



Mid-July Milwaukee Area Weather Hazards & Impacts

The following is an overview of Milwaukee weather and climate in mid-July. Information includes weather hazards, watch, warning, and other product criteria, along with potential impacts that could be observed in the area for any visitors that are not familiar with our climate.

Milwaukee Climate for July 10-18th

	Normal*	Record**
Highs	82°F	96 - 103°F
Lows	65°F	44 - 52°F
24hr Rainfall	0.10 - 0.12"	1.04 - 2.28"

*30 year normals from 1991-2020

** Period of record dating back to 1873

July Weather Hazards & Impacts:

Minor	Moderate	Major
<ul style="list-style-type: none"> +30 mph winds Rain (+0.25"/hr) Lightning (20 mi) Heat index 80-90°F Dense fog Rip currents Lake Breeze Poor Air Quality 	<ul style="list-style-type: none"> +60 MPH winds +1" hail Lightning (12 miles) Heat index 90-100°F Waterspouts Moderate rainfall (0.5"/hr) & urban/small stream flooding Dense Smoke 	<ul style="list-style-type: none"> Tornadoes +75 mph winds +2" hail Heavy rain (+1"/hr) & Flash flooding Heat indices +100°F

Heat

Watch: (48 - 24hr)	Warning (< 36hr)	Advisory (< 36hr)	Special Wx Statement
Heat Indices(HI) > 105°F or >100°F for +4 days or nighttime HI >75°F for +48hr		Heat Indices of 100°F-104°F or 95°- 99°F for +4 consecutive days	Heat Indices around or below Advisory level

Most common/likely weather hazards to occur.

Heat Impacts: Combo of high temps & high humidity exacerbated by longevity. Urban development can also increase heat potential compared to surrounding areas.

Risks & Vulnerabilities: Dehydration, heat exhaustion, heat stroke for those without shelter or access or air conditioning

Severe Thunderstorm

Watch:	Warning:
Ingredients for severe thunderstorms present.	+58 mph winds &/or 1" (quarter size) hail present

Tornadoes

Watch	Warning
Ingredients for tornado present	Rotation or tornado indicated/ reported

Watches: Issued within a few hours of development on a county wide basis lasting several hours

Warnings: Issued when severe/tornado threat is occurring or is imminent lasting 30 min to an around an hour

Large Hail, Damaging Winds, Tornadoes: Occur at all hours, but are most common from mid afternoon to late evening.

Risks & Vulnerabilities:

Damage to vehicles, buildings, temporary structures, trees from hail & flying/falling debris. May result in travel/roadway closures, grounding of aircraft operations, & power outages.

Injuries for anyone outdoors from large hail, flying/falling debris, & lightning.

Impacts **considerably** increase w/ larger hail(+2" golfball) & stronger winds (+75 mph)



Flooding/Flash Flooding:

Watch: (48 - 12hr)

Warning: (< 24hr)

Conditions favorable or occurring for intense &/or prolonged rainfall (>1"/hr) result in flooding or flash flooding.

Occurs with thunderstorms & associated risks. In urban environments, 1-2" of rain in <1 hr may result in flash flooding of city streets due more ground runoff & storm drainage backups.

Risks & Vulnerabilities: Widespread street closures, stalled vehicles due to high water. Moving water may result in swift water rescues.

Lake Michigan Hazard:

Special Marine Warning

>34kt (39 mph) gusts &/or >0.75" (penny) hail &/or waterspouts

Risks & Vulnerabilities: Rapid increases in strong winds & high waves associated with thunderstorms &/or waterspouts, posing a threat to marine traffic, boaters, beachgoers (a.k.a. Severe Thunderstorms for Lake MI.)

Minor Impacts:

Sub-Severe Thunderstorms:

- Lightning
- Gusts 30-45 mph
- Small Hail (<1")

Thunderstorms are common across southern WI during the summer months, but pose threats even when not severe. Storms occur at all hours, but are most common & widespread from afternoon thru the late evening hours.

Special Weather Statements may be issued for >45 mph gust &/or +0.5" hail.

Risks & Vulnerabilities: Threat of lightning strikes to individuals who are outdoors (note, if thunder can be heard, there is a threat for lightning strikes). Damage to tents & unanchored temporary structures due to gusty winds. Localized power outages & may cause grounding of aircraft operations

Non-Thunderstorm Winds:

- >30 mph
- Lake Breeze

Risks & Vulnerabilities: Widespread, prolonged, persistent winds (>30 mph) or sudden change/increase in winds may result in damage to tents, unanchored temporary structures, & loose outdoor items. May result in localized power outages & minor damage. Common with lake-breezes during afternoons in summer.

Air Quality:

When conditions contain high unhealthy concentrations of fine particulate matter, such as wildfire smoke or pollution, or ozone are reached or imminent, the WI Dept of Natural Resource (WI-DNR) will issue an **Air Quality Advisory** alert via NWS channels.

Risks & Vulnerabilities: Poor air quality is unhealthy for people in sensitive groups including children, elderly people & individuals with respiratory & cardiac problems.

Lake MI Hazards:

- Small Craft Conditions
- Rip Currents
- Lakeshore Flooding

Non-thunderstorm hazards on Lake MI revolve around strong winds, high waves near the shore, & dense fog. Rapid changes in visibility, waves, & winds may impact marine traffic & operations.

Small Craft Advisory: Winds >22kt &/or waves >4ft

Beach Hazard Statements: High Swim Risk with onshore winds & waves >4ft

Lakeshore Flooding: Lakefront inundation along Lake MI due to strong onshore winds & above normal lake levels.

Dense Fog:

May occur at any time of day due to the interaction with the cooler waters of Lake MI, but is most common during the late night/early morning hours. Fog occasionally forms over the lake & can quickly move inland w/ rapid visibility drops in the city.

Dense Fog Advisory: Widespread fog for visibilities <1/4 mi & <1 nm over Lake MI.

Risks & Vulnerabilities: Significant impacts to aircraft operations; Reduced visibility affecting security operations; Reduced visibility for motorists.