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The challenge of sustaining the ecological, settlement, and economic framework of the coast is one of the Gulf South’s most pressing issues. The mission of the LSU Coastal Sustainability Studio (CSS), founded in 2009, is to address this challenge.

At CSS, scientists, engineers, and designers come together to intensively study and respond to issues of settlement, coastal restoration, flood protection, and the economy. We bring together disciplines that normally work separately so that we can respond to critical coastal issues in a comprehensive way. CSS was conceived as a laboratory to develop new strategies that reduce risk to social, economic, and natural resources. The results of this design experimentation provide a sound basis for major policy decisions for adaptation through more sustainable land-use planning, protection, and education.

The CSS approach centers on supporting resilient human communities in the dynamic Gulf of Mexico environment. These communities face tremendous challenges, many of which are not being solved because the various disciplines alone cannot cope with the complexity and enormity of the problems. CSS was created as a trans-disciplinary institute for this reason. We work to envision and design sustainable systems that reduce vulnerability to increased storm strength, coastal hazards, habitat degradation, and global environmental change.

The Louisiana coast, a working coast home to 2 million residents, faces tremendous risks including climate change, sea level rise, land subsidence, habitat degradation, marsh collapse, threat of inundation, wetlands loss, and change in rainfall patterns, to name just a few. A number of communities are already at, or below, sea level. Increased number of storms, and of storm surge strength, have particularly affected our coast with 4 of the most destructive hurricanes in history hitting Louisiana within the last 8 years. Our wetlands, a natural storm barrier, are lost at a rate of 25,000 acres per year, the equivalent of 1 football field per hour. This loss is one of the nation’s most serious environmental crises.

The environmental and societal issues in coastal Louisiana also mirror similar concerns in major river delta regions worldwide. At the same time, the specific problems facing our delta are unique. Through our innovative, trans-disciplinary approach, we aim to serve as a national and worldwide model for addressing coastal sustainability.

CSS is a trans-disciplinary program of the College of Art + Design, College of Engineering, and School of the Coast & Environment.
How the Studio Works

The Studio is Trans-disciplinary
All of our projects engage at least 3 disciplines originally drawn from the School of the Coast & Environment, College of Engineering, and College of Design. Our efforts are now also supported by students and faculty in law, history, geography, philosophy, and religious studies.

The Studio is Community-Based
CSS products are developed through collaboration with our local partners. Our work is subject to input and review by community members and other outside experts, and project teams utilize these inputs to develop remarkable new ways to accomplish the multi-purpose goals of various projects.

The Studio is a Physical Space
Located in a large open space in the Design Building, the studio incorporates training, learning, and demonstration to help educate and train students, staff, and faculty on the principles and practice of coastal sustainability.

The Studio Approach is Systems-Based Thinking
CSS work embraces systems thinking, which incorporates not only the needs of specific projects in design but also relationships to the natural social, and built systems that frame those projects. This systems-based thinking approach accounts for the impacts of many urban/settlement designs and the resulting environmental response.

The Studio Works in Conjunction with the Goals of the Louisiana Coastal Master Plan
Our designs aim to reduce economic losses and protect assets, promote a sustainable coastal system by using natural processes, provide suitable habitats to support an array of commercial and recreational activities, and sustain our state’s unique coastal heritage.
Our Team

**STAFF**
Jeff Carney, AICP – CSS Director and Associate Professor, School of Architecture
Laura Larkin, MBA – Coordinator
Katrina Durbak, MS – Research Associate
Patrick Michaels, LEED AP, BD+C, ASLA – Research Fellow
Jacob Mitchell, MLA – Research Associate
Emily Powell, PhD – Research Fellow

**EXECUTIVE COMMITTEE**
Robert Twilley, PhD – Executive Director, Louisiana Sea Grant
Jori Erdman, AIA, LEED AP – Director and Professor, School of Architecture
Elizabeth Mossop – Professor, School of Landscape Architecture
John R. White, PhD – Associate Director, Coastal Studies Institute and Associate Professor, School of the Coast and Environment
Clint Willson, PhD, PE – Professor, College of Engineering

**STUDENT ASSISTANTSHIPS**
Gyan Basyal - Master’s candidate in Civil Engineering
Kayla Bosarge - Master’s candidate in Architecture
Silvia Cox - Master’s candidate in Landscape Architecture
Kelli Cunningham - Master’s candidate in Architecture and Landscape Architecture
Lydia Gikas - Master’s candidate in Landscape Architecture
Benjamin Hartman - Master’s candidate in Civil Engineering
Dean Kelly - Master’s candidate in Architecture
Elliot Manuel - undergraduate senior in Architecture
Valeria Perez - Master’s candidate in Public Administration
William Reinhardt - Master’s candidate in Landscape Architecture
Karl Schmidt - Master’s candidate in Architecture and Landscape Architecture
Lauren Sullivan - Master’s candidate in Renewable Natural Resources
ADVISORY BOARD

Sam Bentley – Director Coastal Studies Institute, LSU

Sidney Coffee – Senior Advisor, America’s Wetland Foundation

Christopher D’Elia – Dean, LSU School of the Coast & Environment

Ed Elam – Principal Transportation Planner, Burk Kleinpeter Inc. and President, American Planning Association, Louisiana Chapter

Karen Gautreaux – Director of Government Relations, The Nature Conservancy, Louisiana Chapter

Richard Koubek – Dean, LSU College of Engineering

Oneil Marlborough – President, Shaw Coastal Inc.

Guy Nordenson – Professor of Architecture and Structural Engineering, Princeton University

Edmund Russo – U.S. Army Corps of Engineers

Z Smith – Director of Sustainability, Eskew+Dumez+Ripple and Adjunct Assistant Professor of Architecture, Tulane University

Boo Thomas – President & CEO, Center for Planning Excellence

Alkis Tsolakis – Dean, LSU College of Art + Design

David Waggonner – Principal, Waggonner & Ball Architects

Jeffery Williams – Director of Climate Consulting, Energy

Warner Williams – Vice-President, Chevron Gulf of Mexico Unit

Andrew C. Wilson – Attorney in Environmental Law, Simon, Peragine, Smith & Redfearn L.L.P.

Chuck Wilson – Chief Scientific Officer, Gulf of Mexico Research Institute

Jerome Zeringue – Executive Director, Louisiana Coastal Protection and Restoration Authority
## 2013 Financial Statement

**Expenditure**

<table>
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<tr>
<th>Description</th>
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<tr>
<td>Senior Personnel Salaries and Wages</td>
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<td><strong>Total Direct Costs</strong></td>
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<tr>
<td>Facilities and Administrative Costs</td>
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### 2014 Projected Financial Statement

**Expenditure**

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<td>Fringe Benefits</td>
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<td><strong>Subtotal Salaries and Wages</strong></td>
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<td>Tuition Remission @26%</td>
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<td><strong>Total Direct Costs</strong></td>
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<tr>
<td>Facilities and Administrative Costs</td>
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<td><strong>TOTAL</strong></td>
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Awards Won in 2013

CSS was honored to win the following prestigious awards in 2013:

**Collaborative Practice Award - Association of Collegiate Schools of Architecture**
The ACSA Collaborative Practice Award recognizes university architecture programs and projects that demonstrate how faculty, students, and community clients can work together to realize common objectives. Participation by colleagues from other academic disciplines is encouraged.

**Excellence Award for Education or Advocacy - American Planning Association, Louisiana Chapter**
CSS received this award for its creation and management of the Louisiana Resiliency Assistance Program (LRAP). The mission of LRAP is to collect, develop, house, and disseminate current planning efforts, resources, and local best practices to promote, assist, and build networks around resilience planning in Louisiana.

**Spirit of Community Award - Gulf of Mexico Climate Community of Practice**
CSS Associate Director Dr. Lynne Carter was selected by her peers in the Climate Community of Practice group as the individual most deserving of recognition for her leadership in climate planning, education, networking, and communication. The Gulf of Mexico Climate Community of Practice is made up of more than 400 education, outreach and extension professionals, as well as community leaders and planners, whose work includes contributing to the resilience of coastal communities.

**Best Conference Paper - Architectural Research Centers Consortium**
“Fort Proctor: A Conditional Preservation” was named Best Conference Paper at the 2013 ARCC Annual Conference at the University of North Carolina - Charlotte. The paper, presented by Ursula Emery-McClure, A. Hays Town Professor of Architecture, and Bradley Cantrell, Associate Professor and Director of the School of Landscape Architecture, was based upon their team’s research funded by the LSU Coastal Sustainability Studio.

**Student Collaboration Honor Award - American Society of Landscape Architects**
CSS graduate assistant Matthew Seibert and coastal sciences graduate student Eric Roy won this award for their project “Metabolic Change: Coastal Patterns of Human Settlement and Material Flow.” The project was advised by CSS Director Jeff Carney, CSS Executive Committee member John White, and Director and Associate Professor of Landscape Architecture Bradley Cantrell.

**Environmental Design Research Association (EDRA) Conference 2014**
Jeff Carney and Kristi Dykema Cheramie were competitively selected through a nationwide call to serve as Co-Chairs of the 2014 Environmental Design Research Association (EDRA) annual conference, which will take place in New Orleans May 28-31, 2014. The conference will be themed “Building with Change” and will provide a tremendous opportunity for CSS to showcase its work and advance themes of sustainable design.

**Finalist - The ONE Prize**
ONE PRIZE is an Annual Design and Science Award to Promote Green Design in Cities. CSS was 1 of 20 finalists out of 168 applicants worldwide.
In 2013 CSS was also awarded 3 highly competitive grants never before obtained by the university:

- Mayors’ Institute on City Design
- Kresge Foundation
- W.M. Keck Foundation

The projects funded by these grants are described in more detail throughout the report.
Progress Towards Achieving Goals

The overall CSS goal is to envision and design sustainable systems that reduce regional vulnerability associated with environmental changes such as: increased storm strength, land subsidence, habitat degradation, and other crucial coastal issues. We approach and evaluate these efforts in the following three ways: (1) Building Capacity: the LSU Community, (2) Designing Resilience: Research and (3) Body of Knowledge: Making Impact.

CSS is fully funded by grant activity and receives no financial support from LSU beyond use of space.

CSS’s goal is to serve as a national model for addressing coastal sustainability, and to that end it is laying the foundation for a productive and exciting future. Over the coming months we plan to:

* Continue Relationships with Current Funders and Develop Connections with New Funders*

CSS has been able to leverage Chevron operational funds to develop positive relationships with a number of project funders including America’s WETLANDS Foundation, National Endowment for the Arts, the W.M. Keck Foundation, Louisiana Office of Community Development-Disaster Recovery Unit, Kresge Foundation, and Louisiana Sea Grant. Expected CSS growth will require additional sources of funding. CSS is seeking numerous new grants and contracts, and is considering other sources of funding including memberships and individual contributions, direct government support, earned income, and other possible revenue streams.

* Expand our Technical Infrastructure*

As we continue to grow we have experienced the need to develop technical infrastructure that goes beyond what is available to us through the college and university. We will conduct a needs assessment to maximize the effectiveness of our technological infrastructure in the coming years.

* Support More Research Projects*

As our funding increases, CSS has been able to support additional research at LSU through our Small Projects Fund. Projects must be trans-disciplinary, innovative, and in alignment with CSS principles.

* Institutionalizing the Studio in the University Setting*

Given the growth of the studio over the last 5 years, we are engaged in ongoing conversations with the university as to the best way to maintain our flexibility and ability to adapt over time while at the same time securing space, infrastructure, and university support. This could include becoming a university supported institute or a center of excellence.
Challenges and Steps to Mitigate Challenges

Associate Director
CSS Associate Director Dr. Lynne Carter took a new job located in Uganda. Her final day at CSS was November 26. CSS has obtained permission from the university to expand the Associate Director role from 20% to full-time. This position will take primary responsibility for project management, community outreach, and oversight of research fellows and graduate assistants, freeing up CSS Director Jeff Carney for other work and increasing efficiency and effectiveness of our project management structure.

Rapid Expansion and New Staff
CSS expects to expand rapidly over the coming year due to the CPRA visualization contract. These projects require hiring of new staff to perform the work. CSS has received applications from around the nation and from several foreign countries. The new staff will be working to develop an extensive visualization program in conjunction with CPRA to develop animations, drawings, diagrams, digital models, physical models, and displays to communicate the complex science, engineering, and community design occurring around coastal Louisiana. These staff will also work with graduate students, staff, and faculty on other studio projects and research in the studio, produce research for the CSS website and academic journals, as well as make presentations at conferences, participate in competitions, and assist in the CSS lecture series. Employees must have a minimum of a Master's degree and be highly motivated.

Visualization Designer, Research Associate 5, 2 positions – CSS hired Jacob Mitchell, MLA, a landscape architect and urban designer at the University of Toronto, Ontario, for one of the positions. Jacob starts in early February. A decision on the other position is pending.

Visualization Fellow, Research Associate 4, 2 positions – Decisions on new hires are pending.

Systems Ecology Associate, 2 positions – CSS hired Leanna Heffner, PhD, a recent graduate of the University of Rhode Island Graduate School of Oceanography. The other hire is pending.

Associate Director - this position will be 100% in CSS rather than the previous 20%. CSS expects to hire for this position before summer 2014.

Summer Interns, 13 positions - CSS expects to hire 8 out-of-state and 5 LSU-based graduate student summer interns to assist with the CPRA visualization contract. CSS has received 90 applications from around the U.S. and from several other countries, and is currently making hiring decisions.
Measurement and Evaluation of Projects

CSS supports a number of different efforts that have very different budgets, timescales, and measures of success. Each project supported by CSS must have meaningful engagement with the following Guiding Principles. However, the principles are not a rule but a flexible and ever-developing guide. We welcome projects that challenge and help develop the studio’s principles into the future.

Trans-disciplinary
All of our projects engage at least three disciplines primarily drawn from the School of the Coast & Environment, College of Engineering, and College of Design but also joined by students and faculty of law, history, geography, and philosophy and religious studies (among others). It is essential that projects supported by the studio operate outside the boundaries of traditionally defined disciplines and lead to products that are meaningful to a broader community.

Coastal Louisiana
CSS projects deal specifically with issues pertinent to Coastal Louisiana and reflect the goals of the State of Louisiana Coastal Master Plan. Our projects work to reduce economic losses and protect assets, promote a sustainable coastal ecosystem through utilizing natural processes, provide suitable habitats to support an array of commercial and recreational activities, promote resilient coastal community design and development, and contribute to sustaining the unique heritage of coastal Louisiana.

Public/Community Dimension
CSS projects are developed through collaboration with local partners. Projects are subject to input and review by community members, local authorities, and other outside experts. Project teams are expected to engage these inputs and develop new ways to accomplish the multi-purpose goals of various projects and effectively represent these ideas to a broader audience.

Long Term
We recognize the established horizon for environmental and community resiliency in Louisiana as 100 years. Each project must consider the long-term future of coastal Louisiana. This future is difficult to project, however, it is essential to imagine and envision future scenarios and the strategies that we might use to achieve sustainability and resiliency.

Replicability
Each CSS project is designed to leave behind a workable, replicable framework that allows the project to carry on after the team has completed their work, or for a project to be replicated by another team under similar conditions.
CSS Scopes of Work

CSS projects are arranged within 3 scopes of work:

1. Building Capacity: the LSU Community
2. Designing Resilience: Research
3. Body of Knowledge: Making Impact

The CSS offices in 212 Design Building, Louisiana State University
1. Building Capacity: the LSU Community

CSS builds capacity throughout the university and the academic community through a variety of means:

• Open House
• Affiliate Faculty
• Brown Bag Lecture Series
• New Undergraduate Research Minor
• New Certificate Courses
OPEN HOUSE
CSS held a very successful Open House the afternoon of Friday, April 12. It was attended by LSU faculty representing the disciplines of economics, disaster management, coastal studies, geology geophysics, geography & anthropology, business, chemistry, music, architecture, agricultural economics, English, biological & agricultural engineering, landscape architecture, law, renewable natural resources, philosophy & religious studies, environmental science, and communications. It also promoted the RFP for the New Projects Fund, as described starting on page 24.

AFFILIATE FACULTY
CSS is in the process of developing an official “Affiliate Faculty” above and beyond faculty that are funded through the CSS New Projects Fund. The Affiliate Faculty will be employees of other departments who have an officially recognized role in CSS research and teaching efforts. Affiliate faculty will serve on CSS committees, attend meetings, advise students, perform professional service, and pursue funding for their CSS-related research. They will be appointed to a 1-year term at the sole discretion of the CSS Executive Committee.

To become an Affiliated Faculty member, a candidate must submit an application to the Executive Committee including a justification for the appointment, statement from the candidate, and the candidate’s CV. Selection will be based upon a careful review of credentials and experience. Affiliate faculty will be awarded a $500-2,000 stipend towards their CSS research or travel. Candidates must be tenure-system faculty members with full-time appointments in another unit on campus, and be engaged in or want to be engaged in substantial collaboration with CSS faculty and/or students. They can come from any discipline that broadens and complements CSS work and engages CSS trans-disciplinary scholarship. Every year following the initial appointment, the affiliated faculty member must submit a letter to CSS describing his or her engagement over the past year and requesting continuation of the appointment. Based on this information, the Executive Committee will vote to continue or discontinue the appointment. CSS hopes to hold its first deadline for affiliate faculty in Fall 2014.
BROWN BAG LECTURE SERIES

The CSS Brown Bag Lecture Series is designed to bring faculty, staff, researchers, and community members together to learn and discuss the issues facing coastal Louisiana. It focused around a diversity of scholars who are working on issues pertinent to the coast. In 2013 CSS increased the draw of the series and invited a large number of lecturers from outside Louisiana.

The series attracted roughly 460 people.

February 15
Frank Hebbert – Director, OpenPlans
Social Resiliency: Bridging Planning & Communication Through Technology

February 20
Jane Wolff - Associate Professor of Landscape Architecture, University of Toronto
Two Stories About a Delta

March 11
Shelby Doyle – Fulbright Research Fellow, Phnom Penh, Cambodia
City of Water: Architecture, Infrastructure, and the Floods of Phnom Penh

April 8
Dr. Tim Beatley – Teresa Heinz Professor of Sustainable Communities, University of Virginia
Retrofitting for Resiliency

April 12
Peg Staeheli – Founding Principal, SvR Design Company
Skim the Surface – and Dive Deep: Envisioning the Future of Urban Stormwater Management

April 30
Thomas Colbert – Associate Professor of Architecture, University of Houston
Designing the Texas Coast
May 10
Kristina Hill – Associate Professor of Landscape Architecture and Environmental Planning, UC-Berkeley
*Unpacking the Urban Pier: Sun, Sand Spits, and Spectacle on the Shoreline*

September 12
Steven Hall – Associate Professor and Graduate Chair, LSU Department of Biological & Agricultural Engineering
*General talk*

October 10
Michael Pasquier – Associate Professor and Section Head, LSU Department of Philosophy & Religious Studies
*We Are All Storytellers: The Role of the Arts and Humanities in Coastal Sustainability*

October 31
Matt Bethel – Associate Director for Research, Louisiana Sea Grant
*A Method for Knowledge Integration and Mapping to Inform and Enhance Future Coastal Planning and Implementation Efforts*

November 14
John Day – Professor Emeritus, Department of Oceanography & Coastal Sciences
*Sustainability and Place: How Mega-Trends of the 21st Century Will Impact Human and Nature at the Landscape Level*

November 21
Anne Daniel – Instructor of Religious Studies, Loyola
*Caritas for a Coastal-Carnival Place: Creating a Theology of Care Within Post-Katrina New Orleans*
NEW UNDERGRADUATE RESEARCH MINOR
CSS, in collaboration with the LSU Office of Undergraduate Research, applied for a grant from the W.M. Keck Foundation to support creation of a trans-disciplinary undergraduate applied research minor in coastal sustainability, tentatively titled the “Louisiana Delta Research Minor.”

CSS was awarded a $50,000 planning grant that will allow us to create the curriculum and course logistics over the coming year. After planning is complete, the Keck Foundation expects CSS to submit a request of up to $500,000 for implementation of the minor. If funded, the future grant would support implementation of 3 new CSS-related courses and remodeling of an adjoining classroom into a CSS Delta Research Studio space for the minor, based on the architecture design model. It will also support creation of new student internships with local industries.

The minor will complement LSU’s Quality Enhancement Plan (QEP) and wide-ranging “Committed to the Coast” initiative.

This is the first time LSU has ever been awarded a grant from this prestigious and highly competitive foundation.

NEW CERTIFICATE COURSES
CSS has obtained approval and funding from LSU to create 3 graduate-level certificate courses. Each certificate will require 18 credit hours of study to be taken over the course of 1 year. The courses are:

- Climate Change
- GIS (Geographic Information Systems)
- Historic and Cultural Preservation
2. Designing Resilience: Research

Through Chevron support, CSS develops innovative research, design, and outreach projects throughout the university.

These projects fall into 3 categories:

• New Projects Fund
• Internal Projects
• Leveraged Projects
LSU Coastal Sustainability Studio

NEW PROJECTS FUND

How do you envision Louisiana’s future? The LSU Coastal Sustainability Studio (CSS) seeks to fund LSU faculty, staff, and students in innovative research, design, and outreach projects that will contribute to adaptive, resilient, and sustainable human communities over the long term in the dynamic Louisiana coastal landscape.

REQUEST AMOUNT
Up to $35,000. There is $110,000 available in the 2013-14 funding cycle.

DEADLINE
Friday, May 3 – 4:00pm

FUNDING PERIOD
August 1, 2013 – July 31, 2014

PURPOSE
Louisiana’s coast faces tremendous challenges, many of which are not being solved because the various disciplines alone cannot cope with the magnitude and complexity of the problems. The CSS New Projects Fund provides a means of supporting projects that envision solutions to coastal challenges through collaboration across a variety of academic perspectives. The program is designed to generate new ideas and new partnerships that can potentially lead to bigger projects down the line, whether they are a continuation of the idea or part of a larger research proposal. Issues to be addressed may be human, economic, structural, natural, or scientific.

ELIGIBILITY
Project teams must be composed of a minimum of 3 individuals based at LSU, representing a range of academic disciplines. The team must be led by a full-time LSU faculty member. Other team members may be faculty, staff, researchers, fellows, or graduate students from a range of departments. We encourage teams from all disciplines to apply, and we especially encourage teams to include a member from design (architecture, landscape design, urban planning), engineering, or coastal sciences.

OUTCOMES
Outcomes must include a white paper, a periodically updated page on the CSS website, a public presentation at project completion, and any other outcome unique to the project design and research such as symposia, restoration plans, new LSU courses, visualization, data collection, new technologies or designs, etc.

FOR MORE INFORMATION
Visit www.css.lsu.edu to review the full Request for Proposals outlining the 2013-14 theme and focus areas, and download an application. You are also invited to attend CSS’s OPEN HOUSE on Friday, April 12 from 4:00-5:30pm at 212 Design Building to learn more about the program.

QUESTIONS?
Contact Laura Larkin, CSS Coordinator, at 578-4990 or larkin@lsu.edu
NEW PROJECTS FUND
Each spring CSS issues an RFP for the New Projects Fund to encourage and support trans-disciplinary research teams. At the May 3, 2013 deadline CSS received 14 applications from faculty teams representing construction management, oceanography and coastal sciences, landscape architecture, architecture, philosophy, French studies, environmental science, business, agricultural economics, renewable natural resources, geology and geophysics, disaster management, biological & agricultural engineering, mass communication, geography, computer science, and civil & environmental engineering. Requests totaled $451,788. CSS selected 4 projects totaling $116,200.

The Panel that selected the projects included the CSS Executive Committee and 4 objective outside panelists: Seth Blitch, Director of Coastal and Marine Conservation, Nature Conservancy of Louisiana; Jonathan Hird, Engineer, Moffatt & Nichol; Z Smith, Director of Sustainability and Performance, Eskew+Dumez+Ripple Architects; and Jeff Williams, Director climate consulting, Entergy.

The new projects for 2013-14 are:

- Evaluating Social-Ecological Vulnerability of Oyster Reef Resource Users to Environmental Variation
- Influences on Household and Community-Level Mitigation Efforts and Adaptations to Coastal Hazards in Louisiana
- Environmental Communication for Coastal Louisiana
- Assessing Risk and Building for Change: Affordable, Insurable Building Models for Industry-Critical, High-Risk Communities in Coastal Louisiana

The 4 funded projects started August 1, 2013 and will run through July 31, 2014.

In addition, several projects from 2012-13 continued or were completed over the past year. These projects are:

- Delta Ranch: Resilient Structures for the Coast
- Fort Proctor Course
Evaluating Social-Ecological Vulnerability of Oyster Reef Resource Users to Environmental Variation

Budget
$35,000

The project will quantitatively assess the provision of ecosystem services of restored (and natural) oyster reefs across five sites in coastal Louisiana, and explicitly determine how the delivery of services affects social-ecological vulnerability of oyster reef resource users and coastal citizen using the exposure-sensitivity-adaptive framework promoted by the Intergovernmental Panel on Climate Change.

Team
- Rachel Dowty Beech - Co-Director, Disaster Science & Management Program, Assistant Professor
- Megan LaPeyre - USGS Louisiana Fish & Wildlife Cooperative Unit, Assistant Professor of Renewable Natural Resources
- Steve Hall – Associate Professor, Biological & Agricultural Engineering

Target Goals
Assist oyster reef managers in identifying geographic locations that will support the ecosystems of their projects, increase resiliency of oyster reefs, and increase the capacity of individuals who depend on oyster reefs to adapt to changing environmental conditions.
Influences on Household and Community-Level Mitigation Efforts and Adaptations to Coastal Hazards in Louisiana

**Budget**
$35,000

The objective of the proposed research is to provide insights into the conditions under which residents and local officials of south Louisiana communities are more likely to implement mitigation and adaptation measures in response to coastal hazards.

**Team**
- Margaret Reams – Associate Professor of Environmental Science and LSU Superfund Research Program
- James Wilkin – Professor and Director, Louisiana Sea Grant Legal Program
- Nina Lam – Professor of Environmental Science
- Melissa Daigle – Coordinator, Louisiana Sea Grant Legal Program
- Lauren Land – Coordinator, Louisiana Sea Grant Sustainability Program
- Katie Lea – Coordinator, Louisiana Sea Grant Adult Education
- Zeynep Altinay - PhD research and teaching assistant

**Target Goals**
Provide insights into the conditions under which residents and officials of south Louisiana are more likely to implement measures to adapt to or mitigate coastal hazards. Determine how to best deliver technical information to residents of coastal communities. Build the capacity for ongoing, broad-based examinations of coastal resilience.
NEW PROJECTS FUND - NEW IN 2013

Environmental Communication for Coastal Louisiana

Budget
$11,220

The project involves the development of new interdisciplinary knowledge and approaches to best practices in coastal Louisiana environmental communication through a case study on the communication of global climate change impacts in Louisiana, and the creation of a new Coastal Environmental Communication undergraduate (4000 level) course in the Manship School of Mass Communication.

Team
• Amy Reynolds – Associate Dean of Graduate Studies & Research, Manship School of Mass Communication
• Zeynep Altinay – PhD research and teaching assistant
• Paige Brown – PHD research and Coastal Initiative Graduate Student in the LSU Office of Research Communication & Economic Development
• Ashley Berthelot – Director of LSU Research Communications
• Nina Lam – Professor of Environmental Science
• Margaret Reams – Associate Professor of Environmental Science and LSU Superfund Research Program

Target Goals
Begin to develop interdisciplinary knowledge of best practices in coastal environmental communication. Combine research and expertise across environmental psychology, coastal sustainability, community resilience, mass communication, and public relations. Inform future efforts in strategic environmental communications in Louisiana. Help communicators better inform policy-makers and engage community members in policies and local efforts to increase resilience and adapt to a changing coastal environment.
Assessing Risk and Building for Change: Affordable, Insurable Building Models for Industry-Critical, High-Risk Communities in Coastal Louisiana

**Budget**
$34,980

The project will support the development of speculative insurable building models that engage the economic and technical challenges of three industry-critical, high-risk communities – Golden Meadow, Leeville, and Port Fourchon, Louisiana – that might act as a paradigm for development in similar communities across the region.

**Team**
- William Doran – Professional in Residence, School of Architecture
- Julie Anderson – Assistant Professor, Renewable Natural Resources
- Brandt Mitchell – Associate Director, Stephenson Disaster Management Institute
- Col. Joseph Booth – Executive Director – Stephenson Disaster Management Institute
- Samuel Bentley – Director, LSU Coastal Studies Institute and Associate Professor, Geology and Geophysics
- Jeffrey Dickey – GIS Data Analyst, Stephenson Disaster Management Institute

**Target Goals**
Develop speculative, insurable building models that engage economic and technical challenges in high risk communities. Document and add physical building conditions such as elevation, structural systems, materials, and construction assemblies to existing datasets and NFIP regulations to create a framework for design.
NEW PROJECTS FUND - COMPLETED IN 2013

Delta Ranch: Resilient Structures for the Coast
Completed July 2013

Budget
$39,000

The design and modeling of a habitable structure (house) for coastal Louisiana that utilizes ecological systems as the source for its design strategy.

Team
• Jori Erdman – Professor and Director, School of Architecture
• Steven Hall – Associate Professor, Biological and Agricultural Engineering
• Carrie Knott – Assistant Professor, Plant, Environmental and Soil Sciences
• Jim Sullivan – Associate Professor, School of Architecture
• Sarah Bertrand – Graduate Student, Plant, Environmental and Soil Sciences
• Matthew Byrum – Graduate Student, Biological and Agricultural Engineering
• Logan Harrell – Graduate Student Architecture

Target Goals
This project integrates architecture, coastal bioengineering, and coastal plant science to develop solutions for structures that can sustain themselves and the coast. Specifically, we look to design a habitable structure that utilizes (1) architectural passive sustainable strategies to remediate climatic conditions for habitation, (2) bioengineered oyster reefs for harvest, coastal protection and land building, (3) and coastal plants for coastal protection, land building and to develop a productive ecosystem for the structure. The work in each field asks relevant questions. For architecture, these include 1) how do the ecological systems of coastal LA provide a model for resilient architecture design; 2) how may a habitable structure leverage the dynamic ecological environment to become sustainable over time? For bioengineering, these include 1) what are the growth rates for oyster in a given area; 2) how can a bioengineered oyster reef affect the strength or stability of associated structural elements? For plant science, these include 1) what are the growth rates of specific coastal plants in a given area; 2) how do plants provide land building and retention capacity; and 3) how do they affect strength/stability of habitable structures.

Qualitative Measures
Visibility, teamwork, leadership

Quantitative Measures
Growth rates, strength of structural members, sedimentation rates, plant growth rates, stability of structures during events. The team will produce digital and physical models for longer term testing of architectural, biological, and plant components. The academic output will include faculty and graduate student papers and presentation. The team hopes to secure longer term funding from State, Federal, and/or NGO sources.
Fort Proctor Course  
Completed June 2013

Budget  
$5,500

The Architecture Design Studio took lessons learned from last year’s Fort Proctor project to investigate the applicability of Louisiana coastal sustainability measures along the South Carolina coast, specifically at Fort Pinckney. Fort Pinckney faces similar challenges to Fort Proctor. Issues regarding preservation of historical sites along coastal conditions, storm consequences, and environmental changes were the focus of the investigation.

Team  
• Ursula Emery-McClure – Associate Professor, School of Architecture  
• 8 Graduate Students – School of Architecture

Partners  
• National Park Service  
• Sons of the Confederate Veterans  
• Association of Collegiate Schools of Architecture

Target Goals  
Goal is to understand an evaluative process for investigating similarities and differences of U.S. coastal sites and the applicability of incorporation and preservation methods. Each student will submit proposals to the 2013 ASCA competition and produce a project book that documents their investigation of the stated goals and their subsequent conclusions.

Qualitative Measures  
The effect the comparison of the two coastal conditions has on their design, and the degree to which they apply the knowledge of one specific condition (the Louisiana condition) to another (the South Carolina condition).

Quantitative Measures  
Success will be measured by the success of the students’ entries to the competition. Also the level of comparative analysis composed by each student between the two conditions, as will be documented in their individual publications.

http://vimeo.com/channels/392545

As described in the CSS 2012 Final Report, this project was awarded the 2012 National Park Service Historic Building Survey Peterson Prize, which honors the best set of measured drawings by students.
INTERNAL PROJECTS

In addition to supporting research projects throughout the university through the New Projects Fund, CSS creates and manages its own internal projects. These projects allow CSS to investigate questions about Coastal Louisiana to determine how to move forward with future funding for larger investigations. These projects range from course development and research to small team projects.

CSS began 2 new internal projects in 2013-14:

• Losing Ground: Methods for Leeville
• LSU/Chevron: The Reimagined Shorebase

In addition, a project from 2012-13, entitled The Mississippi Delta Project, is continuing through 2014.
Losing Ground: Methods for Leeville

Budget
$5,000

ARCH 7004 is the fourth architecture studio in the six-studio sequence Master of Architecture Program at LSU. The studio will examine the small coastal town of Leeville, Louisiana as a surrogate for towns throughout the Gulf South. The town is not protected by the levee system and is exposed to the impacts of a changing climate, coastal land loss, and increasingly violent storm events. Rather than advocating for a traditional notion of ‘saving’ the studio will explore the concept of absence and question architecture’s methods for simultaneously preserving, un-building, and designing possible futures for Leeville. Students will visit and document Leeville. Through this work they will produce their position on ‘saving’ using drawing, photography, video, writing, and modeling. This process will culminate in an architecture that reconsiders the tectonic occupation of the delta. Rather than discussing architecture as an object and site as a plane this studio argues that architecture is understood as the tectonic bracketing of the deltaic system.

Team
- Shelby Doyle - Visiting Assistant Professor, School of Architecture
- Graduate Students in ARCH 7004 class
INTERNAL PROJECTS - NEW IN 2013

LSU/Chevron: the Reimagined Shorebase
www.symbioticshorebase.com

Budget
$10,000

In this new graduate studio course design, architecture students are investigating symbiotic design queries in the unique Louisiana condition, including developing new schematic designs for the Chevron Shorebase in Venice, Louisiana allowing it to create a symbiotic relationship with its environment.

Louisiana has the greatest concentration of crude oil refineries, natural gas processing plants, and petrochemical production facilities in the western hemisphere. The industry must occupy the coast for its shoreline and off-shore components, and it employs thousands of people who need to live along the coast to access their work environment. The bases provide the necessary link between land and sea, humankind and livelihood, country and economy, supply and distribution. They are also located in a dynamic and eroding coastal condition and paradoxically demand a place of permanence. While industry has eroded the coast, it is also part of humans’ means of existence. This studio demands that industry be the third symbiont in the symbiotic relationship: INDUSTRY + HUMANS + COAST = Symbiotic Environment.

Team
- Ursula Emery-McClure - Professor of Architecture
- Architecture graduate students

Students visit the Chevron Shorebase and meet with Chevron staff.
Students schematics of a reimagined Shorebase.
INTERNAL PROJECTS - CONTINUING IN 2013-14

Mississippi Delta Project
Completed July 2013

Budget
$75,000

The Delta Project is an interactive timeline of the natural and man-made forces that have led to the present delta environment. Accompanying the timeline will be a historic narrative, as well as interactive spatial and temporal maps that characterize settlement patterns, industrial development, and ecosystem change at the landscape level. In addition, energy systems diagrams will be developed to describe the major drivers of change in settlement, industry, and ecosystems at the basin, delta, and mega-regional scales. The purpose of the diagrams is to provide users with a series of conceptual models that define the interrelationships and dependencies across different scales.

The goal of the Delta Project is to make information regarding the history and future of the delta accessible to the public in a web-based platform that merges quantitative scientific information with high quality visual imagery. The merger of historic, empirical information with landscape-level imagery at 3 different scales will allow for users to better understand their place in the context of the energy and materials flows at the local, regional, and mega-regional scales. The project serves as a scientific communication tool that provides quality-controlled content to the user.

Team
• Robert Twilley, PhD – Director, Louisiana Sea Grant
• Jeff Carney – CSS Director
• Matt Moerschbaecher, PhD – CSS Research Fellow
• Brett Davis, Matthew Seibert, Ben Wellington – Graduate Students, Landscape Architecture

Partners
• LSU College of Art + Design
• LSU Dept. of Landscape Architecture
• LSU Dept. of Oceanography and Coastal Sciences

Target Goals
The end result will be a web-based platform that merges empirically derived scientific information and visual graphics to serve as the premier scientific communication tool with regard to the Delta region.

Qualitative Measures
The successful collaboration of researchers across disciplines manifesting itself in a unique, trans-disciplinary environment that produces innovative thinking and problem-solving leadership for our changing region.

Quantitative Measures
Number of users visiting the Delta Project website
Number of institutions and organizations that adopt information presented as part of the Delta Project for use in furthering their educational pursuits
Information needs of the region
LEVERAGED PROJECTS

CSS seeks to leverage Chevron operating support to obtain additional grants for projects.

New leveraged projects obtained in 2013 are:

• Visualization Services for the Louisiana Coastal Protection and Restoration Authority
• Kresge Project
• Mayors’ Institute on City Design
• Visualization and Outreach Services for the Water Institute of the Gulf

In addition, several projects from 2011-12 continued or were completed in 2013. These projects are:

• On Land / With Water: A Mobile Museum
• Louisiana Resiliency Assistance Program (LRAP)
• National Flood Insurance Program (NFIP) Webinar and Workshop
LEVERAGED PROJECTS - NEW IN 2013

Visualization Services for the Louisiana Coastal Protection and Restoration Authority

**Budget**
$1.5 million

CSS will create visualizations clarifying to the layperson Louisiana’s coastal risks and the dramatic efforts underway to reduce those risks. Visualizations will include drawings, videos, diagrams, learning kiosks, a 9,000 square-foot exhibition space, river model, and work on the 2017 Coastal Master Plan.

**Team**
- Jeff Carney - CSS Director and Associate Professor, School of Architecture
- Jacob Mitchell - CSS Research Associate
- Bradley Cantrell - Director, Robert Reich School of Landscape Architecture
- Robert Twilley - Executive Director, Louisiana Sea Grant
- Clint Willson - Professor of Civil & Environmental Engineering
- Elizabeth Mossop - Professor, Robert Reich School of Landscape Architecture
- Jori Erdman - Director and Professor, School of Architecture
- John R. White - Associate Professor, School of the Coast & Environment
- 3 graduate assistants to be determined
- 13 summer interns to be determined

**Partners**
- LSU Center for Computation and Technology

Kresge Project

**Budget**
$200,000 ($100,000 per year for 2 years)

**Team**
- Jeff Carney - CSS Director and Associate Professor, School of Architecture
- Katrina Durbak - CSS Research Associate
- Lauren Sullivan - Master’s candidate in Renewable Natural Resources

Grant funding will support development of a tool or process to assist coastal municipalities better coordinate their planning efforts with the Louisiana Coastal Protection and Restoration Authority’s 2012 Master Plan and potentially access state funding for their efforts. The tool will be offered to communities free of charge.

**Partners**
- Kresge Foundation
- Louisiana Coastal Protection and Restoration Authority

**Target Goals**
Better integrate community and state coastal planning efforts
LEVERAGED PROJECTS - NEW IN 2012

**Mayors' Institute on City Design**
*Completed December 2013*

*Budget*
$50,000

*Team*
- Jeff Carney – CSS Director and Associate Professor of Architecture
- Laura Larkin – CSS Coordinator
- Katrina Durbak – CSS Fellow
- Elliot Manuel – Student Worker

CSS was one of only 2 institutions selected through a nationwide competitive process to plan and implement the Mayors' Institute on City Design (MICD), a 3-day conference that assists mayors to better understand their role as chief designer of their cities. The MICD is an initiative of the National Endowment for the Arts, American Architectural Foundation, and U.S. Conference of Mayors. CSS spent 6 months planning the event, including required site visits to all participating cities to discuss their design challenges. The mayors, as well as nationally recognized design experts selected by CSS, met in Baton Rouge on December 11-13. It was described as a great success by MICD staff.

*Partners*
National Endowment for the Arts
American Architectural Foundation
United States Conference of Mayors
Mayor Kip Holden
Downtown Development District

*Design Resource Team*
Allison Anderson, AIA, LEED-AP
Principal, unabridged Architecture
Bay St. Louis, MS

Keith Bowers, FASLA, RLA, PWS
President and Founder
Biohabitats
Baltimore, MD

Andre Brumfield
Director of Planning and Urban Design
Gensler
Chicago, IL

Christopher Calott, AIA
Director of the Master of Sustainable Real Estate Program
Tulane University
New Orleans, LA

Gina Ford, ASLA
Principal and Chair
Sasaki Associates’ Urban Studio
Watertown, MA

Kristina Ford
Professor of Professional Practice in International and Public Affairs
Columbia University
New York, NY

Gavin Smith
Executive Director, UNC Coastal Hazards Center and Associate Research Professor
University of North Carolina at Chapel Hill
Dept. of City and Regional Planning
Raleigh, NC

Jamie Setze
Executive Director
Capital Region Planning Commission
Baton Rouge, LA

*Mayors*
- Sherry Carran – Covington, Kentucky
- James Thomas, Jr. – Hinesville, Georgia
- Karen Golonka – Jupiter, Florida
- Kenneth Irvin Wright – Portsmouth, Virginia
- Daniel Guerrero – San Marcos, Texas
- Andy McKenzie – Wheeling, West Virginia
Mayors’ Institute on City Design participants stand on the levee in front of the Mississippi River in downtown Baton Rouge.

Front Row (Left to Right): Jamie Setze, Gina Ford, Christopher Callott, Mayor Daniel Guerrero, Mayor James Thomas, Jr.

Center Row (Left to Right): Trinity Simons, Mayor Sherry Carran, Keith Bowers, Andre Brumfield

Back Row (Left to Right): Gavin Smith, Mayor Kenneth Irvin Wright, Allison Anderson, Mayor Andy McKenzie, Mayor Karen Golonka, Kristina Ford, Jeff Carney
LEVERAGED PROJECTS - NEW IN 2013

Visualization and Outreach Services for the Water Institute of the Gulf
Completed July 2013

Budget
$10,000

Team
• Jeff Carney – CSS Director and Associate Professor of Architecture
• Bradley Cantrell – Director and Associate Professor, Robert Reich School of Landscape Design

The project developed a 10’ x 10’ booth which the Water Institute of the Gulf will use to present its work at tradeshows and conferences in Louisiana, nationally, and internationally. The booth includes one 8’ screen, 1 television monitor, one podium, a 10’ x 10’ floor, and chairs. The design provides a visual understanding of the Water Institute, including information such as the mission, goals, and current projects that are compelling and legible to a wide range of visitors focused on a technical/professional audience. CSS emphasized the Water Institute’s interdisciplinary approach to tackling problems related to water systems from both a natural and human-centered approach. CSS worked with the Water Institute of the Gulf to develop a “visual language” for the Institute that fully expresses the necessity, uniqueness, and timeliness of the Institute’s work. The development of diagrams and maps that express the scientific complexity, inter-disciplinarity, and future potential of the Institute’s work will assist the organization to build its position in Coastal Louisiana and in delta environments worldwide. More than a “brand identity,” this effort will enable the Water Institute to build upon the concept of “science communication” with the same innovative spirit that drives its research and communicates its products and services to the marketplace as a connected and compelling whole.
LEVERAGED PROJECTS - CONTINUING IN 2013-14

On Land / With Water: A Mobile Museum

Budget
$47,000

The project analyzes, interprets, and curates materials collected during fieldwork to create an exhibition showcasing knowledge gained and design speculative proposals informed by this knowledge.

Team
• Kristi Dykema Cheramie - Landscape Architecture
• Michael Pasquier - Religious Studies
• Jeff Carney - Architecture
• Dean Kelly - Graduate Assistant in

Partners
• National Endowment for the Arts
• Historic New Orleans Collection

Target Goals
This 3-year project is in its final year. Its goal is to design and construct Mobile Environmental Research Vessels (MERVs) to study the social and environmental relationships of Bayou Lafourche, support research methods, and create field studies courses in history, architecture, and landscape architecture.

Qualitative Measures
The project employs archival research, ethnographic fieldwork, geospatial analysis, and design speculation to build an archive of evidence supporting the ongoing negotiation between people, land, and water in Lafourche Parish.

Quantitative Measures
Exhibition and archive.
LEVERAGED PROJECTS - CONTINUING IN 2013-14

**Louisiana Resiliency Assistance Program (LRAP)**
www.resiliency.lsu.edu

**Budget**
$600,000

**Team**
- Jeff Carney – CSS Director and Associate Professor, School of Architecture
- Lynne Carter, PhD – CSS Associate Director and Associate Director, SCIPP, LSU
- Patrick Michaels, Katrina Durbak, Emily Powell – CSS Research Fellows
- CSS Executive Committee
- Lydia Gikas – Master’s Student, Landscape Architecture
- Lauren Sullivan – Master’s Student, Renewable Natural Resources
- Valeria Perez Guida – Master’s Student, Public Administration

Piloted in January 2012, LRAP was founded and developed by CSS with the state’s Office of Community Development – Disaster Recovery Unit (OCD-DRU) with 2-year funding from the U.S. Department of Housing and Urban Development (HUD). The mission of LRAP is to collect, develop, house, and disseminate current planning efforts, resources, and best practices to promote, assist, and build networks around resiliency planning in Louisiana. LRAP currently assists 30 Louisiana communities/projects. The CSS provides space, expertise, technology and other support to the project.

**Partners**
- OCD-DRU
- HUD

**Target Goals**
Plan implementation, establish regional networks
Resources and best practices, dissemination and replication, national example

**Qualitative Measures**
LRAP will assist communities to build on current planning efforts to achieve resiliency. We anticipate assisting communities across the state as well as collaborating with regional- and state-level efforts to expand the scope and ability of resiliency planning in Louisiana.

**Quantitative Measures**

**LRAP Timeline**

**LRAP Pilot Communities**
As part of our Louisiana Resiliency Assistance Program, CSS planned and presented a webinar and workshop preparing communities for sweeping changes to the National Flood Insurance Program (NFIP). Under the Biggert-Waters Act, which was passed by Congress in 2012 and goes into effect this year, flood insurance rates could rise astronomically for many Louisiana homeowners. Previously self-supporting through premiums and fees, the NFIP is now roughly $27 billion in debt following Hurricanes Katrina, Rita, Wilma, Ike, and Sandy. The Biggert-Waters Act was designed to reduce this deficit by eliminating federal subsidies and the practice of grandfathering properties.

Team
Jeff Carney – CSS Director and Associate Professor of Architecture
Lynne Carter – CSS Associate Director and Associate Director, Southern Climate Impacts Planning Program
Patrick Michaels, Katrina Durbak, Emily Powell – CSS Research Fellows
CSS Executive Committee

Partners
- Louisiana Sea Grant
- LSU Agricultural Center
- Southern Climate Impacts Planning Program
- Louisiana Office of Community Development – Disaster Recovery Unit

Target Goals
Education

Speakers
Pat Forbes - Executive Director of the Louisiana Office of Community Development
Guy Williams - CEO of Gulf Bank & Trust in New Orleans
Michel Claudet - Terrebonne Parish President
Melissa Daigle and Jim Wilkins - Louisiana Sea Grant Legal Program
Ronald Flanagan - Principal Planner of R.J. Flanagan and Associates in Tulsa, OK
Chris Brown - Building Official and Floodplain Manager, City of Mandeville
Jim Ferguson - Chief of Construction, Dept. of Public Works, City of Baton Rouge
David Heigel - Natural Hazards Program Specialist, FEMA Region 6
Tracie Sempier - Coastal Storms Outreach Manager, Mississippi-Alabama Sea Grant
Patricia Skinner - Extension Specialist and Disaster Programs Coordinator, LSU Agricultural Center
Nearly 150 city, parish, and state leaders, floodplain managers, city planners, and FEMA officials attended the NFIP Workshop.

Pat Forbes speaks at the NFIP Workshop.

Jessica Grannis from the Georgetown Climate Center delivered the NFIP webinar.

LSU Ag Center employees assist workshop attendees determine flood zone locations.
3. Body of Knowledge: Making Impact

CSS faculty and research associates presented papers and presentations on our projects at a number of regional and national conferences. As part of the university, CSS has the responsibility to improve our engagement with real world problems and in 2013 we made significant impact in that arena.
BODY OF KNOWLEDGE: MAKING IMPACT IN 2013

PRESENTATIONS


Using Technology and Social Media for Resilience. Powell, E. Workshop proceedings, ISC Gulf Coast Resilient Communities Program Bolstering Resilience at the Community Scale. April 2013.

The Louisiana Resiliency Assistance Program. Michaels, P., Durbak, K., Presentation to the Louisiana Association of Planning and Development Districts (LAPDD), March 2013.


“Building the Future Gulf Coast”, Carney, University of Nebraska. Hyde Lecture Series, 2013

PUBLICATIONS
“Why the 100-year flood?” Bohn, F. & C. J. Friedland Louisiana Civil Engineer, 21, 16-18 (2013)

Design flood elevations beyond code requirements and current best practices. Bohn, F. H. Louisiana State University, Baton Rouge, LA. (M.S. Thesis)


WORKSHOPS
Mayor’s Institute on City Design, 2013 Southeast Regional Session, Baton Rouge, LA, 2013

“Building Economic Resilience: Strengthening Local Assets & Fostering Entrepreneurship” Workshop for the Louisiana Resiliency Assistance Program. (100 attendees), 2013

“Workshop Summary: Reducing Risk through Ordinances, Codes and Design” Workshop for the Louisiana Resiliency Assistance Program. (60 attendees), 2013

“National Flood Insurance Workshop: Preparing for Changes in the NFIP” Workshop for the Louisiana Resiliency Assistance Program. 150 attendees), 2013

“Retrofitting for Resiliency”, Workshop for the Louisiana Resiliency Assistance Program. (40 attendees), 2013

“Social Resilience: Bridging Planning and Communication through Technology”, Workshop for the Louisiana Resiliency Assistance Program. (40 attendees), 2013

“Gaining Economic Advantage through Environmental Restoration & Hazard Mitigation”, Workshop for the Louisiana Resiliency Assistance Program. (30 attendees), 2013

OTHER


Planning Excellence Award for Education, for the Louisiana Resilience Assistance Program, American Planning Association, Louisiana
2013 Sponsors and Partners

SIGNATURE SPONSOR

Chevron

CPRA

Louisiana Disaster Recovery Unit

W.M. Keck Foundation

The Mayors’ Institute on City Design

The Kresge Foundation

LSU AgCenter

Sea Grant

The Water Institute of the Gulf

SCIPP