



# THE OHIO STATE UNIVERSITY

---

BYRD POLAR AND CLIMATE  
RESEARCH CENTER



Web: [bpcrc.osu.edu](http://bpcrc.osu.edu)

Facebook: [/byrdpolar](https://www.facebook.com/byrdpolar)

Twitter: [@byrdpolar](https://twitter.com/byrdpolar)





Research Letter |  Open Access |  

## Detection and Assessment of a Large and Potentially Tsunamigenic Periglacial Landslide in Barry Arm, Alaska

Chunli Dai , Bretwood Higman, Patrick J. Lynett, Mylène Jacquemart, Ian M. Howat, Anna K. Liljedahl, Anja Dufresne, Jeffrey T. Freymueller, Marten Geertsema, Melissa Ward Jones, Peter J. Haeussler

First published: 29 October 2020 | <https://doi.org/10.1029/2020GL089800> | Citations: 1

Research Letter |  Free Access |

## A New Estimate of North American Mountain Snow Accumulation From Regional Climate Model Simulations

Melissa L. Wrzesien , Michael T. Durand, Tamlin M. Pavelsky, Sarah B. Kapnick, Yu Zhang, Junyi Guo, C. K. Shum

First published: 29 January 2018 | <https://doi.org/10.1002/2017GL076664> | Citations: 26



# FARM | Field Application Resource Monitor BETA

[Sign In](#) [Statewide Condition Map](#) [Tutorial](#)



THE OHIO STATE  
UNIVERSITY

*FARM is a **real-time and historical climate** information tool for fertilizer and manure application.*

[View as a Guest](#)

[Create User Profile](#)

[Returning User](#)

Welcome to the **Field Application Resource Monitor (FARM)**. Water quality is important to all Ohioans and we all impact our watersheds. In recent years, Ohio farmers have taken significant positive steps toward limiting the negative impacts on water quality that come from the loss of sediment and nutrients. **FARM** allows users to define their locations of interest and receive 12- and 24-hour precipitation forecasts to aid in the application of fertilizer, manure, and/or pesticides. **FARM** also utilizes a database of historical forecasts allowing users to search previous dates. Users can choose to create an account to track multiple fields, explore statewide conditions in quick-view, and sign-up to receive email alerts (text alerts coming soon).





# COLUMBUS

## Climate Adaptation Plan

Completed December 2018



### Extreme Heat



#### Actions

- N1 Establish a large cooling center
- N2 Implement education practices for the public
- A1 Internalize climate change into urban heat island planning
- A2 Enhance programs for vulnerable populations

Columbus Climate Adaptation Plan | Extreme Heat

### Background

The *Climate Change in Columbus Ohio* report identifies increasing temperatures as one of the two climate changes that have and will likely continue to affect our city.<sup>1</sup> From 1951 to 2012, the annual average temperature for Columbus warmed by 2.3°F, which was faster than both the national and global rates. This trend is expected to continue, with annual average temperatures projected to rise by an additional 3 to 5°F by mid-century. Increasing temperatures result in several impacts – deteriorated air quality, stress on vegetation, increased demand for water and energy – that can negatively affect our community. One of the most concerning effects is the projected increase in extreme heat events by mid- twenty-first century, including an increase in the warmest day of the year (> 6°F), with an additional 20 to 40 days per year of high temperatures greater than 90°F (comparison made to the 1976-2005 period).<sup>2</sup>

Extreme heat refers to air temperatures that are much hotter than average. Extreme heat events are generally characterized by consecutive days of excessively hot weather, often including elevated humidity and warm nighttime temperatures. The lack of cooling at night leads to sustained heat indices and health concerns. These events are already occurring throughout the country and are expected to increase in severity and frequency as the climate continues to change. The projected increase in extreme heat events increases the likelihood of more heat-related illnesses and deaths in Columbus.

According to the National Weather Service, heat remains one of the greatest weather-related causes of death in the United States.<sup>3</sup> In 2016, 94

people died as a result of extreme heat. Although the most vulnerable are those living in permanent homes with little to no air conditioning, loss of life can include others as well. Individuals engaging in strenuous outdoor work during periods of high temperatures are at increased risk as well as those that are socially isolated and unable to cool themselves during widespread heat waves. Of particular note is the loss of life that occurred during the *summer of 1995 in Chicago*, where more than 700 individuals were estimated to have died in an extended heat wave.<sup>4</sup> Similar events have been documented within the United States and around the globe.<sup>5</sup>

To combat the risks associated with extreme heat, two necessary (N) actions and two aspirational (A) actions are proposed. These actions provide ways for the public to avoid the negative effects of extreme heat and ensure that best practices will be utilized for anyone that has to spend time outdoors on dangerously hot days. Additionally, these actions focus on providing resources for vulnerable populations who are disproportionately affected by heat-related illnesses, often due to limited mobility, lack of access to residential air conditioning, and/or failure to be a part of a community that can provide support during an emergency (e.g., faith community, neighborhood group, senior citizen center). Many groups of people are especially vulnerable to heat-related illness, including infants and young children, the elderly, people with chronic medical conditions, low-income households, and outdoor workers. If the proposed actions are taken, Columbus can minimize the serious risks posed by continuously rising temperatures.

Columbus Climate Adaptation Plan | Extreme Heat

18