



Select by

- County
- Municipal
- Grid
- Custom area

Click on a county on the map or select one from the dropdown list to view the precipitation data.

- Projected Percent Increase (Upper Likelihood)
- < 25
  - 25 - 30
  - 30 - 35
  - 35 - 40
  - > 40
- Upper likelihood represents a 17% likelihood that precipitation depth will increase more than the value shown relative to the NOAA Atlas 14 published mean values.



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User Guide

Precipitation Projection

About the Data

Background:

This site provides an interactive tool for users to identify regional and local estimates of projected changes in extreme rainfall amounts (measured in inches) within a 24-hour duration for various return periods between current estimates\* and a future time period under either of two future emission scenarios.

Users can select their choice of rainfall return period, i.e., the 2-year, 10-year, 100-year storm, etc., the future greenhouse gas emission scenario determined by Representative Concentration Pathway (RCP) 4.5 or RCP 8.5, and future time period. Projections can be summarized by county, municipality, 0.1 degree grid cell, or for a custom area by drawing a polygon on the map area or uploading a GIS shapefile saved as a zip file. Projections for municipalities and custom areas are calculated based on the weighted average of projected change factors within the area that intersect 0.1 degree grid cells applied to the rainfall data from the current NOAA Atlas 14\* dataset.

Return Period Options:

A storm return period is determined statistically, through a process called frequency analysis, and is used to estimate the probability that a given amount of rainfall from a precipitation event will occur. The return period is based on the probability that the given amount of rainfall will be equaled or exceeded in any given year. For example, based on historical data, it could be determined that there is a 1 in 100 (1%) chance that 8.5 inches of rain will fall in a certain area in a 24-hour period in any given year. Thus, a rainfall total of 8.5 inches in any 24-hour period is said to have a 100-year return period and may also be referred to as the 1% storm.

- 2-year Storm -- Precipitation depth (inches) associated with a 24-hour storm that has a 50% chance of occurring in any given year.
- 5-year Storm -- Precipitation depth (inches) associated with a 24-hour storm with a 20% chance of occurring in any given year.
- 10-year Storm -- Precipitation depth

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