

The Creation of an Open Space Management Guide for FEMA-Funded Buyout Properties and Injecting the Study and Practice of Buyouts and Resettlement into the Graduate Certificate Program.

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SHORT DESCRIPTION

This project will focus on the development and distribution of an Open Space Management Guide for home buyout properties and the incorporation of the findings into the Graduate Certificate Program. The guide, developed in partnership with a range of end-users, will blend policy and design approaches created to meet the needs of those engaged in the management of open space and the identification of “receiving areas” following FEMA-funded buyouts. The Open Space Management Guide will be incorporated into lecture and studio-based courses that are part of the Graduate Certificate in Disaster Resilient Policy, Engineering, and Design and other courses as identified. The guide will be disseminated to practitioners and academics as part of a strategy developed in partnership with FEMA Mitigation staff, State Hazard Mitigation Officers (SHMOs), Emergency Management Institute Higher Education Project Manager, American Society of Landscape Architects (ASLA), and American Planning Association (APA), land trusts, and others as identified.

ABSTRACT

In Year 7 we will focus on three activities: 1) Write an Open Space Management Guide to inform the use of FEMA-funded buyout properties (properties are acquired, structures

demolished, and the property is maintained as open space in perpetuity), 2) Incorporate the findings into existing and new courses aligned with the Graduate Certificate in Disaster Resilient Policy, Engineering, and Design; and 3) Disseminate the guide through venues that target those likely to manage open space post-buyout, including government officials, contractors, land trusts, and others as identified.

Activities 1 and 2 build on the last 6 years of work at the Coastal Resilience Center in that all Year 7 activities draw on the following CRC-funded projects: a) work associated with the 6-year study of hazard mitigation plans; b) the Year 4 Hurricane Matthew Disaster Recovery and Resilience Initiative work focused on the use of open space post buyout (see Homeplace and Floodprint) and the development of land suitability assessments used to identify appropriate areas to place post-disaster replacement housing; the Year 5 assessment of State Hazard Mitigation Officers capabilities to assist local governments implement Hazard Mitigation Assistance (HMA) grants (including buyouts), c) Year 5 and 6 work tied to the development of the NC State Graduate Certificate in Disaster Resilient Policy, Engineering, and Design; d) Year's 5 and 6 work tied to the comparative study of buyouts in the United States and New Zealand; and e) Year 6 work tied to graduate certificate courses developed and taught that were focused on buyouts and resettlement. Drawing from a range of past CRC-funded work to inform Year 7 activities provides a vehicle to institutionalize all activities into the approved NC State Graduate Certificate in Disaster Resilient Policy, Engineering, and Design and to connect work to the NC State Resilient and Sustainable Coasts Initiative, thereby ensuring the work and its results will endure over time.

In Year 6, the PI and colleagues taught Certificate-based classes that emphasized the study and practice of buyouts and resettlement. These included the Certificate's 1 credit hour Speaker Series course, which invited scholars and practitioners to discuss buyout research and resettlement issues (the recorded lectures were also used to inform students taking a 6- credit design studio). The studio (and accompanying report) was focused on the wise use of open space and the identification of areas suitable for resettlement in Lenoir County NC, to include the conversion of that land into varied green space strategies and the design of modified and new resettlement neighborhoods. In addition, the final class project in the Disaster Resilient Policy, Engineering, and Design course emphasized developing alternatives to the proposed Houston-Galveston Bay Seawall (Ike Dike), including nature- based solutions and the buyout and resettlement of identified communities. The information derived from the three classes was used to educate members of our student research team noted in the beginning of this workplan (who took these courses) in order to prepare them for Year 7 work and to inform the creation of the open space management guide to be developed at the request of the FEMA national office. Year 6 work is in the process of identifying innova-

tive buyout actions (through interviews with identified communities) spanning the project lifecycle, including open space management post-buyout. The results of the interviews pertaining to innovative open space activities will be incorporated into the guide.

The Open Space Guide, intended for use by states, local governments, contractors, and land trusts who often struggle with the wise use of open space post buyout, will draw from a unique combination of expertise spanning both the policy issues surrounding buyouts as well as landscape architecture and design. Together this multi-disciplinary effort will create an innovative and much needed guide for those tasked with open space management following hazard-prone buyouts.

The guide will be informed by research activities undertaken in Year 7 to include focus groups that include a sample of those interviewed regarding innovative buyout actions in Year 6 and candidates recommended by SHMOs (drawing from our past interactions with SHMOs during Year 5 research). Additional targeted interviews will be conducted with an advisory panel who will provide feedback throughout the study, development, and dissemination of the guide. The guide will also draw on exemplary work as identified by NC State landscape architecture faculty and students. Compiling a national inventory of US-based open space management documents, gray literature, and journal articles will help to develop case studies, best practices, and reference materials for the guide. All results will be compiled and visually represented by drawings, plans, process graphics, and other policy, planning, and design-based solutions, to include specific land programming activities informed by identified challenges and innovative options spanning communities of varied technical, fiscal, and personnel capabilities as well as differing geographic and physiographic characteristics.