

# UNIVERSITY of NEW HAMPSHIRE

*“Excellence in Outreach Scholarship”*

*Outreach Scholars Academy*

## Project Information



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### 1. PROJECT TITLE –

**Inside-Out – GeoAdventures from Science Centers to Watersheds**

### 2. PROJECT DESCRIPTION

Together with the Seacoast Science Center, Rye NH, and regional partners we are working to build networks of Informal Science Education (ISE) Centers and UNH Researchers. Our goal is to increase public understanding and stewardship of natural resources in coastal watersheds by expanding the work of the SSC and UNH. As such, the collaborations established will be mutually beneficial whereby science center content will be enriched and enabled by knowledge produced by university research. The work will advance and is aligned with the UNH Academic Strategic Plan goal of Engagement and Outreach.

### 3. BACKGROUND INFORMATION/STATEMENT OF THE ISSUES/PROBLEM

The Seacoast Science Center (SSC) has applied the popularity of geocaching to the highly interactive learning experience, *GeoAdventures, Assignment: Gulf of Maine* enabling visitors to discover the degree to which humans are interconnected with different parts of watersheds. Visitors are immersed in the watershed through a three screen projection system and touch sensitive computers in a new Interactive Learning Studio. *GeoAdventures* builds upon successful earth system science exhibits featuring

real-time observing system data that were developed through an engaged partnership between the SSC and the University of New Hampshire researchers.

#### **4. PROJECT DETAILS**

##### **Goals and Objectives:**

Our goal is to increase public understanding and stewardship of natural resources in coastal watersheds by expanding the work of the SSC and UNH through networks of Informal Science Education ISE centers and researchers at both regional and national levels.

##### **Target Population/Audience**

The public is the primary audience but professional ISE center staff and UNH researchers will also be impacted.

##### **Methods**

The partners, detailed below, are working on a proposal to the National Science Foundation (NSF) ISE program which “*seeks to increase interest, engagement, and understanding of STEM by individuals of all ages and backgrounds through self-directed science, technology, engineering, and mathematics (STEM) learning experiences, building on and contributing to educational research and practice*”. The first meeting of the group was held at the SSC on May 14 and all expressed enthusiastic support for submission of a proposal by the deadline on December 18, 2007. The idea is to adapt the technology and content of GeoAdventures for use at scales appropriate for each partner. Video and interactive content will be expanded with new print and web-based media, providing reinforcing outdoor learning experiences. Specifically, self-guided family-focused *GeoAdventures* guidebooks will lead individuals and families to key watershed features. Interactive web-based planning and reporting activities will foster family learning. The efforts will be guided by an advisory group of core UNH faculty involved in all aspects of watershed research as well as specialized faculty as needed. In years 3 and 4 we will transfer *GeoAdventures* to two other regions nationally forming a national network in year 5. As such, the principles of collaboration between the ISE centers and researchers will be part of the outcome. Research questions will focus on the impact of multiple layers of content, reinforced through this transformative approach and the efficacy of the ISE center and researcher collaborations.

##### **Evidence of External Collaboration and Partnership:**

Non-UNH partners at the May 14 meeting included representatives of the Seacoast Science Center, the Squam Lake Natural Science Center, the Mount Washington Observatory, iMARC LLC, Boston Productions, and RMC Research Corporation.

##### **Expected Impact:**

The strategic impact of the proposed work will be diverse. New types of collaborations will be formed including virtual ones. New technologies will be developed, refined, and disseminated. Researchers will be helped to achieve broader impacts. Learning experiences will be created that go beyond one-time activities at one center by reinforcing experiences across many centers and with outside activities.

##### **Scholarly Connection:**

The work will build upon the strong connections between the Seacoast Science Center and UNH with one of the aims of the evaluation being to assess and document the relationships impact and value on both parties. Core to the NSF ISE request for proposals is the need for proposals to advance the field of informal science education – a scholarly activity in itself. The

#### **5. EVALUATION PLAN**

RMC Research Corporation, one of the partners, will develop and implement the evaluation including both formative and cumulative aspects for all stages of the project.