

Hazards Summary Worksheet

Use this worksheet to summarize hazard description information and identify which hazards are most significant to the planning area. The definitions provided on the following page can be modified to meet local needs and methods.

Hazard	Location (Geographic Area Affected)	Maximum Probable Extent (Magnitude/Strength)	Probability of Future Events	Overall Significance Ranking
Avalanche	Negligible	Weak	Unlikely	Low
Dam Failure	Extensive	Moderate	Unlikely	Medium
Drought	Extensive	Moderate	Occasional	Medium
Earthquake	Limited	Weak	Occasional	Low
Erosion	Limited	Moderate	Unlikely	Low
Expansive Soils	Extensive	Extreme	Highly Likey	High
Extreme Cold	Limited	Weak	Unlikely	Low
Extreme Heat	Limited	Weak	Unlikely	Low
Flood	Significant	Moderate	Highly Likely	High
Hail	Extensive	Weak	Highly Likely	Medium
Hurricane	Extensive	Extreme	Likely	High
Landslide	Limited	Weak	Unlikely	Low
Lightning	Extensive	Moderate	Highly Likely	Moderate
Sea Level Rise	Limited	Weak	Unlikely	Low
Severe Wind	Extensive	Moderate	Highly Likely	High
Severe Winter Weather	Extensive	Moderate	Likely	High
Storm Surge	Limited	Weak	Unlikely	Low
Subsidence	Limited	Weak	Unlikely	Low
Tornado	Extensive	Extreme	Likely	High
Tsunami	Limited	Weak	Unlikely	Low
Wildfire	Significant	Extreme	Occasional	Moderate

Definitions for Classifications

Location (Geographic Area Affected)

- **Negligible:** Less than 10 percent of planning area or isolated single-point occurrences
- **Limited:** 10 to 25 percent of the planning area or limited single-point occurrences
- **Significant:** 25 to 75 percent of planning area or frequent single-point occurrences
- **Extensive:** 75 to 100 percent of planning area or consistent single-point occurrences

Maximum Probable Extent (Magnitude/Strength based on historic events or future probability)

- **Weak:** Limited classification on scientific scale, slow speed of onset or short duration of event, resulting in little to no damage
- **Moderate:** Moderate classification on scientific scale, moderate speed of onset or moderate duration of event, resulting in some damage and loss of services for days
- **Severe:** Severe classification on scientific scale, fast speed of onset or long duration of event, resulting in devastating damage and loss of services for weeks or months
- **Extreme:** Extreme classification on scientific scale, immediate onset or extended duration of event, resulting in catastrophic damage and uninhabitable conditions

Hazard	Scale / Index	Weak	Moderate	Severe	Extreme
Drought	Palmer Drought Severity Index ³	-1.99 to +1.99	-2.00 to -2.99	-3.00 to -3.99	-4.00 and below
Earthquake	Modified Mercalli Scale ⁴	I to IV	V to VII	VII	IX to XII
	Richter Magnitude ⁵	2, 3	4, 5	6	7, 8
Hurricane Wind	Saffir-Simpson Hurricane Wind Scale ⁶	1	2	3	4, 5
Tornado	Fujita Tornado Damage Scale ⁷	F0	F1, F2	F3	F4, F5

Probability of Future Events

- **Unlikely:** Less than 1 percent probability of occurrence in the next year or a recurrence interval of greater than every 100 years.
- **Occasional:** 1 to 10 percent probability of occurrence in the next year or a recurrence interval of 11 to 100 years.
- **Likely:** 10 to 90 percent probability of occurrence in the next year or a recurrence interval of 1 to 10 years
- **Highly Likely:** 90 to 100 percent probability of occurrence in the next year or a recurrence interval of less than 1 year.

Overall Significance

- **Low:** Two or more criteria fall in lower classifications or the event has a minimal impact on the planning area. This rating is sometimes used for hazards with a minimal or unknown record of occurrences or for hazards with minimal mitigation potential.
- **Medium:** The criteria fall mostly in the middle ranges of classifications and the event's impacts on the planning area are noticeable but not devastating. This rating is sometimes used for hazards with a high extent rating but very low probability rating.
- **High:** The criteria consistently fall in the high classifications and the event is likely/highly likely to occur with severe strength over a significant to extensive portion of the planning area.

3 Cumulative meteorological drought and wet conditions: <http://ncdc.noaa.gov/>

4 Earthquake intensity and effect on population and structures: <http://earthquake.usgs.gov>

5 Earthquake magnitude as a logarithmic scale, measured by a seismograph: <http://earthquake.usgs.gov>

6 Hurricane rating based on sustained wind speed: <http://nhc.noaa.gov>

7 Tornado rating based on wind speed and associated damage: <http://spc.noaa.gov>