDT June 28<sup>th</sup>, and fell back below flood stage around 6 AM EDT on June 29<sup>th</sup>.

#### **River Conditions**

River levels across the HSA were near to above normal at the end of the month. The end of the month percentage of normal flow for selected rivers is listed below:

Location	River	% of Normal
Scottville	Pere Marquette	106
Whitehall	White	116
Evart	Muskegon	146
Mt. Pleasant	Chippewa	175
Lansing	Grand	249
Grand Rapids	Grand	209
East Lansing	Red Cedar	532
Hastings	Thornapple	157
Battle Creek	Battle Creek	83
Battle Creek	Kalamazoo	101

#### **General Hydrologic Information**

June 2013 had temperatures near normal and highly variable precipitation across Southwest Lower Michigan. Monthly precipitation totals in general were below normal in our northern counties and above normal in our southern counties (Figure 2).

June precipitation totals at Grand Rapids, Lansing, and Muskegon, Michigan, were 4.52, 8.40, and 4.33 inches, respectively (Figure 1). Precipitation totals for the month at these three sites were 0.75 of an inch above normal at Grand Rapids, 4.95 inches above normal at Lansing, and 1.78 inches above normal at Muskegon, Michigan (Figure 2). It was the 4<sup>th</sup> wettest June on record for Lansing, Michigan. Yearly precipitation totals were 9.86 inches above normal for Grand Rapids, 11.38 inches above normal for Lansing, and 12.20 inches above normal for Muskegon, Michigan.

Temperatures for the month of June were near normal at Grand Rapids, Lansing, and Muskegon, Michigan, with average monthly departures of 0.0, -0.2 and +0.1 degrees Fahrenheit, respectively.



### **Hydrologic Products issued this month:**

- 3 Areal Flood Watches (ARBFFAGRR)
- 2 Areal Flash Flood Warnings (ARBFFWGRR)
- 3 Areal Flash Flood Statements (ARBFFSGRR)
- 1 River Flood Warning (ARBFLWGRR)
- 3 River Flood Statements (ARBFLSGRR)
- 14 Areal Flood Advisories (ABRFLSGRR)
- 36 River Flood Advisories (ARBFLSGRR)
- 16 Hydrologic Statements (ARBRVSGRR)
- 1 Hydrologic Outlook (ARBESFGRR)
- 30 Hydrologic Summaries (ARBRVAGRR)
- 30 Daily River and Lake Summaries (ARBRVDGRR)