

# Climate Change & Pierce County: Habitats

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. For habitats, warmer temperatures, more extreme heat, drought, sea level rise, and ocean acidification will be among the most challenging. Habitats provide important areas for plants and animals to thrive and they provide people with critical ecosystem services such as flood control, food and water, carbon storage, and recreational enjoyment. In addition, these habitats and species provide the basis for the treaty-protected rights of tribes in the region, including the Muckleshoot Tribe, Puyallup Tribe, Nisqually Tribe, and Squaxin Island Tribe.

## Rivers and Streams

- Salmon will be affected by warming stream temperatures, lower water levels, and diseases.
- Hotter temperatures may kill salmon or affect their ability to migrate to the ocean or return to spawn.
- Lower water levels may prevent salmon from moving between freshwater and saltwater habitats.
- Wetlands may dry during the summer because of lower water levels and hotter temperatures.
- Sediment may wash into rivers and streams and damage habitats.



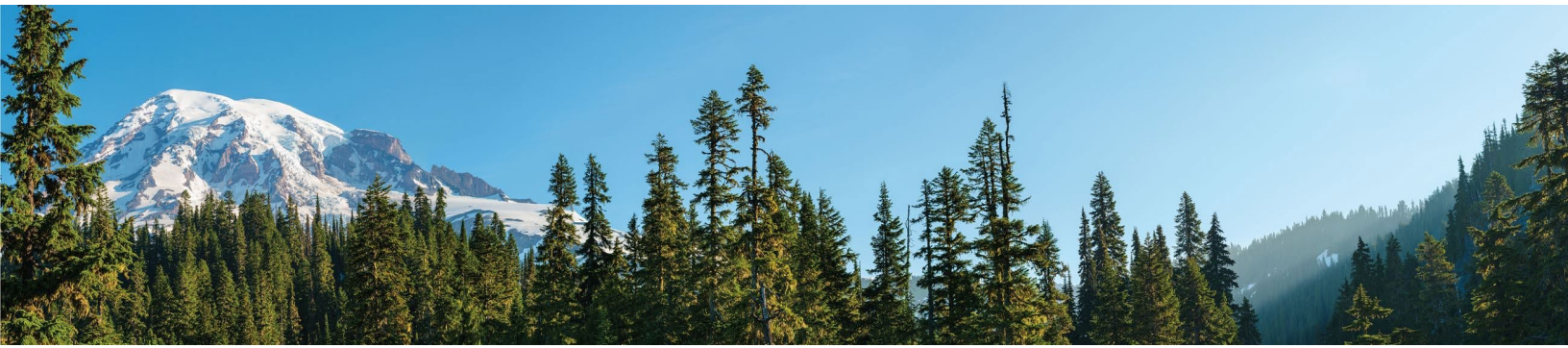
Source: National Oceanic and Atmospheric Administration

## Puget Sound

- Existing nearshore and beach habitats will shrink due to rising sea levels and erosion. This will reduce habitat for seals, birds, and forage fish such as surf smelt and herring that salmon rely on for food.
- As ocean waters become more acidic, animals such as oysters and clams are unable to develop their protective shells. Ocean acidification may also affect a salmon's sense of smell, which can prevent the fish from finding food or avoiding predators.
- Extreme heat can also kill or stress intertidal species such as shellfish.



Source: National Oceanic and Atmospheric Administration



Source: Pierce County

## Forests and Prairies

- Plants are likely to be more stressed by warmer temperatures and droughts, which will make them more vulnerable to diseases and pests.
- Warmer temperatures may cause earlier blooming and flowering of plants and trees.
- Some plants and animals may be able to move out of harm's way and migrate to cooler areas as the climate changes.
- Climate change may favor invasive species that can outcompete native species.
- Many habitats are vulnerable to both climate change and the development of homes and other infrastructure.



Source: Pierce County

## 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).
- Plant trees and other plants around your property to provide local habitat for animals, especially pollinators such as bees.
- Remove invasive species such as blackberry.
- Cut down on the use of pesticides and fertilizers to reduce stress on plants and animals.



[PierceCountyWa.gov/CVA](http://PierceCountyWa.gov/CVA)