TEXAS A&M UNIVERSITY
Institute for Sustainable Communities

Annual Report
2016-17

Message from the Director

Texas A&M University proposed an Environmental Grand Challenge that called for solutions to the most pressing challenges facing the 21st Century. Natural and built environments, and public health are facing increasing threats from disasters, poverty, ecosystem decline, and the decreasing availability of clean water. The Institute for Sustainable Communities (IfSC) is the answer to the university's challenge.

The IfSC functions by working with specific communities in partnership with the public, non-profits, government, and private sector individuals. These living laboratories are approached by a series of focus areas led by highly regarded researchers with support from engagement staff with expertise in translating knowledge to action. Our discovery leads – coastal risk reduction and resilience, community infrastructure, water security, disaster resilience, and health and environment – work together to produce our core outcomes of transformative learning opportunities for TAMU students, producing research that transcends disciplinary boundaries, and engaging communities to assist in actualizing their own capacity.

We accomplished a lot during our first year of existence. We completed extensive studies on neighborhoods along the ship channel in Houston, which involved TAMU experts, local high school students as citizen scientists, neighborhood civic organizations, and 76 TAMU students from across all participating colleges. We also received significant new funding from the National Institute of Health, National Science Foundation, Department of Homeland Security, and National Academies of Science to support work focused on neighborhood infrastructure assessment, sea level rise, flooding, pollution, and public health.
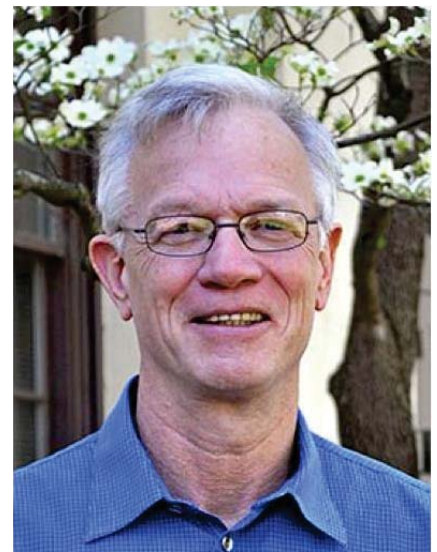
In the past year, two of our faculty were awarded National Academies Gulf Research Program Early-Career Research Fellowships, three appointments to the National Science Foundation Interdisciplinary Methods of Disaster Research, and one Fulbright Scholar award to work on water security issues in Brazil. A landscape architecture class won a major national award from the Association of the Society of Landscape Architects for a "Grey to Green: For Healthy Communities" plan developed with residents of an inner-city Houston neighborhood.

Our successes would not be possible without the generous support by the Office of the Provost, College of Architecture, College of Engineering, College of Geosciences, School of Public Health, and Texas A&M University Galveston in providing support for the director, engagement activities, and each discovery lead. We firmly believe that the IfSC is at an exciting and expansive stage of development.

Sincerely,

Philip Berke Ph.D.

CONTENTS

Vision

The Institute for Sustainable Communities at Texas A&M University will be recognized worldwide for:

- Innovations in science and technologies to advance sustainable design, planning, and development decision making.
- Highly developed university-community-private sector partnerships to translate knowledge to action.
- Students able to synthesize diverse sources of scientific information to help communities solve problems

Mission

To realize the vision of the Institute for Sustainable Communities seeks to:

- Produce transformative research that offers solutions for more sustainable and vibrant communities.
- Translate research to action through community engagement.
- Create high impact learning experiences for students.

"WE FLIP THE TYPICAL RESEARCH MODEL. WE LISTEN TO COMMUNITY PARTNERS AND THEY EDUCATE US ON THE PROBLEMS THEY NEED SOLVED"

-IFSC FACULTY MEMBER

Engagement

Community engagement is the cornerstone of the Institute for Sustainable Communities. We believe in the importance of creating long-term change through co-learning with communities around strategic needs while supporting communities in actualizing their own resilience. We work collaboratively to increase a community's adaptive capacity, through community action and 'citizen science.' The results of 'citizen science' guide future conversations about what additional knowledge is necessary and what strategies are most appropriate for addressing the complex issues linked to community resiliency.

The IfSC draws on the expertise of the Texas Target Communities program in the College of Architecture at Texas A&M University to establish community partnership to guide interdisciplinary research, translate research to action, and provide high impact service learning opportunities for students.

- Furr H.S wins XQ Foundation Super School Grant!
- Citizen Science students identify
  - Pooling water
  - Poor infrastructure
  - Water quality
  - Health concerns
- Collaborative Grey to Green Studio
- Furr H.S. and Jones Futures Academy visit campus!
- Students complete Community Capital Assessment for Charity Productions

Living Labs

A Living Laboratory offers a different way to engage communities. A lab enables world-class researchers, community groups, industry, and government to effectively work together to co-learn and co-innovate. The lab aligns the capabilities of TAMU faculty and students with our community partners to solve urban challenges in new ways. In 2016-17, the IfSC operates within the Houston neighborhoods of Manchester and Sunnyside. Further steps were made to establish a new living lab on the Galveston Island as well as the international Soltis center in Costa Rica.
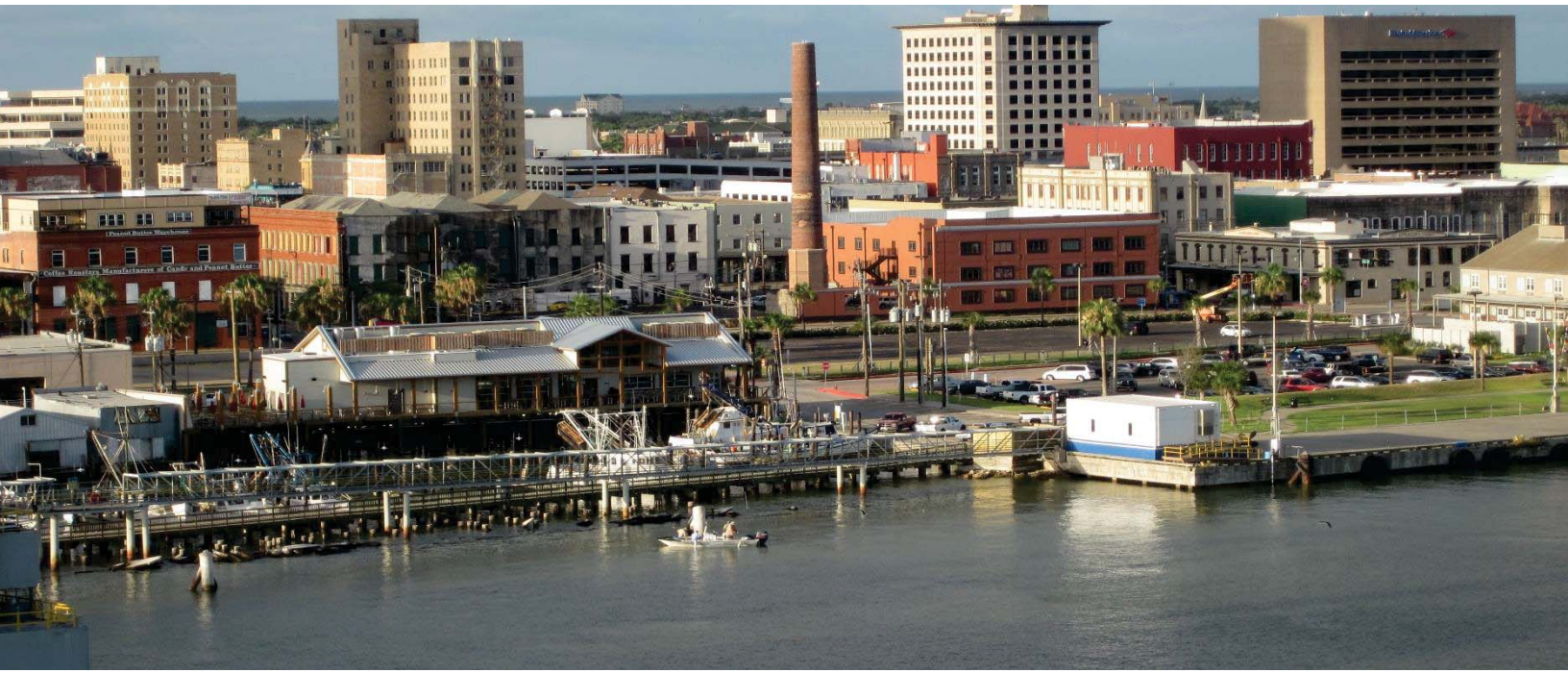
The Coastal Risk Reduction and Resilience project provides solutions to today's most pressing coastal issues through holistic research that explores the interconnections of the natural, built, and socio-political environments and engages communities to enhance local resilience. This initiative builds upon the work of our academic partner the Texas Center for Beaches and Shores, driven by an interdisciplinary team of faculty, professional staff, and students with backgrounds in urban planning, geography, economics, ocean engineering, coastal ecology, marine biology, marine sciences, environmental science, coastal planning, and political science. **Dr. Ashley Ross**, the lead faculty member for the Coastal Risk and Reduction Initiative, is a social scientist located at TAMU Galveston.

Highlights

Improving Resilience to Flooding. A National Science Foundation Partnerships for International Research and Education (PIRE) funded project is an international collaboration to establish a research and education program on coastal Flood Risk Reduction between the U.S. and the Netherlands. This collaboration *will create new knowledge that will transform the way floods are dealt with in the U.S and around the world.* This projects seeks to discover: 1) what are the underlying characteristics of physical flood risks; 2) why are human communities and the built environment so vulnerable to flood impacts, and how will this increase in the future; and 3) which mitigation techniques, both structural and non-structural, are most effective in reducing the adverse impacts of floods?

Educating the Public to Coastal Hazards. The Coastal Atlas is a detailed geographic, web-based program providing information for anyone wanting to know more about the Texas coast and the risks of hazards, such as floods and hurricanes.

The Bay Atlas zooms in from the regional level Coastal Atlas, showing finer details within the Galveston Bay and the surrounding counties of Chambers, Galveston, and Harris. New datasets offered in this map set include Digital elevation models, Land Change, Land Cover, Impervious Surface, and Population Density.
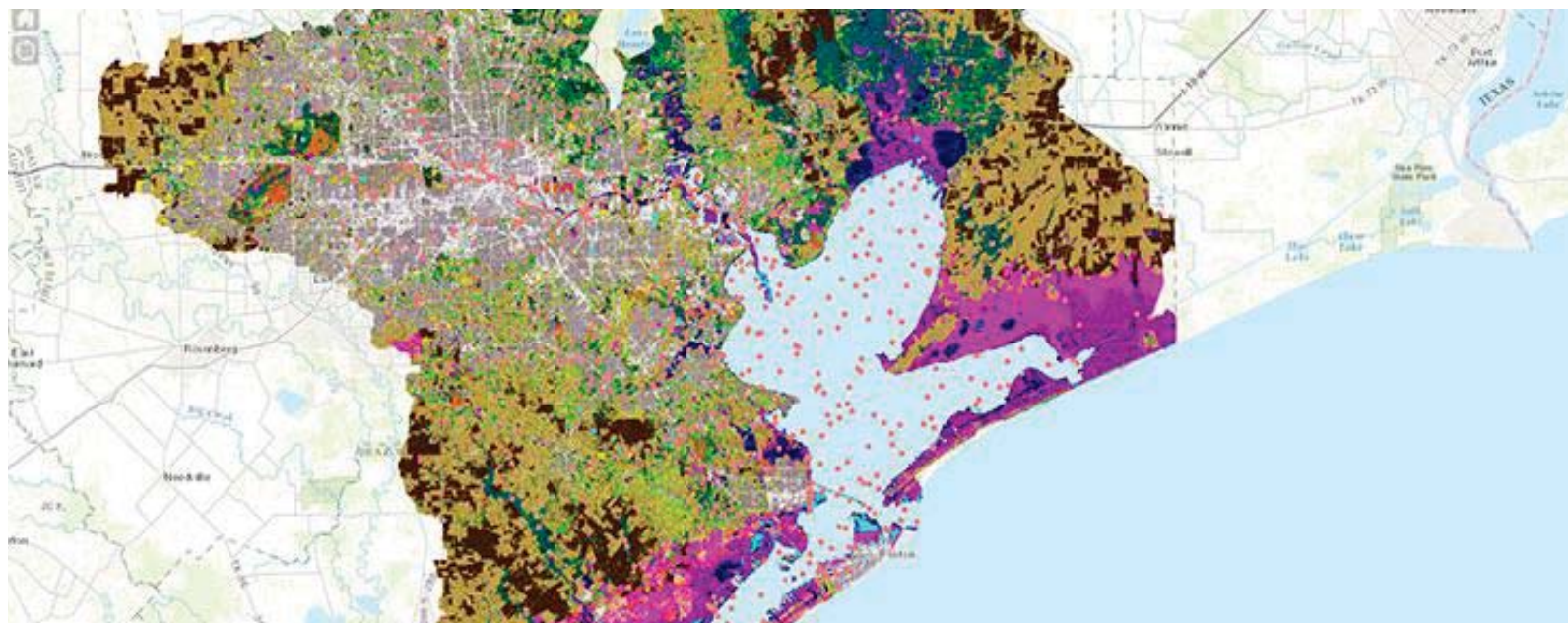
Understanding The Built and Natural Environment. This program involves understanding the interaction between urban development, anthropogenic impacts, and water along the Texas coast. Multiple projects take place under this program, including Status and Trends Monitoring. The Status and Trends monitoring program, funded by the Galveston Bay Estuary Program, collects data and analyzes water quality indicators from multiple sources. All of the projects within this program focus on answering questions about the human – water nexus and understanding how these findings can influence management and policy within the region.

The National Academies of **SCIENCES ENGINEERING MEDICINE**

GULF RESEARCH PROGRAM

Dr. Ashley Ross was awarded the competitive Gulf Research Program Early-Career Research Fellowships and Science Policy Fellowships. She was supported by her mentor - Director of CTBS and IfSC Fellow Dr. Samual Brody.

The Water Security Initiative, led by **Dr. Wendy Jepson**, seeks to provide data-driven, analytically sound assessments of water security based on consideration of the coupled natural-human systems. We develop and use effective metrics, models, and analytics of the coupled systems to improve society's long-term water challenges. By targeting key threats to water security, including poverty, climate change, governance and social marginalization, and we aim to understand the complex dynamics of social and environmental systems impacted by challenges. Critical to the goals of the initiative is to create a research and teaching community to support individual water security interests and foster teams that can also address the coupled human and natural processes related to questions of water security for present and future sustainable needs.

Highlights

Improving Household Water & Sanitation. This project addresses the causes and solutions to the domestic water and sanitation crises. Context in which to develop systematized cross-sectional and longitudinal studies with standardized assessments to benchmark and track water and sanitation security conditions at the household scale. We currently work in India, Brazil, and the US border region. Our collective research seeks to identify causes and offer evidence-based solutions to stakeholders, communities, and policy makers. We have developed water security metrics to provide the necessary data to assess household level water and sanitation insecurity and assess the functionality rates of development projects and policy interventions.

Building Capacity through Water Governance. Water Security associates and students are actively engaged in research activities that address the challenges of water governance–the laws, institutions, actors, and organizations involved in the allocation, management, protection, and utilization of surface and groundwater resources– in the 21st Century. Water governance is dynamic, responding to external pressures coming from economic restructuring to environmental change. Our work addresses two major approaches to water governance. The first seeks to identify efficient, equitable and effective or "good" water governance arrangements and processes. The second approach understands that governing water is highly contested and political. From this second perspective, research on water governance investigates how regimes, policies, and processes change water access and water security of different players unevenly.

Linking Human and Environmental Systems. Global climate change is directly relevant to water security. Climate change and its direct impacts on water availability and quality pose a serious threat those living in the developing world by affect living condition, livelihoods, health and well-being as well as economic development.

Efforts to understand the complex coupling of climate change, water security, and human wellbeing demand critical and focused efforts to develop an integrated, holistic understanding of how geosciences and human systems interact at multiple scales. Some have called this approach "socio-hydrology." This will lead to better policies and interventions to increase community resilience and identify critical climate adaptation strategies.
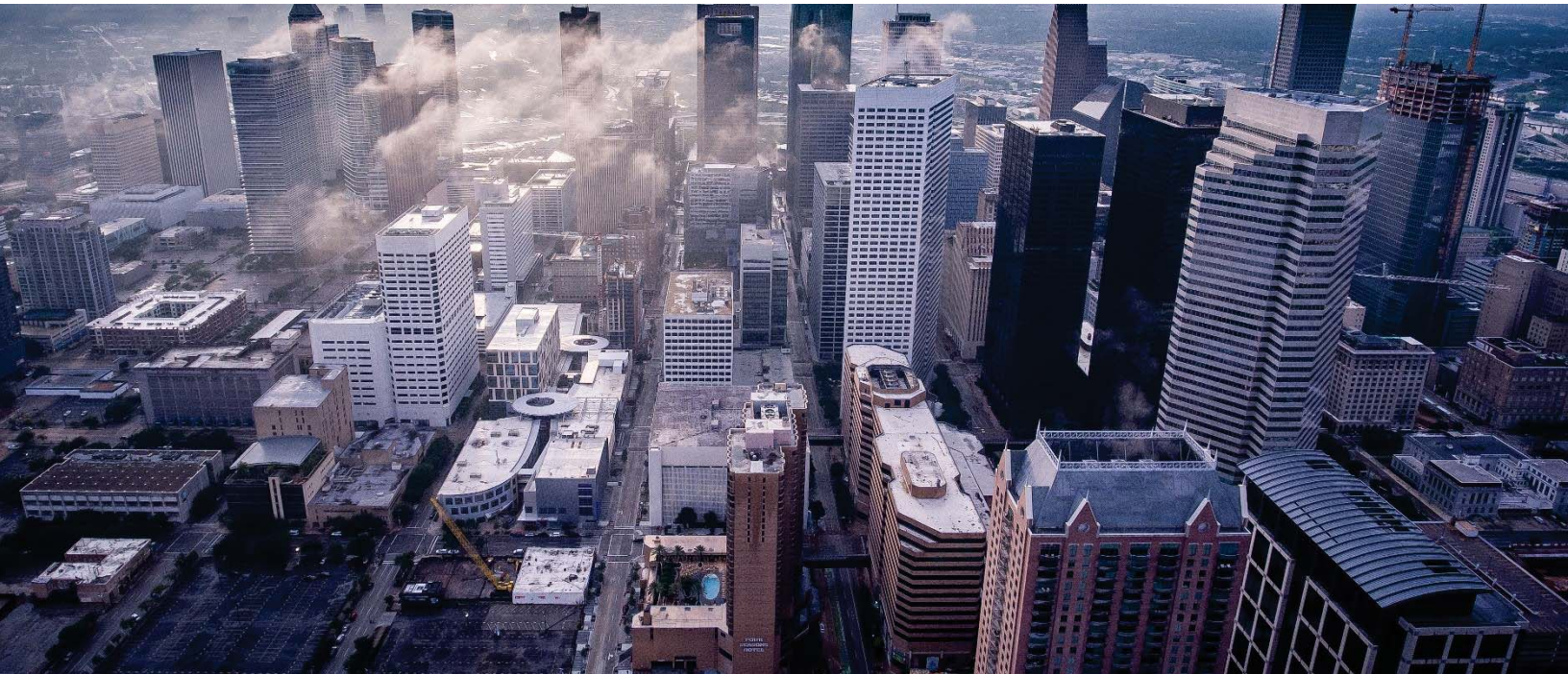
FULBRIGHT

Dr. Wendy Jepson, has been named a Fulbright Scholar for her work on urban water provisioning and household water security. Dr. Jepson has been selected to teach in Brazil at the Universidade Federal de Ceará - Fortaleza

The community infrastructure area within the Institute for Sustainable Communities is led by **Dr. Nasir Gharaibeh**. This initiative focuses on creating innovative ways for addressing infrastructure problems in local communities. Housed within the College of Engineering, our work is interdisciplinary in nature and spans across multiple infrastructure systems (e.g., water, stormwater, transportation, buildings). These systems are essential for the wellbeing of local communities. Projects within this initiative produce actionable results in order to maximize community betterment. This initiative is co-led by institute fellows **Drs. Francisco Olivera** and **Ali Mostafavi.**

Highlights

Creating Citizen Scientist with Infrastructure Monitoring. In the pursuit of safe and reliable infrastructure systems, monitoring data are collected to assess the condition, usage, and in-service performance of these systems. For large-scale infrastructure, monitoring data are often collected using a variety of sensor technologies and periodic field inspections. For neighborhood scale infrastructure, however, these data remain limited in both quantity and quality. Through support from the National Science Foundation, fundamental research is being pursued in this project to design and test protocols and tools for collecting infrastructure monitoring data at the neighborhood level by volunteer citizen scientists, with focus on stormwater infrastructure.

Discovering the Effect of Urbanization on Floodplains. This project is led by IfSC fellow **Dr. Francisco Olivera**. Increases in impervious cover because of urbanization have been associated with increases in runoff generation and, in extreme cases, flooding. This project showed that there was an increase of impervious cover from 15% in 1980 to 18% in 2000 in the Houston area. It was found that, because of development in the 1980s and 1990s, around 3,500 homes were added to the 100-yr floodplain. as poorly planned urbanization increases, so too does the risk for flooding. Local government implementation of low-impact development policies, that reduce the effect of urbanization on the watershed's hydrology and hydraulics, is indispensable if these negative effects are to be reduced.

Creating Resilient Urban Water Infrastructure. Led by fellow **Dr. Ali Mostafavi** and as part of the National Science Foundation (NSF) Urban Water Innovation Network (UWIN), Dr. Mostafavi is leading a project focusing on the resilience of coupled human-infrastructure systems. On the supply side, the objective of this study is to analyze the long-term resilience of urban water infrastructure systems under different stressors (e.g., climate change impacts, population growth, and aging infrastructure). On the demand side, the study investigates the fundamental mechanisms affecting the water conservation technology adoption by residential consumers. The study adopts a complex systems approach and utilizes Agent-Based Modeling for theory building.

Dr. Nasir Gharaibeh was appointed to the National Science Foundation, Interdisciplinary Methods of Disaster Research Workshop. One of only forty total scholars and one of three IfSC members.

The Health and Environment Program of the Institute for Sustainable Communities seeks to link applied public health research and community engagement to the improved measurement of environmental variables to better understand interactions between individual level health outcomes and the built environment, health systems, and community level factors. This initiative is strongly focused on issues related to disaster mitigation, preparedness, response, and recovery.

Dr. Jennifer Horney, the lead faculty member for the Health and Environment program, is an epidemiologist with more than a dozen years of experience in working with multi-disciplinary teams of climate scientists, geographers, urban planners, and engineers to improve resiliency.

Highlights

Tracking Recovery Post-Disaster. Recovery from disasters is a key capability for federal, state, and local governments. To support this capability, practitioners need useful and validated metrics to monitor how well a community is recovering from a disaster over time. To address these needs, a Disaster Recovery Tracking Tool was developed as part of the Department of Homeland Security Coastal Resilience Center of Excellence. The tool functions as a disaster recovery management platform, enabling users to maintain accessible records of public outreach activities and local contacts, log and monitor the status of recovery-oriented tasks, and capture resource expenditure data required for grant eligibility and reporting.

Responding to Disasters. Texas OneGulf, a consortium of nine Texas institutions, led by the Harte Research Institute for Gulf of Mexico Studies at Texas A&M University-Corpus Christi, was established as a RESTORE Center of Excellence to guide the Gulf restoration after the Deepwater Horizon oil spill. As one of the Center's defining activities, the Texas OneGulf Disaster Research Response (DR2) program was established to create an infrastructure to support disaster research response encompassing environmental and human health components that can be employed rapidly to assess the impact of disasters along the Texas Gulf Coast.

Disasters and Environmental Vulnerability Project. This project is a continuation of multiple efforts undertaken by IfSC within the marginalized community of Manchester in Houston, TX to have a holistic view of the environmental risks to resident members. Complex environmental toxicants can have negative impacts on human health. Settled dust and particulate matter within homes can be an important exposure route for individuals in general and children in particular. This pilot study collected settled dust and assessed for polycyclic aromatic hydrocarbons (PAHs) within Manchester homes.

Dr. Jennifer Horney was appointed to the National Science Foundation, Interdisciplinary Methods of Disaster Research Workshop. One of only forty total scholars and one of three IfSC members.

Perceptions of Community Resilience in Texas Shoreline Communities. Recognizing the combined threats of natural hazards, climate change, and coastal population growth, scholars and practitioners have increasingly focused attention on issues related to community resilience. A public opinion survey of residents in four Texas Gulf Coast shoreline counties – Brazoria, Cameron, Galveston, and Nueces – will be used to measure individual perceptions, including public willingness to support specific resilience-building activities. Findings will be presented to local officials, stakeholders, extension agents, and the news media in each community, along with a set of recommendations to more effectively communicate with and engage local residents in resilience-building.

The Community Resilience Program of the Institute for Sustainable Communities seeks to generate and apply research on the impact of natural hazards to socially and physically vulnerable populations and neighborhoods and utilize said research to develop strategies to mitigate and adapt to disasters, with an emphasis on community engagement and participatory processes. The program seeks to explore new and transformative directions to create and disseminate research findings to communities and practitioners to better mitigate, prepare for, respond to and recover from disasters.

Dr. Galen Newman, the Discovery Lead for this initiative, is an urban designer who has worked with numerous communities and multi-disciplinary.

Highlights

Creating Low Impact Development. Low Impact Development (LID), is increasingly utilized in sustainable design/development, minimizing the impact of impervious land cover. LID is an innovative approach treating stormwater at the source, using uniformly distributed facilities such as stormwater collection devices, filtering systems, and water reuse mechanisms. This project seeks to educate and train students in LID alternatives to traditional stormwater management through hands-on outdoor classroom activities involving development, installation, monitoring, management, and evaluation of stormwater management designs within interactive test plots. Two sites on the Texas A&M University campus are being developed, one in which the primary challenge is runoff from building roofs and the other entails management of a large parking lot and turfgrass area effluent.

Detoxing Neighborhoods. This service learning project utilized an interdisciplinary participatory process in which a master plan was developed for Manchester neighborhood. One of Houston's oldest neighborhoods, Manchester is surrounded by industries, resulting in one of the highest impairments and lowest water qualities in the state. Nearly 3/4 of the neighborhood surface is impervious, there is a lack of open space and the infrastructure in place is not effective in preventing flooding. In cooperation with Texas Environmental Justice Advocacy Service (t.e.j.a.s.), Charity Productions and Furr High School's Green Ambassadors, provisions for land use and open space planning, green infrastructure and hydrological management were made. Participatory involvement was initiated first by an introductory meeting allowing residents to discuss on-site problems; this assisted in both helping identify areas of pooling and flowing of floodwaters as well as options to treat vulnerable areas. An additional 4 meetings took place to provide a feedback loop to ensure the concerns of local residents were being met and the project was continuing in a fashion that addressed these needs.
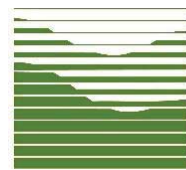
AMERICAN SOCIETY OF LANDSCAPE ARCHITECTS

Dr. Galen Newman. Was awarded the highly regarded national advisor ASLA honor award for two projects, the TX–ASLA faculty honor award for one project and the TX-ASLA advisor Merit award for two projects.

Developing Land Plans for Groundwater Conservation Districts. Land planning strategies emphasizing stormwater runoff management such as Low Impact Development (LID) have become increasingly utilized in design projects to help minimize the impact of impervious land cover. While several design guideline manuals exist, not many integrated approaches attempt to investigate the actual effectiveness of LID based designs. This project both designs and tests the efficacy of LID implementation and introduces an approach to integrating design with LID technologies which promote education and awareness.
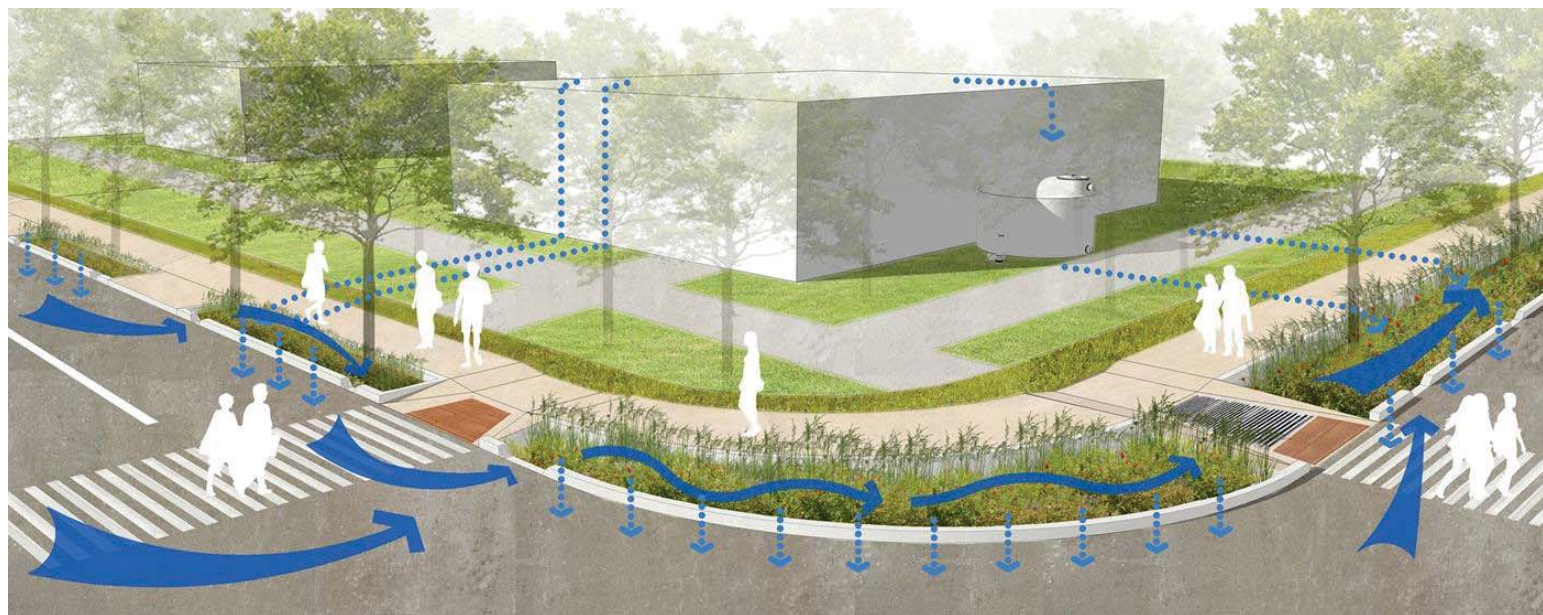
ACTIVE LEARNING

The Institute for Sustainable Communities is dedicated to placing Texas A&M University students into experiential educational research projects as well as providing expertise and training opportunities to communities across Texas. We offers undergraduate and graduate students opportunities for active learning pursuits from courses as well as extracurricular research activities within each Discovery Initiative

IfSC Faculty Hosted

6 Graduates Students College of Architecture – Department of Landscape Architecture and Urban Planning
6 Graduates Students College of Engineering – Department of Civil Engineering
2 Graduate Students School of Public Health – Department of Epidemiology and Biostatistics
2 Graduate Students College of Geosciences – Department of Geography
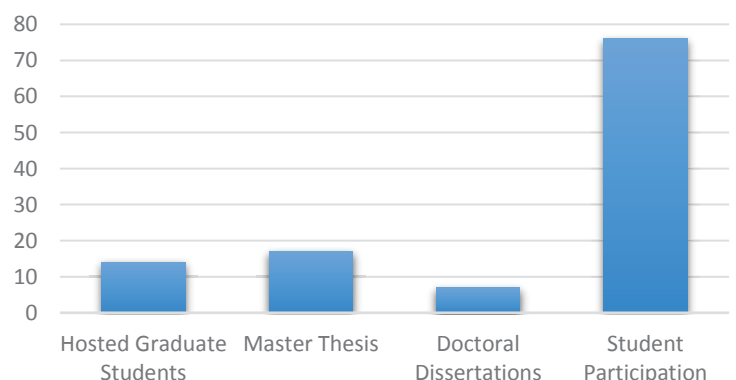
IfSC Faculty Advised

17 Master thesis
5 Doctoral dissertations

Student Participation in IfSC activities included

40 undergraduates
16 graduate students
17 doctoral students
3 postdoctoral research associates

Student Involvment

Category	Value
Hosted Graduate Students	~14
Master Thesis	~17
Doctoral Dissertations	~7
Student Participation	~76

Active Learning Highlights

Toxic Tours. During the Fall, Spring, and Summer months, IfSC students can attend a toxic tour led by our community partners the Texas Environmental Justice Services Agency (t.e.j.a.s). These educate TAMU students on the within our living laboratory in Manchester. these tours highlight the East End of Houston, where some of the largest refineries and chemical plants surround neighborhoods.

EpiAssist Program. EppiAssist is led by Dr. Jennifer Horney, Health and Environment Discovery lead, which is a student volunteer group at Texas A&M University that provides students with the opportunity to gain applied public health experience by assisting in Texas with outbreak investigations, disasters and emergencies, community health assessments. In 2016 there were **eight active projects** that involved **100s of hours** of activities.

Citizen Science. Dr. Nasir Gharaibeh, community infrastructure discovery lead, took a class in infrastructure engineering and management at the Zachry Department of Civil Engineering to the living laboratory in the neighborhood of Sunnyside. This project began during a course taught by Dr. Gharaibeh where Doctoral student Marccus Hendricks began to think about infrastructure management comprehensively and inter-disciplinarily and made this concept the focus of his PhD research.

Service Learning Program. Dr. Wendy Jepson, Water Security Discovery Lead, with the College of Geosciences offers courses to support students' engagement and translation of classroom knowledge to real-world problems. Service learning engages students in a three-part process: (1) classroom preparation through explanation and analysis of theories and ideas; (2) service activity that emerges from and informs classroom context; and (3) structured reflection tying service experience back to specific learning goals.

Students win state and national awards. Dr. Galen Newman, Community Resilience Discovery Lead, with students Clayton Blount, Yamile Garcia, Tamara Hajovsky and Courtney Kuehner, produced several design and master plans within our living laboratories. This includes the project "Grey to Green: For Healthy Communities," where the team showed how Manchester's storm water drainage could be improved by increasing the subdivision's permeable space. This project was awarded the Texas ASLA Merit Award.

"PARTICIPATING IN THE IFSC HAS BEEN A HIGHLIGHT OF MY CAREER. IT HAS OPENED DOORS FOR COLLABORATION AROUND RESEARCH AND ENGAGEMENT."
-IFSC FACULTY MEMBER

The field of hazards and disaster research has become more interdisciplinary over the past several decades. In response to this, forty leading scholars were invited to the National Science Foundation, Interdisciplinary Methods of Disaster Research Workshop in August 2016. Of those four were from TAMU and three were from the IfSC; including **Drs. Jennifer Horney, Nasir Gharaibeh, and Ali Mostafavi.**

IfSC members **Drs. Ashley Ross and Ali Mostafavi** were awarded the competitive Gulf Research Program Early-Career Research Fellowships and Science Policy Fellowships. This award was given to 10 scholars from across the nation, twenty percent were IfSC members. They were supported by their mentors, **IfSC director Dr. Philip Berke and IfSC Fellow Dr. Samual Brody.**

Jennifer Horney   - Association of Former Students Distinguished Achievement Award
Galen Newman - Outstanding Mentor Award

IfSC Discovery Lead **Dr. Wendy Jepson**, has been named a Fulbright Scholar for her work on urban water provisioning and household water security. Dr. Jepson has been selected to teach in Brazil at the Universidade Federal de Ceará - Fortaleza (UFC).

Dr. Galen Newman. Was awarded the highly regarded national advisor ASLA honor award for two projects, the TX—ASLA faculty honor award for one project and the TX-ASLA advisor Merit award for two projects.

Philip Berke and Galen Newman were awarded Best Article, Journal of the American Planning Association, for their manuscript "Evaluation of Networks of Plans and Vulnerability to Hazards and Climate Change: A Resilience Scorecard" published in JAPA
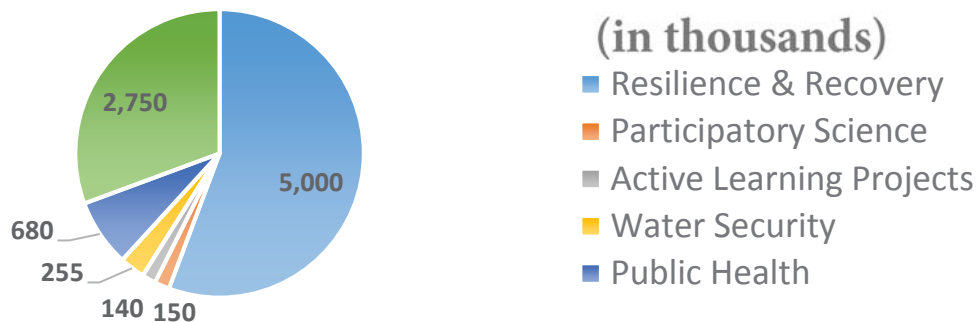
TOTAL AWARDED*
(IN MILLIONS)

External, $9.1

Internal, $2.7

External Support*
(in thousands)

- ■ Resilience & Recovery
- ■ Participatory Science
- ■ Active Learning Projects
- ■ Water Security
- ■ Public Health

5,000

2,750

680

255

140 150

Internal Support*
(in thousands)

- ■ Institutional Support
- ■ Participatory Research
- ■ Student Active Learning
- ■ Planning & Design

396

75

43

2,200

Funded projects where created to improve community resilience to and recovery from natural hazards, provide active learning opportunities for TAMU students, engage communities within the United States and abroad, and advance public health and environmental conditions.

* Award where an IfSC discovery lead, engagement team, or director was a Principal Investigator or Collaborative Investigator

"[THE IFSC] HAS PROVIDED ME WITH THE EXPERIENCE TO PLAY A LEADERSHIP ROLE IN LARGE CENTER GRANTS AND OPENED MY EYES TO THE WAYS IN WHICH RESEARCH NEEDS TO BE INFORMED BY COMMUNITY CONCERNS."

-IFSC FACULTY MEMBER

Forming Partnerships to Improve Research and Engagement

In 2016-17 the IfSC continued to form critical academic and community-based partnerships to accomplish our three priority outcomes of transformational learning, research, and community betterment. These partnerships spans the TAMU system and includes organizations and groups within our living laboratory.

Establishing relationships with community partners and academic institutions is a critical component for ongoing research and student learning opportunities within the IfSC. All of our efforts are only possible through the relationships with have formed with local interest groups, citizens, education centers, and community leaders.

Across Campus

Holistic research efforts are accomplished through the establishment of truly interdisciplinary teams through partnering with centers across the TAMU system. **Five Centers** have partnered with the IfSC and are represented by experts in engineering, social and political science, hazards recovery, and marine science.

Within Communities

Engagement and research within neighborhoods is made possible through ongoing relationships with **five community partners**. These *relationships* have provided unprecedented access to these traditionally distrustful communities, facilitating the collection of much needed health, social, and environmental data.

Community Partnerships

Texas Environmental Justice Advocacy Services

Charity Productions
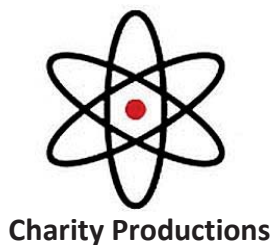
Ebbert L. Furr High School
Secondary school - Houston, TX

Ebbert L. Furr High School
Magnet Program - Houston, TX

DC PLANNING CONSULTANTS & ASSOCIATES
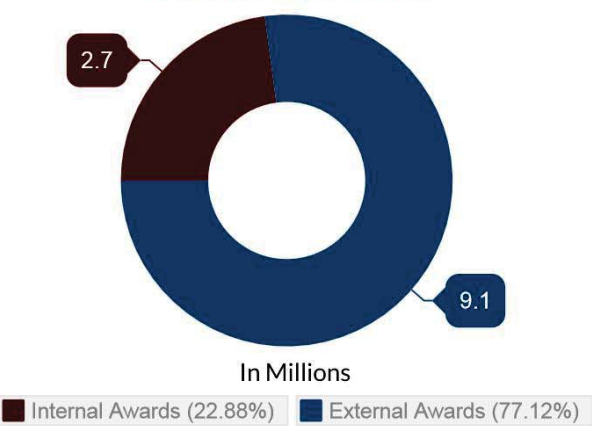
Consulting Firm
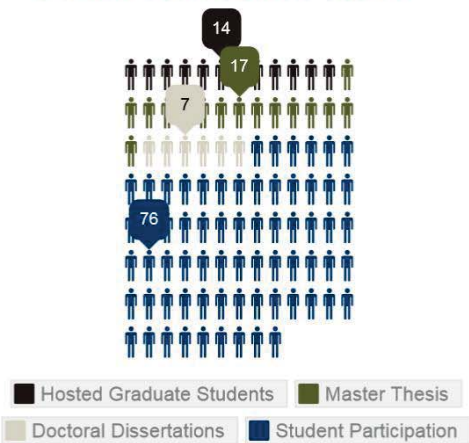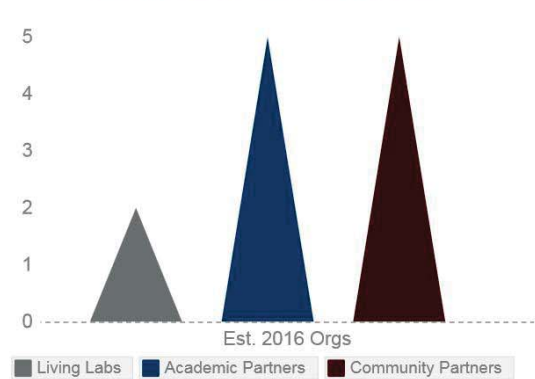**Texas City, TX**

Academic Partnerships
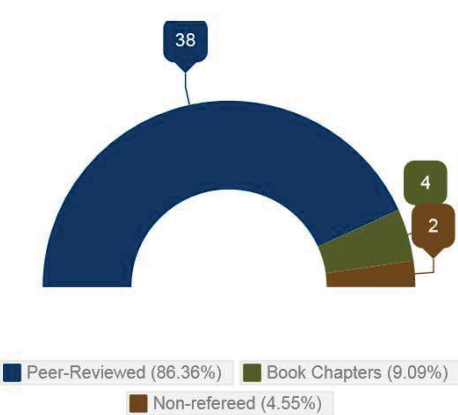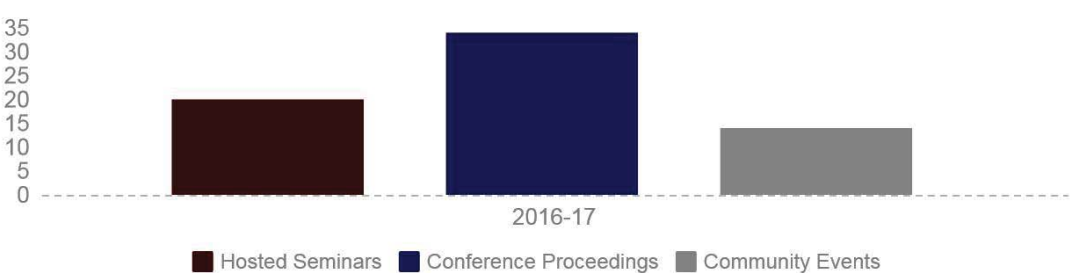
METRICS OF SUCCESS

FINANCIALS

2.7

9.1

In Millions

■ Internal Awards (22.88%)   ■ External Awards (77.12%)

PARTICIPATION

14
17
7
76

■ Hosted Graduate Students   ■ Master Thesis
□ Doctoral Dissertations   ■ Student Participation

ENGAGEMENT

5
4
3
2
1
0

Est. 2016 Orgs

■ Living Labs   ■ Academic Partners   ■ Community Partners

PUBLISHED WORK

38
4
2

■ Peer-Reviewed (86.36%)   ■ Book Chapters (9.09%)
■ Non-refereed (4.55%)

COMMUNICATING RESULTS

35
30
25
20
15
10
5
0

2016-17

■ Hosted Seminars   ■ Conference Proceedings   ■ Community Events

Core Staff

Philip Berke, PhD

Director | Institute for Sustainable Communities

Professor | Landscape Architecture & Urban Planning

Garett Sansom, DrPH

Associate Director | Institute for Sustainable Communities

Susie Billings, BS

Administrative Coordinator

Engagement Team

John Thomas Cooper Jr., PhD

Engagement Lead

Director | Texas Target Communities

Jaimie Hicks Masterson, MUP, BLA

Engagement Team

Associate Director | Texas Target Communities

Jeewasmi Thapa, MUP

Engagement Team

Program Coordinator | Texas Target Communities

Discovery Leads

Nasir Gharaibeh, PhD

Discovery Lead | Community Infrastructure

Associate Professor & Division Head

Transportation & Materials Engineering

Jennifer Horney, PhD

Discovery Lead | Health and Environment

Associate Professor & Interim Department Head

Epidemiology and Biostatistics

Wendy Jepson, PhD

Discovery Lead | Water Security

Professor | Geography

Galen Newman, PhD

Discovery Lead | Community Resilience

Associate Professor

Landscape Architecture & Urban Planning

Ashley Ross, PhD

Discovery Lead | Coastal Risk Reduction and Resilience

Assistant Professor | Marine Science

The Institute for Sustainable Communities has brought together faculty, staff, and students from across many disciplines and areas of expertise to create a genuinely interdisciplinary team dedicated to the betterment of communities across Texas, the United States, and the World. We also embrace the University's commitment to diversity and strive to build an inclusive environment that reflects the values of the University as a whole.