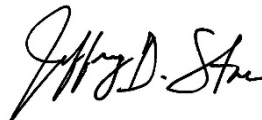


A Proposal to the:  
**National Oceanic and Atmospheric Administration**  
**Office for Coastal Management**  
**2020 Digital Coast Fellowship Program**

Project Title:  
**Mitigating Multiple Loss Properties – Guidance  
and Training for Coastal Communities**

Submitted by:  
**Association of State Floodplain Managers**  
&  
**Coastal States Organization**

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## Introduction

The Association of State Floodplain Managers (ASFPM) and the Coastal States Organization (CSO) are organizations dedicated to collaborations and partnerships, representing state and local floodplain administrators and coastal managers whose jobs entail engagement and cooperation of landowners, business owners, communities, and other federal, local and state agencies.

This fellowship project is part of tackling one of the biggest national challenges related to reducing flood damages and costs in the country and is designed to focus on the significant costs of repeatedly flooded properties in coastal communities, the cost of which will only grow as the result of sea level rise and climate change. “Repeatedly flooded properties have **cost the National Flood Insurance Program (NFIP) more than \$12.5 billion**—equivalent to roughly **half of the program’s \$23 billion debt.**”<sup>1</sup> The Fellow will be part of a team dedicated to developing guidance and training aimed at reducing repeatedly flooded properties in coastal states and communities, thereby creating resilient communities and avoiding significant costs to tax payers and local communities. Within this team the Fellow will have the opportunity to lead several critical tasks that will result in the final guidance, training and best practices that will support technical and policy decision-makers in coastal states and communities.

Through the support of multi-year funding from the Federal Emergency Management Agency (FEMA), ASFPM and CSO are working together on the issue of repetitive loss properties – also known as repeatedly flooded properties or multiple loss properties. The outcome of the project will be enhanced community capacity to understand and mitigate NFIP repetitive loss (RL) properties. The project will develop a “Multiple Loss Properties Mitigation Engagement Seminar and Training Series” that will include an information exchange around the following key themes: explanation of the role of RL properties in the NFIP; understanding of FEMA Community Rating System (CRS) best practices that address RL properties; use of community-based substantial damage compliance as a RL properties mitigation action; RL property owner engagement and education strategies; and the role of state hazard mitigation officers, and mitigation financing. The initial focus of the Seminar & Training Series will be coastal flood hazard areas with plans to expand to urban and riverine flood areas in the future.

## Background

The nation’s coastal floodplains face ever increasing and changing pressures: population growth in the coastal zone, escalating demands on fisheries and other resources unique to the coast, discovery of resources that can fuel a nation, and ecosystems under stress from land use and river management strategies are not new challenges. However, what is new is the unprecedented growth of the United States population in coastal areas, coupled with a climate that has drastically changed in a handful of generations. This combination of population growth and sea level rise in coastal areas means increased risk to homes and properties.

A pressing issue for both the NFIP and the nation is the increase in the number of multiple loss properties. ASFPM’s analysis of FEMA data shows that in recent years we are adding approximately 3,000 repetitive loss properties annually in the nation. This is based on a comparison on repetitive loss data from 2010 showing 153,776 total repetitive loss properties and data from 11/30/17 showing 172,203 repetitive loss properties. The increasing trend is both disturbing and one that can be influenced through appropriate and timely mitigation and administration of local and state floodplain management and coastal management programs. Interestingly the 2017 data does not include repetitive losses from the record flooding from 2017 and Hurricane Harvey. Continued analysis and understanding of FEMA’s data will be

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<sup>1</sup> PEW, Infographic “Repeatedly Flooded Properties Cost Billions” October, 2016

just one key component of the Fellow's work on this project.

Repetitive loss properties are buildings and/or contents for which the NFIP has paid at least two claims of more than \$1,000 in any 10-year period since 1978. "Severe repetitive loss properties" are those for which the program has either made at least four payments for buildings and/or contents of more than \$5,000 or at least two building-only payments that exceeded the value of the property. These extreme cases make up a small fraction of the nearly 5 million active policies nationwide but represent a disproportionately large share of insurance claims<sup>2</sup>.

Repetitive loss and severe repetitive loss properties have consequences beyond increased insurance claims. Among severe repetitive loss properties, less valuable homes were more likely to suffer flood damages that exceeded the property's value and lower-income homeowners may be more likely to suffer total flood damages that exceed their home's value<sup>3</sup>. Sea level rise will exacerbate flooding-related problems in the United States. One study projects that by the end of this century, 3 feet (0.9 meters) of sea level rise could inundate the homes of 4.2 million Americans; a rise of 6 feet (1.8 meters) could affect 13.1 million<sup>4</sup>. These homes are more likely to become severe repetitive loss properties before being permanently lost, which creates more legal and financial issues when properties are vacated and abandoned<sup>5</sup>. Who pays when property including homes and roads are abandoned? Who cleans up or maintains these properties to deal with squatters, illegal activities and pollution such as disconnected or inundated sewage systems?

To develop the *Multiple Loss Properties Mitigation Engagement Seminar and Training Series* and supporting website, ASFPM and CSO will follow the same process and procedures used for the development of the [CRS Green Guide](http://no.floods.org/GreenGuide/) (no.floods.org/GreenGuide/). The project provided more targeted and specific guidance for communities wishing to participate in FEMA's Community Rating System (CRS) program or enhance their scores through CRS activities that had the co-benefits of doing something "green" for the floodplain ecosystem and also earning CRS points.

The CRS Green Guide project started by setting up an advisory panel of subject matter experts representing state and local floodplain and coastal managers. Significant effort went toward acquiring FEMA's CRS database for identifying, researching and then interviewing communities already enrolled in the CRS program and receiving the nation's highest scores for "green" CRS elements and activities. Based on that research along with input from subject matter experts from FEMA, the Insurance Services Office (ISO) that manages the CRS program and the Digital Coast Partners, an online "guide" was developed. The guide included more "how-to" information including the best practices and vignettes from communities that have successfully implemented "green" activities to reduce flood losses. In addition, the project included a robust training element – pilot workshops to develop train-the-trainer (TTT) materials as well as a webinar series.

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<sup>2</sup> Federal Emergency Management Agency, National Flood Insurance Program Flood Insurance Manual (April 2016), <http://www.fema.gov/media-library/assets/documents/115549>.

<sup>3</sup> Natural Resource Defense Council, Issue Brief, Seeking Higher Ground: How to Break the Cycle of Repeated Flooding with Climate-Smart Flood Insurance Reform (July 2017)

<sup>4</sup> Matthew Hauer, Jason Evans, and Deepak Mishra, "Millions Projected to Be at Risk from Sea-Level Rise."

<sup>5</sup> Thomas Ruppert, JD, "The Laws the Limit: Sea Level Rise Adaptation and Local Government", Presentation at NAI/CHARM Workshop, St. Augustine, FL, Oct. 2018.

## Goals and Objectives

The overarching goal of this fellowship project is to enhance coastal resilience to flood hazards in a changing climate by reducing the number and cost of repeatedly flooded properties. ASFPM and CSO, as members of the Digital Coast partnership, play the role of connecting local, county, and state managers to the technical resources and support necessary to implement change on the ground. The Fellow will join a larger project already in-progress, at a crucial stage, and will help lead efforts of direct engagement with states and communities around the country that have shown success in reducing repetitive loss properties. The overall goal for the Fellow will be to lead this engagement, conduct original research and develop guidance documents that will support on the ground training, workshops and webinars.

**Goal 1:** Support coastal resilience to flood hazards and climate change by directly engaging with states and communities that are successfully reducing repetitive loss properties.

**Objective 1.1:** Research, catalog and create an annotated bibliography of current best practices for reducing repetitive loss properties.

**Objective 1.2:** Conduct a technical and policy needs assessment of state and local managers through development of direct engagement tools such as surveys, interviews or questionnaires.

**Objective 1.3:** Use and analyze the acquired best practices and survey results to understand how states and communities have successfully reduced repetitive loss properties, which will be integrated into technical and policy guidance such as workshops and webinars.

**Goal 2:** Initiate design of a sustainable, well-integrated, and adaptable training and technical assistance program for coastal communities that builds on the progress of the larger ASFPM and CSO project and adds to the partnership resources available through Digital Coast.

**Objective 2.1:** Ensure through early design phases that the *Multiple Loss Properties Mitigation Engagement Seminar and Training Series* and its supporting website can be integrated into OCM's Engagement, Education, and Training Program.

**Objective 2.2:** Integrate CSO's and ASFPM's technical and policy assistance services with relevant Digital Coast partners' coastal resilience and flood mitigation activities, which helps build and maintain ongoing relationships between the Partners.

## Strategic Focus Areas

In alignment with the strategic focus areas of the 2020 Digital Coast Fellowship Program, the following areas will be addressed through this body of work:

- *Healthy Coastal Ecosystems* - Support coastal and ocean resource managers through cooperative funding, data, information, tools, training, technical assistance, analysis, and exchange of best practices to strengthen ecosystem policies, build capacity, and implement prioritized management efforts.
- *Resilient Coastal Communities* - Build capacity to pursue strategies such as hazard preparedness, mitigation, and post-hazard redevelopment planning by providing an integrated suite of data, information, training, technical assistance, cooperative funding, and policy tools to coastal communities.
- *Vibrant and Sustainable Coastal Economies* - Promote policies and practices that foster trust, transparency, predictability, and efficiency in government decision-making for coastal and ocean uses.

## **Project Description, Milestones and Outcomes**

### **Task 1 – Orientation and Work Plan**

**Timeline:** Fall 2020 – Winter 2021

The Fellow will initially work with mentors and colleagues at ASFPM and CSO to learn about the organizations' work and national priorities and those of Digital Coast, and will take a deep dive into the research related to mitigating repetitive loss properties. This will include attending relevant flood risk and floodplain and coastal management trainings as appropriate for the Fellow's experience, making use of Digital Coast trainings and resources.

The fellow will be introduced to other key partners and personnel including members of ASFPM's Policy Committees (e.g. Coastal Issues, Insurance, No Adverse Impact) and staff at the Wisconsin Coastal Management Program located near ASFPM's office. The Fellow will also travel to Washington D.C. to meet with other key personnel from ASFPM and other mentors at CSO, and will have an opportunity to attend CSO's annual meetings. This travel will also include time to work at CSO's office as early as possible during the fellowship. The timing of this travel and length of time required will be aligned with relevant opportunities and/or meetings being planned, hosted or attended by either ASFPM or CSO personnel including Digital Coast Partnership meetings.

#### **Outcomes/Milestones:**

- Work plan for 2-year fellowship period, created in coordination with ASFPM and CSO mentors.

### **Task 2 – Research community best practices and barriers related to mitigating repetitive loss properties**

**Timeline:** Fall 2020 – Summer 2021

During the first year of the fellowship, the Fellow will concentrate on researching, assessing, and identifying current best practices, challenges and barriers to mitigating repetitive loss properties. The Fellow will work with ASFPM and CSO staff as well as with Digital Coast partners to research and identify the success of states and communities related to repetitive loss properties. The Fellow will conduct a formal literature review with all relevant publications and resources captured in an annotated bibliography for use in developing an online digital catalog as part of the web-based guide. The Fellow will deliver the results of their research as a summary memo that will highlight the successes, needs, barriers and begin making recommendations for procedures and solutions to be used in community outreach and training. The Fellow will present their research at ASFPM and CSO annual meetings in 2021. The Fellow's findings in this task will inform their efforts in engaging further with states and communities in the next task.

#### **Outcomes/Milestones:**

- Literature review of existing research and grey literature addressing best practices or challenges through policy and technical issues related to mitigating repetitive loss properties.
- Annotated bibliography of state and local resources related to repetitive loss properties.
- Summary memo identifying best practices, needs, challenges, barriers and recommendations.
- Presentation of provisional results of the summary memo at the appropriate ASFPM and CSO events, meetings or conferences.

### **Task 3 – Lead engagement with states and communities to understand training needs, additional best practices and barriers**

**Timeline:** Spring 2021 – Winter 2022

The ASFPM and CSO project team will have setup the advisory panel of subject matter experts prior to the Fellow joining the project. The project team will have additionally requested and received from FEMA

repetitive loss data from around the country to help identify and assess which states and communities may need technical, training and policy assistance or those that can share best practices. The Fellow will have the opportunity to further analyze and access this data with a primary objective of determining which states and communities to engage using tools such as surveys and/or interviews. The Fellow will help design and implement these engagement tools following formal survey and/or interview methodologies to ensure objective collection and analysis and use of the results.

**Outcomes/Milestones:**

- Identified list of states and communities to engage through tools such as surveys and/or interviews
- Formal survey and/or interview tools based on robust methodological design practices
- Conduct surveys and/or interviews
- Formal report to relevant actors on state and community engagement

**Task 4 – Lead development of the *Mitigating Multiple Loss Properties Guidance and Training Program***

**Timeline:** Fall 2021 – Fall 2022

Starting at the beginning of the second year of the fellowship, the Fellow will co-lead ASFPM and CSO efforts toward building the Mitigating Multiple Loss Properties program of training. This will involve collaborating with the Learning Services Division at NOAA Office for Coastal Management, Digital Coast partners, and CSO and ASFPM members to develop new materials. The Fellow will also take a leadership role in implementing the program in the field as part of a pilot training effort, including coordinating and helping facilitate a pilot workshop. The Fellow will be expected to use the insight gained through prior tasks to implement meaningful programmatic strategies to ensure that CSO and ASFPM efforts are responsive to a community’s needs for mitigating repetitive loss properties. The Fellow will also use prior knowledge in conjunction with other project team members, the Advisory Panel and other contacts including Digital Coast Partners to identify 3 potential communities for holding a pilot workshops. This task will involve using ASFPM and CSO contacts to schedule speakers and reach attendees, leading events, executing follow-up technical assistance, and improving products and services based on participant feedback.

**Outcomes/Milestones:**

- Draft Mitigating *Multiple Loss Properties Guide* workshop training materials
- Identify at least 3 communities to hold a *Mitigating Multiple Loss Properties* workshop
- One or multiple *Mitigating Multiple Loss Properties* workshops and follow-through technical assistance are executed in communities with identified need.

**Fellow Mentoring**

The Digital Coast Fellowship will be located in Madison, Wisconsin at ASFPM’s Home Office and be an integral part of ASFPM’s Flood Science Center. The primary ASFPM Mentor for the fellow will be **Dave Fowler**. Dave has over forty years of experience in flood management; coastal issues, storm water issues, water resources and water quality management that concerned the general public, all levels of government (municipal, regional and state), national organizations, and corporations. Prior to joining ASFPM, Dave worked at the Milwaukee Metropolitan Sewerage District where he managed and successfully completed planning, design and construction projects up to \$120 Million that involved interactions with politicians, engineers, contractors, designers, and the public. Dave has over twenty years’ experience as a public speaker and professional presenter to a variety of audiences and has been the primary speaker in over 100 public meetings, and as a concurrent, keynote or plenary speaker at numerous conferences.

Dave will be responsible for the Fellow providing subject matter expertise and guidance directly related to the primary project topic and goals described above. Dave will provide day-to-day guidance of tasks and activities, coordination assistance with other staff and with affiliated partners, such as ASFPM Policy Committee members, and other local, state and federal partners. As a member of ASFPM staff, the Fellow will have the opportunity to participate in ASFPM policy committee discussions, national meetings, as well as engage with other ASFPM experts on activities according to the Fellows interests. Jeff Stone, Research Manager and Drew Whitehair, Program Manager will work with the Fellow to develop an achievable work plan based on the project goals and outcomes described in this proposal to ensure success for this project and the Fellow, but will give the Fellow latitude to lead the project themselves, including through convening meetings and webinars with ASFPM and CSO members, Digital Coast partners, and coastal community staff and outside groups. The mentors will be responsible for the success of the Fellow's experience during their fellowship. The Fellow will meet with the ASFPM Mentor and FSC Research and Program Manager on a regular basis during which the mentor will review the work completed to date and update the fellow's work plan as needed.

The Coastal States Organization will provide additional critical mentoring and access to resources in both Washington D.C. and Madison, WI. Executive Director Bradley Watson will be the Fellow's primary mentor and point of contact at CSO. Mike Friis, is the CSO Past Chair and Resource Policy Team Leader for the Wisconsin Coastal Management Program in Madison, Wisconsin. Mike and his staff will provide mentoring for the fellow as it pertains to Wisconsin specific goals and opportunities. ASFPM, CSO and the Wisconsin Coastal Management Program will coordinate mentoring approaches to ensure the most enriching and unique experience for the Fellow.

The Fellow will have a unique opportunity for **professional development** through interaction with ASFPM and CSO staff, ASFPM Policy Committees, CSO Workgroups and the extensive network of ASFPM and CSO experts and leaders across the country at the federal, state and local level, both public and private. Within the Flood Science Center, the Fellow will gain additional knowledge and experience through exposure to other on-going projects such as building increased capacity for floodplain management in Puerto Rico in the wake of Hurricane Maria.

The Fellow will have many opportunities to travel and participate in workshops, conferences and meetings around the country. For example, the Fellow will have the opportunity to participate, present and network at ASFPM's annual conferences in Raleigh, NC (2021) and Orlando, FL (2022) allowing them to learn and meet with flood policy and technical experts from FEMA, NOAA and other federal and state agencies while also gaining access to local officials dealing with on-the-ground successes and challenges.

The Fellow will also participate in CSO events and meetings, allowing them to meet with the nation's coastal managers and learn first-hand about the unique challenges and issues each state faces. This can include CSO's Annual Meetings in addition to a Winter Meeting in Washington, D.C. This meeting gives coastal managers an opportunity to interact directly with NOAA officials and to meet with their elected officials.

## **Project Partners**

The **Association of State Floodplain Managers**, its 17,000 members and 35 chapters are the floodplain managers at the local, state, and federal level as well as the scientists, engineers, GIS professionals, and hazard mitigation managers working daily to reduce flood losses. The mission of the ASFPM is to promote education, policies, and activities that mitigate current and future losses, costs, and human suffering caused by flooding, and to protect the natural and beneficial functions of floodplains - all without causing

adverse impacts.

The **Coastal States Organization** represents the coastal zone management program managers and directors of 35 U.S. Coastal States, Territories, & Commonwealths on ocean, coastal, and Great Lakes resource issues. The mission of CSO is to support the shared vision of the coastal states, commonwealths and territories for the protection, conservation, responsible use and sustainable economic development of the nation's coastal, ocean and Great Lakes resources. CSO works with Congress to shape legislation and works with Federal Agencies to impact proposed regulations. CSO advocates for increased federal funding and support for state-based coastal and ocean programs, as well as responsiveness of federal agency program administration and policies to state concerns.

ASFPM and CSO both work with a variety of partners at the local, regional, state and national levels. Successful accomplishment of the project tasks will be based on directly working with personnel and partners from agencies including NOAA, FEMA and State Floodplain and Coastal Programs and more specifically with NOAA, the Digital Coast partnership, and other groups involved in training and education development.

This project will also leverage existing and/or ongoing programs at ASFPM and CSO. ASFPM has developed a robust digital library infrastructure. The digital library infrastructure and ASFPM's Research Librarian will be leveraged by and provide support to the Fellow in their project.

## **Cost Share Description**

### **ASFPM – In-kind and Cost Share**

ASFPM will provide the \$15,000 match required for the Digital Coast Fellowship. ASFPM will supply the Fellow with all workplace support necessary at their Executive Office in Madison, Wisconsin including: desk, phone, computer and required software, printers and office supplies. At a minimum, ASFPM will cover all travel and associated expenses for the Fellow to attend 2 ASFPM annual conferences (describe above) and 2 trips to Washington, D.C. to work with CSO and conduct other project work. Depending on dates of travel, ASFPM can provide lodging for the Fellow at ASFPM's D.C. apartment related to the above events and meetings and additional travel that may occur in conjunction with CSO activities and events.