Section 1:

**Mission:** To promote research and analysis that ultimately reduces the harm caused by natural forces to life, communities, and the environment.

**Vision Statement:** The Center for Natural Hazards Research will foster a multidisciplinary research community that seeks to understand and thereby improve our ability to predict, respond to and recover from adverse events caused by natural processes.

-The Center for Natural Hazards Research continues to honor its central goals articulated in its vision and mission statement. It has served as a focal point for research on natural hazards with particular emphasis on hazards that threaten eastern North Carolina. Our comparative advantage lies in the strong social, behavioral and economic research that integrates well with equally strong hazards research programs in the geosciences (Departments of Geography and Geology). Another unique aspect of our center is the close collaboration with the faculty members from Technical Communication and Professional Discourse in the English Department. The scientific expertise of the faculty involved coupled with their willingness to collaborate effectively and unselfishly is truly one of the secrets to our success. Following a retreat in spring 2009, CNHR increased the number of faculty affiliates from 10 core members to 27 research affiliates (dropping the previous “core” distinction).

As is often the case, the successful Hurricane Floyd Symposium created the groundwork for what has evolved into the annual ECU/North Carolina Department of Emergency Management (NCEM) Hurricane Workshop. The first was May 2010, and the second was on May 18, 2011. This ongoing initiative represents effective collaboration with the NCEM and engagement with the emergency management community of North Carolina. The 2011 workshop featured new and developing products for storm surge and flooding from the National Weather Service. The attendees represent a broad range of professionals that use hurricane information including emergency managers, the media, ferry operators, NWS forecasters, the Coast Guard and other representatives of the military.

The local, national, and international reputation of the CNHR must be nurtured in order to continue attracting high quality researchers to East Carolina University that in turn provide the expertise to continue and expand our efforts. Collaborations that reach far beyond North Carolina’s borders create the connections that enhance our reputation. Further, expanding connections with federal government agencies such as NOAA, NASA, USGS, DHS and of course, NSF, will allow CNHR and its associates to help guide federal research priorities and provide the funded research to support those priorities.
Section 2:

a) Accomplishments

a.i.) Teaching

Natural Hazards-Related Courses Taught: (15)

- ECON32440 Risk and Regulation – Kruse
- ECON3855 Environmental Economics – Bin
- ECON6402 Graduate Microeconomics II – Landry
- GEOL1500 Dynamic Earth – Leorri
- GEOL5500 Directed Studies in Geology - Leorri
- GEOG1300 Weather and Climate – Curtis
- GEOG4293 Supervised Study in Physical Geography 3 – Allen
- GEOG4540 Coastal Storms – Curtis
- GEOG6440 Tech Coast Resource Analysis - Allen
- GEOG6493 Independent Study in Geography Techniques – Allen
- GEOG6540 Advanced Coastal storms – Curtis
- OAS4025 Society and the Sea Seminar – Allen
- PLAN6015 Emergency/Disaster Planning – Mukherji
- PLAN4015 Emergency Management Planning – Mukherji
- SUTO6100 Environmental Systems and Sustainability - Allen

Advising Activities: (20)

- Greg Meyer – Bin, Dissertation Committee
- Jingyuan Li – Bin, Research Project
- Hillary Huffer, Coastal Resource Management, In Progress. – Kruse, Doctoral Dissertation, Chair
- Shona Paterson, Coastal Resource Management, In Progress. – Kruse, Doctoral Dissertation, Member
- Jingyuan Li, Coastal Resources Management, In Progress. – Landry, Doctoral Dissertation, Chair
- Hillary Huffer, Coastal Resource Management, In Progress. – Landry, Doctoral Dissertation, Member
- Calvin Mires, Coastal Resource Management, In Progress. – Landry, Doctoral Dissertation, Member
- Kelli Moran and Andrew Dietsche, Student Assign-Supervised Research (GRAD). 2 students, Co-advising, Culver & Mallinson
- Kelli Moran and Andrew Dietsche, Thesis committee, Co-Chair - Mallinson
- Nidhi Patel, Matt Smith, Casey Smith, Shane Sisco, Alisha Ellis, graduate students, Thesis committee member – Mallinson
- Heather Ward (CRM) and Calvin Mires (CRM), Ph.D. students, Dissertation Committee member – Mallinson
- Joao Moreno, graduate student, supervision of research work at the University of Lisbon, Portugal within the WestLog project – Leorri
- Casey Smith, graduate student, Thesis / Dissertation Committee – Chair – Leorri
CNHR Graduate Research Associate Accomplishments

- **Jingyuan Li:**
  - **Research Presentations:**
    - **Research and Creative Achievement Week:** East Carolina University, April. 2011. “Community Hazard Mitigation: An Empirical Analysis of North Carolina Counties”.
    - **Southern Economics Association 80th Annual Conference:** Atlanta, GA, Nov. 2010. “Community Hazard Mitigation and Community Rating System of NFIP”.
    - **Department of Economics, East Carolina University:** Greenville, NC, Nov. 2010. “Flood Hazard Mitigation and the Community Rating System: An Empirical Analysis of NC Counties”.
    - **The Coastal Society 22nd Conference:** Wilmington, NC, Jun. 2010. “Coastal Community Hazard Mitigation and Community Rating System of NFIP”.
    - **3rd National Forum on Socioeconomics Research in Coastal System:** New Orleans, LA Louisiana State University, Center for Natural Resource Economics and Policy, May.2010. “Coastal Community Flood Hazard Mitigation”.
  - **GRANT 2010 (summer)** – **United States Census Bureau** “Community Hazard Mitigation and the Community Rating System of NFIP” with Craig Landry (Special Sworn Status with Access to US Census Micro-data)
  - **HONORS** Graduate Student Dissertation Research Award, 2010 Southern Economics Associations, Nov.2010

- **Hillary Huffer:**
  - Named an **SAS Student Ambassador** for the 2011 SAS Global Forum in Las Vegas, Nevada.
Research Presentations:


Section 2:

a) Accomplishments

a.i.i.) Research/Publications/Creative Activities

Grants Funded: (24 totaling $3,519,315)

- 2010: Allen, T. R., Shoreline Change and Sea-Level Rise Assessment and Visualization for the Town of Plymouth, NC ($8,000.00), NC Sea Grant.
- 2010: Brinson, M., Christian, R., & Reyes, E., Virginia Coast Reserve LTER V ($305,000.00), Virginia Coast Reserve LTER V - Mark Brinson, Robert Christian. 10/01/06 - 09/30/12. $305,000. AWARDED, GOV-National Science Foundation (NSF).
- 2010: Corbett, D. R. & Walsh, J. P., Assessment of the cycling and compartmentalization of nitrogen and phosphorus in saturated soils, sediments, and the water column in Lake Jesup, Flori, FIU. ($13,000)
- 2011: Corbett, D. R., Tsunamigenic deposits: a chronological approach, CENTRO DE GEOLOGIA, UNIVERSIDADE DE LISBOA. ($1,500)
- 2010: Curtis, S., Global Precipitation Variations and Extremes ($25,000.00), GOV-National Aeronautics and Space Administration (NASA).
- 2010-2011: Ganapati, E. (PI), Rahill, G. (co-PI), Mukherji, A. (Project Expert), & Clerisme, C. Re-housing Urban Haiti After the Earthquake: The Role of Social Capital ($45,000), GOV-National Science Foundation (NSF)
- 2010: Humphrey, C., O'Driscoll, M., & Manda, A., On-site Wastewater and Centralized Sewer System Nutrient Loadings to Surface Waters in Pitt County, NC ($83,473.00), North Carolina Department of Environment and Natural Resources.
- 2010 - Leorri, E., Geological sea-level reconstructions to supplement instrumental data in SW Europe, Oak Ridge Associated Universities, Ralph E. Powe Junior Faculty Enhancement Awards. ($10,000)
• 2010: **Mallinson, D. J.**, SMT Kingdom Suite Seismic Software for Education and Research, Seismic Micro-Technology, Inc. ($524,874)
• 2010-2011: **Mukherji, A.** American Fellowships – Summer Research Publication Grant ($6,000), PRI-The American Association of University Women (AAUW). Grant funds research writing and dissemination of scholarship. Eight weeks in summer 2011 (May and June) will be dedicated for final writing and editing of research articles for submission in peer-reviewed journals.
• 2010: **O’Driscoll, M. A.**, Humphrey, C., & Mitra, S., Onsite wastewater treatment adjacent to a nutrient-sensitive estuary ($67,316.00), GOV-Centers for Disease Control and Prevention (CDC).
• 2010: **O’Driscoll, M.**, Humphrey, C., & Brinson, M., Water Quality Restoration for Meeting House Branch ($33,073.00), North Carolina Department of Justice - Environmental Enhancement Grant.
• 2010: **Reyes, E.**, Rybczyk, J., Coastal Landscape for Padilla Bay Watershed ($52,647.00), Coastal Landscape for Padilla Bay Watershed. John Rybczyk. 06/01/06-05/30/09. EPA STAR Grants/Western Washington University. $52,647. AWARDED., GOV-Environmental Protection Agency (EPA).
• 2010: **Smith, C.**, National Oceanic and Atmospheric Administration (NOAA) Sea Grant Program (North Carolina). To conduct baseline study of perceived risks of Gulf of Mexico oil spill impacts on North Carolina’s coastal tourism businesses and public land use areas. 2010. $6,000 requested and granted (ECU Center for Sustainable Tourism). Co-investigator.
• 2010: **Walsh, J. P. & Corbett, D. R.**, AMENDMENT: Estuarine Shoreline Mapping: Creating a Digital Shoreline for the Albemarle-Pamlico Estuarine System ($44,345.00), NC DENR.

**Grants –Pending: (15)**

• 2010: **Allen T. & Boutin, B.**, Sea-Level Rise Visualization for Decision-Makers in the Albemarle-Pamlico Region, ($100,000) NOAA Center for Sponsored Coastal Ocean Research.


2010: **Corbett, D. R.**, Advanced regional and decadal predictions of coastal inundation for the US Atlantic and Gulf coasts, University of Pennsylvania - NOAA.


2011: **Landry, C. E.** & **Whitehead, J.**, ECONOMIC VALUES OF COASTAL EROSION MANAGEMENT, PROPOSAL STAGE, NORTH CAROLINA SEA GRANT


2011: **Reyes, E.**, Integrating Sustainability into Agricultural Education: Water resources and Global Climate Change Challenges, Gov-Department of Agriculture (USDA).


2010: Schleigh, S., Manda, A., Mitra, S., & **Reyes, E.**, The Role of PBL in Improving Climate Literacy and Science Education in the Elementary Schools, Gov-National Science Foundation (NSF).


**Grants: Not Funded:** (16)


2010: Bond, J., Chalcraft, D., Goodwillie, C., Miller, R., & **Reyes, E.**, DIMENSIONS: PREDICTING SPATIAL VARIATION IN FUNCTIONAL, TAXONOMIC AND GENETIC COMPONENTS OF BIODIVERSITY:
CONSTRANTS ON THE DIVERSITY AND DISTRIB, Program Solicitation 10-548: Dimensions of Biodiversity, GOV-National Science Foundation (NSF).

- 2010: **Corbett, D. R., Walsh, J. P.**, & Mitra, S., RAPID funding to evaluate the transfer and ultimate storage of oil to the seabed, GOV-National Science Foundation (NSF).


- 2010: **LANDRY, C. E., HINDSLEY, P., PETROLIA, D., LIU, H., & VOGELSONG, H.**, Natural Resource Economics for Environmental Disasters: Application to the Deepwater Horizon Oil Leak, $250,000 GOV-National Science Foundation (NSF) - RAPID.


- 2011: **Mallinson, D. J., Culver, S., & Mulligan, R.,** Collaborative Research: A coupled geologic and hydrodynamic modeling approach to hindcast and forecast the response of a coastal system to sea-level. **Center for Natural Hazards Research.**

- 2010: **Schleigh, S., Arrigo, J., Allen, T., Reyes, E., Kain, D., P. Long.,** CAUCES (Catalytic Agents Understanding Climate Education & Science)., Climate Change Education: Climate Change Education Partnership Program, Phase I., GOV-National Science Foundation (NSF).

- 2010: **Walsh, J. P., Corbett, D., Kimmel, D., Miller, R., & Mulligan, R.,** Storm-Driven Material Transport and Cycling in the Albemarle-Pamlico Estuarine System and Export to the Atlantic Ocean ($738,226.00), GOV-National Aeronautics and Space Administration (NASA).

- 2010: **WASKLEWICZ, T., ALLEN, T., GARES, P., & LANDRY, C. E.**, Acquisition of Terrestrial Laser Scanning Instrumentation to Investigate Complex Space-Time Relationships in the Coastal Zone, $350,000, GOV-National Science Foundation (NSF).
Publications: Peer-Reviewed: (28)


**Proceedings, Books, and Book Chapters: (78)**


• Kruse, J. (2010) University of Nebraska, “Three papers illustrating research and discovery,” Lincoln, NE.


• Leorri, E. (2010). Improving tide gauge sea-level reconstructions using modelling and field observations of Holocene sea-level changes along the Atlantic coast of SW Europe. GSA Northeastern/Southeastern section meeting.


• Leorri, E. (2010). Improving tide gauge sea-level reconstructions using modelling and field observations of Holocene sea-level changes along the Atlantic coast of SW Europe. GSA Northeastern/Southeastern section meeting, Baltimore, Maryland.


• Leorri, E. (2010). Modeling and field observations of Holocene sea-level along the Atlantic coast of SW Europe to understand the current sea level. Department of Earth, Ocean and Environment seminar series (University of Delaware), Newark, Delaware.


Applied Geography. 31: 63 pp.
• Montz, B.E. “CRC Cards: A Method to Learn about Emergency Management
Decision Processes.” Presented at the Annual Meeting of the American
• Montz, B.E. “Networks in Emergency Management: Mapping the Flow of
Information.” Presented at the Southeast Division of the Association of American
• Montz, B.E. “Systemic Trends in Vulnerability: Migrant and Seasonal Farm
Workers in North Carolina.” Presented with G. Monitz at the Race, Ethnicity, and
• Montz, B.E. “Response to Short-fuse Warnings: What We Know and Don’t Know.”
Presented at the Applied Geography Conference, Fort Worth, TX. October, 2010.
• Montz, B.E. “Response to Flash Flood Warnings: State of Our Knowledge.”
Presented at The NWS Eastern Region Flash Flood Conference, Wilkes-Barre, PA.
June, 2010.
• Mukherji, A. (2010, October). Urban Housing Recovery in Haiti. Association of
Collegiate Schools of Planning, Minneapolis, Minnesota.
• O’Driscoll, M. A., DeLoatch, J., & Brinson, M. (2010). Urbanization effects on low-
order riparian groundwater in the Coastal Plain of North Carolina. American
Geophysical Union (AGU), San Francisco, California.
• O’Driscoll, M. A. (2011). Streams and sprawl: Riparian groundwater response to
urbanization along lowland streams of North Carolina, USA. Invited Speaker at
University College-Dublin (Ireland), Dublin, Ireland.
Dimensions for Sustainable Socio Economic Development. , Ashurst, Southampton,
SO4O 7AA, UK: WIT Press.
Liberty Island, CA. 6th Biennial Bay-Delta Science Conference, Sacramento,
California
Carolina’s Coast. UNC Press.
• Smith, C. “Making Sense of Hurricanes.” 91st Annual Meetings of the American
Meteorological Society. January 26, 2011, Seattle WA. With Kenneth Wilson,
Douglas Solomon, Michelle Covi, Donna J. Kain, Clifton Nelson.
• Smith, C. “Who Evacuates When a Hurricane Approaches?” Southern Sociological
Society Annual Meetings, April 8, 2011, Jacksonville FL. With Kenneth Wilson
(presenter), Donna J. Kain, Michelle Covi, Douglas Solomon.
• Smith, C. “Communicating Hurricanes: How People Get and Use Severe Weather
and Emergency Information 2008-2010.” North Carolina Emergency Managers
Association All-Hazards Spring Conference, March 16, 2010, Sunset Beach NC.
With Kenneth Wilson, Michelle Covi (co-presenters), Donna J. Kain.
• Smith, C. “Severe Weather Emergency Communication Today.” On panel
“Research Reports.” NC-Emergency Response Team (SERT) and East Carolina
University (ECU) Center for Natural Hazards Research (NCHR) First Annual
Hurricane Conference, May 25, 2010, Greenville NC. With Kenneth Wilson and
Donna J. Kain (presenter).


Abstracts: (11)


Soniferous Atlantic Croaker (Micropogonias undulatus) Population. *Acoustic Society of America Meeting, Baltimore, MDC.*


**Working Papers: (18)**


• **Mallinson, D. J., Smith, C., Mahan, S., Culver, S.,** & McDowell, K. (2010). "Barrier Island Response to Late Holocene Climate Events, North Carolina, USA," Revised and resubmitted to *Quaternary Research*.


### Reports: (3)


### Other Research Activities: (16)

• **Allen, T.** 2010: Interviewed by WITN for Japan Tsunami

• **Allen, T.** 2010: Insights on oil spill were covered on radio (NPR-6/18/10), TV (WCTI-4/29/10; WNCT-6/16/10) and newspapers (Daily Reflector-6/15/10)

• **Allen, T.** 2010: Featured researcher in ECU’s Exploration & Discovery

• **Allen, T.** 2010: Created stories and updated content for NCCOHAZ web site.

• **Allen, T.** 2011: Participated in and lead discussion at NSF MARGINS workshop on Source-to-Sink Sedimentation, Oxnard, CA. January 2011
• **Allen, T.* 2010: Associate Director of RENCI@ECU. Providing assistance in grant management, web development, report writing, meetings, etc.

• **Kain, D.* 2010: Social Science Observatory Workshop


• **Landry, C.* 2011: Research-in-Progress. Flood Insurance Coverage and Deductible Choice (with Mohammad Jahan-Parvar and Fan-Chin Kung)

• **Landry, C.* 2011: Research-in-Progress. Economic Costs of Beach Replenishment (with Jingyuan Li)

• **Landry, C.* 2010: Research-in-Progress. Perceptions of Responsibility for Post-disaster Rebuilding (with Okmyung Bin, Paul Hindsley, Jamie Kruse, John Whitehead, and Kenneth Wilson)

• **Landry, C.* 2010: Research-in-Progress. Using Hedonic Property Models to Value Coastal Resource Quality – Application to Dare County, NC (with Tom Allen, Tom Crawford, and Jingyuan Li)

• **Montz, B.* Member, American Meteorological Society Board on Societal Impacts, 2007-2012

• **Montz, B.* Liaison to the Board on Higher Education

• **Montz, B.* Member, National Weather Association Committee on Societal Impacts of Weather and Climate, 2009-2011.

• **Montz, B.* Co-liaison to the Committee on Professional Development

**Section 2:**

a) **Accomplishments**

a.i.i.i.) **Service**

Service – University:

• **Bin, O.** 2010-2011: Advisory Committee for PhD Program in Coastal Resources Management

• **Bin, O.** 2010-2011: Coastal and Marine Studies Advisory Committee

• **Curtis, S.** 2010-2011: ECU Geography Awareness Week Panel Member

• **Curtis, S.** 2010-2011: Center for Natural Hazards Research: Assistant Director

• **Curtis, S.** 2010-2011: Kinston NC, Rotary Club: Presented on ECU's Center for

• **Curtis, S.** 2010-2011: Panelist: The Gulf of Mexico: Why is so attractive to hurricanes? (Biology)


• **Leorri, E.** 2010-2011: ECU Coastal-Maritime Council: In one role, the Council provides guidance and consultation to the Institute for Coastal Science and Policy (ICSP), and is convened by the ICSP Director. The Council also serves as a forum for internal and external issues and actions that are important to the smooth and effective functioning of ECU’s coastal and maritime interests campus-wide, and at affiliated institutions. Armed with a small budget, the Council also invests in such efforts at ECU and initiates and oversees a participant reward system for contributions to interdisciplinary projects.

• **Malinson, D.** Chair: 2010-2011: Chair of Personnel Committee

• **Malinson, D.** Faculty Advisor: 2010-2011: Graduate Faculty;

• **Reyes, E.** Chair: 2010-2011: Dept. of Biology Personnel Committee; 2010-2011: Dept. of Biology Ecologist Position Search Committee

• **Reyes, E.** Member: 2010-2011: Dept. of Biology Wetland Ecologist Position Search Committee

• **Reyes, E.** Member: 2010-2011: Dept. of Biology Central Environmental Laboratory Supervisor Position Search Committee.

• **Reyes, E.** 2010-2011: Dept. of Biology. BioScience Building Committee.: Co-chair

• **Reyes, E.** 2010-2011: Dept. of Biology. Raymond O’Connor Seminar Series: Seminar Coordinator

• **Reyes, E.** 2010-2011: Coastal Studies Minor Advisory Committee

• **Reyes, E.** 2010-2011: Coastal Maritime Council

• **Reyes, E.** 2010-2011: Dept. of Biology Representative to the Faculty Senate

• **Reyes, E.** 2010-2011: Faculty Senate. Committee on Committees

• **Reyes, E.** Faculty Advisor: 2010-2011: Coastal Resources Management Program: Ms. Michelle Covi


**Service: Professional**

• **Bin, O.** 2010-2011: Southern Economic Journal (Regional).


• **Bin, O.** 2010-2011: Land Economics (National).

• **Bin, O.** 2010-2011: Journal of Environmental Management (National).

• **Bin, O.** 2010-2011: Journal of Environmental Economics & Mngt (National).


• **Bin, O.** 2010-2011: Environmental and Resource Economics (International).


• **Bin, O.** 2010-2011: The Research Grants Council, Hong Kong, China (International).

• **Bin, O.** 2010-2011: Summer Conference of the Association of Environmental and Resource Economists (National).
• **Curtis, S.** 2010-2011: AGU Meeting of the Americas, Co-convener and Co-chair of oral session: Drought in the Intra-Americas Seas, Iguassu Falls, Brazil (International).

• **Curtis, S.** 2010-2011: Center for Disaster Research and Education, Millersville University, A Global Perspective on Flood and Landslide Hazards Through Recent Advances in Satellite-Based Research, Millersville, Pennsylvania (National).

• **Curtis, S.** 2010-2011: Florida Atlantic University, Farmer Knows Best: How Vegetation and Climate Data Can Both Inform and Be Verified By Local Knowledge in Jamaica's Vulnerable 'Bread Basket', Boca Raton, Florida (National).

• **Curtis, S.** 2010-2011: Severe Storms and Their Environmental Impacts (International).


• **Kruse, J.** Review Panel, National Science Foundation, Graduate Research Fellowship Program (Economics) 2011.

• **Kruse, J.** Member, White House Office of Science and Technology Policy, Subcommittee on Social, Behavioral and Economic Science, 2010.

• **Kruse, J.** Member, White House Office of Science and Technology Policy, Subcommittee on Ocean Science and Technology Policy, 2010.

• **Kruse, J.** Co-chair, White House Office of Science and Technology Policy, Subcommittee on Ocean Science and Technology Policy, Interagency Working Group on Ocean Social Science, 2010.

• **Kruse, J.** Member, National Oceanic and Atmospheric Administration, Research Council, 2010.

• **Kruse, J.** Co-Chair, National Oceanic and Atmospheric Administration, Research Council Social Science Committee, 2010.

• **Kruse, J.** Co-Chair, National Oceanic and Atmospheric Administration, Research Council Ad Hoc Committee on Scientific Integrity, 2010.

• **Kruse, J.** Lead, Social Science Theme, NOAA Deepwater Horizon Science Team, 2010.

• **Kruse, J.** Member, White House Deepwater Horizon Oil Spill National Incident Command, Economic Solution Team, 2010.

• **Kruse, J.** Member, organizing committee, Deepwater Horizon Oil Spill Principal Investigator’s Conference, sponsored by OSTP Subcommittee on Ocean Science and Technology Policy, St. Petersburg, FL, October, 2010.


• **Landry, C.** 2010-2011: Associate Editor, Marine Resource Economics.

• **Landry, C.** 2010-2011: Associate Editor, Social and Behavioral Science, Natural Hazards Review.

• **Landry, C.** 2010-2011: Natural Hazards Review (International).


• **Landry, C.** 2010-2011: ENVIRONMENTAL MODELING AND ASSESSMENT (International).

• **Landry, C.** 2010-2011: ENVIRONMENTAL MANAGEMENT (International).

• **Landry, C.** 2010-2011: Environmental and Resource Economics (International).

• **Landry, C.** 2010-2011: Contemporary Economic Policy (National).

• **Landry, C.** 2010-2011: Natural Hazards Review (International).

• **Landry, C.** 2010-2011: Land Economics (International).
• Landry, C. 2010-2011: POPULATION AND ENVIRONMENT (International).
• Leorri, E. 2010-2011: Coastal Hope 2010 meeting, Member of the Scientific committee board of the Coastal HOPE 2010 meeting, Lisbon, Portugal (International).
• Mallinson, D. 2010-2011: Symposium Chair - Southeast Section of the Geological Society of America, Symposium Co-Chair (with Dorothea Ames); Coastal Response to Sea Level and Climate Changes: A Tribute to the Career of Stan Riggs (Cosponsored by the Eastern Section, SEPM). SEGSA, Wilmington, NC, Wilmington, North Carolina (Regional).
• Mallinson, D. 2010-2011: Science Panel Member; NC Coastal Resources Commission
• Mallinson, D. 2010-2011: Science and Technical Advisory Committee Member for the Albemarle-Pamlico National Estuary Program
• Mallinson, D. 2010-2011: Invited presentation at UNC-Wilmington, Presentation to UNC-Wilmington, Dept. of Geology and Geography: 'Sweating The Details: New Insights On The Late Pleistocene And Holocene Evolution Of The North Carolina Coastal System And What It Might Mean For The Future', Wilmington, North Carolina (State).
• Mallinson, D. 2010-2011: Invited lecture at Old Dominion University, Presentation to Old Dominion University, Dept. of Geology and Oceanography: 'Sweating The Details: New Insights On The Late Pleistocene And Holocene Evolution Of The North Carolina Coastal System And What It Might Mean For The Future', Norfolk, Virginia (Regional).
• Mallinson, D. 2010-2011: Integrated Ocean Drilling Program, Reviewer for Expedition manuscript (International).
• Mallinson, D. 2010-2011: Marine Geology, Reviewed manuscript MARGO4498 for Marine Geology (International).
• Mallinson, D. 2010-2011: Sedimentology, Reviewed numerous manuscripts for Sedimentology as Associate Editor
• Mallinson, D. 2010-2011: National Science Foundation (National).
• Montz, B. Member, American Meteorological Society Board on Societal Impacts, 2007-2012
• Montz, B. Liaison to the Board on Higher Education
• **Mukherji, A.** 2010-2011: Association of Collegiate Schools of Planning, Roundtable Facilitator. *Post-disaster recovery planning in Haiti: A Roundtable.* Association of Collegiate Schools of Planning Annual Conference, Minneapolis, Minnesota October 6-10, 2010 (National)


• **Mukherji, A.** 2010-2011: Association of Collegiate Schools of Planning, Roundtable Panelist. *Post-disaster recovery planning in Haiti: A Roundtable.* Association of Collegiate Schools of Planning Annual Conference, Minneapolis, Minnesota October 6-10, 2010 (National)

• **Mukherji, A.** 2010-2011: Earthquake Spectra, Journal of the Earthquake Engineering Research Institute (EERI), First review of manuscript in November 2010, Second review of manuscript in March 2010 (International)

• **Reyes, E.** 2010-2011: Society of Wetland Scientists, Co-Chair Symposium., Prague, Czech Republic (International).

• **Reyes, E.** 2010-2011: DELTANET INTERNATIONAL CONFERENCE. Impacts of Global Change on Deltas, Estuaries and Coastal Lagoons, Scientific Committee Member., Ebro Delta, Spain (International).

• **Reyes, E.** 2010-2011: Albemarle-Pamlico National Estuarine Wetland Resources Monitoring Team (Regional).


• **Reyes, E.** 2010-2011: Albemarle-Pamlico National Estuarine Program's Science & Technical Advisory Committee (Regional).

• **Reyes, E.** 2010-2011: Ecological Engineering (International).

• **Reyes, E.** 2010-2011: Estuarine, Coastal and Shelf Science (International).

• **Reyes, E.** 2010-2011: Wetlands (International).


• **Reyes, E.** 2010-2011: National Science Foundation Louis Stokes Alliances for Minority Participation (LSAMP) (National).

• **Reyes, E.** 2010-2011: Maryland Sea Grant Omnibus 2011-2012., Baltimore, Maryland (Regional).

• **Reyes, E.** 2010-2011: Environmental Management (International).

---

**Service: Community:**

- **Curtis, S.** 2010-2011: Interviewed (audio) in CBS WNCT news story: 'Staying Covered in the Peak of Hurricane Season'

- **Mallinson, D.** 2010-2011: Presentation, Participated in 'Oilpocalypse' presentation at the Greenville Science Café.

- **Mallinson, D.** 2010-2011: Presentation, Presented 'What is Geology?' to Ms. Allen's 4th grade class, Wintergreen Intermediate School, Pitt County, NC.
• **Reyes, E.** 2010-2011: Center for Sustainable Tourism Meet, Greet, and Learn Event, Panel Member. Discussion panel 'How does sustainable tourism looks like?'
• **Reyes, E.** 2010-2011: ECU student chapter of the Coastal Society, Panel Member. Film presentation 'Sun Come Up'.

Section 2:

b) **Accomplishments**

2.b) **Ongoing Initiatives** – CNHR will continue to:

• Organize North Carolina Emergency Managers Hurricane Conference @ ECU
• Competitively award course buy-outs to CNHR affiliates in order to promote natural hazards research and grant writing. 2010-2011 awardees:
  • Bin, O. & Crawford, T., Modeling Storm Surge and Flood Losses in NC Coastal Communities.
  • O’Driscoll, M.A., The Effects of Climate Change and Storm Events on Septic System Wastewater Treatment in Eastern North Carolina: Potential Public Health Hazards.
• Sponsor symposia, conferences, and workshops that are of interest and relevant to the hazards research community at ECU.
• Promote interaction among hazards researchers at ECU and other partner institutions.
• Promote interactions and feedback among hazards researchers at ECU and constituents in state & local government and the general citizenry.

2.c) **Short-term Goals (1-3 year time horizon)**

• Third Annual NC Emergency Manager’s Conference, May 2012. Objective of conference is to produce practical information that should be of use to Emergency Managers in North Carolina. To include:
  • Meteorological update for the 2012 hurricane season
  • Overview of the latest evacuation and sheltering plans
  • Academic panel
  • Produce high quality research and outreach products.
• Maintain Semi-Annual Newsletter
• Create video for website and as instructional resource.
• Maintain active external grant proposal activity and facilitate ongoing grant funded research.
• Enhance the interdisciplinary aspect of graduate education.
  • Resources Needed: Graduate stipend for creation of competitive Hazards Center Fellowship - total $18,000 plus tuition.
• Continue Hazards Seminar Series with outside speakers.
  • Resources Needed: Travel expenses and small honorarium
• Foster International Collaborations
  • Resources Needed: Support for visiting professorship and international travel support.
• Create platform for databases available to researchers.
2.d) **Long-term Goals, Future Needs and Requests**

- **BUDGET**: In light of the current state funding conditions, no new funds have been requested. We request $9,000 in operating funds to sustain Center activities.
- **CNHR will continue to expand its influence through research and outreach consistent with our strategic plan and mission**: *To promote research and analysis that ultimately reduces the harm caused by natural forces to life, communities, and the environment.*
- **Resources needed. Long term vision for the CNHR includes the following:**
  - **Personnel-Staff** - *the current administrative assistant position split into two:*
    1. Associate Director/Office Manager - Manage day-to-day operations of research center including accounting and outreach.
    2. Secretary/Receptionist - Provide initial point of contact, organize meetings and calendars, work with AD to produce newsletter and maintain website.
  - **Graduate Students** - two 9 month Graduate Assistant salary plus benefits
  - **Faculty**
    1. Visiting faculty position - one full time position for outside visitor. Can be split to support two visitors on sabbatical/development leave from other institutions or from within ECU.
    2. Assistant Director - 51% departmental/49% hazards center
    3. Four Split faculty positions - 51% departmental/49% hazards center positions. Possibilities:
      - Geography - GIS data management capabilities
      - Spatial statistics
      - Simulation
      - Sociology - hazards related research
      - Survey research and statistical analysis skills
      - Professional and Technical Communication-
      - Risk communication research focus
      - Atmospheric Science/Geography-
      - Hurricane/severe wind storm related research
      - Economics - 1) Resource/Environmental
      - 2) Regional or Public Economics
      - Psychology/Decision Theory/Economics-
      - Risk and decision making
      - Planning - Land use planning and hazards
      - Quantitative Assets not necessarily linked to a single department.
      - Spatial Econometrics
      - Game Theory
      - Dynamic Stochastic Optimization
      - Network Analysis
      - Computational Fluid Dynamics
      - Visualization
  - **Facilities**
    1. Sufficient Office space to house all personnel plus conference room.
    2. Experiment and survey lab