Sustainability Fellowship

Collaborative Monitoring for Coastal Resilience
City of Portsmouth
Portsmouth, NH

Summary:
The City of Portsmouth, population 23,500, is a thriving coastal community with a robust tourist economy based on its rich architectural history and its unique location along a scenic tidal river mouth. The City of Portsmouth is an Eco-Municipality with many ongoing sustainability initiatives. Portsmouth recently embarked on an Historic Resources Climate Change Vulnerability Assessment and Adaptation Plan which was a follow up study to the Coastal Resilience Initiative, where the City mapped areas most vulnerable to sea level rise and severe coastal storms. The valuation methodology in the Historic Resources study uses economic, historic, cultural and flood water vulnerability measurements to characterize, risk-assess and prioritize key historic assets in the City. While the study is nearly complete, this Fellowship is intended to initiate a long-term monitoring program for tracking impacts from sea level rise on historic resources in the City of Portsmouth, NH. Collaborative monitoring is an approach developed as part of an ongoing project to determine the vulnerability of the Historic District in Portsmouth to the effects of climate change. Both qualitative and quantitative information from local property owners and other sources will be collected, formatted and incorporated into the ongoing study.

Deliverables:
- Development of a property owner interview/survey tool to assess interest in participating in collaborative monitoring.
- Development of specific baseline tracking tools to establish long-term monitoring.
- Development of options for long-term monitoring on City-Owned properties with various data collection tools and techniques.

Impact:
Sea level rise predictions have been conducted to evaluate potential future impacts on the city’s historic resources. This Fellowship will be the first real-time data collection effort to track changes encountered on or under the ground. Although many communities have examples of specific impacts, Portsmouth needs a long-term data set to track changes at the local level. This project will be the first step in this effort and hopefully the results are instructive to other communities in the region as they seek to understand, and plan for, how climate change impacts will affect their communities.

Location: City of Portsmouth, Portsmouth NH
Time commitment: 40 hours per week, June 4-August 17, 2018
Compensation: $6000 stipend

Desired Qualifications:
- Academic background in natural resource management, environmental studies, or other science and social science degrees preferred.
- Ability to develop a baseline dataset, organize a data collection plan, implement the first phase of data collection, and establish a long-term data collection protocol.
- Some experience working with the public in a local government setting.
- General understanding of climate change science.

- Technical Skills: Excel and/or database experience, GIS - in particular ESRI ArcMap and Story Map.
- Interests in climate change, historic preservation, and environmental protection.

UNHSI Sustainability program eligibility:
Graduate students, exceptional undergraduate students, and recent graduates are eligible. We will encourage, but not require, an academic sponsor or reference for each fellow, and where possible we will ask that course credits are awarded.

Supervision, Training, Mentoring and Evaluation:
This fellow will receive supervision from Peter Britz, Environmental Planner/Sustainability Coordinator and Nicholas Cracknell, Historic District Planner, as well as mentoring and extensive professional development offerings from UNHSI.

Fellows will be expected to participate in the following MANDATORY events:
- A three-day, two-night orientation in Durham, NH, May 29-31. Lodging and meals will be provided. A limited number of travel scholarships will be available to assist with transportation to Durham.
- Weekly webinars during the course of the 10-week fellowship.
- Midterm project presentations to UNHSI staff, faculty and relevant project partners in Durham, NH, July 12. Travel support provided.
- Final project presentations to UNHSI staff, faculty and relevant project partners in Durham, NH, August 10. Travel support provided.

Apply by February 14 at www.sustainableunh.unh.edu/sustainability-fellows.