

A Proposal to the:

National Oceanic and Atmospheric Administration

Office for Coastal Management

2018 Digital Coast Fellowship Program

Project Title:

Assessing and Raising Awareness of County Coastal Management Policies and Disaster Spending

Submitted by:

National Association of Counties

Location:

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Introduction

As the only national organization representing county governments in the United States, the National Association of Counties (NACo) assists America's 3,069 counties—including the approximately 70,000 elected officials, appointed officers and senior staff that serve counties—in pursuing excellence in public service to produce healthy, vibrant, safe and resilient counties. NACo Research Foundation (NACoRF), the research affiliate of NACo, conducts research, facilitates peer learning, provides training, develops educational events and serves as a convener among various levels of government and private-sector leaders.

One steadily increasing area of importance to NACo members is resilience. The NACo Resilient Counties Initiative has worked since 2007 to bolster counties' abilities to thrive amid changing physical, environmental, social and economic conditions. Through its solutions-oriented programming, the initiative has developed resources for counties on a wide range of issues, from the green economy and nature-based infrastructure to water quality and flood management. As the program grows and continues to expand its reach, the initiative stays true to its core goal of building local leadership capacity to identify and manage risk while increasing counties' flexibility and responsiveness to foreseeable and unforeseeable challenges.

In addition to the Resilient Counties program, NACo convenes and manages three committees and a separate caucus that meet to discuss a range of resilience-related topics. The Resilient Counties Advisory Board, consisting of county leaders and private sector partners, advises NACo's topline resilience programming over the course of each year. The Environment, Energy and Land Use Steering Committee and the Justice and Public Safety Emergency Management Subcommittee debate and pass policy resolutions on a suite of regulatory, environmental, disaster management, land use, resilience and related issues. Finally, the Gulf State Counties and Parishes Caucus works to promote a clearer understanding of shared resilience challenges and opportunities within the Gulf Coast counties and parishes. These various committees have some overlapping membership but work closely to coordinate shared programming – and member buy-in on key issues – during NACo conferences.

For local elected officials to make the investment decisions necessary to preserving and enhancing their county's resilience, their coastal managers must be able to clearly communicate to them the most accurate, scientifically sound and localized data available. Fortunately, the Digital Coast platform provides both managers and decision-makers the necessary tools to make informed, long-term coastal management decisions. NACo is proud to be a founding member of the Digital Coast Partnership and has worked for the past decade to educate its membership about the many free resources, trainings and county snapshots offered through the online platform. As part of the partnership, NACo also works closely with other Digital Coast partners to help coastal community leaders turn data into useful decision-making guidelines, using a science-based approach to improve regional resilience.

Background

Counties, municipalities and states along our coasts provide key health, human, social and transportation services for more than half the nation's population across an ever-shrinking habitable

land area. According to the National Oceanic and Atmospheric Administration (NOAA), coastal counties also contributed more than \$8.3 trillion (55 percent) to the national economy in 2010. The livelihoods of these communities depend on healthy coastlines, stable water resources and resilient infrastructure. Thus, when disaster strikes a coastal community, the economic impact can be felt for years through staggering long-term recovery costs as well as decreased property values and population loss.

Coastal areas increasingly face a growing number of hazards, including more frequent and extreme weather events, flooding, storm surge and salt water intrusion. In 2017 alone, as of October 6, there have been 15 weather and climate disaster events with losses exceeding \$1 billion each. Three of these extreme weather events were the back-to-back-to-back punches of Hurricanes Harvey, Irma and Maria—which ushered in the beginning of a particularly deadly tropical storm season. Given the measurable growth in the severity and occurrence of extreme weather and climate-related hazard events, it is more critical than ever for coastal decisions makers to plan for, prepare for, recover from and adapt to extreme weather and climate-related hazards. It is local governments who often shoulder the burden of disaster response, long-term recovery and community-led mitigation planning.

While not all disasters can be averted through mitigation, the devastating effects of severe weather events can be dramatically softened if a community is well-prepared. Specifically, county and other local jurisdiction leaders are responsible for shaping, setting and funding policy that has long-lasting, generational impacts. They often bear responsibility for local planning and investment decisions, including economic development, infrastructure, zoning, building code and land use policies and investments. Annually, counties spend \$83 billion on community health and hospitals and \$122 billion on building infrastructure and maintaining and operating public works. As public funding at all levels is increasingly strained, local decision-makers must search for new ways to protect their citizens, infrastructure and economies.

As resilience challenges, particularly along the coasts, become more pressing and visible within our membership, it is more important than ever for NACo to ensure dedicated staff resources are committed to supporting new and relevant research that counties can leverage to make smarter coastal management decisions. Currently, NACo has no *one* employee, particularly with a strong research and academically relevant background, dedicated to focusing solely on coastal resilience issues. A handful of staff from the program, research and advocacy teams collaborate on an ad-hoc basis to develop timely content, compile and share resources, assist with trainings and manage other related member requests.

From 2012 – 2014, NACo hosted a Digital Coast Fellow, Alyssum Pohl, in partnership with the National States Geographic Information Council (NSGIC) to increase the utilization of geographic and land use data in coastal communities by building the capacity of local coastal decision makers to access data and tools. Through her dynamic efforts, Alyssum: cultivated county success stories using case studies showcasing the GIS work that counties and states have done in order to inspire other locales to pursue similar work; established a national peer-to-peer coastal county network to disseminate information, share problems, solutions and innovations in a manner most beneficial to county staff and elected officials; and promoted GIS and Digital Coast to counties through web-based and in-person communication strategies. The materials she developed are still used to showcase the Digital Coast to NACo members, and created a great framework upon which a future Fellow could – and should – build.

Goals and Objectives

In 2017, NACo and its partners at ASFPM and CSO were awarded a NOAA Coastal Resilience Grant to launch the *Strengthening Coastal Counties' Resilience* effort for local elected officials and coastal managers. As part of this new project, NACo and its partners are developing a resource guide and then training county-based teams in the Gulf of Mexico Region to use that guide to assess and improve their community's resilience to changing coastal and economic conditions. Given our targeted focus on the Gulf of Mexico Region over the next three years, we envision that an incoming Fellow would complement and expand upon the ongoing work within that region by working specifically with the coastal counties in Alabama, Louisiana and Mississippi to research and identify: 1) specific resilience strategies that counties are incorporating into their planning efforts, 2) which mitigation strategies have been implemented and at what cost, 3) why counties are or are not pursuing certain strategies, 4) any multi-county or regional efforts to pool resources or co-plan and 5) how much counties have spent in recovery over the past decade.

With this information, the Fellow will be able to analyze how mitigation and preparedness activities have played a role in county recovery efforts, particularly within three of the five states with the highest poverty rates in the U.S. The ultimate purpose of this two-year research project is to clearly demonstrate the value of mitigation, not only to assist coastal managers as they communicate with local elected officials but also to help local decisionmakers communicate with their constituents and State and Federal government counterparts.

Throughout this proposed project, the Coastal Fellow will work with coastal counties in Alabama, Louisiana and Mississippi to bolster their resilience by accomplishing the following goals:

Goal 1. Assess coastal counties' comprehensive and hazard mitigation plans.

Objective 1.1. To identify, raise awareness of and promote local policies that enhance resilience by reducing flood risk, responding to sea level rise and protecting coastal resources (i.e. policies relating to local land use, building codes, buyout programs, etc.)

Objective 1.2. To carefully examine why counties are or are not pursuing proven resilience policies and strategies.

Objective 1.3. To identify state policies that act as barriers to local resilience (i.e. state policies that restrict local government ability to adjust policies for land use planning, building codes, etc.).

Goal 2. Evaluate county-level spending on disasters focusing on mitigation and recovery.

Objective 2.1. To create a database of coastal county-level spending on disasters to identify how much individual counties are spending on mitigation, response and recovery efforts.

Objective 2.2. To identify which counties have been implementing the coastal resilience policies and efforts included in their comprehensive and hazard mitigation plans.

Objective 2.3. To explore which funding sources counties are using as they implement mitigation projects.

Objective 2.4. To create case study examples of successful broad-scale mitigation efforts in coastal counties to quantify return on investment.

Goal 3. Raise awareness of and assess counties' use of the Digital Coast platform.

Objective 3.1. To identify which data, tools and trainings county governments are and are not using as they develop local coastal resilience policies.

Objective 3.2. To evaluate why certain data, tools and trainings are not being used.

Objective 3.3. To develop recommendations for how Digital Coast might better promote and/or refine these tools to enhance local decision making.

NACo feels that these goals, their associated activities and outputs, will further improve resilience across AL, LA and MS – and the Gulf of Mexico Region more broadly – and will develop the capacity of local governments nationally to better utilize Digital Coast tools and data in coastal decision-making. These activities will also complement and further build upon the efforts of the Digital Coast Partnership and will support science-based decision-making and the long-term health and safety of coastal regions.

Through this project, the Fellow will: sharpen and hone his/her research skills; fine tune his/her presentation skills to improve their ability to communicate technical data to non-technical experts; cultivate a broader network of practitioners through the Digital Coast and other partnership that s/he can look to as they progress in his/her career; and establish relationships with policy and decision makers, both in DC and across coastal communities.

[Project Description, Milestones and Outcomes](#)

Task One: Assessment of Coastal County Comprehensive and Hazard Mitigation Plans (August 2018—July 2019)

OUTCOME: Increased understanding of coastal counties resilience efforts—within Alabama, Louisiana and Mississippi—to identify needs of coastal communities and how the Digital Coast platform can be better utilized.

OUTPUTS: 1) Creation of a repository of county comprehensive and hazard mitigation plans for the coastal areas in the three target states; 2) A report highlighting findings of the analysis of county plans; and 3) Personalized, high-level resilience plan assessments for the teams selected from AL, LA and MS as part of the of the Strengthening Coastal Communities project (Coastal Resilient Grant).

In Fall 2018, the Fellow will gather coastal county comprehensive and hazard mitigation plans and mitigation, response and recovery expense information from coastal counties within Alabama, Louisiana and Mississippi. Digital Coast Partners will be engaged to help identify which policies and strategies to focus on in the examination of the plans. To aid in this effort and to get to know the communities s/he will be examining, the Fellow will attend the *Strengthening Coastal Counties' Resilience Workshop* – which will be held in conjunction with the Gulf States Counties and Parishes Caucus Meeting – in October 2018. At the meeting, the Fellow will have the opportunity to present to attendees on their background and the project, and to be introduced to other key partners and personnel including representatives from NOAA, the Association of State Floodplain Managers, the Coastal States Organization and Gulf State associations of counties (i.e. the Alabama Association of Counties). Throughout Winter/Spring 2019, the Fellow will assess the coastal counties' comprehensive and hazard mitigation plans that s/he collected to determine what strategies are and are not being pursued and

why. In February 2019, the Fellow will attend the NACo Legislative Conference in Washington, DC. During Summer 2019, the fellow will craft a report to highlight his/her findings, which will include information on how Digital Coast data and tools might be better used and integrated into county planning—and any recommendations for new tools. The Fellow will travel to the NACo 2019 Annual Conference in Las Vegas, NV (July) and the Strengthening Coastal Counties Resilience Follow-Up Workshop/Gulf State Counties and Parishes Caucus Meeting (October) to present on this report and give an update on his/her Fellowship.

Task Two: Evaluation of County-Level Spending on Disasters (August 2019—May 2020)

OUTCOME: Increased understanding of coastal counties spending on resilience efforts—especially rural coastal counties—to raise level of awareness of the benefits of pre-disaster mitigation.

OUTPUTS: 1) Creation of a database of county spending in AL, LA and MS on disaster response; 2) Case study examples of successful broad-scale mitigation efforts within these coastal counties to quantify return on investment; 3) A report highlighting findings of the evaluation; and 4) Personalized assessments of spending for the Strengthening Coastal Communities workshop teams located within the three states.

Throughout the Fall 2019/Spring 2020, the Fellow will assess disaster mitigation, response and recovery spending of coastal counties in Alabama, Louisiana and Mississippi with the ultimate goals of determining which counties are implementing the resilience strategies outlined plans. Once these communities have been identified, the Fellow will select a few that have successfully completed broad-scale mitigation efforts and will create case study examples of those counties to quantify return on investment. If any of the Strengthening Coastal Counties Resilience teams are on the list, they will automatically be selected. Additionally, the Fellow will attend NACo Legislative Conference in February 2020 and the NACo Annual Conference in July 2020. Given the scope of this task, the Fellow should have experience with and/or have taken a class on conducting a return on investment or cost-benefit analysis.

Task Three: Assess County Use of the Digital Coast Platform (August 2018—July 2020)

OUTCOME: Improved county understanding and utilization of Digital Coast data, tools and trainings and how they can support local decision making.

OUTPUTS: 1) Develop recommendations for how Digital Coast might better promote and/or refine tools and trainings to enhance local decision making; and 2) showcase how counties are using and can further use the Digital Coast Platform to support decision making via NACo blogs, County News articles, and a webinar.

Throughout course of the Fellowship, the Fellow will identify which data, tools and trainings county governments are and are not using as they develop local coastal resilience policies. S/he will evaluate why certain data, tools and trainings are not being used and then develop recommendations for how Digital Coast might better promote and/or refine tools and trainings to enhance local decision making.

Fellow Mentoring

NACo will house the Fellow in our offices in Washington, DC. The program staff will integrate the Fellow into all NACo activities and schedule and engage the Fellow as appropriate to the position. On a daily basis, the Fellow will function as a part of the County Solutions and Innovations (CSI) Department on the Community Resilience and Economic Development team supervised by Sanah Baig, Program Director. This engagement will include working with relevant NACo staff on within CSI, as well as other staff members across the organization, including the: Public Affairs and County News teams; Graphics and Web Design Teams; Counties Futures Lab; and Management Team (to assist with leadership development).

The Fellow will work closely with Jenna Moran, a Program Manager on the Community Resilience and Economic Development team, as mentor. Jenna is responsible for handling grants and initiatives relating to resilience, community and economic development and transportation and infrastructure, and is staff liaison to the NACo Resilient Counties Advisory Board. She represents NACo on a number of stakeholder partnerships, including the Digital Coast, Source Water Collaborative, Smart Growth Network, and Transportation Stakeholders. Jenna is committed to supporting the Fellow in his/her professional growth and will help him/her as s/he builds his/her professional network. This will include but is not limited to bringing the Fellow to all partnership meetings and arranging for information interviews between the Fellow, county elected officials and staff who are resilience leaders at the county level and colleagues in line with the Fellow's professional goals. On a day-to-day basis, Jenna will also assist the Fellow as s/he build his/her understanding of NACo, county government, coastal management from the county-level, the Digital Coast Partnership and its partners.

Specifically, as the Fellow conducts Task Two, Jenna will connect the Fellow with NACo's Counties Futures Lab for analysis support, as needed. The NACo Counties Futures Lab brings together leading national experts to examine and forecast the trends, innovations and promises of county government with an eye toward positioning America's county leaders for success. Grounded in analytics, data and knowledge sharing, the Lab delivers research studies, reports and other actionable intelligence to promote the county government of the future.

NACo as an organization is committed to ensuring that the Fellow has a meaningful, enriching experience in Washington, D.C. This includes both instilling a deep appreciation for the importance of local government engagement as well as ensuring that we can serve as a launchpad for a successful career in the coastal management field.

Project Partners

As a Digital Coast partner, NACo develops and promotes coastal community support tools, and has had a significant role in shaping the Digital Coast platform, as well as the following projects and programs:

- **Improving Community Resilience through Risk Modeling (2015-present):** NACo is partnering with the American Planning Association (APA), the National Association of Counties (NACo), and the Association of State Floodplain Managers (ASFPM)—with support from NOAA and the U.S. Department of Housing and Urban Development (HUD)—to develop models for integrating resilient hazard mitigation planning into local comprehensive plans. An inventory of flood risk

models, tools, datasets and other resources that determine inundation risk at the community level was created. A strategy was then developed and piloted in two communities, San Luis Obispo, Calif. and Brevard County, Fl.

- **Naturally Resilient Communities Partnership (2015-present):** NACo partnered with The Nature Conservancy and five other key partners, including ASFPM, to promote the role of nature-based solutions in helping reduce flood risk for communities. Through the support of the Kresge Foundation, the NRC partnership developed an online guide—NRCsolutions.org. NACo helped gather specific feedback through focus groups and surveys with county officials and recently began promotion and outreach for the launch of the guide.
- **Strengthening Coastal Counties Resilience (2017-2020):** NACo in partnership with Association of State Floodplain Managers (ASFPM) and the Coastal States Organization (CSO) —with support from NOAA— will assist coastal communities in developing strategies and policies that will result in more resilient coastal region economies and better stewardship of natural assets. The program will have two phases: the development of a web-based, multimedia training program and a technical assistance (TA) program including several regional training workshops. The web-based guide will teach coastal managers how to educate and work with local elected officials on coastal management issues to improve their community’s resilience to changing coastal and economic conditions. The program team will also host two workshops and provide technical assistance to coastal communities within the Gulf of Mexico NOAA Region.
- **Resilient Counties Initiative (2007-present):** Through a robust initiative shaped by leaders across the public and private sectors, NACo has focused on disaster preparedness since 2014. It has held numerous workshops and forums on disaster resilience over the past four years, and in Spring 2017 released a publication on the topic, *Disaster Management at the County-Level: A Focus on Flooding*. NACo is currently working to expand that publication into a *Disaster Toolkit for Counties* in 2018. The Disaster Toolkit be on online resource to aid county leaders as they work to prevent disasters within their communities. It will contain information on strategies, timelines, financial management, funding opportunities and best practice case study examples for each phase of the emergency management cycle, for all major hazards. The Fellow’s work will also inform the Disaster Toolkit.

The Fellow’s project will be integrated into NACo’s current coastal resilience work in a number of ways. In alignment with the Improving Community Resilience through Risk Modeling project, the Fellow’s assessment of current comprehensive and hazard mitigation plans will provide our project—and Digital Coast—partners with a clearer picture of what counties are incorporating into their comprehensive plans, and will identify which counties have begun to integrate hazard mitigation into comprehensive planning. This will help to guide who we market the strategy to going forward. In line with the Naturally Resilient Communities Partnership and the Disaster Toolkit for Counties, as the Fellow evaluates county-level spending on disasters, any nature-based mitigation efforts identified through the course of the project—and the case study examples created—will be flagged for potential inclusion on NRCsolutions.org and in the Toolkit. Any reports the Fellow writes to highlight his/her findings will be shared through the Strengthening Coastal Counties Resilience online GUIDE and the Disaster Toolkit. Lastly, a list of counties who use the Digital Coast platform will be created and shared with NOAA OCM for potential Stories from the Field, and the repository of county plans and database of county spending on disasters will be shared for potential inclusion on Digital Coast—based on permission from the individual participating counties.

Cost Share Description

NACo is committed to providing a \$15,000 nonfederal match over two years, and will do so by leveraging its strong existing corporate partnerships and sponsorships it has cultivated through the Resilient Counties Initiative. NACo will provide all of the necessary workplace support at their downtown Washington, D.C. offices, including in-kind hardware and software support for the fellow for the duration of their tenure with us. The fellow will have access to a complete workstation with double screens, printer, standing desk, office supplies and telephone, as well as a full suite of word, image and data processing software. This funding will also support the aforementioned travel to major NACo meetings throughout 2018 and 2019 (both Gulf of Mexico Region Workshops and the 2019 & 2020 Annual Conferences).

Strategic Focus Area

This project will directly address the Strategic Focus Area of **Resilient Coastal Communities** through its assessment of current comprehensive and hazard mitigation plans. By assessing county plans to determine the breadth of county coastal management policies and strategies currently being pursued in coastal counties across Alabama, Louisiana and Mississippi, the Fellow will enhance our understanding of their level of preparedness. With that increased understanding, the Fellow and larger Digital Coast partnership will be able to identify and engage partners in a more targeted way to build local capacity and coastal resilience where it is most needed. This capacity building will occur via the sharing of data, information, training, technical assistance, cooperative funding, or policy tools through our previously outlined online resources and in-person events in order to maximize the understanding, visualization, and application of risk-wise strategies.