ENVIRONMENTAL FINANCE CENTER

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AREAS OF PROFESSIONAL FOCUS

- Conservation Finance and Environmental Metrics
- Program Finance and Implementation
- Environmental Economics and Human Health
- Sustainability and Resilience Planning

PROJECT EXPERIENCE

Program Manager | Environmental Finance Center, University of Maryland, College Park, MD
Jan 2019 to present.
Prior positions: Principal Scientist - Skelly and Loy (2015-2019), Inc.; Graduate Assistant - Water Science and Policy (2012-2016); Executive Director - White Clay Wild and Scenic Program (2011-2012); Project Geologist - Duffield Associates, Inc. (2001-2011)

Trust for Public Land Conservation Economics Analysis Support (June 2024-present) Dr. Egan provides research support to the Conservation Economics team. The team conducts economic benefits studies of parks and trails in multiple states, including New York City, New York, Baton Rouge, Louisiana, and, more recently, Plano, Texas. The Parks and Conservation series Value of Parks detail the economic values of recreation, health care cost savings, tourism, and other values provided by parks. These reports are used to support funding and raise new funds for capital expenses.

EPA Region 3 WaterTA Program (2023-present) The Region 3 Water Technical Assistance (WaterTA) program directly supports municipalities, tribes, and water utilities in the mid-Atlantic. Dr. Egan helps small communities in Delaware and Maryland access federal and state funding to address water infrastructure needs. The program helps address problems like septic system failure and contaminated drinking water. Communities benefit from the free assistance to build technical, financial, and managerial capacity and complete funding application materials.

American Society of Landscape Architecture Economic Benefit Briefs (2024-2025) The ASLA Fund, a 501(c)(3) organization, funded Dr. Egan to summarize and estimate the economic benefits of landscape architecture and projects with nature-based solutions. ASLA promoted three final products to a broad audience, including the Council of Parties 2026 in Baku, Azerbaijan. This work provided ASLA members and landscape architecture educators with ways to communicate their work's economic value.

Subject Matter Expert for Department of Natural Resources and Environmental Control, Division of Watershed Stewardship (2022 – 2024) Dr. Egan provided technical expertise to DNREC for economic analysis study for shoreline management. The analysis characterizes the benefits of replenishment, costs of dredging and sand placement and distributional effects of the project. The analysis provides support for determining equitable cost-share for state, county, and local jurisdictions.

Staying Afloat: Assessing the Long-term Financial Impacts of Sea Level Rise Adaptation Solutions in a Historic Coastal Community. (2020 – 2024). With funding from the National Oceanic and Atmosphere Association Adaptation Science program, Dr. Egan worked with George Mason University and The Nature Conservancy to develop sea-level rise adaptation strategies and an analysis of barriers and solutions for implementation for the Town of Crisfield, Maryland. UMD EFC led the economic assessment of coastal flood impacts and the economic benefits of solutions to mitigate and adapt to storm events.

Nature in Urban Planning for Better Human Health (2020 - 2024). The US Forest Service Cost Share Programfunded Dr. Egan and partners Dr. Kathleen Wolf from the University of Washington and Dr. Sagar Shah, AICP of the American Planning Association, to develop a national guide and online course for planning and public health professionals. The guide and course provide research on empirical evidence of health benefits and a systems approach to integrate nature for health into municipal planning.

Community-focused Economic Valuation, Ecotourism and Conservation Investment Strategy for the Mispillion and Cedar Creek Watershed (2022 – 2023) The National Fish and Wildlife Foundation National Coastal Resilience Fund grant supported this project to develop an investment plan for the towns of Milford and Slaughter Beach, Delaware. The management plan identified opportunities for investment in natural resource protection and how to expand ecotourism and support local economies in the watershed strategically.

Community-centered Natural Resource Benefits: Mispillion Watershed, Delaware (2021 – 2022) The Pew Charitable Trusts provided funding to develop the economic valuation of critical natural resources in this pristine watershed. This project was highly collaborative with regional partners such as the Partnership for the Delaware Estuary, Delaware Sea Grant, and Resilient and Sustainable Communities League members. Benefits valuation estimates the monetary values associated with ecosystem services and helps communicate the importance of the community's resources.

EDUCATION

Ph.D. 2016	Water Science and Policy, University of Delaware, Newark, Delaware Dissertation: “Comparative Institutional and Policy Analysis of Nonpoint Source Agricultural Nutrient Pollution in the Chesapeake Bay”
M.S. 2002	Geology/Geomorphology, University of Delaware, Newark, Delaware Thesis: “The Geomorphic Effects of Dam Removal on the Manatawny Creek, Pottstown, PA”
B.S. 1999	Geology, University of Delaware, Newark, Delaware

RECENT PUBLICATIONS

1. American Society of Landscape Architects Briefs. 2024.
   Landscape Architecture: Maximizing the Economic Benefits of Nature-based Solutions Through Design
   A 10-page brief that summarizes economic benefits for global and U.S. policymakers.
   An Analysis of Benefit Values: 175 Landscape Architecture Case Studies in the U.S.
   A 12-page analysis for economic and landscape architecture researchers and educators that explores economic benefits found in the Landscape Architecture Foundation (LAF)'s Landscape Performance Series Case Study Briefs.
   Making the Economic Case for Nature-Based Solutions in Climate Projects
   A 30-page guide for ASLA members that explains economic language and the economic and financial context in which public and private clients operate. It covers how to better communicate with clients about economic benefits.
2. Nature in Urban Planning for Better Human Health. September 2024. US Forest Service National Forest Resiliency Innovation Challenge Cost Share Grant Program (#20-DG-11132544031). https://tinyurl.com/3yd7ec3j
3. NOAA AdSci Report. June 2024. Flood Adaptation Assessment for Enhanced Community Resilience. NA21OAR4310287 (FY2021). https://tinyurl.com/y7hc8k54
4. UMD EFC. March 2023. Ecotourism and Resilience Investment Strategy for the Mispillion and Cedar Creek Watersheds Kent and Sussex Counties, Delaware. ("Investment Strategy" found here https://www.derascl.org/wiin)
5. UMD EFC. June 2022. Community Centered Natural Resource Benefits: Mispillion Watershed, Delaware. ("Economic Assessment" found here https://www.derascl.org/wiin).
6. Trust for Public Land. March 2022. Economic Benefits of Parks in New York City. http://tpl.org/economic-benefits-nyc
7. Egan, J. 2020. Can "One Water" Help Address Equity and Resilience Concerns? A More Collaborative and Holistic Approach to Water Resource Management. Water Resources Impact. Vol. 22 No. 1.

PROFESSIONAL ACTIVITIES

- Delaware American Water Resource Association, Board member 2024-present
- Conservation Finance Act Blue and Green Commission Member, 2022 - present
- Water Research Foundation Project Advisory Committee Developing an Environmental, Social, and Governance (ESG) Framework for Water Utilities, 2022-present
- Water Research Foundation Project Advisory Committee Making the Case for Climate-Resilient Water Infrastructure and Supporting Strategies, 2022-present
- White Clay Wild and Scenic Program, Steering Committee, 2012-present
- Co-lead Maryland Conservation Finance Act Task Force, 2022-2023
- Co-lead of the Chesapeake Bay Science and Technological Committee Workshop Using Carbon to Achieve Chesapeake Bay (and Watershed) Water Quality Goals and Climate Resiliency: The Science, Gaps, Implementation Activities and Opportunities, May 25-26, 2023.