

CLIMATE CONSIDERATIONS FOR THE TAYLOR PARK REGION



The current climate of the Taylor Park region in Colorado is characterized by cold, snow-dominated winters with a dry, continental snowpack and cool summers with precipitation stemming from afternoon convection that can be enhanced by the North American Monsoon. A long season of temperatures below freezing help to keep pest populations under control, and cool temperatures limit the drying of fuels, reducing the number of fire danger days. However, under future climate conditions, a number of these important climate



Warming Temperatures and Changing Seasonality

The Taylor Park area will experience warmer temperatures, particularly **hotter and drier summers**, and longer growing seasons. Winter is becoming shorter and milder.



More Rain, Less Snow

Precipitation predictions are variable, but with warmer temperatures more precipitation may fall as **rain instead of snow**, especially in the transitional months in late fall and early spring



Elevated Drought Risk

As temperatures rise, forest vegetation may face an **increased risk of moisture deficit and drought**, particularly during the summer and early fall months.



Greater Potential for Fire

Warmer and drier conditions can increase the potential for fire. These conditions can dry fuels, **increase fire danger**, and reduce the historical fire return interval.



More Pests and Pathogens

Pests including spruce bark beetle, mountain pine beetle, and lodgepole dwarf mistletoe currently affect forests in the region.

Warmer winter temperatures will allow for increased survival and population growth.



Changes in Tree Species

The combination of warmer temperatures, drought, and frequent disturbance could shift the site-specific suitable habitat for tree

FORESTRY-RELEVANT CLIMATE INDICATORS

Average Annual Temperature



Today: 35 °F
 2050s: 39 - 41 °F
 2080s: 40 - 44 °F

April 1st Snow Water Equivalent

Today: 8.3 inches
 2050s: 7.3 - 7.7 inches
 2080s: 6.0 - 7.2 inches

Average Annual Precipitation



Today: 21 inches
 2050s: 22.1 - 22.3 inches
 2080s: 22.5 - 22.7 inches

Growing Degree Days (32F)



Today: 3125 DD
 2050s: 3820 - 4415 DD
 2080s: 4035 - 5315 DD

Coldest Minimum Temperature



Today: -22 °F
 2050s: -16 - -14 °F
 2080s: -15 - -9 °F

Hottest Day of the Year



Today: 77 °F
 2050s: 82 - 84 °F
 2080s: 83 - 88 °F

Last Spring Freeze



Today: June 13
 2050s: June 4 - 7
 2080s: May 23 - June 6

Average Summer (JJA) Highs



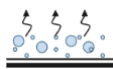
Today: 68 °F
 2050s: 73 - 75 °F
 2080s: 74 - 79 °F

First Fall Freeze



Today: August 28
 2050s: September 18 - 21
 2080s: September 11 - 25

Average Summer VPD



Today: 0.9 kPa
 2050s: 1.1 - 1.3 kPa
 2080s: 1.2 - 1.5 kPa

Growing Season Length



Today: 76 Days
 2050s: 97 - 100 Days
 2080s: 90 - 104 Days

Extreme Fire Danger Days



Today: 11 Days
 2050s: 18 - 22 Days
 2080s: N/A

Contemporary values are observed averages over 1971-2020. Future values provide a range that represent lower and upper estimates of potential change corresponding with multi-model average projections under RCP 4.5 and RCP 8.5 for the 2050s (2040-2069) and 2080s (2070-2099).