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| <b>NWS FORM E-5</b><br>U.S. DEPARTMENT OF COMMERCE<br>NOAA, NATIONAL WEATHER SERVICE<br><br><b>MONTHLY REPORT OF RIVER AND FLOOD CONDITIONS</b><br><br>TO: NATIONAL WEATHER SERVICE (W/OH12x1)<br>HYDROMETEOROLOGICAL INFO CENTER<br>1325 EAST-WEST HIGHWAY, RM 7116<br>SILVER SPRING, MD 20910 | HSA OFFICE:<br><b>Marquette, MI</b>   |
|   | REPORT FOR (MONTH / YEAR):<br><b>July 2017</b>                                  |
|   | DATE: <b>August 16, 2017</b>  |
|   | SIGNATURE:<br><b>Robin J. Turner, MIC</b><br><b>Justin Titus, Meteorologist</b> |
| 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).  |   |

**X**

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

**July Flooding**

No significant flooding was reported to the National Weather Service.

**July Precipitation**

July precipitation ranged from near normal over south-central Upper MI to well below normal over the western U.P. from Ironwood through the Keweenaw. Elsewhere, precipitation was below normal.

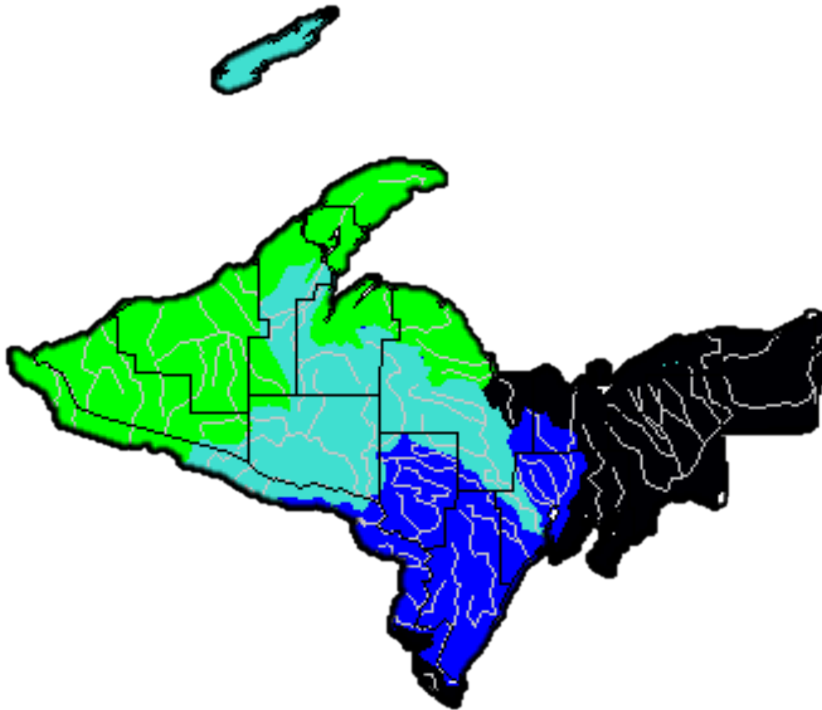
Below is a chart of some of the larger cities in the Upper Peninsula, with monthly precipitation in inches, the amount of inches above or below normal for the month and any applicable record high or low rank.

| Location         | Precipitation | Above/Below | Rank            |
|------------------|---------------|-------------|-----------------|
| WFO Marquette    | 1.98          | -0.86       |                 |
| Marquette City   | 2.00          | -0.82       |                 |
| Houghton Airport | 0.69          | -1.80       | 2 <sup>nd</sup> |
| Ironwood         | 1.20          | -2.90       | 6 <sup>th</sup> |
| Iron Mountain    | 3.56          | 0.11        |                 |
| Manistique       | 3.02          | -0.02       |                 |
| Munising         | 2.45          | -0.82       |                 |
| Newberry         | 2.90          | No Data     |                 |

**Drought Discussion**

The August 1, 2017 release of the U.S. Drought Monitor did not indicate drought conditions across Upper Michigan. For the latest drought status, please go to <http://www.drought.gov>.

## July River Levels



| Explanation - Percentile classes |                   |              |        |              |                   |      |         |
|----------------------------------|-------------------|--------------|--------|--------------|-------------------|------|---------|
|                                  |                   |              |        |              |                   |      |         |
| Low                              | <10               | 10-24        | 25-75  | 76-90        | >90               | High | No Data |
|                                  | Much below normal | Below normal | Normal | Above normal | Much above normal |      |         |

## July Products Issued

- 31 – Hydrologic Summary
- 4 – Flood Advisory
- 1 – Hydrologic Outlook