

Climate Change Takes a Toll on Oregon

According to the fifth Oregon Climate Assessment by the Oregon Climate Change Research Institute, climate change will continue to impact daily life in Oregon. More than 30 collaborators affiliated with OCCRI worked on the latest biennial report. Here are some of the highlights of their findings:

Temperature

If greenhouse gas emissions continue at current levels, temperature in Oregon is then projected to **increase on average by 5°F by the 2050s and 8.2°F by the 2080s**, with the greatest seasonal increases in summer.

“New evidence is consistent with observations about temperature and precipitation that were reported in previous assessments. Average annual temperature in Oregon is increasing and is likely to continue increasing, especially in summer. And the intensity of major storms is likely to increase, which may lead to more flooding.”

—Erica Fleishman, director of the OCCRI

Wildfires

The total area burned in Oregon during summer and autumn 2020 was among the largest in recorded history—five wildfires over 100,000 acres.

Models consistently project that the area burned in Oregon will increase. For example, with a 3.6°F (2°C) average temperature increase, **the area burned in Oregon will roughly triple in 2010–2039 compared to 1961–2004.**

Snowpack

Oregon’s snow cover and snowpack are likely to decrease further as the climate becomes warmer, which will cause a greater proportion of precipitation to fall as rain than as snow.

At most SNOTEL stations in the Oregon Cascade Range the number of wet days that are **snow days will decrease from 50% during the late twentieth to early twenty-first centuries to fewer than 25% by the mid-21st Century.**

From 1982–2017, snowpack sufficient for recreation appeared by early to mid-November in Oregon’s mountains and by mid-December at lower elevations. The timing has shifted later by 3–8 days per decade.

Rivers & Streams

Stream temperature generally is projected to increase across Oregon. **August average stream temperatures are projected to increase by about 4°F (2.2°C) in most parts of Oregon.**

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Marine and Coastal Change

Off the Northwest coast, the **open-ocean surface temperature increased by more than 0.7 to 1.7°F since the year 1900** and is projected to increase by about another **3.9 to 6.1°F by the year 2080**. Temperature increase can reduce dissolved oxygen in the water and increase the toxicity of harmful algal blooms.

Ocean acidity is projected to change by about 100–150%, resulting in a drop in open-ocean acidity from 8.1 to 7.8. Ocean acidity will probably affect shell formation in diverse species of commercial, recreational and cultural value.

Learn more

The OSU “Science Pub” will present “**Climate Change Impacts Around (the) Bend**” to discuss how the changes in climate will directly affect the people living here in Bend. Register and join this free online lecture by climatologist Larry O’Neill, associate professor in the OSU College of Earth, Ocean, and Atmospheric Sciences and member of the OCCRI.

Wednesday, March 17, 6–7:30pm.

Register online at:

sciencepub-climatechange.eventbrite.com