# MARYLAND CONSERVATION CAREERS GUIDE







#### Maryland Department of Natural Resources Tawes State Office Building 580 Taylor Avenue Annapolis, MD 21401 410-260-8367 dnr.maryland.gov Additional Telephone Contact Information: Toll free in Maryland: 877-620-8DNR Out of state call: 410-260-8367 Text Telephone (TTY) users call via the Maryland Relay

The facilities and services of the Maryland Department of Natural Resources are available to all without regard to race, color, religion, sex, sexual orientation, age, national origin, or physical or mental disability. This document is available in alternative format upon request.

#### Publication number: DNR 14-072122-323 | September 2022

Cover Image Credits: Underwood & Associates, Curtis Bennet, Maryland Department of Natural Resources

## This guide is a publication of Project Green Classrooms, an environmental education initiative that began in 2017 by bringing together partners from agencies and organizations across Maryland.

**State Agencies:** Maryland Department of Natural Resources, Maryland State Department of Education, Maryland Department of Agriculture, Maryland Department of the Environment, Maryland Department of Health, Maryland Department of Planning, Maryland Department of Transportation, Maryland Higher Education Commission

Advisory Members: Alice Ferguson Foundation, Audubon Maryland-D.C., Chesapeake Bay Foundation, Chesapeake Bay Trust, Maryland Agricultural Education Foundation, Maryland Port Administration, Maryland Association for Environmental and Outdoor Education, Maryland Recreation and Parks Association, National Aquarium, National Oceanic and Atmospheric Administration, National Wildlife Federation, U.S. Fish and Wildlife Service

## Note of Appreciation

Thank you to the environmental professionals who helped to shape this guide with their experiences, perspectives and knowledge. This was a collaborative effort and would not have been possible without your help.

Special thanks to the Colorado Youth Corps Association & Colorado Alliance for Environmental Education for the inspiration and support in creating our own version of a careers guide. Thank you to Curtis Bennet, Tara Drennan, Sarah Haines, Francesca King, Alex Lunine, Stephanie Oberle, Anika Ritcher, Gabrielle Roffe, Trystan Sill, and Britt Slattery for writing the bulk of the guide and for your passion for supporting the next generation of conservation professionals. Lastly, an endless thank you to Katariina Delph and Annalise Kenney for helping to finalize our dream and give it life.

## Guide to Conservation Careers in Maryland Table of Contents

Chapter 1: Why a Conservation Career?	1
Diversity, Equity, Inclusion, and Justice	2
What's in This Guide?	3
Chapter 2: Find Your Fit	4
Who Hires Natural Resource Professionals?	4
Types of Positions: Navigating the Career Path	6
Mentorship	
Conservation Career Fields Guide	8
Environmental Education	9
Environmental Justice	12
Forestry and Horticulture	14
Geoscience	16
Land Management	18
Parks and Recreation	20
Water Management	22
Wildlife and Fisheries	24
Conservation Careers - Beyond the Sciences	
Conservation Career Spotlights	28
Curtis Bennett Community Outreach	29
Rev. David Norse-Thomas Ministry and Community Outreach	30
Elle Bassett Water Quality	32

Emily Mills Geospatial Information Systems	
Sara Weglein Natural Resources	
Joan D. Plisko Environmental Health	
Dr. Pabodha Galgamuwe Forestry	41
Fred Tutman Advocacy	43
Larissa Johnson Energy	45
Elena Takaki Environmental Education	47
Michael Luisi Fisheries	
Priscilla To Water Management	51
Angela Crenshaw Parks and Recreation	53
Begin Charting Your Path	55
Chapter 3: Learning Skills for Conservation Jobs	57
Where to Start?	57
Professional Certifications:	57
Maryland's Degree Programs	58
Maryland Workforce Development Programs	61
Chapter 4: Applying for Jobs	69
Places to Find Opportunities	71
Organizations that Support Black Indigenous People of Color (BIPOC) Net and Environmental Engagement	
Job Boards	79

# Guide to Conservation Careers in Maryland

Clean air, water, and soil. These are fundamental rights to all people that are the foundation of a healthy life and a healthy planet. The careers that support this goal are as varied and integrated as a complex natural ecosystem, each career filling a special niche that supports the whole.

## Chapter 1: Why a Conservation Career?

Since 2008, the State of Maryland has been committed to ensuring that every child in Maryland has the opportunity to learn about their local environment, develop a connection with nature, and have a better sense of place in their natural surroundings. In June 2017, the Maryland Project Green Classrooms Initiative was established, expanding an existing public-private partnership, to promote outdoor experiential activities and environmental education through Maryland's schools, communities, and public lands. The next step beyond learning is doing: engaging in the stewardship of the environmental resources upon which we depend. Stewardship can grow into avocation and deeper involvement through volunteer opportunities, internships, and jobs.

A career in conservation is not only limited to life science and geosciences, but a wide range of disciplines that support action to protect, preserve, restore, and conserve our natural resources. This "Guide To Conservation Careers in Maryland" is designed to present career options for young adults and career changers who want to make a difference, who enjoy being outdoors, and who are passionate about the environment. It is written by current professionals in the field, drawing from their experiences as students, job-seekers, employees, and hiring managers. Paths to a conservation career can take many routes, including academic or vocational training. Careers may be in local, state, and federal government agencies, non-profit organizations, educational institutions, or the private sector. Sifting through the options, or even becoming aware of what the options are can be overwhelming. This Guide lays out the variety of pathways available in Maryland to support your learning: the academic tracks from high school to college and post-graduate work; vocational training programs; internships; and more. There are many possible branches to these pathways, and we encourage thinking about both the more "traditional" environmental careers as well as additional career avenues that can and should incorporate environmental concerns: teaching, community planning, engineering, construction, landscaping, energy, business, public health. Making decisions about your future can be daunting. We hope this *Guide* will provide resources to help you find the conservation-related job that is right for you.

You are the future generation of innovators. You will have the opportunity to solve myriad environmental challenges. You are the stewards of our planet. Your actions will ensure the health of our soil, air, water and climate. You can take the next step, from learning to leadership.

### Diversity, Equity, Inclusion, and Justice

Visit the <u>Chesapeake Bay Diversity Workgroup website</u> for more information and organizations involved in DEIJ efforts in the Chesapeake Bay Watershed.

The makers of this guide and the organizations they represent are committed to diversity, equity, inclusion, and justice. Many environmental organizations in Maryland and the Chesapeake Bay Watershed are increasingly committed to addressing the lack of diversity in the environmental field. This encompasses all dimensions of diversity, including race, ethnicity, socio-economic status, national origin, citizenship, religion, age, physical abilities, gender, sexual identity, and other factors. We believe fully diverse groups of people who live, work and recreate in the Chesapeake Bay watershed have a right to benefit from, and help guide, the future of an



environmentally and economically sustainable Chesapeake Bay watershed with clean water and air, abundant fish and wildlife, conserved lands, access to the water and a vibrant cultural heritage. We recognize the value and necessity of a diverse workforce in the environmental field. We are committed to addressing the marginally excluded representation of certain groups from the Chesapeake Bay environmental field.

In the 2014 Chesapeake Bay Watershed Agreement, the Chesapeake Bay Program (the group that coordinates the work under this agreement) adopted for the first time a goal to increase the number and diversity of people who support and carry out conservation and restoration work. In 2016, the Alliance for the Chesapeake Bay distributed a diversity profile on behalf of the Chesapeake Bay Program to approximately 750 people who work for or with the partnership. More than 370 people responded. While some respondents declined to identify their race, 84 percent self-identified as white or Caucasian and about 13 percent self-identified as non-white or non-Caucasian. This is consistent with the "green ceiling" that the Green 2.0 campaign has used to describe the decades-long racial composition in environmental organizations and agencies, despite increasing racial diversity in the United States. The partnership has set a target to increase the percentage of people of color in its program to 25 percent by 2025. This *Guide* is intended to help support efforts to reach this goal. creativity. Leadership in Bay efforts should reflect the diversity of the constituents that live in the watershed and use its resources.

The Chesapeake Bay watershed is home to diverse communities with a rich variation in culture, social norms, and perspectives. Yet, currently, local, state and federal level decision-makers including nonprofit Chesapeake Bay Program partner organizations do not always adequately consider diversity when planning and implementing conservation and restoration efforts throughout the watershed. Without improvement and attention to these issues, few conservation efforts may end up being implemented in underrepresented and underserved communities. To address this imbalance, and to achieve healthy local streams, rivers and a vibrant Chesapeake Bay that is shared by all people throughout the watershed, we need to increase the diversity of people providing input and making decisions related to conservation and restoration efforts. Diversity drives innovation and fosters

creativity. Leadership in Bay efforts should reflect the diversity of the constituents that live in the watershed and use its resources.

Competition among employment opportunities and professional engagement presents challenges. A lack of diverse people in leadership roles at the state, local, and nonprofit levels limits the ability of diverse groups to influence decisions. Because federal and state environmental and natural resource agencies are generally not diverse currently, the committees of the Bay Program reflect this reality. Additionally, it is important that Bay Program partners take steps towards fostering more welcoming and inclusive workplaces to achieve lasting diversity goals, including revamping hiring practices that can perpetuate a lack of diversity in their agencies and organizations. This regional commitment to increasing diversity in the field is a positive step that is launching action for future improvements. This Guide will help to alleviate some of the disparities in the environmental field by providing information on opportunities and involvement strategies to connect diverse groups with their desired career path.

## What's in This Guide?

This guide to conservation careers in Maryland is organized into four parts.



#### Chapter 1: Why a Career in Conservation?

• This section explains the objectives of the Conservation Careers Guide. Offered within this guide are the tools and resources presented to the youth to aid in the exploration into the environmental field. It serves to educate the next generation on the many different career paths within conservation and the steps to be taken in advancing towards future employment.

#### **Chapter 2: Conservation Careers: Find your Fit**

• This section presents a series of fact sheets, with examples of types of careers, education or training needed for those jobs and careers, how to get experience in the field, and professional organizations. Meet current professionals in the field through brief case studies.

#### Chapter 3: Learning Skills for Conservation Jobs–Academic and Vocational Programs in Maryland

• There are numerous options for working in the conservation field that include those jobs that require a 2- or 4-year degree and those that do not. This chapter provides ideas on both degree and non-degree opportunities.

#### Chapter 4: Applying for Jobs

 This section provides valuable information about the application process when starting your job search. It also lists various places to find different job opportunities including many programs, organizations, and job boards that can be utilized as tools for finding the perfect job for you.

## Guide to Conservation Careers in Maryland Chapter 2: Find Your Fit

**Conservation Careers are** supported by a wide variety of disciplines, from the biological sciences to engineering. landscape architecture, planning and policy, law enforcement, natural resource management, education, and public health. They operate in a variety of settings, from the Chesapeake Bay to the Blue Ridge Mountains, from a city park to the halls of the state capitol building in Annapolis, from a landscaped garden to a laboratory. Whether you like working indoors or out, you can find a career that fits you.

## Who Hires Natural Resource Professionals?

You can find conservation jobs at all levels of government, non-profit organizations, for-profit businesses, and higher education institutions. Entrepreneurship is rapidly growing in the natural resource field by individuals identifying a need and creating a product or service to address it. This *Guide* highlights jobs in the conservation field and "green" jobs industries in Maryland. Partners include federal, state, and local agencies and non-profit organizations. Examples included here focus mostly on partners represented through the Maryland Project Green Classrooms Initiative and Chesapeake Bay Program. There are many others in this vast field in Maryland and the Chesapeake Watershed. There are a number of **federal agencies and national organizations** that are based in the Washington, D.C. area but whose reach extends across the country and internationally. Many groups also have offices within Maryland. Because D.C. is adjacent to Maryland, many state residents work there. Examples include:

- National Park Service
- National Oceanic and Atmospheric Administration
- Environmental Protection Agency
- North American Association of Environmental Education
- National Wildlife Federation
- The Nature Conservancy
- U.S. Department of Agriculture (USDA) Forest Service
- Natural Resources Conservation Service (NRCS)
- U.S. Fish and Wildlife Service
- World Wildlife Fund
- Conservation International

At the next level, **state government and state-wide organizations** focus their attention on Maryland, including natural resources management, parks and recreation, agriculture, and education.

- Maryland Department of Natural Resources
- Maryland Department of the Environment
- Maryland Department of Transportation
- Maryland Department of Agriculture
- Maryland Agricultural Education Foundation
- Maryland State Department of Education
- Maryland Association for Environmental and Outdoor Education
- Maryland Recreation and Parks Association
- Maryland Environmental Trust
- Tree Care Industry Association
- Maryland Arborist Association Inc.

**Each county and many incorporated cities** serve at the local level, tailoring their work to the specific needs of their communities. Some examples include:

- County or city departments of the environment or health
- County or city parks and recreation departments
- County soil conservation districts (through the state Department of Agriculture)
- School district environmental education center such as Anne Arundel County Public School's Arlington Echo Outdoor Environmental Center
- Local parks department, such as Brookside Gardens, Montgomery Parks
- Smith Environmental Center, Montgomery County Public Schools
- Riverkeepers

Many **non-profit organizations** provide a wide range of programs and services, from serving community-specific audiences to providing unique educational programs, conserving natural resources, and providing grants, partnership, and technical assistance to support local, regional, statewide, and national initiatives. Some of the many examples include:

- Alice Ferguson Foundation
- Audubon Maryland-DC, Pickering Creek Audubon Center
- Baltimore Tree Trust
- Bluewater Baltimore
- Center for Watershed Protection
- Chesapeake Bay Foundation
- Chesapeake Bay Trust
- Chesapeake Conservancy
- Chesapeake Conservation Landscaping Council
- Civic Works' Baltimore Center for Green Careers
- Howard Ecoworks
- Minorities in Agriculture and Natural Resources
- National Aquarium
- Riverkeepers
- ShoreRivers

## Types of Positions: Navigating the Career Path

A variety of opportunities exist to contribute to the field of natural resources and to growing your personal and professional experience. Some positions are unpaid while others are paid. They also vary by time commitment, skill, and education requirements. Generally, these types of positions correspond to the order in which your career may progress – from getting your foot in the door as a volunteer to a permanent, full-time position from which you eventually retire. Although you may not hold a position at each of these levels throughout your career, typically natural resource professionals begin with a volunteer or internship experience then progress to a seasonal or temporary job and finally achieve a full-time permanent job. Below are the different types of positions that you will likely see in your job search and as you progress in your career:

- Volunteer this is unpaid work, which supports the organization but also may provide an
  introduction to the field, valuable experience, networking opportunities, or social
  interaction. Volunteer opportunities may be on-going assignments or one-time, like a
  special event or massive planting project. Some volunteer experiences may be counted
  toward the number of years required to qualify for paid positions. Volunteer positions are
  both an opportunity to gain experience to build up your resume and a stage to showcase
  your knowledge and skills to prospective employers or references for future applications.
- **Service-Learning** service-learning supports middle and high school graduation requirements for volunteer hours. For example, a class may participate in a service-learning project where they remove invasive species from the edge of a pond.
- Job Shadowing some agencies or organizations allow youth to follow a professional throughout their day on the job. A job shadow experience could last just a few hours or several weeks. This is a great way to see first-hand what a professional in a career you are interested in does on a daily basis.
- Internships internships yield more job experience and professional growth through mentorship and training. Some internship opportunities require a certain education level or experience and can be competitive. Paid internships typically have more requirements than unpaid internships although both can help teach important on-the-job skills and help build relationships. Some internships may count for college credit.
- Apprenticeship registered apprenticeships are jobs where workers "earn and learn." While working on the job, employees receive one-on-one full-time training from a skilled craftsperson as well as related classroom instruction. An apprentice is "sponsored" by an employer or association and is paid according to a progressive pay scale.
- Seasonal seasonal positions are jobs that are only needed during certain months of the year. For example, a person may work in a seasonal position counting birds, which only migrate through an area during a particular time of year. Seasonal positions can vary from just several weeks to many months but always are less than a year. Seasonal positions may be full-time or part-time.
- **Temporary** when an organization or agency has an employment need but does not believe that need is long-term it may hire a temporary employee. Temporary positions may last several months but often do not go beyond one year. Generally, temporary employees

do not receive the same amount of benefits that term or permanent employees receive. Temporary positions may be either full-time or part-time.

- **Term/Contracted** term employees are those hired for one-to-four years. Usually, term employees are hired for specific project work, in times of uncertain funding or in extraordinary workload circumstances. Many term positions may be renewed for another term but are not guaranteed like permanent positions. Term positions may be full-time or part-time and generally carry full benefits for the employee. Benefits for contracted positions vary among employers and may be less than those offered for permanent positions.
- **Part-Time** part-time positions are those that require a time commitment of fewer than 40 hours a week. Some part-time positions are 30 hours a week while others may be only 5 hours a week. A person may find a part-time seasonal, temporary, or permanent position.
- **Full-Time** typically full-time jobs are those that require 40 or more hours a week. A person may find a full-time seasonal, full-time temporary, or full-time permanent position.
- **Permanent** permanent positions are those where you expect your job to be supported by the agency or organization long into the future.
- Fellowship a fellowship helps a person already in the field enhance their professional development, usually through the completion of a specific project or academic research.

#### Mentorship

Navigating career paths can be a daunting task. It can be beneficial to seek out a mentor or mentorship programs at your institutions and outside facilities for guidance and advice. There can be different levels to mentoring depending on the needs of the students and program orientation. Certain organizations have peer mentors that could be upperclassmen or graduates at your institutions that could aid in guidance in terms of course scheduling and internship selection. Other programs could potentially assign you to professional mentors, advisors, or professors that also guide you through your educational process and seek opportunities to prepare for your future. It is an important step to jump start your career development by locating mentorship programs and to initiate those relationships. Here are somes resources to mentorship programs in Maryland:

- 1. MENTOR Maryland-DC
- 2. <u>Meyerhoff Scholars Program</u>
- 3. <u>UMB CURE Scholars Program</u>
- 4. <u>Community Engagement and Restoration Mentorship Program</u>
- 5. <u>YH<sub>2</sub>O Mentoring Program</u>
- 6. <u>Choose Clean Water Coalition's Young Professionals of Color Program</u>
- 7. ACE Mentor Program Baltimore Chapter

### **Conservation Career Fields Guide**

On the following pages, we explore nine broad conservation career fields, plus other career disciplines that are essential for the efficient function of any organization. For each field, we define the field, give examples of careers, touch on the types of education and training needed for jobs in the field, recommend ways to get experience and exposure in the field, and list potential employers. Several of the fields overlap and many positions address topics that are connected to topics not addressed here. This is not an all-inclusive list but a place to get you started. The nine fields are:

- 1. Environmental Education
- 2. Environmental Justice
- 3. Forestry & Horticulture
- 4. Geoscience
- 5. Land Management
- 6. Parks and Recreation
- 7. Wildlife and Fisheries
- 8. Water Management
- 9. <u>Others: Photography, Communications, Health, Outreach, Technology, Agriculture, Policy</u> (Advocacy and Riverkeepers), Energy







#### **Environmental Education** Informing, inspiring, influencing, and motivating



#### What is the field of Environmental Education?

Environmental Education (EE) is a process that helps individuals, communities, and organizations learn more about the environment, and develop skills and understanding about how to address local, regional and global environmental challenges. It has the power to transform lives and society. It informs and inspires. It influences attitudes. It motivates action. EE is a key tool in expanding the constituency for environmental stewardship and conservation, and creating healthier and more civically-engaged communities.

#### What is an Environmental Education professional?

Environmental Education professionals work in all segments of society. They work with students, teachers, administrators, and school boards to employ green practices at schools—focusing on curriculum, professional development, schoolyards, school buildings, and more. They work with businesses to educate managers, employees, and vendors about environmental, health, and economic issues. They are facilitators of community/citizen science programs to help people understand the scientific process and use the data to help protect species, habitat, communities, and ecological processes. They are professors in universities who train the next generation of teachers, environmental professionals, business leaders, and others. They work with journalists, photographers, artists, and even musicians to tell the story about the value of environmental education, and with decision-makers to advocate for environmental education best practices. They work hand-in-hand with conservation professionals to help engage people and communities in finding solutions to conservation issues—from loss of biodiversity to climate change. And they work with health professionals who educate doctors, nurses, insurers and other health professionals about the critical link between health and environment and how to increase time in nature to address health issues. They are naturalists helping to connect more people to nature and build stewardship values that last a lifetime. (adapted from the North American Association of Environmental Education).

An environmental educator understands highly technical, often multi-disciplinary scientific material such as raw data and scientific literature. They use pictures, presentations, created materials, and hands-on, learnercentered investigative activities to teach the information to interested but non-technical individuals of all ages. The goal is not only to advance environmental knowledge in the general public and amongst stakeholders but to help stakeholders think critically to assess and inquire from an environmental perspective. Environmental educators have a set of responsibilities that vary significantly from job to job, but the list here includes typical job duties:

- Analyze and interpret data obtained from literature reviews, research, and sample findings, imagery, and computer model predictive data.
- Research, interview, and teach about leading scientists and theories.
- Explain and illustrate how the environmental event or trend in question may impact the earth, and human or animal populations.
- Communicate lessons to stakeholders on environmental situations or environmental trends according to the scope of the course. Examples may include climate change, watershed protection, or recycling and composting.
- Engage members of the public and stakeholders in the material; develop environmental awareness.
- Develop curriculum-based resources and provide support for other educators.
- Write resource material for personal use, other educators, or take-home materials for students and stakeholders, that includes paper, online, oral lecture and multimedia.
- Facilitate discussions between differing interests in order to enrich course offerings with crossdisciplinary perspectives and understanding.
- Develop feedback plans and programs to determine or evaluate success of the learning.
- Lead learners of any age, birth to adult, in indoor and outdoor activities to learn about and experience various environmental topics, natural features, flora and fauna. This might include dipnetting for aquatic life in a pond, canoeing with excited children, hiking forest trails with groups, guiding teachers through learning activities to lead with their own students, teaching families how to cast a fishing line or how to observe birds, and much more.

Senior Environmental Educators often have enhanced job responsibilities that include managing, budgeting, and team collaboration. Such responsibilities often include:

- Extract learning objectives from stakeholders and material.
- Create a curriculum in order to teach the topic at hand in a compressive fashion, along a proscribed timeline if required.
- Develop themes and activities to reinforce learning.
- Create teaching materials.
- Coordinate environmental professional development for teacher-colleagues and the public.
- Manage budgets, prepare grant proposals, track and report progress toward goals and commitments.
- Create assessment materials if required.
- Use a clear perspective to steer the scope of the course.
- Provide consultation and advice to agencies, professionals, or researchers.
- Ensure that the course curriculum and assessment are accurate.
- Plan, organize and participate in outreach campaigns to engage and challenge the public.
- Establish efficient and effective workgroup protocols for a positive and challenging work environment; organize, lead, and/or facilitate collaborative projects.
- Mentor and/or supervise junior team members and educators.

#### What are some examples of careers in Environmental Education?

**Technician** (No Degree, Associate or Bachelor's degree): Naturalist, Environmental Assessment Technician, Outdoor Instructor, Environmental Education Specialist, Environmental Education Assistant **Professional** (Bachelor or Master's degree): Environmental Protection Specialist, Environmental Science Teacher, Environmental Health Educator, Environmental Education Coordinator, Program Manager,

Environmental STEM Educator

**Management** (Bachelor's, Master's or Ph.D.): College or University Professor, Executive Director of Environmental Organization

#### What are some examples of degrees Environmental Educators use?

Undergraduate majors include (but not limited to): Environmental education, environmental science, environmental studies, geography, ecology, and biology

#### How can I get experience and connect to the Environmental Education Industry?

**Learning**: MAEOE Environmental Education Certification Program, National Association of Interpreters Certified Interpretive Guide, Maryland Master Naturalist program, volunteering with your local nature center or local environmental education organization

Working: Youth Employment: Conservation Jobs Corps, Student Conservation Association

**Networking**: Professional Societies: Maryland Association of Environmental and Outdoor Education; North American Association for Environmental Education, National Association for Interpretation; Association of Nature Center Administrators, The Coastal Society, National Marine Educators Association, Environmental Literacy Council, Ecological Society of America, Environmental Education & Training Partnership

#### **Environmental Justice** Fair treatment and meaningful involvement of all



#### What is the field of Environmental Justice?

Environmental Justice is the fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. It is important to improve and maintain a clean and healthy environment, particularly for those who have traditionally lived, worked, and played closest to the sources of pollution. (EPA and Natural Resources Defense Council). Furthermore, environmental injustices are a result of and exacerbated by social and systemic injustices. Many communities of color or low-income communities have been and are still disproportionately exposed to environmental issues such as: environmental toxins, food apartheids, climate change and vulnerability to its effects, urban heat island effect, and access to green space. They may form grassroots organizations that become permanent forces for environmental protection and social change in their communities.

#### What is an environmental justice professional?

Environmental justice professionals work to identify real problems and develop solutions to implement sustainable practices in addressing environmental issues. They invest in programs that diversify the environmental field and supply opportunities to all groups. They can work closely with governors and authoritative figures to design plans addressing inadequate access to necessary resources and clean air and water acts. They can be the authority implementing the environmental laws as conservation officers for natural resources enforce the regulations and policies set forth to protect the environment. Environmental justice professionals have a common goal of redirecting the power to the people of communities to ensure the policies for protecting their environment are justified and acted upon. They support underrepresented communities by being a greater voice to solve issues regarding environmental racism, community contamination, and public health.

#### What are some examples of careers in Environmental Justice?

**Technician** (No Degree, Associate or Bachelor's degree): Grassroots Organizer, Litigation Assistant, Policy and Legislative Assistant, Community Outreach Coordinator

**Professional** (Bachelor's degree): Research and Policy Analyst, Environmental Justice Advocate, Environmental Protection Specialist, Campaign Manager, Community Based Planner, Communications Strategist

Management (Master's or Doctorate): Professor, Attorney, Recruitment Coordinator, Senior Researcher, Policy Developer, Consultor, Director

#### What are some examples of degrees Environmental Justice workers use?

Undergraduate majors include (but not limited to):

- Environmental sciences
- Environmental studies
- Environmental health
- Environmental management
- Environmental policy
- Public health
- Global health
- Biology

#### How can I get experience and connect to the Environmental Justice community?

Learning: Environmental Justice and Health (CEEJH) Lab at UMD, Namati, Earthjustice, Chispa, Community Engagement

**Working:** Clean Water Action, TB Southern Region Neighborhood Coalition, Choose Clean Water Coalition, Empower DC, Patuxent Riverkeeper, Youth Employment: Sierra Club, Friends of the Earth

**Networking:** CEEJH Environmental Justice Symposium, Environmental Professionals of Color (EPOC), Greenaction for Health and Environmental Justice, Sierra Club, Center for Diversity and the Environment, Center for Health, Environment and Justice, Center for Race, Poverty and the Environment, National Black Environmental Justice Network

#### **Forestry and Horticulture** Managing and improving our nation's forest lands



#### What are the fields of Forestry and Horticulture?

The fields of Forestry and Horticulture are based on the propagation, planting, and care of plants to improve natural and man-made landscapes. Forestry combines physical, biological, and engineering science to manage and improve our state's forest lands in both rural and urban settings. These lands not only include the trees of a forest but other plants, the soil, water, wildlife, and human use. Horticulture is the art, technology, and science of plants applied to growing food, planting gardens and landscapes, and restoring native habitats.

#### What is a forestry and horticulture professional?

Forestry and horticulture professionals are specialists in the field. They provide knowledge and skills caring for and maintaining forests, groves of trees, and plants in the public and private sector. Both professional pathways have potential for certification. Foresters can become certified through the <u>Society of American</u> <u>Foresters</u> and horticulturalists can become certified through the <u>American Society of Horticultural Science</u>. Forestry professionals have a range of responsibilities depending on the agency of employment, but generally are tasked with planting and managing trees and forests and are involved in restoration and conservation projects regarding protected areas. Horticulture professionals specialize in the care of plants and are responsible for identifying diseases in plant species and diagnosing treatment plans. They also can cooperate with landscapers for designing practical plant arrangements in public areas such as around schools, government buildings, parks and more. Since these fields are interconnected, professionals of forestry and horticulture may collaborate in efforts and can diversify into specific career pathways with the proper education and training.

#### What are some examples of careers in Forestry & Horticulture?

**Technician** (No Degree, Associate or Bachelor's degree): Agronomist; Dietitian; Farm or Forest-Based Educator; Farm Equipment Sales; Farmer; Fire Program Assistant; Flock Supervisor; Forestry Aide; Forestry Technician; Gardener; Greenhouse/Nursery Manager; Golf Course or Stadium Groundskeeper; Health Inspector; Horse Breeder; Farm Loan Officer; Nutrient Management Consultant; Pesticide Applicator; Plant Protection Technician; Soil Conservation Technician; Stormwater Management Technician.

**Professional** (Bachelor or Master's degree): Agricultural Engineer; Arborist, Botanist, Cooperative Extension Agent; Entomologist; Fire Communications Specialist, Forest Fire Management Officer, Forest Products Scientist, Forester, Urban Forester, Soil Scientist, Wood Scientist; Integrated Pest Management Scout; Horticulturist; Community Garden Manager; Nursery Manager; Plant Breeder; Genetics Researcher; Greenhouse Manager; Landscape Architect; Agricultural Science Teacher; Turf Specialist; Soil Scientist; Plant Scientist; Journalist; Wildlife Biologist.

**Management** (Bachelor's, Master's or Ph.D.): Forest Economist; Forest Manager; Forest Policy Analyst; Forest Supervisor; GIS Specialist; Natural Resource & Environmental Systems Manager; Public Garden Manager; Public Lands Manager; Professor; Restoration and Remediation Manager

#### What are some examples of degrees Foresters and Horticulturists use?

School of forestry must be accredited by Society of American foresters: Undergraduate majors include (but not limited to):

- Urban or regional planning
- Engineering
- Physical geography
- Natural resource planning, management, or development
- Environmental planning
- Resources economics
- Environmental systems management
- Agriculture
- Biology
- Botany
- Environmental science
- Horticulture and forestry

Specialized certificates include (but not limited to):

- Therapeutic horticulture
- Forest pest management
- Botanical garden/arboretum management.

#### How can I get experience and connect to the Forestry & Horticulture community?

**Learning**: Volunteer positions, Internships, apprenticeships, fellowships, work/laboratory/field shadowing, High School Agriculture Science Courses, Maryland FFA membership, Maryland 4-H membership. U.S. Forest Service Pathways career program, Large public and private botanical gardens

**Working**: Maryland Department of Natural Resources; Maryland Department of Agriculture; Architect of the Capitol, Baltimore City Forestry Division, Maryland Forestry service, Schools, colleges and universities; U.S. Department of the Interior, U.S. Department of Agriculture

**Networking**: Maryland Farm Bureau, Society of American Foresters, Forestry Boards (local and state), Weed Science Society of America, International Society of Arboriculture, American Public Gardens Association, American Society for Horticultural Science, Professional Grounds Management Society, Maryland Nursery Landscape and Greenhouse Association, Seed Your Future; American Society of Landscape Architecture, American Planning Association

#### Geoscience

Collecting and interpreting data about the Earth and the universe



#### What is the field of Geoscience?

Geoscience is a scientific field that involves the collection and interpretation of data about the Earth. Major disciplines of geoscience include geology, geophysics, hydrology, oceanography, marine science, atmospheric science, planetary science, meteorology, environmental science, and soil science. Knowledge of the field of geoscience reveals how ecosystems are interconnected and utilizes tools and techniques from other disciplines to serve in understanding how the earth surface was formed and continually changing. Geoscience can be used to investigate the past and quantify resources to be evaluated through models to make predictions about the future conditions on this planet. Although a central part of geoscience involves studying the earth we inhabit, this field also encompasses the study of other planets in the solar system. This diverse field can help add to our understanding of our planet and the universe by the work of geoscientists.

#### What is a Geoscience professional?

The work and career path of a geoscience professional are varied. Some investigate the Earth's physical environment including its soils, oceans, and atmosphere while others measure global climate change, locate adequate supplies of natural resources, such as groundwater, petroleum, and metals, and how to balance society's demand for natural resources and the sustainability of our natural resources. Otherworldly geoscience professionals survey the geology of the celestial bodies such as planets other than earth and their moons, asteroids, comets, and meteorites. Although these duties may seem universes away, they can have profound impacts on our earth's sustainability. The diversity of responsibilities for professionals in geoscience is immense and opportunities for specializing in certain subdisciplines of geoscience are plentiful in the conservation field.

#### What are some examples of careers in Geoscience?

**Technician** (No Degree, Associate or Bachelor's degree): Geotechnician, Soil Conservation Technician, Land surveying, CAD technician.

**Professional** (Bachelor's or Master's degree): Atmospheric Scientist, Civil Engineer, Economic Geologist, Engineering Geologist, Environmental Engineer, Environmental Geologist, Geochemist, Geologist, Geomorphologist, Hydrogeologist, Hydrologist, Marine Geologist, Meteorologist, Mining Geologist, Oceanographer, Petroleum Engineer, Physical Scientist, Sedimentologist, Research Geophysicist, Soil Scientist, Geographic Information Science Analysis, Urban Planner, Professional Land Surveyor, Mine Planning Engineer, *Management ( Master's degree or Ph.D.):* Professor, Supervisory Geologist, Program Director, Project Manager

#### What are some examples of degrees Geoscientists use?

Undergraduate majors include (but not limited to):

- Geology
- Engineering geology
- Earth science
- Environmental science
- Environmental geology
- Geophysics
- Geochemistry
- Geography
- Astronomy
- Geoscience
- Hydrogeology
- Planetary science

#### How can I get experience and connect to the Geoscience community?

**Learning:** Prince George County Youth@Work/ Summer Enrichment Program, Montgomery Parks Archeology Summer Camps, Baltimore's Club SciKidz, USGS Internship, NAGT/USGS Cooperative Summer Field Training Program, GeoCorps, Student Conservation Association, Geoscientists-in-the-Parks (GIP) program

**Working:** USGS Volunteer Program, County Agencies, Citizen Science programs, NAGT/USGS Cooperative Summer Field Training Program, GeoCorps, Student Conservation Association, Geoscientists-in-the-Parks (GIP) program

**Networking:** Geological Society of America, American Association of Petroleum Geologists, Maryland Geoscience Society, American Institute of Professional Geologists, American Geophysical Union, American Geosciences Institute, American Meteorological Society, American Society of Limnology and Oceanography, Association of Environmental & Engineering Geologists, Ecological Society of America

#### Land Management

Determining how to best manage public lands for multiple uses and benefits



#### What is the field of Land Management?

Land Management is a career that utilizes information about the physical environment, biological resources such as wildlife habitat, and human influences such as recreation, livestock grazing, mineral development, energy production, the preservation of historical or cultural resources, and policy to determine how best to manage public lands for multiple uses and benefits. This may include managing a public space such as a park, forest, or wildlife management area, as well as working with local advocates or working as a planner to determine long range plans for the management of lands.

#### What is a Land Management professional?

A person working in the field of land management works with other natural resources professionals, planners and generally the public to determine how a specific area of land should be used. Because land may be managed for a variety of uses, land managers have knowledge of many related fields as well as critical thinking, problem-solving, and communication skills. Since the field of land management encompasses the physical, biological, and human environments, there are a variety of potential careers available.

#### What are some examples of careers in Land Management?

**Technician** (No Degree, Associate or Bachelor's degree): GIS Technician, Range Technician, Soil Conservation Technician, Agricultural Technician, Survey Aid, Biological Technician

**Professional** (Bachelor or Master's degree): Archeologist, Cartographer, Economist, Forester, Wildlife Biologist, Environmental Lawyer, Land Use Planner, Environmental Policy Specialist, GIS Specialist, GIS Analyst, Habitat Conservation Specialist, Land Surveyor, Land Use Planner, Law Enforcement Ranger, Reclamation Specialist, Restoration Ecologist, Soil Scientist, Systems Analyst, Terrain Analyst, Land Conservation Specialist

*Management* (*Bachelor's, Master's or Ph.D.*): Open Space Director, Park Manager, Professor, Public Lands Director, Refuge Manager, Resource Manager, Wildlife Biologist, Fish and Wildlife Biologist,

#### What are some examples of degrees Land Managers use?

Undergraduate majors include (but not limited to):

- Forestry
- Environmental studies

- Fish and wildlife management
- Environmental biology
- Natural resource management
- Geography
- Geographic Information Systems
- Ecology
- Land and energy management

#### How can I get experience and connect to the land management community?

**Learning**: Community colleges, 4-year colleges and universities, Volunteering at a nearby park or refuge **Working**: Student Conservation Association, Youth Conservation Corps, National Park Service, US Forest Service or Fish and Wildlife Service Pathways programs, Bureau of Land Management, state parks, wildlife agencies, local parks, recreation departments, planning and zoning departments, land conservation organizations, private and public land trusts

**Networking**: Soil Science Society of America, Society for Conservation Biology, Society for Ecological Restoration, Weed Science Society of America, Ecological Society of America, The Wildlife Society, National Parks and Recreation Association, Society of Outdoor Recreation Professionals, The Conservation Fund, The Nature Conservancy

#### 

#### **Parks and Recreation**

Furthering enjoyment, socialization, education, health, and well-being



#### What is the field of Parks and Recreation?

Parks and Recreation focus on the human use of natural resources for enjoyment, socialization, education, health, and well-being. The field combines knowledge of the environment with skills in social sciences, economics, and business. A Parks and Recreation professional plans, organizes and administers recreation facilities, programs, services and activities in a variety of settings and to diverse audiences. They may work at national, state and local parks and open spaces, sports centers, resorts and camps.

#### What is a Parks and recreation professional?

Parks and recreation professionals are individuals who have met the educational standards for the position and are qualified with experience in the field. They are responsible for the various duties regarding the management and operation of natural resources utilized by the public. Positions can include park managers who are tasked with overseeing park maintenance routines and supervising other workers assignments and park rangers who are tasked with enforcing the rules and regulations of the park services. The commitment status for parks and recreation professionals can vary from county, state and national levels. A career in the field of parks and recreation can range to meet your passions and have many avenues for growth and development.

#### What are some examples of careers in Parks and Recreation?

**Technician** (No Degree, Associate or Bachelor's degree): Camp Counselor, Day Counselor, Field Crew, Guest Services, Park Maintenance, Community Assistant, Education Technician, Environmental Technician, Parks Technician, Playground Safety Inspector, Ranger Assistant, Tour Guide, Visitor Services Administrative Assistant, Wilderness Assistance, Seasonal Ranger, Seasonal Naturalist, Maintenance

**Professional** (Bachelor's or Master's Degree): Adventure Guide, Community Organizer, Environmental Educator, Field Instructor, Landscape Architect, Naturalist, Outdoor Recreation Planner, Outreach Coordinator, Park Ranger, Interpretation, Parks Planner, Program Coordinator, Sports Coordinator, Summer Camp Director, Sustainability Consultant, Visitor Studies Coordinator, Volunteer Coordinator, Park Ranger, Park Naturalist,

**Management** (Bachelor's, Master's or PhD): Director of Activities, Director of Education, Director of Parks, District Manager, Public Lands Director

#### What are some examples of degrees Parks & Recreation workers use?

Undergraduate majors include (but not limited to):

- Park and Resource Management
- Recreation and Park Administration Recreation Management
- Recreation and Park Administration Therapeutic Recreation
- Community Sports Management
- Tourism Development and Management
- Nonprofit Leadership and Management
- Wildlife and Outdoor Enterprise Management
- Natural Sciences

#### How can I get experience and connect to the Parks and Recreation community?

Learning: youth programs, apprenticeships, volunteer, internships, local parks or nature centers

**Working**: Department of Interior, National Park Service, Smithsonian Institution, Corps Network, National Association of State Parks, National, State, Local Parks and Recreation Departments, Private and Non-profit Natural Resource Management Organizations, Maryland State Parks

**Networking**: Association of Outdoor Recreation and Education, Outdoor Industry Association, Association for Experiential Education, Wilderness Education Association, National Recreation and Parks Association, Maryland Recreation and Parks Association, National Association for Interpretation, Association of Nature Center Administrators

#### Water Management Making decisions about water quality and quantity



#### What is the field of Water Management?

Water management applies physical, chemical and biological sciences along with math, technology, engineering, economics and law to making decisions about both water quality and water quantity. Water management covers the management of different aspects of water, including but not limited to public drinking water, wastewater, storm water, agriculture, hydroelectricity, and navigable water. Water management is the control and movement of water resources to minimize damage to life and property and to maximize efficient beneficial use.

#### What is a Water Management professional?

Water is not only one of our most important resources it also links many environmental systems together and therefore is central to many environmental problems. The field of water management is challenging because of the growing water needs of humans and because water spans multiple jurisdictional boundaries. Because of this, water professionals must not only be skilled in the sciences, but also in problem solving, communication and working with other natural resource professionals.

#### What are some examples of careers in Water Management?

**Technician** (No Degree, Associate or Bachelor's degree): Aquatic Biologist, Aquatic Restoration Technician, Aquatic Toxicologist, Environmental Sampling/Monitoring Technician, Hydrology Technician, Lab Analysis Technician, Hydraulic Specialist, Wastewater Technician, Plant Operator, Water Treatment Operator

**Professional** (Bachelor or Master's degree): Hydrogeologist, Hydrologist, Local or State Water Planner, Stormwater Technician, Surface Water Monitoring Technician, Water Law Expert, Water Treatment Expert, Watershed Planner, Watershed Scientist, Groundwater Specialist, Stormwater Compliance Inspector, Water Conservation Specialist, Water Quality Analyst, Water Recycling and Solid-Waste Engineer, Wetland Delineation Specialist, Environmental Engineer, Stream Engineer

*Management (Master's degree or PhD)*: Plant Superintendent, Environmental engineers, Irrigation and Water Resources engineer, watershed scientist, hydrologist

#### What are some examples of degrees Water Managers use?

- Engineering (Civil, Environmental)
- Biology (Marine, Aquatic)

- Chemistry
- Environmental Science (Hydrology, Water Resources)
- Geology (Hydrogeology)
- Water Resources/Management

#### How can I get experience and connect to the Water Management community?

**Learning**: community colleges, 4-year universities, volunteer organizations, internships, apprenticeships, online courses and certifications

**Working**: EPA, Maryland Departments of Natural Resources and Environment; County/City Department of Public Works/Parks & Recreation; WSSC Water; Private Engineer/Consultant

**Networking**: Potomac Riverkeepers; Anacostia Watershed Society; Choose Clean Water Coalition, Alliance for the Chesapeake Bay, American Water Resources Association, National Groundwater Association, River Management Society, "LOCAL" Riverkeepers and River Associations

#### **Wildlife and Fisheries**

Working to monitor, sustain, and restore fish and wildlife populations



#### What is the field of Wildlife and Fisheries?

Fisheries and wildlife are scientific disciplines including research, management, education and law enforcement to monitor, sustain, and restore fish and wildlife populations. The field encompasses the interest of outdoors and life sciences combining to efficiently manage ecological systems. Divisions of this field serve on conservation, protection, and restoration projects for fishery habitats for rehabilitating fish species and sustaining habitats for endangered wildlife species. The achievement of objectives associated with this field of conservation includes employing scientific methods for experimentation. Through this experimentation, we can obtain natural resource data to evaluate the state of environmental habitats that need scientific research and community involvement to aid in the sustainable management of our natural resources.

#### What is a Wildlife and Fisheries professional?

A fish and wildlife professional may work in research to determine the status of animal populations, the interactions between animals, how animals react to different environmental conditions, or an animal's habitat requirements, behaviors or distribution. Fish and wildlife managers put this information to use in the field by developing and implementing restoration practices that improve fish and wildlife populations. Much of fish and wildlife management is actually people management. An effective professional often has education in economics, political science and law, psychology, sociology and history. Skillful communication, written and oral, is one of the most important tools a fish and wildlife professional uses.

#### What are some examples of careers in Wildlife & Fisheries?

**Technician** (No Degree, Associate or Bachelor's degree): Biological Science Technician, Fisheries Technician, Wildlife Technician, Wildlife Removal Technician, Environmental Educator, Vet tech, Survey Crew Leader **Professional** (Bachelor's or Master's degree): Animal Research Scientist, Biological Scientist, Ecologist, Entomologist, Environmental Scientist, Fisheries Biologist, Habitat Conservation Specialist, Mammalogist, Wildlife Biologist, Zoologist, Game Warden, Conservation officer, Conservation coordinator, Fisheries policy analyst, Extension Agent, Restoration Manager, Habitat Restoration Ecologist **Management** (Master's or PhD): District Wildlife Manager, Fish Hatchery Manager, Professor, Supervisory Biologist, Wildlife Refuge Manager

#### What are some examples of degrees Wildlife & Fisheries workers use?

Undergraduate majors include (but not limited to):

- Wildlife management
- Environmental science
- Fisheries management
- Zoology
- Biology
- Aquatic biology
- Marine science
- Natural resource management
- Ecology

#### How can I get experience and connect to the Wildlife & Fisheries community?

**LEARNING**: Master Naturalist program, invasive species removal events, field volunteer with graduate research projects, wildlife rehabilitation volunteer, graduate student field assistant

**WORKING**: Local county recreation and parks departments, Maryland Department of Natural Resources, Contractors or biological consultants working on large public projects, Private labs

**NETWORKING**: The Wildlife Society, Ecological Society of America, Women's Aquatic Network, The Coastal Society, The Nature Conservancy, Trout Unlimited, Ducks Unlimited, Attend advisory commission or public meetings

#### **Conservation Careers – Beyond the Sciences** Contributing to sustainability in our environment, non-scientifically



#### What encompasses non-scientific Conservation Careers?

You don't have to work IN the outdoors to work FOR the outdoors. Definitions of conservation careers can be very broad because they centralize activities that ultimately enrich the environment and its wildlife. Many people are passionate about our natural world, but have interests and skills outside of life science and geosciences. There are many critical roles in organizations or agencies that contribute to managing our natural resources but within an office atmosphere. These are incredibly diverse positions, with varying requirements in educational background, skills, and experience. The field of conservation spans a broad spectrum in which many roles in different fields will become significant to contributing to sustainability in our environment.

#### What are non-scientific conservation professionals?

Conservation as an industry has expanded largely over the course of degradation of the environment. Nonconventional roles in this field of work have serious beneficial implications for diversifying its sector. Many young individuals interested in the conservation field may be surprised to notice how many professional roles in conservation are non-scientific. Communication and marketing professionals that work in raising the public's awareness of conservation issues and ways they can help, social media content creation, journalism, and many more can fall under the umbrella of non-scientific conservation professionals. Laboratory and field work is not the only career pathway into the conservation spectrum and not all avenues must be with intentions of a scientific background.

#### What are some examples of non-science careers in Conservation?

**Technician** (No Degree, Associate or Bachelor's degree): Accounting Technician, Database Administrator, Financial Management, Electrical, IT specialist, Application developer, Customer Service Representative, Welder, Mechanic, Maintenance, Construction

**Professional** (Bachelor or Master's degree): Administrative Officer, Budget Analyst, Community Organizer, Computer Scientist, Contract Specialist, Digital Communications Manager (A/V, Social Media, etc.), Grant Manager, Graphic Artist, Human Resources Specialist, Marketing Specialist, Philanthropy Coordinator, Public Relations Specialist, Purchasing Officer, Realty Specialist, Technical Writer

*Management* (Bachelor's, Master's or PhD): Communications Manager, Facilities Manager, Program Manager

#### What are some examples of degrees non-scientific conservation workers use?

Undergraduate majors include (but not limited to): Communications

- Journalism
- Marketing
- Architecture
- Environmental design
- Graphic design
- Public relations
- Finance
- Philanthropology

#### How can I get experience and connect to the non-scientific conservation community?

**Learning**: Community colleges, 4-year universities, volunteer organizations, internships, apprenticeships, online courses and certifications

**Working**: National Geographic, New York Times, local radio stations, National Park Service, state departments and agencies, government agencies

**Networking**: Earth Journalism Network, Society of Environmental Journalists, Tools of Change, The Trust For Public Land

## **Conservation Career Spotlights**

The following pages are profiles for conservation career professionals. They can be used to give you a feel for what it's like to work in these areas and each person's individual career journey. While each is unique, it can help you understand that the career path is less of a ladder and more of a winding river. Many of these interviews were conducted by Chesapeake Conservation Corps members and we thank them and their mentors for their time.



Whatever path you choose, collaboration is key in conservation! Photo courtesy of Underwood & Associates.



#### **Curtis Bennett** Community Outreach

Job Title: Director of Conservation Community Engagement

Organization: National Aquarium

**Career Overview:** Doing restoration projects, workshops, and community events in the spring, summer, and early fall, and planning in late fall/winter for those projects. Meeting with partner organizations and other Zoos and Aquaria to work on principles of diversity, equity, inclusion, and justice.

A Day on the Job: Varies depending on season (see above)

**Skills Needed:** Interest in the material, understanding of the principles of conservation, willingness to continually learn and grow.

**Education:** Curtis has a Bachelor's degree in Environmental Science and Policy from the University of Maryland, College Park, and a Master's degree in Wildlife Ecology from the university of Delaware.

**Experience and Training:** Prior to working for the National Aquarium, he had 10+ years of experience with environmental education and community engagement work.

**Personal Career Path:** Curtis has always loved being outside and animals, and started his college career with the intention of becoming a veterinarian. When he realized that it wasn't a good fit for him, he switched to the then-new major of Wildlife Ecology and Management, and loved it. He had volunteered at a nature center since he was 14, and worked there doing environmental education until he was 22. His projects during Grad School sparked his interest in working in urban areas.

**Pay and Job Outlook:** Livable to fair, the field is constantly growing and expanding as issues of diversity, equity, inclusion and justice are coming to prominence in all industries and organizations.

**Favorite Aspect of the job:** Seeing the people he works with and mentors learn, grow, change, and develop their voice. Also, creating memorable opportunities to connect people to the environment.

Most Challenging Aspect of the Job: Juggling responsibilities while maintaining a work/life balance.

Advice for Young Professionals Interested in This Career: Be persistent, be flexible, and try not to compare yourself to other people. We're all on very unique paths, and there isn't just one way of doing it. And it's okay if you try a new experience and you don't like it, because you found out something very important, and that's helpful. Find those mentors, and take the time to meet with them. The last piece of advice is to have fun, enjoy the journey. And always remember to pay it forward and give it all back. You can always reach back to pull someone else up.



#### **Rev. David Norse-Thomas** Ministry and Community Outreach

Job Title: Senior Pastor of Maryland Presbyterian Church

**Organization:** Presbytery of Baltimore, North Baltimore Presbyterians, Maryland Presbyterian Church

**Career Overview:** Along with leading worship. Work with the community and neighbors regardless of religion. Helping folks to figure out how we can be good stewards to the Earth.

**A Day on the Job:** There is no typical day. Outsiders often think that a pastor's work is strictly for Sundays. While David does come to church on Sundays 3 hours before worship to set-up and edit his sermon, after the service he is talking to various community members. He even has regular duties like meeting with the Music Director. Throughout the week, he is providing pastoral care and counseling to parishioners, meeting with visitors, and leading education classes. David meets with various community leaders throughout the week - political, interfaith partners, environmental stewardship, and missions.

He does fun things like kickball and arts-and-crafts with the church mission in the Woodbourne-McCabe neighborhood in Baltimore City. In a few days, he and members of the congregation will be going to Washington DC to visit elected officials and their staff to talk about ways to combat hunger.

Skills Needed: Community Engagement, Flexibility, Creativity

Education: Undergraduate degree, Masters of Divinity from the Presbyterian Church (U.S.A.)

**Experience and Training:** In order to obtain a Masters of Divinity some of the courses include Biblical Studies, Language - Biblical Greek and Hebrew, Care & Counseling Classes, Church History, Theology, and Field Education. In order to fulfill the Field Education requirement, it includes holding an internship. David did an international one with the Asian Rural Institute in Japan. He worked on a farm that trains leaders from the global South to have self-sufficient communities and produce their own "beyond organic" food. He also interned at a church for 2 years in a religiously diverse community in New Jersey.

**Personal Career Path:** David grew up in the church. It feels like home. He has a strong spiritual connection to the church. For him and through ministry, he wants to put the world in a better place.

**Mentorship:** Prior to formally starting his education as a minister, his mentor was Rev. Kenny Russ who showed him some of the basic skills in becoming a pastor. Rev. Beth Scibienski helped David greatly when he did his two year internship in New Jersey.

**Pay and Job Outlook:** The percentage of people who are attending church regularly is declining in most faiths; however, community involvement like civic engagement is growing. It is critical to have strong, determined, and enthusiastic pastors who can build relationships between the church and the community.

Pastors are retiring and many congregations are closing-and-combining in order for the Presbytery to have more resources; therefore, it is a competitive market for hiring pastors.

**Favorite and Most Challenging Aspect to the Job:** David's favorite part of the job is developing relationships with people, whether they be from the congregation to community leaders outside the church. He is amazed by the creativity that comes from combining ministry and community engagement. The most challenging aspect is working with limited resources - from time to finances. He is constantly pushing the boundaries with creativity in order to have the best results.

Advice for Young Professionals Interested in This Career: David recommends that you be creative and willing to face challenges. That includes listening to the congregation and the community. You will not always get what you want, but you will develop great relationships.


#### Elle Bassett Water Quality

Job Title: Miles-Wye Riverkeeper

Organization: ShoreRivers

**Career Overview:** A Riverkeeper's role can best be understood as a voice for the river. At ShoreRivers, the Riverkeepers and other staff work to protect and restore our local waterways through science-based education, outreach and restoration.

At ShoreRivers the Riverkeepers lead the advocacy and enforcement program, and are equally at home patrolling the rivers for illegal pollution and testifying on legislation in Annapolis. ShoreRivers' Riverkeepers regularly patrol their rivers and tributaries, are ready to combat illegal pollution, and serve as guardians for these living resources.

Licensed by the Waterkeeper Alliance, ShoreRivers is part of a growing network of nearly 300 Waterkeepers and affiliate programs in 34 countries whose active presence on waterways is becoming a force for change. ShoreRivers is also a member of Waterkeepers Chesapeake, a group of eighteen Chesapeake Bay advocacy programs, which are coordinating efforts and building leverage to impact environmental legislation and policy across the watershed.

The Waterkeeper Alliance sprung from grass roots environmental advocacy begun on the Hudson River in the 1960s. It is now an international center that approves and licenses Waterkeeper programs around the globe. The Alliance provides litigation and administrative resources, assists in developing clean water policy initiatives, and provides a forum for Waterkeeper to exchange information, strategy and know-how.

**A Day on the Job:** Work as a Riverkeeper varies depending on the season. The typical day changes often, although grant writing and administrative work are consistent throughout all seasons. During the water quality season, Riverkeepers are often out on the boat collecting samples in order to analyze the chemical aspects. Riverkeepers also look out for physical aspects, including potential pollution sources from development, the agricultural sector, or even residential homes.

Elle is also often in the classroom working with the new generation of environmental stewards. She works to inspire not just students, but volunteers and community members to care and reconnect with their rivers. During the winter, a typical day focuses on advocacy work. ShoreRivers will send Riverkeepers and staff to the Maryland capital, Annapolis, to work on bills and legislation that protect and restore local waterways.

Ultimately the typical day includes a little bit of everything. Anything that can benefit the river or the environment can be on the to-do list of a Riverkeeper.

**Skills Needed:** People of all backgrounds can become Riverkeepers; every Riverkeeper is different. It *is* important to have an undergraduate degree, however "skills needed" will most likely be determined by the organization.

**Education:** Elle has both an undergraduate degree in Environmental Studies and her Masters in Environmental Education.

Keep in mind though, Riverkeepers can come from all kinds of backgrounds and most Riverkeepers actually have a law degree. People interested in becoming a Riverkeeper should have at least an undergraduate degree; the degree does not necessarily need to be in environmental science.

**Personal Career Path:** Elle began her career path as an undergrad at Washington College. Elle majored in Environmental Studies, minored in anthropology, and had a concentration in Chesapeake Bay Regional Studies.

Between semesters during undergrad, Elle participated in multiple internships including: sustainability and outreach intern for Washington College's Center for Environment and Society, education and research intern for the National Estuarine Research Reserve in Wells Maine, and grants intern at the Chesapeake Bay Trust.

After she graduated, Elle was accepted as a Chesapeake Conservation Corps Volunteer. This program places young professionals with an outdoor or environmental organization for a year. Elle was placed with the Midshore Riverkeeper Conservancy (ShoreRivers' legacy organization) to help develop education programs. After the year was up, Elle was hired on as the Outreach and Education Coordinator for Midshore Riverkeeper Conservancy. During the next few years, Elle received her Masters in Environmental Education as she grew the education programs. Six years in, when the Miles-Wye Riverkeeper moved to a new position Elle asked about the possibility of taking on the role of becoming the Riverkeeper- she was rewarded for her initiative. During this time, Midshore Riverkeeper Conservancy merged with two other organizations to become ShoreRivers, making Elle the new ShoreRivers' Miles-Wye Riverkeeper.

**Pay and Job Outlook:** Most non profit jobs in the environmental realm do not offer a ton of money, but those working in the Riverkeeper career field still feel rewarded. Elle remarks that although people do not become a Riverkeeper for the money, she is happy with her salary at ShoreRivers and considers that she makes "good" money.

As for job outlook, it is currently an exciting time to be in the Riverkeeper field. The political climate can be challenging but it does light the fire for action.

**Favorite and Most Challenging Aspect to the Job:** Elle enjoys being a Riverkeeper because it is something that she is passionate about. Because she grew up on the South River, Elle values being outside and swimming on the rivers. Having a career that simultaneously benefits her personal life is incredibly rewarding. Elle also enjoys the balance the job offers, the ability to create her own programs, and alternate days of being out on the boat or in the office.

A significant challenge for Elle has been finding ways to communicate with those who do not necessarily agree on the value of environmental work. Elle reflects that working for change in anything can be challenging and in the current political climate environmental issues are a hot topic. It can be difficult to find ways to communicate why the work you're doing is important to people who come from different backgrounds. In her experience especially (as a Riverkeeper in oyster territory), Elle has struggled with finding a compromise with the Watermen. The Watermen rely on harvesting oysters and other seafood as a living and often feels as if Elle's work is focused more so on infringing upon their way of life instead of understanding that her work is focused on sustainability.

Advice for Young Professionals Interested in this Career: Elle suggests that those who are interested in this job should let others around them know, especially other staff. Take initiative to learn about the rivers around you to show your dedication. Try new things and be willing to learn- show that you are interested in being trained! Take time to introduce yourself *now* and volunteer with the groups that align with your career goals. Being a Riverkeeper isn't just about science or legislation, but also about engaging new members and finding a combination of ways to improve water quality.

Elle reminds us that if you are passionate about a river that doesn't have a Riverkeeper or similar organization attached, there are still ways for you to become a Riverkeeper for that waterway. Make sure to check out the Waterkeeper Alliance network for help with the process.

Most importantly, do not limit or doubt yourself. Remember that people of all backgrounds can become Riverkeepers, take advantage of your personal skill set to achieve that.



#### **Emily Mills** Geospatial Information Systems

Job Title: Geospatial Program Manager

Organization: Conservation Innovation Center - Chesapeake Conservancy

**Career Overview:** Emily helps partners on the ground make the best conservation decisions to achieve both local water quality goals and goals for the Chesapeake Bay. This is achieved by using data, working with GIS, and developing

web-mapping tools. Emily also interacts and communicates with various partners to help them accomplish their goals.

**A Day on the Job:** On any given day, Emily will code and automate data processes, develop web mapping tools, give training/demonstration sessions on our tools, and communicate with partners about how data and maps can help them accomplish their goals.

**Skills Needed:** ARCGIS, Teaching/Communication, Program and project Management, and Communication.

**Education:** Emily earned a Bachelors in Psychology with a minor in Biology, as well as a Masters in Environmental Management.

**Experience and Training:** Emily gained experience while on the job, including project management and client communications. Emily also strengthened her skills in independent work and selfmotivation as these were keys to her success in the position.

**Personal Career Path**: "In undergraduate, I developed a hard science background and planned to attend medical school. But, I had a couple of summer volunteer abroad experiences doing conservation work that sparked my passion for the conservation and restoration of the natural world. I decided during my senior year to switch fields entirely and apply to interdisciplinary graduate programs in environmental management." "I was accepted at Duke, and while I was there working towards my Masters, I became fascinated with GIS (geographic information systems) and how mapping natural features and processes can help decision-makers save the environment. At a GIS Careers event through school, I connected with an alum that gave a fascinating presentation on the Chesapeake Conservancy. As I was wrapping up my graduate program, I stayed in touch with him, ended up applying to a Geospatial Analyst position at the Chesapeake Conservancy."

**Pay and Job Outlook:** According to the Bureau of Labor Statistics, the 2018 median pay for environmental scientists and specialists was about \$71,000. The projected percent change in employment in the field is expected to rise 11% by 2026.

**Favorite and Most Challenging Aspect to the Job:** "My favorite aspect of the job is developing tools that partners believe in, get excited about, and are able to use in their everyday jobs. Building something to help others meet their goals and maximize their positive impact on the environment brings me joy." "One of my

biggest accomplishments has been developing a parcel-scale prioritization and mapping tool for restoration in central Pennsylvania. The tool has helped our partners on the ground make the best decisions to achieve both local water quality goals for the Chesapeake Bay. Projects that were identified using the tool are now being implemented, and partners continue to use the analysis to target their outreach to plan for future high impact projects." "One challenge I have faced is communicating to different audiences about GIS. The level of technical knowledge and expertise with GIS in the environmental field ranges very widely. So knowing your audience, listening carefully, and tailoring your message so people can understand and feel comfortable with it is very important." "Another aspect of my job that I am still learning and getting better at is estimating and planning project timelines and budgets. It takes time and experience to develop a sense of how long things will take, and it is always a good idea to leave some buffer room for when unforeseen obstacles come up (which happens often in GIS)."

Advice for Young Professionals Interested in this Career: Research organizations in the field as you are conducting informational interviews and applying to positions. Showing interest and actually believing in an organization's mission is critical to nailing an interview and more importantly getting a fulfilling job that you love. Remember that how you fit in within a team, communicate, and contribute to the spirit of the organization are just as important as the qualifications listed on your resume. Take advantage of alumni networks and the contacts you meet at presentations or conferences.

#### Sara Weglein Natural Resources

Job Title: Natural Resources Biologist

Organization: Maryland Department of Natural Resources

**Career Overview:** Sara's main responsibility is to be a project manager for the work her unit does to monitor the effectiveness of best management

practices (BMPs) in reducing sediment and nutrients, particularly those BMPs funded through the Chesapeake and Atlantic Coastal Bays Trust Fund.

**A Day on the Job:** A typical day will vary with the season and the day to day weather. Field work with the Maryland Biological Stream Survey is conducted in the summer. Leaf-off (late fall into very early spring) is the time for geomorphological stream surveys. Storm flow sampling is conducted year round and usually takes priority over anything else because these storm events are when the majority of sediment and nutrients move through the systems Sara and her unit monitors. In between there's meetings with stakeholders/project managers, report preparation, data analysis, workshops, conferences, and so on.

**Education:** Most entry-level environmental science jobs require at least a Bachelor's degree. Sara went to Towson University where she earned her Bachelor's degree in biology with a concentration in limnology, specifically fish and stream macroinvertebrates.

**Experience and Training:** Sara's initial position with the Maryland Biological Stream Survey was as the Stream Waders volunteer coordinator. She obtained this placement through her work leading volunteers with Carroll County Special Olympics and Oregon Ridge Nature Center. Through her position with the Maryland Department of Natural Resources, she has received training on geomorphology and bank erosion surveys.

**Personal Career Path:** Sara started on her career path in high school when she volunteered with the National Aquarium in Baltimore as an exhibit guide. Throughout college, she worked as a naturalist at Oregon Ridge Nature Center. She was fortunate to get a seasonal technician position with the Maryland Biological Stream Survey immediately after graduation and moved up from there as the Stream Waders volunteer coordinator and then Trust Fund project manager.

**Pay and Job Outlook:** According to the Bureau of Labor Statistics, the 2018 median pay for environmental scientists and specialists was about \$71,000. The projected percent change in employment in the field is expected to rise 11% by 2026.

**Favorite and Most Challenging Aspect to the Job:** Sara's favorite aspect of the job is the diversity. By the time she's sick of the heat and mosquitoes it's time to come back in the air conditioning and begin data analysis. By the time her eyes are going crossed from staring at spreadsheets for months on end it's time to get back out and enjoy everything green and new. She likes how there's always some new project with an interesting facet to it. On the other hand, the most challenging aspect of the job is getting training. Sara

hears it from more and more professionals in her field that their employers don't pay for training any more. She suggests that if you have the opportunity for free training, leap at it!

Advice for Young Professionals Interested in This Career: Sara's advice is: "If you are looking to travel and go anywhere in the world (or the country), you can be more broad in your studies. If you intend to find work in a certain area, find some aspect of your chosen field that is marketable and focus on that. A good way to determine what is marketable is to find something that is the focus of policy or regulation."



#### Joan D. Plisko Environmental Health

Job Title: President and Founder

Organization: Plisko Sustainable Solutions, LLC

**Career Overview:** Joan creates customized strategic sustainability policies and programs that help her clients achieve triple bottom line results – good for people's health, good for the earth, and efficient/cost effective

A Day on the Job: Joan has several clients. For example, at Pearlstone she is the Community Sustainability Director, weaving sustainability into the operations and working in Baltimore's Jewish community to provide education on environmental and environmental health issues. For MedStar Harbor Hospital, she helped develop and implement a green infrastructure master plan and is now working on staff, patient, and community education related to it.

**Skills Needed:** Education, community service, and experience are needed. As a consultant you need to have a network of connections as potential clients. Interpersonal, organizational, and technical skills are essential.

**Education:** Joan has a PhD in Environmental Systems Engineering from Clemson University, a ME in Systems Engineering from University of Virginia, and a BS in Commerce and Engineering Sciences from Drexel University

**Experience and Training:** She has worked in the private and public sectors and has volunteered on boards and commission. She currently is a mentor for women entering the sustainability field and starting their own businesses.

**Personal Career Path:** Joan's first mentor was her father, a PhD chemist. He is now 83 and always understood the type of work she was doing and gave sage advice. He volunteered in the community and Joan knew that was an important aspect of life that she should emulate. Right now, Joan and another woman who owns a small business mentor each other. They meet regularly, have walking meetings a lot and we help each other in a non-competitive way

**Pay and Job Outlook:** The outlook is bright and there are so many aspects of sustainability – energy, water, soil, health – a lot of opportunity to find a niche that aligns with your skills and passions. Joan believes that as a woman it is important not to undervalue her services.

**Favorite and Most Challenging Aspect to the Job:** Favorite: Flexibility. Joan creates her own schedule and is selective on who her clients are. She brings passion to each and every project that she works on.

**Challenge:** One of the challenging things is having a very small business, and not having somebody to collaborate with every day. She chooses a collaborator for every project.

Advice for Young Professionals Interested in This Career: Balance is really important and so is creativity. Think about what helps you thrive and really remember that even if you are walking down a certain path you can turn directions at any point.



#### **Dr. Pabodha Galgamuwe** Forestry

Job Title: Forest Science Projects Manager

Organization: The Nature Conservancy

**Career Overview:** Based in Cumberland, MD and works in the Resilient Forests Program. Duties are to manage and coordinate multiple on-theground forestry projects such as climate-informed conifer restoration, using silvicultural techniques to enhance old-growth characteristics, and re-

introducing prescribed fire as a restoration strategy. Aims to implement these

projects in ways that will lead to landscape scale forest connectivity in the central Appalachians.

**A Day on the Job:** Has discussions with TNC partners, conducts spatial data analysis to pinpoint strategic project locations, and plans and implements projects on the ground.

**Skills Needed:** A graduate level degree in natural resource management or related field. Pabodha's undergraduate was in agriculture, got a masters in forestry, and then a PhD in natural resource management. Experience doing forest inventory and data analysis skills.

**Personal Career Path:** His parents had a big influence on him in his early years. His mother was a HS biology teacher so early in his life he appreciated the beauty of nature. His father founded an NGO back in Sri Lanka where he grew up, so he knew he wanted to work in an NGO one day. After his undergraduate studies he worked for the Livestock Research Institute where his advisor encouraged him to go for graduate studies so that he could join a good NGO. His PhD program had a big influence on him, his advisor taught him how to think in ways related to his graduate work and encouraged him to do more extension.

**Pay and Job Outlook:** After his PhD this is his first job so he is very happy about the pay, but it's not just about the dollar value, he highly appreciates the working environment, the professional development opportunities, the freedom, and the appreciation he receives for the work he is doing. That all adds up into the dollar figure, I am really happy with it.

I think project management is a good area of study, TNC focuses a lot on professional development which creates a great working culture.

**Favorite and Most Challenging Aspect to the Job:** Thinking about the big picture, landscape level approaches, how can the ground level work that he is doing relate to those big picture approaches we are trying to solve as an organization, as an environmentalist. How will the small things he and his collaborators are doing relate to the big picture issues?

Challenging as well as interesting would be working with collaborators. It's not a negative thing but everyone has different objectives. I appreciate and respect it, but it can be challenging to get a group of experts

together at one table and achieve our goals while respecting their own concerns. I think it is challenging but interesting.

Advice for Young Professionals Interested in This Career: Everybody is different and has different skill sets. Within the conservation field, the beauty is, just like nature, there is a diversity of options. You can be a great enthusiast for a specific environmental issue, maybe you're good at outdoor activities, maybe you're good at philanthropy, fundraising, storytelling, communications, marketing, IT. There is a huge variety of options you can find in the conservation field so I would say focus on your expertise and nature and you'll be able to find a career path in the conservation field. Use your free time as a young person to get outside and go hiking and find your passion while you have the freedom to do so.



#### **Fred Tutman** Advocacy

Job Title: Riverkeeper and CEO

Organization: Patuxent Riverkeeper

**Career Overview:** Fred Tutman's primary role is to support the regional movement to protect the Patuxent River. He does this through detecting pollution, supporting community activism, and assisting citizens with the

environmental issues that are important to them. Riverkeepers are an international movement licensed by the Waterkeeper Alliance.

A Day on the Job: The primary goal of any waterkeeper is to advocate for clean water according to the region they represent. This means that there is no "typical workday" for a Riverkeeper. Some of the tasks that Fred may be working on any given day include running training sessions, teaching about environmental justice issues, testifying in court, attending meetings with stakeholders of the river, meeting with citizens, and giving talks to share strategies to improve water quality.

**Skills Needed:** Surprisingly, strong communication skills are required to be a successful Riverkeeper. These people skills are necessary in order to facilitate communication between scientists, educators and technicians. These conversations can often be difficult and slow moving, so persistence and thick skin are also useful. In fact, Fred is a trained mediator to help him facilitate constructive conversations. Additional skills include public speaking, legal skills, teaching, statesmanship, and some boating skills. A scientific background is also helpful, but Fred insists that a knowledge of science alone is not sufficient.

**Education:** After a 25 year career in television, radio, and media Fred attended law school. This legal understanding has been vital to Fred's position as the Patuxent Riverkeeper.

**Experience and Training:** Fred's career as a Waterkeeper was greatly influenced by his mentors. In his teenage years, he was influenced by Ellen Chambers. A woman who modeled how to fight for land-use issues and how to connect people to their physical landscape. This informal training, paired with his experience in media and legal education prepared Fred for his career as the Patuxent Riverkeeper.

**Personal Career Path:** Fred's professional background includes a 25 year career in television, radio, and media. Fred decided to attend law school in his forties in order to address some of the hardships he witnessed during his time in broadcast media. During his time in school, Fred attended a Tributary Strategist meeting at Maryland Department of Natural Resources where he met Fred Kelly, Riverkeeper for the Severn River. Learning more about the work of Riverkeepers inspired him to become an advocate for the Patuxent River where he grew up. This position allowed him to be the voice of communities who had never had an advocate. Since then, he's felt incredibly connected to the river community.

**Pay and Job Outlook:** Fred acknowledges that pursuing a career in environmental justice doesn't always translate to a large paycheck but says most Waterkeepers can make a decent wage and get to spend

time outdoors. Waterkeepers are among the fastest growing environmental groups in the world. It's unique because someone inside the watershed needs to stand up and establish an organization and movement about protecting a body of water. Fred sees Waterkeepers as a growing movement.

**Favorite and Most Challenging Aspect to the Job:** Being a Riverkeeper means making yourself available to the communities that depend on the river. This often means conducting meetings on nights and weekends. But those late night meetings contribute to Fred's favorite part of his job, which is that the people within the Patuxent River watershed entrust him with their stories. As the only black Riverkeeper in the country, Fred feels that he's especially entrusted with the stories of communities of color. Navigating the complexities of community overlays is the most challenging part of Fred's job. It can be difficult to satisfy the aims of a large group of people without alienating anyone. The secret to being a successful Waterkeeper is owning your mistakes and doing your best to get it right, Fred says that the community you serve can sense that.

Advice for Young Professionals Interested in This Career: Fred suggests developing your people skills and educating yourself on humanitarian and cultural issues. The issues that Waterkeepers address are multi-facetted. Remember that good-faith efforts to find equitable solutions to these problems will always be rewarded with some kind of progress. Keep an open mind to your own fallibility. Be open to the rhythms of your waterway, she'll tell you what she wants.



#### Larissa Johnson Energy

Job Title: Residential Energy Program Manager

**Organization:** Montgomery County Department of Environmental Protection

**Career Overview:** My job is to educate Montgomery County residents on the programs that exist to help them lower their utility costs, keep money in their

pockets, and help the county reach its greenhouse gas emissions goals. I do this through a variety of ways. I produce a monthly newsletter and blog post for two websites www.mygreenmontgomery.org and www.montgomeryenergyconnection.org. I also provide workshops, presentations, and attend community events throughout the month to present on various topics from energy conservation to energy efficiency to renewable energy to energy assistance.

A Day on the Job: There really is no typical day on the job. Since my job is to educate residents about lowering their utility costs and keeping money in their pockets, every day is different. Some days, I am busy answering emails and phone calls. Some days, I am out in the field doing workshops, presentations, or a light bulb exchange at a local partner location such as a library, a brewery, a senior center, or a school – you name it. We go where people are to provide them with necessary information.

**Skills Needed:** Communication skills are a must: you must be able to write, read, and give presentations to people. We have to write blog posts, give workshops on energy programs, and table at community events.

- Partnership building: must be able to work with various partners to bring programming to their facility.
- Social Media skills: need to create content for online platforms.
- Flexibility: sometimes things do not happen the way you think they are going to so it is super important to be flexible.

**Education:** Various backgrounds could be used for this position. I have a Master of Public Administration in Environmental Science and Policy. My undergraduate degree was in Sociology and English so that path varies person to person. Most government positions require a bachelor's degree to start.

**Experience and Training:** I have over 15 years' experience working with communities in the public health and environmental arena. I continuously participate in leadership programs, workshops, and other educational opportunities to make me a well-rounded employee.

**Personal Career Path:** What inspired me? Helping people to create sustainable, walkable, bikeable healthy neighborhoods that invigorate the communities' livelihoods. I started working with an organization called Network for a Healthy California in 2005 where I worked in the areas of nutrition, physical activity, and chronic disease prevention, that's where I grew to realize that the environment is at the center of everything we do in life. We need clean air to stay healthy and combat illness; clean water to grow nutritious, locally

produced foods; and access to clean, renewable energy to remain productive without becoming destructive. So that led me to get my MPA and then to Maryland.

**Pay and Job Outlook:** This really depends on your position but somewhere between \$50,000-90,000 depending on experience, education, and the job tasks. The outlook is good because climate change is a big issue we are going to be tackling so it is important for organizations, governments, and businesses to think about energy, sustainability, and our impact on the environment more – which means more jobs!

**Favorite and Most Challenging Aspect to the Job:** My favorite part of my job is talking to residents and providing that "aha moment." My favorite thing to hear when I am out in the community is "oh, I didn't think about it that way" – that is my favorite thing to hear.

As for challenges, bureaucracy is always a challenge – sometimes it is overwhelming to get something done. Something seemingly small like purchasing folders for an event can become a nightmare pretty quickly but it is worth it once you have a successful event.

Advice for Young Professionals Interested in This Career: My biggest advice is to not worry about the path – my own expression is "the road may not be straight but it is going forward, so I stay on it" – you may not see exactly where it is you're supposed to be going but if you follow your heart and your passion – you should be able to find it! Also, when a door closes, don't take that as a negative sign, it probably wasn't the best move for you – be aware of all the windows and cracks that may open up as well. Most importantly, leave the world a better, more beautiful place than you found it.



### Elena Takaki Environmental Education

Job Title: Director, Project WILD

Organization: Association of Fish & Wildlife Agencies/Project WILD

Career Overview: Budget development and management, fundraising, staff management, strategic planning/organizational direction, and project Management

#### A Day on the Job:

- Always planning for the next project by making sure budget, staff time, and other resources are available.
- Client relations (communication, problem-solving)

#### Skills Needed:

- Finance
- Non-profit management
- Fundraising
- Staff management
- Curriculum development/education background

#### **Education:**

- BS in Natural Resource Management
- MA in Science Education
- MS in Water Quality and Watershed Management

**Experience and Training:** Continued course work in environmental education, ecosystem management, natural resource field studies, online course development, and management.

**Personal Career Path:** I've always worked in the environmental education field. It has been my calling and I'm fortunate that I found it early in my career.

**Pay and Job Outlook:** \$60,000-\$150,000. The pay has consistently gotten better for entry-level positions. I think it is possible for someone with a Bachelor's degree and just starting out in the field of EE to make a modest living. That was not the case when I started out.

**Favorite and Most Challenging Aspect to the Job:** The most challenging aspect for me is fundraising. It is an area in which I am constantly needing to improve upon. The favorite part of my job is getting to work with an amazingly talented, smart, and inspiring group of people who all love what they do. What's not to love about working with kids outdoors?! It's rewarding on so many levels.

Advice for Young Professionals Interested in this Career: Gain as much field experience as you can. If you cannot find a paid position, volunteer as much as you can. Organize bird walks or bat walks in your neighborhood, volunteer to turn a neighbor's yard into a pollinator garden...whatever you can. Practical experience is gold. Also, showing independence and initiative is important – employers want to hire people that they don't have to spend a lot of time supervising.



#### Michael Luisi Fisheries

Job Title: Division Director of Monitoring and Assessment for Maryland's Department of Natural Resources Fishing and Boating Services

Organization: Maryland Department of Natural Resources

**Career Overview:** If you've ever tasted seafood from Maryland, you've gotten to see the results of a well-managed resource. Mike is responsible for the management of the sustainable use of the aquatic animals of Maryland and it is his job to ensure that the resource will be available for the future generations. A manager of fisheries serves as a liaison between the scientists who collect data on the state of the fishery, the politicians who make policy on the fishery and the fisherman who harvest the fishery. The fishery Mike manages encompasses all the streams, bays and waterways connected to Maryland. Maryland's fisheries do not "exist in a vacuum," so Mike also collaborates with other inter-state management organizations such as the Mid-Atlantic Fishery Management Council. Maryland's and its neighboring states' policies and actions affect one another. With teamwork and collaboration, Mike works toward the best uses of the fishery. There are many perspectives that Mike must balance when making a policy on a fishery.

**A Day on the Job:** Mike's days vary greatly depending on what project is at hand. His duties range from large regional conferences to discuss the state of a fishery to visiting research staff in the field. Mike describes his job as a funnel, or bottleneck of all the programs he oversees. He takes this information from his field scientists and applies it to management at the policy level. Regardless of what the day brings, compromise is the essence of what fishery managers do. Mike encounters many perspectives on an issue and must find a happy, or tolerable, medium for everyone involved. As Mike puts it: "if everyone is only a little unhappy, but can live with it, you did a good job."

**Skills needed:** Interpersonal skills, such as the ability to compromise and understanding of the science involved in fishery management.

**Education:** Mike has a Bachelor of Science as well as a master's in biology and fishery management. For this career, a BS is necessary, and masters is a bonus that helps put you a step above the competition.

**Experience and training:** Mike has learned a great deal from watching his predecessors, especially from observing management conferences. From these he learned effective ways to propose potential management policies and what reactions to expect from certain people or groups.

**Personal Career Path:** Getting your foot in the door is one of the hardest parts, according to Mike, who started out doing seasonal field research for Fish and Game in Virginia, before coming to work for Maryland's Department of Natural Resources (DNR). Positions in the DNR are competitive, so he went to graduate school to learn more and be more competitive in the job field. From there, he worked his way

up the ranks within the various branches of Fishing and Boating Services, ultimately becoming the director.

**Pay and Job Outlook:** The pay is livable but was a challenge when he first started in the entry level positions.

**Favorite and Most Challenging Aspect of Job:** Mike's favorite part of his job is human interaction, being creative and finding solutions. While some employees of DNR would not enjoy doing most of their work from an office, Mike likes it. He has done his share of field work in miserable conditions and has earned his time inside with air conditioning. For Mike, the most challenging aspect of being a fishery manager is balancing work and family. His work consumes much of his time, especially when he travels a lot.

Advice for Young Professionals Interested in this Career: Watch and learn from everything. Internships are a great way to gain experience. When making compromises and working with groups of people, it is always best to be upfront and honest. The truth will come out eventually, especially when data and information is readily available online. Honestly lends itself to trust and effective work relationships.

## **Priscilla To** Water Management

Job Title: Principal Environmental Engineer

Organization: WSSC Water

**Career Overview:** My role at WSSC Water is to support the water treatment processes to ensure that we provide continuous delivery of safe drinking water to our customers. I spend my time figuring out better ways to run existing facilities

or design new facilities. In addition, I must remain current with changes in regulations, current environmental issues, and new research that relates to water quality and treatment.

A Day on the Job: I do a lot of learning, thinking and planning. For example, someone raises a treatment issue to my attention. I try to gather all the information I need to understand the issue, whether by talking to the operators, observing the process, looking at past reports or engineering drawings, analyzing operational data, or researching old and new ideas about how the treatment process should work. I may need to find an expert to ask for help with subjects outside of my experience. I might plan possible improvements and sometimes run small or big experiments to test those solutions. Usually, I will need to pull it all together to present the problem and my recommendations to those who will make the final decision about what to do about the issue.

**Skills Needed:** Writing, listening, and communicating with people in all sorts of roles. Also, a constant willingness to learn, consider new information, and try new solutions; good foundations in environmental science and engineering.

**Education:** It has been beneficial for me to have a graduate degree (Masters or Ph.D.) because it gave me extra practice in forming and answering research questions and analyzing data.

**Experience and Training:** After I finished graduate school in environmental engineering, I taught for several years in an Environmental Science and Engineering program. Teaching was not a required experience for my current job, but it prepared me to think more about how all the different aspects of our environment relate to each other. A lot of our environmental problems exist because of our high consumption lifestyles. As a teacher, I had to understand science better myself. Before that, I completed a Ph.D., which is when you research a topic and don't have an answer key like in a math textbook. This was practical training because a lot of my work involves encountering a problem, then finding the possible solutions if someone out there has not already done so.

**Personal Career Path:** It turns out I am a lot like my dad. I caught his outlook on environmental stewardship throughout my childhood but did not realize until I went to college that my dad was an environmental engineer! Another influence was an international career fair that I attended after finishing my bachelor's degree in mechanical engineering. The fair opened my eyes to the need for safe water and a clean environment worldwide and the multitude of careers that could support this. Along the way, I had some fantastic professors who showed me how you could use your science smarts to serve the community.

**Pay and Job Outlook:** Job opportunities abound because every town needs safe drinking water, and lots of jobs support this (technical jobs, advocates, policymakers, educators, researchers). The starting salary for an environmental engineer is probably around \$60,000 - \$70,000, and there is usually additional pay that comes with extra education and experience.

**Favorite and Most Challenging Aspect to the Job:** I like when I have put in the hard work to understand a problem well and can recommend a solution that works, something that saves resources, maybe makes other people's job easier, or helps the community in ways they may never realize. And I like working with people and learning about all their different backgrounds.

Advice for Young Professionals Interested in This Career: There are news articles everywhere showing how the results of our work affect real people in our community. I think this industry needs people who will make decisions with integrity and look out for the good of others, even those they do not know personally. For example, most of us take safe drinking water for granted, but it is key to health, fostering community, education, work and recreation.



#### **Angela Crenshaw** Parks and Recreation

Job Title: Park Ranger, Assistant Park Manager

**Organization:** Maryland Park Service at Harriet Tubman Underground Railroad State Park (HTUGRR)

**Career Overview:** The job of the park ranger varies by park, Crenshaw's main goal as a park ranger is to provide the "Harriet Tubman Experience " to those who visit the park. HTUGRR commemorates Tubman's legacy as a leader and

freedom-finder through an engaging, informative and emotive exhibit. The combination of the largely unchanged landscape and the historical site provides a way for visitors to relate and experience the Underground Railroad and Tubman's life. Ranger Crenshaw relates Tubman's story to visitors, adding layers of meaning based on the visitor's questors. With years of experience, she can sense what a visitor aims to get out of the park and she greets them at the door. The job of a ranger extends beyond direct visitor interaction. Rangers must be a "Jack or Jill of all trades" in order to provide a safe, clean, and user-friendly park.

A Day on The Job: During the busy summer months Ranger Crenshaw will facilitate the Junior Ranger program at her park, which engages youth with Tubman's story and leads them through the fundamentals of stewardship and environmental education. Ranger Crenshaw also works with Park Quest, a program that engages families in outdoor activities and adventures, while exploring Maryland's State Parks. She designs and plans these programs during the less busy, winter months. These programs are similar to scavenger hunts and keep people coming back for new experiences within the same park.

Skills Needed: Rangers need to be able to think on their feet, be able to work well with others.

Education: Bachelor's Degree is required to be a park ranger.

Experience and Training: A bachelor's degree in environmental studies and years of experience in DNR

**Personal Career Path:** Ranger Crenshaw originally pursued a career in environmental law before coming to Maryland's Department of Natural Resources, where she started working for the Department of Boater Services.

**Pay and Job Outlook:** The role of the park ranger will never be replaced by automation because machines can't reproduce humanity. Machines can't emote or think on their feet like a person can. So, the outlook is good. The pay is livable, depending on one's chosen lifestyle. There are benefits beyond the salary, such as the agency/freedom given to employees, respect and flexible time off. Knowing that the important work is rewarding and fulfilling.

**Favorite and Most Challenging Aspect of the Job:** Ranger Crenshaw's favorite parts of her job are the Junior Ranger and Park Quest Programs, as well as her supportive team. She greatly enjoys working with caring

bosses and coworkers. She aims to balance her staff's skills and interests, which is challenging. Other challenges of her job include having the fortitude to cope with the emotional demands of her work. HTUGRR deals with seriously important, difficult topics. Ranger Crenshaw's greatest challenge is to handle situations with the gravity they deserve.

Advice for Young Professionals: Ranger Crenshaw advises to find your gift and use it, find a place that you love to work and to work with helpful and supportive people.

## **Begin Charting Your Path**

The start of your career journey is an exciting time full of opportunities and different paths leading you to your dream job. With this journey comes decisions that must be made on navigating your career path. Here is a visualization of a path into the professional career journey and following the steps to becoming successful in whatever you desire to do. This guide provides a great resource to learn about different careers in conservation and how you can make a difference in our environment. Take some time to **self evaluate** and consider your personal interests and aspirations while going through this guide. Start to visualize your own career path with your goals and future dreams. Determine your starting point and current situation. Are you a high school student getting ready to embark on the college application process or enter the workforce? Are you already in your undergraduate university and wondering what to major in? What type of experiences have you had and which ones strike your interest the most? These are all important factors to consider before charting your career path.



Courtesy of Colorado Youth Corps Association and Colorado Alliance for Environmental Education

Allow your mind to wander and daydream about potential career paths you envision for yourself. Try to imagine where you wish to work and **brainstorm** different jobs that you may be interested in. Do you have a specific position in mind? Specific organization? Do your research about different companies and organizations on the job positions they offer. Read through the descriptions and duties and find what roles would best suit you. Consider the requirements and qualifications for those positions. This will create a framework for the rest of your career path on finding the right schools, degree programs, and experiences for you to become the best candidate for the position.

Take a look back through this guide and career spotlights to help in this area. Understanding the roles these individuals play in their job really helps narrow down what you would enjoy doing. Use the experiences and advice from others in the field as a model for your career path. The conservation and environmental field is vast and it can be daunting to find the right job for you. It pays off to do the research on different careers and job descriptions to find your dream job. To organize your thoughts and keep a record of positions and opportunities you are interested in, compile a **list or document** with all the information you need when forging your path.

It is also perfectly fine to make **adjustments** and **re-chart** different paths if you find yourself stuck or not loving the position you're in or the position you're seeking. Reflection can be an important step in your career path to guiding revision and focusing on a new path that suits your interests. Recharting may include gaining more experience or getting a degree to become qualified for the job you seek. These adjustments may ignite new opportunities as well. After completing the majority of your career journey, you may have all the experience and qualifications you need to start applying for jobs. This is where all your hard work gets to shine and you get to show companies why you deserve your dream position. Navigate different jobs boards and our places to find opportunities for seeking job openings. Prepare a solid resume and practice your interviewing skills. These are the steps to jump start your future career path into the conservation field!



Where does your path lead? Your conservation career may take you into backwoods, open waters, or boardrooms. Photo courtesy of Underwood & Associates.

# **Guide to Conservation Careers in Maryland**

Discovering your pathway to your future career is an exciting time, but it may not appear the same for everyone. Opportunities present themselves in various ways for initiating your entrance into the conservation field.

Chapter 3: Learning Skills for Conservation Jobs (Academic and Vocational Programs in Maryland)

# Where to Start?

College could be the starting point for many students interested in pursuing a future career in any of the conservation fields by fulfilling degrees and certification programs required for the position, but this is not the only way. There are opportunities on the non-college track in forms of vocational programs, volunteer, internship, and related job experiences. In many cases, experience can be substituted for education on applications. Although it is important to seize opportunities to further your educational career, there are many other ways to successively achieve positions within the conservation field.

#### **Professional Certifications:**

- Certified Professional Horticulturist
- Maryland Nurserymen's Association
- Maryland Association of Environmental and Outdoor Education's Environmental Education Certification Program
- National Association of Interpretation's Certified Interpretive Guide, Certified Heritage Interpreter, Certified Interpretive Host, Certified Interpretive Manager, Certified Interpretive Trainer, Certified Interpretive Planner
- Chesapeake Conservation Landscaping Council's Chesapeake Bay Landscape Professional Certification
- Maryland Master Naturalist
- Maryland Master Gardener

# Maryland's Degree Programs

Higher Education Institution	Associates	Bachelor	Masters/PhD	Other
Anne Arundel Community College	Applied Horticulture			
Cecil College Chesapeake College	Applied Horticulture Landscaping and Groundskeeping			
College of Southern Maryland	Communications, teacher education, engineering, engineering technology, environmental studies			
Frostburg University		Environmental Science, Natural Resources Conservation, Parks Recreation and Leisure Studies		
Garrett College	Adventure Sports Management, Agriculture Operations and Related Sciences, Natural Resources and Wildlife Technology			
Goucher College		Biological sciences, communications, engineering science, environmental studies: environmental and society/environment al science,		
Harford Community College	Agricultural Business and Management			
Hood College		Environmental Biology, Coastal Studies, Environmental Biology, Environmental Science and Policy, Environmental Studies, Archaeology, biology,	4PLUS Environmental biology program	Elementary STEM certificate program, GIS
Howard Community College	Applied Horticulture			

Higher Education Institution	Associates	Bachelor	Masters/PhD	Other
Johns Hopkins University		Ecology, Environmental Engineering, Environmental Studies, Environmental Health	Environmental Engineering, Environmental Health	
Kaplan University Hagerstown		communication,envir onmental policy and management,		
McDaniel College		Biology, biochemistry, communications, environmental studies	Data Analytics	Earth system science, engineering, environmental policy and management, STEM instructional leader
Montgomery College	Applied Horticulture			
Morgan State University		Architecture and Environmental Design, Transportation Systems Program	City and Regional Planning, Landscape Architecture, Public Health, Transportation	
Mount St. Mary's University		biology, biochemistry, business, communications, computer science, economics, environmental science	Business administration, biotechnology and management, data science certificate,	pre-law program
Notre Dame of Maryland University		Biology, Engineering	Dual-degree engineering program	
Prince George's Community College	Ornamental Horticulture			
Salisbury University		Earth Sciences, Environmental Studies, Geography, Outdoor Education Leadership, Social Justice, Urban and Regional Planning	GIS, Applied biology	

Higher Education Institution	Associates	Bachelor	Masters/PhD	Other
Stevenson University		Biology, environmental science	Master of science: biology, environmental science	
The Community College of Baltimore County	Applied Horticulture; Food Science; biology, business administration, computer science, economics, engineering, environmental science, secondary education,			
Towson University		Ecology, Evolution & Conservation, Environmental Science, Environmental Studies, Geography and Environmental Planning, Geography and Land Surveying, Geology,	Environmental Science, Biological Resources Management, Water Resources Management, Wetlands Management, Environmental Spatial Analysis, Geography & Environmental Planning,	
University of Maryland Baltimore			Marine Biology, Marine-Estuarine- Environmental Science and Biological Oceanography	
University of Maryland Baltimore County		Environmental Science, Environmental Studies	Marine Biology and Biological Oceanography	
University of Maryland, College Park	General Agriculture; Agricultural Business; Sustainable Agriculture; Landscape Management; Ornamental Horticulture; Golf Course Management; Turfgrass Management; Sports Turf Management.	Agricultural Economics; Agronomy and Crop Science, Ecology, Food Science; General Agriculture; General Animal Science, Horticultural Science; Soil Science and Agronomy, Turf and Turfgrass Maintenance, Environmental Science, Landscape	Agricultural Economics, Agronomy and Crop Science; Food Science; General Agriculture; General Animal Science; Horticultural Science; Poultry Science, Soil and Watershed Sciences,	Institute of Applied Agriculture

Higher Education Institution	Associates	Bachelor	Masters/PhD	Other
		Architecture, Marine- Estuarine- Environmental Science, Systematics and Population Biology, Sustainability Studies, Civil Engineering	Ecological Technology Design, Wetland Science, Ecosystem Health & Natural Resources Management	
University of Maryland, Eastern Shore		Agricultural Business and Management; General Agriculture	Food Science	
Washington College		Environmental Science, Environmental Studies, anthropology/archae ology, biology, chesapeake regional studies, earth and planetary sciences, engineering,	Dual-degree program with Duke's school of environment, dual-degree program in engineering with Columbia	
Wor- Wic Community College	Landscaping and Groundskeeping			

# Maryland Workforce Development Programs

Program Name	Organization	Description
AmeriCorps VISTA	Corporation for National and Community Service	AmeriCorps members in the VISTA program have joined the fight against poverty by helping local organizations expand their capacity to make change. The VISTA program serves in each of the 50 U.S. states and in all U.S. territories.
<b>Baltimore City</b>	Baltimore City	Assist and empower people in economic need, provide
<b>Department of Social</b>	Department of Social	prevention services, and protect vulnerable children and
<u>Services</u>	Services	adults.

#### MARYLAND DEMINANDE NATURAL RESOLUTES

Program Name	Organization	Description
<u>Branches</u>	Parks & People Foundation	Branches is an afterschool internship and summer job for Baltimore City high school students. Participants restore & explore community green spaces, practice essential life skills, and gain valuable work experience.
Brookside Gardens Cultivate programs guide	Brookside Gardens	Brookside Gardens is Montgomery County's incomparable, award-winning 50-acre public display garden situated within Wheaton Regional ParkBrookside Gardens offers a range of activities, classes and volunteer opportunities to get involved
Building STEPS	Building Steps	Through a series of five Program Components, Building STEPS partners with 15 Baltimore city highschools to provide experiences and opportunities to high achieving high school sophomore students that create the exposure and support necessary for college and career success.
Center for Sustainable Careers	Civic Works	At the Center for Sustainable Careers (formerly the Baltimore Center for Green Careers), we train Baltimore City residents for green jobs in brownfield remediation and weatherization and place them in full time jobs. Trainees earn industry-recognized certifications, learn employability skills, and receive case management and on the job training.
Chesapeake Conservation Corps	Chesapeake Bay Trust	The Chesapeake Conservation Corps increases access and opportunities to green careers across the Chesapeake Bay watershed. The program supports and trains the next generation of stewards in professions that restore and protect our environment and natural resources ensuring a healthy place for all of us to live. In the Corps young adults are provided with hands-on environmental and leadership experience, training, and support network of other young environmentalists.
<u>Civic Works'</u> <u>AmeriCorps Programs</u>	Civic Works, Inc.	Civic Works' AmeriCorps members make a commitment to serve Baltimore's communities for several months to a year. In return, they receive a stipend, training, and an education award that can be used for college, trade school, or to repay qualified student loans. Our AmeriCorps members tutor students, grow food, create community gardens, repair homes, provide energy education, and more. They represent a diverse range of ages and backgrounds
Clean and Green Landscaping/Urban Agriculture	Bon Secours Community Works	Bon Secours Community Works (BSCW) works to enrich West Baltimore communities with programs, services, and affordable housing that contribute to the long-term economic and social viability of neighborhoods.
<u>CorpsTHAT</u>	CorpsTHAT	To connect the Deaf Community and the outdoors through education, recreation and careers.
<u>C-Stream</u>	Chesapeake Research Consortium	CRC's Chesapeake Student Recruitment, Early Advisement, and Mentoring (C-StREAM) program is

Program Name	Organization	Description
		focused on recruiting, advising, and mentoring college students from populations who have been historically excluded from the environmental field and are <u>underrepresented</u> in environmental research and management professions. For the purpose of this program, C-StREAM focuses on assisting students who identify as people of color and/or who are first generation college students.
Details Deconstruction	Humanim	Details Deconstruction strives to channel that history into growth and renewal, not just through the materials we salvage, but through the communities we help to restore.
Directorate Fellows Program (USFWS)	U.S. Fish and Wildlife Service	The U.S. Fish and Wildlife Service strives to have a workforce that represents and reflects the diversity of the people we serve. The Directorate Fellows Program engages students in natural and cultural resources work while providing life changing experiences for those interested in obtaining careers in the field of conservation.
Earth Conservation Corps	Earth Conservation Corps	Engaging young leaders in conservation movements reclaiming the Anacostia River providing restoration efforts through active conservation.
Environmental Leadership Program	Environmental Leadership Program	The Environmental Leadership Program connects Fellows with peers through regional and national networks, and links them with experienced environmental leaders through substantive interactions and mentoring opportunities.
Environmental Management Career Development Program	Chesapeake Research Consortium	Through the Environmental Management Career Development Program, Chesapeake Research Consortium works in partnership with the Chesapeake Bay Program to provide three-year, entry-level positions for individuals looking to begin their careers in the environmental science and management fields.
<u>Grads2Careers</u>	partnership between Baltimore City Public Schools, the Mayor's Office of Employment Development, and Baltimore's Promise.	Grads2Careers helps Baltimore City Schools graduates connect with FREE job training and find employment. We offer training programs leading to career paths in a wide variety of fields, including healthcare, information technology, construction, and many others.
Henry Hall Fellowship	National Aquarium	The Henry Hall Fellowship is a rigorous, four-year program designed to honor and extend the legacy of engineer, world traveler, aquarist and philanthropist Henry Hall (1896–1979) by mentoring and fostering the next generation of Baltimore City's leaders and change makers through field experience opportunities
Hispanic Access Workforce Programs	Hispanic Access Foundation	Hispanic Access Foundation establishes bridges of access that provide a path for the development and rise of

#### MARYLAND DEMINANDE NATURAL RESOLUTES

Program Name	Organization	Description
		Lation leaders and elevates their voices in areas where they are underrepresented.
Howard EcoWorks	Howard EcoWorks	Howard EcoWorks empowers communities and diverse workforces to respect and restore our natural systems for future generations.
Internship Programs	USFWS	Working with others to conserve, protect, and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people.
Jr MANRRS	MANRRS (Minorities in Agriculture, Natural Resources and Related Sciences)	The Jr. MANRRS Program is designed to stimulate the interest in science, technology, engineering, agricultural, and mathematics fields, or STEAM. The goal is to encourage students in grades 7–12 to attend college and pursue agriculture, natural resources, and environmental sciences degrees.
Living Classrooms Foundation	Living Classrooms Foundation	Living Classrooms have developed a distinctive competency in experiential learning – literally learning by direct experience – or what we call "learning by doing." We utilize our environmental campuses, athletic fields, community centers, and historic ships as "living classrooms." We work with one child, one teen, one adult, and one family at a time to identify existing barriers towards success and provide skills training, resources, and opportunities.
<u>Margaret A. Davidson</u> <u>Graduate Research</u> <u>Fellow</u>	NOAA	The Margaret A. Davidson Graduate Research Fellowship is an exciting two-year fellowship program that provides the opportunity for graduate students to conduct collaborative research at one of the 29 national estuarine research reserves. Through a research project, fellows address a key reserve management need to help scientists and communities understand coastal challenges that may influence future policy and management strategies.
Maryland Certified Horticulture Professional	Maryland Nursery, Landscape, and Greenhouse Association and MD Arborist Assoc. and MD Forests Assoc.	In 1985 the Maryland Nurserymen's Association began its Certified Professional Horticulturist program, a voluntary program for those desiring to demonstrate proficiency in horticulture. After meeting a combination of educational and work experiences, and studying a comprehensive manual that is the heart of the program, an applicant must pass a rigorous examination in order to be certified.
<u>Maryland</u> <u>Conservation Corps &amp;</u> <u>Conservation Jobs</u> <u>Corps</u>	Maryland Park Service	The Maryland Conservation Corps (MCC) is an award- winning AmeriCorps program that engages young adults in extensive natural resource management and park conservation projects. The mission of the program is to provide young adults with opportunities for service in the community and the environment by preserving, protecting, enhancing, and restoring Maryland's natural resources.

Program Name	Organization	Description
Mobilize Green	Mobilize Green	MobilizeGreen has engaged over 2500 diverse young people in internships, youth conservation programs, and professional development opportunities in partnership with government agencies, nonprofits, and corporations.
Montgomery County Conservation Corps	Montgomery County Conservation Corps	Latin American Youth Center offers job training in green infrastructure and conservation to residents of Montgomery County and the District of Columbia. The programs provide field experience and classroom instruction and may include job readiness training, certifications, and career development opportunities.
National Aquarium Program	National Aquarium	The National Aquarium is a nonprofit organization whose mission is to inspire conservation of the world's aquatic treasures. Through full-time and part-time positions, as well as internship and volunteer opportunities, there are plenty of options to get involved at the National Aquarium!
NOAA Coastal Management Fellowship	NOAA	The NOAA Coastal Management Fellowship was established in 1996 to provide on-the-job education and training opportunities in coastal resource management and policy for postgraduate students and to provide project assistance to state coastal zone management programs. The program matches postgraduate students to work on projects proposed by state coastal zone management programs and selected by NOAA. This two- year opportunity offers a competitive salary, medical benefits, and travel and relocation expense reimbursement.
NOAA Hollings Undergraduate Scholarship & Educational Partnership Programs	NOAA Education	The Hollings Scholarship Program provides successful undergraduate applicants with awards that include academic assistance (up to \$9,500 per year) for two years of full-time study and a 10-week, full-time paid (\$700/week) internship at a NOAA facility during the summer.
NPS Youth Programs: Internships	National Park Service	National parks are places for fun, discovery, exploration, wellness, and service. Youth and young adult programs are designed to connect kids, teens, and young adults to opportunities at national park sites across the nation. These sites contribute to our nation's rich natural, cultural, historical, and recreational resources.
<u>NPS: Mosaics in</u> <u>Science Diversity</u> <u>Internship</u>	National Park Service	The Mosaics in Science Internship Program provides youth that are under-represented in natural resource science career fields with on-the-ground, science-based, work experience with the National Park Service. This multidisciplinary program provides opportunities to work on inventorying and monitoring, research, GIS and other technologies, and interpretation and education projects.
NPS: Youth Conservation Corps	National Park Service	The United States Youth Conservation Corps (YCC) is a summer youth employment program that engages young

Program Name	Organization	Description
		people in meaningful work experiences at national parks, forests, wildlife refuges, and fish hatcheries while developing an ethic of environmental stewardship and civic responsibility. YCC programs are generally 8 to 10 weeks and members are paid the minimum wage for a 40-hour work week.
Pathways	EPA	EPA internships, fellowships, and recent graduate positions provide a great introduction to our work, and may lead to permanent employment.
Project Jumpstart	Project Jumpstart	Project JumpStart is an 87-hour pre-apprenticeship training program that provides intensive classroom and hands-on training to Baltimore City residents every year. Our mission is to train low-income city residents to enter the building trades on a construction career track that will help them advance beyond the entry-level.
RAY Conservation Fellows	Environmental Leadership Program	The RAY Fellowship Program aims to increase and facilitate conservation, energy efficiency, and renewable energy-related career pathways for emerging leaders of color. The RAY Fellowship Program is a two-year paid fellowship designed to equip recent college graduates with the tools, experiences, support, and community they need to become leaders in the conservation and clean energy sectors—one that, in our visions of the future, fully represents, includes, and is led by the diverse communities, perspectives, and experiences of the United States.
Resource Assistants Program	USDA	The United States Department of Agriculture (USDA) Forest Service Resource Assistants Program (RAP) is a rigorous and immersive, paid internship for individuals who are interested in conservation, natural and cultural resources, environmental management, research and development, or other career opportunities with land management agencies.
Second Chance	Second Chance	By offering both training opportunities and jobs in a growing industry of the new Green Economy, the Second Chance model provides a powerful pathway to sustainable careers for Baltimore citizens facing the most difficult employment challenges. The positive impact this has on the lives of our workforce, their families, and the greater community is undeniable.
ShoreCorps AmeriCorps	ShoreCorps AmeriCorps	ShoreCorps is an AmeriCorps State Program, working under the oversight of the Governor's Office on Service and Volunteerism (GOSV) in Maryland. ShoreCorps is the AmeriCorps program at Salisbury University, but members do not have to be students to serve. All members of the community are welcome to serve! ShoreCorps is a partnership with community-

Program Name	Organization	Description
		based organizations serving at-risk youth and other vulnerable populations.
Student Conservation Association	Student Conservation Association	The Student Conservation Association (SCA) is America's conservation corps. Our members protect and restore national parks, marine sanctuaries, cultural landmarks and community green spaces in all 50 states. SCA's
		mission is to build the next generation of conservation leaders and inspire lifelong stewardship of the environment and communities by engaging young people in hands-on service to the land.
Student Leadership Program	Chesapeake Bay Foundation	The mission of CBF's Student Leadership program is to offer students opportunities to expand their knowledge of Bay issues, improve their planning skills, focus on team building, and learn how to lead others to take action to improve water quality in their local communities.
<u>Teen Leadership</u> <u>Paddle</u>	Chesapeake Bay Research Reserve- Maryland	The Teen Paddle is a week-long canoeing expedition geared towards high school students. The program gives teens a chance to practice leadership & teamwork skills as they navigate the river, water quality testing, plant community studies, help with a stewardship project, camping by the riverside and prepare meals together.
<u>Urban Alliance</u>	Urban Alliance	Urban Alliance connects high school students to equitable, inclusive careers through paid work experiences, mentorship, and professional development. We work with schools and employers to address systemic barriers to economic mobility for young adults of color and to bridge the gaps between education and workforce development for all young people.
Volunteer Maryland /AmeriCorps	Volunteer Maryland	As a Volunteer Maryland AmeriCorps Member (ACM), you will spend most of your year of service at a Service Site recruiting and managing volunteers. Each ACM has a local Service Site that addresses critical community needs across Maryland.
Watershed Stewards Program	Our Creeks & Conservancy	The Watershed Stewards Program (WSP) is dedicated to improving watershed health by actively engaging in restoration science, civic service, and community education while empowering the next generation of environmental stewards.
<u>YearUp - Baltimore</u> <u>Chapte</u> r	YearUp	Year Up's mission is to close the Opportunity Divide by ensuring that young adults gain the skills, experiences, and support that will empower them to reach their potential through careers and higher education.
Youth Empowerment Society	Youth Empowerment Society	Youth Empowering Society is an Ohio based non-profit organization that supports young adults within the urban areas of America by teaching them important life skills, promoting financial stability, and encouraging community involvement.
#### MARYLAND DEMINANDE NATURAL RESOLUTES

Program Name	Organization	Description
Youth Opportunity (YO) Baltimore	Baltimore City Mayor's Office of Employment Development	MOED's Youth Services division provides the City's future workforce with the tools they need to succeed in careers in local high-growth industries. The division operates Baltimore City's Youth Summer Jobs Programs, as well as job-training opportunities through Youth Opportunity Baltimore and Youth Partner Programs

# Guide to Conservation Careers in Maryland Chapter 4: Applying for Jobs

Once you have found a job opening you want to apply for, there are several steps to keep in mind during the application process. Read on for tips and resources for the application process.

Once you have found a job opening you want to apply for, there are several steps to keep in mind during the application process. First, is researching the organization and job requirements. Knowing and incorporating information such as the professional background of the hiring manager, the value/goals driving the employers, and the modus operandi of the organization will help you stand out and heighten your credibility as an applicant.

Don't be afraid to call the hiring manager in the early stages of the application process. This communication can help you better gauge the position, what type of candidate they are looking for, and what will be expected of you. Additionally, it could be beneficial to ask more practical questions about the hiring process. Inquiring in regard to proper interview attire or even where to park for the interview may help reduce preparation stress. With the possibility of dozens or even hundreds of other applicants, calling the hiring manager with thoughtful concerns may grant additional name recognition once the application reviewing stage begins, however, do not simply call without a specific intent.

Ensuring that you feel comfortable in your potential work environment is equally as important as the job itself. Researching the composition of the board and leadership of the employers as well as whether they have an explicit equity statement are quick ways to gauge whether they are committed to ensuring inclusive working conditions. On the job listing itself, having a clear salary for the position is an easy way to determine whether you believe the work would be worth your time and effort. Additional means of verifying the employer's commitment to an inclusive work environment can include recognition/participation in culturally relevant events and holidays, providing resources for professional development, collaborating with local community programs and leaders, whether they maintain citizenship requirements, and (if possible to research) whether your potential coworkers reflect a diverse and safe work environment.

Following your preparation and research about the employers, it is time to start on the application. Most applications will require both a resume and a cover letter. Both Glassdoor and Indeed have appropriate resume examples and templates that you can use. In lieu of interviewing every single applicant, cover letters serve as a barometer of your interests and personality for the hiring manager. The cover letter is likely the most important part of your application, so it will pay to take your time with it. For a do's and don'ts list for cover letters, look up the Harvard Business Review's guide to cover letters. Make sure to imbue your personality into your cover letter. This document is meant to bring the 'human' element of your application. Don't be afraid to let your enthusiasm for the environment and the position shine through.

When gearing up to submit your application, double and triple check all your information to ensure it is correct and that you have included all the required information. It also doesn't hurt to check your voicemail and rerecord if it's less than professional. Ideally, you should hear back from the hiring manager within two weeks of submitting your application. If you haven't, you can always follow up with an email or call to check on your application's status.

If you are selected for an interview there are several things you can do to prepare. Refamiliarizing yourself with the organization's goals and track record can aid you in answering questions about why you applied or what you bring to them. Practicing with a friend or family member can help you be more precise in your answering and bring additional confidence to the interview. It may also be worthwhile to think of questions to ask the hiring manager for after the interview. The best questions to ask are ones that a) you are genuinely curious about and b) illustrate a clear professional and developmental interest in the organization. Topics such as opportunities for leadership development, training, workplace culture, and inter-department collaborations can demonstrate initiative and a personal investment in their work.



### Places to Find Opportunities

LinkedIn can be a valuable resource to network with people in the environmental field and find relevant jobs, however, try not to apply for the positions directly through LinkedIn. Instead, look up the job opening on the employer's website, as there are sometimes formatting and notification issues when using LinkedIn's platform. The tables below offer more specialized resources that can help you find career and networking opportunities in your field of interest.

Organization/Resource	Description
Association for Women in Communications	The Association for Women in Communications (AWC) is the premier organization for empowering women like you with the strength, support, and tools for elevating your career, personal growth and becoming an agent of change. We are a diverse network of professional women who are genuinely invested in helping each other – <i>and you</i> – to reach full potential.
Chesapeake Network Youth Portal	The Chesapeake Network is a site for sharing resources, webinars, events, jobs, and more, hosted by the Alliance for the Chesapeake Bay.
<u>CJB Network for Graduate programs</u>	CJB Network is a mission-based business. Our mission is to improve career development in environmental fields by making it easier for environmental professionals and aspiring professionals to discover and learn about educational opportunities that support their interests. CJB Network lists over 1,000 environmental graduate and training programs in the United States
<u>Coastal and Estuarine Research</u> <u>Federation (CERF) Rising TIDES Program</u>	CERF is dedicated to broadening participation in coastal and estuarine science and management. Rising TIDES (Toward an Inclusive, Diverse, and Enriched Society) is a comprehensive program for enhancing the diversity and inclusion of our scientific society and CERF conferences. The overall goals of this program are to promote opportunities for individuals from groups underrepresented in CERF disciplines and professions while cultivating a culture that actively engages and leverages diversity throughout our organization.
Ecological Society of America (ESA) SEEDS Program	The Strategies for Ecology Education, Diversity and Sustainability program (SEEDS) is the flagship award-winning education program of the Ecological Society of America. Its mission is to diversify and advance the ecology profession through opportunities that stimulate and nurture the interest of underrepresented students to participate, and to lead in ecology.The core SEEDS program components offer hands- on, engaging experiences with ecology that exhibit the relevance and applications of science.

Organization/Resource	Description
EcologyPlus	EcologyPlus aims to connect diverse college students and early career scientists with timely and relevant career opportunities and a community of peers and professionals in ecology and related careers across all sectors.
<u>Green Latinos</u>	GreenLatinos is a national nonprofit that convenes a broad coalition of Latino leaders committed to addressing national, regional and local environmental, natural resources and conservation issues that significantly affect the health and welfare of the U.S. Latino community.
Hispanic Association of Colleges and Universities	The HACU National Internship Program (HNIP) has placed over 11,000 undergraduate and graduate students in challenging paid internship assignments within federal agencies, corporations, and non-profit organizations in Washington, DC, and nationwide. We place over 450 students on average annually.
In Solidarity Community	The In Solidarity community directory is your go-to resource for connecting with members actively engaged in DEI work within the outdoor industry. This directory is comprised of the Outdoor CEO Diversity Pledge's Steering Committee members, community leaders, and DEI advocates from around the country who are committed to building a more inclusive outdoor industry.
National Association for Multi-Ethnicity in Communications	Become a member of the premier organization fostering multi-ethnic diversity in the cable and communications industry. When you invest in NAMIC, you invest in yourself. Whether you're new to the communications industry, a seasoned executive or a company looking for highly qualified, diverse employees, NAMIC can help you.
SEAS Islands Alliance	The SEAS Islands Alliance works to broaden participation and possibilities in science, technology, engineering, and math (STEM) education, inclusion of nuanced cultural expertise from diverse underrepresented minority (URM) and underserved populations in U.S. territories and U.Saffiliated islands. Island regions are strongly connected to the oceans that surround them and are among the country's most diverse communities. The Alliance works to collaborate with these communities to broaden participation of the STEM workforce.
Seven Seas MediaOcean Jobs	SEVENSEAS Media publishes ocean conservation news, professional development resources, sustainable tourism opportunities, and engages in direct action to protect and restore our marine, polar and coastal ecosystems. The organization has quickly grown into a respected international platform, elevating the ocean conservation community by providing a grassroots outlet for individuals to network, tell stories, share career opportunities, and take part in networking events and beach cleanups.

Organization/Resource	Description
Society for Conservation Biology	The Society for Conservation Biology (SCB) is a non-profit, 501(c)(3) organization dedicated to facilitating, promoting, and advancing the scientific study and conservation of biological diversity. While our historical roots were founded in the field of biology, we recognize that conservation in today's complex world requires a globalized approach that maximizes collaboration amongst professionals from all fields.
The Nature Conservancy	The Nature Conservancy is a global environmental nonprofit working to create a world where people and nature can thrive. Founded in the U.S. through grassroots action in 1951, The Nature Conservancy has grown to become one of the most effective and wide-reaching environmental organizations in the world.

## Organizations that Support Black Indigenous People of Color (BIPOC) Networking and Environmental Engagement

NATIONAL GROUPS		
Organization/Resource	Social Media Links	Description
<u>BlackAFinSTEM</u>	<u>Twitter Instagram</u>	The BlackAFinSTEM Collective seeks to support, uplift, and amplify Black STEM professionals in natural resources and the environment through professional development, career connection, and community engagement. We aim to inspire new audiences to engage in nature and share the stories of Black conservationists from across the country.
<u>Corazón Latino</u>	<u>Facebook</u> Instagram	Corazón Latino is a national non-profit organization that seeks to generate social, environmental, and conservation initiatives that foster natural resource stewardship. Corazón Latino mobilizes the passion, love, unity, solidarity, and resources of individuals, communities, organizations, and government entities to advance the common good.
Diversity Outdoors	<u>Instagram</u>	Diversity outdoors is a coalition of social media influencers – bloggers, athletes, activists, and entrepreneurs – who share the goal of promoting diversity in outdoor spaces where people of color, 2SLGBTQ+, and other diverse identities have historically been underrepresented.

NATIONAL GROUPS		
Organization/Resource	Social Media Links	Description
<u>Green 2.0</u>	<u>Facebook</u>	People of color are the most impacted by environmental problems and the least represented in positions of power. We believe that in the 21st century, the success of environmental causes will be based on our ability to transform them into more just, inclusive, and relevant organizations and movements.
<u>Green For All (Dream Corps)</u>	Facebook instagram	Dream Corps believes that together we can lead our country to reach its fullest potential. Together we can create a place where "we the people" means all of us. We believe that freedom and dignity for all communities is possible, where everyone has their basic needs met and we are free and able to pursue our dreams. We envision a future where everyone has the freedom to thrive on a healthy planet. We know this must be done together, and not apart.
Greening Youth Foundation	<u>Facebook</u> Instagram	The Greening Youth Foundation's (GYF) mission is to engage under-represented youth and young adults, while connecting them to the outdoors and careers in conservation. GYF's cultural based environmental education programing engages children from local communities and exposes them to healthy lifestyle choices in order to create an overall healthy community.
Latino Outdoors	<u>Facebook Twitter</u> <u>Instagram</u>	Latino Outdoors is a unique, Latinx-led organization working in support of a national community of leaders in outdoor recreation, conservation and environmental education. As part of this work, we focus on expanding and amplifying the Latinx experience in the outdoors. We provide leadership, mentorship, and professional opportunities and serve as a platform for sharing oft-overlooked cultural connections and narratives that will bolster the collective outdoor movement.

NATIONAL GROUPS		
Organization/Resource	Social Media Links	Description
Outdoor Afro	<u>Facebook</u> <u>Twitter</u> <u>Instagram</u>	Outdoor Afro has become the nation's leading, cutting edge network that celebrates and inspires Black connections and leadership in nature. We are a national not for profit organization with leadership networks around the country. With more than 100 leaders in 56 cities around the country, we connect thousands of people to nature experiences, who are changing the face of conservation. So come out in nature with us, or be a partner to help us grow our work so that we can help lead the way for inclusion in outdoor recreation, nature, and conservation for all!
People of the Global Majority in the Outdoors, Nature, and Environment	<u>Instagram</u> <u>Facebook</u>	PGM ONE envisions a world that centers, values, uplifts, and empowers those who are most impacted by environmental harm and climate change—and in particular black, indigenous, and people of color/of the global majority—to lead the way toward environmental justice and collective liberation.
The Black Outdoors	<u>Facebook Twitter</u> <u>Instagram</u>	The mission of TheBlackOutdoors is simple - increase awareness of and participation in outdoor recreational activity amongst black people and other underrepresented groups. Exposure is KEY in helping others to develop interest in the natural world and all that it has to offer. By sharing our stories and highlighting yours, we hope to inspire your next (or first!) lazy Saturday hike or cross- country adventure.
<u>Tree Equity (American Forests</u> <u>Program)</u>	Instagram Facebook	Trees are vital to our health and wealth. But a map of tree cover in cities is too often a map of income and race; trees are sparse in low-income neighborhoods and some neighborhoods of color. Our Tree Equity program strives to create Tree Equity — trees where they are needed most.
<u>WeGotNext</u>	<u>Facebook</u> Instagram	WeGotNext amplifies individual stories of adventure and activism from communities that have been underrepresented in outdoor, conservation and environmental spaces.

LOCAL GROUPS		
Organization/Resource	Social Media Links	Description
Backyard Basecamp	<u>Facebook</u> <u>Twitter</u> <u>Instagram</u>	Backyard Basecamp works at (Re)connecting Black, Indigenous, and People of Color (BIPOC) to land and nature in Baltimore City by educating on urban environmental issues and providing health and wellness programs
Baltimore Green Space	<u>Facebook Twitter</u>	Baltimore Green Space is Baltimore's environmental land trust. We promote vibrant neighborhoods and a healthy environment through land preservation, research, and community advocacy.Our vision is to be a leader and partner in ensuring that communities' open spaces and forest patches are considered priority assets in the growth and redevelopment of Baltimore. We
Baltimore Racial Justice Action (Consultant for Organizations)	<u>Facebook</u>	BRJA organizes a free monthly event series & provides informational resources to the broader Baltimore community. Our community work aims to inspire continuous dialogue, learning, action, & connection to achieve racial equity, & challenge white supremacist, culture in Baltimore & Maryland.
Black Girls Dive	Facebook	Black Girls Dive Foundation (BGDF) establishes space and opportunity to empower young ladies to explore their STEM (Science, Technology, Engineering and Mathematics) identity through marine science and conservation, and SCUBA diving. Our mission address three critical issues: (1) the racial and socioeconomic achievement gap that undermines our ideals of freedom, equality and opportunity; (2) limited or restricted sense of youth agency and voice; and (3) cultivating the next generation of social conscious divers, scientists, conservationists and planetary stewards.
CHISPA (Maryland League of Conservation Voters program)	<u>Facebook</u> <u>Instagram</u>	Chispa Maryland builds the capacity of Latinxs and their families to influence policy makers and pressure polluters to protect communities' rights to clean air and water, healthy neighborhoods, and a safe climate for generations to come.

LOCAL GROUPS		
Organization/Resource	Social Media Links	Description
Community Engagement, Environmental Justice and Health (CEEJH) laboratory at the University of Maryland	Facebook Twitter	CEEJH's primary focus is to provide engagement to highly and differentially exposed populations and underserved communities. Our work has included the development of and participation in partnerships with community-based organizations, environmental advocacy groups, health practitioners, and policymakers (federal, state, and local government) to reduce local contamination, improve environmental quality, and enhance community health and sustainability.
Dreaming Out Loud	<u>Facebook Twitter</u> <u>Instagram</u>	DOL is rebuilding urban DC community-based food systems through cooperative social enterprise: increasing access to healthy food, improving community health, supporting entrepreneurs and cooperatives from low-income communities; and creating opportunities for at-risk residents to earn sustainable, family-supporting wages and build wealth. We believe that all communities deserve equal access to fresh, healthy food choices, but that achieving this requires moving beyond the "access" paradigm to a focus on community self- determination and food sovereignty.
EcoLatinos	Facebook Twitter	EcoLatinos was born out of our passion for the environment and love for our Latino community. We are committed to social and environmental justice initiatives for all, especially in Spanish- speaking and under resourced communities. EcoLatinos works to engage, educate, and activate the Latino communities of the Chesapeake Bay and the Mid-Atlantic Region. We support non-profit, private, and public organizations creating connections with a growing and potentially powerful stewards of the community.
<u>Green Muslims</u>	<u>Facebook Twitter</u> <u>Instagram</u>	Green Muslims is a volunteer-driven 501(c)3 headquartered in the metropolitan Washington, D.C. area working to connect Muslims everywhere to nature and environmental activism. We host educational service and outdoor recreational events and strive to serve as a bridge connecting the Muslim community with local climate action organizations.

LOCAL GROUPS		
Organization/Resource	Social Media Links	Description
Groundswell	<u>Facebook</u> <u>Instagram</u>	Groundswell is a 501c3 nonprofit that builds community power through equitable community solar projects and resilience centers, clean energy programs that reduce energy burdens, and pioneering research initiatives that help light the way to clean energy futures for all. Groundswell leads clean energy programs and projects in six states including the District of Columbia, including serving more than 5,000 income-qualified customers with more than \$1.85 million per year in clean energy savings. Through our work, we are building clean energy futures that reflect the beautiful diversity of the communities we serve.
Maryland Black Mayors		Maryland Black Mayors purpose is to enhance the executive management capacity of its membership for the purpose of fostering effective governing and supporting local governments.
STEAM Onward	<u>Facebook</u>	The mission of STEAM ONWARD is to increase the number of minority and under-served youth pursuing higher education in STEM related fields such as science, technology, engineering, and mathematics. We achieve this goal by providing youth in Southern Maryland with after school hands-on experiential learning opportunities in agriculture, natural resources, and the environment.
The Green Scheme	Facebook	The Green Scheme was founded in 2011 by Washington, DC natives, Ronnie Webb and Joelle Robinson when they realized the lack of environmental awareness that existed in many communities. Fueled by a desire to impact the way people think about their health and their environment, Ronnie and Joelle created the Green Scheme to organize, educate, and empower communities.
<u>Virginia Environmental Justice</u> <u>Collaborative</u>		The Virginia Environmental Justice Collaborative was created in 2015 when four organizations (The Southeast CARE Coalition, Appalachian Voices, the Federal Policy Office of WE ACT for Environmental Justice, and New Virginia Majority) saw the need for statewide coordination to support Virginia organizations addressing Environmental Justice issues.

#### **Job Boards**

- Black Jobs Job Board
- Browngirl Green Jobs Board
- Conservation Careers
- Conservation Jobs Board
- LGBTQIA+ Environmental Job Seekers and Job Postings Board
- Maryland Association for Environmental and Outdoor Education Job Board
- Maryland State Jobs Board
- Mobilize Green Job Board
- <u>Society for Conservation Biology</u>
- TAMU Department of Wildlife and Fisheries Sciences Job Board
- Texas A&M Department of Wildlife and Fisheries Sciences Job Board
- The Wildlife Society
- <u>University of Michigan's Program in the Environment's Environmental Job Board</u>