

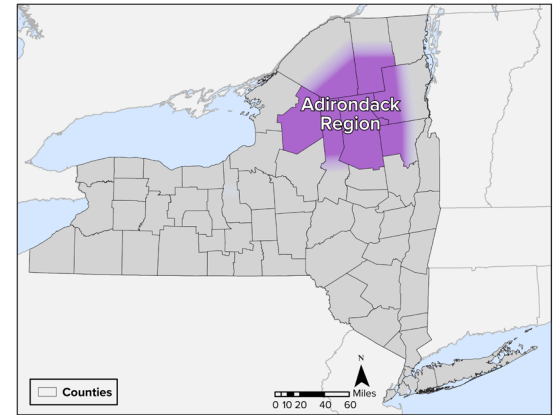
Climate Impact Spotlight: The Adirondack Region



The New York State Climate Impacts Assessment provides accessible and relevant information on the impacts of climate change across New York State, helping all New Yorkers make climate-smart decisions. This fact sheet summarizes how the climate is changing in the Adirondack region and how these changes will affect some of the features that make this region unique.

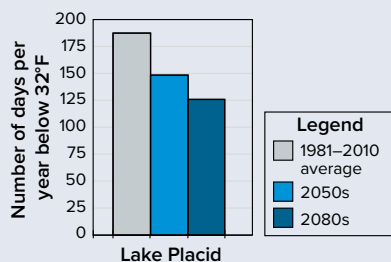
The Adirondack Region's Changing Climate

The Adirondack region has historically been the coldest part of New York State. This will remain true, but with climate change, average temperatures are expected to increase by 4.6°F to 6.6°F by the 2050s, compared with a 1981–2010 baseline, and by 6.1°F to 10.6°F by the 2080s. This region is projected to experience some of the largest temperature increases in the state.



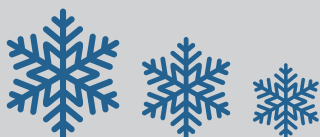
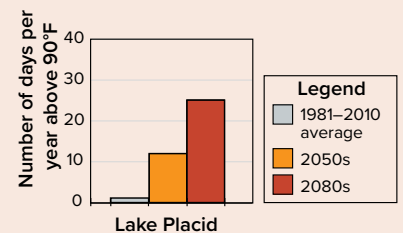
- **Decrease in very cold days.** For example, Lake Placid has historically experienced an average of 33 days below 0°F per year. These very cold days are expected to become less common. By the middle of this century (the 2050s), Lake Placid is projected to have only 9 to 15 days below 0°F per year, and near the end of this century (the 2080s), Lake Placid is projected to have only 2 to 11 days below 0°F per year. The number of days below freezing is also projected to decrease.
- **Increase in extremely hot days.** Lake Placid has historically experienced an average of just one day per year above 90°F. This number is expected to increase to between 6 and 16 days per year by mid-century and between 12 and 45 days per year by the end of the century.
- **Less snowfall and lake ice.** Warmer temperatures will bring a shift in snowfall and lake ice. The Adirondack region has already experienced a long-term decrease in snowfall. Winter precipitation is projected to increase in this region, but more will fall as rain than snow due to warmer temperatures. Lake George, as well as smaller lakes in the region, is already experiencing fewer frozen days than in the past. Lakes throughout the state are freezing later and thawing earlier, and this trend is expected to continue. For instance, Lower Saint Regis Lake is projected to lose an additional 7 to 21 days of ice cover by 2100.
- **More heavy storms.** New York State has experienced increases in heavy precipitation events, which can lead to flooding. These events are expected to become more common and more severe in the decades ahead, including in the Adirondack region.

Projections of future climate change depend on the world's future emissions of heat-trapping greenhouse gases. Some of the projections discussed here present a range of numbers, based on those future emissions.



Decrease
in very
cold days

Increase
in very
hot days



Decrease
in snowfall and
lake ice cover

Increase
in extreme precipitation
events that can cause flooding



Example Climate Impacts to Some Important Regional Features

Effects of Seasonal Changes on Outdoor Recreation and Tourism

Seasonal activities like skiing, boating, and leaf-peeping are critical to local Adirondack economies. Snow-related activities are particularly at risk from changing winter temperatures and snowfall. More than 100 ski resorts in New York State have closed since the late 1960s, with changing climate conditions playing a role in many cases. As winter temperatures rise, the statewide average number of days per year suitable for downhill skiing is expected to drop from the historical average (68 days) to 31 to 42 days by mid-century. Ice cover loss on Adirondack lakes will reduce opportunities for ice fishing, skating, and ice hockey.

Warmer temperatures could also lead to concerns such as harmful algae and invasive aquatic species that affect summertime lake recreation; lower populations of coldwater fish such as brook trout; and changes to fall tourism as foliage season is delayed and shortened.

Seasonal changes could also create new opportunities for those who can adapt. For example, warmer spring and fall temperatures could mean longer boating and cycling seasons. Many ski areas throughout the Northeast have expanded the activities they offer during the rest of the year to help offset the uncertainty of winter revenues.



Whiteface Mountain Ski Center in Wilmington, New York, the site of alpine skiing events in the 1936 and 1980 Winter Olympics.

Impacts to Adirondack Ecosystems

The Adirondack region harbors about 175 acres of alpine ecosystem on the slopes of the High Peaks above 4,500 feet. The warming climate may put these ecosystems at risk as warmer-climate tree species move upslope and replace the low-lying alpine plants that are otherwise rare in New York State. Loss of habitat and changing temperatures can threaten species that depend on high elevation habitats, such as the Bicknell's thrush, a bird that is at risk of disappearing in New York State. The common loon, an Adirondack icon, may also face stresses from climate change, as increasing temperatures and changing precipitation patterns can affect the loon's ability to nest. Milder winters could lead to an increase in white-tailed deer populations in the region. Moose, whose habitat may shift northward out of New York State as temperatures rise, could be threatened by parasites spread by deer.



Flooding in July 2023 washed out this bridge over Fishing Brook between the towns of Newcomb and Long Lake. Photo courtesy of Discover Newcomb.

Impacts from Extreme Rainfall and River Flooding

The projected increase in extreme precipitation is likely to raise flood risks along river valleys. For example, in August 2011, heavy rainfall from the remnants of Hurricane Irene caused extreme flooding of the Ausable River, damaging residential, commercial, and municipal buildings. This event destroyed 24 homes and damaged Upper Jay's town library and the Town of Keene's fire station. In anticipation of flooding, utilities cut off gas supply to thousands of customers, and high winds brought down trees and power lines, leading to extended power outages. More recently, in July 2023 and July 2024, extreme rainstorms caused significant flooding, bridge washouts, and road closures throughout large parts of the Adirondacks.

Learn More

Explore the New York State Climate Impacts Assessment at <https://nysclimateimpacts.org>.

