





# How will Climate Change impact the City of Shoreline?

Bird's eye view of the City of Shoreline.

The table below shares information on historic trends and anticipated changes for our community as our climate changes. This information is based on the latest climate change research for the Puget Sound region and the City of Shoreline. This research shows that climate change has been occurring for decades and is expected to continue in the future. We anticipate that climate change will create some new challenges for our community, and also worsen some existing challenges.

Risk	Trends to Date	Projected Changes
<b>Temperature</b> 	<ul style="list-style-type: none"> <li>⬆️ The average year in the Puget Sound region is currently 1.3°F warmer than historic averages.</li> </ul>	<p><b>By the 2050s (vs 1970-1999 average)</b></p> <ul style="list-style-type: none"> <li>⬆️ Average annual temperature in the Puget Sound region will be 4.2°F to 5.5°F warmer.</li> <li>☀️ The hottest summer days will be 4.0°F to 10.2°F warmer.</li> </ul>
<b>Precipitation</b> 	<ul style="list-style-type: none"> <li>⬆️ Extreme rain events in Western Washington have increased moderately.</li> </ul>	<p><b>By the 2080s (vs 1980s)</b></p> <ul style="list-style-type: none"> <li>⬆️ Annual precipitation in the Puget Sound region will increase at least 6.4 percent.</li> <li>⬆️ Rainstorms in Shoreline will be more intense.</li> <li>☁️ Winters will be wetter and summers drier.</li> </ul>
<b>Puget Sound Hydrology</b> 	<ul style="list-style-type: none"> <li>⬆️ Puget Sound rivers have lower streamflows during the summer, and streamflow peaks earlier in the year, leaving streams drier in the late summer and fall.</li> </ul>	<p><b>By the 2080s (vs 1970-1999 average)</b></p> <ul style="list-style-type: none"> <li>⬆️ Summer streamflows will be even lower.</li> <li>⬆️ Flooding risk will increase during the fall, winter, and spring.</li> <li>💧 The Tolt and Cedar River watersheds (which supply Shoreline's drinking water) will have less snowpack to source water from.</li> </ul>
<b>Sea Level Rise</b> 	<ul style="list-style-type: none"> <li>⬆️ Sea level has risen 0.8 inches per decade in Puget Sound between 1900-2009.</li> </ul>	<p><b>By 2100 (vs 1991-2001 average)</b></p> <ul style="list-style-type: none"> <li>⬆️ Relative sea level in Shoreline will rise 2.0 feet or more, resulting in greater risk of coastal erosion and flooding.</li> </ul>

# Shoreline's Vulnerability to Climate Change Impacts

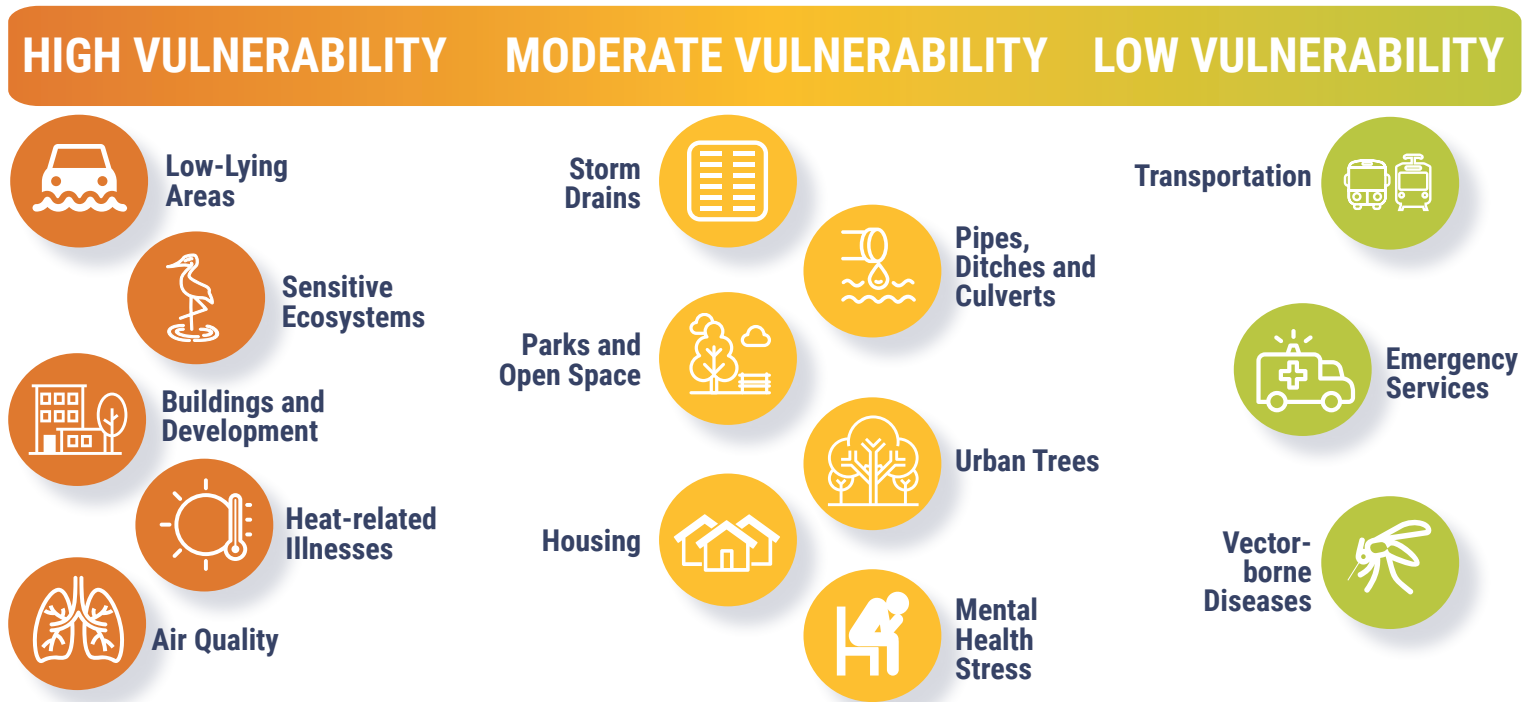
## What is climate change?

Climate change refers to a long-term change of temperature and typical weather patterns in a place. Climate is different from weather because it is measured over a long period of time, while weather can change from day to day or year to year. Human activity is the cause of current climate change. Burning fossil fuels—like natural gas, oil, and coal—releases greenhouse gases into Earth's atmosphere. These gases trap heat from the sun's rays inside the atmosphere causing Earth's average temperature to rise. The warming of the planet impacts local and regional climates. Throughout Earth's history, climate has continually changed. When it occurs naturally, this is a slow process over hundreds and thousands of years. The human-influenced climate change that is happening now is occurring at a much faster rate. (*NaturalGeographic.org*)

The City of Shoreline completed a vulnerability assessment in 2020 to:

- ✓ **Better understand** how climate change may impact the community, environment, and City infrastructure (roads, buildings, etc.).
- ✓ **Identify strategies** for building resilience to climate change impacts.

The results of the vulnerability assessment are summarized below.



## WHAT IS SHORELINE DOING?

- The City of Shoreline is one of 18 partners participating in the [King County-Cities Climate Collaboration](#) to coordinate and enhance the effectiveness of local government climate and sustainability action.
- The City adopted its [Climate Action Plan](#) in 2013, committing to reduce community greenhouse gas emissions 80 percent by 2050. The Plan also included 45 recommended actions to reduce future climate change impacts for the Shoreline community. As of December 2019, roughly 87 percent of those actions have been implemented.

**For more information, see individual factsheets with information about our built environment; public health, safety, and emergency services; stormwater; and natural ecosystems.**