Commonwealth Coastal & Marine Policy Fellowship

2020 Host Office Descriptions

FELLOWSHIP PROGRAM DESCRIPTION

Virginia Sea Grant (VASG) and the Virginia Environmental Endowment (VEE) are now soliciting applications for the 2020 Commonwealth Coastal & Marine Policy Fellowship. This twelve-month paid fellowship is intended to provide educational and professional development opportunities for post-graduates interested in Virginia’s coastal and marine resources. In addition to learning about state-level policy and management processes, fellows receive on-the-job training with a Virginia state agency or non-governmental organization (NGO), working to address important coastal and marine resource issues. Selected finalists for the fellowship will interview with prospective host offices to find the best fit for the fellow. VASG, VEE, and their partners anticipate supporting one to two post-graduate fellows starting on October 1, 2020. This announcement and guidance on how to submit your application can be found at: https://vaseagrant.org/

PARTICIPATING HOST OFFICES

Each potential office listed below has expressed interest in hosting a fellow during the 2020 fellowship year. Additional host offices and projects may be added before the April 24, 2020 fellowship application deadline. Please visit www.vaseagrant.org for the current list.

Applicants are strongly encouraged to visit host office websites for more details on their missions and activities. Each host office has shared descriptions of potential projects available to finalists during their fellowship. While final projects may vary based upon the requirements of the host office and the skillsets of the selected fellow, these examples do provide a representation of the host office’s current needs.

Office of the Secretary of Natural Resources
  • Project: Commonwealth of Virginia Resilience Initiative

Virginia Department of Conservation and Recreation
  • Project: Verification of Shoreline Management BMPs for Chesapeake Bay TMDL Pollutant Reduction Credits

Virginia Department of Environmental Quality
  • Project: Watershed Program Technical Assistance and Policy Improvement for Specific Water Quality Impairments

Virginia Marine Resources Commission
  • Project: Agency Scoping Comments Review Coordinator & Habitat Management Division Permit Tracking Database Fellow
OFFICE OF THE SECRETARY OF NATURAL RESOURCES

Project Title: Commonwealth of Virginia Resilience Initiative

Location: Richmond, VA

Description of Host Office

The Secretary of Natural Resources, Matthew J. Strickler, advises the Governor of Virginia, Ralph S. Northam, on natural resources issues throughout the Commonwealth and works to advance the Governor's top environmental priorities. Those environmental priorities include climate change and resiliency, coastal adaptation and protection, Chesapeake Bay Restoration, and land conservation. The Special Assistant to the Governor for Coastal Adaptation and Protection, Rear Admiral Ann C. Phillips USN (Ret.) advises the Governor through the Secretary of Natural Resources on matters specific to the climate challenges influencing Virginia's Coastal region. The Secretary of Natural Resources oversees five Virginia state agencies: The Department of Conservation and Recreation, the Department of Environmental Quality, the Department of Game and Inland Fisheries, the Department of Historic Resources, and the Marine Resources Commission. The Governor, Secretary, Special Assistant to the Governor for Coastal Adaptation and Protection and agencies work to protect and restore the Commonwealth’s natural and historic resources.

Project Background

On November 2, 2018, Governor Ralph Northam signed Executive Order 24 that lays out a series of actions the Commonwealth of Virginia will undertake to limit the impact of flooding, extreme weather events, and wildfires. On January 19, 2019, Governor Ralph Northam signed Executive Order 29, that establishes the Council on Environmental Justice, and on November 14, 2019, Governor Ralph Northam signed Executive Order 45, setting sea level rise planning and construction standards for State-owned buildings, and ensuring Virginia’s compliance with the National Flood Plain Program. Coastal adaptation and resiliency is a top priority for the Governor's Administration.

Potential Fellowship Project

The fellow will support the Secretary of Natural Resources and the Special Assistant to the Governor for Coastal Adaptation and Protection, in the creation and implementation of initiatives to increase the Commonwealth of Virginia’s resilience to natural hazards and events. The fellow will report to the Special Assistant and provide administrative, research and other support as requested. Primary responsibilities will be focused on the expansion of a Coastal Master Plan process to reduce flood risks to coastal Virginia. Associated tasks will include staffing advisory panels, conducting research and other duties as assigned.
Project Title: Verification of Shoreline Management BMPs for Chesapeake Bay TMDL Pollutant Reduction Credits

Location: Tappahannock, VA

Description of Host Office
The Department of Conservation and Recreation (DCR) is the state's lead natural resource conservation agency. DCR protects what Virginians care about – natural habitat, parks, clean water, dams, open space, and access to the outdoors. DCR accomplishes its mission through funding, expertise, education, acquisition, and improved access. Through its Division of Soil and Water Conservation, DCR works with 47 soil and water conservation districts, farmers, urban and suburban landowners, and other land managers to reduce nonpoint source water pollution. DCR works to reduce nutrients and sediment that can impact the quality of waters, including the nation’s largest estuary, the Chesapeake Bay (CB). DCR’s Shoreline Erosion Advisory Service (SEAS) provides technical assistance to property owners, localities, and state and federal agencies who are experiencing shoreline or streambank erosion. SEAS provides many services to property owners including: site investigations, advisory reports, review of plans and designs, permit assistance, and construction inspections.

Project Background
Shorelines are in constant states of change and erosion is a natural ecosystem process. Shoreline erosion is primarily caused by wind-driven waves and is exacerbated by the rapid rate of sea-level rise. Erosion of banks supplies sand to beaches and marshes, helping them to keep pace with rising sea levels. However, excess sediment and associated nutrients can negatively affect submerged aquatic vegetation and overall water quality. Human activity, such as agriculture and urban development, can drastically accelerate the natural rate of shoreline erosion. According to the U.S. Geological Survey, erosion of shorelines is a major source of sediment to the CB accounting for 57% of the sediment source loads.

The suite of solutions to shoreline erosion that a property owner can employ varies along a continuum of green-to-grey infrastructure – marsh grass plantings, marsh toe revetments of coir logs or oyster shell bags, biogenic reefs, stone sills with sand nourishment and marsh grass plantings, offshore gapped breakwaters with sand nourishment and dune grass plantings, riprap revetments, wood or vinyl bulkheads. Living shorelines are the Commonwealth’s preferred shoreline stabilization practice.

SEAS is working to identify shoreline management practices (e.g., living shorelines) across tidal Virginia that qualify for Total Maximum Daily Loads (TMDL) pollutant reduction credits, verify that installation of these BMPs meets the specifications set out by the U.S. EPA, and quantify and report the earned pollutant reduction credits as part of the Commonwealth’s efforts to meet goals established in the Watershed Implementation Plan. SEAS has reported annual pollutant load reductions for 1,143 sites protecting 43.7 miles of shoreline – over 17,000 tons of sediment, over 7,000 pounds of phosphorus, and nearly 10,400 pounds of nitrogen.

Potential Fellowship Project
The fellow may assist SEAS team members to provide technical assistance to property owners, localities, and state and federal agencies who are experiencing erosion. They may participate in conducting site investigations, construction inspections, and reviewing plans and designs for stabilization practices. The Fellow may contribute to other Division goals and activities. The Fellow will identify installed shoreline management practices that qualify for TMDL pollutant reduction credits, verify these practices meet specifications, and calculate the earned pollutant reduction credits utilizing protocols developed by SEAS. The fellow will conduct data analysis with Geographic Information Systems (GIS), collect field data to verify BMP installation, and have the opportunity to engage with partnering agencies and organizations, and interact with the general public.
**Project Title:** Watershed Program Technical Assistance and Policy Improvement for Specific Water Quality Impairments

**Location:** Richmond, VA

**Description of Host Office**

Virginia’s diverse geography and abundant natural resources benefit agriculture, industry and commerce, and provide a rich environment for people, plants and wildlife. The mission of Department of Environmental Quality (DEQ) is to protect and improve the environment for the well-being of all Virginians. DEQ administers state and federal laws, and regulations for water quality, water supply, air quality and land protection. In addition, other agency programs cover a variety of environmental activities, such as improving the ability of businesses and local governments to protect the environment, and offering technical and financial assistance for water and air quality improvements.

**Project Background**

The Commonwealth Coastal and Marine Policy Fellow will work with DEQ Watersheds Program staff (Total Maximum Daily Load and Implementation Planning programs) to develop and implement field investigations employing continuous monitoring methods. Investigations will focus on status of the state waters identified as impaired due to violations of Water Quality Standards.

**Potential Fellowship Project**

The fellow will be responsible for independent and joint analyses of new and existing data to support Agency Water Quality Policy changes and developing a strategy to apply it to temperature, dissolved oxygen, and pH impairments across the Commonwealth. Work will require coordination of input from multiple Offices within the Agency including Water Quality Monitoring and Assessment, Water Quality Standards, and Water Permitting. Anticipated potential goals and outcomes of this work include improved baseline understanding of water temperature conditions in sensitive waters, temperature impairment de-listings, baseline characterization of water quality in swamp waters (DEQ Class VII Waters), and modifications/improvements to standards and assessment policies and their applications. There will also be an opportunity to perform data analysis related to on-going Total Maximum Daily Load studies used to address fish consumption advisories.
Project Title: Agency Scoping Comments Review Coordinator & Habitat Management Division Permit Tracking Database Fellow

Location: Fort Monroe, VA

Description of Host Office

VMRC serves as stewards of the Commonwealth’s marine and aquatic resources. The agency manages saltwater fishing, both recreational and commercial, and works to create and maintain sustainable fisheries for the benefit of all anglers and the ecosystem. The agency also manages the state’s submerged bottomlands, tidal wetlands, sand dunes, and beaches in order to preserve and protect Virginia’s natural resources and the habitat our saltwater fisheries depend on.

Project Background & Potential Fellowship Project

The Commonwealth Coastal and Marine Policy Fellow will assist VMRC’s Habitat Management Division with coordinating agency reviews between the Fisheries and Habitat Management Divisions necessary to draft scoping comments on environmental documents provided to VMRC for review of project activities potentially affecting marine fisheries and habitats. Examples of documents submitted for review include Environmental Assessments, Environmental Impact Statements, and Federal Coastal Zone Management Consistency Determinations. The Fellow will be responsible for initial assessment and coordination of the document reviews between agency divisions and departments.

Additionally, the fellow will help with developing a process that will facilitate the issuance of its subaqueous, tidal wetlands and beaches and dunes permits electronically; including alternative procedures for collection of permit fees and royalties, and capturing field data in real time for upload into an internal Permit Tracking Database.