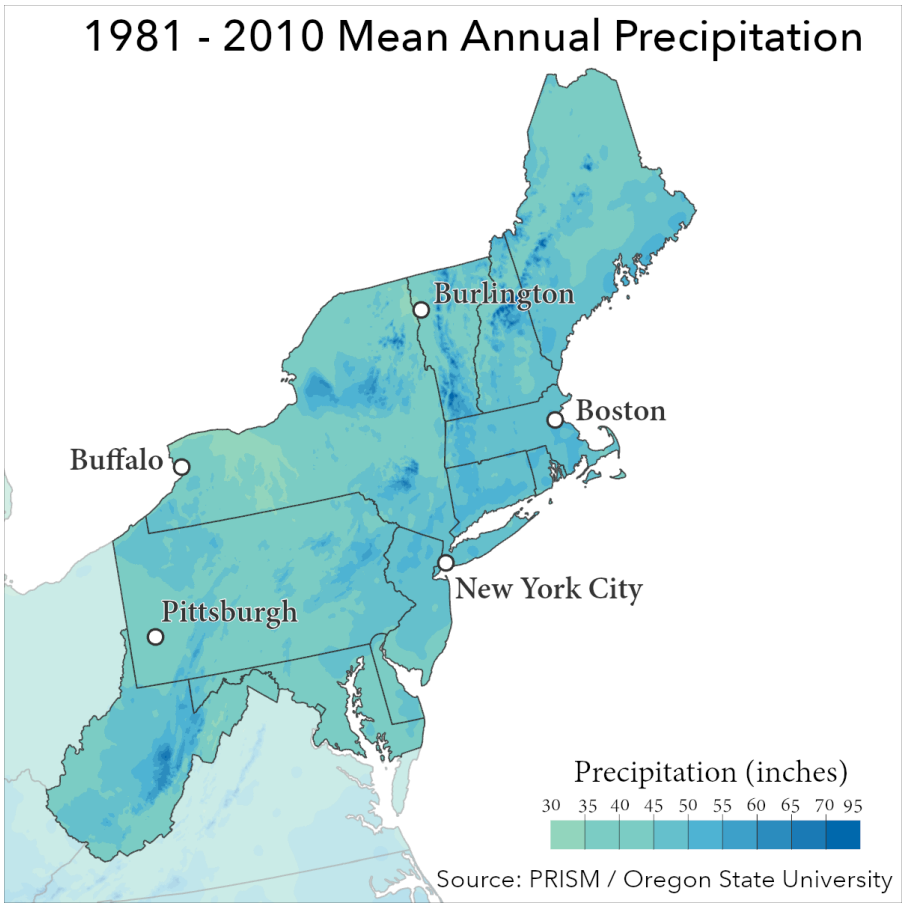
Condition Monitoring Reporting Guide: Northeast

Regional Background

While the climate of the Northeast is mostly humid continental, with warm summers and no specific "dry season" or "wet season," coastal areas will generally have greater annual precipitation. Southern areas are generally milder than northern areas. Proximity to the coast and the Great Lakes is a critical factor in local weather; these bodies of water typically moderate temperatures of nearby locations. Areas downwind of the Great Lakes commonly receive high winter snowfalls. Elevation also plays an important role in temperature and precipitation patterns.



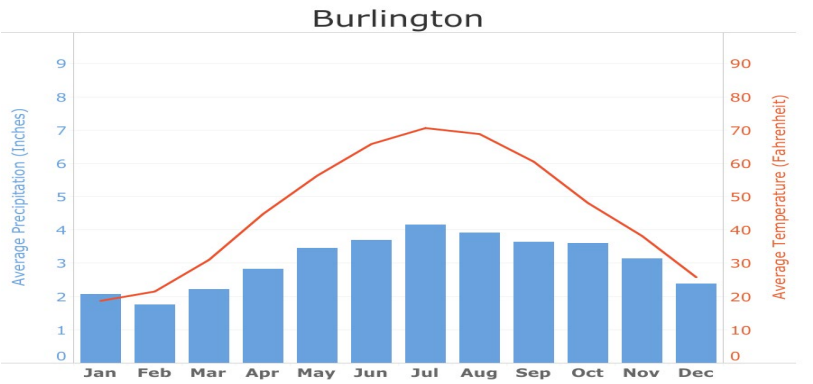
Reporting Reminders

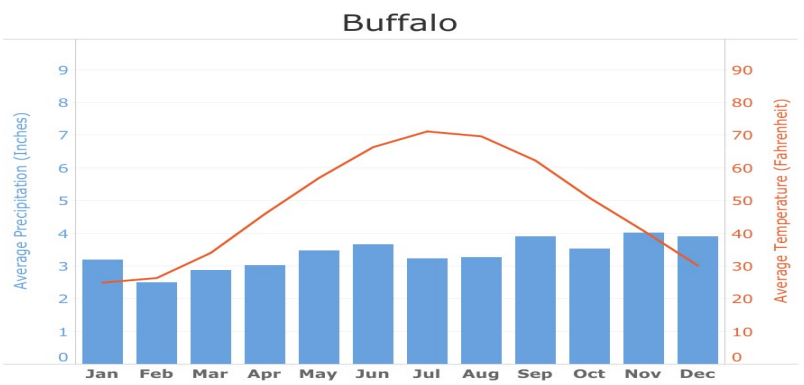
- Use "Severe" categories sparingly: overuse of these labels can make it hard for researchers to identify the hardest hit areas.
- Sometimes, minor events may still have major human impacts, or vice versa. Don't worry if your precipitation measurements seem to conflict with the severity reflected in your reports: differentiating between magnitude and human impact is valuable to researchers and decision makers!
- While heat and drought often go together, be careful to note that impacts of heat (e.g., wilting plants) are not necessarily indicative of drought conditions.
- Droughts don't end instantly. Rain after long droughts may mean *less dry* conditions, but not necessarily a reset to "Near Normal" conditions. Think *long term*.
- In addition to rain measurements, notes on a storm's duration, power outages, road closures, and other such impacts are helpful to include.

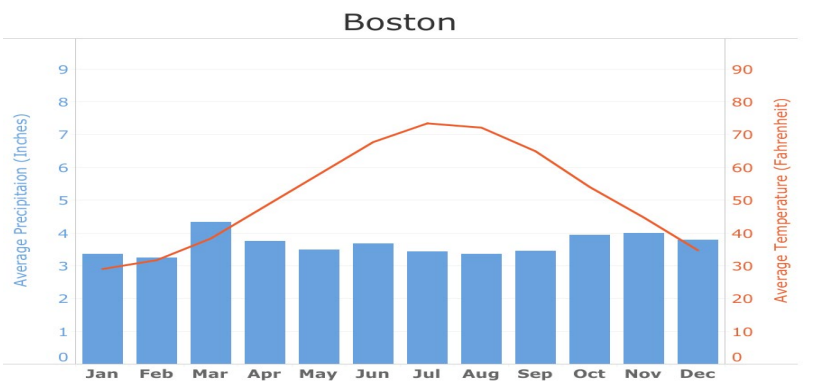
Average Monthly Climate Data

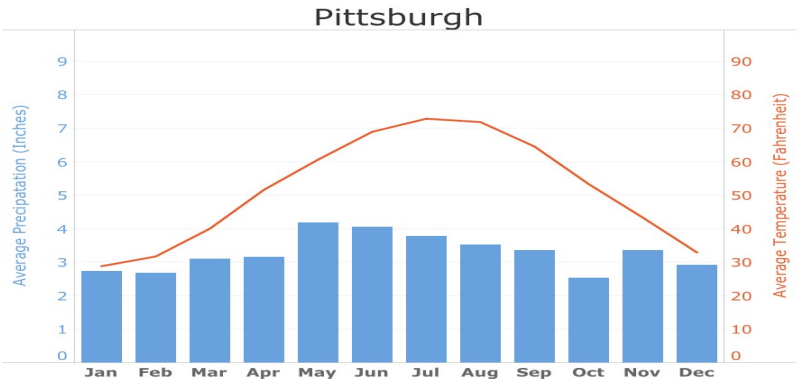
These climate charts represent normal monthly precipitation and temperature in your region. Pick a city near you and use the data as a baseline for your "near normal" conditions. Explore these resources for climate data in other locations:

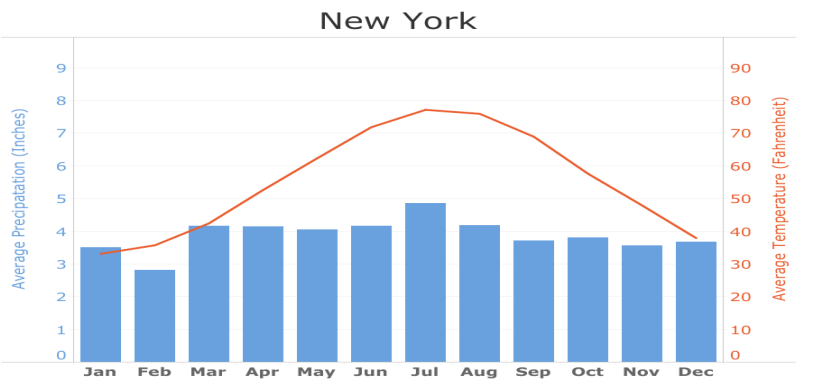
- National Drought Mitigation Center
- NOAA National Centers for Environmental Information
- NOAA Regional Climate Centers
- American Association of State Climatologists











Data Source: NOAA National Centers for Environmental Information

What to Look For

The following tables provide examples of the types of conditions you might observe during different wet or dry periods. **These lists are designed as an aid.** The first table shows the condition monitoring scale bar categories and the types of conditions that correspond to those categories. The second table organizes different types of conditions and impacts by sectors and areas of interest. Be sure to note any other observations that you think may relate to dry or wet conditions.

SEVERELY WET	MODERATELY WET	MILDLY WET	NEAR NORMAL	MILDLY DRY	MODERATELY DRY	SEVERELY DRY
• **Use this category sparingly** • Wet conditions have persisted for several weeks • Major flooding • Soil is saturated	• Wet conditions have persisted for a few weeks, or there has been a major rainfall event • Standing water and minor flooding • Soil is very damp	• Frequent precipitation for several days • Standing water is common • Soil moisture is above normal	• Observed conditions normal for this time of year • **This should be your default entry**	• Dry conditions have persisted for a few weeks • Soil is somewhat dry	• Dry conditions have persisted for several weeks • Lakes and rivers are low • Water use restrictions start • Soil is very dry	• **Use this category sparingly** • Dy conditions have persisted for months • Soil is completely dry • Water is scarce • State of Emergency

	WET	DRY
Agriculture	Orchard fruit and berry yields perform well in wet conditions. Certain pests and mold issues will become more frequent. During intense or prolonged wet conditions, mud and standing water may delay or impede planting and harvesting processes. Crop yields may be reduced.	Crops may develop late, show stunted growth, or yield smaller harvests. Plantings and harvests may be delayed as a result Orchard fruits and berries may be smaller in size. Honey and dairy outputs may be lower. New wells and irrigation equipment may need to be purchased. Livestock may be smaller or require supplemental water and feed. In the Northeast, Christmas tree shortages are common in dry years.
Business	Rainy and muddy conditions may delay construction and infrastructure projects. Flooding or snow may impede commutes, particularly in remote areas. Costs for transportation departments may increase due to snow removal and road salting. Urban areas with high densities of asphalt and concrete may flood easily, resulting in lost business hours.	Decreased demand may adversely affect tourism communities, local farms, and landscaping companies. Some sectors, such as well-drilling, may see benefits.
Energy	Hydropower output is likely to increase in prolonged rainy weather. Very intense precipitation, especially in winter, may increase the danger of power outages.	Dying tree limbs, heat, and subsiding soil are threats to electrical infrastructure and may increase the likelihood of power outages. Utility bills are likely to increase, especially in areas reliant on hydroelectric, coal, or nuclear plants.
Fire	U.S Forest Service fire danger ratings can be expected to be at or near minimum. It is common for prescribed burns to take place during wet conditions because they will be easier to contain.	Wildfires will be larger and more common, as reflected in increases in Fire Danger ratings from the U.S. Forest Service. Firefighting groups may release public statements or increase crew sizes. Fire season may begin earlier in the year (mid- to early Spring).
Plant &Wildlife	Heavy precipitation and saturated soil may cause trees to be easily uprooted. Wildlife likely to be more prevalent in wet conditions include wildflowers, mushrooms, mosses, mosquitoes, and ticks. Autumn colors and "leaf-peeper" season are likely to occur later in the season.	Scarcity of water and food may push animals to scavenge in residential areas. Deer may be scrawnier or more prone to disease. Changes in water level and temperature may result in fish kills. Lawns may start to brown or die. Mature, native trees will likely show signs of browning and drying if conditions are severe, possibly becoming more susceptible to pine beetles and other pests.
Relief & Response	Rain, snow, or fog may contribute to road closures. Emergency declarations or school closures for heavy rain or snowfall are an indicator of wet conditions.	Regulations on outdoor burning and the use of fireworks are common, even at low levels of drought. Governments and other agencies may issue statements encouraging voluntary conservation of water and energy. These will often become mandatory if drought worsens.
Safety & Health	Runoff from heavy rainfall may lead to harmful algal blooms. Road safety impacts of very wet conditions include fog, hydroplaning, flooding, ice, and landslides. Increased time spent indoors may lend itself to faster spread of infectious disease. Mold and mildew may pose a health threat as wet conditions persist. Increased standing water can lend itself to an increase in mosquito populations.	Particularly in urban areas, dry conditions may exacerbate air pollution, lending itself to asthma symptoms and irritation of the sinuses. More widely, pollen conditions may also become worse. Falling water levels can create more standing water, potentially increasing the number of mosquitoes.
Tourism & Recreation	Trails may require more maintenance due to mud and fallen limbs; some trails may be closed. Amusement park operation seasons may be delayed due to weather. High water in lakes, streams, and rivers may reduce fishing activity. Mildly wet (snowy) conditions may benefit some communities, including ski resorts.	Recreation on lakes and rivers may decline if surface levels decline. Decreases in water quality may impede freshwater and beach recreation. Hunting seasons and permitting policies may be adjusted in severe conditions, and CoCoRaHS reporters in the Northeast have suggested that hunting tourism may decline during drought. A lack of snow may delay or shorten the season for ski resorts and other winter recreation.
Water	Lakes, rivers, and wells will be at higher levels. Periods of flash flooding may cause abrupt changes in the courses of small streams; this will also often result in muddy water and lots of debris in rivers and lakes. Very wet conditions can threaten water quality by causing overflows of sewer, septic, or wastewater treatment systems.	Water bodies and wells will be lower. Ponds, small streams, and wells dry completely in severe conditions. Water quality will typically decrease due to increased temperature and decreased volume.