

# SEVERE SEASONAL WEATHER - SUMMER

SEVERE SEASONAL HAZARD RESPONSE | SEOC QUICK REFERENCE

Severe summer weather includes heat waves, thunderstorms, lightning, damaging winds, hail, tornadoes, and microbursts. Unlike long-duration winter storms, these localized events materialize with little warning. They cause concentrated infrastructure damage, sudden power outages, and critical public health emergencies, such as heat stroke among vulnerable populations.

## APPENDIX PURPOSE

Coordinates the multi-agency response to rapid-onset summer weather extremes. Staff members use Appendix 1 to mobilize public cooling centers, target welfare checks, monitor statewide critical facilities, and deploy damage assessment teams following sudden microbursts, tornadoes, and heat waves.

## LEAD AGENCY

**Maine Emergency Management Agency**  
 Establishes National Weather Service (NWS) communication, coordinates Emergency Management Assistance Compact requests, and advises the Governor.

## SEOC TIMELINE, TRIGGERS, & ACTIONS

**Enhanced Monitoring (L3)**

- NWS forecasts extreme heat
- NWS issues thunderstorm watches
- Coordinate initial messaging
- Track municipal cooling capacities

**Partial Activation (L2)**

- NWS issues severe storm warnings
- Monitor localized utility disruptions
- Assess tourist and transient populations
- Track structural damages

**Full Activation (L1)**

- Sudden impact events strike
- Confirm mass power outages
- Monitor the staging of life-saving rescue teams
- Stabilize community lifelines

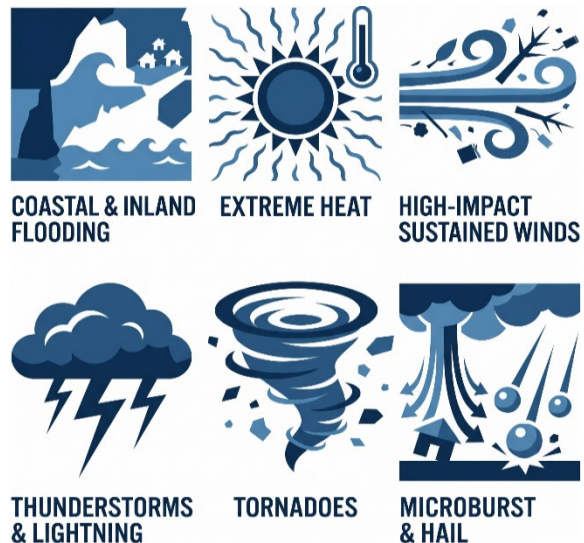
## CRITICAL INFORMATION REQUIREMENTS

**MASS CASUALTIES & HEALTH SURGES**  
 Have emergency medical services experienced surges in heat illnesses or injuries?

**GRID INSTABILITY & VULNERABILITY**  
 Has peak cooling demand caused rolling brownouts or threatened critical facilities?

**PATH OF DESTRUCTION**  
 Have wind and flood damage isolated communities and strained resources?

## HAZARD FOCUS



## ESSENTIAL ELEMENTS OF INFORMATION

<p><b>Universal Impacts</b></p> <ul style="list-style-type: none"> <li>• <b>Damage:</b> Debris type &amp; clearance volume.</li> <li>• <b>Roads/Bridges:</b> Real-time status of closures.</li> <li>• <b>Power:</b> Customer outages by utility &amp; restoration time estimates.</li> <li>• <b>Search &amp; Rescue:</b> Locations, numbers evacuated.</li> <li>• <b>Resource Needs:</b> Requests for specialized assets.</li> </ul>	<p><b>Hazard-Specific Data</b></p> <ul style="list-style-type: none"> <li>• <b>Heat:</b> Forecast maximum heat index &amp; duration.</li> <li>• <b>Inland Floods:</b> USGS river gauge readings and dam spill way rates.</li> <li>• <b>Wind:</b> Max wind gusts from official stations.</li> <li>• <b>Tornado/Microburst:</b> Path length, width, and Enhanced Fujita Scale (EF Scale) rating.</li> </ul>
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## CRITICAL DEFINITIONS FOR PLANNING

<b>Extreme Heat Warning</b>	Issued when heat index values expected to reach 105°F or greater for 2 hours or more in the next 12 to 48 hours.
<b>Flash Flood Warning</b>	Issued for sudden, violent flooding occurring within minutes or a few hours of intense rainfall or a dam failure.
<b>Severe Thunderstorm Warning</b>	Issued for storms producing wind gusts of at least 58 mph or hail 1 inch in diameter or larger.
<b>Tornado Warning</b>	Issued when a tornado is either sighted by trained observers or indicated by weather radar.
<b>Watch vs. Warning</b>	Watch: Hazardous weather is <b>possible</b> . Warning: Hazardous weather is <b>occurring</b> or <b>imminent</b> .

## TORNADO ENHANCED FUJITA (EF) SCALE RATINGS

EF Scale Rating	Wind Speed (MPH)	Typical Damage Observations
EF-0	65 – 85	<b>Light damage.</b> Peels surface off some roofs; some damage to gutters or siding; branches broken off trees; shallow-rooted trees pushed over.
EF-1	86 – 110	<b>Moderate damage.</b> Roofs severely stripped; mobile homes overturned or badly damaged; loss of exterior doors; windows and other glass broken.
EF-2	111 – 135	<b>Considerable damage.</b> Roofs torn off well-constructed houses; foundations of frame homes shifted; mobile homes completely destroyed; large trees snapped or uprooted; light-object missiles generated; cars lifted off ground.
EF-3	136 – 165	<b>Severe damage.</b> Entire stories of well-constructed houses destroyed; severe damage to large buildings such as shopping malls; trains overturned; trees debarked; heavy cars lifted off the ground and thrown; structures with weak foundations blown away some distance.
EF-4	166 – 200	<b>Devastating damage.</b> Well-constructed houses and whole frame houses completely leveled; cars thrown and small missiles generated.
EF-5	200 +	<b>Incredible damage.</b> Strong frame houses leveled off foundations and swept away; automobile-sized missiles fly through the air in excess of 109 yards; high-rise buildings have significant structural deformation; incredible phenomena will occur.

Citation: <https://weather.com/storms/tornado/news/2024-05-03-enhanced-fujita-scale-tornado-explained>