

Choosing (or Reassessing) Ground

This site's own By State pages already cover a huge amount of what a household needs to know about where it lives: laws, agencies, and near-term hazard risk. This chapter asks a different question, one those pages aren't built to answer: not "what's the risk here right now," but "does this specific place have a real physical future over the decades a community founded here is meant to last." A founding group evaluating a new site, or an existing community reassessing the ground it's already on, both need this same longer lens.

Sea level rise, for any coastal or near-coastal site

NOAA's own Sea Level Rise Technical Report projects U.S. coastlines will see an additional 10 to 12 inches of relative sea level rise by 2050 on average, with real regional variation, the western Gulf Coast is projected at roughly 16 to 18 inches, nearly half a foot above the national average. By 2100 the range widens dramatically depending on future emissions: from roughly 2 feet under a low-emissions path to over 7 feet under a high-emissions, rapid-ice-sheet-collapse scenario. NOAA's own Sea Level Rise Viewer lets you check a specific coastal address against these scenarios directly rather than relying on a national average that may not describe your actual site.

This isn't only a coastline problem

Rising sea level pushes saltwater further up rivers and into coastal aquifers long before the land itself floods, a real threat to a freshwater supply for a site that looks safely inland on a map but sits low and close to a tidal river.

Water: is the trend up or down where you actually are

The Fifth National Climate Assessment's water chapter finds that long-term drought is expected to intensify specifically in the Southwest, southern Great Plains, and Southeast, while annual runoff and river flow are projected to decline in the Southwest and Southeast and actually increase in the Northeast, Northwest, Alaska, and upper Midwest. In the West specifically, more precipitation is falling as rain instead of snow, and mountain snowpack, the water supply many Western communities actually depend on through the dry season, is melting earlier each year, a pattern climate scientists call snow drought. The practical takeaway: a site's current water supply figure matters less than its trajectory. The same numbers that look fine today can be on a declining curve

that makes them a bad long-term bet, or on a stable-to-improving one that makes them a genuinely safer choice than a site with better current numbers on a worse trend.

Storms: track direction, not just current frequency

Winter storms have measurably increased in both frequency and intensity since the 1950s, and their tracks have shifted northward, a real consideration for a site chosen partly to avoid a specific storm risk. Hurricanes have been intensifying more rapidly since the 1980s, with heavier rainfall and higher storm surge than the same hurricane category would have produced decades ago, so historical storm records for a site may understate what a similar-strength storm would actually do there today.

Wildfire: a Western trend with a real acceleration

More frequent and larger wildfires have been burning across the Western U.S. for decades, driven by a real combination of climate factors, land-management history, and where development has expanded into fire-prone land. 2020 through 2022 each individually surpassed the prior average acreage burned since 2016, not a single bad year but a sustained escalation. This site's own state risk pages already cover current wildfire risk in detail; this trend is the reason to weight that risk higher for a site meant to last decades than for a household's own near-term planning.

How to actually use this

None of the sections above are a substitute for checking your own specific location against the real tools: NOAA's Sea Level Rise Viewer for a coastal or river-adjacent site, the Fifth National Climate Assessment's regional chapters for water and storm trends, and this site's own state risk pages for the current hazard picture those long-term trends are moving against. The goal isn't a single pass/fail answer, it's understanding which direction your specific site's real risks are actually trending, and weighing that against everything else a founding group is considering.

Next: The Physical Foundation

A site that clears the climate check still has to actually support the people living on it. See Chapter 4: The Physical Foundation.

Sources

- NOAA Sea Level Rise Technical Report, 2050 and 2100 projections by scenario and region: NOAA; interactive tool: NOAA Sea Level Rise Viewer
- Fifth National Climate Assessment, Chapter 4 (Water): regional drought and runoff projections, snow drought: globalchange.gov
- Fifth National Climate Assessment, Chapter 2 (Climate Trends): winter storm and hurricane intensity trends: globalchange.gov
- NOAA, the wildfire-climate connection and recent Western wildfire acreage trends: NOAA
- Current, near-term hazard risk by state: this site's own By State pages