

# Facilitating Healthy, Just, and Community-Supported Marsh Migration in Maryland



October 12, 2021

Proposal to: NOAA OCM Digital Coast Fellowship Program

Applicant: The Nature Conservancy

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Esignature: *Jackie Specht*

## I. BACKGROUND AND INTRODUCTION

Sea levels in the Chesapeake Bay have risen a foot in the last century -- an alarming rate at more than twice the global average. Another foot of sea-level rise is predicted in half that time, by 2050. By 2100, Maryland stands to lose 40% of its marshes to sea-level rise. With more than 7,000 miles of Atlantic and Chesapeake Bay shoreline, our communities across the state are already experiencing more frequent flooding, marsh loss, erosion, agricultural impacts, and storm damage. Maryland's coastlines and communities need intervention now to adapt to these startling climate impacts.

The Nature Conservancy (TNC, host) and Maryland Department of Natural Resources (MDNR, co-host) lead initiatives in Maryland to protect and restore coastal landscapes to ensure the long-term resilience of critical habitats and coastal communities. In 2020, TNC finalized a landscape assessment to guide engagement and protection efforts on the Lower Eastern Shore of Maryland. The study critically evaluated habitat and human social vulnerability metrics to identify opportunities for improving socio-ecological resilience to sea level rise. A parcel map from this analysis is being used to guide 4000-acres of protection work by TNC and federal, state, and non-profit partners in the expansive marsh migration space north of the Blackwater National Wildlife Refuge. At the state-level, MDNR's Chesapeake & Coastal Service works closely with MDNR's Land Acquisition and Planning Unit to deliver science-based tools and policy to guide the acquisition of lands. MDNR is currently leading an effort to identify targeted water quality and climate resilience areas within the state. *The Water Quality and Climate Change Resiliency Portfolio* is a suite of conservation and restoration projects that provide climate change resiliency benefits for MDNR priority assets and optimize water quality, living resources, GHG reduction, and other environmental benefits. These mapping activities have led both TNC and MDNR to priority landscapes for addressing sea level rise impacts, however, the protection frameworks currently being used by both agencies are not sufficient for addressing socio-ecological climate impacts.

In Maryland, there is growing interest in reforming protection frameworks to promote marsh and community resilience. Historically, non-profit and government agencies have worked together to protect land to preserve biodiversity. Now, with sea level rise transforming landscapes, land protection must address the intersection of marsh migration and landowner resilience. As sea levels rise, marshes need unobstructed space to migrate upland. At the same time, landowners must adapt to the changing landscape and practitioners must identify solutions that will support landowner cultural and financial needs. Maryland has designed a resilience easement to meet these needs. Easements are legal agreements that restrict certain activities on private property to enhance the natural habitat. Resilience easements are an innovative version of this agreement that account for landscape change due to long-term sea level rise. Further, resilience easements are supported by marsh management plans that provide recommended strategies for facilitating healthy marsh migration. Only two resilience easements have been executed in Maryland since they were developed in 2011. MDNR and TNC must garner support from land protection agencies and landowners to broadly implement resilience easements. Ultimately, landowners must sign-on to the proposed easement agreement. If the easements do not adequately address landowner needs, such as using marsh management strategies that enable continued land uses, landowners will not enter the agreements. TNC aims to work with MDNR and regional land protection agencies to improve the existing resilience easement to ensure landowner interests are supported and agencies beyond MDNR are using this crucial protection strategy.

The Fellow will play an integral role in facilitating cross-agency conversations, uniting TNC and MDNR's expertise, to reform protection activities, promote marsh migration and community resilience, and achieve regional, state, and agency goals. The Fellow will evaluate existing resources, co-convene partner agencies, and engage with landowners and environmental justice communities to develop new protection frameworks. The Fellow will update MDNR's and TNC's land acquisition criteria by incorporating important considerations such as marsh migration, ecosystem services, carbon sequestration, and equity and justice. By doing so, they will address state recommendations (e.g., [Maryland Commission on Climate Change Annual Report](#) and [Saltwater Intrusion Plan](#)). Through these cross-agency and -community conversations, the Fellow will also elevate environmental justice communities and land equity in land protection. Historically, marginalized communities had their land stripped from them and they were forced to less desirable landscapes. Today, the impacts of this history are evident and still unaddressed. The Fellow will work with environmental justice communities to identify opportunities for collaborative climate adaptation, and begin to collectively build a path forward legally, socially, and financially for returning lands.

Collectively, this body of work will build on Digital Coast Partnership efforts and support the Partnership's initiatives. The Fellow will use resources, such as NERRA's current Digital Coast Fellow project, *Aligning for Impacts* mapping syntheses and communication products, to inform Maryland's protection planning efforts. The Fellow will also use Digital Coast tools and trainings, such as Risk Communication, How to Facilitate a Virtual Meeting, and the Sea Level Rise Viewer to guide productive conversations around marsh migration management. The Fellow will use these tools to engage under-represented stakeholders in developing new coastal resilience resources and land protection frameworks that are applicable locally and nationally, supporting the Digital Coast Partnership strategic objectives (*Provide Actionable Decision-Support Resources, Advance the Digital Coast Partnership, Expand NOAA and Interagency Collaborations, and Enhance the Digital Coast Platform*). TNC, MDNR, and the Fellow will work with NOAA and the Digital Coast Partnership to integrate developed project resources and frameworks into the [Digital Coast](#), ensuring that project outcomes not only result in a more resilient Maryland, but also serve as a leading example to states across the country.

## II. GOALS AND OBJECTIVES

**Goal 1: Work with state and regional partners to identify opportunities and challenges for facilitating marsh migration by using a landscape-scale perspective and innovative protection frameworks.**

**Objective 1.1: Understand-** By December 2022, conduct literature review of resources on marsh migration and innovative financing to provide recommendations to apply these strategies within Maryland. Conduct analyses of State land acquisition criteria to identify opportunities for promoting marsh migration through land protection.

**Objective 1.2: Plan-** By April 2023, engage in and co-lead three TNC workgroups with federal, regional, and state partners to develop universally-adopted resilience easement and marsh management plan templates, and to identify funding incentives and strategies.

**Objective 1.3: Implement-** By July 2024, use Obj. 1.1 findings and Obj. 1.2 feedback to revise MDNR acquisition criteria and easement scoring to increase the number of land acquisitions and/or resilience easements within targeted resilience areas.

**Goal 2: Elevate community voices in land protection so that protection activities promote socio-economic health, equity, and justice in historically colonialist practices.**

**Objective 2.1: Understand-** By February 2023, complete trainings on engaging diverse communities, review literature on local indigenous communities, and synthesize information from landowner interviews into a summary document to share with MDNR and land protection partners (Obj. 1.2).

**Objective 2.2: Plan-** By March 2024, participate in conversations with environmental justice communities to identify opportunities for collaborative adaptation, including promoting land equity in developed protection frameworks. Document feedback in a TNC memo.

**Objective 2.3: Implement-** By July 2024, integrate feedback into TNC's and MDNR's land acquisition criteria to promote equitable and just land ownership.

### III. MILESTONES AND OUTCOMES

#### Outcomes

- The Fellow's unique experience with both a non-profit and state agency lead to extensive professional development and networking opportunities that expose the Fellow to future coastal management career pathways, while contributing to stronger cross-agency and cross-community relationships and collaborations.
- Landscape-scale, community-supported, and climate resilient protection strategies are adopted by the state and regional land protection agencies, promoting marsh migration and community resilience.
- TNC and MDNR land protection criteria account for land equity.
- Partnerships are strengthened between TNC, MDNR, land protection agencies, landowners, and environmental justice communities.
- The development of Digital Coast Partnership-relevant guidance documents on: reforming state- and regional-level protection frameworks to promote long-term marsh and community resilience; collaboratively developing resilience easements and marsh management plans; engaging landowners about marsh migration and resilient land protection; and promoting land equity in protection frameworks.

#### Timeline

**August – December 2022:** Onboarding of Fellow including orientation and staff meet and greets at both TNC and MDNR. Develop workplan and begin literature review for Obj. 1.1 and 2.1. Attend regular staff meetings and workgroup meetings for Obj. 1.2.

**January – March 2023:** Begin co-facilitating workgroups (Obj. 1.2) and supporting TNC's Environmental Anthropologist (Obj. 2.1 and 2.2). Support MDNR in conservation planning in targeted resilience areas. Attend Digital Coast/GeoTools.

**April – June 2023:** Finalize Obj. 1.1 and present recommendations to MDNR. With a focus on conservation, contribute to final targeted resilience portfolio.

**July – September 2023:** Begin co-drafting marsh management template and compiling landowner and workgroup feedback into recommendations for financial incentives and strategies (Obj. 1.2 and 2.1).

**October – December 2023:** Document land equity opportunities in a TNC memo to share with leadership (Obj. 2.2). Attend NERRS annual meeting in NJ.

**January – March 2024:** Work with MDNR and TNC to update land protection criteria (Obj. 1.3 and 2.3). Present at Digital Coast/GeoTools and TNC’s Virtual Global Science Gathering.

**April – July 2024:** Develop guidance documents, share with TNC and Digital Coast Partnership networks, and work with NOAA to integrate documents into the Digital Coast. Accomplish Obj. 1.3 and 2.3.

#### **IV. PROJECT DESCRIPTION**

The Fellow will support TNC and MDNR as they work together to achieve landscape-scale protection that facilitates marsh migration, community resilience, and environmental justice. While strategies are being developed to evaluate marsh migration potential in Maryland, there is a lack of coordination, consistency, and community engagement across planning efforts. The proposed work seeks to look across national, regional, and local efforts to amend or develop tools to promote community-supported marsh migration. The Fellow will crosswalk these efforts and pull together the best available data, resources, and tools to ensure a holistic and equitable approach to promoting marsh migration through Maryland’s landscapes, in collaboration with landowners, conservation partners, and environmental justice communities. The proposed work will draw on cross-discipline approaches—social science, climate science, marsh management, environmental economics—to investigate protection and management approaches that support local communities.

The Fellow will provide support in three primary focus areas: 1) state and regional land protection frameworks, 2) landowner engagement, and 3) land equity. The Fellow will serve as a connector of people, ideas, and efforts to ensure a streamlined and socio-ecologically balanced approach to land protection in Maryland.

##### *Land Protection: State*

The Fellow will conduct a thorough literature review of strategies at Federal, Regional, and State Levels to promote and incentivize the conservation of lands that promote marsh migration. Examples include America’s 30 x 30 plan, the Chesapeake Bay Program’s Synthesis of Shoreline, TNC’s Resilient and Connected Landscapes, Sea Level Rise, and Marsh Migration Data for Wetland Restoration Targeting, NERRA’s Digital Coast Fellow’s Coastal Wetlands Migration Needs Assessment and the Blue Carbon Initiative. Research will be enhanced through informational interviews with state and regional partners working on these issues. With a background understanding, the Fellow will then conduct a mapping exercise using the inventory of purchased and declined acquisitions and easements to conduct an analysis of the State’s existing policies and scoring criteria to reveal barriers or opportunities for improving acquisition criteria to support marsh migration. For example, the state currently has a policy in place to avoid the purchase of lands within a 0-2ft SLR scenario. Is this policy helping or harming marsh migration potential? The visualization of this data can help inform future policy changes or evaluation criteria for future acquisitions and easement. The Fellow can then work to downscale this data to inform acquisition and easement opportunities within targeted resilience areas and assist the state in developing outreach to these underserved communities.

##### *Land Protection: Regional*

The Fellow and TNC will work directly with a range of partners to collaboratively develop new protection frameworks. Over the course of the Fellowship, TNC is initiating three workgroups that will develop: 1) Resilience Easement Template, 2) Marsh Management Plan Template, and 3) Financing Incentives and Funding Strategies Recommendations. Together, these deliverables will outline the *how’s* of land

protection, land management, and financing to ensure marshes will have space to migrate and that landowner needs are addressed. There is broad partner interest in the concept of resilience easements and marsh management plans (e.g., Navy, U.S. Fish and Wildlife, Eastern Shore Land Conservancy), however, no other regional protection agencies have adopted the practice. Collaborative development of the easements will ensure adoption across multiple agencies and enable these agencies to achieve protection goals across regional landscapes (e.g., Delmarva, Middle Chesapeake Sentinel Landscape). The Fellow will play a critical role in convening partners and synthesizing diverse perspectives into these concise, adaptable, and implementable protection frameworks. The Fellow will then broadly share these developed tools through TNC and Digital Coast Partnership networks, and via national conferences and webinars to encourage the development of like frameworks in states across the country.

### *Landowner Engagement*

The Fellow will support TNC's Environmental Anthropologist in engaging landowners to understand their needs regarding land management and marsh migration. TNC's Environmental Anthropologist will be conducting ethnographic research through interviews with landowners. Interviews will be used to highlight local knowledge, experience, and attitudes about marsh migration and about the proposed resilience easements and marsh management plans. The goal of this engagement is to build rapport with landowners, integrate local knowledge into the protection frameworks (e.g., identifying management strategies that support landowner heritage or financial goals), identify potential incentives for landowner participation in resilience easements and management plans, and recruit landowners to participate in the developed resilience easement programs. The Fellow will support TNC's Environmental Anthropologist by communicating landowner feedback to the three workgroups and integrating landowner feedback into the template resilience easements and management plans. Through this work, the Fellow will have the unique opportunity to apply social science methodologies to conservation activities, elevating the human dimensions of coastal management.

### *Land equity*

The Fellow will support TNC in identifying opportunities for addressing land inequality through TNC's protection initiatives. Land is power, and land inequality is strikingly evident on the Lower Eastern Shore of Maryland. TNC is currently collaborating with the Nause-Waiwash Band to return fire to their privately-owned landscapes in order to re-invigorate marsh health and to facilitate marsh migration. TNC is working to expand upon this emerging relationship to identify other opportunities for collaboration around climate adaptation, including land reparation in non-vulnerable and culturally relevant landscapes. TNC's large-scale protection initiative in the Nause-Waiwash region offers the important opportunity to address past injustices, potentially by returning land. To support this initiative, the Fellow will begin by reviewing the National Park Service's *Indigenous Cultural Landscapes Study* to develop baseline knowledge of the indigenous communities on Maryland's Lower Eastern Shore. The Fellow will also take TNC's trainings on Engaging Across Difference and Human Rights Guide for Working with Indigenous Peoples and Local Communities to build skillsets on engagement with diverse communities. Then, the Fellow will participate in conversations with community members and integrate feedback into TNC's land acquisition criteria to promote equitable and just land ownership.

### *Project Legacy*

The impacts of the proposed project will be evident across Maryland's landscape. This body of work will shape land protection frameworks and criteria at TNC, MDNR, and land protection

agencies for the foreseeable future, promoting healthy, just, and community-supported marsh migration in Maryland. In the short-term, this effort will strengthen relationships between TNC and MDNR, land protection partners, landowners, and environmental justice communities. In the long-term, this effort will help preserve Maryland's largest remaining marsh complex, while simultaneously preserving the rich human heritage of this landscape. Further, the hope is that this project will serve as a leading example to states across the country for uniting people and nature in achieving socio-ecological conservation goals.

## **V. DIVERSITY, EQUITY, INCLUSION, AND JUSTICE**

The proposed work aims to elevate people in land protection. In preparation for the proposed project, TNC and MDNR both conducted land prioritization analyses that evaluated social vulnerability metrics to understand how conservation activities could benefit not only nature, but also people. People and nature must be considered holistically across a landscape for coastal management work to be effective—both rely on and impact the other. These analyses led both agencies to focal geographic landscapes where environmental and social resilience can be pursued together. In these landscapes, TNC and MDNR will use proven collaborative adaptation techniques (e.g., [Deal Island Peninsula Project](#)) to understand landowner perceptions of marsh migration management and to inform the development of protection frameworks that support landowner socio-economic goals. Environmental justice communities will also be collaboratively engaged to identify opportunities for promoting land equity. The proposed project aims to move land protection from its colonialist roots toward becoming a practice that supports and empowers historically marginalized communities.

Beyond the project scope itself, the Fellow will be taught and encouraged to embrace DEI in how they conduct themselves in their conservation work. Excitingly, TNC recently hired a Director of Culture and Operations—a newly envisioned role to uplift DEI in all aspects of our work. The Fellow will participate in the organization's DEI Learning Journey, engaging in conversations about the DEI impacts of conservation and best practices for integrating DEI into conservation activities.

## **VI. FELLOW MENTORING**

The Fellow will be co-mentored by Jackie Specht (former NOAA Coastal Management Fellow) with TNC--Maryland/DC Resilient Coasts Program and Jenn Raulin (former NOAA Coastal Management Mentor) with MDNR Chesapeake & Coastal Service. This co-mentorship relationship builds off previous successes of co-mentoring between programs and aims to strategically align programmatic goals and capitalize on organization strengths. Jackie Specht will lead efforts and mentoring duties related to regional framework development and community engagement. Jenn Raulin will lead efforts and co-mentoring duties related to revising and implementing state acquisition strategies. This co-mentorship will provide a unique experience for the Fellow to take part in both the planning and implementation side of policy development and engage in two unique coastal organizations.

As a member of TNC, the Fellow will participate in bi-weekly Resilient Coast Team, monthly All-Staff, and bi-monthly Science Team meetings, along with organization-wide engagement opportunities such as TNC's Townhalls and virtual Global Science Gathering. The Fellow will be invited to participate in the annual Science Writing and All-Staff retreats. The Fellow will have access to TNC's extensive professional

development trainings, available through TNC's internal Conservation Training website, LinkedIn Learning, and eCornell, and will be provided with a professional development stipend. The Fellow will also be encouraged to participate in TNC Preserve management activities, such as tree plantings and outreach events. As a member of MDNR, the Fellow will be invited to engage in CBNERR bi-weekly meetings, educational programming, and field research. The Fellow will have access to unit wide training and professional development opportunities such as Maryland's Climate Leadership Academy and Chesapeake & Coastal Service's DEIJ workgroup resources and trainings. There is also the possibility of creating a Maryland cohort of NOAA Fellows, as MDNR anticipates a Margaret A. Davidson Research Fellow. If time allows and the Fellow is interested, there may be opportunities to engage in other TNC/MDNR shared initiatives, including but not limited to pursuing opportunities to bring Maryland's first blue carbon credits to market and integrating equity in coastal adaptation funding systems.

## **VII. OFFICE ENVIRONMENT**

At the time of this proposal submittal, TNC and MDNR are currently teleworking, however both agencies are moving towards a hybrid telework schedule which is anticipated to be formalized by the time the Fellow begins. TNC and MDNR can both provide office space in Annapolis and Easton, MD and are willing to work with the Fellow to accommodate their relocation preferences. At each office, the Fellow will have access to shared printers, office supplies, mailing, necessary trainings, and resources, such as projectors and specialty presentation/design software, in addition to supplies for a home office.

Based on previous mentor/mentee experience, the co-mentors are recommending weekly virtual check-ins to begin, followed by bi-weekly, in-person check-ins based on Fellow's comfort level and the current COVID situation. In addition, the co-mentors will meet quarterly with the Fellow to establish and re-evaluate the Fellow's workplan, ensuring the workload is manageable and supports the Fellow's professional goals. The COVID pandemic has allowed both mentors to improve upon managing remote teams and they will work with the Fellow to devise a strategy that works for them, such as the use of project management software like Slack, Google, or Microsoft Platforms. At the beginning of their Fellowship, the mentors will schedule virtual or in-person meetings for the Fellow with co-workers and colleagues. These meetings will give the Fellow the chance to develop a social network and to meet individuals with whom they will be interacting throughout their Fellowship experience.

## **VIII. PROJECT PARTNERS**

The Fellow will have a unique opportunity to engage with partners spanning from the federal government to individual landowners. The proposed project aims to unite agencies and build collaborative partnerships that advance land protection for marsh migration at the federal, regional, and state policy-levels, while meaningfully addressing landowner socio-economic needs and environmental justice community initiatives at the local level. The Fellow will be supported by a team of experts at TNC (e.g., wetlands, water quality, agriculture, policy, communication, social science, land protection) and MDNR (e.g., GIS, coastal management, science, stewardship, National Estuarine Research Reserve) to ensure the Fellow has the tools necessary to help advance this body of work. In addition, the Fellow will work closely with MDNR's Land Acquisition and Planning and consult with the Critical Areas Commission, and will have access to state-level workgroups such as the Maryland Commission on Climate Change's Adaptation and Resiliency Workgroup.



External networking opportunities are extensive. The Fellow will engage with the Digital Coast Partnership through regular Partnership calls. It is also anticipated that through the workgroups, the Fellow will engage with federal partners at NOAA, Fish and Wildlife Service, National Resources Conservation Service, Forest Service, Environmental Protection Agency, Department of Agriculture, Navy, and Geological Survey; regional partners at the Chesapeake Bay Sentinel Site Cooperative and Chesapeake Bay Program; Maryland state partners at the Department of the Environment, Environmental Trust, and Department of Agriculture; non-profit partners at The Conservation Fund, Audubon, Ducks Unlimited, Eastern Shore Land Conservancy, and the Lower Shore Land Trust; university partners at the Virginia Institute of Marine Science, University of Maryland Center for Environmental Science, and George Washington University; and private industry, landowner, and environmental justice community partners.

## **IX. COST SHARE**

TNC (via private funding) and MDNR (via CBNERR-MD operations) will each provide the Fellow with funding for travel and trainings above what will be provided through the Fellowship, in addition to each providing the 2-year \$7,500 Fellowship match (50:50 cost-share of \$15,000 between co-hosts).

## **X. STRATEGIC FOCUS AREA**

*Healthy Coastal Ecosystems:* The project aims to develop innovative protection frameworks using the best available science to guide decisions made about land protection and management. The Fellow, TNC, and MDNR will engage diverse partners—federal, state, non-profit, private, landowner, indigenous groups—to ensure that the developed frameworks will be broadly adopted and account for the human dimensions of land protection. In doing so, it will build capacity and support a state management priority and will serve as a means of improving state policies to support coastal management. Ultimately, this work will support the conservation and restoration of marsh migration corridors, aiding the preservation of Maryland’s largest remaining marsh complex.

*Resilient Coastal Communities:* The project aims to elevate people in land protection initiatives. The Fellow and TNC will engage landowners to build awareness of marsh migration impacts and to collaboratively identify management strategies that will promote socio-ecologic health. The Fellow and TNC will also engage with environmental justice communities to address land equity issues and reform TNC and MDNR protection frameworks to promote just practices.

*Vibrant and Sustainable Coastal Economies:* The project aims to identify funding incentives and strategies that support landowners while addressing marsh migration management needs. The Fellow and TNC will engage landowners to understand their economic needs, both in terms of developing marsh management plans for their properties, but also to learn about the practices landowners need to retain on their properties to earn a living (e.g., farming) while adapting to sea level rise. The Fellow will then work with protection agencies and landowners to identify marsh migration management strategies that also sustain local economic practices. Further, the Fellow will work with MDNR to elevate ecosystem services as an important consideration in land acquisition criteria.



Larry Hogan, Governor  
Boyd Rutherford, Lt. Governor  
Jeannie Haddaway-Riccio, Secretary  
Allan Fisher, Deputy Secretary

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October 12, 2021

Ms. Margaret Allen  
Coastal Management and Digital Coast Fellowship Coordinator  
NOAA's Office for Coastal Management  
2234 South Hobson Ave.  
Charleston, SC 20405

Dear Ms Allen,

I'm writing in support of The Nature Conservancy's Digital Coast Fellowship proposal entitled, "Facilitating Healthy, Just, and Community- Supported Marsh Migration in Maryland." With the Maryland Department of Natural Resources (MDNR) as a co-mentor on this fellowship, I have confidence that the outputs from the fellowship will inform how we approach land acquisition and easements to promote marsh migration corridors in Maryland.

MDNR's Land Acquisition and Planning (LAP) unit works very closely with the Chesapeake & Coastal Service (CCS) to apply science to decision making. The facets of this proposal that will have an impact on LAP's business practices include:

- An analysis of coastal resilience easement opportunities and recommendations for scoring criteria and outreach plans to promote this underutilized tool
- Development of marsh management plan templates which can consistently be used across acquisition partners in the State

We look forward to working closely with the fellow, TNC, and CCS to understand and implement strategies to promote marsh migration in Maryland. If you have any questions, do not hesitate to contact me at (410) 260.8430 or [heidi.dudderar1@maryland.gov](mailto:heidi.dudderar1@maryland.gov).

Sincerely,

/s/ Heidi E. Dudderar

Heidi Dudderar, Director of Land Acquisition & Planning

Maryland Department of Natural Resources



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## Maryland DEPARTMENT OF PLANNING

October 7, 2021

Ms. Margaret Allen  
Coastal Management and Digital Coast Fellowship Coordinator  
NOAA's Office for Coastal Management  
2234 South Hobson Ave.  
Charleston, SC 20405

Dear Ms. Allen:

I am writing in support of The Nature Conservancy's Digital Coast Fellowship proposal entitled, "Facilitating Healthy, Just, and Community-Supported Marsh Migration in Maryland." The Maryland Department of Planning (Planning) developed *Maryland's Plan to Adapt to Saltwater Intrusion and Salinization* in December 2019. One of the plan's recommendations, to develop a statewide wetland adaptation plan to identify opportunities for migration of coastal wetlands, is being facilitated by Planning. The wetland adaptation plan and this proposal support the goals outlined in the draft specifically to:

- identify human community needs for wetlands so that equity concerns are addressed; and to

- implement adaptive measures to protect priority wetlands and priority wetland adaptation areas, such as coastal resiliency easements on salt-impacted farmland (to support wetland migration).

Planning works closely with the proposed co-host, Maryland Department of Natural Resources Chesapeake & Coastal Service (CCS) through the Maryland Commission on Climate Change's Adaptation & Resilience Workgroup (ARWG). Through the ARWG we look forward to engaging with the fellow, TNC, and CCS to provide feedback on strengthening strategies to promote marsh migration in Maryland. If you have any questions, do not hesitate to contact Jason Dubow at (410) 767.3370 or [jason.dubow@maryland.gov](mailto:jason.dubow@maryland.gov).

Sincerely,

Valdis Lazdins  
Assistant Secretary for Planning Services  
Maryland Department of Planning

September 28, 2021

To whom it may concern:

I am writing to support The Nature Conservancy-Maryland Chapter's request for a NOAA Fellow. I work closely with Jackie Specht as we are supporting the State to assess the climate mitigation values provided by vegetated coastal wetlands and explore opportunities for this "blue carbon" value to raise the profile and priority for coastal wetlands preservation and restoration.

Blue carbon refers to the climate mitigation role that coastal wetlands provide. Recognition and quantification of this service can influence developing climate policies and provide access to market incentives via carbon credit trading on international markets. As I understand, this NOAA Fellowship position would provide critical support to both TNC and the State's efforts to reform protection frameworks. Since blue carbon credits can be generated from protecting land, the Fellow's efforts may lead to valuable blue carbon crediting opportunities, including Maryland's first blue carbon credits.

This work will offer a great opportunity for a fellowship candidate to dive into topics such as wetland ecology, land protection, habitat management, and potentially carbon market development, while gaining experience coordinating across various stakeholder types and priorities.

In my role as Coastal Wetlands Program Manager for The Nature Conservancy's Global Strategies, I support our state and regional teams and partners to scope and develop blue carbon market projects. In the US, in addition to Maryland, I am also supporting teams in Virginia and Texas, as well as across international geographies. Blue carbon is a new and innovative field with much information sharing. I will support this fellowship position to provide subject-matter-expertise on blue carbon and market project development and transfer of knowledge from other states and regions, as needed.

I am available for any questions, should they arise, about my role in and support for a NOAA Coastal Fellow with the TNC-MD Chapter.

*Stefanie Simpson*

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Stefanie Simpson  
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