



TEXAS A&M UNIVERSITY

Hurricane Experts Guide

Compiled by the Division of Marketing & Communications



Expert Areas

- 1-2** Important Online Resources and Contacts
- 3** How Hurricanes Form
- 4-5** Structural and Water Damage to Infrastructure
- 6-7** Environmental and Ecosystem Effects of Hurricanes
- 8** Hurricane Effects on Animals and Pets
- 9-10** Personal and Social Aspects of Hurricanes
- 11-12** Coastal Infrastructure and Ecosystems
- 13-14** Warning Systems and Evacuation
- 15-18** Recovery and Sustainable Development
- 19** Hurricanes, Marine Life and Seafood
- 20** Legal Issues

The 2023 hurricane season is underway. Texas A&M University has more than 50 faculty and staff experts available to discuss every aspect of hurricanes, from early formation to recovery and resilience.

In this guide, media will find information about experts, research institutes and a central point of contact for Texas A&M University inquiries regarding hurricane preparedness and response.



Important Online Resources and Contacts

TEXAS A&M TASK FORCE 1

An elite, highly trained and highly specialized urban search and rescue group trained in disasters and terrorism. It can be mobilized within hours and is equipped to remain on 24-hour duty for days at a time.

texastaskforce1.org

Contact: Jeff Saunders 979-458-6800 | jeff.saunders@teexmail.tamu.edu

TEXAS A&M INSTITUTE FOR A DISASTER RESILIENT TEXAS (IDRT)

IDRT was formally established in 2020 following the passage of House Bill 2345 by the 86th Texas Legislature in 2019 to convert knowledge to action. The institute provides research and analysis on disaster risk reduction, including coastal and inland flooding, beach erosion, wetlands loss and other hazards. Through collaborative efforts, the Institute aims to deliver critical research on disaster risk reduction, support state agencies with data analytics and decision-making tools, and generate evidence-based solutions that help Texas communities become more resilient over the long term. The cornerstone of the Institute is the Texas Disaster Information System, which will be an interactive, analytical and visual web-based spatial data system designed to support more resilient decision-making at the state level. Currently, the Institute's data collection is focused on debris modeling in coastal storm events, urban flooding, risk communication and perception and coastal risk reduction. Online resources include the Texas Coastal Planning Atlas and Buyers Be-Where, an online system to help prospective home buyers and sellers understand their risk relative to other properties in the area.

Online Resources: idrt.tamug.edu/web-tools

TEXAS EXTENSION DISASTER EDUCATION NETWORK (EDEN)

The EDEN hurricane resources page has links to information about both pre- and post-storm topics, including general safety, food, health issues, restoring a home or septic system, financial recovery and care for pets and other animals.

texashelp.tamu.edu

Contacts: Andy Vestal 979-862-3013 | t-vestal@tamu.edu

Joyce Cavanagh 979-845-3850 | jacavanagh@tamu.edu

HAZARD REDUCTION & RECOVERY CENTER (HRRC)

Established at Texas A&M University in 1988, the HRRC is an interdisciplinary collaborative effort focused on hazard analysis, emergency preparedness and response, disaster recovery and hazard mitigation. It serves as a liaison between the university, interested individuals and groups, communities, and various professional organizations involved in hazard reduction and improved disaster recovery processes. The HRRC today includes the expertise of planners, landscape architects, sociologists, architects, policy analysts, geographers, health scholars and engineers, as well as professional and community partners in nonprofits and local, state and federal agencies. The HRRC conducts research and engagement with



Important Online Resources and Contacts (cont.)

local communities to solve real-world challenges related to hazards and disasters. Since the 1980s, the HRRC has led evacuation planning research for local Texas communities supported by the **Texas Planning Atlas**, which hosts data and mapping tools available for communities to use in their plans. The HRRC coordinates with Texas Target Communities to train students through service-learning projects that help Texas towns and cities mitigate risks and recovery from disasters. HRRC faculty are working with the National Institutes of Standards and Technologies on IN-CORE, a national community resilience platform built to assess policies and implementation of funding strategies. Faculty are working with the U.S. Census Bureau on the Community Resilience Index.

hrrc.arch.tamu.edu

Contact: Seth Jordan | sjordan@arch.tamu.edu, hrrc@arch.tamu.edu

TEXAS COMMUNITY WATERSHED PARTNERS PROGRAM (TCWP)

The TCWP provides education and outreach to local governments and citizens on the impacts of land use on watershed health and water quality.

tcwp.tamu.edu

TEXAS A&M DIVISION OF MARKETING & COMMUNICATIONS

Members of the news team can assist in seeking additional experts and fielding questions from media.

today.tamu.edu/press-room

TEXAS DIVISION OF EMERGENCY MANAGEMENT

The Texas Division of Emergency Management, Operations Section, manages and staffs the State Operations Center (SOC), which operates 24/7 to monitor threats, make notification of threats and provide information on emergency incidents to local, state and federal officials, and coordinate state emergency assistance to local governments that have experienced an emergency situation that local response resources are inadequate to deal with.

tdem.texas.gov

TEXAS A&M VETERINARY EMERGENCY TEAM (VET)

The largest and most sophisticated team of its kind in the nation, the Texas A&M Veterinary Emergency Team (VET) provides medical support to urban search-and-rescue teams and resident animals in response to natural and manmade disasters at the request of Texas A&M Task Force 1 or county jurisdictions, while training future Aggie veterinarians in emergency preparedness and response. The VET has recently deployed along the Texas coastline in response to Hurricane Laura in 2020, Tropical Storm Imelda in 2019 and Hurricane Harvey in 2017.

vetmed.tamu.edu/vet

Contact: Jennifer Gauntt | jgauntt@cvm.tamu.edu



TEXAS A&M EXPERTS ON How Hurricanes Form



JOHN NIELSEN-GAMMON

Regents Professor of Atmospheric Sciences,
Texas A&M University College of Arts & Sciences

Nielsen-Gammon serves as State Climatologist and is an expert on the history of Texas hurricanes, hurricane forecasting, rainfall and flooding produced by hurricanes and how climate change affects the impact of hurricanes.

Contact: 979-862-2248 | n-g@tamu.edu

TIM LOGAN

Assistant Professor of Atmospheric Sciences,
Texas A&M University College of Arts & Sciences

Logan is an expert in lightning behavior in severe storms and hurricanes, as well as the impacts of pollution smoke and mineral dust on clouds, severe weather, lightning and hurricanes.

Contact: 979-845-2004
tlogan52@tamu.edu

ROBERT KORTY

Professor of Atmospheric Sciences,
Texas A&M University College of Arts & Sciences

Korty is an expert on hurricanes and climate, and studies how large-scale conditions in the atmosphere and oceans influence their intensity and tracks.

Contact: 979-847-9090
korty@tamu.edu

COURTNEY SCHUMACHER

Professor of Atmospheric Sciences,
Texas A&M University College of Arts & Sciences

Schumacher is an expert in tropical meteorology, large mesoscale convective systems, radar meteorology and mesoscale-climate interactions.

cschu@tamu.edu

HENRY POTTER

Associate Professor of Oceanography,
Texas A&M University College of Arts & Sciences

Potter is a physical oceanographer and hurricane scientist. His expertise is in how energy exchanged across the air-sea interface in hurricanes impacts their intensity and alters the underlying ocean.

Contact: 979-845-0405
hpotter@tamu.edu



TEXAS A&M EXPERTS ON

Structural and Water Damage to Infrastructure



JEAN LOUIS BRIAUD

Professor of Civil and Environmental Engineering,
Texas A&M University College of Engineering

Director, *National Geotechnical Experimentation Site*

Briaud is an expert in erosion and “scour,” the remains of buildings damaged by seawater. He also is proficient in how water sweeps away materials or bridges and soil compaction in levees.

Contact: 979-845-3797 | briaud@tamu.edu

RICK MERCIER

Professor of Civil and Environmental Engineering, *Texas A&M University College of Engineering*

Director, *Offshore Technology Research Center*

Mercier is an expert in off-shore drilling platforms, hurricane damage to oil rigs or any deep water off-shore structure, and oil rigs cut off from production.

Contact: 979-845-6000
rsmcier@tamu.edu

STEPHANIE PAAL

Associate Professor of Civil and Environmental Engineering, *Texas A&M University College of Engineering*

Paal leverages existing knowledge and artificial intelligence to understand the performance of civil infrastructure under extreme loads during natural disasters such as hurricanes. She is leading efforts related to mitigating the impact of these natural disasters and the prioritization of task forces after an event, all within the context of optimized post-disaster functionality and recovery.

Contact: 979-845-4394
spaal@civil.tamu.edu



TEXAS A&M EXPERTS ON

Structural and Water Damage to Infrastructure (cont.)

MARIA KOLIOU

Associate Professor of Civil and Environmental Engineering, Texas A&M University College of Engineering

Faculty Fellow, Hazard Reduction and Recovery Center

Koliou focuses on post-disaster system functionality and community resilience, collapse assessment of structural systems and multi-hazard performance-based design of buildings and non-building structures. She leads a multi-institution interdisciplinary project that enables community resilience planners to model the physical and socioeconomic systems of a community and assess the effectiveness of measures aimed at minimizing post-disaster disruption and recovery time.

Contact: 979-845-4469

maria.koliou@tamu.edu

JAMES KAIHATU

Professor of Civil and Environmental Engineering, Division Head, Environmental, Water Resources and Coastal Engineering, Texas A&M University College of Engineering

Kaihatu focuses on theory and numerical modeling of ocean surface wave generation and propagation, including continental shelf-scale wave transformation, nonlinear wave-wave interaction, wave breaking and nearshore circulation and the effects of cohesive bottom sediments and coastal vegetation on waves. He creates and runs computer models for flooding of coastal petrochemical facilities due to urban runoff and hurricane-induced surges. He has done boots-on-the-ground building damage surveys and high water level measurements post-hurricane.

Contact: 979-862-3511

jkaihatu@civil.tamu.edu



TEXAS A&M EXPERTS ON

Environmental and Ecosystem Effects of Hurricanes



PETER VAN HENGSTUM

Associate Professor of Marine and Coastal Environmental Science, Texas A&M University-Galveston

Van Hengstum is a climate scientist specializing in historical and long-term reconstructions of hurricane activity to improve hurricane preparedness and resilience. His research focuses on understanding how hurricane activity, coastal flooding, rainfall, droughts and landscapes have changed over the last 20,000 years. He is currently leading a team studying blue holes to learn more about hurricane activity and rainfall patterns in the Atlantic Ocean. His research has appeared in National Geographic, journals published by the Nature Publishing Group, and Scientific American. Van Hengstum is an associate professor in the Department of Marine and Coastal Environmental Science and is a National Geographic Explorer.

Contact: 409-740-4919 | vanhenp@tamug.edu

ANTHONY KNAF

Director, Geochemical and Environmental Research Group

Professor of Oceanography, Texas A&M University College of Arts & Sciences

Knap is an expert in the effects of contaminants on marine environments, ocean health and human health interactions. He also co-leads the Texas A&M Superfund Research Center.

Contact: 979-458-9328
tknap@tamu.edu

KATHRYN SHAMBERGER

Associate Professor of Oceanography, Texas A&M University College of Arts & Sciences

Shamberger is an expert in chemical oceanography, ocean acidification and seawater carbonate chemistry, as well as the short-term and long-term effects of hurricanes on environments and ecosystems, including coral reefs.

Contact: 979-845-5752
katie.shamberger@tamu.edu



TEXAS A&M EXPERTS ON

Environmental and Ecosystem Effects of Hurricanes (cont.)

SHARI YVON-LEWIS

Professor and Department Head of the Department of Oceanography,
Texas A&M University College of Arts & Sciences

Yvon-Lewis is an expert in chemical oceanography and trace gas biogeochemistry and has conducted extensive post-hurricane research in Galveston Bay.

Contact: 979-458-1816

syvon-lewis@ocean.tamu.edu

JESSICA FITZSIMMONS

Associate Professor of Oceanography,
Texas A&M University College of Arts & Sciences

Fitzsimmons is an expert in chemical oceanography and biogeochemistry. She has conducted extensive post-hurricane research in Galveston Bay.

Contact: 979-845-5137

jessfitz@tamu.edu

JASON SYLVAN

Associate Professor of Oceanography,
Texas A&M University College of Arts & Sciences

Sylvan is an expert in biological oceanography, microbial ecology, geomicrobiology, deep biosphere and hydrocarbon microbiology. He can discuss the short-term and long-term effects of hurricanes on environments and ecosystems, including coral reefs.

Contact: 979-845-5105

jasonsylvan@tamu.edu

STEVE DIMARCO

Professor of Oceanography, Team Leader for Ocean Observing in the Geochemical and Environmental Research Group,
Texas A&M University College of Arts & Sciences

DiMarco is an expert in ocean observing systems, autonomous ocean vehicles and data collection methods, as well as the short-term and long-term effects of hurricanes on environments and ecosystems, including coral reefs and coastal hypoxia.

Contact: 979-862-4168

sdimarco@tamu.edu



TEXAS A&M EXPERTS ON

Hurricane Effects on Animals and Pets



DEB ZORAN

Professor of Veterinary Medicine,
Texas A&M University School of Veterinary Medicine & Biomedical Sciences

Zoran is an expert on displaced pets, pets relocating to unfamiliar areas, pets facing isolation and separation anxiety. She is serving as interim director of the Veterinary Emergency Team (VET).

Contact: 979-845-2351 | dzoran@cvm.tamu.edu

MURL BAILEY

Professor of Veterinary Medicine,
Texas A&M University School of Veterinary Medicine & Biomedical Sciences

Bailey is an expert on zoonotic diseases (those passed from animals to humans) and problems that can arise when this occurs.

Contact: 979-845-7261
m-bailey@tamu.edu

DUSTIN MAJOR

Clinical Assistant Professor of Equine Soft Tissue Surgery, *Texas A&M University School of Veterinary Medicine & Biomedical Sciences*

Major is board certified in large animal surgery and an expert on health, performance and behavioral issues related to horses.

Contact: 979-845-3541
dmajor@cvm.tamu.edu

GARRY ADAMS

Professor of Veterinary Medicine,
Texas A&M University School of Veterinary Medicine & Biomedical Sciences

Adams is well-versed on numerous public health issues, diseases stemming from disasters and treatment strategies for dealing with large numbers of injured or sick animals.

Contact: 979-845-5092
gadams@cvm.tamu.edu

LORI TELLER

Clinical Professor, *Texas A&M University School of Veterinary Medicine & Biomedical Sciences*

Teller is board certified in canine and feline practice and an expert on pet health, wellness and behavior, as well as telemedicine.

Contact: 979-845-2351
lteller@cvm.tamu.edu



TEXAS A&M EXPERTS ON

Personal and Social Aspects of Hurricanes



ANGELA CLENDENIN

Instructional Associate Professor,
Texas A&M University School of Public Health

Clendenin is the associate director of Texas A&M Health's USA Center for Rural Public Health Preparedness. She has served as the public information officer for the Veterinary Emergency Team and has expertise in risk management and emergency communication.

Contact: 979-436-0613 | clendenin@tamu.edu

BENIKA DIXON

Assistant Professor, *Texas A&M University School of Public Health*

Faculty Fellow, *Hazard Reduction & Recovery Center*

Dixon's areas of expertise are environmental and disaster epidemiology. Her research focuses on the physical and mental health implications of environmental exposures and hazards on vulnerable populations. Dixon also has extensive experience in public health emergency planning and surveillance.

benikad@tamu.edu

TRAGER HINTZE

Clinical Assistant of Pharmacy Practice, *Texas A&M University Irma Lerma Rangel School of Pharmacy*

Hintze is an expert in how to store and maintain medications in preparation for a disaster, as well as how to travel with medications. He is an emergency medicine pharmacist at St. Joseph Regional Health Hospital in Bryan, Texas.

Contact: 979-776-3757
hintze@tamu.edu



TEXAS A&M EXPERTS ON

Personal and Social Aspects of Hurricanes

J. CARLEE PURDUM

Research Assistant Professor, *Texas A&M University School of Architecture*

Assistant Director, *Hazard Reduction & Recovery Center*

Purdum's research centers on how communities prepare for and respond to hazards and disasters, particularly in regard to vulnerable populations. Her interests include emergency management, emergency planning, and disaster preparedness and response for various hazards (flooding, storms, wildfire, extreme temperatures, etc.). She is a leading scholar studying how hazards and disasters impact prisons and incarcerated people.

Contact: 979-845-7813

jcarleepurdum@tamu.edu

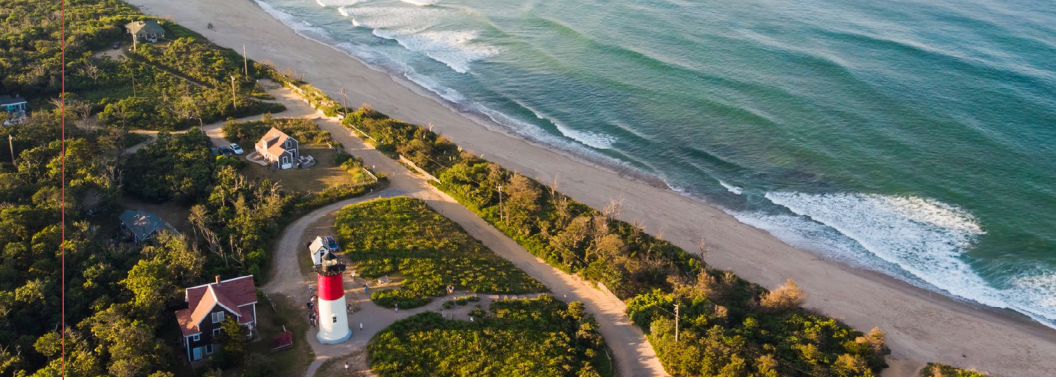
MARCIA MONTAGUE

Clinical Assistant Professor in **Educational Psychology**, *Texas A&M University School of Education & Human Development*

Montague can provide insight on trauma and disasters, particularly among at-risk youth and students with disabilities.

Contact: **Ruben Hidalgo**
School of Education & Human Development communications
979-458-0506

rhidalgo@tamu.edu



TEXAS A&M EXPERTS ON

Coastal Infrastructure and Ecosystems



WILLIAM MERRELL

Professor and George P. Mitchell '40 Chair in Marine Sciences, Texas A&M University-Galveston

Merrell is an expert in regional and large-scale ocean physics, hurricane impacts, coastal sustainability and disaster mitigation and recovery. He developed the concept of the "Ike Dike," a coastal surge suppression barrier for the Houston/Galveston area based on a similar project in the Netherlands and has long been a proponent for coastal conservation and protection in the region. He serves on the City of Galveston Hurricane Task Force. He has received dozens of awards and been featured by national and international media for his contributions to science. Merrell is a professor and George P. Mitchell '40 Chair in Marine Sciences for the Galveston campus.

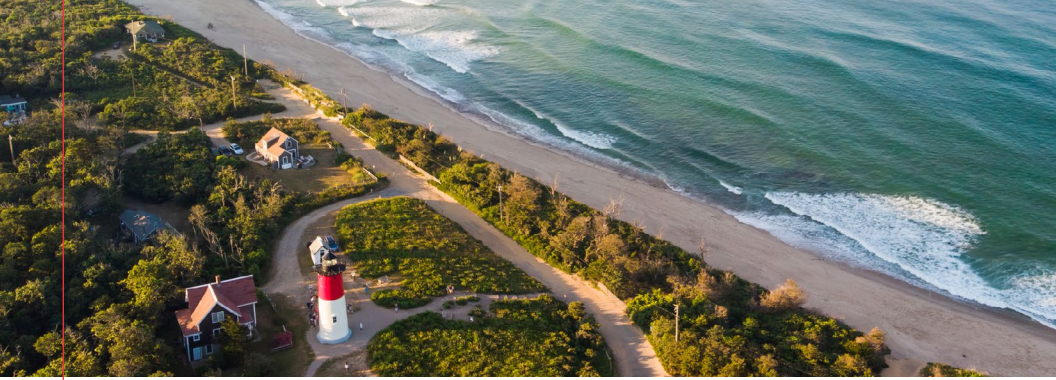
Contact: 409-740-4732 | merrellw@tamug.edu

DARLENE GOEHL

Research Engineer and Associate Agency Director, Texas A&M Transportation Institute

Goehl's research focuses on pavement evaluation, design, and maintenance. She is an expert in infrastructure condition assessment and resilient pavement design. Her research team has evaluated roadways in coastal areas of Texas after hurricanes and floods to ensure they were safe to open to the traveling public.

Contact: 979-317-2329
d-goehl@tti.tamu.edu



TEXAS A&M EXPERTS ON

Coastal Infrastructure and Ecosystems

SAMUEL D. BRODY

Professor of Marine and Coastal Environmental Sciences,
Texas A&M University-Galveston

Brody is the director of the Institute for a Disaster Resilient Texas, an adjunct professor in the Department of Civil and Environmental Engineering at Rice University and a senior fellow at the Water Institute of the Gulf. He was the lead technical expert for the Governor's Commission to Rebuild Texas in response to Hurricane Harvey. Brody's research focuses on coastal environmental planning, spatial analysis, flood mitigation, climate change policy and natural hazards mitigation. He has published numerous scientific articles on flood risk and mitigation and recently released the book "Coastal Flood Risk Reduction: The Netherlands and the U.S. Upper Texas Coast" published by Elsevier Press. He is a regents professor and holder of the George P. Mitchell '40 Chair in Sustainable Coasts in the Department of Marine and Coastal Environmental Science at Texas A&M University, Galveston campus.

Contact: 409-740-4939
brodys@tamug.edu

WESLEY E. HIGHFIELD

Professor, *Texas A&M University-Galveston*

Deputy Director, *Institute for a Disaster Resilient Texas*

Highfield specializes in data analysis related to environmental planning, flood and natural hazard mitigation, and risk planning, communication and recovery. He is the deputy director of the Institute for a Disaster Resilient Texas (IDRT), principal or co-principal for multiple IDRT initiatives and a professor in the Department of Marine and Coastal Environmental Science at the Galveston campus. He has published numerous scientific articles and is co-author of "Rising Waters: The Cause and Consequences of Flooding in the United States."

Contact: 409-740-4726
highfield@tamu.edu



TEXAS A&M EXPERTS ON

Warning Systems and Evacuation

JOHN T. COOPER

Assistant Vice President for Public Partnership & Outreach, Acting Assistant Director, Institute for Sustainable Communities

Faculty Fellow, Hazard Reduction & Recovery Center

Cooper's areas of interest include principles of inclusive planning and plan quality. His research and outreach focuses on emergency management, disaster planning and mitigation with a primary focus on socially vulnerable populations and communities.

Contact: 979-862-6700

jcooper@arch.tamu.edu

DOUG WUNNEBURGER

Instructional Professor, Texas A&M University School of Architecture

Faculty Fellow, Hazard Reduction & Recovery Center

Wunneburger's primary research interests include studies of social impacts due to interactions of demographics and spatially explicit policies and laws. His work primarily focuses on hurricane evacuations in Gulf regions, providing his expertise in developing and maintaining GIS databases and online mapping tools at the state and local level.

dwunneburger@arch.tamu.edu

ALEXANDER ABUABARA

Postdoctoral Research Associate, Texas A&M University School of Architecture

Faculty Fellow, Hazard Reduction & Recovery Center

Abuabara's research foci are at the nexus of the sub-fields of urban geography and ecology, and include using geographic information science (GIS) for spatial analyses of hazard risk, urban hazards, social impacts, hurricane evacuation needs, and community-based participatory planning. One of his unique areas of expertise is in suicide risk assessment and prediction following disasters.

aabuabara@arch.tamu.edu



TEXAS A&M EXPERTS ON

Warning Systems and Evacuation (cont.)

DAVID BIERLING

Senior Research Scientist, *Texas A&M Transportation Institute*

Faculty Fellow, *Hazard Reduction & Recovery Center*

Bierling's research interests include how and why people evacuate from hurricanes, linkages between natural disasters and technological (man-made) hazards, what communities can do to better manage, plan and prepare for, and recover from emergencies and disasters, and who should be involved.

Contact: 713-613-9203
dhb@tamu.edu

DARRELL BORCHARDT

Senior Research Engineer,
Texas A&M Transportation Institute

Borchardt has over four decades of traffic operations and transportation engineering experience, including hurricane evacuation planning and surge zone clearance time estimates, traffic operations review and transportation mobility analysis in the Houston-Galveston region for Hurricanes Rita (2015), Ike (2008), and Harvey (2017).

Contact: 713-613-9203
d-borchardt@tti.tamu.edu

WALTER GILLIS PEACOCK

Professor of Urban Planning,
Department of Landscape Architecture

Faculty Fellow, *Hazard Reduction & Recovery Center*

Peacock's research has focused on evacuation, restoration and long-term recovery from disasters, disaster mitigation and resilience. He has given briefings on household, housing and community recovery following major natural disasters to local, state and federal officials.

Contact: 979-845-7835
peacock@tamu.edu

TEXAS A&M EXPERTS ON

Recovery and Sustainable Development



SHANNON VAN ZANDT

Professor of Urban Planning, *Texas A&M University School of Architecture*

Faculty Fellow, *Hazard Reduction & Recovery Center*

Van Zandt's areas of interest include post-disaster housing recovery, social vulnerability, community resilience and hazards mitigation.

Contact: 979-458-1233 | svanzandt@tamu.edu

SHERRY BAME

Professor Emerita, *Texas A&M University School of Architecture*

Faculty Fellow, *Hazard Reduction & Recovery Center*

Bame has a special interest in health systems planning and policy, environmental health, and health-related disaster planning, particularly related to 211 call centers and unmet needs.

Contact: 979-458-8407
sbame@tamu.edu

JAIMIE HICKS MASTERSON

Director, *Texas Target Communities*

Faculty Fellow, *Hazard Reduction & Recovery Center*

Masterson is the director of Texas A&M's Texas Target Communities, a high impact service-learning program that works alongside underserved communities to plan for resilience. She is the author of a handbook that focuses on hazard mitigation strategies and tools for government officials, planners and emergency managers.

Contact: jmasterson@arch.tamu.edu

WEIHSUEH CHIU

Professor of Veterinary Physiology & Pharmacology, *Texas A&M University School of Veterinary Medicine & Biomedical Sciences*

Chiu is an expert in computational and statistical approaches for understanding and predicting the human health effects of environmental chemicals, as well as estimating the variability in individual susceptibility to environmental exposures to better protect sensitive subpopulations. He is a deputy director of the Texas A&M Superfund Research Center and principal investigator of the research and geospatial sciences core. Chiu is also principal investigator of a U.S. Environmental Protection Agency grant to build community resilience to industrial pollutant releases after hurricanes and floods.

Contact: 979-845-4106
wchiu@cvm.tamu.edu



TEXAS A&M EXPERTS ON

Recovery and Sustainable Development (cont.)

MICHELLE MEYER

Associate Professor of Urban Planning, *Texas A&M University School of Architecture*

Director, *Hazard Reduction & Recovery Center*

Meyer's research interests include disaster recovery and mitigation, environmental sociology and community sustainability, and the interplay between environmental conditions and social vulnerability. She studies inequality and how disaster and environmental settings intersect with structural forces that maintain or transform inequality.

Contact: 979-845-7813

mmeyer@arch.tamu.edu

IVAN RUSYN

University Professor of Toxicology, *Texas A&M University School of Veterinary Medicine & Biomedical Sciences*

Rusyn is an expert on the mechanisms of action of environmental toxicants, the genetic determinants of the susceptibility to toxicant-induced injury and computational toxicology. He is director of the Texas A&M Superfund Research Center, which was funded by the National Institute of Environmental Health Sciences to conduct environmental research projects that work toward mitigating the health and environmental consequences of exposure to hazardous chemical mixtures during disasters such as hurricanes.

Contact: 979-458-9866

irusyn@cvm.tamu.edu

ALI MOSTAFAVI

Zachry Career Development Associate Professor of Civil and Environmental Engineering, *Texas A&M University College of Engineering*

Principal Investigator, *UrbanResilience.AI Lab*

Mostafavi focuses on analyzing, modeling and improving network dynamics in the nexus of humans, disasters and the built environment to foster convergence knowledge of resilient communities. He has extensively researched urban resilience to natural disasters such as wildfires, hurricanes and pandemics.

Contact: 979-845-4856

amostafavi@civil.tamu.edu

JASON MOATS

Professor of Practice, *Texas A&M University School of Public Health*

Faculty Fellow, *Hazard Reduction & Recovery Center*

Moats is the director of Texas A&M Health's USA Center for Rural Public Health Preparedness. He is an emergency management leader with three decades of experience in disaster & emergency management policy, strategy and operations. He has developed and delivered numerous courses to first responders across the United States.

Contact: 979-436-9472

jbmoats@tamu.edu



TEXAS A&M EXPERTS ON

Recovery and Sustainable Development

NASIR GHARAIBEH

Professor of Civil and Environmental Engineering, *Texas A&M University College of Engineering*

Faculty Fellow, *Hazard Reduction & Recovery Center*

Gharaibeh focuses on infrastructure condition assessment and deterioration modeling, infrastructure lifecycle analysis, and enhancing public safety by creating data and framework for disaster mitigation efforts, specifically flash flooding, employed by local and state governmental agencies. This includes improving hazard mitigation, emergency response and capital improvement plans.

Contact: 979-845-3362

ngharaibeh@civil.tamu.edu

IVIS GARCIA

Associate Professor, *Texas A&M University School of Architecture*

Faculty Fellow, *Hazard Reduction & Recovery Center*

Garcia's research interests include community engagement, planning in/with minority and low-income (primarily Latino) communities, housing and community development, displacement, equity, and community planning for disaster recovery. After hurricanes Irma and Maria, much of her work has expanded to Puerto Rico, where she has ongoing collaborations related to the island's recovery.

ivis.garcia@tamu.edu

LEI ZOU

Assistant Professor of Geography, *Texas A&M University College of Arts & Sciences*

Faculty Fellow, *Hazard Reduction & Recovery Center*

Zou is an expert in using GIS, big data, and AI to enhance disaster resilience, emergency management, and environmental health. He has led interdisciplinary projects covering five themes, including using social media and crowdsourcing for smart disaster response, developing digital copies of cities for sustainable planning, modeling the interactions of human behaviors and pandemics, building CyberGIS for resilience computation and visualization, and predicting the impacts of climate change on environmental health in overburdened communities.

Contact: lzou@tamu.edu

GALEN NEWMAN

Department of Landscape Architecture & Urban Planning Department Head, *Texas A&M University School of Architecture*

Faculty Fellow, *Hazard Reduction & Recovery Center*

Newman's interests include urban regeneration, land use science, spatial analytics, flood resilience and community/urban scaled design.

Contact: 979-845-1019

gnewman@arch.tamu.edu



TEXAS A&M EXPERTS ON

Recovery and Sustainable Development (cont.)

SIYU YU

Assistant Professor, *Texas A&M University School of Architecture*

Faculty Fellow, *Hazard Reduction & Recovery Center*

Yu's research aims to better understand relationships among the network of land use and community development plans and policies, and social and physical vulnerability to hazards and climate change. Her experience spans land use, plan integration, and resilience issues in the United States, principally in the Gulf Coast region, as well as internationally in the Netherlands and Japan. Much of her research revolves around the development, application, and extension of the Plan Integration for Resilience Scorecard™ (PIRS™) evaluation methodology aimed at improving urban planning for hazards.

syu@arch.tamu.edu

MATT MALECHA

Instructional Assistant Professor, *Texas A&M University School of Architecture*

Faculty Fellow, *Hazard Reduction & Recovery Center*

Malecha's research focuses on community resilience to natural hazards — especially the roles of plans, policies, and regulations, and their interactions with underlying population and geographic characteristics of communities. He also researched hazard-induced toxics transfers following flooding in Harris County. His work encompasses many geographical areas, such as the Gulf Coast, as well as international coastal regions.

mmalecha@arch.tamu.edu



TEXAS A&M EXPERTS ON

Hurricanes, Marine Life and Seafood

LAURA PICARIELLO

Extension Fisheries Specialist,
Texas Sea Grant

Picariello has experience working with commercial fisheries, both in Texas and across the Gulf of Mexico.

Contact: 361-825-3460

lpicariello@seagrant.tamu.edu



TEXAS A&M EXPERTS ON Legal Issues

GABRIEL ECKSTEIN

Professor of Law, *Texas A&M University School of Law*

Eckstein is an expert in environmental, property and water law. His research addresses water and environmental issues, and most recently has explored pharmaceutical contamination of fresh water supplies, climate change implications for global water resources and international law for transboundary ground water resources. He serves as director of the Energy, Environmental, and Natural Resource Systems Law Program.

Contact: 817-212-3913

gabrieleckstein@law.tamu.edu

WAYNE BARNES

Professor of Law, *Texas A&M University School of Law*

Barnes practiced law for eight years in commercial litigation, creditors' rights and bankruptcy. He is an expert in consumer law, particularly in bankruptcy, debt collection practices, deceptive consumer practices and online contracting.

Contact: 817-212-4109

wbarnes@law.tamu.edu

NEIL SOBOL

Professor of Law, *Texas A&M University School of Law*

Sobol began his career in private practice before opening his own law partnership in 1992, focusing primarily on consumer protection and bankruptcy. His clients include Fortune 500 companies, financial institutions, small businesses and individuals. Sobol's expertise involves consumer protection issues and concerns involving abuses by debt collectors.

Contact: 817-212-4055

nsobol@law.tamu.edu



experts.tamu.edu | today.tamu.edu

Follow us on Twitter: @TAMU