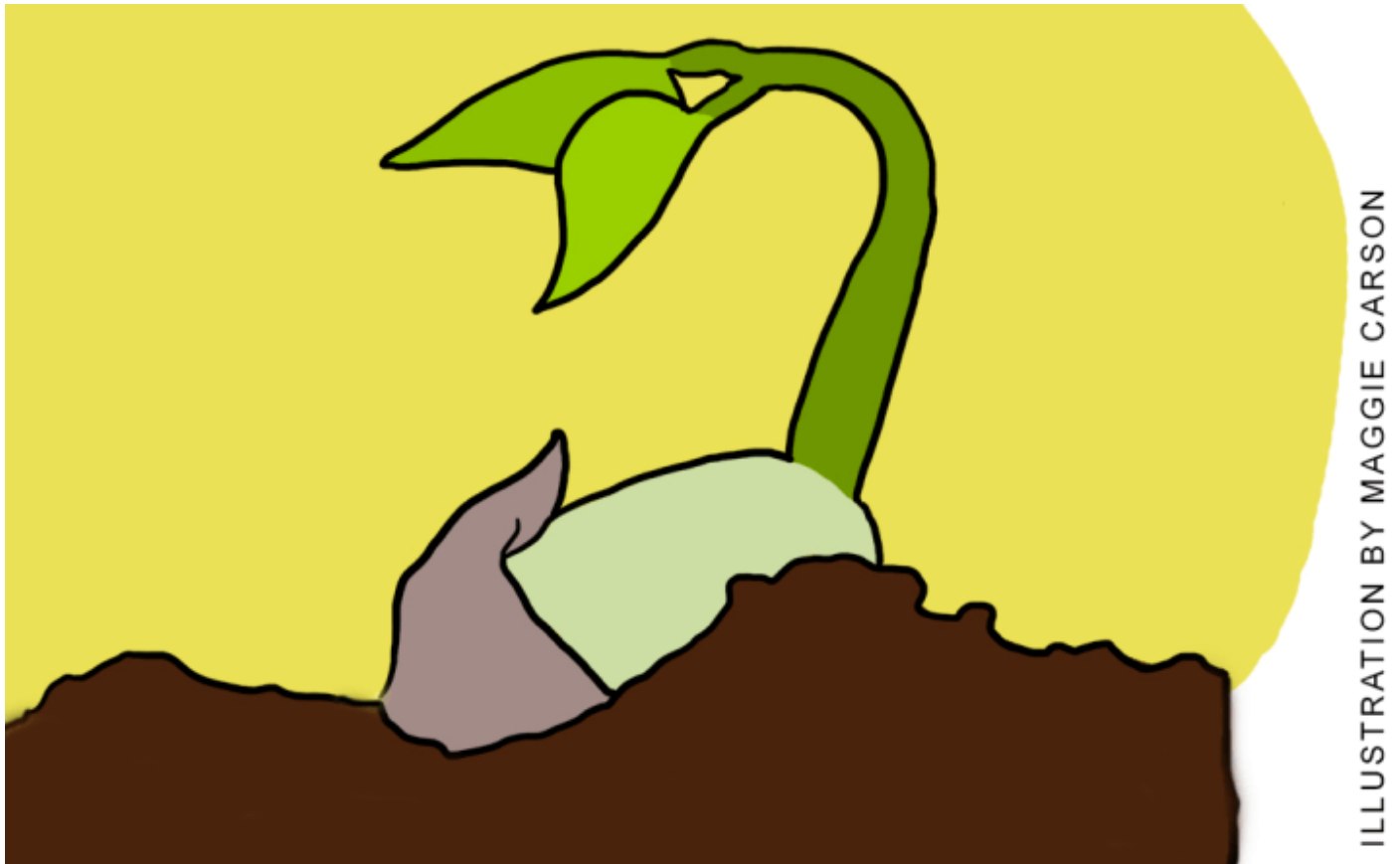


ENVIRONMENTAL COMMITTEE REPORT: WHY THE RECENT DROUGHT AND WILDFIRES?

January 7, 2025



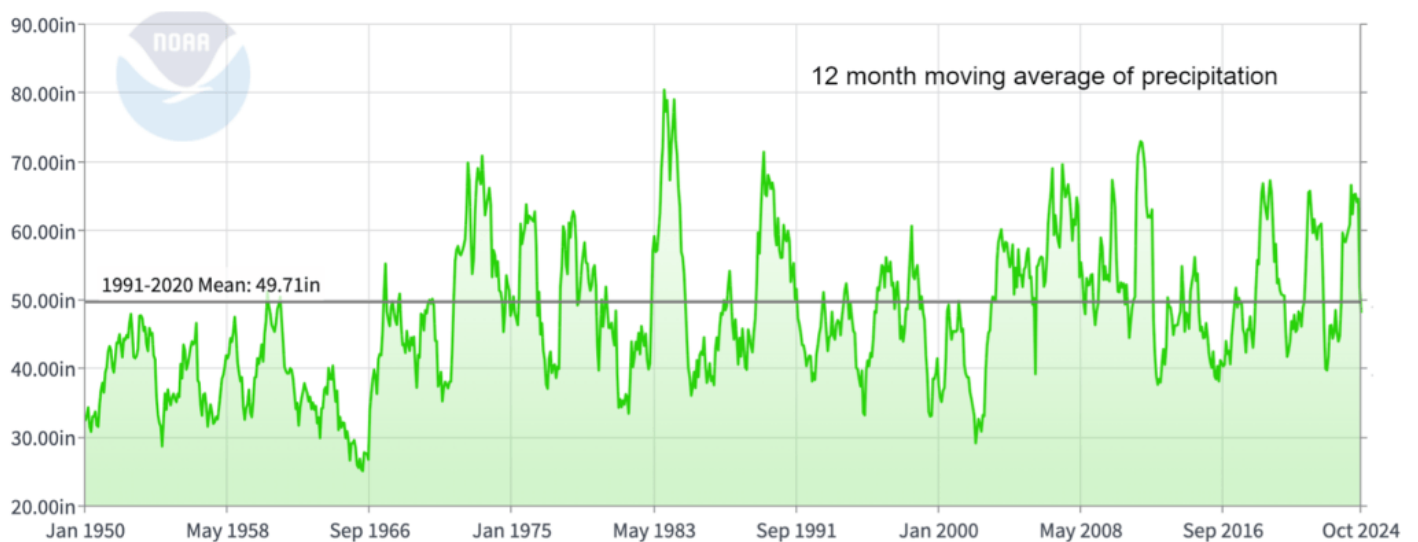
By Damon Turney, for the Environmental Committee

January 7, 2025

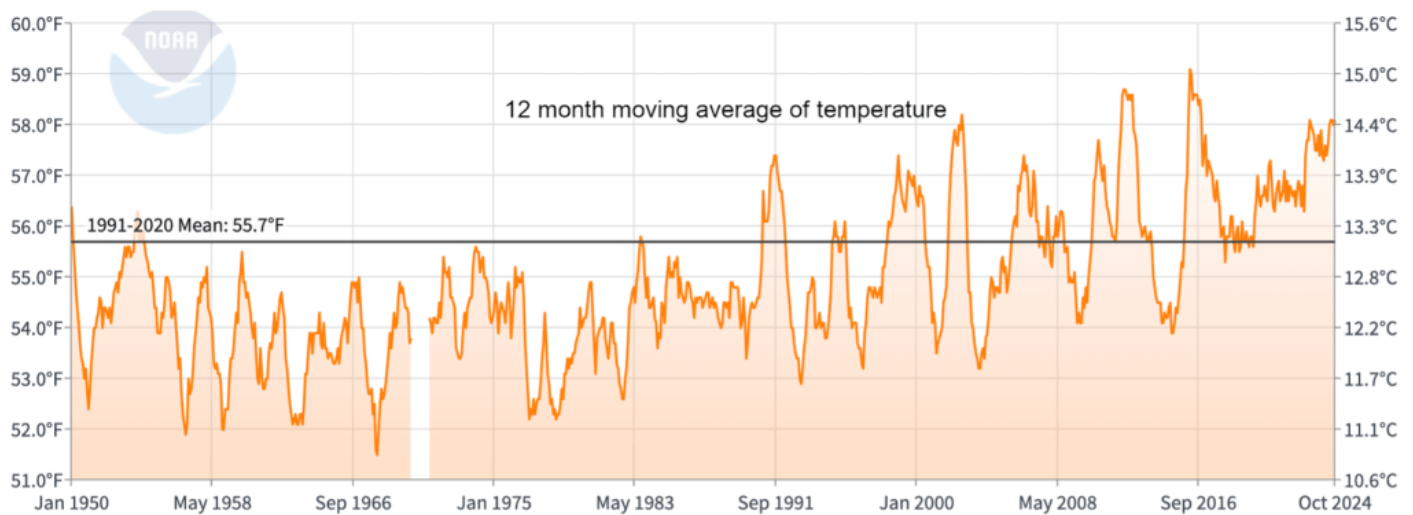
Our recent sunny autumn weather is not all warm news. Our heavily forested ecosystem is drying out¹, a fact clearly visible in the recent fall foliage having more brown than previous years. Of particular concern is the connection between our dry forests and the rise of forest fires in the tristate area, including many close to the city, which made air hazardous to breathe a few weeks ago. Our local Prospect Park was also damaged by a large forest fire that consumed two acres of trees and land on November 8.

So what's the reason for this, and what can be done to help? The data from environmental science points a clear finger at climate change but with a plot twist. Actual pre-

cipitation in our watershed has *increased* over the past 75 years, notwithstanding the exceptionally dry October we just had, as shown by the data below from the famous Central Park meteorological observatory.² Climate change is known to increase rainfall. This is due to increased evaporation of water from the oceans, which translates to more rainfall—what goes up must come down.



So how are we in drought then, you ask? This is the key issue. The higher temperatures on our forest and land nowadays mean they dry out much faster. Remember, evaporation occurs faster in warm temperatures, and the forest is a living system that loves to consume groundwater when it has a warm sunny day to do so. Below is the temperature history from the same observatory in Central Park—temperature rise is clearly the dominant factor here. These trends of precipitation and temperature are stronger in upstate cities like Albany or Binghamton, near our NYC watershed and reservoirs. The effect of higher evaporation means New York reservoir levels are a much better metric of drought severity than rainfall. Recent rains, just before November 27, have not been enough to improve reservoir levels.



Climate scientists call this faster drying process a “flash drought” effect³, meaning a month of low rain now can have the same bad consequences as 12 months of drought a century ago. And increased rainfall is now necessary to keep our watershed in the same state as it was 50 years ago. At present date the reservoirs that hold water for New York City are unusually low, likely due to just a couple months of low rain. A worsening of this trend could threaten major costs or damage to NYC water quality, or to the subterranean tunnels that feed water to the city, not to mention the forest fires and air quality.

What can we do to help? The good news is that rain will return to New York, likely at increased levels. It remains to be seen if increased rainfall will be enough, given the higher temperatures, and higher evapo-transpiration. At some point in the future, environmental issues will need to be taken seriously by city/state/federal voters and officials, because bigger problems may arise that will not be pleasant. Recommended actions to help are:

- Stay engaged politically: Ensure our elected officials keep a smart focus on environ-

mental issues.

- Conservation: Fix leaks, reduce waste, consider rainwater barrels if feeding a large garden or landscape. Cover pools.
- Be fire conscious, particularly when outdoors at barbecues or similar events.
- Research and innovate: Study known solutions⁴ and be active in developing new ones.

Want more? So do we. The Park Slope Food Coop Environmental Committee collects tips and hacks on issues of concern to the shopping members, so please feel welcome to reach out with additional information or suggestions at psfc.environmental.committee@gmail.com.

Notes

1. Hillary Howard, "New York City Drought Warning Declared for First Time in Over 20 Years," *New York Times*, 11/08/24.
2. National Centers for Environmental Monitoring, website for meteorological site USW00094728, accessed 11/26/24.
3. Yuan et al., "A Global Transition to Flash Droughts under Climate Change," *Science*, 2023
4. U.S. E.P.A., Prepare for Drought, www.epa.gov/green-infrastructure/prepare-drought, accessed 11/29/24.