

# Climate Change & Pierce County: Water

Pierce County Planning and Public Works conducted a climate vulnerability assessment to better understand what changes the county is likely to experience, which communities and county assets are most at risk, and what the county and its partners can do to reduce the potential harms caused by climate change.

Climate change presents many challenges for Pierce County. Warming water temperatures, droughts, heavy rainfall and flooding, and rising sea levels will be among the most challenging for water resources in the county.

## Water Temperatures

- Stream and ocean temperatures are expected to get hotter as air temperatures continue to warm.
- Warmer water temperatures cause toxic algae blooms that can affect shellfish and cause closures of beaches and lakes.
- Warmer water temperatures can kill or cause stress on animals such as salmon, shellfish, and orcas.



Source: Laura Mahoney, U.S. Fish and Wildlife Service

## Water Supply

- Glaciers and snow on Mount Rainier are expected to melt. This will reduce the amount of water available in streams during the summer months.
- Droughts are expected to become more common, which may affect the availability of water for irrigation, agricultural use, energy, residential and commercial use, and species use, particularly in the summer.
- Droughts may kill or stress plants and animals, including trees and salmon.



Source: Pierce County

## Riverine Flooding

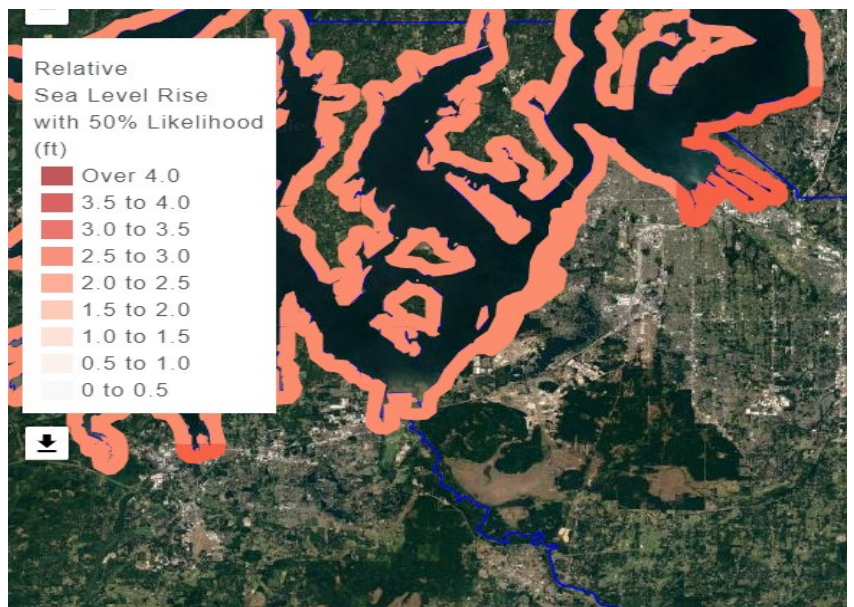
- More water in streams and rivers increases the risk of erosion, especially around bridges.
- Heavy rain is likely to cause more landslides that can damage infrastructure such as roads and powerlines.
- As more rain falls on roads, roofs, and parking lots, more polluted water will drain into rivers and Puget Sound.
- Flood control protection devices such as levees may not be able to handle bigger and more frequent floods.
- Stormwater and sewer systems may be overwhelmed by increased water runoff during storms.



Flooded road. Source: Pierce County

## Coastal Flooding

- King tides, bigger storms, and rising seas will allow seawater to reach further inland.
- Coastal flooding may inundate highways such as I5.
- Rising sea levels and storms may cause challenges to ferry operations near docks.
- Groundwater may mix with saltwater as sea levels rise, affecting drinking and irrigation water supplies.
- Coastal flooding may affect the ability of septic systems to function properly.



Sea levels have a 50% chance of rising by as much as 2.5 feet in parts of Pierce County by 2100. Source: UW Climate Impacts Group

## Actions You Can Take

- Engage with Pierce County PPW on climate change, land use planning, and more to make your voice heard by taking the survey at the QR code to the right or emailing [CompPlanUpdate@PierceCountyWa.gov](mailto:CompPlanUpdate@PierceCountyWa.gov).
- Change up your landscaping! Native plants and rain gardens allow water to slowly pass through the soil and provide habitat for local animals.
- Swap out fixtures in your homes and businesses to decrease water use and increase the community's ability to handle drought.



[PierceCountyWa.gov/CVA](https://www.piercecountywa.gov/CVA)