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

Overall only minimal hydrologic impacts occurred during the month of July for the NWS Grand Rapids HSA. The main reason for this is because less than normal rainfall fell across most of the HSA. No forecast points exceeded flood stage.

Flood Conditions

Wednesday, July 1st
At 10:41 AM EDT, the flood advisories remained in effect for Holt on Sycamore Creek, Ionia on the Grand River, along with New Richmond and Comstock which are located on the Kalamazoo River.

Wednesday, July 1st
At 11:34 PM, the flood advisories remained in effect for Holt on Sycamore Creek, Ionia on the Grand River, along with New Richmond and Comstock which are located on the Kalamazoo River.

Thursday, July 2nd
At 10:34 AM EDT, the flood advisories remained in effect for Holt on Sycamore Creek, Ionia on the Grand River, along with New Richmond and Comstock which are located on the Kalamazoo River.

Thursday, July 2nd
At 11:43PM EDT, the flood advisories were dropped for Ionia, New Richmond and Comstock, but continued for Holt.

Friday, July 3rd
At 11:01 AM EDT, the flood advisory was continued for Holt.

Friday, July 3rd
At 8:46 PM EDT, the flood advisory for Holt was cancelled as the river fell below action stage.
Monday, July 6th
At 11:53 PM EDT a flood advisory was issued for Muskegon County. Thunderstorms crossing the region were expected to produce over 2 inches of rain that could lead to some flooding. The advisory was in effect until 5:45 AM Tuesday.

Tuesday, July 7th
At 1:58 AM EDT the flood advisory for Muskegon County was updated. It was estimated that 2 to 3 inches of rain fell from the thunderstorms. A report of several vehicles stuck in standing water was received.

Tuesday, July 7th
At 5:18 AM EDT, the flood advisory for Muskegon County was cancelled as the water levels had receded.

Tuesday, July 7th
At 11:54 PM EDT, a flood advisory was issued for Holt on Sycamore Creek. Runoff from the recent rain is expected to cause the river to rise above action stage.

Wednesday, July 8th
At 7:50 AM the flood advisory for Holt was continued.

Wednesday, July 8th
At 11:45 AM EDT the flood advisory for Holt was continued.

Wednesday, July 8th
At 9:48 AM EDT, the flood advisory for Holt was continued.

Thursday, July 9th
At 9:42 AM EDT, the flood advisory for Holt was cancelled.

Tuesday, July 14th
At 1:55 AM EDT, an areal flood advisory was issued for much of the central and southern parts of the HSA. Thunderstorms that tracked through the region produced 1 to 3 inches of rain, which had caused minor flooding. The advisory was in effect until 2 pm Tuesday.

Tuesday, July 14th
At 7:51 AM EDT, the flood advisory was continued for much of central and southern locations parts of the HSA.

Tuesday, July 14th
At 12:14 PM EDT, the flood advisory was cancelled.
The following rivers exceeded bankfull during the month of July 2015:

- Sycamore Creed near Holt, Michigan (5 days above bankfull)
- Grand River at Ionia, Michigan (2 days above bankfull)
- Kalamazoo River near New Richmond, Michigan (1 days above bankfull)
- Kalamazoo River at Comstock, Michigan (5 days above bankfull)

**Flood Stage Report**

No gage exceeded flood stage in July thys no NWS Form E-3 “Flood Stage Report” was.

**River Conditions**

The end of the month percentage of normal flow for selected rivers is listed below:

<table>
<thead>
<tr>
<th>Location</th>
<th>River</th>
<th>% of Normal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scottville</td>
<td>Pere Marquette</td>
<td>96</td>
</tr>
<tr>
<td>Whitehall</td>
<td>White</td>
<td>104</td>
</tr>
<tr>
<td>Evart</td>
<td>Muskegon</td>
<td>95</td>
</tr>
<tr>
<td>Mt. Pleasant</td>
<td>Chippewa</td>
<td>121</td>
</tr>
<tr>
<td>Lansing</td>
<td>Grand</td>
<td>222</td>
</tr>
<tr>
<td>Grand Rapids</td>
<td>Grand</td>
<td>146</td>
</tr>
<tr>
<td>East Lansing</td>
<td>Red Cedar</td>
<td>131</td>
</tr>
<tr>
<td>Hastings</td>
<td>Thornapple</td>
<td>136</td>
</tr>
<tr>
<td>Battle Creek</td>
<td>Battle Creek</td>
<td>200</td>
</tr>
<tr>
<td>Battle Creek</td>
<td>Kalamazoo</td>
<td>119</td>
</tr>
</tbody>
</table>

**General Hydrologic Information**

July 2015 featured below normal temperatures and generally below normal precipitation. The region that saw above normal precipitation was mostly in the lower White and Muskegon basins.

July precipitation totals at Grand Rapids, Lansing, and Muskegon, Michigan, were 2.23, 2.39, and 5.05 inches, respectively (Figure 1). Precipitation departures for the month at these three sites were 1.55 of an inch below normal at Grand Rapids, 0.45 inches below normal at Lansing, and 2.68 inches above normal at Muskegon. Percent of mean precipitation for July 2015 is shown in Figure 2. Yearly precipitation departures were 3.24 inches below normal for Grand Rapids, 1.65 inches above normal for Lansing, and 3.59 inches above normal for Muskegon.

Temperatures for the month of July were below normal at Grand Rapids, Lansing, and Muskegon. The average monthly temperature departures were, 1.7, 1.3, and 1.1 degrees Fahrenheit respectively.
Figure 1. July Monthly Precipitation Totals
Figure 2. July Percent of Mean of Accumulated Precipitation
Hydrologic Products issued this month:

1 Hydrologic Outlook (ARBESFGRR)
31 Hydrologic Summaries (ARBRVAGRR)
31 Daily River and Lake Summaries (ARBRVDGRR)
6 Areal Flood Advisory Statements (ARBFLSGRR)
19 River Flood Advisory Statements (ARBFLSGRR)
3 Hydrologic Statements (ARBRVSGRR)

News Articles and Related Documentation

None