Outside Witness Testimony

Senate Appropriations Committee, Subcommittee on Homeland Security Re: **FEMA flood map funding, PIVOT and DHS Science & Technology**

Submitted by: Chad Berginnis Executive Director Association of State Floodplain Managers March 20, 2020

FEMA Flood Map Funding

The President's Fiscal Year 2021 budget, released on February 10, requested a mere \$100 million for floodplain mapping and indicated that the floodplain mapping effort for the nation would be completed in FY 2021. This represents a (60%) \$163 million decrease in map funding compared to the \$263 million appropriated in FY19 and FY20 and grossly underestimates the time it will take to complete the national mapping effort. The budget request estimates that flood risk mapping can be completed in 2021.

The Association of State Floodplain Managers (ASFPM) strongly recommends appropriation for flood risk mapping at the authorized \$400 million level for Fiscal Year 2021. This would be in addition to funds for mapping derived from the flood insurance policy fee. At a minimum, it would be important to at least appropriate the \$263 million amount that has been provided for FY'19 and FY '20. We believe the \$100 million requested by the Administration would not even fully support the maintenance of existing maps and would eliminate any expansion of the map inventory for the more than 6,500 communities that currently have no flood maps.

ASFPM recently released our update of the <u>Flood Mapping for the Nation</u> report, analyzing the cost for completing and maintaining the nation's NFIP Flood Map Inventory. The report estimates that it will cost between \$3.2 billion and \$11.8 billion to "complete" the flood mapping in the nation. Then the steady-state annual cost to maintain this flood map inventory will be between \$107 million and \$480 million. The Administration's \$100 million budget proposal is insufficient to maintain even the existing map inventory, much less complete mapping for the 2/3rds of streams and coasts in the nation that are totally unmapped. A considerably higher funding level is also needed for implementation of additional mapping layers required by Biggert-Waters 2012, including future conditions and areas of residual risk behind levees and below dams which in large part has not even begun. A graphic showing the mapping resource needs is included with this testimony.

The Biggert-Waters 2012 flood insurance reauthorization and reform legislation required these and other non-regulatory map data to assist planners, permitting officials, building code officials and other state and local officials in guiding development and floodplain management decisions. Additionally, maps are used by emergency managers to prepare for disaster response such as evacuation routes. In addition to providing the basis for rating flood insurance policies, FEMA's flood risk maps are foundational to understanding and reducing flood related losses of lives and property as well as flood disaster related

costs to taxpayers. Fortunately, the Congress has taken action to significantly increase investment in pre-disaster hazard mitigation, but the maps are key to guiding mitigation investment choices.

Since the inception of the National Flood Insurance Program (NFIP) in 1969, the nation has invested \$6.6 billion (\$10.6 billion in 2019 dollars) in flood hazard mapping. Multiple benefits of that investment go far beyond use for NFIP policy premium rating, and include community planning, development of key infrastructure such as highways, bridges, siting of water treatment facilities and flood risk reduction.

According to the ASFPM mapping report, "Direct average annual flood losses have increased from approximately \$4 billion per year in the 1980s to roughly \$17 billion per year between 2010 and 2018. These direct losses are likely under-reported and do not include indirect losses related to business closures, lost tax revenue and public and mental health costs that often disproportionately impact socially vulnerable communities more. With increases in frequency and amount of heavy rainfall and hurricanes due to climate change and increased development pressure in coastal areas and watersheds, flood losses are expected to continue their upward trend."

The ASFPM report goes on to state: "We are far from completing the initial job of mapping the nation. Roughly 1.14 million miles of streams have been mapped out of the approximately 3.5 million miles of streams in the country, meaning only 33% of the rivers and streams in the country have flood hazard information available. Existing maps must be continually reviewed and updated to keep them accurate and the remaining 2.3 million miles of streams need flood hazard maps."

While much improved technology, including the availability of elevation data (LiDAR) from the U.S. Geological Survey, has dramatically improved the credibility of FEMA's flood maps, the funds invested in mapping have not measurably increased the total inventory of stream miles mapped. FEMA's mapping priorities have led mostly to mapping areas of high population density. Yet significant new development continues to happen in as-yet-unmapped areas, meaning houses and commercial properties are being built without knowledge of flood risk and the need to adjust siting and structure elevation. Once those areas become populated, they will get mapped and communities and property owners may learn the properties are in a flood hazard area and will be required to buy flood insurance. Premiums will be unnecessarily high because risk was not factored in during construction.

Department of Homeland Security (DHS) Science & Technology

The Flood Apex research and development initiative within DHS S&T has proven to be a valuable support for FEMA's programs. FEMA has no research and development capacity of its own, so the assistance from DHS has been an important resource addressing an unmet need for flood related research. The program has been funded since 2015 and for the past two years has been funded at \$10 million. This modest funding for Flood Apex is expected to end this fiscal year. With further funding, it could be extended or a successor flood research and development capability could be developed.

ASFPM is represented on the Flood Apex Research Review Board so we are well aware of the attributes of the initiative. Research supports three major objectives: 1) improve disaster response and event management, 2) enhance individual and business flood resilience and 3) enhance community resilience. Examples of areas of research include: flood insurance voluntary purchase analysis, closing the insurance gap for public buildings, flood preparedness and operations (community workshops), flood proofing standards and dam safety monitoring and reporting criteria.

The projects funded by Flood Apex are showing to be incredibly cost effective. For example, the floodproofing standards for resilience project/program is estimated to result in \$272.48 million net benefits over a ten-year time horizon, which substantially exceeds the estimated program-related costs of \$1.648 million. Further, there are several research needs that have not been met due to funding limitations including disaster recovery, moving R&D into community practice, advancing floodproofing and protective measures, and risk characterization/risk communications.

Based on the need and cost effectiveness of the program we recommend continued funding for the program and that it be increased to the \$12 million level. We would also suggest that report language noting the value of the flood research and development is important as flooding is the nation's most frequent and most costly natural disaster.

Pivot-PART IT program

We are also concerned that seemingly over-restrictive privacy procedures for using FEMA's new PIVOT-PART data system are seriously impeding making available essential historical NFIP claims and policy information for community and state planning and mitigation purposes. FEMA's new procedures are creating unnecessary roadblocks to critical data availability which is essential to implementing other NFIP and Stafford Act mandates, including mitigating repetitive loss properties and developing Hazard Mitigation Plans. We urge the Committee to work with FEMA and DHS to find workable mechanisms to facilitate making timely claims data available to states, tribes and communities for implementation of required and necessary mitigation planning and grant application purposes.

The Association of State Floodplain Managers (ASFPM) has almost 20,000 members including members in 37 state chapters. Members are largely state and local officials, but many are the engineers, planners, and other professionals who support local communities. Our membership also includes members of research and academic institutions, and the insurance and lending industries.

We appreciate the opportunity to share our recommendations about flood risk map funding, flood data availability and funding for Flood Apex or a successor at DHS. If you have questions or would like further information, please contact Chad Berginnis, ASFPM Executive Director at (608) 828-3000 or by email at CBerginnis@floods.org.

FLOODING IS THE NATION'S #1 DISASTER

Legislation requires that FEMA develop and maintain flood maps. **\$6.6B**, or **\$10.6B** in present-day dollars, has been invested in flood hazard mapping, resulting in nearly **\$22B** in losses avoided. **HOWEVER, MORE IS NEEDED!** Currently, only 1/3 of the nation's streams and coasts have been mapped.

INVESTING IN A FULLY MAPPED NATION REQUIRES \$107M \$33.2B to \$11.8B + \$107M \$480M \$ FOR ANNUAL MAP MAINTENANCE





newly mapped communities

communities with maps over 15 years old that would receive updated maps

CAUSING AT LEAST

NIOSSES

on average

FLOOD MAPS ARE **ESSENTIAL** TO:

Floodplain Mapping is a SOUND INVESTMENT with a **2-10-1** TAXPAYER BENEFIT

Save lives and reduce disaster suffering. **53%** OF AMERICAN VOTERS PERSONALLY IMPACTED BY FLOODING

Support communities' resilient actions, such as identifying where mitigation projects and land use & building standards are needed. **80%** LESS DAMAGE ANNUALLY TO STRUCTURES BUILT TO NFIP STANDARDS

Reduce flood losses.

NEARLY \$178 PER YEAR 2010-2018

Keep communities and businesses thriving.

40-60% OF SMALL BUSINESSES NEVER REOPEN AFTER A DISASTER, AND **90%** OF BUSINESSES FAIL WITHIN 2 YEARS OF EXPERIENCING A DISASTER

IDENTIFYING RISKS TODAY reduces tomorrow's flooding problems And the second sec



FOR MORE INFORMATION read the Map the Nation Report at no.floods.org/MapTheNation