**Title:** Do Coastal Copyright and DisclaimerEcosystems Mitigate Storm Surges and Tsunamis

**Statement of Problem:** Governments worldwide have recently eThe State of South Carolmbarked on mina owns the copyright tany expensive restoration projects involving barrier islands, coastal marshes and mangrovo the Code of Laws of Soe forests following catastrophic disturbance A commonly-held perception among the general public, policy-makers, and some scientuth Carolina, 1976, as cists is that coastal ecosystems provide significant measurable protection to human habitation during extreme storms anontained herein. Any usd tsunamis. Restoration activitiee of the text, section hs have beeadings, or catchlines oen particularly intensive after the December 2004 f the 1976 Code is subjetsunami in the Indian Ocean and the 2005 hurricane season in the Gulf of Mexico. Yet, the scientific ect to the terms of federvidence is equivocal. Field observations and some modeling studies cast doubt on these widely held beliefs. The scientific question can be cast in terms of theal copyright and other a interactions between coastal ecosystems and extremepplicable laws and such events. Firstly, how are coastal ecosystems impacted by extreme events? And secondly, do coastal ecotext, section headings, systems mitigate the extreme event, that is, under what conor catchlines may not beditions do they afford some form of protection, and if so, how much?

**Objectives:** First, thoroughly reproduced in whole or review the literature concerning the role of coastal ecosystems in mitigating damagin part in any form or fe to build a publicly accessible cor inclusion in any mateomprehensive database of actual observations that can be used for analyses. This literature review will also provide insights into how these perceptions rial which is offered focame about and hr sale or lease without ow they have been propagated. Second, bring physical and biological scientists in a major workshop to address this topic. Many hydrodynamic models exist concerning tsunami propagation through mangrovethe express written perms. Howeveission of the Chairman or these models are badly miscalibrated in how they represent the forests. Similar situations exist for other types of coastal ecosystems. Third, disseminate the results and recommendations to the public-policf the South Carolina Legy makers and appropriate islative Council or the government entities to ensureCode Commissioner of Sou the recommendations are included ith Carolina.This statuton the planning process.

**Relevance and Impact:** The cost of restoriry database is current tng coastal ecosystems and communities is huge. Resthrough the 2001 Regular oration must be based on sound science and the general public and decision makers must understaSession and the 2001 Extnd their options.

**Partnerships:** A number of scientists from all disciplines in USGS hara Session of the South ve expertise pertinent to this project. Federal partneCarolina General Assemblrs include the National Park Service and Fish and Wildlife Service, both of which have coastal unitsy. Changes to the statu along all tes enacted by the 2002 General Assembly, which willUS coastlines. The US Army Corps of Engineers would be extremely interested in the results.