



# ASSOCIATION OF STATE FLOODPLAIN MANAGERS, INC.

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April 24, 2020

Honorable Senator Jerry Moran  
Chairman, Subcommittee on Commerce,  
Justice, Science and Related Agencies  
Senate Appropriations Committee  
Washington DC 20510

Honorable Senator Jeanne Shaheen  
Ranking Member, Subcommittee on Commerce, Justice, Science and Related Agencies  
Senate Appropriations Committee  
Washington DC 20510

## **In Re: Updating nation's critical hydrologic precipitation frequency data, NOAA, National Weather Service**

Dear Chairman Moran and Ranking Member Shaheen and members of the Senate Commerce, Justice, Science and Related Agencies Subcommittee:

We are writing to urge you to consider providing funds in the FY 2021 Commerce, Justice, Science and Related Agencies Appropriations legislation for the critically needed updating of the **Atlas 14 series of precipitation frequency estimates for the nation**. Atlas 14 is a vital series of volumes that have over time, and especially in some regions, become seriously out of date, and are absolutely basic to providing accurate and reliable flood risk information and flood maps for all communities, and which are used for planning and guiding development in communities and for the majority of the nation's local, state, tribal and national infrastructure in order to avoid the crippling damages and adverse impacts of floods, and to save lives.

In hundreds of communities across the nation, residents have experienced substantial and sometimes alarming increases in both the frequencies and areal extents of high-volume precipitation events. These have often been accompanied by increasing flooding and substantially increasing flood damages and other costs, including damage to homes, businesses and supporting infrastructure, as systems that were built for stormwater and flood management are overwhelmed due to increased rainfalls. The National Oceanic and Atmospheric Administration's National Weather Service, Office of Weather Prediction has

*Dedicated to reducing flood risk and losses in the nation.*

### **Chair**

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# Association of State Floodplain Managers, Inc.

generally undertaken the efforts to develop, maintain, and update basic precipitation frequency documents, known as Atlas 14, that inform federal agencies, engineers, states, tribes, communities, businesses, and citizens of the frequencies and high-level precipitation volumes that can be expected in given areas and regions, based on historical experience. The updating of these documents is an essential basis of all flood and floodplain maps, and guidance to engineers, architects, planners and builders. Nevertheless, the development and updating of Atlas 14 has often lagged, sometimes literally for decades, because no dedicated funding has been available for NOAA's updates, which scientists say should be done at least every 5 years.

A recent joint subcommittee hearing of the House Committee on Science, Space and Technology expressed concern that Atlas 14 updates have experienced delays due to funding problems and this critical data is fundamental to the accuracy of NFIP flood maps as well as information for the private sector when constructing buildings, factories and housing.

Most recently, in the wake of a series of hurricanes and Gulf Coast tropical storms, and culminating with Hurricane Harvey in Southeast Texas, the Atlas 14 for the Texas region was updated (but not until *after* Harvey), showing that the design storm 24-hour precipitation event - with a 1% annual return frequency, has now grown by more than 30 percent, literally over the past decade. This problem was clearly shown in Hurricane Harvey, when thousands of homes outside the identified 100-year, and even the 500-year floodplain, were flooded because the maps were based on the old Atlas 14 projected rainfalls. In addition to having to repair all those flooded homes, Texas Coastal communities as a result are revising building codes and basic storm water drainage and flood management systems in recognition of the much higher precipitation levels they are experiencing and now anticipating.

NOAA has indicated that for approximately \$2.5 - \$3 million annually, the nation's regional Atlas 14's could be kept updated, a much needed nationwide uniform atlas could be developed, and communities could receive data layers reflecting updated present and future conditions precipitation frequencies based upon observed and reasonably predicted climate and weather-based trends. Currently, the updating process is entirely dependent on states and local governments within a region donating the update funds - which often takes years to cajole and accumulate, and often results in years to decades of delays in updating these crucial reports. At present, except for Texas, which was completed in 2018, and a minor 2019 New England update, for all other Atlas 14 volumes, more than 5 years have elapsed since they were updated. Notably, for the Ohio River Basin and a large number of surrounding states it has been more than 14 years since they were updated, and for the Northwest states of WA, OR, MT, ID and WY, it has been nearly 50 years since the region's precipitation frequency atlas was updated.

We strongly urge that a high priority be placed on regularized funding with clear direction to NOAA to modernize and update the Atlas 14's for the nation, including a nationwide Atlas volume and identification of future conditions precipitation frequency mapping.

# Association of State Floodplain Managers, Inc.

The ASFPM and its 37 Chapters represent over 19,000 state and local officials as well as other professionals engaged in all aspects of flood risk management and flood hazard mitigation including management of local floodplain ordinances, flood risk mapping, engineering, planning, community development, hydrology, forecasting, emergency response, water resources development and flood insurance. All ASFPM members are concerned with reducing our nation's flood-related losses. Our website is: [www.floods.org](http://www.floods.org). We would be happy to respond to any questions you may have. Please feel free to contact myself, Chad Berginnis, Executive Director, ASFPM, at [CBerginnis@floods.org](mailto:CBerginnis@floods.org) or 608-828-3000, or David Conrad, Water Resources Policy Advisor, at [conrad.david.r@gmail.com](mailto:conrad.david.r@gmail.com) or 202-365-0565.

Most Sincerely,

A handwritten signature in black ink, appearing to read 'Chad Berginnis', with a horizontal line extending to the right.

Chad Berginnis, Executive Director

Cc: Matt Womble  
Blaise Sheridan