



#ClimateChangesHealth

# Northern Great Plains CLIMATE AND HEALTH

## BACKGROUND

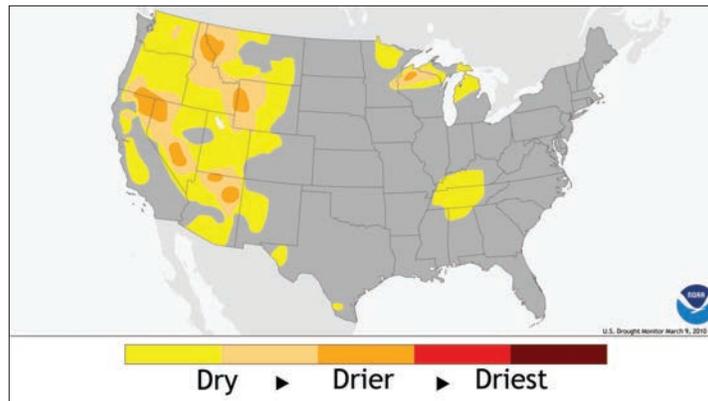
Burning fossil fuels, such as coal and gas, releases carbon dioxide. CO<sub>2</sub> builds up in the atmosphere and causes Earth's temperatures to rise. This extra, trapped heat disrupts many of the interconnected systems in our environment, posing risks to human health. Some impacts of climate change are already being felt throughout the United States. We need to safeguard our communities by protecting people's health from the effects of climate change.

## ISSUE SUMMARIES

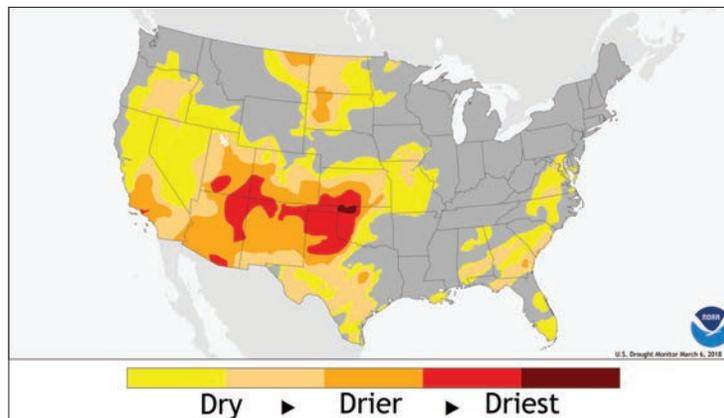
### DROUGHT AND WILDFIRES

Droughts increase the likelihood of health hazards like wildfires, dust storms, extreme heat events, flash floods and degraded air and water quality. Drought threatens water supplies and ecosystems, contributing to increased food prices that disproportionately affect low-income individuals. Exposure to wildfire smoke and dust storms increases respiratory and cardiovascular hospitalizations, asthma, bronchitis, chronic obstructive pulmonary disease and medical visits for lung illnesses and respiratory infections.

#### NORTHERN GREAT PLAINS DROUGHT, 2010



#### NORTHERN GREAT PLAINS DROUGHT, 2018



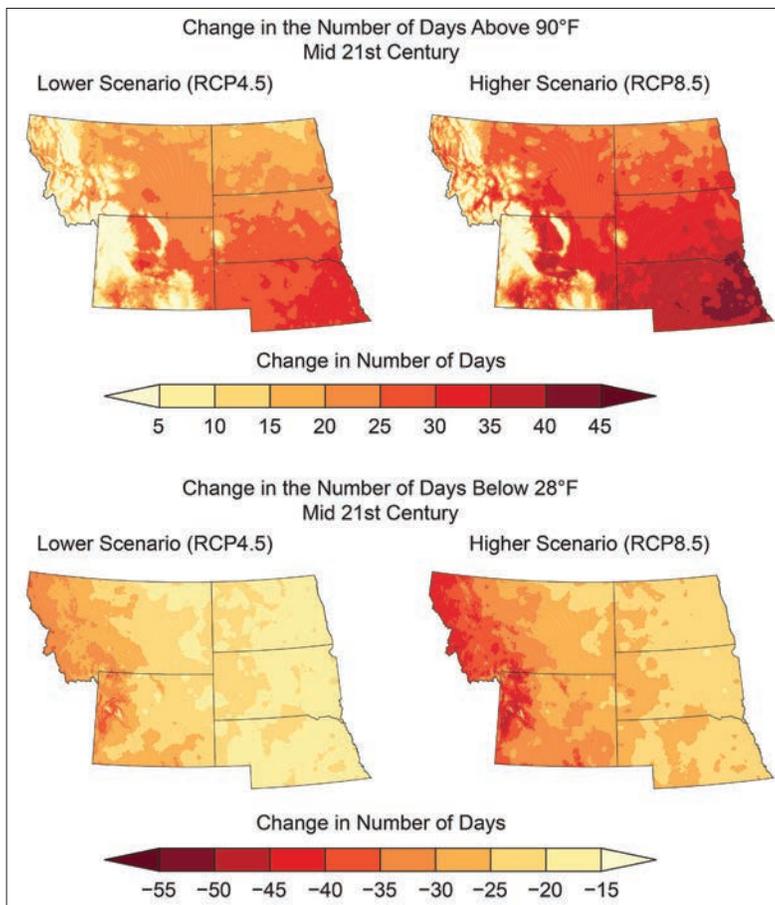
## FLOODING AND WATER QUALITY

Heavy rain, worsened by climate change, contributes to severe flooding and sewer overflows. Floodwaters can be contaminated by agricultural waste, chemicals and raw sewage that can carry harmful bacteria, viruses and parasites. Flooding and poor water quality can lead to injury and illness.

## EXTREME WEATHER EVENTS

Warming temperatures lead to an increase in the frequency and severity of natural disasters, such as heavy rains and floods, hurricanes, landslides and heat waves. These events come with health risks, such as injury and death, as well as diseases related to food and water contamination and poor sanitation. Major weather events and their long-term impacts on a community can lead to mental wellness concerns and stress-related disorders.

### CHANGE IN NUMBER OF HOT AND COLD DAYS BY 2050



Source: U.S. Global Change Research Program

## FAST FACTS

**North Dakota's average temperature has increased faster**



than that of any other state in the contiguous U.S., increasing risk of heat-related illness and death.

**Indigenous peoples are at high risk for climate change impacts** due to high rates of poverty and unemployment.



**Emissions from petroleum and natural gas production in the Northern Great Plains are among the highest in the U.S.** Greenhouse gas emissions cause premature deaths, hospitalizations and respiratory illness.



**The health of isolated communities is extremely climate-sensitive due to remote locations,** language barriers and limited infrastructure and health care access.

