Scott A. Hemmerling, PhD

Senior Research Scientist, The Water Institute of the Gulf

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Education

Ph.D. in Geography, May 2007
Louisiana State University, Baton Rouge, Louisiana

M.S. in Urban Studies, August 1999
University of New Orleans, New Orleans, Louisiana

B.S. in Environmental Studies, May 1992
State University of New York at Buffalo, Buffalo, New York

Research Interests:

Environmental Equity, Community Vulnerability and Resilience, Social Policy Planning, Geographic Information Systems, Urban Data Analysis, Geostatistics, Qualitative Research

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Professional Experience:

The Water Institute of the Gulf
- ***Senior Research Scientist*** **2022-Present**
- ***Director of Human Dimensions*** **2015-2022**
- ***Associate Director of Human Dimensions*** **2013-2015**

U.S. Geological Survey, National Wetlands Research Center **2006-2013**
- ***Geographer***

IAP World Services at the National Wetlands Research Center **2005-2006**
- ***GIS Specialist***

Coastal Marine Institute, Louisiana State University **2001-2005**
- ***Research Assistant***

CADGIS Research Laboratory, Louisiana State University **1999-2001**
- ***Graduate Assistant***

Research Experience:

Incorporating Equity and Social Vulnerability into the Design of Flood Risk Mitigation Strategies
National Academies of Science Gulf Research Program, Washington, D.C.
This ongoing project conducted in partnership with Purdue University will develop an analysis workflow and decision support system (DSS) to assess Louisiana's nonstructural program design and performance. Scenario building workshops with residents and local stakeholders will identify decision-relevant measures of the impacts nonstructural risk mitigation will have on equity, social vulnerability, resilience, and economic risk.

Assessing Wetland Restoration Alternatives in Port Fourchon (LA): Coastal Evolution Management for a Resilient Working Coast

National Fish and Wildlife Foundation and Partnership for Our Working Coast, Port Fourchon, Louisiana

Convened an environmental competency group consisting of residents and local stakeholders, geologists, ecologists, and modelers for a transdisciplinary effort to co-develop coastal restoration projects utilizing sediment generated by planned channel dredging that will optimize social and ecological co-benefits. This community/researcher collaboration used participatory modeling activities to co-design a computer model representing the hydrology and ecology surrounding Port Fourchon and then use the model to test different nature-based restoration and protection projects.

Capital Area Groundwater Conservation Commission: Phase 2: Long Term Strategic Planning for Water Resources

Capital Area Groundwater Conservation Commission, Baton Rouge, Louisiana

Water Institute scientists and subcontractors to provide science for decision making. A key component of the project is to conduct an assessment of public attitudes regarding groundwater and groundwater management. This assessment is being conducted in multiple stages and will include targeted focus groups composed of different stakeholders organized through community organizations, trade and business associations, and other local entities, as well as through a distributed survey to understand public views on the uses of local groundwater and alternatives as those are developed. The Capital Area Groundwater Conservation Commission will use the data and information provided by this project to make critical aquifer management decisions.

A Community-Informed Framework for Quantifying Risk and Resilience in Southeast Louisiana

Walton Family Foundation, Bentonville, Arkansas

This study integrates the multi-attributed aspects of coastal risk—economic, social, and environmental—into a unified coastal resilience assessment model using a consistent set of quantitative metrics. To capture the unique local character and priorities that comprise community resilience across different geographies within the region, this research developed a rigorous, replicable process for gathering and incorporating qualitative local knowledge into this quantitative data model.

Coastal Advocacy for Science Training (COAST) Program

Restore or Retreat, Thibodaux, Louisiana

The COAST program is a collaborative leadership development initiative for Indigenous communities in Lafourche and Terrebonne Parishes that links coastal restoration with coastal culture through an examination of restoration-related scientific and social impacts. The research team worked with local Indigenous communities to co-develop local resilience and restoration projects, determined and developed by program participants and volunteers through qualitative research and engagement activities that relate coastal science, community, and cultural impacts.

Improving SECAS Gulf-wide Integration: Integrated Data to Support Natural Resource Conservation and Restoration in the Northern Gulf of Mexico

US Fish and Wildlife Service, Falls Church, Virginia

This project enhances the management applicability and use of the Southeast Conservation Adaptation Strategy (SECAS) blueprint in prioritizing restoration projects across the northern Gulf of Mexico. Three geospatial products (prototype Gulf-wide Blueprint, Integrated Ecosystem Stress, and Social Vulnerability) were produced and integrated to develop a tool to inform future conservation and restoration actions through the identification of co-benefits to natural resources and vulnerable human communities.

EcoMetrics Assessment: Regenerative Energy Solar Projects Pilot
The Restore the Earth Foundation, Ithaca, New York
This study established stakeholder based, science driven standards to measure and verify the relationship between regenerative land-use practices on solar farms and corresponding environmental, social, and economic outcomes. Through a pilot "proof of concept" project, this study developed a Social Return on Investment model to be applied to a solar farm in Blakely, Georgia to account, in monetized terms, for the environmental social and economic co-benefits and value creation derived from the entire solar farm. These co-benefits include the renewable energy component as well as the regenerative land-use practices component derived from ancillary activities.

Assessing Temporal and Spatial Variability in Community and Parish Level Responses to Oil Spills and Other Events in Coastal Louisiana
U.S. Bureau of Ocean Energy Management, New Orleans, Louisiana
This study, a partnership with the University of Arizona Bureau of Applied Research in Anthropology, expands and enhances understandings of the socioeconomic effects of major disruptive events, such as oil spills, hurricanes, floods, and drought, on communities in the short- and long-term and to understand the cumulative effects of such events on communities.

Participatory Modeling: Connecting Local Knowledge and Scientific Understanding
The Water Institute of the Gulf, Baton Rouge, Louisiana
During five meetings in 2018, representative community members in St. Bernard Parish were involved in a fact-finding and participatory modeling activity with a number of numerical modelers. The goal of the community/researcher collaboration was to co-design a computer model representing the hydrology and ecology of Breton Sound Estuary and then use the model to test different nature-based restoration and protection projects. The models were adjusted based on the community group's feedback. Supported by the Science and Engineering Plan of The Water Institute of the Gulf.

Finding the Means: Investment and Adaptation in Vulnerable Communities
Tulane Institute on Water Resources Law and Policy, New Orleans, Louisiana
This study used stakeholder insight to assess the social impact of nonstructural mitigation measures and potential funding streams through a series of semi-structured interviews and qualitative data analysis. The study sought to identify the main social tipping point(s) in the implementation and/or funding process for nonstructural residential programs at which it would become so taxing on the community that residents would choose to move elsewhere.

Data Needs to Assess Social Impacts Associated with Reforestation Projects in the Lower Mississippi River Alluvial Valley
The Restore the Earth Foundation, Ithaca, New York
This study identified and quantified the social impacts of reforestation projects in the Lower Mississippi River Alluvial Valley within two sites; one in the Tensas River National Wildlife Refuge and the second in the Pointe-aux-Chenes Wildlife Management Area. Both sites contain habitat that provide ecological services, biological diversity, and recreation for local communities. This research will use a social return on investment model to assess the social and economic impacts of the projects on local communities.

Vulnerability Assessment of Critical and Essential Facilities in Golden Meadow and Morgan City, Louisiana
U.S. Army Corps of Engineers, New Orleans, Louisiana
This study assessed variations in the exposure of critical facilities and infrastructure to SLR and storm surge within two coastal Louisiana communities, Morgan City and Golden Meadow. The potential range of SLR at each location was determined using data modeled for Louisiana's Coastal Master Plan under three future risk scenarios. These scenarios were used to predict when the facilities might be expected to experience SLR impacts and what the magnitude of those impacts might be.

Building Community Resilience to a Changing Louisiana Coastline through Restoration of Key Ecosystem Components
Louisiana Sea Grant, Baton Rouge, Louisiana
This synthesis project brought together technical data from natural and social scientists as well as traditional ecological knowledge gathered through a series of community local knowledge mapping workshops to examine the social, cultural, and economic value of key ecosystems in coastal Louisiana. These data were integrated to develop a model of ecosystem based adaptation in coastal Louisiana that was informed by both scientific and community landscape knowledge.

Trends in Oil and Gas Infrastructure, Ecosystem Function, and Socioeconomic Wellbeing in Coastal Louisiana
National Academies of Science Gulf Research Program, Washington, D.C.
This joint project between the People, Resources and Technology and Coastal Ecology Programs at the Water Institute of the Gulf explored the historical linkages between the expansion of oil and gas infrastructure, ecosystem health, and economic wellbeing of communities. This research compiled historical datasets and analyzed and mapped coastal conditions from 1950 to 2010. The output of this study is a Water Institute Synthesis Report.

2017 Coastal Master Plan: Coastal Louisiana Social Vulnerability Index (SVI)
Louisiana Coastal Protection and Restoration Authority (CPRA), Baton Rouge, Louisiana
The social vulnerability index calculated for coastal Louisiana offers valuable insights into the social and economic conditions that increase community vulnerability to hazards events. This index enabled an assessment of the relative vulnerability of communities and was used to interpret the findings of Louisiana Coastal Master Plan metrics by comparing metric results across the vulnerability categories determined in this report. Providing community level information to the Planning Tool supports evaluation of how communities with different levels of vulnerability may be affected by restoration projects and alternatives.

Louisiana Water Resources Assessment for Sustainability and Energy Management
Louisiana Department of Natural Resources (DNR) and Coastal Protection and Restoration Authority (CPRA), Baton Rouge, Louisiana
Worked with Water Institute scientists and an expert technical coordination team to develop a framework identifying the essential elements, methods and data sources, and procedures to develop an effective ground and surface water budget for Louisiana. This study also included an assessment of the sustainability of the state's water resources given different scenarios of water use and availability.

Coastwide and Barataria Basin Monitoring Plans for Louisiana's System-Wide Assessment and Monitoring Program (SWAMP)
Louisiana Coastal Protection and Restoration Authority (CPRA), Baton Rouge, Louisiana
Worked with CPRA and Water Institute scientists to develop a programmatic human system monitoring plan to monitor and evaluate social and economic changes in community structure in coastal Louisiana as it relates to the state's coastal protection and restoration program on a coastwide scale. A Barataria Basin monitoring plan that will incorporate elements of the programmatic plan with specific data collection activities was also developed.

Mapping Historical Resilience in Coastal Louisiana
The Water Institute of the Gulf, Baton Rouge, Louisiana
Served as the principal investigator on a geographical study examining the effects of historical social, economic, and environmental stresses on community resilience. This research compiled an extensive geographical dataset and analyzed and mapped coastal conditions from 1940-2010. The output of this study is a published coastal atlas of social and environmental change.

Social Impact Assessment Methodology for Louisiana Coastal Master Plan Restoration and Protection Projects
Louisiana Coastal Protection and Restoration Authority (CPRA), Baton Rouge, Louisiana

Worked with Water Institute scientists and an expert panel to identify the essential elements, methods and data sources, and procedures to operationalize an effective social impact assessment. Developed a draft workplan to develop a social impact assessment for proposed river diversions and other coastal protection and restoration projects.

Community Resettlement Prospects in Southeast Louisiana
Tulane Institute on Water Resources Law and Policy, New Orleans, Louisiana
Worked with legal experts and scientists from Tulane University and funding from Oxfam America to explore the legal, cultural, and demographic aspects of relocating individuals and communities from high-risk areas in coastal Louisiana. Conducted an exploratory demographic and environmental justice analysis of populations susceptible to relocation in southeast Louisiana.

Coastal Community Resiliency Working Group
Louisiana Coastal Protection and Restoration Authority (CPRA), Baton Rouge, Louisiana
Worked with CPRA scientists to develop a comprehensive socio-ecological resilience index for the Louisiana coastal zone incorporating social vulnerability, biophysical vulnerability, and human adaptation to increasing risk levels. Developed local-level health accessibility ratings for the all communities within the coastal zone. Processed and analyzed raster and vector data used in development of the resilience index. Assisted in the development of the Coastal Protection and Restoration Authority Nonstructural Program.

Master Plan Delivery Team for Louisiana's 2012 Comprehensive Master Plan for a Sustainable Coast
Louisiana Coastal Protection and Restoration Authority (CPRA), Baton Rouge, Louisiana
Tasked with developing, maintaining, and analyzing GIS datasets and providing hardcopy and digital graphics products and custom databases for the Louisiana Coastal Protection and Restoration Authority for inclusion in Louisiana's 2012 Comprehensive Master Plan for a Sustainable Coast.

Cultural Heritage Working Group for Louisiana's 2012 Comprehensive Master Plan for a Sustainable Coast
Louisiana Coastal Protection and Restoration Authority (CPRA), Baton Rouge, Louisiana
Tasked with integrating social, biological, and ecological data into a single geographical database covering Louisiana's working coast for use in developing the Cultural Heritage Decision Criteria for use in the 2012 State of Louisiana Comprehensive Master Plan for a Sustainable Coast. Analyzed demographic data to establish community boundaries for use by the Risk Assessment Predictive Modeling Workgroup.

Patterns of Historical Channel Change along the Red River, Coushatta to Shreveport, Louisiana
Louisiana State Land Office, Baton Rouge, Louisiana
Served as Task Order Manager and technical expert on this project for the Louisiana State Land Office, the Louisiana Attorney General's Office, and the Louisiana Office of Mineral Resources. Conducted research on land rights issues related to Haynesville Shale development in North Louisiana. Compiled data from a variety of sources and utilized geographical and hydrologic principles and analysis to determine the impacts of anthropogenic development on Louisiana's waterways.

Using the Historical Record to Determine Public Ownership and Access to Louisiana's Waterways
Louisiana State Land Office, Baton Rouge, Louisiana
Served as Task Order Manager on this project for the Louisiana State Land Office. Provided technical, database management, and GIS support for a project developing a comprehensive database of historically navigable public waterways within Louisiana. Worked in consultation with the State to develop methods and standard operating procedures for determining ownership of state waters. Compiled data on state water bottom ownership from a variety of sources and in a number of different formats, including air photo and satellite imagery, as well as archival and legal data sources.

Evaluating Environmental Equity in Southeast Louisiana
Bureau of Ocean Energy Management, New Orleans, Louisiana
Served as primary researcher on two environmental justice studies integrating geographic, socio-economic, and toxicological data in a GIS format to compare the environmental impacts of onshore oil and gas extraction, offshore oil land-based infrastructure, and petroleum refining on selected communities in southeast Louisiana. This included a study of the environmental impacts of oil- and gas-related industries on wetlands ecology, focusing specifically on waterfowl and other game animals. Prepared graphics and GIS data for a supplemental study on Gulf of Mexico coastal communities and demographics.

Research Grants:

1. National Academies of Sciences. Engineering and Medicine. Gulf Research Program. 2022. Incorporating Equity and Social Vulnerability into the Design of Flood Risk Mitigation Strategies. Co-Principal Investigator. $199,594.
2. RESTORE Act Direct Component Funding. 2022. Morgan City Coastal Resilience Laboratory: Structured Decision Making to Support Long Term Strategic Planning. Principal Investigator. $129,324.
3. U.S. Army Engineer Research and Development Center. 2022. External Stakeholder Outreach and Engagement to Inform Reanalysis of Completed Studies. Key Personnel. $55,525.
4. U.S. Army Engineer Research and Development Center. 2022. Considering Equity and Environmental Justice in USACE Project Evaluation and Prioritization. Principal Investigator. $297,230.
5. Capital Area Groundwater Conservation Commission. 2021. Strategic Water Plan - Facilitated Workshops and Scientific Review. Key Personnel. $987,474.
6. Chevron. 2021. Partnership for Our Working Coast Supplemental. Co-Principal Investigator. $100,000.
7. Louisiana Coastal Protection and Restoration Authority. 2021. Risk Assessment: Mid Barataria Diversion. Principal Investigator. $54,647.
8. U.S. Army Engineer Research and Development Center. 2021. Review and Analysis of Completed USACE Planning Studies to Advance the Prioritization and Selection of Alternative Designs that Feature Natural Infrastructure and Engineering with Nature Projects. Key Personnel. $565,752.
9. United States Department of Commerce Economic Development Administration. 2021. Lower Mississippi River SmartPort & Resilience Center. Key Personnel. $1,600,000.
10. Texas General Land Office. 2020. Flood Studies within Combined River Basins. Key Personnel. $1. 459,564.
11. Texas General Land Office. 2020. GLO Flood Studies - Region 2. Key Personnel. $43,750.
12. Barataria-Terrebonne National Estuary Program. 2019. Barataria-Terrebonne National Estuary Climate Change Adaptation Plan. Principal Investigator. $25,000.
13. National Fish and Wildlife Foundation. 2019. Assessing Wetland Alternatives in Port Fourchon. Louisiana. Co-Principal Investigator. $500,000.
14. Restore the Earth Foundation. 2019. Conduct and EcoMetrics Assessment: Regenerative Energy Solar Projects Pilot. Principal Investigator. $60,000.
15. Shell. 2019. Restoring Nature-Based Resilience to Protect Critical Infrastructure & Communities in Lower Plaquemines Parish. Louisiana. Co-Principal Investigator. $159,522.
16. Tulane University. 2019. Study the Physical Relations Between the Urban Fabric of Quilmes. Argentina and its Rivers. Principal Investigator. $10,000.
17. U.S. Fish and Wildlife Service. 2019. Advance the Practical Applicability and Use of the SECAS Blueprint in Prioritizing. Executing. and Assessing Conservation and Restoration Projects in the Gulf of Mexico (GOM) and Surrounding Watersheds. Key Personnel. $649,000.
18. Foundation for Louisiana. 2018. Equitable Coastal Hazards Analysis. Principal Investigator. $100,000.

19. Greater New Orleans Foundation. 2018. Establishment for the New Orleans-based Resilience Lab. Co-Principal Investigator. $200,000.
20. Louisiana Coastal Protection and Restoration Authority. 2018. Creating a System-Wide Assessment and Monitoring Program (SWAMP) for Coastal Louisiana. Principal Investigator. $390,686.
21. Restore or Retreat. 2018. Coastal Advocacy through Science Training. Principal Investigator. $138,988.
22. Walton Family Foundation. 2018. Assessing Risk and Resilience in Coastal Louisiana. Principal Investigator. $500,000.
23. City of Covington. 2017. City of Covington: Flood Response Plan Development. Principal Investigator. $42,500.
24. Tulane Institute on Water Resources Law & Policy. 2017. Identify Key Environmental. Social. and Legal Tipping Point Factors. Principal Investigator. $45,000.
25. Bureau of Ocean Energy Management. 2016. Assessing Spatial and Temporal Variability in Community and Parish Responses to Oil Spills and Other Events in Coastal Louisiana. Principal Investigator. $550,000.
26. Restore the Earth Foundation. 2016. Data Needs to Assess Social Impacts Associated with Reforestation Projects in the Lower Mississippi Alluvial Valley . Principal Investigator. $47,166.
27. U.S. Army Corps of Engineers Silver Jackets Program. 2016. Coastal Louisiana Vulnerability Analysis. Principal Investigator. $90,000.
28. Louisiana Sea Grant. 2015. Building Community Resilience to a Changing Louisiana Coastline through Restoration of Key Ecosystem Components. Co-Principal Investigator. $49,996.
29. National Academies of Sciences. Engineering and Medicine. Gulf Research Program. 2015. Assessing Long Term Linkages between Development of Oil and Gas Industry Related Coastal Infrastructure. Societal Wellbeing. and Ecosystem Function in Coastal Louisiana. Co-Principal Investigator. $129,638.
30. Louisiana Department of Natural Resources. 2014. Louisiana Water Resources Assessment for Sustainability and Energy Management. Principal Investigator. $220,000.

Other Professional Accomplishments:

1. Committee Chair, Community Engagement in Southeast Texas: Pilot Project to Enhance Community Capacity and Resilience to Floods, 2020 to Present. An ad hoc planning committee organized by the National Academies of Science, Engineering, and Medicine to inform the Gulf Research Program as it develops a new community resilience program.
2. Co-Editor, Coastal Cities in a Changing Climate, 2022. Co-edited a special issue of Frontiers in Environmental Science that brought scholars from around the world together to consider the place of society and culture in transforming the environments of coastal sites into major cities.
3. JGS Best Paper Award, 2020. This was presented by the Editors-in-Chief of the Journal of Geographical Systems for "Elevating Local Knowledge through Participatory Modeling: Active Community Engagement in Restoration Planning in Coastal Louisiana."
4. Letter of Recognition for Contributions for USGS Deepwater Horizon Oil Spill, 2011. This award was presented by the USGS Director's Office to recognize team members who provided emergency geospatial support during the Deepwater Horizon oil spill.
5. Special Achievement in GIS Award, ESRI International User Conference, 2006. This award was given to scientists and geographers in the USGS National Wetlands Research Center who assisted in search and rescue efforts during Hurricane Katrina

PEER REVIEWED PUBLICATIONS

1. Hemmerling, S. A., DeMyers, C., Parfait, J., Piñero, E., Baustian, M. M., Bregman, M., Di Leonardo, D., Esposito, C., Georgiou, I. Y., Grismore, A., Jung, H., McMann, B., & Miner, M. D. (2023). A Community-Informed Transdisciplinary Approach to Coastal Restoration Planning: Maximizing the Social and Ecological Co-Benefits of Wetland Creation in Port Fourchon, Louisiana, USA. Frontiers in Environmental Science, Volume 11.

2. Kiskaddon, E., Bienn, H., Hemmerling, S.A., Dalyander, P.S., Grismore, A., Parfait, J., Miner, M.D., Cameron, C., Hopkins, T.E., Allen, Y., Jones-Farrand, D., Martin, M., Tirpak, B.E., Green, M., Rhinehart, K., and Tim J. B. Carruthers, T.J.B. (2022). Supporting habitat restoration in the northern Gulf of Mexico through synthesis of data on multiple and interacting benefits and stressors. Journal of Environmental Management, Volume 318, Article 115589.

3. Hemmerling, S.A., DeMyers, C.A, & and Carruthers, T. J. B. (2022). Building resilience through collaborative management of coastal protection and restoration planning in Plaquemines Parish, Louisiana, USA. Sustainability, Volume 14, Number 5.

4. Colten, C.E., Glavovic, B.C., and Hemmerling, S.A. (2022). Editorial: Coastal cities in a changing climate. Frontiers in Environmental Science, Volume 10, Article 878888.

5. Hemmerling, S.A., DeMyers, C.A, & Parfait, J. (2021). Tracing the flow of oil and gas: A spatial and temporal analysis of environmental justice in coastal Louisiana from 1980 to 2010. Environmental Justice, Volume 14, Number 2.

6. Allen, Thomas, Behr, J., Bukvic, A., Calder R.S.D., Caruson, K., Connor, C., D'Elia, C., Dismukes, D., Ersing, R., Franklin, R., Goldstein, J., Goodall, J., Hemmerling, S.A., Irish, J., Lazarus, S., Loftis, D., Luther, M., McCallister, L., McGlathery, K., Mitchell, M., Moore, W., Nichols, C.R., Nunez, K., Reidenbach, M., Shortridge, J., Weisberg, R., Weiss, R., Wright, L.D., Xia, M., Xu, K., Young, D., Zarillo, G., and Zinnert, J.C. (2021). Anticipating and adapting to the future impacts of climate change on the health, security and welfare of Low Elevation Coastal Zone (LECZ) communities in Southeastern USA. Journal of Marine Science and Engineering, Volume 9, Number 11.

7. Barra, M., Hemmerling, S. A., & Baustian, M. M. (2020). A model controversy: Using environmental competency groups to inform coastal restoration planning in Louisiana. Professional Geographer, Volume 72, Number 4.

8. Hemmerling, S. A., Carruthers, T. J. B., Hijuelos, A. C., & Bienn, H. C. (2020). Double exposure and dynamic vulnerability: Assessing economic well-being, ecological change and the development of the oil and gas industry in coastal Louisiana. Shore & Beach, Volume 88, Number 1.

9. Baustian, M. M., Jung, H., Bienn, H., Barra, M., Hemmerling, S.A., Wang, Y., White, E., & Meselhe, E. (2020). Engaging coastal community members about natural and nature-based solutions and assessing their ecosystem functions. Ecological Engineering: X, Volume 5.

10. Hemmerling, S. A., Barra, M., & Bond, R. H. (2020). Adapting to a Shrinking Coast: Restoration, Protection, and Social Justice in Coastal Louisiana. In S. Laska (Ed.), Louisiana's Response to Extreme Weather- A Test Case for Coastal Resilience. Cham, Switzerland: Springer International Publishing.

11. Meselhe, E., Wang, Y., White, E., Jung, H., Baustian, M. M., Hemmerling, S.A., Barra, M., & Bienn, H. (2020). Development of a local knowledge-based predictive tools to assess effectiveness of natural and nature-based solutions for coastal restoration and protection planning. Journal of Hydraulic Engineering, Volume 146, Number 2.

12. Hemmerling, S. A., Barra, M., Bienn, H. C., Baustian, M. M., Jung, H., Meselhe, E., Wang, Y., & White, E. (2020). Elevating Local Knowledge through Participatory Modeling: Active Community Engagement in Restoration Planning in Coastal Louisiana. Journal of Geographical Systems, Volume 22, Number 2, pp. 241-266

13. Curtis, J.W., Curtis, A., and Hemmerling, S.A. (2018). Revealing the Invisible Environments of Risk and Resiliency in Vulnerable Communities through Geospatial Techniques. in Tsunamis: Detection, Risk Assessment and Crisis Management. Aggeliki Barberopoulou, ed. Hauppauge, NY: Nova Science Publishers.

14. Hemmerling, S.A. (2018). Eroding Communities and Diverting Populations: Historical Population Dynamics in Coastal Louisiana. in Mississippi Delta Restoration: Back to the Future. John W. Day, ed. Springer Netherlands.

15. Colten, C.E., Simms, J.R.Z., Grismore, A.A., and Hemmerling, S.A. (2018). Social Justice and Mobility in Coastal Louisiana, USA. Regional Environmental Change, Volume 18, Number 2, pp. 371-383.

16. Hemmerling, S.A. and Barra, M. (2017). Incorporating Local Knowledge into Ecological Restoration Assessments – Case Studies in Louisiana. SER News, Volume 31, Number 3.

17. Hemmerling, S.A. (2017). A Louisiana Coastal Atlas: Resources, Economies, and Demographics. Baton Rouge, LA: Louisiana State University Press.

18. Yodis, E.G., Colten, C.E., and Hemmerling, S.A. (2016). Geography of Louisiana. McGraw Hill Education.

19. Hemmerling, S.A. and Colten, C.E. (2004). Environmental Justice and the Spatial Distribution of Oil-Related Infrastructure in Lafourche Parish, Louisiana. The Southwester Geographer, Vol. 8, pp. 65-98.

CONFERENCE PROCEEDINGS AND PRESENTATIONS

1. Scott A. Hemmerling. Elevating Local Knowledge Through Participatory Modeling: Active Community Engagement in Protection & Restoration Planning in Port Fourchon, Louisiana (Presentation). The Gulf of Mexico Conference, Baton Rouge, LA, April 26, 2022.

2. Scott A. Hemmerling. Tipping Points for Coastal Louisiana: Migration and Economic Shifts in Vulnerable Communities (Virtual Panelist). State of the Coast, New Orleans, LA, June 2, 2021.

3. Scott A. Hemmerling. Elevating Local Knowledge Through Participatory Modeling: Active Community Engagement in Restoration Planning in Coastal Louisiana (Presentation). Emerging Voices from the Gulf: Creating a Place for People, Baton Rouge, LA, May 27, 2021.

4. Scott A. Hemmerling. Building Social Justice into Protection and Restoration Planning: The Need for Transdisciplinary Research in Coastal Louisiana (Virtual Centennial Keynote Address). Annual Meeting of the Louisiana Academy of Sciences, Ruston, LA, March 13, 2021.

5. Scott A. Hemmerling. The Economic Benefits of Coastal Restoration in Louisiana (Presentation). National Adaptation Forum, Madison, WI, April 24, 2019.

6. Scott A. Hemmerling. Incorporating Local Knowledge into Ecological Restoration Assessments – Case Studies in Coastal Louisiana (Presentation). National Conference on Ecosystem Restoration, New Orleans, LA, August 28, 2018.

7. Scott A. Hemmerling. Putting Public-Private Partnerships to Practice to Support the Working Coast (Invited Panelist). State of the Coast, New Orleans, LA, May 30, 2018.

8. Scott A. Hemmerling and Tim J.B. Carruthers. Assessing Linkages between Oil and Gas Dependence and Economic Well-Being in Postwar Louisiana (Presentation). Louisiana Historical Association Annual Meeting, New Orleans, LA, April 13, 2018.

9. Scott A. Hemmerling and Monica Barra. Putting Social-Cultural Values on the Map: Incorporating Local Knowledge into Ecological Restoration Assessments (Presentation). Association of American Geographers Annual Meeting, New Orleans, LA, April 11, 2018.

10. Scott A. Hemmerling. The Gulf Research Program of the National Academies: Opportunities for Geographers (Invited Panelist). Association of American Geographers Annual Meeting, New Orleans, LA, April 10, 2018.

11. Scott A. Hemmerling. Assessing Temporal and Spatial Variability in Community and Parish-Level Responses to Oil Spills and Other Events (Presentation). Bureau of Ocean Energy Management Gulf of Mexico Information Transfer Meeting, New Orleans, LA, August 24, 2017.

12. Scott A. Hemmerling. A Framework to Assess Ground and Surface Water Sustainability in Louisiana (Presentation). H2O/LA: An Examination of Louisiana's Relationship with Water Symposium, Lafayette, LA, August 14, 2017.

13. Scott A. Hemmerling. Climate Change and What's at Risk (Presentation). 10th Annual National Conference on Health Disparities, New Orleans, LA, May 4, 2017.

14. Scott A. Hemmerling and Monica Barra. Putting Social-Cultural Values on the Map: Cross-Disciplinary Collaboration on Building Resilience in Coastal Louisiana (Presentation). Society for Applied Anthropology Annual Meeting, Santa Fe, NM, March 30, 2017.

15. Scott A. Hemmerling. Concerns of a Liquid Coast: Tracing Louisiana's 21st Century Environmental Crisis (Invited Panelist). Louisiana Historical Association Annual Meeting, Shreveport, LA, March 18, 2017.

16. Scott A. Hemmerling. Resilience in Vulnerable Coastal Communities: What Can Be Communicated? (Presentation). Tracking Community Resilience: Gulf Research Program Opportunity Analysis Meeting, Washington, DC, February 15, 2017.

17. Scott A. Hemmerling. Land's End: The Erosion of Louisiana's Coastal Cultures (Invited Panelist). Acadiana Encounter, Lafayette, LA, September 24, 2016.

18. Scott A. Hemmerling. Assessing Trends since the 1950s till Present in Development of Coastal Infrastructure, Ecosystem Function and Indices of Societal Well-being in Coastal Louisiana (Presentation). State of the Coast, New Orleans, LA, June 3, 2016.

19. Scott A. Hemmerling. The Louisiana Water Resources Sustainability Assessment Framework (Presentation). State of the Coast, New Orleans, LA, June 1, 2016.

20. Scott A. Hemmerling. A Place of Constant Change: Mapping Historical Resilience in Coastal Louisiana from 1950 to 2010 (Presentation). 5th National Forum on Socioeconomic Research in Coastal Systems, New Orleans, LA, March 22, 2016.

21. Monica Barra, Scott A. Hemmerling, and Tim J.B. Carruthers. Building Community Resilience to a Changing Louisiana Coastline through Restoration of Key Ecosystem Components: A Multi-Method

Approach (Poster). 5th National Forum on Socioeconomic Research in Coastal Systems, New Orleans, LA, March 22, 2016.

22. Scott A. Hemmerling. System Shocks and Slow Burn Events – Historical System Dynamics in Coastal Louisiana (Presentation). American Planning Association National Planning Conference, Atlanta, GA, April 29, 2014.

23. Scott A. Hemmerling. Persistence and Change – Mapping Community Resilience in Coastal Louisiana, 1930-2010 (Presentation). State of the Coast, New Orleans, LA, March 20, 2014.

24. Joanne Chamberlain, Stephanie Hanses, Scott Hemmerling, Melanie Saucier, and Joseph Wyble. Cultural Heritage Decision Criteria used in the Development of the 2012 Coastal Master Plan (Poster). State of the Coast Conference, New Orleans, Louisiana, June 25, 2012.

25. Michele Deshotels, Karim Belhadjali, Melanie Saucier, Joanne Chamberlain, Harold Clarkson, Stephanie Hanses, and Scott Hemmerling. Incorporating Nonstructural Alternatives in Large Scale Protection and Restoration Plans (Poster). State of the Coast Conference, New Orleans, Louisiana, June 25, 2012.

26. Scott A. Hemmerling. Patterns of Historical Channel Change along the Red River, Shreveport, Louisiana to the Mississippi River (Presentation). Louisiana Society of Professional Surveyors 2010 Fall Technical Session, Baton Rouge, LA, October 15, 2010

27. Scott A. Hemmerling. Environmental Justice and the Spatial Distribution of Wildlife Habitat in the Urban-Rural Fringe of Southeastern Louisiana (Presentation). Association of American Geographers Annual Meeting, Denver, CO, April 8, 2005.

28. Scott A. Hemmerling. Environmental Justice in Southeast Louisiana: People, Places, Petroleum, and the Geography of Industrial Hazards (Presentation). Association of American Geographers Annual Meeting, Philadelphia, PA, March 18, 2004.

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